

BOARDMAN TO HEMINGWAY TRANSMISSION LINE – REQUEST FOR AMENDMENT 2

To: Oregon Energy Facility Siting Council
From: Kellen Tardaewether, Senior Siting Analyst
Date: April 16, 2024
Re: Draft Proposed Order on Request for Amendment 2 of the Boardman to Hemingway Transmission Line Site Certificate

Certificate Holder: Idaho Power Company (certificate holder), a wholly owned subsidiary of IDACORP, Inc.

Approved Facility: Site Boundary/Micrositing Areas: 24,077 acres, inclusive of an up to 500-foot right of way, and the perimeter of related or supporting facilities.

Transmission Lines: Final Order on the Application for Site Certificate (ASC) approved an approximately 270.8-mile-long single-circuit 500 kilovolt (kV) electric transmission line, removal of 12 miles of existing 69-kV transmission line, rebuilding of 0.9 mile of a 230-kV transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line into a new right-of-way (ROW). Final Order on ASC also approved four alternative routes representing approximately 33.3 miles of transmission line.

Final Order on Request for Amendment 1 (RFA1) approved four alternative 500-kV transmission line routes equaling approximately 8.8 miles.

Longhorn Station: A 20-acre switching station to be located near the Port of Morrow, Oregon.

Communication Stations: Up to ten communication station sites (and two alternative communication stations sites), and each consisting of a communication shelter and related facilities.

Access Roads: Final Order on ASC approved route includes up to 206.3 miles of new roads; up to 223.2 miles of substantially modified roads. Approved ASC alternative routes include up to 30.2 miles of new roads; up to 22.7 miles of substantially modified roads. Final Order on RFA1 approved approximately 45.9 miles of access road changes associated with the approved ASC and RFA1 routes.

Temporary Features used during Construction: Up to 30 temporary multi-use areas and 299 temporary pulling and tensioning sites, four

of which have light-duty fly yards within the pulling and tensioning sites.

Proposed Amendment: Request for Amendment 2 (RFA2) seeks Energy Facility Siting Council (EFSC or Council) approval to expand the site boundary for most of the facility; the addition of micrositing areas to relocate the transmission line in 12 locations including approximately 40 miles of 500-kV transmission line alternatives and 98.5 miles of associated access road modifications, and 0.6 mile of 230-kV transmission line alternatives; refining 58 miles of roads resulting from additional design and engineering review; and proposed alternative temporary work areas. RFA2 also seeks Council approval to add a Midline Capacitor Substation, located on approximately 10 acres within the previously approved site boundary in Union County; and widen the width of roads used for construction based on the slope of the terrain. The amendment also requests Council approval to amend language of site certificate condition(s): GEN-GS-06, GEN-NC-01, PRE-RT-01, CON-TE-02, PRE-FW-03, PRE-FW-04, OPR-FW-03, OPR-FW-04 and OPR-RT-01.

Location of Proposed

RFA2 Changes: Morrow, Umatilla, Union, Baker and Malheur counties; City of North Powder

Review Process: Type A Amendment

Staff Recommendation: The Oregon Department of Energy (Department) recommends that the Energy Facility Siting Council (EFSC or Council) find that Idaho Power Company (certificate holder) has demonstrated that the preponderance of evidence on the record supports the conclusion that the facility, with proposed RFA2 changes, comply with all laws and Council standards applicable to an original site certificate application.

A public comment period is now open on the Draft Proposed Order (DPO) and complete RFA2. The comment deadline for written comments to be submitted to the Department is May 30, 2024 at the close of the public hearing. Section II.C, *Council Review Process for Amendments*, of this order contains additional information regarding the site certificate amendment review process. The public notice associated with the release of this DPO also contains additional information regarding the comment period and next steps in the EFSC review process.

**BEFORE THE
ENERGY FACILITY SITING COUNCIL
OF THE STATE OF OREGON**

In the Matter of Request for Amendment 2 of the
Site Certificate for the Boardman to Hemingway
Transmission Line

)
)
) DRAFT PROPOSED ORDER
)

April 16, 2024

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Attachments

Attachment 1: Draft Second Amended Site Certificate (red-line)

Attachment 2: Placeholder for DPO Comment Index and DPO Comments

Attachment 3: Placeholder for Certificate Holder Responses to DPO Comments

Attachment 4: Draft Threatened and Endangered (T&E) Plant Mitigation Plan

Attachment 7-19: Noise Sensitive Receptor Locations with Exceedances with the RFA2
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Attachment B-5: Updated Road Classification Guide and Access Control Plan

Attachment S-9: Updated Section 106 HPMP with Appendix A.1 Tables Amended for RFA2

Attachment W-1: Updated Decommissioning Cost Estimate and Assumptions

ABBREVIATIONS AND ACRONYMS

ACEC	Area of Critical Environmental Concern
ASC	Application for Site Certificate
BCZSO	Baker County Zoning and Subdivision Ordinance
BLM	Bureau of Land Management
CHZO	City of Huntington Zoning Ordinance
CI	Commercial Industrial
CR	Commercial Residential
Council or EFSC	Energy Facility Siting Council
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
dBA	A-weighted decibels
EFU	Exclusive Farm Use
ESH	Essential Salmonid Habitat
HAC	Historical, Archeological or Cultural
HPMP	Historic Properties Management Plan
IPC; certificate holder	Idaho Power Company
JPA	Joint Permit Application
kV	kilovolt
LiDAR	light detection and ranging
MCC	Malheur County Code
MCCP	Morrow County Comprehensive Plan
MCZO	Morrow County Zoning Ordinance
NED	National Elevation Dataset
NEPA	National Environmental Policy Act
NHD	National Hydrography Dataset
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NSR	noise-sensitive receptor
NWI	National Wetlands Inventory
NWSTF Boardman	Naval Weapons Systems Training Facility – Boardman
OAR	Oregon Administrative Rules
ODEQ	Oregon Department of Environmental Quality
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ODSL	Oregon Department of State Lands
ORS	Oregon Revised Statutes
PA	Programmatic Agreement
Facility; B2H	Boardman to Hemingway Transmission Line
RFA1	Request for Amendment 1
RFA2	Request for Amendment 2
RSA	Rural Service Area
SHPO	State Historic Preservation Office
STATSGO	State Soil Geographic Database
UCCP	Umatilla County Comprehensive Plan

ABBREVIATIONS AND ACRONYMS

UCDO	Umatilla County Development Ordinance
UCZPSO	Union County Zoning, Partition, and Subdivision Ordinance
USDA	U.S. Department of Agriculture
USFS	U.S. Department of Agriculture, Forest Service
USGS	U.S. Geological Survey
WAGS	Washington ground squirrel

1 **I. INTRODUCTION**
2

3 On April 11, 2024 Idaho Power Company (certificate holder) filed Request for Amendment 2 of
4 the Boardman to Hemingway Transmission Line site certificate (RFA2). Below is a summary of
5 the changes proposed in RFA2, see Section II.B of this order for an expanded description:

- 6 1. Redefining the site boundary and micrositing areas previously approved in the site
7 certificate and first amended site certificate (“previously approved site boundary”) to
8 expand the site boundary for most of the facility;¹
9 2. The addition of micrositing areas to:
10 • Relocate the transmission line in 12 locations based on certificate holder
11 coordination and agreement with the affected landowners. This includes
12 approximately 40 miles of 500-kV transmission line alternatives with two
13 communication alternatives and 98.5 miles of associated access road
14 modifications, and 0.6 mile of 230-kV transmission line alternatives;
15 • Refine 58 miles of roads outside the proposed RFA2 transmission line
16 alternatives resulting from additional design and engineering review;
17 • Provide alternative temporary work areas;
18 3. The addition of a Midline Capacitor Substation, located on approximately 10 acres
19 within the previously approved site boundary, and adjacent to an existing substation in
20 Union County;
21 4. Widening the width of roads used for construction based on the slope of the terrain;
22 5. The amendment also requests Energy Facility Siting Council (EFSC or Council) approval
23 to amend language of site certificate condition(s): GEN-GS-06, GEN-NC-01, PRE-RT-01,
24 CON-TE-02, PRE-FW-03, PRE-FW-04, OPR-FW-03, OPR-FW-04 and OPR-RT-01.²
25

26 See Section II.B.1, for additional discussion and references to location in this order.
27

28 For amendments to the site certificate that include site boundary expansion and other changes,
29 such as new or amended conditions, the Scope of Council Review under OAR 345-027-0375
30 requires that Council determine whether the preponderance of evidence on the record
31 supports the following conclusions:
32

- 33 1. That the portion of the facility within the area added to the site boundary by the
34 amendment complies with all laws and Council standards applicable to an original site
35 certificate application;

¹ In some locations, certificate holder is not requesting an expanded site boundary and will maintain the previously approved site boundary. Details are discussed further in this order, Section II.B.1 and in RFA2 Section 8.0.

² As staff to the Council, the Department recommends Council further amend conditions not limited to the certificate holder’s RFA2 proposal. See Section II.B.4., *Proposed Amended Conditions*, applicable Sections in Section III., *Evaluation of Council Standards*, of this order, as well as Attachment 1 to this order, the draft Second Amended Site Certificate (in red-line). Attachment 1 is the Department’s recommendation for revisions to the site certificate, which includes many but not all of the certificate holder’s proposed revisions to the site certificate and conditions.

2. The amount of the bond or letter of credit required under OAR 345-022-0050 is adequate; and;
3. The facility, with proposed RFA2 changes, complies with the applicable laws or Council standards that protect a resource or interest that could be affected by the proposed RFA2 changes.

In accordance with OAR 345-027-0365, the Department, as staff to the Council, issues this Draft Proposed Order (DPO) recommending approval of RFA2 subject to the existing and recommended amended site certificate conditions set forth in this order. This order, and the analysis and recommendations contained therein do not constitute a final determination by the Council.

I.A. SITE CERTIFICATE PROCEDURAL HISTORY

The Council issued the Final Order on the Application for Site Certificate (*Final Order on ASC*) and granted issuance of the Boardman to Hemingway Transmission Line Site Certificate on September 27, 2022.

Council approved the certificate holders Request to Amend to the Site Certificate (RFA1) on September 22, 2023, and issued the Final Order on Request for Amendment 1 (*Final Order on RFA1*) and issued the first amended site certificate.

This is the certificate holder’s second request for an amendment to the site certificate.

I.B. APPROVED FACILITY DESCRIPTION

The approved, but not yet constructed facility, consists of an ASC approved route approximately 270.8-mile-long single-circuit 500-kV electric transmission line, the removal of 12 miles of existing 69-kV transmission line, rebuilding of 0.9 mile of a 230-kV transmission line, and the rebuilding of 1.1 miles of an existing 138-kV transmission line into a new Right of Way (ROW). The approved facility also includes four ASC alternative routes approximately 33.3 miles of transmission line and RFA1 approved routes include four alternative 500-kV transmission line routes equaling approximately 8.8 miles. The approved facility, its related or supporting facilities, and location are described further below.

The below section summarizes the approved facility. Section II.B., Requested Amendment, describes the proposed changes in RFA2. Attachment 1 to this order, the second amended site certificate, describes the approved facility with changes proposed in RFA2.

I.B.1. Approved Energy Facility Description

1 The certificate holder is approved to construct, operate, and retire the following major
2 components:

3
4 Transmission Lines: Final Order on the application for site certificate (ASC) consists of an
5 approved route approximately 270.8-mile-long single-circuit 500-kV electric transmission line,
6 removal of 12 miles of existing 69-kV transmission line, rebuilding of 0.9 mile of a 230-kV
7 transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line into a new
8 ROW. Final Order on ASC approved four alternative routes which represent approximately 33.3
9 miles of transmission line. Final Order on Request for Amendment 1 (RFA1) approved four
10 alternative 500-kV transmission line routes equaling approximately 8.8 miles.

11
12 As discussed in this order, the certificate holder requests in RFA2 to separate the definition of
13 site boundary and micrositing areas. An expanded site boundary is intended to be a larger area
14 evaluated for potential resources, micrositing area are the areas that are surveyed for resource
15 protected under Council standards, and if approved by Council, where the certificate holder
16 would be approved to locate and microsite facility components within those areas. However,
17 the approved right-of-way (ROW) widths are narrower than the evaluated site
18 boundary/micrositing areas so facility components may be located anywhere within the
19 approved site boundary/micrositing area. The ROW for the majority of the single-circuit 500-kV
20 transmission line would be up to 250 feet. In forested areas, the ROW width may extend up to
21 300 feet which includes vegetative maintenance and the removal of hazardous trees. The ROW
22 width requested by the Navy along the east edge of Naval Weapons Systems Training Facility
23 (NWSTF) Boardman would be up to 90 feet. The ROW width for the 1.1-mile rebuilding of
24 existing 138-kV transmission line would be up to 100 feet. The existing 138-kV transmission line
25 ROW would be widened to 250 feet to facilitate placement of the 500-kV transmission line
26 within it. The ROW width for the 0.9-mile single-circuit 230-kV rebuilding portion would be up
27 to 125 feet. Finally, the existing 230-kV transmission line ROW would be widened to 250 feet to
28 facilitate placement of the 500-kV line within it.³

29
30 Longhorn Station: A 20-acre switching station is approved to be located near the Port of
31 Morrow, Oregon. The switching station provides a combination of switching, protection, and
32 control equipment arranged to provide circuit protection and system switching flexibility for the
33 transfer of electric power; it does not incorporate step-down or step-up voltage equipment.
34 The station connects the transmission line to other 500-kV transmission lines and the Pacific
35 Northwest power market.

36
37 Communication Stations: Ten communication station sites (and two alternative communication
38 stations sites) associated with the ASC, each consisting of a communication shelter and related
39 facilities. Each communication station site is less than 1/4-acre in size.

40
41 In the ASC and RFA1, certificate holder requested and Council approved route and road
42 additions to the site boundary which are “additive;” certificate holder therefore would have

³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 53-54.

1 more options and flexibility to accommodate landowner preferences and final facility design
2 needs, however, the certificate holder will ultimately select one approved ASC route, approved
3 ASC alternative route, or approved RFA1 route. Actual transmission line mileage,
4 acreage/disturbance impacts from the facility will be significantly less than approved in Final
5 Orders on ASC and RFA1.

6

7 Table 1, *Approved Route, Approved Alternative Routes Map References*, below, provides a
8 summary description of the routes approved in the Final Order on ASC and RFA1. The table
9 provides a specific map reference for the location of the routes, alternative routes, as well as
10 the map reference to any additional road segments associated with an approved route.

11

Table 1: ASC Approved Route, ASC and RFA1 Approved Alternative Routes Map References

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
Final Order on ASC			
ASC approved route (270.8 total miles)	Morrow	47.5	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 1-23 -Road alternatives: RFA1 Figure 4-2, Map 1-4
	Umatilla	40.9	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 24-44-23 -Road alternatives: RFA1 Figure 4-2, Map 5-11
	Union	39.9	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 44-62 -Road alternatives: RFA1 Figure 4-2, Map 12-14, 16-17
	Baker	68.4	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 63-92 -Road alternatives: RFA1 Figure 4-2, Map 18-27
	Malheur	74.1	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 93-125 -Road alternatives: RFA1 Figure 4-2, Map 28-41
West of Bombing Range Road alternative 1	Morrow	3.7	-ASC Exhibit C, Attachment C-3; Map 1-4 -Road alternatives: RFA1 Figure 4-2, Map 1
West of Bombing Range Road alternative 2	Morrow	3.7	-ASC Exhibit C, Attachment C-3; Map 1-4 -Road alternatives: RFA1 Figure 4-2, Map 1
Morgan Lake alternative	Union	18.5	-ASC Exhibit C, Attachment C-3; Map 5-14 -Road alternatives: RFA1 Figure 4-2, Map 14-15
Double Mountain alternative	Malheur	7.4	ASC Exhibit C, Attachment C-3; Map 15-19
Final Order on RFA1			
Little Juniper Canyon Transmission Line Alternative ³	Morrow	1.4	RFA1 Figure 4-1, Map 1

Table 1: ASC Approved Route, ASC and RFA1 Approved Alternative Routes Map References

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
True Blue Gulch Transmission Line Alternative ⁴	Baker	4.6	RFA1 Figure 4-1, Map 2-3
Durbin Quarry Transmission Line Alternative ⁵	Baker	2.8	RFA1 Figure 4-1, Map 5-6
<p>Notes:</p> <p>¹ Table presents routes in order of north to south by county (Morrow, Umatilla, Union, Baker, Malheur County and then north to south within the county and corresponding mapset).</p> <p>² When routes/roads approved in RFA1 overlap with routes approved in Final Order on ASC, ASC Exhibit C map number reflected.</p> <p>³ The Little Juniper Canyon Transmission Line alternative would be an alternative to 1.3 miles of ASC approved route.</p> <p>⁴ The True Blue Gulch Transmission Line alternative would be an alternative to 2.9 miles of ASC approved route.</p> <p>⁵ The Durbin Quarry Transmission Line alternative would be an alternative to 2.8 miles of ASC approved route.</p> <p>Source: B2HAMD1 Final Order on RFA1, B2HAMD RFA1 2023-06-08, Table 4.1-1. B2HAPPDoc3-4 ASC 03_Exhibit C_Project_Location_ASC 2018-09-28</p>			

1

1
2 **I.B.2. Approved Related or Supported Facilities Summary**
3

4 ORS 469.300(14) defines “facility” as an “energy facility together with any related or supporting
5 facilities.” The below section summarizes the approved related or supporting facilities. Section
6 II.B., *Requested Amendment*, describes the proposed changes in RFA2. Attachment 1 to this
7 order, the second amended site certificate, describes the approved facility with changes
8 proposed in RFA2.
9

10 *Access Roads*
11

12 The facility includes permanent access roads for the approved route, including 217.1 miles of
13 new roads and 233.3 miles of existing roads requiring substantial modification. The approved
14 alternative routes include 32.0 miles of new roads and 20.5 miles of existing roads requiring
15 substantial modification. Existing roads used for construction and operation of the facility, but
16 which would not require substantial modification, are not “related or supporting facilities” and,
17 therefore are not included in the site boundary.⁴
18

19 *New Roads*
20

21 For purposes of describing the disturbance width, new roads are classified as either “primitive”
22 or “bladed.” The approved site boundary for all new roads is 200 feet wide (100 feet on either
23 side of the centerline). The typical construction disturbance for primitive roads would be 16
24 feet and the operational width would be maintained at 10 feet. For bladed roads, the typical
25 construction disturbance would be 16 feet wide, but could be as wide as 35 feet as dictated by
26 terrain and soil conditions, and the operational width for bladed roads is 14 feet.
27

28 *Existing Roads with No Substantial Modification*
29

30 Road maintenance activities will be limited to 20 percent or less of the road surface area and
31 may include repair of the road prism to (i) produce a stable operating surface, (ii) ensure proper
32 drainage and erosion control, and (iii) establish horizontal clearance, however will not include
33 (i) increasing the width of the existing road prism, (ii) change the existing road alignment, (iii)
34 use materials inconsistent with the existing road surface, and/or (iv) change the existing road
35 profile.
36

37 *Existing Roads Requiring Substantial Modification*
38

39 If improvements to an existing road would involve one or more of the following activities, the
40 road segment is classified as requiring substantial improvements:

⁴ OAR 345-001-0010(27) states that “related or supporting facilities does not include any structure existing prior to construction of the energy facility, unless such structure must be substantially modified solely to serve the energy facility.”

- 1
- 2 1. increasing the width of the existing road prism;
- 3 2. changing the existing road alignment;
- 4 3. using materials inconsistent with the existing road surface;
- 5 4. changing the existing road profile; or
- 6 5. involving repairs to more than 20 percent of the road surface area defined by road
- 7 prism width and longitudinal distance over a defined road segment.
- 8

9 Typical construction disturbance for existing roads requiring substantial modification would be
10 16 feet wide but could be up to 30 feet wide when road modification exceeds 70 percent. The
11 operational width would be 14 feet. The approved site boundary for a substantially modified
12 existing road is 100 feet wide (50 feet on either side of the centerline).

13
14 Following construction, any new roads developed for access to multi-use areas would be
15 removed and restored to preconstruction conditions, unless the landowner requests otherwise.
16 Roads developed for pulling and tensioning sites would be permanent because they would also
17 provide access to structures for operations and maintenance.

18 *Temporary Multi-Use Areas*

19

20
21 Temporary multi-use areas would be necessary approximately every 15 miles along the ROW.
22 The approved multi-use areas (MUAs) are temporary construction areas that would serve as
23 field offices; reporting locations for workers; parking space for vehicles and equipment; and
24 sites for material delivery and storage, fabrication assembly of towers, cross arms and other
25 hardware, concrete batch plants, and stations for equipment maintenance. Each MUA would be
26 approximately 30 acres in size. After construction is complete, MUAs would be restored in a
27 manner compatible with the land use and zone within which it is location at the time of
28 restoration, in accordance with General Standard of Review Condition 9.

29 *Temporary Pulling and Tensioning Sites and Light-Duty Fly Yards*

30

31
32 Pulling and tensioning sites would be required approximately every 1.5 to two miles along the
33 ROW and at angle points greater than 30 degrees and would require approximately five acres at
34 each end of the wire section to accommodate required equipment. Construction of the ASC
35 approved transmission line route would require approximately 299 approved pulling and
36 tensioning sites. Nine alternative pulling and tensioning sites are associated with the approved
37 RFA1 alternatives. Equipment at pulling and tensioning sites would include tractors and trailers
38 with spooled reels that hold the conductors and trucks with the tensioning equipment.

39
40 Four pulling and tensioning sites associated with the ASC routes are approved to include light-
41 duty fly yards. The counties in which the light-duty fly yards are approved to be located are
42 Umatilla, Baker and Malheur counties. All of the equipment and activities that would occur at
43 an MUA could also occur at a light-duty fly yard, except that oil, gas and explosive storage
44 would not occur and no batch plants would be located at the light-duty fly yards within the

1 pulling and tensioning sites. The light-duty fly yards would be approximately five-acre sites
2 spaced approximately 15 miles apart.

3

4 **I.B.3. Facility Location**

5

6 The facility traverses five counties in Oregon including Morrow, Umatilla, Union, Baker and
7 Malheur; and two cities including North Powder and Huntington. The location of the
8 approved facility is presented in Figure 1, *ASC Approved and Alternative Routes and*
9 *Vicinity*, Figure 2, *ASC Approved Alternative Routes and Vicinity*, and Figure 3, *RFA1*
10 *Approved Alternative Routes and Vicinity*, below.

11

Figure 1: ASC Approved and Alternative Routes and Vicinity

1

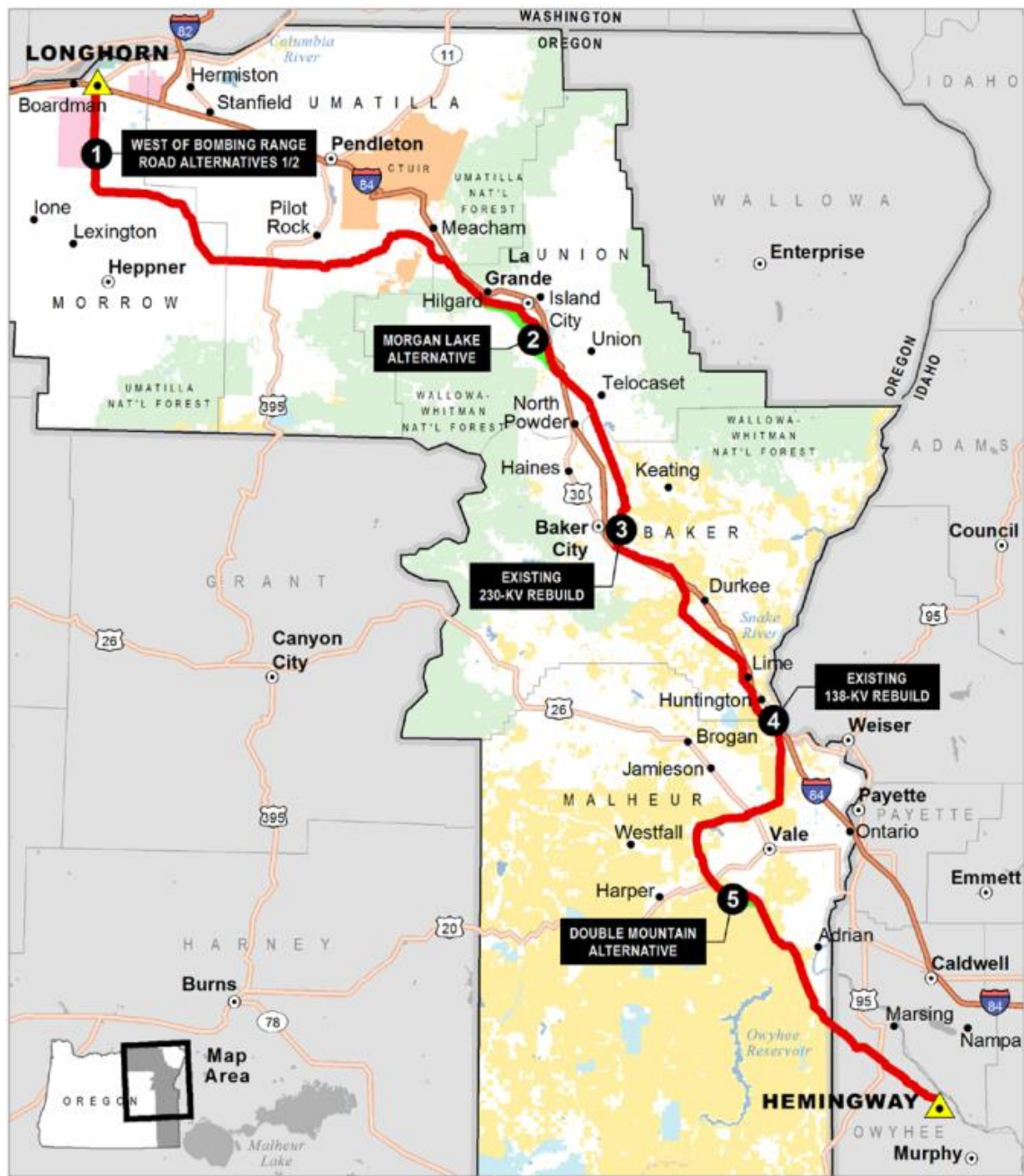
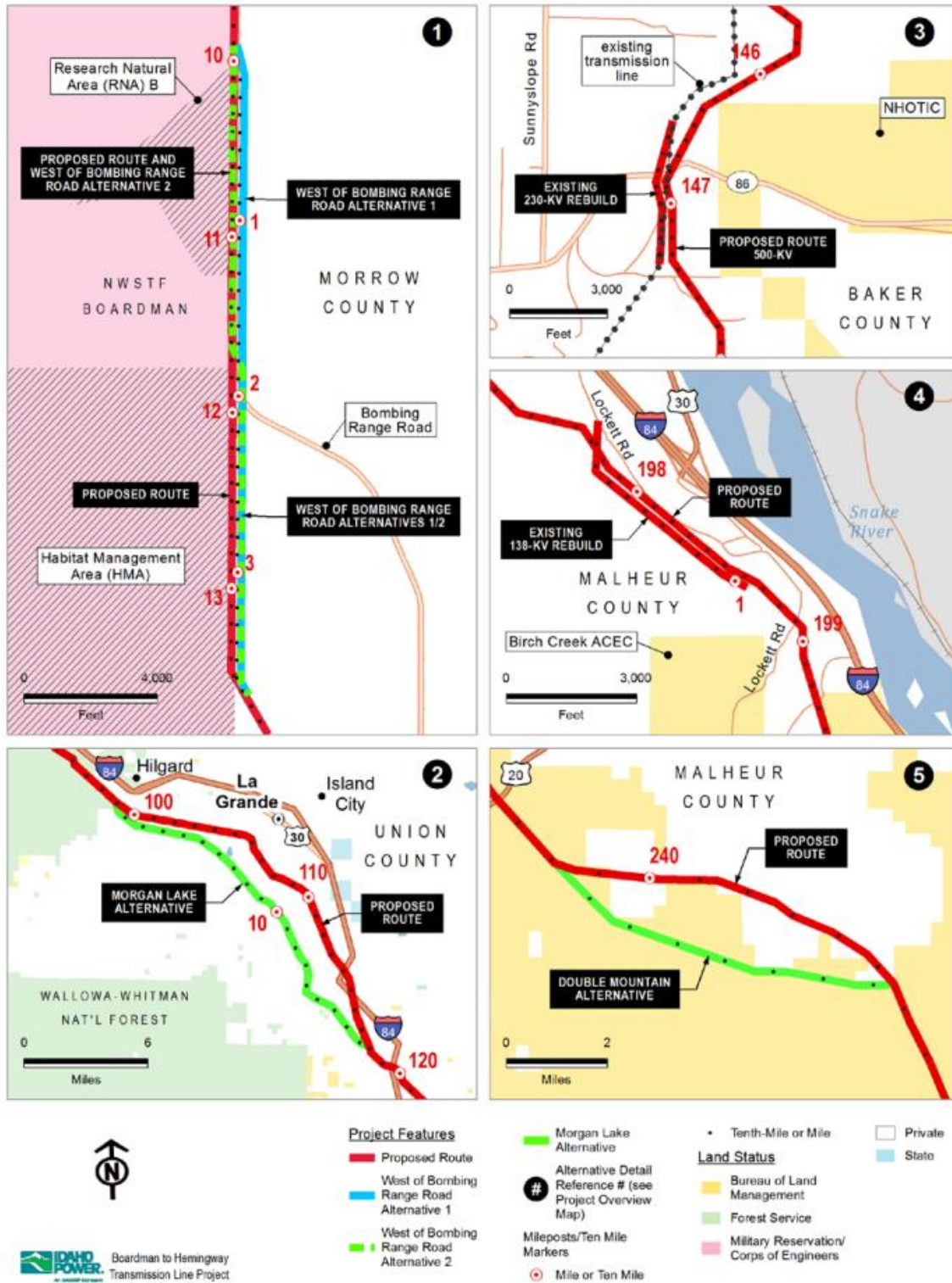
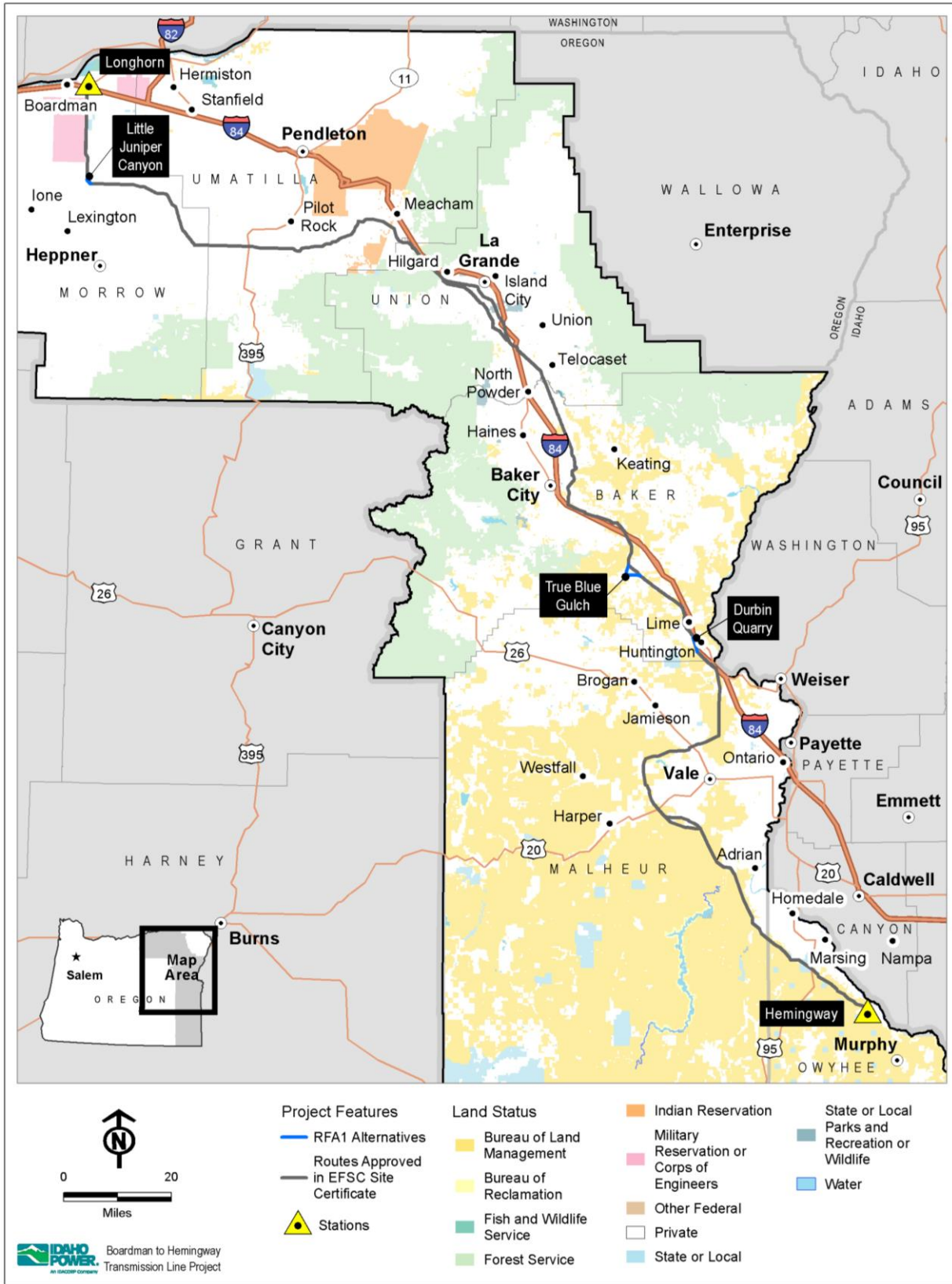


Figure 2: ASC Approved Alternative Routes and Vicinity



41
42
43

Figure 3: RFA1 Approved Alternative Routes and Vicinity



1
2

1
2
3 **I.B.4. Facility Development: Construction, Operation and Retirement**
4 **Activities**
5

6 *I.B.4.a Construction*
7

8 Construction activities could occur simultaneously, by segment or phase. Construction activities
9 will generally include the following phases:
10

11 Phase I - Civil construction

- 12 ○ Activities along the transmission line will involve clearing the corridor and constructing
13 access roads and, if applicable, harvestable timber will be cleared then hauled off.

14 Phase II – Foundation Construction

- 15 ○ Foundations will be constructed at each structure site to support the steel towers. Track
16 mounted drills and excavators will be mobilized to each structure site to excavate the
17 site and concrete trucks will then deliver concrete to the sites to construct the
18 foundations.

19 Phase III – Structure Erection

- 20 ○ Steel lattice towers will be assembled at each site and erected on the foundations.
21 Material will be delivered via flatbed trucks to each structure site and unloaded with
22 forklifts and cranes where it will be assembled in pieces in the work area around the
23 foundations.

24 Phase IV – Conductor Pulling/Tensioning

- 25 ○ Conductor will be pulled along the corridor and through the structures via helicopters
26 while large man lift trucks provide work crews access to each structure.⁵
27

28 Construction will include approximately 437 workers and crews for the following activities:
29 switching station construction, ROW clearing, roads/pad grading, foundations, tower lacing,
30 tower setting, wire stringing, restoration, blasting, materials management, mechanic &
31 equipment management, refueling, dust control, construction inspection, materials testing,
32 environmental compliance, and surveyors.
33

34 Construction traffic will include:

- 35 ○ Up to 486 one-way worker trips per day
- 36 ○ Up to 620 one-way light construction trips per day
- 37 ○ Up to 188 one-way heavy construction trips per day
38

39 *I.B.4.b Operations and Maintenance*
40

⁵ B2HAPPDoc13 DPO IPC Responses to Select DPO Comments Rec'd by 2019-11-07; B2HAPP DPO IPC Responses - City of La Grande comments 2019-10-09.

1 Operations and maintenance (O&M) activities include routine inspection and maintenance of
2 the transmission line, in compliance with the Transmission Maintenance and Inspection Plan
3 (TMIP) (see Organizational Expertise Condition 1; Condition OPR-OE-01).

4
5 In accordance with the TMIP, three types of line maintenance patrols will be conducted: routine
6 line patrols/inspections, unscheduled emergency line patrols, and aerial vegetation patrols. The
7 routine line patrols include a detailed visual inspection of the entire line conducted at least
8 once per year.

9
10 Emergency line patrols will be performed in response to any unexplained system outage or
11 interruption, or whenever requested by a dispatcher, to identify major structural failures or
12 issues.

13
14 Aerial vegetation patrols will be conducted by a transmission utility arborist to identify and
15 manage vegetation encroachments that threaten the transmission lines.

16
17 Transmission Patrolmen will patrol and inspect the transmission lines at a minimum once a year
18 to identify any transmission defects and any vegetation hazards that may develop between
19 vegetation clearing cycles.

20
21 The TMIP requires that the certificate holder complete comprehensive 10-year maintenance
22 inspection at least every 10-years.

23
24 O&M activities will also include short- and long-term monitoring and minimization measures for
25 noxious weeds, restoration/reclamation, revegetation and habitat enhancement, as required by
26 site certificate conditions provided in Section 5.0 of the recommended amended site certificate
27 (Attachment 1 of this order).

28
29 *I.B.4.c Retirement/Decommissioning*

30
31 The certificate holder shall retire or decommission the facility based on a retirement plan to be
32 approved by the Council in accordance with the requirement of OAR 345-027-0110, consistent
33 with the *Final Order on ASC*, and applicable conditions provided in Section 5.6 of the
34 recommended amended site certificate. Additional details associated with retiring the facility
35 are discussed in Section III.G., of this order.

1 **II. AMENDMENT PROCESS**

2
3 With some exceptions, an amendment to a site certificate is required under OAR 345-027-
4 0350(4) for any change in the design, construction, or operation of a facility in a manner
5 substantially different from that described in the site certificate, if the proposed change: (1)
6 could result in a significant adverse impact that the Council has not addressed in an earlier
7 order and the impact affects a resource or interest protected by an applicable law or Council
8 standard; (2) could impair the certificate holder’s ability to comply with a site certificate
9 condition; or (3) could require a new condition or a change to a condition in the site certificate
10 (“three could”).⁶ As described below, the changes proposed in RFA2 require review through
11 the site certificate amendment process because the changes trigger the “three could” under
12 OAR 345-027-0350(4).
13

14 **II.A. SCOPE OF COUNCIL REVIEW**

15
16 For amendments to the site certificate that include site boundary expansion and other changes,
17 such as new or amended conditions and adding facility components not previously approved
18 (midline capacitor station), the Scope of Council Review under OAR 345-027-0375 requires that
19 Council determine whether the preponderance of evidence on the record supports the
20 following conclusions:
21

- 22 1. That the portion of the facility within the area added to the site boundary by the
23 amendment complies with all laws and Council standards applicable to an original
24 site certificate application;
- 25 2. The amount of the bond or letter of credit required under OAR 345-022-0050 is
26 adequate; and,
- 27 3. The facility, with proposed RFA2 changes, complies with the applicable laws or
28 Council standards that protect a resource or interest that could be affected by the
29 proposed RFA2 changes.
30

31 The certificate holder proposes to expand the site boundary along specific portions of the
32 transmission line route; redefine dimensional widths for some temporary roads; add additional
33 road and transmission line route micrositeing area options; add facility components and modify
34 the language of previously imposed conditions.
35

36 The recommended findings of fact and conclusions of law in Section III., *Evaluation of Council*
37 *Standards*, vary depending on the applicability of each standard to the proposed change and
38 OAR 345-027-0375.
39

40 **II.B. REQUESTED AMENDMENT**

41

⁶ OAR 345-027-0350(4).

1 RFA2 seeks Council approval to:⁷

2 1. Redefine the site boundary and micrositing areas approved in the site certificate and
3 first amended site certificate (“previously approved site boundary”) to expand the site
4 boundary for the facility,⁸ specifically:

- 5 • The proposed expanded site boundary for transmission line routes would be 0.5
6 mile (2,640 feet) wide; or 0.25 mile (1,320 feet) from the center of the
7 transmission line, with a micrositing area of 500 feet (the previously approved
8 site boundary).
- 9 • The proposed expanded site boundary for facility roads would also be 0.5 mile
10 (2,640 feet) wide, or 0.25 mile (1,320 feet) from the center of the road, and the
11 micrositing area for roads is either 100 or 200 feet wide (the previously approved
12 site boundary).

13 See Section II.B.1 and III.A., General Standard of Review for more details related to this
14 requested change.

15
16 2. Add micrositing area alternatives to:

- 17 • Relocate the transmission line in 12 locations based on certificate holder
18 coordination and agreement with the affected landowners. This includes
19 approximately 40 miles of 500-kV transmission line alternatives with two
20 communication alternatives and 98.5 miles of associated access road
21 modifications, and 0.6 mile of 230-kV transmission line alternatives;
- 22 • Refine 58 miles of roads outside the proposed RFA2 transmission line
23 alternatives resulting from additional design and engineering review;
- 24 • Add temporary work area alternatives including:
 - 25 ○ 5 light-duty fly yards;
 - 26 ○ 13 multi-use areas (MUAs)⁹; and
 - 27 ○ 115 pulling and tensioning sites.

28 See Section II.B.2 for more details related to this requested change.

29

⁷ B2HAMD2 RFA2, Section 1.1.

⁸ RFA2, Section 8.0 describes that the proposed expanded site boundary generally encompasses a 0.5-mile-wide corridor centered on access roads and the transmission line centerline. In some locations, certificate holder is not requesting an expansion of the previously approved site boundary. Examples of this scenario include the previously approved site boundary/micrositing area associated with Double Mountain Alternative or the previously approved site boundary/micrositing area on Naval Weapons System Training Facility Boardman. In some locations the proposed expanded site boundary extends beyond the previously approved site boundary/micrositing area but may not extend out to encompass the full 0.5-mile-wide corridor. In this scenario, certificate holder avoids expanding on to parcels whose owners have not been previously involved with the project, expanding across constraints such as Interstate 84, and/or sensitive resources (such as protected areas).

⁹ RFA2 includes a cover letter submitted by the certificate holder. The cover letter indicates that the certificate holder has been working with individual landowners on finding suitable locations for temporary multi-use areas, and that after consultation with the Department and the respective counties, they are will no longer seeking approval for MUA UM-07, UN-05, UN-07, and MA-08 alternative locations. However, RFA2 Figure 4-1 and other RFA2 documents include these MUAs. As discussed further in Section III.E., *Land Use*, the Department recommends approval for 9 MUAs.

1 3. Construction and operation of a midline series capacitor station, located on
2 approximately 5.5 acres within the previously approved site boundary in Union County.
3 See Section II.B.2.c.1 for more details related to this requested change.

4
5 4. Increase width of temporary roads used for construction.
6 See Section II.B.3 for more details related to this requested change.

7
8 5. The amendment also requests Energy Facility Siting Council (EFSC or Council) approval
9 to amend language of site certificate condition(s): GEN-GS-06, GEN-NC-01, PRE-RT-01,
10 CON-TE-02, PRE-FW-03, PRE-FW-04, OPR-FW-03, OPR-FW-04 and OPR-RT-01.
11 See Section II.B.4, below, for additional discussion and references to location in this order.¹⁰ See
12 also Attachment 1 to this order, recommended amended site certificate.

13
14 **II.B.1. Proposed Expanded Site Boundary and Micrositing**
15 **Corridor/Area Additions**

16
17 In the *Final Order on ASC and RFA1*, Council approved the facility where the site boundary was
18 equivalent to a micrositing transmission line corridor or micrositing area.¹¹

19
20 Previously approved dimensions for the approved site boundary/micrositing areas are:¹²

- 21
22 • For the 500-kV transmission line, a 500-foot-wide area within which the transmission
23 line, all transmission structures, and communication stations would be located.
24 • For Longhorn Station would be approximately 190 acres.
25 • For access roads would be either 100 or 200-feet in width, depending on the nature of
26 the road.
27 • Temporary work areas (MUAs, pulling and tensioning sites, and light duty fly yards) vary
28 in size from 4 to 23 acres.

29
30 RFA2 Section 1.1, 4.0, and 8.0 includes the certificate holder request for Council approval to
31 redefine and separate the site boundary and micrositing areas approved in the site certificate
32 and amended site certificate and expand the site boundary at portions of the facility.

33
34 The proposed expanded site boundary for transmission line routes would be 0.5 mile (2,640
35 feet) wide; or 0.25 mile (1,320 feet) from the center of the transmission line, with a micrositing
36 corridor/area of 500 feet (same width as the previously approved site boundary/micrositing
37 area). The proposed expanded site boundary for facility roads would also be 0.5 mile (2,640
38 feet) wide, or 0.25 mile (1,320 feet) from the center of the road, and the micrositing area for

¹⁰ B2HAMD2 RFA2, Section 6.0.

¹¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 52-53 and B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, page 2.

¹² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section III.B. Site Boundary, Right-of-Way, and Facility Location; pp. 52-56.

1 roads is either 100 or 200 feet wide (same width as the previously approved site boundary/
2 micrositing area). The expanded site boundary would expand the area evaluated for potential
3 resources which could assist in accommodating minor adjustments associated with requests
4 from landowners or stakeholders, the need to avoid impacts to sensitive resources, or needed
5 to address constructability issues in the field.¹³ In some locations, certificate holder is not
6 requesting an expanded site boundary and would maintain the previously approved site
7 boundary/micrositing area. In some locations the proposed expanded site boundary extends
8 beyond the previously approved site boundary/micrositing area but may not extend out to
9 encompass the full 0.5-mile-wide corridor. In this scenario, certificate holder attempted to
10 avoid expanding on to parcels whose owners have not been previously involved with the facility
11 or expanding across constraints such as Interstate 84 or sensitive resources (such as protected
12 areas).¹⁴ See Section III.A.1.a, *RFA2 Proposed Site Boundary Expansion and Micrositing Area*
13 *Definition*, for the evaluation and recommendations associated with this request.

14
15 **II.B.2. Micrositing Area and Facility Additions: Routes, Roads, Work Areas,**
16 **and Facility Components**
17

18 The proposed RFA2 transmission line alternatives (see black box callouts on Figure 4 below),
19 are; in Morrow County: Boardman Junction alternative, Bombing Range SE alternative, Ayers
20 Canyon alternative; in Umatilla County: Rugg Canyon alternative, Sevenmile Creek alternative;
21 in Union County: Rock Creek 1 alternative, Rock Creek 2 alternative, Baldy alternative; in Baker
22 County: Hwy 203 Crossing alternative, ASC approved route (230-kV Rebuild) revised alternative;
23 and in Malheur County: Willow Creek alternative, and the Cottonwood Creek alternative. The
24 proposed road, transmission line, and work area additions are discussed in more detail by
25 county in the following section.

26
27 Table 2: *RFA2 Proposed Transmission Line Route, Access Road, and Work Area Additions*, below
28 details the location, length, acreage impacts and reasoning for the transmission line alternative
29 micrositing areas in RFA2.¹⁵ In addition, Section II.B.2, below, describes the proposed changes
30 by county.

31
32 RFA2 also includes a proposed Midline Capacitor Station within the previously approved site
33 boundary located in Union County. The Midline Capacitor Station (Capacitor Station) is
34 discussed further below under Union County in Section III.B.2.c.1., *Midline Capacitor Station*.
35 Figure 4: Proposed Midline Capacitor Station: Union County illustrates the location of the
36 station.

37

¹³ B2HAMD2Doc2 RFA2 2024-04-11, Section 8.0.

¹⁴ B2HAMD2Doc2 RFA2 2024-04-11, Sections 1.1 and 8.0.

¹⁵ The RFA2 proposed transmission line, road, and work area micrositing area additions are “additive;” certificate holder therefore would have more options and flexibility to accommodate landowner preferences and final facility design needs, however, the certificate holder will ultimately select one approved route, approved RFA1 alternative routes, or proposed routes in RFA2, if approved. Actual acreage/disturbance impacts from the facility will be significantly less than approved in the ASC, RFA1, and RFA2, if approved and evaluated in this order.

Table 2: RFA2 Proposed Transmission Line Route, Access Road, and Work Area Additions

Proposed Micrositing Area Additions¹	Length of Addition – Transmission Line (miles)	Length of Addition – Access Road (miles)	Work Areas (acres)	Micrositing Area (acres)	Description of Micrositing Area Addition
Morrow County					
Boardman Junction alternative ²	0.6	--	3.9	5.1	Slight design modification to west to span I-84
Bombing Range SE alternative ³	1.0	0.4	0.8	5.7	Slight design modification to east to avoid impacts to pivot irrigation
West of Bombing Range Road Alternative 1 (ASC Approved Alternative)	--	--	1.8	--	Pulling-tensioning site adjustments
Ayers Canyon alternative ⁴	8.7	24.2	63.6	893.9	Alignment shifted to southeast per landowner request
Other Access Road and Work Area Changes for ASC Approved Route	--	1.7	34.6	19.8	Road and pulling-tensioning site adjustments
Morrow County – Total	10.3	25.4	75.4	924.5	
Umatilla County					
Rugg Canyon alternative ⁵	2.5	2.6	21.5	159.0	Alignment shifted to southern parcel boundary per landowner request
Sevenmile Creek alternative ⁶	9.9	4.3	74.9	695.1	Alignment shifted northwest to adjacent ridge per landowner request
Other Access Road and Work Area Changes	--	8.6	67.6	241.4	Road, pulling-tensioning site, and MUA adjustments
Umatilla County – Total	12.4	15.5	164.0	1,095.5	
Union County					
Rock Creek 1 alternative ⁷	1.4	2.1	10.8	49.3	Revised transition to Morgan Lake alternative to avoid isolated BLM parcel

Table 2: RFA2 Proposed Transmission Line Route, Access Road, and Work Area Additions

Proposed Micrositing Area Additions¹	Length of Addition – Transmission Line (miles)	Length of Addition – Access Road (miles)	Work Areas (acres)	Micrositing Area (acres)	Description of Micrositing Area Addition
Rock Creek 2 alternative ⁸	1.5	0.7	5.4	33.4	Alternate transition to Morgan Lake alternative to avoid landowner
Morgan Lake Alternative (ASC Approved Alternative)	--	--	4.7	--	Pulling-tensioning site adjustments
Baldy alternative ⁹	7.5	15.4	187.8	597.3	Alignment shifted to southwest per landowner requests
Wallowa Whitman NF H-Frames (ASC Approved Alternative)	--	--	8.8	--	Pulling-tensioning site adjustments
Other Access Road and Work Area Changes for ASC Approved Route	--	1.7	228.7	237.9	Road, pulling-tensioning site, and MUA adjustments
Union County – Total	10.4	19.5	179.4	789.5	
Baker County					
Hwy 203 Crossing alternative ¹⁰	1.9	1.2	13.5	70.6	Alignment shifted east to avoid impacts to proposed pivot irrigation
ASC Approved Route (230-kV Rebuild) Revised Alternative ¹¹	0.6	0.1	0.6	10.2	Revised tie into existing 230-kV line
Other Access Road and Work Area Changes for ASC Approved Route	--	15.3	84.8	279.1	Road, pulling-tensioning site, and MUA adjustments
Baker County – Total	2.5	16.64	98.9	359.9	
Malheur County					
Willow Creek alternative ¹²	1.4	1.1	10.2	32.8	Alignment shifted south to avoid impacts to pivot irrigation

Table 2: RFA2 Proposed Transmission Line Route, Access Road, and Work Area Additions

Proposed Micrositing Area Additions¹	Length of Addition – Transmission Line (miles)	Length of Addition – Access Road (miles)	Work Areas (acres)	Micrositing Area (acres)	Description of Micrositing Area Addition
Cottonwood Creek alternative ¹³	3.2	5.1	22.9	239.7	Alignment shifted to southeast to avoid potential noise impacts
Other Access Road and Work Area Changes for ASC Approved Route	--	18.6	197.4	476.2	Road, pulling-tensioning site, and MUA adjustments
Malheur County – Total	4.6	24.8	230.5	748.7	
Grand Total	40.1	156.5	1,341.4	3,918.1-4,142.3*	

Notes:

¹ Table presents routes in order of north to south by county (Morrow, Umatilla, Union, Baker, Malheur counties and then north to south within the county and corresponding mapset). If RFA2 alternative routes are selected instead of ASC approved route(s), the total length of the transmission line would be reduced by approximately 0.4 miles.

² The Boardman Junction Transmission Line alternative would result in no change in the miles of transmission line compared to the ASC approved route.

³ The Bombing Range SE Transmission Line alternative would result in no change in the miles of transmission line compared to the ASC approved route.

⁴ The Ayers Canyon Transmission Line alternative would result in a decrease of 0.3 miles of transmission line compared to the ASC approved route.

⁵ The Rugg Canyon Transmission Line alternative would result in an increase of 0.5 miles of transmission line compared to the ASC approved route.

⁶ The Sevenmile Creek Transmission Line alternative would result in a decrease of 0.6 miles of transmission line compared to the ASC approved route.

⁷ The Rock Creek 1 Transmission Line alternative would result in a decrease of 0.2 miles of transmission line compared to the ASC approved Morgan Lake alternative.

⁸ The Rock Creek 2 Transmission Line alternative would result in a decrease of 0.1 miles of transmission line compared to the ASC approved Morgan Lake alternative.

⁹ The Baldy Transmission Line alternative would result in no change in the miles of transmission line compared to the ASC approved route.

¹⁰ The Hwy 203 Crossing Transmission Line alternative would result in no change in the miles of transmission line compared to the ASC approved route.

¹¹ ASC approved route (230-kV Rebuild) revised alternative.

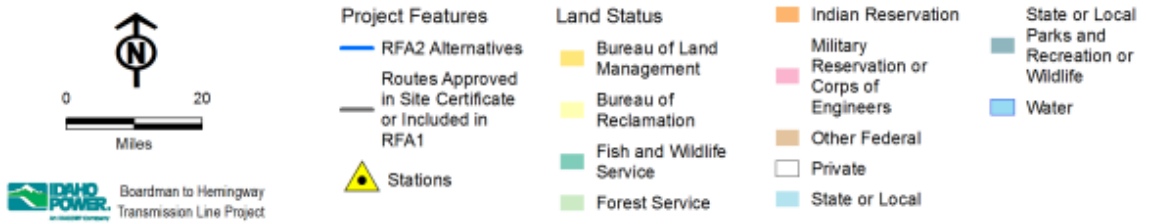
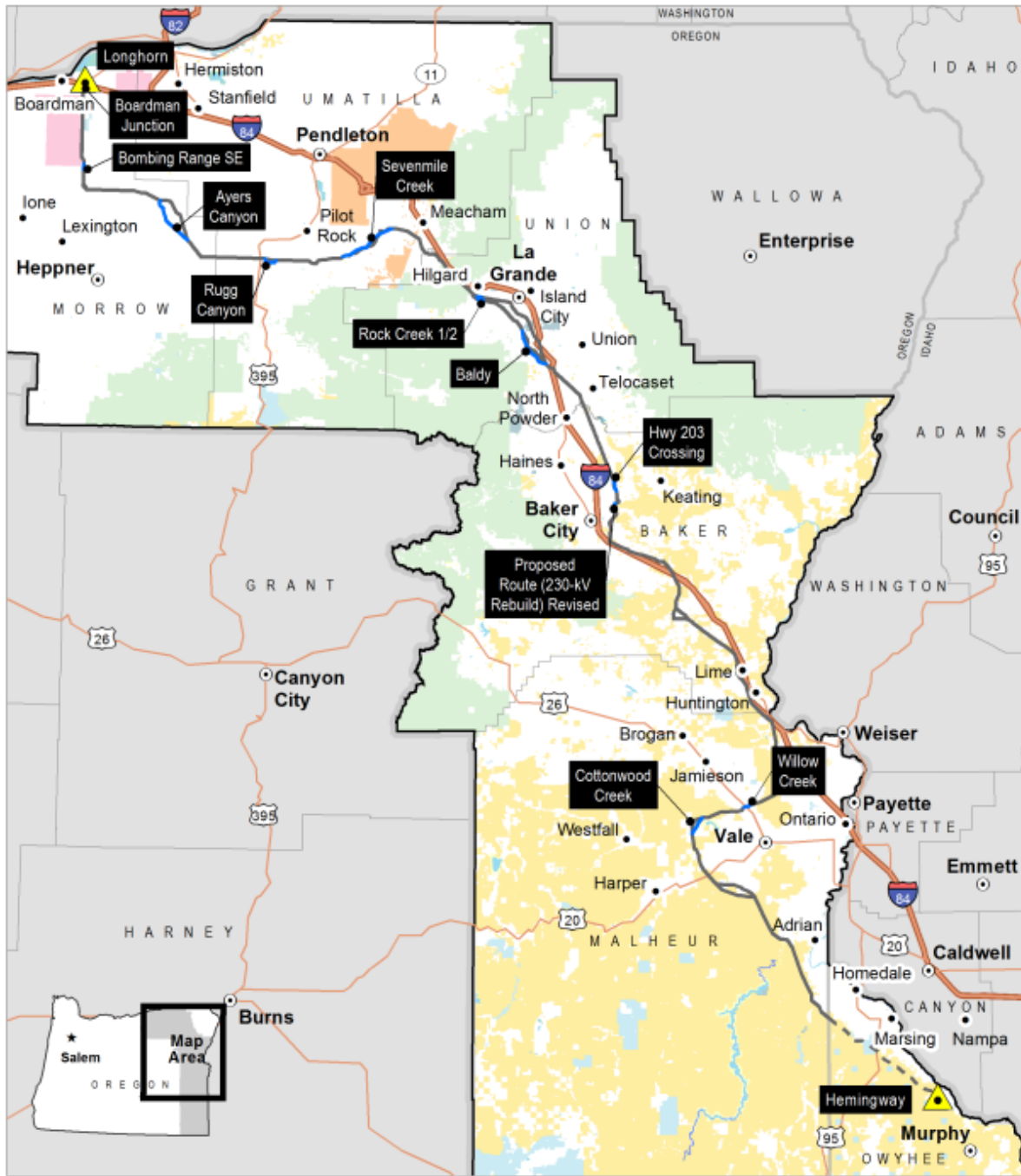
¹² The Willow Creek Transmission Line alternative would result in no change in the miles of transmission line compared to the ASC approved route.

¹³ The Cottonwood Creek Transmission Line alternative would result in a decrease of 0.4 miles of transmission line compared to the ASC approved route.

* RFA2 Table 4.1-1 identifies total micrositing area acreage as 3,918.1, however elsewhere in the RFA2, the maximum acreage of the micrositing area additions is 4,142.3.

Source: B2HAMD2Doc2 RFA2 2024-04-11, Table 4.1-1.

Figure 4: Proposed RFA2 Route Additions



1 *III.B.2.a Morrow County: Route, Road, and Facility Additions*

2
 3 The proposed Boardman Junction alternative would be located where the facility crosses over I-
 4 84 near Boardman, Oregon. Adjustments to structure locations for spanning Interstate 84
 5 extended outside of the previously approved site boundary. The predominant land use at the
 6 Boardman Junction alternative is agriculture and industrial development.

7
 8 The proposed Bombing Range SE alternative would be located between the southeast corner of
 9 the Naval Weapons System Training Facility Boardman and Bombing Range Road in an
 10 agricultural area. Adjustments are necessary for structure locations to avoid impacts on
 11 irrigated agricultural.

12
 13 The proposed Ayers Canyon alternative would be located between Big Butter Creek and
 14 Highway 74 in open rangeland. Per landowner request, the proposed transmission line would
 15 be shifted approximately 2 miles to the west.

16
 17 In addition to these three alternatives, several proposed RFA2 microsite area additions in
 18 Morrow County are associated with design updates to roads, pulling and tensioning sites, and
 19 MUAs along and adjacent to the previously approved site boundary. Table 3, below, identifies
 20 the major components and related or supporting facilities associated with each of the site
 21 boundary changes in Morrow County.

22
Table 3: Summary of Proposed Additions – Morrow County

Facility Features	Ayers Canyon Alternative	Boardman Junction Alternative	Bombing Range SE Alternative	ASC Approved West of Bombing Range Road 1	Other Access Road and Work Area Changes	Total (count)
Towers – Single Circuit 500-kV Lattice	29	--	1	--	--	30
Pulling and Tensioning Sites	12	1	--	1	4	17
Light-Duty Fly Yards	--	--	--	--	--	--
Multiuse Areas	--	--	--	--	--	--
Communication Stations	--	--	--	--	--	--
Total (count)	41	1	1	--	4	48
Access Roads (miles)				--		Total (miles)

Table 3: Summary of Proposed Additions – Morrow County

Facility Features	Ayers Canyon Alternative	Boardman Junction Alternative	Bombing Range SE Alternative	ASC Approved West of Bombing Range Road 1	Other Access Road and Work Area Changes	Total (count)
Existing, 21-70% Improved	11.2	--	0.4	--	0.6	12.2
Existing, 71-100% Improved	--	--	--	--	--	--
New, Bladed	12.1	--	--	--	--	12.1
New, Overland	0.9	--	--	--	0.2	1.1
Total (miles)	24.2	--	--	--	0.8	25.4
Crossings						Total (count)
High-Voltage Transmission Line Crossings	1	1	0	--	NA	2
Existing Road Crossings	0	12	0	--	NA	12
Existing Railroad Crossings	0	0	0	--	NA	0
Source: B2HAMD2 RFA2. Table 5.2-1						

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III.B.2.b Umatilla County: Route, Road, and Facility Additions

The proposed Rugg Canyon alternative would be located east of Highway 395, between the highway and Bear Creek Road in open rangeland. Per landowner request, the proposed transmission line would be shifted approximately 2,000 feet to the south.

The Sevenmile Creek alternative would be located in the foothills near Rocky Ridge Road north of Birch Creek and crosses McKay Creek as the facility enters the Blue Mountains. The Sevenmile Creek alternative would cross open rangeland with occasional forested areas. Per landowner request, the proposed transmission line would be shifted 1,000 to 3,000 feet.

The proposed RFA2 microsite area additions in Umatilla County also include changes to access roads, pulling and tensioning sites, light duty fly yards, and MUAs along the previously approved site boundary in open rangeland and forested areas. Table 4, below, identifies the major components and related or supporting facilities associated with each of the Proposed Microsite area additions in Umatilla County.

Table 4: Summary of Proposed Additions – Umatilla County

Facility Features	Rugg Canyon Alternative	Sevenmile Creek Alternative	Other Access Road and Work Area Changes	Total (count)
Towers – Single Circuit 500-kV Lattice	9	28	--	37
Pulling and Tensioning Sites	5	10	10	25
Light-Duty Fly Yards	--	1	1	2
Multiuse Areas	--	--	2	2
Communication Stations	--	1	--	1
Total (count)	14	40	13	67
Access Roads (miles)				Total (miles)
Existing, 21-70% Improved	0.41	0.1	2.2	2.4
Existing, 71-100% Improved	--	--	1.7	1.7
New, Bladed	1.5	3.9	4.7	10.1
New, Overland	1.0	0.3	--	1.3
Total (miles)	2.6	4.3	8.6	15.5
Crossings				Total (count)
High-Voltage Transmission Line Crossings	0	0	NA	0
Existing Road Crossings	0	0	NA	0
Existing Railroad Crossings	0	0	NA	0

Source: B2HAMD2 RFA2. Table 5.2-3

1
2 *III.B.2.c Union County: Route, Road, and Facility Additions*

3
4 The proposed Rock Creek alternative 1 and Rock Creek alternative 2 would be located
5 immediately east of Highway 244 just south of Hilgard Junction State Park. The proposed Rock
6 Creek alternatives provide alternatives to where the previously approved site boundary for the
7 Morgan Lake alternative connects to the previously approved site boundary for the ASC
8 approved route. The Rock Creek alternatives occur mostly in open rangeland with some small,
9 forested areas.

10
11 The proposed Baldy alternative would be located near Ladd Canyon south of La Grande and
12 would be approximately 2,000 feet south and west of the previously approved site boundary
13 by request of landowners. It would cross open rangeland and forested areas. The proposed
14 RFA2 micro-siting area additions in Union County also include access road, pulling tensioning
15 site, and MUA changes along the previously approved site boundary in open rangeland and

- 1 forested areas. Table 5, below, identifies the major components and related or supporting
- 2 facilities associated with each of the proposed RFA2 micro-siting area additions in Union County.

Table 5: Summary of Proposed Additions – Union County

Facility Features	Baldy Alternative	ASC Approved Morgan Lake Alternative	Rock Creek Alternative 1	Rock Creek Alternative 2	Other Access Road and Work Area Changes	Total (count)
Towers – Single Circuit 500-kV Lattice	29	--	2	2	--	33
Pulling and Tensioning Sites	8	2	2	2	7	25
Light-Duty Fly Yards	1	--	--	--	--	1
Multiuse Areas	--	--	--	--	3	3
Communication Stations	--	--	--	--	--	--
Midline Capacitor Station	--	--	--	--	1	1
Total (count)	40		5	2	19	66
Access Roads						Total (miles)
Existing, 21-70% Improved	8.5	--	1.1	0.3	1.2	11.1
Existing, 71-100% Improved	2.2	--	--	--	--	2.2
New, Bladed	4.5	--	0.8	0.3	0.1	5.7
New, Overland	0.2	--	0.2	0.1	--	0.5
Total (miles)	15.4	--	2.1	0.7	1.3	19.5
Crossings		-				Total (count)
High-Voltage Transmission Line Crossings	3	--	1	1	NA	5
Existing Road Crossings	0	--	1	0	NA	1
Existing Railroad Crossings	0	--	0	0	NA	0

Source: B2HAMD2 RFA2. Table 5.2-5, and Department review of RFA2

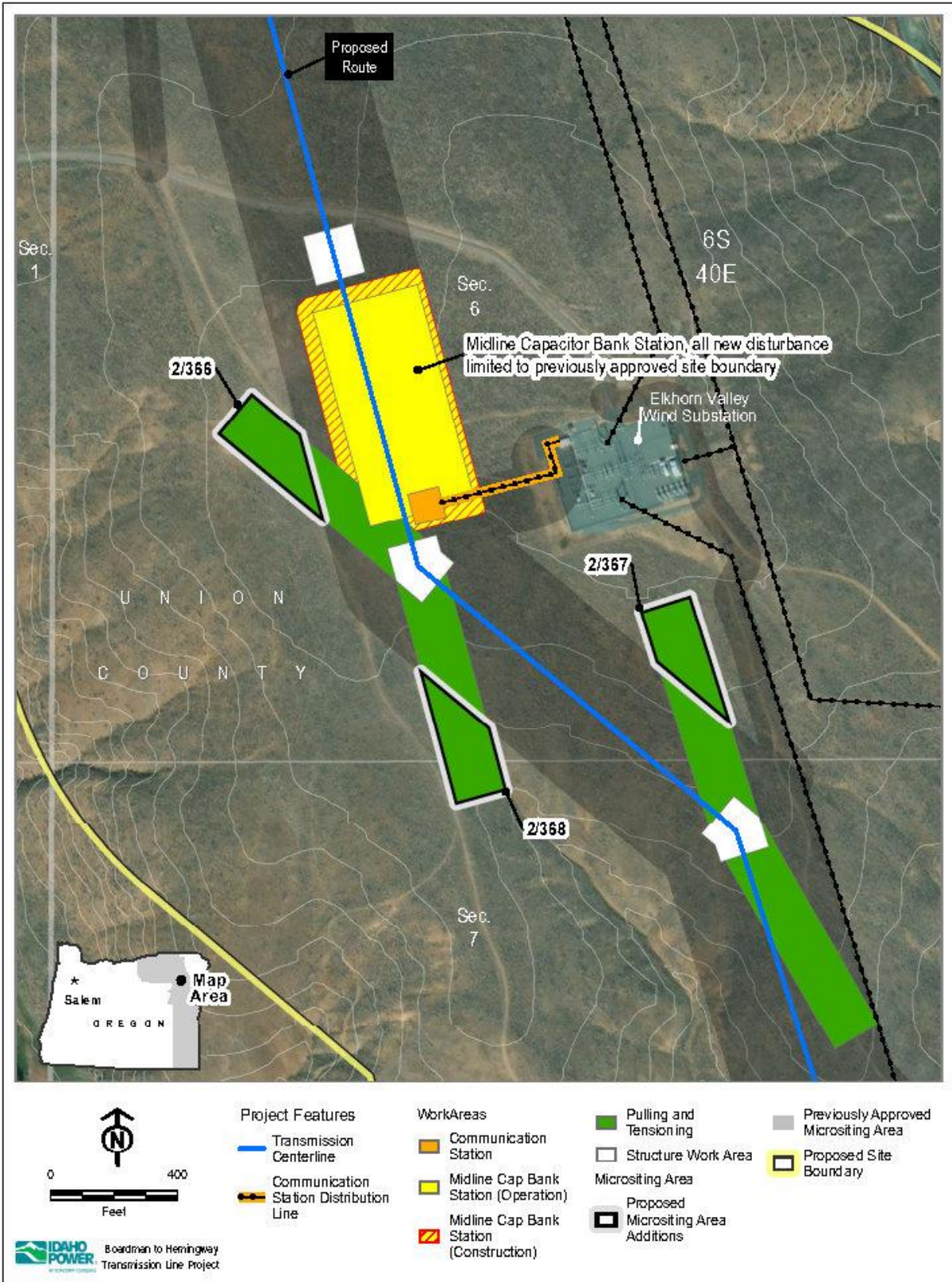
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III.B.2.c.1 Midline Capacitor Station

Certificate holder also proposes a midline series capacitor substation near the midpoint of the facility in Union County, referred to as the Midline Capacitor Station (Figure 5 below).¹⁶ The purpose of the Midline Capacitor Station has series capacitor banks, which load the transmission line more efficiently and optimally by compensating for the impedance resulting from the line length.¹⁷ Series capacitor banks are commonly installed on longer transmission lines. Certificate holder’s experience includes operating eleven series capacitor banks across the utility’s system. The Midline Capacitor Station includes two 500-kV circuit breakers, two high-voltage switches, three single bay 500-kV bus supports with foundations, two 500-kV transmission line termination structures, three 500-kV 4,000 amp air-break switches and three 500-kV series capacitor banks. Foundations for the 500 kV, 4,000 amp air brake switches with motor operators, structures would be approximately four feet in diameter and ten feet deep. The 500-kV transmission line termination structures are approximately 125 to 135 feet tall. A control building would be built to accommodate the necessary system communications and control equipment, fiber optic signal communication equipment will be installed. The site will be supplied by distribution power brought in from the nearby substation, North Powder substation. The approximately 10-acre Midline Capacitor Station would be fenced.

¹⁶ See also RFA2 Attachment 2-1.
¹⁷ B2HAMD2Doc2 RFA2 2024-04-11, Section 4.1.

Figure 5: Proposed Midline Capacitor Station: Union County



1
2 *III.B.2.d Baker County: Route, Road, and Facility Additions*

3
4 The proposed Highway (Hwy) 203 Crossing alternative would be approximately 6 miles
5 northeast of Baker City on the eastern edge of Baker Valley. This alternative would shift the
6 facility slightly to the east to avoid impacts to pivot irrigation fields. A proposed minor redesign
7 of the ASC approved route (230-kV Rebuild) revised alternative required extending the site
8 boundary northeast of where the previously approved site boundary for the 230-kV rebuild
9 started. The other access road and work area changes would be predominantly in open
10 rangeland settings in Baker County. Table 6, below, identifies the major components and
11 related or supporting facilities associated with each of the proposed RFA2 micro-siting area
12 additions in Baker County.

Table 6: Summary of Proposed Additions – Baker County

Facility Features	Hwy 203 Crossing Alternative	Proposed Route (230-kV Rebuild) Revised Alternative	Other Access Road and Work Area Changes	Total (count)
Towers – Single Circuit 500-kV Lattice	6	--	--	6
Pulling and Tensioning Sites	3	--	18	21
Light-Duty Fly Yards	--	--	1	1
Multiuse Areas	--	--	4	4
Communication Stations	--	--	--	--
Total (count)	9	--	23	32
Access Roads (miles)				Total (miles)
Existing, 21-70% Improved	--	--	13.3	13.3
Existing, 71-100% Improved	0.3	--	2.0	2.3
New, Bladed	0.9	--	--	0.9
New, Overland	--	0.1	--	0.1
Total (miles)	1.2	0.1	15.3	16.6
Crossings				Total (count)
High-Voltage Transmission Line Crossings	2	2	NA	2
Existing Road Crossings	2	1	NA	3
Existing Railroad Crossings	0	0	NA	0
Source: B2HAMD2 RFA2. Table 5.2-7				

13
14 *III.B.2.e Malheur County: Route, Road, and Facility Additions*

1 The proposed Willow Creek alternative would cross Hwy 26 in an agricultural area
 2 approximately 7 miles north of Vale, Oregon. The proposed Cottonwood Creek alternative
 3 would be less than one mile west of Bully Creek Reservoir in open rangeland. The other access
 4 road and work area changes in Malheur County occur in a mix of open rangeland and
 5 agricultural areas. Table 7, below, identifies the major components and related or supporting
 6 facilities associated with each of the proposed RFA2 micro-siting area additions in Malheur
 7 County.
 8

Table 7: Summary of Proposed Changes – Malheur County

Facility Features	Cottonwood Creek Alternative	Willow Creek Alternative	Other Access Road and Work Area Changes	Total (count)
Towers – Single Circuit 500-kV Lattice	13	1	--	14
Pulling and Tensioning Sites	4	3	20	27
Light-Duty Fly Yards	--	--	1	1
Multiuse Areas	--	--	4	4
Communication Stations	1	--	--	1
Total (count)	18	4	25	47
Access Roads (miles)				Total (miles)
Existing, 21-70% Improved	2.2	0.4	17.3	19.9
Existing, 71-100% Improved	0.5	--	0.5	1.0
New, Bladed	2.3	0.1	0.7	3.1
New, Overland	<0.1	0.6	0.1	0.8
Total (miles)	5.1	1.1	18.6	24.8
Crossings				Total (count)
High-Voltage Transmission Line Crossings	1	--	NA	1
Existing Road Crossings	0	1	NA	1
Existing Railroad Crossings	0	0	NA	0
Source: B2HAMD2 RFA2. Table 5.2-9				

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II.B.3. Related or Supporting Facilities: Temporary Road Dimension Change

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17

RFA2 proposes to increase temporary disturbance from new bladed and substantially modified roads, as presented in Table 8 below. Certificate holder indicates that wider widths would be necessary in areas where there is a steeper slope, so that the road width can accommodate construction equipment movement. For instance, for new, bladed roads, Council previously approved a maximum road width for construction of 35 feet. In RFA2 certificate holder

1 indicates that in areas where the slope of the road is approximately 30 percent, the road may
 2 need to be widened to up to 120 feet, and then restored back to its operational width of 14
 3 feet. Certificate holder indicates that the areas where road slopes may be up to 30 percent and
 4 need to be widened further would only occur in approximately 3 percent of all facility access
 5 roads (new and existing) fall into the category of greater than 30 percent cross slope.¹⁸
 6 Table 8, *Summary of Access Road Classifications and Proposed RFA2 Temporary Dimensions*
 7 provides a summary of the road descriptions previously approved by Council. These proposed
 8 road dimensions are provided in Attachment 1, amended site certificate and Attachment B-5,
 9 Road classification and Access Control Plan.

10
 11 Additional discussion and potential impacts from the proposed wider temporary roads are
 12 evaluated in Section III.D., *Soil Protection*, of this order.
 13

Table 8: Summary of Access Road Classifications and Proposed RFA2 Temporary Dimensions

Access Road Classification		Micrositing Area	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
New Roads	Primitive	200 feet	> 16 feet	10 feet	Yes	Clearing of vegetation or obstructions. Create roads by direct vehicle travel.
	Bladed	200 feet	0-8% slope – 30 feet. 8-15% slope – 45 feet. 15-30% slope – 75 feet. >30% slope – 120 feet 16–35 feet	14 feet	Yes	Clearing of vegetation or obstructions. Create roads by cutting/filling existing terrain.

¹⁸ B2HAMD2Doc2 RFA2 2024-04-11, Section 4.1.

Table 8: Summary of Access Road Classifications and Proposed RFA2 Temporary Dimensions

Access Road Classification		Micrositing Area	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
Existing Roads - Substantial Modification	Substantial Modification, 21-70% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet 16 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
	Substantial Modification, 71-100% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet 16-30 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile
Existing Roads – No Substantial Modification	No Substantial Modification, 0-20% Improved	NA ¹	NA ¹	NA ¹	No	Repair of existing road to maintain original road function. No betterment of existing road function or

¹ Existing roads with no substantial modifications are not included in the Site Boundary and do not have an operation or construction disturbance width assigned to them.

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New Roads

For purposes of describing the disturbance width, new roads are classified as either “primitive” or “bladed.” The micrositing area for all new roads is 200 feet wide (100 feet on either side of the centerline). The typical construction disturbance for primitive roads would be 16 feet and the operational width would be maintained at 10 feet. For bladed roads, the typical

1 construction disturbance would be 30 feet wide, but could be as wide as 120 feet as dictated by
2 slope, terrain and soil conditions. The operational width for bladed roads is 14 feet.

3
4 *Existing Roads with No Substantial Modification*

5
6 Road maintenance activities will be limited to 20 percent or less of the road surface area and
7 may include repair of the road prism to (i) produce a stable operating surface, (ii) ensure proper
8 drainage and erosion control, and (iii) establish horizontal clearance, however will not include
9 (i) increasing the width of the existing road prism, (ii) change the existing road alignment, (iii)
10 use materials inconsistent with the existing road surface, and/or (iv) change the existing road
11 profile.

12
13 *Existing Roads Requiring Substantial Modification*

14
15 If improvements to an existing road would involve one or more of the following activities, the
16 road segment is classified as requiring substantial improvements:

- 17
18 1. increasing the width of the existing road prism;
19 2. changing the existing road alignment;
20 3. using materials inconsistent with the existing road surface;
21 4. changing the existing road profile; or
22 5. involving repairs to more than 20 percent of the road surface area defined by road
23 prism width and longitudinal distance over a defined road segment.

24
25 Typical construction disturbance for existing roads requiring substantial modification would be
26 25 feet wide but could be up to 60 feet wide when road modification exceeds 70 percent. The
27 operational width would be 14 feet. The micro-siting area for a substantially modified existing
28 road is 100 feet wide (50 feet on either side of the centerline).

29
30 Following construction, any new roads developed for access to multi-use areas would be
31 removed and restored to preconstruction conditions, unless the landowner requests otherwise.
32 Roads developed for pulling and tensioning sites would be permanent because they would also
33 provide access to structures for operations and maintenance.

34
35 **II.B.4. Proposed Amended and New Conditions**

36
37 RFA2 Attachment 6-1 includes the certificate holder's proposed changes to the description of
38 the site boundary, approved transmission line corridors and access roads; and amendments to
39 site certificate conditions, and RFA2 Section 6.0 provides a basis for condition revisions.
40 Certificate holder requests Council approval to amend language of site certificate condition(s):
41 GEN-GS-06, GEN-NC-01, PRE-RT-01, CON-TE-02, PRE-FW-03, PRE-FW-04, OPR-FW-03, OPR-FW-
42 04 and OPR-RT-01.

1 These are presented, evaluated, and recommended, with Department modifications, in the
2 applicable Section III. *Evaluation of Council Standards*, of this order.

3
4 As staff to the Council, the Department recommends Council further amend conditions not
5 limited to the certificate holder’s RFA2 proposal. Attachment 1 to this order, the draft Second
6 Amended Site Certificate (in red-line), is the Department’s recommendation for revisions to the
7 site certificate, which includes many but not all of the certificate holder’s proposed revisions to
8 the site certificate and conditions. The Department recommends revisions to the following site
9 certificate conditions as presented in the draft amended site certificate (Attachment 1 of this
10 order):

- 11 GEN-GS-06 (Cert holder)
- 12 CON-TE-02 (Cert holder/Department)
- 13 PRE-FW-03 (Cert holder)
- 14 PRE-FW-04 (Cert holder)
- 15 OPR-FW-03 (Cert holder)
- 16 OPR-FW-04 (Cert holder)
- 17 GEN-FW-06 (Department)
- 18 GEN-LU-10 (Department)
- 19 GEN-NC-01 (Cert holder)
- 20 PRE-RT-01 (Cert holder/Department)
- 21 OPR-RT-01(Cert holder/Department)
- 22 GEN-HC-02 (Department)

23
24 These conditions update the term “site boundary” to “micrositing area,” See Section III.A.1.a
25 *RFA2 Proposed Site Boundary Expansion and Micrositing Area Definition*, for a discussion of the
26 proposed expanded site boundary:

- 27 GEN-GS-06
- 28 GEN-PA-02
- 29 GEN-FW-08
- 30 GEN-NC-02
- 31 GEN-FP-01
- 32 PRE-SS-01
- 33 PRE-FW-01
- 34 PRE-FW-02
- 35 CON-FW-03

36
37 **II.C. COUNCIL REVIEW PROCESS FOR AMENDMENTS**

38
39 RFA2 is being reviewed under the Type A review process pursuant to OAR 345-027-0351(2). The
40 Type A review process includes a DPO public hearing and opportunity to request a contested
41 case proceeding.
42

1 **II.C.1. Request for Amendment and Revised Analysis Areas**

2
3 On June 12, 2023, the certificate holder and Department conducted an in-person meeting that
4 discussed, in part, the details of preliminary Request for Amendment 2 for the facility including
5 schedule, proposed changes, analytical methods and analysis areas (pre-amendment
6 conference).¹⁹ On June 30, 2023, the certificate holder submitted its preliminary Request for
7 Amendment 2 (pRFA2). On July 13, 2023, the Department issued Public Notice that pRFA1 had
8 been received as required by OAR 345-027-0360(2).
9

10 The Department reviewed pRFA2 to determine whether or not the request contained sufficient
11 information for the Council to make findings. On August 29, 2023, the Department notified the
12 certificate holder that pRFA2 was incomplete and requested additional information (RAIs). In
13 response to RAIs, certificate holder submitted RAI responses and revised attachments on
14 September 22, 2023. On September 22, 2023 and October 30, 2023, the Department issued
15 additional RAIs. Based on ongoing coordination with reviewing agencies, SAGs, the Department,
16 and certificate holder coordination with landowners and facility engineering needs, certificate
17 holder indicated its intent to add additional requests to pRFA2 for Council’s consideration,
18 which included a request to expand the site boundary in some facility locations and separate
19 the definitions of site boundary and micrositing areas. On December 6, 2023 the Department
20 provided guidance to certificate holder to support this request in pRFA2 for EFSCs review of this
21 request (this guidance is summarized in RFA2 Table 8-1) and requested certificate holder to
22 provide a cover letter explaining these changes. On December 7, 2023, certificate holder
23 submitted a letter of intent to add additional requests to pRFA2.²⁰ On December 15, 2023,
24 certificate holder submitted a revised pRFA2 and attachments which included responses to
25 ongoing RAIs as well as the additional changes identified in the letter of intent. The revised
26 pRFA2 and cover letter were posted to the project webpage, and updates were provided in the
27 Departments monthly Energy Facility Siting Project Updates.²¹
28

29 Based on the request to distinguish micrositing areas/corridors approved in the ASC, RFA1, and
30 proposed in pRFA2 from an expanded site boundary; where the site boundary would extend
31 beyond areas fully evaluated for facility infrastructure siting (micrositing corridors/areas); under

¹⁹ B2HAMD2 Pre-Amendment Conference Coordination 2023-03-2023 and 2023-06-12. Where OAR 345-027-0359(1) states, prior to submitting a preliminary request for amendment to the site certificate as described in OAR 345-027-0360, the certificate holder may request a pre-amendment conference with the Department to discuss the scope, timing, and applicable laws and Council standards associated with the request for amendment.

²⁰ Letter of intent indicated the following changes: 1) Change certain site certificate conditions: PRE-FW-04, PRE-FW-03, OPR-FW-03, OPR-FW-04, and CON-TE-02. 2) Update the Road Classification Guide and Access Control plan (Attachment B-5 to Final Order on ASC) proposes to modify access road construction disturbance widths. 3) Remove inventory of stream crossings associated with pRFA2 that are currently under review between certificate holder and ODFW. 4) Proposes to expand the facility site boundary in some areas for the facility as ¼ mile each side (½ -mile total width) of the transmission line and access roads centerline. B2HAMD2 IPC_Intent Letter for Updates to pRFA2_2023-12-07

²¹ B2HAMD2 EFSC-Project-Updates_2024-01-02 and 02-05.

1 OAR 345-027-0360(3)²², the Department provided its written approval of revised analysis areas
2 for the facility on December 20, 2023.²³ Table 9, below, represents the approved revised
3 analysis areas under OAR 345-027-0360 for the facility. As discussed further in Section III.A.1.a.,
4 *RFA2 Proposed Site Boundary Expansion and Micrositing Area Definition*, of this order, Council
5 permits final siting flexibility within a micrositing corridor when a certificate holder
6 demonstrates that requirements of all applicable standards have been satisfied by adequately
7 evaluating the entire corridor and location of facility components anywhere within the
8 micrositing area or corridor. Adequate evaluation of most Council standards may be met with
9 desktop studies or a literature review, however, several Council standards require field surveys
10 in combination with a desktop review, which are discussed in each applicable section of this
11 order.

12
13 RFA2 attachments and figures provides the certificate holder’s evidence of the necessary field
14 surveys, literature reviews, and desktop analysis within the analysis area (discussed in Section
15 II.C.1) for resources protected under Council standards that may be impacted by the proposed
16 RFA2 changes, which are evaluated in the subsequent sections in this order.
17

²² OAR 345-027-0360(3) For any Council standard that requires evaluation of impacts within an analysis area, the analysis area is the larger of either the study areas, as defined in OAR 345-001-0010(59), or the analysis areas described in the project order for the application for site certificate, unless otherwise approved in writing by the Department following a pre-amendment conference.

²³ B2HAMD2 ODOE Letter Approving Analysis Areas for pRFA2 OAR 345-027-0360(3) _2023-12-20.

Table 9: Revised Analysis Areas under OAR 345-027-0360 for the Facility

Affected Standard or Resource	Exhibit or RFA Section	Analysis Areas for ASC/RFA1	Analysis Areas for RFA2
Structural Standard	Exh. H	The area within the site boundary.	The area within the site boundary.
Soil Protection	Exh. I	The area within the site boundary.	The area within the site boundary.
Wetlands	Exh. J	The area within the site boundary.	The area within the site boundary.
Land Use	Exh. K	The area within and extending ½-mile from the site boundary.	The area within and extending ¼ -mile from the site boundary.
Protected Areas	Exh. L	The area within and extending 20-miles from the site boundary, including areas outside the state if applicable to the Council's standard.	The area within and extending 19.75-miles from the site boundary, including areas outside the state if applicable to the Council's standard
Fish and Wildlife Habitat	Exh. P	The area within the site boundary.	The area within the site boundary.
Threatened and Endangered Species	Exh. Q	The area within and extending ½-mile from the site boundary.	The area within and extending ¼ -mile from the site boundary.
Scenic Resources	Exh. R	The area within and extending 10-miles from the site boundary.	The area within and extending 9.75-miles from the site boundary.
Historic, Cultural and Archaeological Resources	Exh. S	The area within the site boundary.	The area within the site boundary
Recreational Opportunities	Exh. T	The area within and extending 2-miles from the site boundary.	The area within and extending 1.75-miles from the site boundary.
Public Service	Exh. U	The area within and extending 10-miles from the site boundary.	The area within and extending 9.75-miles from the site boundary.
Wildfire Prevention and Risk Mitigation	Exhibit V	The area within and extending ½ mile from the site boundary (RFA1).	The area within and extending ¼ mile from the site boundary.
Noise	Exh. Y	The area within and extending ½-mile from the site boundary.	The area within and extending ¼ -mile from the site boundary.

Table 9: Revised Analysis Areas under OAR 345-027-0360 for the Facility

Affected Standard or Resource	Exhibit or RFA Section	Analysis Areas for ASC/RFA1	Analysis Areas for RFA2
Electric Transmission Lines	Exh. AA and DD	The area within the site boundary.	The area within the site boundary.

1

1 Based on the ongoing review of the pRFA2, coordination with the certificate holder and
2 reviewing agencies, and drafting the draft proposed order (DPO), the Department issued
3 additional RAIs on March 13, 2024, March 20, 2024 and on an ongoing basis via email, as
4 needed. Certificate holder provided additional responses and revised attachments and figures
5 on April 5, 2024. On April 9, 2024 following receipt and review of the additional information
6 requested, the Department notified the certificate holder that pRFA2 was complete.²⁴
7 Certificate holder filed the complete RFA2 on April 11, 2024.

8
9 On April 16, 2024 the Department posted the complete RFA2 to its project webpage. On April
10 16, 2024, the Department issued Public Notice of a comment period on the complete RFA and
11 DPO, discussed further below.

12 13 **II.C.2. Draft Proposed Order**

14
15 The April 16, 2024 Public Notice of the DPO initiates a public comment period on RFA2 and the
16 DPO. To raise an issue on the record of the DPO, a person must raise the issue in a written
17 comment submitted between the date of the Public Notice of the DPO and the written
18 comment deadline established in the Public Notice. The Council will not accept or consider
19 public comments on RFA2 or on the DPO received after the written comment deadline, which is
20 May 30, 2024 at the close of the public hearing, unless extended by Council.

21
22 To properly raise an issue in a request for a contested case proceeding for an amendment
23 (discussed further in the following section), the issue must be within the jurisdiction of the
24 Council, and the person must have raised the issue in person or in writing on the record of the
25 public hearing of the DPO. If a person has not raised an issue at the DPO public hearing with
26 sufficient specificity to afford the Council, Department and certificate holder an adequate
27 opportunity to respond to each issue, the Council may not grant a contested case proceeding
28 for that issue.²⁵ To have raised an issue with sufficient specificity, the person must have
29 presented facts at the public hearing that support that person’s position on the issue.^{26, 27}

²⁴ B2HAMD2Doc1 RFA2 Completeness Letter 2024-04-09.

²⁵ 469.370(3).

²⁶ OAR 345-027-0371(5).

²⁷ OAR 345-015-0016(3). Council does not consider incorporation by reference statements or comments made by other persons, (whether they are comments on the DPO, raised by other commenters for this facility or past proceedings, comments on another agency proceeding, or other external references) to meet the sufficient specificity requirement under ORS 469.370(3) and OAR 345-015-0016(3). Blanket incorporations by reference do not afford the Department, Council or certificate holder an adequate opportunity to respond to each issue as required under ORS 469.370(3) because they typically do not specify which portion(s) of the other person(s) comments are to be incorporated or how those comments relate to any alleged shortcoming in the subject DPO. Attempts to incorporate by reference comments made regarding a matter being considered by another agency do not inform the Council, Department or applicant/certificate holder of any alleged error in the subject DPO sufficient to allow for a response. Further, incorporations by reference of another person’s comments on the subject DPO, no matter how specific, are procedurally inefficient because they could result in multiple persons presenting evidence, examining witnesses, etc. regarding the same issue in a contested case. Council has also

1 Any issue that may be the basis for a contested case shall be raised not later than the close of
2 the record at or following the final public hearing prior to issuance of the Department’s
3 proposed order.
4

5 **II.C.3. Proposed Order**
6

7 Under OAR 345-027-0371(1), no later than 30 days after the Council has reviewed the DPO and
8 considered all comments received on the record of the DPO public hearing under OAR 345-027-
9 0367, the Department must issue a Proposed Order recommending approval, modification or
10 denial of the request for amendment to the site certificate. The Department must consider any
11 oral comments made at the public hearing, written comments received before the close of the
12 record of the public hearing, agency consultation, and any Council comments. The Department
13 may issue the Proposed Order at a later date, but the Department must, no later than 30 days
14 after the Council has reviewed the DPO and considered all comments received on the record of
15 the public hearing, notify the certificate holder in writing of the reasons for the delay.
16 Concurrent with issuing the Proposed Order, the Department must send notice of the Proposed
17 Order to Council’s general mailing list, any special mailing list for the facility, reviewing
18 agencies, as well as property owners under OAR 345-027-0360(1)(f). Under OAR 345-027-
19 0371(4), on the same date the notice of Proposed Order, the Department must send a notice of
20 the opportunity to request a contested case by mail or email to the certificate holder, and to all
21 persons who commented in person or in writing on the record of the public hearing.
22

23 If there are no requests for a contested case proceeding, the Council may adopt, modify or
24 reject the proposed order based on the considerations described under the Scope of Council
25 Review in OAR 345-027-0375. In a written order, the Council must either grant or deny issuance
26 of an amended site certificate.²⁸
27

28 **II.C.4. Council Evaluation of Requests for Contested Case Proceeding**
29

30 Only those persons, including the certificate holder, who commented in person or in writing on
31 the record of the DPO public hearing (April 16, 2024 through May 30, 2024, unless extended by
32 Council) may request a contested case proceeding on the Proposed Order for an amendment to
33 the site certificate.
34

35 Contested case requests must be submitted in writing and must be received by the Department
36 by a specified deadline that is at least 30 days from the date of notice of the Proposed Order.
37 Contested case requests must include:²⁹
38

maintained that this position is consistent with the reasons why it is appropriate to limit the participation of
persons seeking to participate in a contested case to the issues each properly raised in their respective DPO
comments. B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, page 21.

²⁸ OAR 345-027-0371(11).

²⁹ OAR 345-027-0371(6).

- 1 • The person's name, mailing address and email address and any organization the person
2 represents;
- 3
- 4 • A short and plain statement of the issue or issues the person desires to raise in a
5 contested case proceeding;
- 6
- 7 • A statement that describes why the Council should find that the requester properly
8 raised each issue, including a specific reference to the person's prior comments to
9 demonstrate that the person raised the specific issue or issues on the record of the
10 public hearing, if applicable;
- 11
- 12 • A statement that describes why the Council should determine that each identified issue
13 justifies a contested case, under the evaluation described in section (9) of OAR 345-027-
14 0371;
- 15
- 16 • Name and address of the person's attorney, if any;
- 17
- 18 • A statement of whether the person's request to participate in a contested case is as a
19 party or a limited party, and if as a limited party, the precise area or areas in which
20 participation is sought;
- 21
- 22 • If the person seeks to protect a personal interest in the outcome of the proceeding, a
23 detailed statement of the person's interest, economic or otherwise, and how such
24 interest may be affected by the results of the proceeding;
- 25
- 26 • If the person seeks to represent a public interest in the results of the proceeding, a
27 detailed statement of such public interest, the manner in which such public interest will
28 be affected by the results of the proceeding, and the person's qualifications to
29 represent such public interest; and
- 30
- 31 • A statement of the reasons why others who commented on the record of the public
32 hearing cannot adequately represent the interest identified in subsections (h) or (i) of
33 this section.
- 34

35 Requests for contested case will be evaluated by Council at a Council meeting. Under OAR 345-
36 027-0371(7), before considering whether an issue justifies a contested case proceeding, the
37 Council must determine that the person requesting a contested case commented in person or
38 in writing on the record of the DPO public hearing and properly raised each issue included in
39 the request. To determine that a person properly raised each issue included in the request, the
40 Council must find that:

- 41
- 42 • The person making the contested case request raised the issue on the record of the DPO
43 public hearing described in OAR 345-027-0367 with sufficient specificity to afford the

1 Council, the Department, and the certificate holder an adequate opportunity to respond
2 to the issue;

- 3
- 4 • The Department did not follow the requirements of OAR 345-027-0367; or
- 5
- 6 • If the action recommended in the Proposed Order, including any recommended
- 7 conditions of approval, differs materially from the action recommended in the DPO, the
- 8 contested case request identified new issues that are related to such material
- 9 differences.

10
11 Pursuant to OAR 345-027-0371(8), if the Council finds that the person requesting a contested
12 case failed to comment in person or in writing on the record of the DPO public hearing or failed
13 to properly raise any issue, as described above, the Council must deny that person’s contested
14 case request. If the Council finds that the person requesting a contested case commented in
15 person or in writing on the record of the DPO public hearing and properly raised one or more
16 issues, the Council’s determination of whether an issue justifies a contested case must be
17 limited to those issues the Council finds were properly raised.

18
19 After identifying the issues properly raised the Council must determine whether any properly
20 raised issue justifies a contested case proceeding on that issue. To determine that an issue
21 justifies a contested case proceeding, the Council must find that the request raises a significant
22 issue of fact or law that is reasonably likely to affect the Council’s determination whether the
23 facility, with the change proposed by the amendment, meets the applicable laws and Council
24 standards included in chapter 345 divisions 22, 23 and 24. If the Council does not have
25 jurisdiction over the issue raised in the request, the Council must deny the request.³⁰

26
27 The Council must take one of the following actions when determining if a request identifying
28 one or more properly raised issues justifies a contested case proceeding:

- 29
- 30 1. If the Council finds that the request identifies one or more properly raised issues that
- 31 justify a contested case proceeding, the Council must conduct a contested case
- 32 proceeding according to the applicable provisions of OAR 345-015-0012 to 345-015-
- 33 0014 and 345-015-0018 to 345-015-0085. The parties to a contested case proceeding
- 34 must be limited to those persons who commented on the record of the public hearing
- 35 and who properly raised issues in their contested case request that the Council found
- 36 sufficient to justify a contested case, except that the certificate holder is an automatic
- 37 party to a contested case.³¹ The issues a party to a contested case proceeding may

³⁰ OAR 345-027-0371(9).

³¹ During the contested case proceeding on the proposed order for ASC for this facility, the hearing officer permitted the Department, certificate holder, and petitioners to the contested case to provide written briefs regarding their positions on the matter or “full” or limited party status. Hearing officer concluded that petitioners for party status who met the eligibility requirements for standing in the contested case proceeding could

1 participate on must be limited to those issues that party properly raised in its contested
2 case request that the Council found sufficient to justify a contested case, except that the
3 certificate holder may participate on any issue the Council found sufficient to justify a
4 contested case proceeding.³²
5

6 2. If the Council finds that the request identifies one or more properly raised issues that an
7 amendment to the Proposed Order, including modification to conditions, would settle in
8 a manner satisfactory to the Council, the Council may deny the request as to those
9 issues and direct the Department to amend the Proposed Order and send a notice of the
10 amended Proposed Order to the same persons who received notice of the Proposed
11 Order and opportunity to request a contested case.³³
12

13 3. If the Council finds that the request does not identify a properly raised issue that
14 justifies a contested case proceeding, the Council must deny the request. In a written
15 order denying the request, the Council must state the basis for the denial. The Council
16 must then adopt, modify or reject the proposed order based on the considerations
17 described under the Council’s Scope of Review in OAR-345-027-0375.³⁴
18

19 **II.C.5. Final Order**

20
21 The Council may adopt, modify or reject the Proposed Order based on the considerations
22 described in OAR 345-027-0375. If the Proposed Order is adopted or adopted, with
23 modifications, the Council shall issue a final order granting issuance of an amended site
24 certificate. If the Proposed Order is denied, the Council shall issue a final order denying issuance
25 of the amended site certificate.
26

participate as limited parties regarding the issues each properly raised in their respective comments on the DPO and petitions for party status in the contested case but could not participate in the contested case on issues that others, but not they themselves had raised. The hearing officer based this conclusion upon ORS 469.370(5), OAR 345-015-0016(3), OAR 137-003-0005(8) and (9), OAR 137-003-0040, and OAR 345-015-0083. (B2HAPPDoc219 Hearing Officer Order on Party Status and Issues_OAH_2020-10-29, pp. 7-10). Council received written appeals of the Hearing Officer’s Contested Case Order and further briefed the issue concluding that, “The Council finds that Hearing Officer’s designation of limited party status for petitioners granted standing in the contested case proceeding is affirmed for the reasons presented in the Order on Party Status.” (B2HAPPDoc288 EFSC’s Order on Appeals of Hearing Officer Order on Party Status, Auth Reps and Issues_2020-11-25, p. 18). Limited parties again raised the issue of limited party in their petitions to appeal the Final Order on ASC to the Oregon Supreme Court. The Court agreed with the hearing officer and EFSC’s decisions, concluding that EFSC is expressly authorized to limit the participation of a party that it permitted to participate as a limited party – i.e., to treat a person as a limited party even if they requested full party status and that EFSC had authority to grant limited rather than full party status to petitioners STOP B2H and Irene Gilbert (among others). (B2HAPPDoc7 Supreme Court Decision Stop B2H Coalition v. Dept, of Energy 2023-03-09, pp. 801-804, 815.

³² OAR 345-027-0371(10)(a).

³³ OAR 345-027-0371(10)(b).

³⁴ OAR 345-027-0371(10)(c).

1 The Council’s Final Order, including any denials of requests for contested case, is subject to
2 judicial review by the Oregon Supreme Court as provided in ORS 469.403.

3 **III. EVALUATION OF COUNCIL STANDARDS**
4

5 **III.A. GENERAL STANDARD OF REVIEW: OAR 345-022-0000**
6

7 *(1) To issue a site certificate for a proposed facility or to amend a site*
8 *certificate, the Council shall determine that the preponderance of evidence on*
9 *the record supports the following conclusions:*
10

11 *(a) The facility complies with the requirements of the Oregon Energy Facility*
12 *Siting statutes, ORS 469.300 to 469.570 and 469.590 to 469.619, and the*
13 *standards adopted by the Council pursuant to 469.501 or the overall public*
14 *benefits of the facility outweigh any adverse effects on a resource or interest*
15 *protected by the applicable standards the facility does not meet as described*
16 *in section (2);*
17

18 *(b) Except as provided in OAR 345-022-0030 for land use compliance and*
19 *except for those statutes and rules for which the decision on compliance has*
20 *been delegated by the federal government to a state agency other than the*
21 *Council, the facility complies with all other Oregon statutes and administrative*
22 *rules identified in the project order, as amended, as applicable to the issuance*
23 *of a site certificate for the proposed facility. If the Council finds that applicable*
24 *Oregon statutes and rules, other than those involving federally delegated*
25 *programs, would impose conflicting requirements, the Council shall resolve*
26 *the conflict consistent with the public interest. In resolving the conflict, the*
27 *Council cannot waive any applicable state statute.*
28

29 *(2) The Council may issue or amend a site certificate for a facility that does not*
30 *meet one or more of the applicable standards adopted under ORS 469.501 if*
31 *the Council determines that the overall public benefits of the facility outweigh*
32 *any adverse effects on a resource or interest protected by the applicable*
33 *standards the facility does not meet. The Council shall make this balancing*
34 *determination only when the applicant has shown that the proposed facility*
35 *cannot meet applicable Council standards or has shown, to the satisfaction of*
36 *the Council, that there is no reasonable way to meet the applicable Council*
37 *standards through mitigation or avoidance of any adverse effects on a*
38 *protected resource or interest. The applicant has the burden to show that the*
39 *overall public benefits outweigh any adverse effects on a resource or interest,*
40 *and the burden increases proportionately with the degree of adverse effects*
41 *on a resource or interest. The Council shall weigh overall public benefits and*
42 *any adverse effects on a resource or interest as follows:*
43

1 (a) The Council shall evaluate any adverse effects on a resource or interest by
2 considering factors including, but not limited to, the following:

3
4 (A) The uniqueness and significance of the resource or interest that would be
5 affected;

6
7 (B) The degree to which current or future development may adversely affect
8 the resource or interest, if the proposed facility is not built;

9
10 (C) Proposed measures to reduce any adverse effects on a resource or interest
11 by avoidance of impacts;

12
13 (D) The magnitude of any anticipated adverse effects on a resource or interest,
14 taking into account any proposed mitigation.

15
16 (b) The Council shall evaluate overall public benefits by considering factors
17 including, but not limited to, the following:

18
19 (A) The overall environmental effects of the facility, considering both
20 beneficial and adverse environmental effects;

21
22 (B) The degree to which the proposed facility promotes Oregon energy policy
23 as described in ORS 469.010 by demonstrating or advancing new efficiency or
24 renewable technology or by expanding electric generating capacity from
25 renewable energy sources;

26
27 (C) Recommendations from any special advisory group designated by the
28 Council under ORS 469.480;

29
30 (D) Evidence that the benefits are likely to occur only if the proposed facility is
31 built;

32
33 (E) For facilities that are subject to a need standard, evidence underlying the
34 Council's decision on compliance with the rules in OAR 345, Division 23, except
35 that the Council shall not find that need for a facility is sufficient, by itself, to
36 outweigh any adverse effects on a resource or interest affected by the
37 proposed facility.

38
39 (3) Notwithstanding section (2) of this rule, the Council shall not apply the
40 balancing determination to the following standards:

41
42 (a) The organizational expertise standard described in OAR 345-022-0010;

43
44 (b) The land use standard described in OAR 345-022-0030;

1
2 (c) The retirement and financial assurance standard described in OAR 345-
3 022-0050;

4
5 (d) The need standards described in OAR 345-023-0005;

6
7 (e) The standards for energy facilities that emit carbon dioxide described in
8 OAR 345-024-0500 through 345-024-0720;

9
10 (f) The protected areas standard described in OAR 345-022-0040, if the
11 statutes or administrative rules governing the management of the protected
12 area prohibit location of the proposed facility in that area; or

13
14 (g) The sage-grouse specific habitat mitigation requirements under the
15 Council's fish and wildlife habitat standard described in OAR 345-022-0060,
16 except that the Council may apply the balancing determination to the
17 requirements of 635-140-0025(2)(a) and (b) for indirect impacts on core and
18 low density sage-grouse habitat, as defined in 635-140-0015, which are
19 caused by transmission lines or pipelines as defined in ORS 469.300(11)(a),
20 and by transmission lines or pipelines that are related or supporting facilities
21 to an energy facility as defined in ORS 469.300(24), proposed to be sited
22 entirely outside of core and low density sage-grouse habitat.

23
24 (4) In making determinations regarding compliance with statutes, rules and
25 ordinances normally administered by other agencies or compliance with
26 requirements of the Council statutes if other agencies have special expertise,
27 the Department of Energy shall consult with such other agencies during the
28 notice of intent, site certificate application and site certificate amendment
29 processes. Nothing in these rules is intended to interfere with the state's
30 implementation of programs delegated to it by the federal government.³⁵

31
32 **III.A.1. Findings of Fact**

33
34 Pursuant to OAR 345-027-0375, consistent with Council's General Standard of Review, in
35 making a decision to grant or deny issuance of an amended site certificate, the Council must
36 determine that the preponderance of evidence on the record supports that the facility, with
37 proposed RFA2 changes, complies with the applicable laws or Council standards that protect a
38 resource or interest that could be affected by the proposed change. Proof by a preponderance
39 of the evidence means "that the facts asserted are more probably true than false."³⁶ Therefore,
40 to issue an amended site certificate, the Council must determine that the evidence on the
41 record, including information submitted to comply with Council-imposed site certificate

³⁵ OAR 345-022-0000, effective March 8, 2017.

³⁶ *Riley Hill Gen. Contractor, Inc. v. Tandy Corp.*, 303 Or. 390, 402, 737 P.2d 595 (1987).

1 conditions, demonstrates it is more probable than not that the certificate holder will comply
2 with applicable standards.

3
4 When applying the preponderance of evidence test, Council takes into account the record as a
5 whole and information obtained or demonstrated through compliance with existing,
6 recommended amended or recommended new conditions.³⁷ For this order, the evidentiary
7 record relied upon to make recommended findings of fact and conclusions of law includes the
8 record of the *Final Order on ASC, Final Order on Request for Amendment 1 (RFA1)* and *Draft*
9 *Proposed Order on Request for Amendment 2*. For several standards, where field surveys are
10 necessary to inform the presence of Council-protected resources and impacts, the
11 preponderance of evidence test is demonstrated through available data and future compliance
12 with previously imposed site certificate conditions. Field surveys are necessary under the
13 Council’s Fish and Wildlife Habitat standard, Threatened and Endangered Species standard,
14 Historic, Cultural and Archeological Resources, and the Oregon Department of State Land’s
15 (DSL) Removal-Fill Law. For RFA2, literature and field surveys for resources protected under
16 these standards and law were completed; however, complete survey coverage of the proposed
17 micrositeing area additions was not completed due to limitations on obtaining landowner right-
18 of-entry and seasonal constraints concurrent with applicable survey timing constraints.

- 19
- 20 • RFA2 Section 7.1.5.2, Table 7.1-12. Biological Resources Surveys identifies the survey
21 type and scope completed for Fish and Wildlife habitat including extent of unsurveyed
22 areas.
- 23 • RFA2 Figure 7-15 and Attachment 7-13 identifies where pedestrian surveys for cultural
24 resources were completed and identifies the extent of unsurveyed area.
- 25 • RFA2 Section 5.3.3 indicates that wetland and water delineation surveys were
26 conducted on 80 percent of the proposed RFA2 micrositeing area additions.
- 27

28 As evaluated in Section III.H *Fish and Wildlife Habitat*, Section III.I *Threatened and Endangered*
29 *Species*, Section III.K *Historic, Cultural and Archeological Resources*, and Section III.R.2 *Removal-*
30 *Fill Law*, Council previously imposed conditions requiring that, prior to construction, the
31 certificate holder conduct surveys within any unsurveyed areas and either avoid or mitigate
32 resources accordingly.³⁸

33

34 *III.A.1.a RFA2 Proposed Site Boundary Expansion and Micrositeing Area Definition*

35

³⁷ ORS 469.503(1)

³⁸ Previously imposed conditions requiring preconstruction surveys include Fish and Wildlife Condition 15 (Condition PRE-FW-01); Fish and Wildlife Condition 16 (Condition PRE-FW-02); Historic, Cultural and Archeological Resources Condition 2 (Condition GEN-HC-02); and Removal-Fill Condition 1 (Condition PRE-RF-01). Avoidance and mitigation of any resources identified during these surveys is required under Fish and Wildlife Condition 17 (Condition PRE-FW-03); Historic, Cultural and Archeological Resources Condition 2 and 3 (Condition GEN-HC-02 and OPS-HC-01); and, Removal-Fill Condition 2, 3 and 6 (Conditions GEN-RF-01, GEN-RF-02 and GEN-RF-04)

1 In the *Final Order on ASC and RFA1*, Council approved the site boundary, where the site
2 boundary was equivalent to a microsite transmission line corridor or microsite area.³⁹ A
3 microsite corridor is a continuous area of land within which construction of facility
4 components may occur, subject to site certificate conditions.⁴⁰ Council permits final siting
5 flexibility within a microsite corridor (equivalent to the site boundary for the approved
6 facility) when the certificate holder demonstrates that requirements of all applicable standards
7 have been satisfied by adequately evaluating the entire microsite area/corridor and location
8 of facility components anywhere within the corridor.

9
10 Previously approved dimensions for the approved site boundary/microsite areas are:⁴¹

- 11
- 12 • For the 500-kV transmission line and communication stations, a 500-foot-wide area.
- 13 • For Longhorn Station, approximately 190 acres.
- 14 • For access roads, 100 or 200-feet in width, depending on the nature of the road.
- 15 • For temporary work areas (MUAs, pulling and tensioning sites, and light duty fly yards),
16 from 4 to 23 acres.
- 17

18 RFA2 Sections 1.1, 4.0, and 8.0 include the certificate holder’s request for Council approval to
19 redefine and separate the site boundary and microsite areas and expand the site boundary
20 along portions of the approved routes. The proposed expanded site boundary for transmission
21 line routes would be 0.5 mile (2,640 feet) wide; or 0.25 mile (1,320 feet) from the center of the
22 transmission line, with a microsite corridor/area of 500 feet (same width as the previously
23 approved site boundary/microsite area), consistent with Council’s definition of a corridor.⁴²
24 The proposed expanded site boundary for facility roads would also be 0.5 mile (2,640 feet)
25 wide, or 0.25 mile (1,320 feet) from the center of the road, and the microsite area for roads is
26 either 100 or 200 feet wide (same width as the previously approved site boundary/ microsite
27 area). The certificate holder’s request to separate the application of the definitions of site
28 boundary and microsite area (OAR 345-001-0010(31) and OAR 345-001-0010(21),
29 respectively) does not have an associated Council standard or statute to be evaluated against.
30 Rather, the certificate holder must demonstrate that it has submitted the necessary
31 information to the record to support the redefinition for the evaluation under applicable
32 Council standards, which are described in RFA2 and in this order.

33
34 The expanded site boundary would expand the area evaluated for potential resources which
35 could assist in accommodating minor adjustments associated with requests from landowners or
36 stakeholders, the need to avoid impacts to sensitive resources, or needed to address

³⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 52-53 and B2HAM1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, page 2.

⁴⁰ OAR 345-001-0010(21).

⁴¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section III.B. Site Boundary, Right-of-Way, and Facility Location; pp. 52-56.

⁴² OAR 345-001-0010(7)

1 constructability issues in the field.⁴³ See Figure 6, below for an example of a proposed RFA2
2 micrositing area addition within the proposed expanded site boundary, as well as an area of the
3 expanded site boundary around the approved portion of the facility in Morrow County.

4
5 In some locations, certificate holder does not request an expanded site boundary and would
6 maintain the previously approved site boundary/micrositing area. The proposed expanded site
7 boundary is intended to avoid expanding on to parcels not previously identified for siting of
8 facility infrastructure, or expanding across constraints such as Interstate 84 or sensitive
9 resources (such as protected areas).⁴⁴ For example, the certificate holder is not proposing to
10 expand the site boundary around the previously approved site boundary/micrositing area
11 associated with Double Mountain alternative or the previously approved site
12 boundary/micrositing area on Naval Weapons System Training Facility Boardman (See RFA2
13 Figure 8-1 Maps 1-5). In some locations the proposed expanded site boundary extends beyond
14 the previously approved site boundary/micrositing area but may not extend out to encompass
15 the full 0.5-mile-wide corridor.

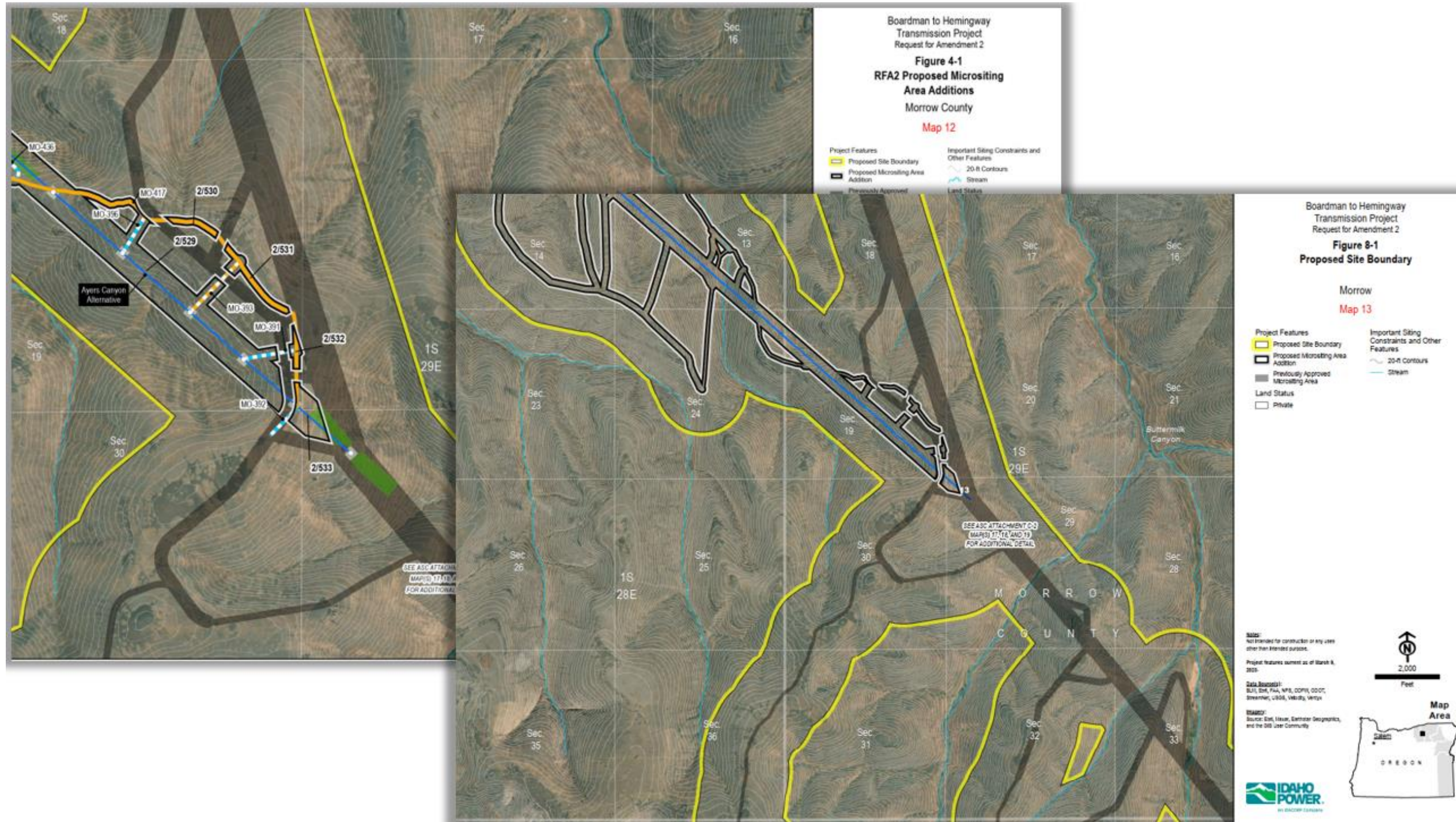
16

⁴³ B2HAMD2Doc2 RFA2 2024-04-11, Section 8.0.

⁴⁴ B2HAMD2Doc2 RFA2 2024-04-11, Sections 1.1 and 8.0.

Figure 6: Example of Proposed RFA2 Micrositing Area Addition and Expanded Site Boundary for Approved Facility

1



1 Under OAR 345-001-0010(31), the site boundary is defined as “the perimeter of the site of a
2 proposed energy facility, its related or supporting facilities, all temporary laydown and staging
3 areas and all corridors and micrositing corridors *proposed by the applicant*” [Emphasis added].
4 Council’s definition expressly gives the applicant, or in this instance the certificate holder,
5 deference to define its site boundary. Under its own definition, Council is obligated to review a
6 facility within a proposed site boundary, as proposed by the applicant or certificate holder, and
7 does not otherwise have criteria or requirements that would grant Council the legal ability to
8 deny a proposed site boundary unless specifically related to compliance with a Council standard
9 or other applicable law or regulation.

10
11 As noted above, a micrositing corridor means a continuous area of land within which
12 construction of facility components may occur, subject to site certificate conditions. Council
13 recognizes the need for certificate holders to have flexibility to “microsite” the final location of
14 facility components after issuance of a site certificate which is intended to allow flexibility in
15 siting of facility components and locations of temporary disturbance.⁴⁵ Micrositing may be
16 based on results of final surveys, landowner preferences, engineering considerations, avoidance
17 of high-value wildlife habitat, and the desire to reduce conflict with farming practices, or other
18 considerations. The Council permits final siting flexibility within a micrositing corridor when a
19 certificate holder demonstrates that requirements of all applicable standards have been
20 satisfied by adequately evaluating the entire corridor and location of facility components
21 anywhere within the micrositing area or corridor. Adequate evaluation of most Council
22 standards may be met with desktop studies or a literature review; however, several Council
23 standards require field surveys in combination with a literature review, and these include:

- 24 • Fish and Wildlife Habitat (OAR 345-022-0060)
- 25 • Threatened and Endangered Species (OAR 345-022-0070)
- 26 • Historic, Cultural and Archaeological Resources (OAR 345-022-0090)
- 27 • Oregon Removal-Fill Law (OAR 141-085-0500 through 141-085-0785; ORS 196.795 -
28 196.990)

45 B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 52-53. Recent examples where Council has approved larger site boundaries and micrositing areas with the site boundary include: Nolin Hills Wind Power Project: “The facility will be located within an approximately 48,196 acre site boundary in northwestern Umatilla County, Oregon.... Micrositing areas, when approved by Council, are intended to allow flexibility in siting of facility components and locations of temporary disturbance. For this ASC, the applicant seeks approval of an approximately 13,767 acre wind micrositing area, which includes each of the proposed 230 kV transmission lines, and an approximately 1,896 acre solar micrositing area.... Within the 13,767 acre wind micrositing area, turbine strings will include 1,000 to 1,700-foot wide corridors. Access roads and collector lines will be located in 300 to 360-foot wide corridors.... The 230 kV transmission line corridors will range from 300 to 1,600 feet and will extend the length of the lines...” NHWAPPDoc1 Final Order (clean) 2023-08-30 signed, page 30; and Bakeoven Solar Project: “The facility may occupy up to approximately 2,717 acres, within an approximately 10,640 acre site boundaryWithin the site boundary, the certificate holder has an approved approximately 4,160 acre micrositing corridor, which allows flexibility in the final location of facility components...” BSPAPPDoc2 Final Order 2020-04-24, pp. 4, 14-15.

1 RFA2 attachments and figures provide the certificate holder’s evidence of the necessary field
2 surveys, literature reviews, and desktop analysis within the analysis area (discussed in Section
3 II.C.1) for resources protected under Council standards that may be impacted by the proposed
4 RFA2 changes, which are evaluated in the subsequent sections in this order. RFA2 attachments
5 and figures provide the certificate holder’s evidence of the necessary field and literature review
6 within the analysis area (discussed in Section II.C.1) for resources protected under Council
7 standards that may be impacted by the proposed RFA2 changes, which are evaluated in the
8 subsequent sections in this order. RFA2 Section 8.0 and Table 8-1 provides a crosswalk table
9 that supports the certificate holder’s evaluation of the analysis areas approved by the
10 Department described in Table 9 of this order. RFA2 Table 8-1 indicates which mapsets were
11 provided in RFA2 to support an evaluation of a resources within the expanded site boundary
12 and micrositeing areas if it was not already included in the record for the facility within the area
13 proposed to be expanded.

14
15 The certificate holder’s request to separate the application of the definitions of site boundary
16 and micrositeing area (OAR 345-001-0010(31) and OAR 345-001-0010(21), respectively) does not
17 have an associated Council standard or statute to be evaluated against. Rather, the certificate
18 holder must demonstrate that it has submitted the necessary information to the record to
19 support the redefinition for the evaluation under applicable Council standards, which are
20 described in RFA2 and in this order. As provided above, Council frequently approves facilities
21 with a larger site boundary and varying micrositeing areas within the site boundary, which then
22 also have a narrower final ROW within the micrositeing area, such as this facility with proposed
23 changes. Therefore, because the existing record for the facility, in addition to information
24 provided in RFA2, supports the evaluation of a wider site boundary and narrower micrositeing
25 area within, the Department recommends Council approve the application of the definitions
26 from its rules. To clarify that the site boundary and micrositeing areas would be different, the
27 following conditions are revised, removing site boundary and replacing it with micrositeing area.
28 The Department reiterates that this is only a change in terminology, this change does not
29 impact or change any of the areas that are required to be surveyed or requirements of
30 conditions:

- 31 GEN-GS-06
- 32 GEN-PA-02
- 33 GEN-FW-08
- 34 GEN-NC-02
- 35 GEN-FP-01
- 36 PRE-SS-01
- 37 PRE-FW-01
- 38 PRE-FW-02
- 39 CON-FW-03

40
41 A Council approval of the micrositeing areas proposed in RFA2 would be limited to locating
42 facility components within the approved micrositeing areas, subject to site certificate conditions.
43 Council approval of RFA2 would not be an approval to locate facility components within the
44 expanded site boundary. Certificate holder indicates that the proposed expanded site boundary

1 would not impact any new landowners or result in the siting of facility components without
2 further analysis.⁴⁶

3
4 Certificate holder provides a memo in RFA2 that explains that the request to redefine and
5 separate the definitions of site boundary and the micrositing area is also to enable a
6 streamlined review of future micrositing adjustments under the Amendment Determination
7 Request (ADR) pathway designated under OAR 345-027-0357.⁴⁷ Under OAR 345-027-0357(2),
8 for a proposed change that would not add area to the site boundary, the certificate holder may
9 submit an amendment determination request to the Department for a written determination of
10 whether the proposed change requires an amendment under OAR 345-027-0350, by submitting
11 to the Department in the ADR the necessary information, including an evaluation of potential
12 impacts to resources protected under Council standards and any field survey data collected in
13 the area of the change. OAR 345-027-0350(4) contains the criteria used by ODOE and EFSC to
14 determine when a proposed modification requires a site certificate amendment.⁴⁸

15
16 Upon receipt of an ADR, the Department must post an announcement on the Department’s
17 website to notify the public that an ADR has been received. The announcement must include a
18 copy of the ADR.⁴⁹ As a courtesy, the Department includes receipt and determination status of
19 any ADRs received in its Monthly Siting Report updates. After the Department issues its written
20 determination, the Department must, as promptly as possible, provide the request and the
21 written determination to the Council and post the written determination to its website. At the
22 first Council meeting after the Department issues its written determination, the Department
23 must provide verbal notice of the request and the written determination to the Council during
24 the consent calendar agenda item. The Department may refer its determination to the Council
25 for concurrence, modification, or rejection. At the request of the certificate holder or a Council
26 member, the Department must refer its determination to the Council for concurrence,
27 modification or rejection.⁵⁰

28
29 Examples of ADRs received by the Department include an ADR submitted for the Wheatridge
30 Renewable Energy Facility II, where the Department determined that a site certificate
31 amendment would not be required for a modification that included approximately 4 new acres

⁴⁶ B2HAMD2Doc2 RFA2 2024-04-11, Section 4.1

⁴⁷ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 4-2. The Attachment 4-2 Memo incorrectly references OAR 345-027-0357(1)(b). This rule has been determined by the Oregon Supreme Court to be invalid and will be removed via amendment rulemaking. The applicable rule/pathway for an amendment determination request would be under OAR 345-027-0357(2), as described in this order.

⁴⁸ OAR 345-027-0350(4) Design, construct, or operate a facility in a manner different from the description in the site certificate, if the proposed change:

- (a) Could result in a significant adverse impact that the Council has not addressed in an earlier order and the impact affects a resource or interest protected by an applicable law or Council standard;
- (b) Could impair the certificate holder’s ability to comply with a site certificate condition; or
- (c) Could require a new condition or a change to a condition in the site certificate.

⁴⁹ OAR 345-027-0357(5).

⁵⁰ OAR 345-027-0357(6).

1 within approximately 400 feet of the existing site boundary, removing the approximate
2 equivalent area within the existing site boundary due to geographic constraints limiting
3 feasibility of siting facility components for the construction and operation of an underground
4 collector line using an alternative route.⁵¹
5

6 The evaluation of requirements of the General Standard of Review (findings based on a
7 preponderance of evidence on the record) are addressed in the recommended findings of facts
8 and conclusions of law in the sections that follow in this order. The facts and evidence in the
9 record for *Final Order on ASC* and *Final Order on Request for Amendment 1 (RFA1)*, as
10 applicable, and *Draft Proposed Order on Request for Amendment 2*, are directly incorporated
11 and or by reference in this order.
12

13 **III.A.2. Conclusions of Law**

14

15 Based on the foregoing analysis, and subject to compliance with the existing and recommended
16 amended site certificate conditions presented in this order, the Department recommends the
17 Council find that the facility, with proposed RFA2 changes, comply with all laws and Council
18 complies with the requirements of ORS 469.300 to 469.570 and 469.590 to 469.619, the
19 Council’s standards in OAR chapter 345, and all other Oregon statutes and administrative rules
20 applicable to the issuance of an amended site certificate.
21

22 **III.B. ORGANIZATIONAL EXPERTISE: OAR 345-022-0010**

23

24 *(1) To issue a site certificate, the Council must find that the applicant has the*
25 *organizational expertise to construct, operate and retire the proposed facility*
26 *in compliance with Council standards and conditions of the site certificate. To*
27 *conclude that the applicant has this expertise, the Council must find that the*
28 *applicant has demonstrated the ability to design, construct and operate the*
29 *proposed facility in compliance with site certificate conditions and in a manner*
30 *that protects public health and safety and has demonstrated the ability to*
31 *restore the site to a useful, non-hazardous condition. The Council may*
32 *consider the applicant’s experience, the applicant’s access to technical*
33 *expertise and the applicant’s past performance in constructing, operating and*
34 *retiring other facilities, including, but not limited to, the number and severity*
35 *of regulatory citations issued to the applicant.*
36

37 *(2) The Council may base its findings under section (1) on a rebuttable*
38 *presumption that an applicant has organizational, managerial and technical*
39 *expertise, if the applicant has an ISO 9000 or ISO 14000 certified program and*
40 *proposes to design, construct and operate the facility according to that*
41 *program.*
42

⁵¹ WREFII ADR and ODOE Determination 2020-08-14.

1 (3) If the applicant does not itself obtain a state or local government permit or
2 approval for which the Council would ordinarily determine compliance but
3 instead relies on a permit or approval issued to a third party, the Council, to
4 issue a site certificate, must find that the third party has, or has a reasonable
5 likelihood of obtaining, the necessary permit or approval, and that the
6 applicant has, or has a reasonable likelihood of entering into, a contractual or
7 other arrangement with the third party for access to the resource or service
8 secured by that permit or approval.
9

10 (4) If the applicant relies on a permit or approval issued to a third party and
11 the third party does not have the necessary permit or approval at the time the
12 Council issues the site certificate, the Council may issue the site certificate
13 subject to the condition that the certificate holder shall not commence
14 construction or operation as appropriate until the third party has obtained the
15 necessary permit or approval and the applicant has a contract or other
16 arrangement for access to the resource or service secured by that permit or
17 approval.⁵²
18

19 III.B.1. Findings of Fact

20
21 Changes proposed in RFA2 include locational adjustments of previously approved infrastructure
22 (transmission line, new and substantially modified roads) on lands under the same ownership
23 as previously evaluated, and shifts and new locations of temporary work areas; and proposes
24 construction and operation of a capacitor station.⁵³ The organizational experience required to
25 design, construct, operate and retire the facility, with proposed RFA2 changes, would not differ
26 from the experience previously evaluated by Council in the *Final Order on ASC* and *Final Order*
27 *on Request for Amendment 1 (RFA1)*. Those prior findings are incorporated herein by reference
28 and direct incorporation, as applicable.⁵⁴
29

30 *Organizational Expertise of Certificate Holder*

31
32 The certificate holder is an investor-owned electric utility that serves over 530,000 customers
33 within a service territory of approximately 24,000 miles in southern Idaho and eastern Oregon.
34 Its power supply system currently includes 4,868 miles of transmission lines, including 692 miles
35 in Oregon. It also operates 11 capacitor banks within its service territory.

⁵² OAR 345-022-0010, effective April 3, 2002.

⁵³ Proposed capacitor station includes: 500-kV circuit breakers, high-voltage switches, bus supports, two transmission line termination structures, and a 500-kV series capacitor bank.

⁵⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 97-107.

1
2 *Design, Construct and Operate Proposed RFA2 Changes in a Manner that Protects Public Health*
3 *and Safety and the Environment*
4

5 Engineering, design, procurement, and construction activities related to the proposed capacitor
6 station will be completed by third-party contractors. Capacitor station design, construction and
7 operation will be required to comply with National Electric Safety Code (NESC), Federal Energy
8 Regulatory Commission (FERC), North American Electric Reliability Corporation (NERC), and
9 Western Electricity Coordinating Council (WECC) standards.

10
11 Once the capacitor station is operational, the requirements of the certificate holder’s Station
12 Maintenance Program would apply. Council previously imposed Organizational Expertise
13 Condition 1 (OPR-OE-01) requiring in part that, during operations, the certificate holder
14 implement and adhere to the requirements of a Station Maintenance Program (monthly visual
15 inspections of buildings, fencing, electrical equipment; and annual infrared assessments for hot
16 spots). The condition requires that the dates, results and corrective actions associated with
17 monthly and annual monitoring be reported annually to the Department. Based on the
18 certificate holder’s request to construct and operate the capacitor station, the Department
19 recommends Council amend Organizational Expertise Condition 1 (OPR-OE-01) to ensure that
20 the requirements of the Station Maintenance Program apply, and the outcomes annually
21 reported to the Department, as follows:⁵⁵

22
23 **Recommended Amended Organizational Expertise Condition 1:** During operations, the
24 certificate holder shall provide documentation of inspection, including date
25 inspection(s) occurred, issues identified, and any corrective actions taken, within the
26 annual report submitted to the Department pursuant to OAR 345-026-0080(1)(b), for
27 the following:

28 ***

- 29 b. Longhorn Station, if applicable: Monthly inspections including visual inspections of
30 buildings, fencing, and electrical equipment; monitoring of all protective relays,
31 gauges, counters, meters, and communication devices; and annual infrared
32 assessment of bus and operating equipment carrying capacity in accordance with
33 the Station Maintenance Program.
- 34 c. Midline Capacitor Station: Monthly inspections in accordance with the Station
35 Maintenance Program; and annual infrared assessments.
36 [Condition OPR-OE-01; Final Order on ASC; AMD2]

37

⁵⁵ In this order, the Department recommends Organizational Expertise Condition 1(b) be amended to clarify that the requirements for Longhorn Station only apply if the Longhorn Station is constructed and operated by the certificate holder – therefore, adding the language “if applicable.” If the Longhorn Station is not constructed and operated by the certificate holder, the requirements in the condition under 1(b) do not apply.

1 Council previously imposed conditions to ensure that the certificate holder’s contractors are
2 qualified and obligated to comply with applicable requirements during construction and
3 operations:
4

- 5 • Organizational Expertise Condition 2 (GEN-OE-01) requires that, prior to construction,
6 the certificate holder provides the Department and each affected county with the
7 identity and qualifications of its construction contractors. The qualifications must
8 demonstrate that the contractors have substantial experience in designing, engineering
9 and constructing similar types of facilities (roads, high-voltage transmission lines,
10 switching station).
- 11 • Organizational Expertise Condition 4 (PRE-OE-02) requires that the certificate holder
12 contractually require its construction contractors to comply with the terms and
13 conditions of the site certificate.
14

15 *Demonstrated ability to restore the site to a useful, non-hazardous condition*
16

17 The evaluation of the certificate holder’s ability to restore the site to a useful, non-hazardous
18 condition is presented in Section III.G *Retirement and Financial Assurance* of this order.
19

20 **III.B.2. Conclusions of Law**

21

22 Based on the above findings of fact, and subject to compliance with the existing and
23 recommended amended conditions described above and in the site certificate, the Department
24 recommends Council find the certificate holder would continue to have the organizational
25 expertise to construct, operate and retire the facility, with proposed RFA2 changes, in
26 compliance with Council standards and conditions of the site certificate, and in a manner that
27 protects public health and safety and has demonstrated the ability to restore the site to a
28 useful, non-hazardous condition.
29

30 **III.C. STRUCTURAL STANDARD: OAR 345-022-0020**

31

32 *(1) Except for facilities described in sections (2) and (3), to issue a site*
33 *certificate, the Council must find that:*
34

35 *(a) The applicant, through appropriate site-specific study, has adequately*
36 *characterized the seismic hazard risk of the site; and*
37

38 *(b) The applicant can design, engineer, and construct the facility to avoid*
39 *dangers to human safety and the environment presented by seismic hazards*
40 *affecting the site, as identified in subsection (1)(a);*
41

42 *(c) The applicant, through appropriate site-specific study, has adequately*
43 *characterized the potential geological and soils hazards of the site and its*

1 vicinity that could, in the absence of a seismic event, adversely affect, or be
2 aggravated by, the construction and operation of the proposed facility; and
3

4 (d) The applicant can design, engineer and construct the facility to avoid
5 dangers to human safety and the environment presented by the hazards
6 identified in subsection (c).
7

8 (2) The Council may not impose the Structural Standard in section (1) to
9 approve or deny an application for an energy facility that would produce
10 power from wind, solar or geothermal energy. However, the Council may, to
11 the extent it determines appropriate, apply the requirements of section (1) to
12 impose conditions on a site certificate issued for such a facility.
13

14 (3) The Council may not impose the Structural Standard in section (1) to deny
15 an application for a special criteria facility under OAR 345-015-0310. However,
16 the Council may, to the extent it determines appropriate, apply the
17 requirements of section (1) to impose conditions on a site certificate issued for
18 such a facility.⁵⁶
19

20 **III.C.1. Findings of Fact**

21
22 The analysis area for the Structural Standard includes the area within the proposed RFA2
23 expanded 0.5 mile site boundary (0.25 miles or 1,320 feet on either side of the center line for
24 transmission lines and roads) which includes the proposed micrositing area additions.
25

26 The proposed micrositing area additions are approximately 4,142 acres extending across
27 portions of Morrow, Umatilla, Union, Baker and Malheur counties.⁵⁷ The proposed RFA2
28 micrositing area additions and areas of the expanded site boundary would be located in the
29 same vicinity as the previously approved site boundary/micrositing area; therefore, the seismic
30 and non-seismic geologic and soils hazards evaluated in the *Final Order on ASC* and *Final Order*
31 *on RFA1* will not significantly differ for the proposed RFA2 micrositing area additions and
32 expanded site boundary associated with ASC, RFA1, and RFA2. Information on the record for
33 the facility including data and maps which categorize seismic hazards, and potential geological
34 and soils hazards (such as landslide data), describe the area within the previously approved site
35 boundary/micrositing areas as well as the areas in the proposed expanded site boundary.⁵⁸ For

⁵⁶ OAR 345-022-0020, effective October 18, 2017, as amended by minor correction filed May 28, 2019.

⁵⁷ B2HAMD2Doc2 RFA2 2024-04-11, Table 4.1-1 Proposed Micrositing area additions. B2HAMD2 ODOE Letter Approving Analysis Areas for pRFA2 OAR 345-027-0360(3) _2023-12-20.

⁵⁸ Geology inventory provided at 1,000-2,000 feet on both sides of the facility. B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Appendix A. SSURGO soil erosion hazards provided at 0.5 mile buffer on both sides of centerline, seismic hazard mapping provided for 50-mile buffer from the facility, SLIDO Landslide inventory provided at 1,000-2,000 feet on both sides of the facility. B2HAPPDoc3-15 ASC 08b_Exhibit H_Geology_ASC_Part 2 2018-09-28, Appendix B, Appendix D, Appendix E. RFA1 geology, seismic data, and SLIDO landslide information for

1 these reasons, the Department recommends Council rely on the record, its findings, and
2 conditions in the *Final Order on ASC* and *Final Order on RFA1*,⁵⁹ which are incorporated and
3 applied to the RFA2 analysis area below. The analysis below also relies upon RFA2 Section 7.1.1
4 and Figure 7-1, as well as ASC Exhibit H which provides a detailed analysis of the seismic
5 hazards, and potential geological and soils hazards within the proposed micro-siting area
6 additions and expanded site boundary. Seismic and non-seismic hazards within the analysis
7 area were evaluated from the following sources:

- 9 • U.S. Geological Survey (USGS) Earthquake Search Database, the National Geophysical
10 Data Center, and the Pacific Northwest Seismic Network;
- 11 • Review of GIS files compiled by Oregon Department of Geology and Mineral Industries
12 (DOGAMI) in the Statewide Landslide Information Database for Oregon (SLIDO),
13 version 3.4 (Burns and Watzig, 2017) and 2023 DOGAMI SLIDO data; the review included
14 landslides within a one-mile wide route corridor;
- 15 • DOGAMI 2023 Oregon HazVu: Statewide Geohazards Viewer data;
- 16 • Review of existing geologic maps, including Engineering Geology of the La Grande
17 Area, Union County, Oregon, by Schlicker and Deacon (1971); the maps were compiled
18 and geo-referenced in GIS along the alignment to confirm the location of each SLIDO
19 landslide along the route and to check that each mapped landslide was included in the
20 SLIDO database;
- 21 • Site reconnaissance (by Shaw) along portions of the original alignment, conducted on
22 October 26-28 and November 15-18, 2011;
- 23 • Site reconnaissance (by Shannon & Wilson) along portions of alignment alternatives
24 and select alignment changes, conducted July 30 through August 2, 2012, and October
25 16-18, 2013;
- 26 • Review of aerial photography (Shaw reviewed 1:24,000 scale aerial photographs
27 provided by 3Di, LLC, of Eugene, Oregon (3Di), and the ESRI Microsoft Virtual Earth
28 Exhibit H - Attachment H-1 24-1-03820-006 E-2 layer in GIS; Shannon & Wilson reviewed
29 aerial photographs from both ESRI and Google Earth);
- 30 • Review of Digital Terrain Models (DTMs) along one-mile-wide route corridors; and
- 31 • DOGAMI LiDAR Data Viewer (relevant LiDAR data was only available for portions of
32 the Meacham Lake, Huron, Kamela SE, Hilgard, LaGrande SE, Glass Hill, Craig
33 Mountain, North Powder, Telocaset, Baker, Virtue Flat, and Owyhee Dam quadrangles);
34 No LiDAR data was available in Idaho.⁶⁰

35
36 *III.C.1.a Seismic Hazard Risk at Site*
37

RFA1 routes and roads provided at a minimum of 2,000 feet on both sides of centerline. B2HAMD1 RFA1 Figure 7-2
Geology Access 2023-06-08 and B2HAMD1 RFA1 Figure 7-1 Geology Routes 2023-06-08.

⁵⁹ In the Final Order on RFA1, Council amended Structural Standard Condition 1 (Condition PRE-SS-01) and Soil
Protection Condition 4 (Condition GEN-SP-04) to support effective implementation and enforcement.

⁶⁰ B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.6 and Attachment H-1 (Section
5.1.1).

1 *Earthquake and Seismic Hazards*

2

3 The underlying earthquake and seismic hazards presented in the *Final Order on ASC* and *Final*
 4 *Order on RFA1* have not changed and remain valid as applicable to the proposed changes in
 5 RFA2.⁶¹ Three potential types of earthquake sources exist within the analysis area: crustal,
 6 intraslab, and interplate events. Of these, the Cascadia Subduction Zone (CSZ) interplate events
 7 have the potential to produce the largest magnitude earthquake, up to 9.0 magnitude.
 8 However, this earthquake source is located 280 miles or more from the analysis area. Seismic
 9 hazards from earthquake events include seismic shaking or ground motion, ground failure,
 10 liquefaction, subsidence, and lateral spreading, which are described below. Landslides are a
 11 secondary earthquake hazard, often triggered and exasperated by seismic events, however
 12 they are also a non-seismic geologic hazard and therefore discussed further below in Section
 13 III.C.1.b., *Non-Seismic Geologic and Soil Hazards*.

14

15 Table 10, below, summarizes seismic hazards identified within the proposed RFA2 micrositing
 16 areas and provides certificate holder comments regarding the potential hazard. Figure 7, then
 17 illustrates Quaternary Faults⁶² within 50 miles of Facility, which includes many of the faults
 18 listed below. Finally, Table 11, provides RFA2 map references (RFA2 Figure 7-1) and ASC Exhibit
 19 H references with potential faults outside micrositing areas and within the proposed RFA2
 20 expanded site boundary.

21

Table 10: Seismic Hazards within RFA2 Micrositing Area Additions

RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
Umatilla County¹		
Umatilla County Proposed Work Area Addition 2/319 (Figure 7-1, Map 21)	Proposed Micrositing Area Mapped Faults: Cabbage Hill Fault, Fault ID 845 USGS Hite fault system, (Personius and Lidke 2003)	The fault has low slip rate (<0.2 mm/yr), therefore, impacts of the Cabbage Hill Fault on Proposed Micrositing Area Addition 2/319 would be low.
Umatilla County Sevenmile Creek Alternative and Work Areas 2/304, 2/538, 2/539, 2/540 (Figure 7- 1, Maps 25-27)	Proposed Micrositing Area Additions Mapped Faults: Mapped trace of a series of faults likely part of the Hite fault system (USGS Fault ID 845).	The slip rate of the Hite fault system has a slip rate of <0.2 mm/yr. Because of low slip rate, impacts of the faults on these sites would be low.

⁶¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 111-114; B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, pp. 48-52.

⁶² A Quaternary fault is one that has been recognized at the surface and that has moved in the past 1,600,000 years (1.6 million years). That place’s fault movement within the Quaternary Period, which covers the last 2.6 million years. <https://www.usgs.gov/faqs/what-quaternary-fault> Accessed 02-05-2024.

Table 10: Seismic Hazards within RFA2 Micrositing Area Additions

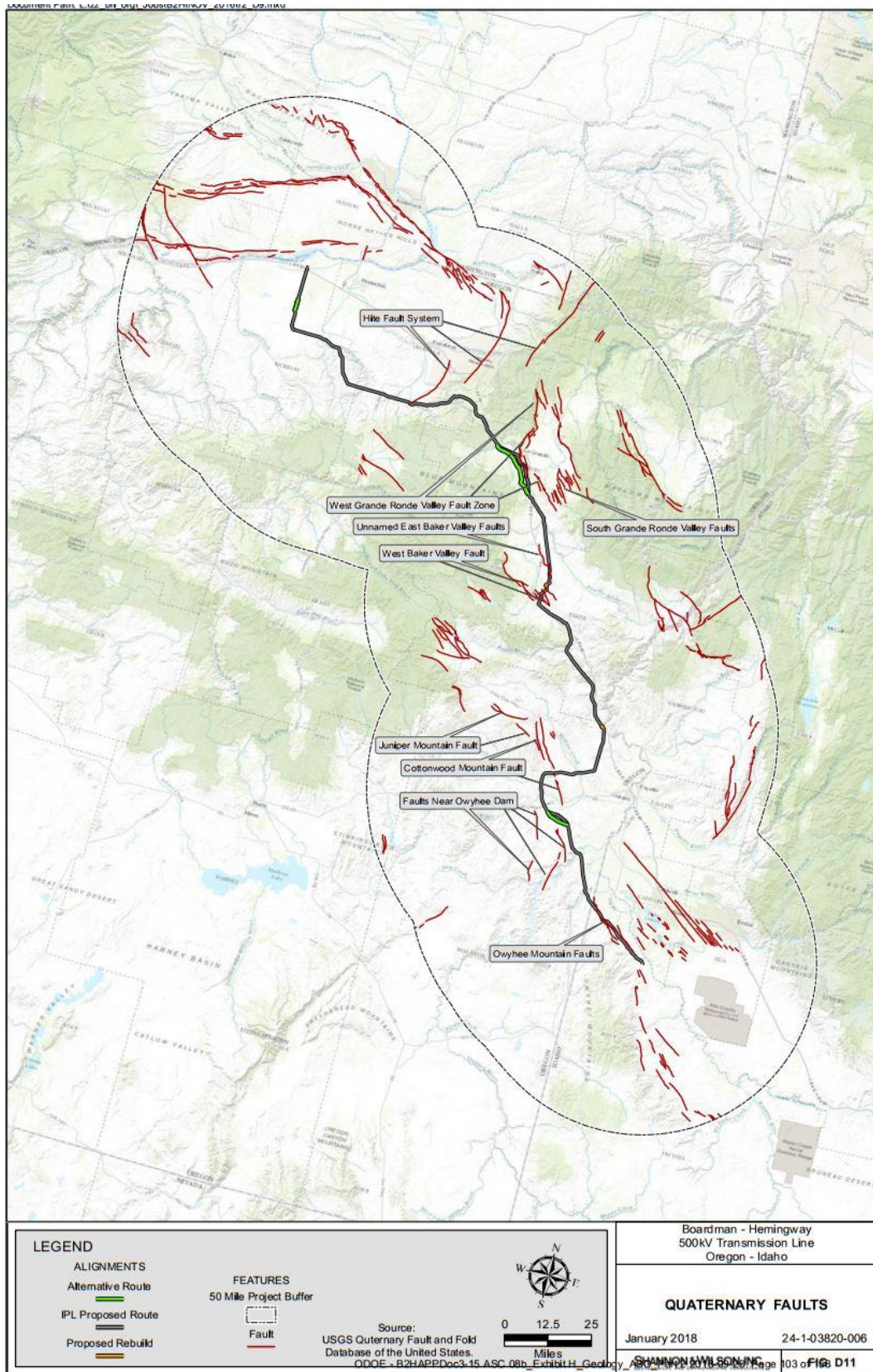
RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
Umatilla County Proposed Work Area Addition 2/317, (Figure 7-1, Map 30)	Micrositing Area Addition: Mapped Fault	Coleman Ridge Zone faults, Rock Creek West faults, and the Rock Creek East faults. Limited information available. Faults may not be active during the Quaternary period.
Union County		
Union County Rock Creek Alternative 1, Rock Creek Alternative 2 and Work Area Additions, 2/341, 2/345, 2/347, 2/350, 2/553, 2/567, 2/568, (Figure 7-1, Maps 31-34)	Routes and Work Areas: Mapped Faults	Coleman Ridge Zone faults, Rock Creek West faults, and the Rock Creek East faults. Limited information available. Faults may not be active during the Quaternary period.
Union County Baldy Alternative, Roads and Work Area 2/571: (Figure 7-1, Maps 39-40)	Routes and Work Areas, Mapped Faults Also, Hilgard Zone and the Mill Creek fault.	The Baldy Alternative crosses through mapped fault traces associated with the Hilgard Zone and the Mill Creek fault which are not included in the DOGAMI Oregon HazVu website or the USGS Fault and Fold Database website and may not have geologic evidence demonstrating a tectonic fault exists and therefore it may not be active during the Quaternary period.
Union County Baldy Alternative and Work Areas: (Figure 7-1, Maps 41-43)	Mapped fault traces associated with the Clover Creek fault and the Baldy fault.	The Baldy Alternative crosses through mapped fault traces associated with the Clover Creek fault and the Baldy fault which are not included in the DOGAMI Oregon HazVu website or the USGS Fault and Fold Database website and may not have geologic evidence demonstrating a tectonic fault exists and therefore it may not be active during the Quaternary period
Malheur County		
Malheur County Access Roads and Work Areas 2/471 and	Proposed Micrositing Area Additions: Mapped Faults Micrositing Area Additions 2/471 and 2/472 cross	USGS Quaternary Fault and Fold database indicates the Cottonwood Mountain fault has a slip rate of <0.2 mm/year. Since the fault has such a low

Table 10: Seismic Hazards within RFA2 Micrositing Area Additions

RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
2/472 (Figure 7-1, Maps 76)	through the approximate mapped trace of the Cottonwood Mountain fault (USGS Fault ID 806).	slip rate (<0.2 mm/yr) impact of the Cottonwood Mountain fault on Proposed Micrositing Area Additions 2/471 and 2/472 are low.
Malheur County Access Roads and Work Areas 2/503, 2/504, 2/510, 2/511 (Figure 7-1, Maps 92 and 94)	Proposed Micrositing Area Additions: Mapped Faults Micrositing Area Additions 2/503, 2/504, 2/510, and 2/511 cross through the approximate mapped traces of unnamed faults possibly associated with the Owyhee Mountains fault system in Idaho.	These areas will be investigated for the potential areas of soil instabilities during ongoing site-specific geotechnical work. Site-specific geotechnical design will consider the most recent version of the International Building Code (IBC 2018) to address the seismic hazards of the Proposed Micrositing Area Additions, like the evaluation performed in Attachment H-1 of the Final Order.
<p>1. Proposed Work Area Addition 2/303 removed from RFA2. Summary in RFA2 Section 7.1.1 not applicable, see Figure 7-1, Map 19 is no longer applicable to RFA2 and has been removed. Source: Derived from RFA2 Section 7.1.1, RFA2 Figure 7-1, and B2HAPPDoc3-15 ASC 08b_Exhibit H_Geology_ASC_Part 2 2018-09-28, Appendix D.</p>		

1

Figure 7: Quaternary Faults within 50 miles of Proposed Amended Site Boundary



1

1
2

Table 11: Faults Outside Micrositing Areas and within RFA2 Site Boundary

RFA2/ASC Map Reference	Fault Type
Umatilla County	
RFA2 Figure 7-1 Map 20 ASC Exhibit C Maps 31-32	Mapped fault - approximate
RFA2 Figure 7-1 Map 22 ASC Exhibit C Maps 33, 35, 36. Rocky Ridge Rd	Mapped faults - approximate
Union County	
RFA2 Figure 7-1 Maps 31-34 ASC Exhibit C Maps 49 and 50	Mapped Fault – Hilgard Zone - Map 34 Map 32 inferred fault
RFA2 Figure 7-1 Map 38 ASC Exhibit C Map 54 (for approved route), and Attachment C-3 Map 11 (morgan lake alternative)	Mapped fault Mill Creek
RFA2 Figure 7-1 Map 44-45 ASC Exhibit C Maps 58-61	Mapped fault - approximate.
Baker County	
RFA2 Figure 7-1 Map 49 ASC Exhibit C Maps 64 and 65	Mapped fault - inferred.
RFA2 Figure 7-1 Map 53 ASC Exhibit C Maps 68-69	Mapped fault - approximate
RFA2 Figure 7-1 Map 55-56 ASC Exhibit C Maps 70-72	Mapped fault - approximate and inferred.
RFA2 Figure 7-1 Maps 62-63 ASC Exhibit C Maps 79-80	Mapped faults – accurate and approximate.
RFA2 Figure 7-1 Map 64 ASC Exhibit C Maps 83-84	Mapped faults accurate and approximate.
Malheur County	
RFA2 Figure 7-1 Map 82 ASC Exhibit C 109-110	Mapped faults concealed, accurate, approximate.
RFA2 Figure 7-1 Map 87-89 ASC Exhibit C Maps 114 - 118	Mapped faults accurate,
RFA2 Figure 7-1 Map 95 ASC Exhibit C Maps 124-125	Mapped faults accurate.

3
4
5
6
7
8

Seismic Shaking/Ground Motion

Seismic shaking from a CSZ interplate event would attenuate over the approximately 280-mile distance to the analysis area and would therefore not represent the most significant earthquake hazard within the vicinity of the RFA2 micrositing area additions. Crustal faults,

1 which typically produce earthquakes of a maximum magnitude of 7.0, are in much closer
2 proximity to the facility site and therefore represent the most significant seismic hazard to the
3 facility.⁶³ Given the maximum magnitude of historic earthquakes in the vicinity of the RFA2
4 micro-siting area additions and expanded site boundary, the facility seismic design will be based
5 on earthquake magnitudes of 6.0 to 6.2.⁶⁴

6
7 A preliminary evaluation of the estimated probabilistic peak ground acceleration (PGA) for a
8 500- and 5,000-year return period was included in ASC Exhibit H; these data were used to
9 assess geo-seismic hazards such as seismic slope stability and liquefaction. These preliminary
10 evaluations are based on the USGS 2002 and 2014 National Seismic Hazard Maps. The USGS
11 developed these maps using a probabilistic seismic hazard analysis (PSHA) that considered
12 multiple specific sources and regional seismicity to predict the probability of an earthquake of a
13 given ground motion occurring anywhere in each area within a given return period.⁶⁵

14
15 The 500-year return period PGA values within the analysis area range from 0.074g near
16 Boardman, Oregon to 0.045g near Hemingway, Idaho. The PGA values for the 5,000-year return
17 period within the analysis area range from 0.261g to 0.169g.⁶⁶ The 2,500-year return period
18 PGA values within the analysis area range from 0.185g to 0.117g. For the same return period,
19 the short period (0.2-second) spectral response acceleration values within the analysis area
20 range from 0.416g to 0.262g, and the long period (1.0-second) spectral response acceleration
21 values range from 0.137g to 0.082g.⁶⁷

22
23 The assumed site class with the RFA2 micro-siting area additions is between site class B and site
24 class C (site class B/C), which is a soft rock profile, and used ground motion parameters that
25 correspond to this profile. Site class is used to inform foundation and structure design.⁶⁸

26 *Ground Failure*

27
28
29 Seismic hazards from earthquake events could include ground failure and fault displacement
30 when an active fault ruptures. The following ten identified faults were identified within the
31 proposed micro-siting area additions: Cabbage Hill Fault, Hite fault system, Coleman Ridge Zone
32 faults, Rock Creek West faults, the Rock Creek East faults, Mill Creek fault, Clover Creek fault,
33 the Baldy fault, Cottonwood Mountain fault, Owyhee Mountains fault system.

63 B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.3 and B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Attachment H-1, Section 4.2.

64 B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.4.

65 B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Attachment H-1, Section 4.1.

66 B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Attachment H-1, Section 4.1.

67 B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Attachment H-1, Section 4.1.

68 Code-based site specific ground motion parameters for use in evaluating geo-seismic hazards will be developed during design, upon completion of the subsurface exploration program and submitted in compliance with Structural Standard Condition 1 (PRE-SS-01). B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Attachment H-1, Section, Section 4.6.

1 *Liquefaction and Lateral Spreading*

2
3 Seismic hazards from earthquake events include liquefaction and lateral spreading. Liquefaction
4 refers to the saturation and cohesion of soils causing these soils to temporarily lose their
5 strength, resulting from intense and prolonged ground shaking and seismic activity. Areas with
6 a shallow water table (within 50 feet of the surface) and thick, unconsolidated sediments are
7 the most susceptible to liquefaction in the event of ground shaking. Most of the analysis area
8 has a low susceptibility to liquefaction because it mostly consists of relatively stable terrain with
9 shallow bedrock and deep groundwater. Seismic activity also has the potential to cause lateral
10 spreading, which is the permanent horizontal movement of liquefiable soil. Lateral spreading
11 during seismic events is most likely to occur on gradual slopes or on flat sites with liquefiable
12 soils.

13
14 *Subsidence*

15
16 Subsidence is the sinking or the gradual downward settlement of the land surface, and is often
17 related to groundwater drawdown, compaction, tectonic movements, mining, or explosive
18 activity. Seismic activity in the analysis area could lead to the settling of sediment and could
19 also exacerbate potential subsidence associated with groundwater withdrawal in more
20 populous regions. No historical cases of subsidence in the analysis area have been identified,
21 and most of the analysis area has a low susceptibility to subsidence.

22
23 *III.C.1.b Non-seismic Geologic and Soils Hazards*

24
25 Non-seismic hazards include mass-wasting and landslides, flooding, and erosion.

26
27 *Mass-wasting and Landslides*

28
29 Mass wasting is a generic term for landslides, rockslides, rockfall, debris flows, soil creep, and
30 other processes that include the downslope movement of masses of soil and rock. Mass
31 wasting can be initiated by precipitation events, sometimes in conjunction with land use. Slope
32 stability is a function of moisture content, slope gradient, rock and soil type, slope aspect,
33 vegetation, seismic conditions and ground-disturbing activities.

34
35 Landslides are a subset of mass wasting events, which describe processes that include the
36 downslope movement of masses of soil and rock. Seismic events have the potential to result in
37 landslides, but non-seismic factors may also trigger landslides (e.g., from heavy precipitation
38 events at unstable areas). Mapped landslides within one mile of the analysis area are presented
39 in ASC Exhibit H, Attachment H-1, Appendix E and RFA2 Figure 7-1.⁶⁹

40

⁶⁹ B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.6 and Attachment H-1 (Section 5.1.1).

1 In preparation of RFA2, the certificate holder evaluated site specific hazards, including
 2 landslides, associated with the proposed RFA2 micrositing area additions using the data sources
 3 listed above as well as information gathered from ongoing geotechnical field work conducted
 4 by Shannon & Wilson. Table 12, below presents the certificate holder and Department
 5 evaluation of potential landslide hazards within the proposed RFA2 micrositing areas. Table 12
 6 presents the certificate holder presentation of the Statewide Landslide Information Database
 7 for Oregon (SLIDO), which is a compilation dataset of landslides in Oregon that have been
 8 identified on published maps that provides location, type, and other attributes related to
 9 identified landslides in Oregon.

10
 11 Table 13, provides RFA2 map references (RFA2 Figure 7-1) and ASC Exhibit H references with
 12 potential faults outside micrositing areas yet within the proposed RFA2 expanded site
 13 boundary.

14

Table 12: Potential Landslides within RFA2 Micrositing Area Additions

RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
Union County		
Union County Baldy Alternative, Roads and Work Area 2/571: (Figure 7-1, Maps 39-40)	Routes and Work Areas, Mapped Faults and SLIDO 293: Proposed Micrositing Area Addition 2/571 crosses downslope of mapped landslide deposits associated with SLIDO “FernML2010_293” also referred to elsewhere in this project as SLIDO 293 (DOGAMI 2023b).	Based on aerial imagery the headscarp is heavily overgrown with trees and does not appear to be currently active and the landslide deposits are not mapped as extending down the slope to the area of Proposed Micrositing Area 2/571. Landslide is of minimal risk.
Union County Baldy Alternative and Work Areas: (Figure 7-1, Maps 41-43)	The Baldy Alternative at 2/573 crosses between mapped landslide deposits of SLIDO “FernML2010_2279” also referred to as SLIDO 2279 and deposits of “FernML2010_2282” also referred to as SLIDO 2282. Reconnaissance from boring locations BH-J-4/5 and BH-J-4/6 did not indicate current movement of the ridge on which the structures would be located. Baldy Alternative at 2/573 extends into mapped landslide	Due to the proximity of the two slides to facility structures, this area is considered to be of moderate risk; structures and the disturbance area should not be shifted or moved to within the mapped extents of the landslides. Based on boring BH-119/2 performed within the landslide deposits, and observations of the area performed during reconnaissance of boring location BH-119/2, the landslide feature appeared ancient and is minimal risk to the Baldy Alternative at 2/573.

Table 12: Potential Landslides within RFA2 Micrositing Area Additions

RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
	deposits associated with SLIDO “FernML2001b_2281”	
Baker County		
Baker County Access Road Change 2/424 and Work Area 2/574 (Figure 7-1, Maps 62-63)	<p>Proposed Micrositing Area Addition: Mapped Landslide, SLIDO 1103</p> <p>Micrositing Area Addition 2/424 and Work Area 2/574 crosses through SLIDO feature “AshIRP1966_1103” which is mapped as an Alluvial Fan.</p>	Access road near SLIDO 1103 is an alluvial fan not a landslide, however, construction would not include large cuts into the slope which would undercut the alluvial fan and destabilize it.
Access Roads 2/441, 2/442, 2/445, and 2/447 (Figure 7-1, Maps 66-67) ²	<p>Proposed Micrositing Area Additions: Mapped Landslide Deposits, SLIDO 1706, 1708, and 1711</p> <p>Proposed Micrositing Area Additions cross through two landslide features mapped as SLIDO “BrooHC1979a_1706” or SLIDO 1706 and “BrooHC1979a_1708” or SLIDO 1708. LiDAR imagery and aerial imagery of both slides show rounded, eroded features and both are overgrown with vegetation. Northwest Pipeline corporation has installed a gas line through both features and there is an existing 138kV transmission line through both features.</p>	<p>Micrositing Area Additions 2/445 and 2/446 appear to be predominantly upslope of SLIDO 1708 and are access roads so any movement would occur below the site or would only affect the access roadway at 2/445, and 2/445 and 2/446 are at a low risk of being impacted by SLIDO 1708. Rounded features of SLIDO 1706 would indicate it is likely an ancient slide however in LiDAR there appear to be several small slides within the larger complex which may shift in a large seismic event. The risk of movement within SLIDO 1708 affecting Proposed Micrositing Area Additions 2/440, 2/441, and 2/442 is moderate, however these appear to be access roads so the impacts may be minimal.</p> <p>Presence of an existing pipeline and transmission line may indicate the features are stable.</p>

Table 12: Potential Landslides within RFA2 Micrositing Area Additions

RFA2 Component/Reference	Mapped Hazard Reference	Certificate Holder Evaluation
<p>1. Proposed Work Area Addition 2/303 removed from RFA2. Summary in RFA2 Section 7.1.1 not applicable, see Figure 7-1, Map 19 is no longer applicable to RFA2 and has been removed.</p> <p>2. Some map numbers in RFA2, Section 7.1.1, identify the wrong map. The Department reviewed the maps, SLIDO data, and the map numbers in the above table reflect the correct map numbers to micrositing area additions and geologic hazards. For instance, RFA2 states that Map 68 shows proposed micrositing area additions 2/440, 2/441, 2/442, 2/444, 2/445 and 2/446 which cross through two landslide features SLIDO 1706, however, map 68 does not have those work areas or geologic hazards, these areas are on Map 66, which is reflected in the above table.</p>		
<p>Source: Derived from RFA2 Section 7.1.1, RFA2 Figure 7-1, and B2HAPPDoc3-15 ASC 08b_ Exhibit H_Geology_ASC_Part 2 2018-09-28, Appendix E.</p>		

1

Table 13: Potential Landslides Outside Micrositing Areas and within RFA2 Site Boundary

RFA2 Component/Reference	Mapped Hazard Details
Morrow County	
RFA2 Figure 7-1 Map 5, Bombing Range Rd SE Alt. ASC Exhibit C Map 6	SLIDO 43: It is a broad, gently sloping alluvial fan and is not a landslide.
Union County	
RFA2 Figure 7-1 Maps 31-34 ASC Exhibit C Maps 49 and 50	SLIDO 138, 136, and 134: SLIDO 134 Review of aerial photos, the DTM, and LiDAR images suggest that most of this landslide has not recently been active. Proposed Rock Creek Alternative is outside mapped limits.
RFA2 Figure 7-1 Maps 39-40 ASC Exhibit C Maps 55-56 (for approved route), and Attachment C-3 Map 11 (morgan lake alternative)	SLIDO 117 and 293, 112: SLIDO 117 is located approximately 2,000 feet from the proposed alternative route. SLIDO 112: Review of the DTM and aerial photos shows no evidence of a landslide, but the upper contact of the Grande Ronde Basalt is known to be landslide prone. Proposed Baldy alternative is outside mapped limits.
Baker County	
RFA2 Figure 7-1 Maps 62-63 ASC Exhibit C Maps 64-65	SLIDO 1113, 1115, 1114, 1677: SLIDO 1113 feature is mapped as alluvial fan deposits, not a landslide. SLIDO 1115 feature is mapped as alluvial fan deposits, not a landslide. SLIDO 1677 mapped as a landslide
Malheur County	
RFA2 Figure 7-1 Map 71 ASC Exhibit C Map 95	SLIDO 1690 and 384: SLIDO 1690 and 384 map an ancient landslide complex; lack of fresh scarps and maturity of the drainages suggests that the landslide is old and may not be currently active.

1
2 *Flooding*
3

4 Department evaluation of 2023 Federal Emergency Management Agency 100 Year Flood
5 Effective Layer, portions of the Ayers Canyon Alternative and associated proposed roads would
6 be in the 100-year flood zone, within the area of Butter Creek/Big Butter Creek Road, similar to
7 the approved route from the ASC. PRE-SS-01 (Structural Standard Condition 1), requires the
8 submission of pre-construction site-specific geological and geotechnical investigation report(s),
9 which would identify facility components within the 100-year flood zone and any related
10 potential risk to the facility. GEN-LU-01 (Land Use Condition 1), requires that, for facility
11 components in Morrow County, the certificate holder must provide to the Department a copy
12 of the following Morrow County approved permits, if such permits are required by Morrow
13 County zoning ordinances, flood plain development permit(s), for work in the Flood Plain
14 Overlay Zone. Finally, Butter Creek is a Morrow County Goal 5 stream and under MCZO Section
15 3.200(D)(3)(b) imposed by GEN-LU-02 (Land Use Condition 2), any buildings and the fixed bases
16 of the transmission line towers must be setback at least 100 feet from the high-water mark of
17 all Goal 5 streams.

18
19 *Erosion*
20

21 Soils most susceptible to erosion by wind and water are typically non-cohesive soils with low
22 infiltration rates, residing on moderate to steep slopes, and soils that are sparsely vegetated.⁷⁰
23 Erosion potential within the analysis area is based on three factors: soil-erodibility (K) factor,
24 wind erodibility, and slope. The potential for soil erosion by wind was evaluated using NRCS
25 wind erodibility group data, which are based on the texture of the surface layer, the size and
26 durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil
27 moisture and frozen soil layers also influence wind erosion. Construction activities that could
28 expose soils to wind erosion include any surface disturbance (e.g., road construction and
29 improvements, vegetation clearing). In general, steep slopes possess a greater potential for
30 erosion by water or mass movements than flat areas. Areas containing greater than 25 percent
31 slope were considered to have greater erosion potential.

32
33 Soil types, and potential impacts, and mitigation measures for soil erosion are discussed further
34 in Section III.D., *Soil Protection*, of this order. Previously imposed GEN-SP-01 (Soil Protection
35 Condition 1) would continue to apply to the proposed RFA2 microsites and requires the
36 certificate holder to submit an Erosion Sediment Control Plan (ESCP), as included in the DEQ-
37 issued 1200-C permit. GEN-SP-01 gives the Department the authority to require revisions to the
38 ESCP to ensure that erosion impacts are minimized.

39
40 *Expansive Soils*
41

⁷⁰ B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.8.3.

1 Expansive soils, which swell when exposed to moisture and shrink when dried, may impact
2 structure foundations.

3
4 *Groundwater Hazards*

5
6 Groundwater may exacerbate slope instability and may require hydrogeological mitigation
7 (such as surface drainage, shallow drainage, and deep drainage) to reduce the soil’s water
8 content. Groundwater can also impact construction, particularly where excavations extend
9 below the water table. If shaft foundations for transmission line towers extend below the water
10 table in granular soils, casing and/or slurry may be necessary to prevent soil heave and
11 maintain shaft integrity.

12
13 *Corrosive Subsurface Conditions*

14
15 Corrosive soil can damage the metallic and concrete components of subsurface utilities and
16 structures. Based on NRCS Soil Survey Geographic Database, the susceptibility of concrete to
17 corrosion when in contact with the on-site surficial soils is expected to be low in most areas,
18 and susceptibility of uncoated steel to corrosion when in contact with the onsite surficial soils is
19 expected to be moderate to high. Metal materials may be protected through the addition of
20 protective coatings or by increasing the metal thickness.

21
22 The Department recommends Council find that the above facts represent an adequate
23 characterization of the seismic and non-seismic risks within the analysis area, which includes
24 the proposed RFA2 micro-siting areas and expanded site boundary.

25
26 *III.C.1.c Design, Engineer and Construct Facility to Avoid Dangers to Human Safety and the*
27 *Environment from Potential Seismic Hazards and non-Seismic Hazards*

28
29 The Structural Standard requires the Council to find that, based on an adequate
30 characterization of the seismic and non-seismic risks of the site, that the certificate holder
31 demonstrates an ability to design, engineer and construct the facility to avoid potential seismic
32 hazards (i.e., ground motion, ground failure, fault displacement, landslides, liquefaction, lateral
33 spreading, and subsidence) and non-seismic hazards within the surrounding area.

34
35 *Ground Failure and Fault Displacement*

36
37 The Quaternary faults within the surrounding area should be considered during final facility
38 design with regards to their potential to result in ground failure and fault displacement at or
39 near the alignment. Ground failure including landslide, lateral spreading, liquefaction, and
40 surface rupture or settlement will be evaluated once ground accelerations and subsurface
41 conditions are known (following the pre-construction, site-specific geologic and geotechnical
42 investigations). Council previously imposed Structural Standard Condition 1 (Condition PRE-SS-
43 01) requiring that the certificate holder conduct a pre-construction site-specific geological and

1 geotechnical investigation report to, in part, describe potentially active faults that may affect
2 the facility, their potential risk to the facility, and measures to mitigate the identified hazards.

3
4 *Landslides*

5
6 Landslides could potentially affect the stability of the tower foundations or associated work
7 areas. Facility structures would be located with sufficient setback from slopes to mitigate the
8 potential for slope instability, and where structures cannot be moved or realigned, mitigation
9 techniques may include modification of slope geometry (grading or removing soils),
10 hydrogeological modification (drainage to reduce the soil's water content), and slope
11 reinforcement methods.⁷¹ Council previously imposed Structural Standard Condition 1
12 (Condition PRE-SS-01) requiring that the certificate holder conduct a pre-construction site-
13 specific geological and geotechnical investigation report that, in part, will use agency approved
14 investigation methods such as LiDAR or field survey investigation of the site boundary to assess
15 the potential for slope instability and landslide hazards, and to identify measures to mitigate
16 the identified hazards.

17
18 *Liquefaction and Lateral Spreading*

19
20 Prior to the development of final engineering design, liquefaction studies will be conducted for
21 susceptible areas, including areas that cross or approach rivers and areas where thick
22 unconsolidated sediments are encountered in the field. Additional evaluation of liquefaction
23 may also be needed as the final alignment and tower locations are chosen. The geotechnical
24 engineer will recommend additional exploration and/or analysis as applicable to assess
25 liquefaction hazards in the geotechnical design report for the transmission line.

26
27 In particular, the evaluation of liquefaction hazards will include susceptible areas, such as areas
28 with thick unconsolidated sediments and areas that cross or approach rivers.⁷² Council
29 previously imposed Structural Standard Condition 1 (Condition PRE-SS-01) requiring that the
30 pre-construction site-specific geological and geotechnical investigation report assess potential
31 liquefaction hazards and to identify measures to mitigate the identified hazards.

32
33 The pre-construction, site-specific evaluation of liquefaction hazards will evaluate if lateral
34 spreading is an additional hazard for areas susceptible to liquefaction.⁷³ Structural Standard
35 Condition 1 (Condition PRE-SS-01) requires the pre-construction site-specific geological and
36 geotechnical investigation report to, in part, assess potential lateral spreading hazards and to
37 identify measures to mitigate the identified hazards.

38
39 *Subsidence*

40

⁷¹ B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.9.2.1.

⁷² B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.6.

⁷³ B2HAPPDoc3-14 ASC 08a_Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.6.

1 Seismic activity has the potential to cause subsidence, which is the sinking or gradual
2 downward settlement of the land surface. If the geotechnical investigation identifies any
3 subsidence-prone areas, the facility design and siting of the transmission line will avoid
4 subsidence hazards.⁷⁴

5
6 **III.C.2. Conclusions of Law**

7
8 Based on the foregoing analysis, and subject to compliance with the existing site certificate
9 conditions the Department recommends Council find that the certificate holder has adequately
10 characterized potential seismic and geologic hazards within the RFA2 analysis area and that the
11 certificate holder can design, engineer and construct the proposed RFA2 micrositing area
12 additions to avoid dangers to human safety and the environment presented by those hazards.
13

14 **III.D. SOIL PROTECTION: OAR 345-022-0022**

15
16 *To issue a site certificate, the Council must find that the design, construction*
17 *and operation of the facility, taking into account mitigation, are not likely to*
18 *result in a significant adverse impact to soils including, but not limited to,*
19 *erosion and chemical factors such as salt deposition from cooling towers, land*
20 *application of liquid effluent, and chemical spills.*⁷⁵

21
22 **III.D.1. Findings of Fact**

23
24 The analysis area for the Soil Protection standard includes the area within the proposed
25 amended site boundary (28,150 acres). Proposed RFA2 micrositing area additions include
26 approximately 4,142 acres. Under this standard, RFA2 changes evaluated include the proposed
27 adjustment of access road and transmission line segment locations, limited to lands under the
28 same ownership as the approved site boundary, and the increase in temporary disturbance
29 from new bladed and substantially modified roads (see Table 16 below for details).
30

31 Sources reviewed to evaluate soil types within the analysis area include the U.S. Department of
32 Agriculture (USDA) Natural Resources Conservation Service’s (NRCS) 2011 State Soil Geographic
33 Database (STATSGO), which presents general soil properties, characterize soil erosion, and soil
34 reclamation properties for the United States, as well as the U.S. Geological Survey (USGS) who
35 maintains the National Elevation Dataset (NED) used for the slope analysis for RFA2.
36

37 The proposed RFA2 micrositing area additions and the expanded site boundary are located
38 adjacent to the approved site boundary as described in the *Final Order on ASC*, where the
39 predominant soil types are Mollisols, Aridisols, Andisols and Entisols. The predominant soil type
40 within the proposed RFA2 micrositing area additions is Mollisols (79 percent); the second most

⁷⁴ B2HAPPDoc3-14 ASC 08a_ Exhibit H_Geology_ASC_Part 1 2018-09-28, Section 3.7.6.

⁷⁵ OAR 345-022-0022, effective May 15, 2007.

1 predominant soil type is Andisols (11 percent). Mollisols include a variety of soils formed mainly
 2 under grasslands; these soils have a strong organic component formed by the decomposition of
 3 grass and other vegetation. These soils maintain high agricultural potential and are favorable
 4 for restoration.⁷⁶ RFA2 Attachment 7-1 provides a detailed analysis of the soil types, soil sub
 5 orders and soil properties such as erodibility, T factor, and K-factors within the proposed RFA2
 6 micrositing area additions; a summary of these soil properties is provided below in Table 14.⁷⁷
 7 RFA2 Figure 8-2 illustrates the soil types within the proposed expanded site boundary, which
 8 are the same soil types evaluated in the *Final Order on ASC*.

Table 14: Soil Properties for Construction Disturbance in Proposed RFA2 Micrositing Area Additions

County	Construction Disturbance Area (acres)	Highly Wind Erodible ¹		High K Factor ²		Low T Factor ³	
		Acres	%	Acres	%	Acres	%
Morrow	175.3	31.5	18.0%	148.1	84.5%	131.0	74.7%
Umatilla	279.0		0.0%	279.0	100.0%	137.8	49.4%
Union	372.6	180.8	48.5%	147.8	39.7%	79.6	21.4%
Baker	198.1	141.4	71.4%	27.4	13.8%	82.2	41.5%
Malheur	287.8	269.2	93.5%	151.7	52.7%	48.1	16.7%
RFA 2 Total	1,312.8	622.8	47.4%	754.0	57.4%	478.6	36.5%
Notes:							
¹ Highly wind erodible include STATSGO wind erodibility classes 1 through 4.							
² High K factor defined as K factor greater than or equal to 0.37.							
³ Low T factor defined as T factor less than or equal to 2 tons per acre per year							
Source: B2HAMD2Doc2 RFA2 2024-04-11, Table 7.1-3							

9
 10 The zones crossed, land cover type and extent of high value farmland soils within the proposed
 11 RFA2 micrositing area additions, by county, are presented in Table 15 below. Table 15 also
 12 identifies the temporary and permanent impacts from the proposed RFA2 micrositing area
 13 additions, which are discussed further in the sections below.

⁷⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 129.

⁷⁷ Soils in wind erodibility groups 1 through 4 are considered highly wind erodible. Soil T factor is an indicator of soil loss tolerance, or the amount of soil loss that can be tolerated for soil to remain productive. Soils with a low T factor are more sensitive to the effects of erosion than soils with higher T factors. K factor is defined as the soil-erodibility factor. Soils high in clay have low K values because they are resistant to detachment. Medium textured soils, such as the silt loam soils, have moderate K values because they are moderately susceptible to detachment and produce moderate runoff. B2HAPPDoc3-16 ASC 09a_Exhibit I_Soil_ASC_Part 1 2018-09-28, Section 3.2.3.

Table 15: Acreage, Impacts, Land Use and Cover Types within RFA2 Proposed Micrositing Areas

County	Acres Within RFA2 Micrositing Areas	High Value Farmland Soils within RFA2 Micrositing Areas	Acres Temporarily Impacted	Acres Permanently Impacted*	Zone(s)	Land Cover Types
Morrow	957.1	466.6	175.3	44.3	Exclusive Farm Use	Agriculture; shrubland
Umatilla	1,141.5	758.4	279.0	30.4	Exclusive Farm Use; Grazing-Farm	Agriculture; forest/woodland; grassland; shrubland; riparian
Union	920.7	519.2	372.6	32.7	Exclusive Farm-Use; Agriculture-Grazing; Timber-Grazing	Forest/woodland; riparian; shrubland
Baker	413.9	288.1	198.1	28.4	Exclusive Farm Use	Forest/woodland; grassland; shrubland; riparian
Malheur	709.1	185.9	297.8	43.2	Exclusive Farm Use – Exclusive Range Use	Agriculture; grassland; shrubland; open water
Total	4,142.3	2,218.3	1,322.8	181.7	-	-

Notes: The approximately 1,322.8 acres associated with the proposed RFA2 micrositing areas includes routes, work areas and roads, however these would not be additive to the previously approved facility but would be offset by portions of the approved facility (roads, routes, and work areas) not selected for construction and operation. For instance, if the proposed RFA2 transmission line routes are selected, these would be 0.4 miles less than the associated approved route segments. Source: B2HAMD2Doc2 RFA2 2024-04-11, Tables 7.1-2, 7.1-3, 7.1-13, 5.2-2, 5.2-4, 5.2-6, 5.2-8, and 5.2-10.

- 1
- 2 *Construction*
- 3
- 4 The *Final Order on ASC* identified that facility construction activities would disturb
- 5 approximately 4,348 acres (temporary impacts).⁷⁸ Within the proposed RFA2 micrositing area

⁷⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 129.

1 additions, approximately 1,341.4 acres would be disturbed during construction activities.^{79,80}
2 Activities that would disturb soils during construction and operation of the facility are the same
3 as those identified in the *Final Order on ASC* and include clearing, grubbing, grading, backfilling,
4 and excavation activities along the right of way for transmission line routes and roads, and at
5 additional temporary workspaces. These construction activities increase the potential for wind
6 and water erosion, soil compaction, loss of soil productivity and topsoil loss.

7
8 RFA2 proposes to increase temporary disturbance from new bladed and substantially modified
9 roads, as presented in Table 16 below. Certificate holder indicates that wider widths would be
10 necessary in areas where there is a steeper slope, so that the road width can accommodate
11 construction equipment movement. For instance, for new, bladed roads, Council previously
12 approved a maximum road width for construction of 35 feet. In RFA2 certificate holder
13 indicates that in areas where the slope of the road is approximately 30 percent, the road may
14 need to be widened to up to 120 feet, and then restored back to its operational width of 14
15 feet. Certificate holder indicates that the areas where road slopes may be up to 30 percent and
16 need to be widened further would only occur in approximately 3 percent of all facility access
17 roads (new and existing) fall into the category of greater than 30 percent cross slope.⁸¹

18 An access road may be bladed, with minor cutting of adjacent slopes with side casting of
19 material scraped by the blade or filling toward the toe of the downward slope to achieve a
20 sufficient operational width. Large rocks or boulders may be removed from the driving surface
21 by use of a trackhoe, backhoe or bobcat. Adjacent vegetation or vegetation deadfall that has
22 fallen onto the road may be removed with the use of a masticator. Roads are not improved
23 beyond what is necessary to pass equipment. In some cases, temporarily disturbed areas would
24 be regraded as close as possible to the original grade and seeded with the appropriate seed
25 mixture. Cut and fill areas created for road construction are required to remain in place to
26 support the operational surface of the road (14 feet), however, temporarily disturbed areas
27 would be regraded as close as possible to the original grade and seeded with the appropriated
28 seed mixture. Roads would be maintained under applicable, State, local, or federal standards
29 for operational roads, which is discussed further in Section III.M., Public Services, and under
30 condition PRE-PS-02. Additional discussion of restoration and mitigation measures applicable to
31 temporary facility roads, is provided below.

⁷⁹ B2HAMD2Doc2 RFA2 2024-04-11 Tables 5.2-2, 5.2-4, 5.2-6, 5.2-8, and 5.2-10 equal approximately 1,322.8; Table 7.1-3 under Soil Protection and Attachment 7-1 identifies approximately 1,312.9 acres of temporary disturbance to soils as a result of the proposed RFA2 changes. See also B2HAPPDoc3-16 ASC 09a Exhibit I Soil ASC Part 1 2018-09-28, Section 3.5.1.1, page I-13.

⁸⁰ The Department emphasizes that the approximately 1,322.8 acres associated with the proposed RFA2 micro-siting areas would not be additive, yet would be offset by the routes, work areas, and roads previously approved but not selected for facility construction and operation.

⁸¹ B2HAMD2Doc2 RFA2 2024-04-11, Section 4.1.

Table 16: Road Classification Summary with ASC and RFA2 Temporary Road Dimensions

Access Road Classification		ASC Site Boundary/RFA2 Micrositing Area Width	ASC Approved Construction Disturbance	Proposed RFA2 Construction Disturbance (in "red" font)	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
New Roads	Primitive	200 feet	16 feet	16 feet	10 feet	Yes	Clearing of vegetation or obstructions. Create roads by direct vehicle travel.
	Bladed	200 feet	16–35 feet	0-8% slope – 30 feet. 8-15% slope – 45 feet. 15-30% slope – 75 feet. >30% slope – 120 feet	14 feet	Yes	Clearing of vegetation or obstructions. Create roads by cutting/filling existing terrain.
Existing Roads - Substantial Modification	Substantial Modification, 21-70% Improved	100 feet	16 feet	0-15% slope – 25 feet >15% slope 60 - feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.

Table 16: Road Classification Summary with ASC and RFA2 Temporary Road Dimensions

Access Road Classification		ASC Site Boundary/RFA2 Micrositing Area Width	ASC Approved Construction Disturbance	Proposed RFA2 Construction Disturbance (in "red" font)	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
	Substantial Modification, 71-100% Improved	100 feet	16–30 feet	0-15% slope – 25 feet >15% slope 60 - feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
<p>Notes: In the Final Order on ASC, Existing Roads that required No Substantial Modification (defined as No Substantial Modification, 0-20% Improvements) are not included as related or supporting facilities to the facility. Source: Derived from RFA2 Section 4.0, Attachment 4-1, and Final Order on ASC.</p>							

1
2

1 Soil Protection Condition 1 (Condition GEN-SP-01), would continue to apply to the proposed
2 RFA2 changes, including the wider temporary roads, and require that the certificate holder:

- 3 • Submit a final Erosion Sediment Control Plan (ESCP), as included in the DEQ-issued
- 4 1200-C permit, to the Department, prior to construction;
- 5 • Based on the final ESCP, conduct all work in compliance with the 1200-C permit
- 6 requirements and ESCP;
- 7 • Under the 1200-C permit, an ESCP can be revised throughout construction to address
- 8 numerous changes.⁸² As noted above, in the *Final Order on RFA1*, Council amended Soil
- 9 Protection Condition 1 to provide the Department the authority to require additional
- 10 erosion controls or soil protection measures if the ESCP BMPs are not sufficient.⁸³

11
12 The ESCP includes specific best management practices (BMPs) which would be implemented
13 during construction, especially in areas with higher potential for soil erosion impacts. Those
14 BMPs would include, but are not limited to:

- 15 • Silt Fencing: Silt fences would be used during construction to trap sediment, which
- 16 would be removed before it reaches one-third of the aboveground silt fence height.
- 17 • Vegetation Buffers: Vegetation buffers would be used to treat sheet flow from adjacent
- 18 surfaces by slowing runoff velocities and allowing sediment and other pollutants to
- 19 partially infiltrate into underlying soils.
- 20 • Seeding and Stabilization: Seeding would be conducted to stabilize disturbed areas. If
- 21 topsoil is removed, it would be separated from subsoil and stored separately. Topsoil
- 22 would be returned to the removal site and would not be spread to other areas.
- 23 • Temporary Construction Entrances: Temporary construction entrance gravel pads would
- 24 prevent mud and sediment from leaving the construction site.
- 25
- 26

27 As discussed in the *Final Order on ASC*, and in Section III.M.1.h., *Traffic Safety* of this order,
28 Attachment B-5, Road Classification Guide and Access Control Plan (Public Services Condition 2
29 (PRE-PS-02)), discusses the construction needs for roads and designates standards for roads
30 maintained during construction of the facility. New roads would be constructed so that proper
31 drainage is not impaired.⁸⁴ Furthermore, certificate holder would (a) avoid earth-disturbing
32 activities during wet weather; (b) implement sediment controls in work areas; (c) implement
33 storm drain inlet protection; and (e) implement non-stormwater pollution controls.^{85,86} To
34 minimize construction-related erosion impacts, Council previously imposed Soil Protection
35 Certificate holder’s construction contractor will obtain encroachment permits or similar legal

⁸² DEQ Construction Stormwater Application and Forms Manual. Accessed June 11, 2023: [wqp1200cinfo.pdf\(oregon.gov\)](http://wqp1200cinfo.pdf(oregon.gov)), pg. 17-18. ESCP revisions under the 1200-C permit can be made for: emergency situations; registrant change of address; change in size of project; change in size or location of disturbed areas; changes to best management practices; changes in erosion and sediment control inspector; and changes in DEQ or agent requests.

⁸³ B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, pp. 55-57.

⁸⁴ B2HAPPDoc3-16 ASC 09a_Exhibit I_Soil_ASC_Part 1 2018-09-28, Section 3.6.4.

⁸⁵ B2HAPPDoc3-16 ASC 09a_Exhibit I_Soil_ASC_Part 1 2018-09-28, Sections 3.6.

⁸⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.D.

1 agreements from the public agencies responsible for affected roadways and other applicable
2 rights-of-way. Certificate holder will require its construction contractor(s) to ensure that all
3 suppliers of equipment and materials obtain applicable oversize and overweight permits and
4 comply with all permit requirements.
5

6 In Section III.M.1.h., *Traffic Safety*, the Department recommends Council require that the
7 standards designated for road construction identified in RFA2, Attachment 4-1, the amended
8 Attachment B-5, Road Classification Guide and Access Control Plan (Attachment B-5 to this
9 order) which would be required to be implemented during construction. The recommended
10 revisions to the previously imposed conditions are limited to updating the reference from *Final*
11 *Order on ASC*, to the *Final Order on RFA2*.
12

13 To address potential spills during construction, Council imposed Soil Protection Condition 2
14 (GEN-SP-02), requiring compliance with a Hazardous Waste Management and Spill Response
15 Plan (HWMSRP) which will include a complete inventory of hazardous and non-hazardous
16 materials (Material Safety Data Sheets, quantity, location), appropriate spill response
17 plan/materials; and emergency response contact information.⁸⁷
18

19 Other previously imposed conditions include:

- 20 • Soil Protection Condition 4 (Condition GEN-SP-04) requires that, prior to any planned
21 blasting activity, the certificate holder finalize a Blasting Plan; and, during construction,
22 as applicable to blasting activities, implement and adhere to the requirements of the
23 final Blasting Plan.
24

25 The Department recommends that, subject to compliance with existing, new, and
26 recommended amended site certificate condition, construction of the facility will not result in
27 adverse impacts to soil.
28

29 *Operation*

30
31 As highlighted in Table 16, RFA2 seeks approval to increase temporary disturbance from new
32 bladed and substantially modified roads in locations where slope is greater than 8 percent. As
33 discussed in the *Final Order on ASC* and recommended amended Attachment B-5, Road
34 Classification Guide and Access Control Plan, new access roads will conform to the most current
35 edition of the American Association of State Highway and Transportation Officials' (AASHTO's)
36 Guidelines for Geometric Design of Very Low-Volume Local Roads, for access roads with an
37 anticipated average daily traffic of less than 400 vehicles.⁸⁸
38

39 Roads on federal lands will meet USFS and BLM standards for roads that will be added to
40 federal jurisdiction. Existing USFS and BLM roads which cannot be used in their existing
41 condition will be brought up to these standards. For roads on state forest land, the certificate

⁸⁷ B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, p. 57.

⁸⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.M.6.

1 holder will work with ODOT, Oregon Department of Forestry, and other agencies to ensure
2 compliance with applicable road standards and to obtain any necessary approvals or permits.
3 Updated Attachment B-5, Road Classification Guide and Access Control Plan also includes a
4 supplement that lists construction and operational standards for roads based on the underlying
5 jurisdiction or land ownership.

6
7 The facility would have the potential for soil erosion from O&M related disturbance at tower
8 sites and use of access roads. Council previously imposed Soil Protection Condition 5 (Condition
9 OPR-SP-01) requiring that the certificate holder inspect and repair any erosion related impacts
10 resulting from O&M activities, and this would continue to apply to the facility, with proposed
11 RFA2 changes.

12 13 **III.D.2. Conclusions of Law**

14
15 Based on the foregoing analysis, and subject to compliance with existing and recommended
16 amended conditions⁸⁹ described above, the Council finds that the facility, with proposed RFA2
17 changes, are not likely to result in a significant adverse impact to soils.

18 19 **III.E. LAND USE: OAR 345-022-0030**

20
21 *(1) To issue a site certificate, the Council must find that the proposed facility*
22 *complies with the statewide planning goals adopted by the Land Conservation*
23 *and Development Commission.*

24
25 *(2) The Council shall find that a proposed facility complies with section (1) if:*

26
27 *(a) The applicant elects to obtain local land use approvals under ORS*
28 *469.504(1)(a) and the Council finds that the facility has received local land use*
29 *approval under the acknowledged comprehensive plan and land use*
30 *regulations of the affected local government; or*

31
32 *(b) The applicant elects to obtain a Council determination under ORS*
33 *469.504(1)(b) and the Council determines that:*

34
35 *(A) The proposed facility complies with applicable substantive criteria as*
36 *described in section (3) and the facility complies with any Land Conservation*
37 *and Development Commission administrative rules and goals and any land use*
38 *statutes directly applicable to the facility under ORS 197.646(3);*

39
40 *(B) For a proposed facility that does not comply with one or more of the*
41 *applicable substantive criteria as described in section (3), the facility otherwise*

⁸⁹ Recommended amended Public Services Condition 2 (PRE-PS-02).

1 *complies with the statewide planning goals or an exception to any applicable*
2 *statewide planning goal is justified under section (4); or*

3
4 *(C) For a proposed facility that the Council decides, under sections (3) or (6), to*
5 *evaluate against the statewide planning goals, the proposed facility complies*
6 *with the applicable statewide planning goals or that an exception to any*
7 *applicable statewide planning goal is justified under section (4).*

8
9 *(3) As used in this rule, the "applicable substantive criteria" are criteria from*
10 *the affected local government's acknowledged comprehensive plan and land*
11 *use ordinances that are required by the statewide planning goals and that are*
12 *in effect on the date the applicant submits the application. If the special*
13 *advisory group recommends applicable substantive criteria, as described*
14 *under OAR 345-021-0050, the Council shall apply them. If the special advisory*
15 *group does not recommend applicable substantive criteria, the Council shall*
16 *decide either to make its own determination of the applicable substantive*
17 *criteria and apply them or to evaluate the proposed facility against the*
18 *statewide planning goals.*

19
20 *(4) The Council may find goal compliance for a proposed facility that does not*
21 *otherwise comply with one or more statewide planning goals by taking an*
22 *exception to the applicable goal. Notwithstanding the requirements of ORS*
23 *197.732, the statewide planning goal pertaining to the exception process or*
24 *any rules of the Land Conservation and Development Commission pertaining*
25 *to the exception process, the Council may take an exception to a goal if the*
26 *Council finds:*

27
28 *(a) The land subject to the exception is physically developed to the extent that*
29 *the land is no longer available for uses allowed by the applicable goal;*

30
31 *(b) The land subject to the exception is irrevocably committed as described by*
32 *the rules of the Land Conservation and Development Commission to uses not*
33 *allowed by the applicable goal because existing adjacent uses and other*
34 *relevant factors make uses allowed by the applicable goal impracticable; or*

35
36 *(c) The following standards are met:*

37
38 *(A) Reasons justify why the state policy embodied in the applicable goal*
39 *should not apply;*

40
41 *(B) The significant environmental, economic, social and energy consequences*
42 *anticipated as a result of the proposed facility have been identified and*
43 *adverse impacts will be mitigated in accordance with rules of the Council*
44 *applicable to the siting of the proposed facility; and*

1
2 *(C) The proposed facility is compatible with other adjacent uses or will be*
3 *made compatible through measures designed to reduce adverse impacts.*

4
5 *(5) If the Council finds that applicable substantive local criteria and applicable*
6 *statutes and state administrative rules would impose conflicting requirements,*
7 *the Council shall resolve the conflict consistent with the public interest. In*
8 *resolving the conflict, the Council cannot waive any applicable state statute.*

9
10 *(6) If the special advisory group recommends applicable substantive criteria*
11 *for an energy facility described in ORS 469.300(11)(a)(C) to (E) or for a related*
12 *or supporting facility that does not pass through more than one local*
13 *government jurisdiction or more than three zones in any one jurisdiction, the*
14 *Council shall apply the criteria recommended by the special advisory group. If*
15 *the special advisory group recommends applicable substantive criteria for an*
16 *energy facility described in ORS 469.300(11)(a)(C) to (E) or a related or*
17 *supporting facility that passes through more than one jurisdiction or more*
18 *than three zones in any one jurisdiction, the Council shall review the*
19 *recommended criteria and decide whether to evaluate the proposed facility*
20 *against the applicable substantive criteria recommended by the special*
21 *advisory group, against the statewide planning goals or against a combination*
22 *of the applicable substantive criteria and statewide planning goals. In making*
23 *the decision, the Council shall consult with the special advisory group, and*
24 *shall consider:*

25
26 *(a) The number of jurisdictions and zones in question;*

27
28 *(b) The degree to which the applicable substantive criteria reflect local*
29 *government consideration of energy facilities in the planning process; and*

30
31 *(c) The level of consistence of the applicable substantive criteria from the*
32 *various zones and jurisdictions.⁹⁰*

33
34 **III.E.1. Findings of Fact**

35
36 The analysis area for the Land Use standard includes the area within ¼-mile from the proposed
37 amended site boundary, as presented in RFA2 Figures 7-3 (Morrow County); 7-4 (Umatilla); 7-5,
38 7-6, 7-7 (Union); 7-5 (Map 46, City of North Powder), 7-8 (Baker), and 7-9 (Malheur).⁹¹ Within

⁹⁰ OAR 345-022-0030, effective September 3, 2003, as amended by minor correction filed May 28, 2019.

⁹¹ The Council's procedural requirements for site certificate amendments (OAR 345-027-0360(3)) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The July 26, 2018 Second Amended Project Order establishes the

1 the analysis area, the proposed RFA2 micro siting area additions include approximately 4,142
2 acres within Morrow, Umatilla, Union, Baker and Malheur counties and City of North Powder,
3 in the following zones/overlay zones:

- 4
- 5 • Morrow County: Exclusive Farm Use (EFU), General Industrial (M-G), Port Industrial (PI),
6 Flood Hazard Overlay Zone (Special Flood Hazard Zone A)
- 7 • Umatilla County: EFU; Grazing Farm (GF)
- 8 • Union County: EFU; Agricultural Grazing (A-2); Timber-Grazing (A-4)
- 9 • Baker County: EFU, Industrial (I)
- 10 • Malheur County: EFU and Exclusive Range Use (ERU) Zone
- 11 • City of North Powder: Industrial
- 12

13 On October 7, 2011, the Council appointed the Morrow County Board of Commissioners,
14 Umatilla County Board of Commissioners, Union County Board of Commissioners, Baker County
15 Board of Commissioners, and Malheur County Court as Special Advisory Groups (SAG) for EFSC
16 proceedings for the Boardman to Hemingway Transmission Line.⁹² On March 15, 2013, the
17 Council appointed the City of North Powder City Council as SAG for EFSC proceedings for the
18 Boardman to Hemingway Transmission Line.⁹³

19

20 Under OAR 345-027-0375(3)(a), the changes proposed in RFA2 must comply with the applicable
21 substantive criteria from the comprehensive plans and land use regulations of these counties
22 and City in effect on the date preliminary Request for Amendment 2 (pRFA2) was submitted,
23 June 30, 2023.

24

25 *III.E.1.a Morrow County Applicable Substantive Criteria*

26

27 Proposed RFA2 micro siting area additions in Morrow County include the following, by zone (use
28 presented in parens):

29

30 Exclusive Farm Use Zone (Utility Facility Necessary for Public Service)/Flood Hazard Overlay
31 Zone

- 32 • Ayers Canyon Alternative (8.7 miles of transmission line, 24.2 miles of new access road,
33 63.6 acres of temporary work areas)

34

35 Exclusive Farm Use Zone (Utility Facility Necessary for Public Service)

analysis area as the area within and extending ½ mile from the site boundary. As authorized under OAR 345-027-0360(3), following pre-amendment conferences on March 23 and June 12, 2023, the Department approved a modified analysis area for the Land Use standard based on the scope and extent of potential impacts associated with the proposed RFA2 changes.

⁹² B2HNOIDoc71 B2H SAG Order Union County 2011-10-07; B2HNOIDoc72 B2H SAG Order Morrow County 2011-10-07; B2HNOIDoc73 B2H SAG Order Baker County 2011-10-07; B2HNOIDoc112 B2H SAG Order Malheur County 2011-10-07; B2HNOIDoc111 B2H SAG Order Umatilla County 2011-10-07.

⁹³ B2HAPPDoc12 B2H SAG Appointment City of North Powder 2013-03-15.

- Boardman Junction Alternative (0.6 miles of transmission line, 3.9 acres of temporary work area)
- Bombing Road SE Alternative (1 mile of transmission line, 0.4 miles of new access road, 0.8 acres of temporary work areas)
- West of Bombing Range Road Alternative 1 (1.8 mile of temporary work area)

General Industrial Zone (Utility, transmission and communication towers less than 200 feet in height)

- Boardman Junction Alternative (0.6 miles of transmission line, 3.9 acres of temporary work area)

Port Industrial Zone (Power generating and utility facilities)

- Boardman Junction Alternative (0.6 miles of transmission line, 3.9 acres of temporary work area)
- Other Access Road and Work Area Changes (0.8 miles of new access roads, 5.3 acres of temporary work areas)

The zones and uses listed above were previously evaluated by Council in the *Final Order on ASC*. Council previously imposed conditions to ensure compliance with requirements within each zone; nonetheless, the following section presents an evaluation of the whether the proposed RFA2 changes can comply with the applicable substantive criteria within Morrow County. The applicable substantive criteria from Morrow County are listed in Table 17 below.

Table 17: Morrow County Applicable Substantive Criteria

Section	Description
Morrow County Zoning Ordinance (MCZO)	
Section 3.010	Exclusive Farm Use (EFU) Zone¹
Subsection B	Uses Permitted Outright
Subsection D(10)	Use Standards
Overlay Zone within EFU Zone	
Section 3.100	Flood Hazard Overlay Zone²
Section 4.1-1	Development Permit
Section 5.1-1	General Standards - Anchoring
Section 5.1-2	Construction Materials and Methods
Section 3.070	General Industrial (M-G) Zone³
Subsection A	Uses Permitted Outright
Subsection C	Use Limitations
Section 3.073	Port Industrial (PI) Zone⁴
Subsection A	Uses Permitted with a Zoning Permit
Subsection C	Use Limitations
Subsection D	Dimensional Standards
Subsection F	Transportation Impacts
Source:	

Table 17: Morrow County Applicable Substantive Criteria

Section	Description
1. B2HAMD2Doc3 MCZO Article 3 Section 3.010 Effective Nov. 1, 2018.	
2. B2HAMD2Doc3-1 MCZO Article 3 Section 3.100 Effective Nov. 1, 2011.	
3. B2HAMD2Doc3-2 MCZO Article 3 Section 3.070 Effective Nov. 1, 2011.	
4. B2HAMD2Doc3-3 MCZO Article 3 Section 3.073 Effective Feb. 1, 2014.	

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MCZO 3.010 Exclusive Farm Use (EFU) Zone

“B. Uses Permitted Outright. In the EFU zone, the following uses and activities and their accessory buildings and uses are permitted subject to the general provisions set forth by this ordinance:

** * * * **

“25. Utility facilities necessary for public service, including associated transmission lines as defined in Article 1 and wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height as provided in Subsection D.10.

MCZO Section 3.010(B)(25) identifies utility facilities “necessary” for public service as a use permitted outright on EFU zoned land. Transmission lines are considered utility facilities; utility facilities are considered “necessary” for public service if the facility, after consideration of reasonable alternative locations on non-EFU zoned land, must be sited in EFU zoned land to provide a service, due to one or more factors listed in MCZO Section 3.010(D)(10), as presented below.

The proposed Boardman Junction Alterative and Bombing Range SE Alternative include shifts in the location of the approved 500 kV transmission line, new and substantially modified roads and temporary works areas within EFU zoned lands. RFA2 Figure 7-3 demonstrates that these locational adjustments do not change the nature or extent of the use. Accordingly, the Department recommends that the Council continue to rely on its previous findings that the portions of the facility, with proposed RFA2 changes, located in Morrow County’s EFU Zone, qualify as a utility facility necessary for public service.

Because the proposed “use” associated with the RFA2 micro siting area additions is the same as the “use” previously evaluated by Council, the Department recommends Council find that the proposed RFA2 micro siting area additions is a permissible use under MCZO Section 3.010(B)(25).

D. Use Standards

** * * * **

1 *“10. A utility facility that is necessary for public service.*

2
3 *a. A utility facility is necessary for public service if the facility must be sited in*
4 *the exclusive farm use zone in order to provide the service.*

5
6 *(1) To demonstrate that a utility facility is necessary, an applicant must show*
7 *that reasonable alternatives have been considered and that the facility must*
8 *be sited in an exclusive farm use zone due to one or more of the following*
9 *factors:*

10
11 *(a) Technical and engineering feasibility;*

12
13 *(b) The proposed facility is locationally-dependent. A utility facility is*
14 *locationally dependent if it must cross land in one or more areas zoned for*
15 *exclusive farm use in order to achieve a reasonably direct route or to meet*
16 *unique geographical needs that cannot be satisfied on other lands;*

17
18 *(c) Lack of available urban and nonresource lands;*

19
20 *(d) Availability of existing rights of way;*

21
22 *(e) Public health and safety; and*

23
24 *(f) Other requirements of state and federal agencies.*

25
26 *(2) Costs associated with any of the factors listed in Subsection (1) may be*
27 *considered, but cost alone may not be the only consideration in determining*
28 *that a utility facility is necessary for public service. Land costs shall not be*
29 *included when considering alternative locations for substantially similar utility*
30 *facilities and the siting of utility facilities that are not substantially similar.*

31
32 *(3) The owner of a utility facility approved under Subsection a shall be*
33 *responsible for restoring, as nearly as possible, to its former condition any*
34 *agricultural land and associated improvements that are damaged or*
35 *otherwise disturbed by the siting, maintenance, repair or reconstruction of the*
36 *facility. Nothing in this Subsection shall prevent the owner of the utility facility*
37 *from requiring a bond or other security from a contractor or otherwise*
38 *imposing on a contractor the responsibility for restoration.*

39
40 *(4) The county shall impose clear and objective conditions on an application*
41 *for utility facility siting to mitigate and minimize the impacts of the proposed*
42 *facility, if any, on surrounding lands devoted to farm use in order to prevent a*
43 *significant change in accepted farm practices or a significant increase in the*
44 *cost of farm practices on surrounding farmlands.*

1
2 *(5) Utility facilities necessary for public service may include on-site and off-site*
3 *facilities for temporary workforce housing for workers constructing a utility*
4 *facility. Such facilities must be removed or converted to an allowed use under*
5 *the EFU Zone or other statute or rule when project construction is complete.*
6 *Off-site facilities allowed under this Subsection are subject to Article 6.*
7 *Temporary workforce housing facilities not included in the initial approval may*
8 *be considered through a minor amendment request. A minor amendment*
9 *request shall have no effect on the original approval.*

10
11 *(6) In addition to the provisions of Subsection D.10.a(1) through (4), the*
12 *establishment or extension of a sewer system as defined by OAR 660-011-*
13 *0060(1)(f) shall be subject to the provisions of 660-011-0060.*

14
15 *(7) The provisions of Subsection a do not apply to interstate natural gas*
16 *pipelines and associated facilities authorized by and subject to regulation by*
17 *the Federal Energy Regulatory Commission.*

18
19 * * * * *
20

21 The evaluation of reasonable alternatives on non-EFU zoned land does not require a parcel by
22 parcel analysis or require an evaluation of every possible alternative route on non-EFU zoned
23 land. Council previously found that the certificate holder demonstrated that reasonable
24 alternative locations had been considered, none of which would be located entirely on non-EFU
25 zoned land. Council found that the facility had to be sited on EFU zoned land and that therefore
26 the facility qualified as a utility facility necessary for public service.⁹⁴

27
28 The proposed Ayers Canyon, Boardman Junction and Bombing Road SE Alternatives include
29 shifts in the location of the approved 500 kV transmission line and new and substantially
30 modified roads within EFU zoned lands. These shifts do not change the initiation or termination
31 points of the overall transmission line route, and represent minor locational adjustments based
32 on landowner requests and geographic/technical constraints. The changes do not change the
33 underlying basis of Council’s previous evaluation and findings. Accordingly, the Department
34 recommends that the Council continue to rely on its previous findings that the facility, with
35 proposed RFA2 changes, located in Morrow County’s EFU Zone, qualify as a utility facility
36 necessary for public service. The Department recommends Council continue to find that the
37 facility, with proposed RFA2 changes, complies with applicable MCZO 3.010(D) requirements.

38
39 MCZO 3.100.4.1 Flood Hazard Overlay Zone

40
41 *4.1-1 Development Permit Required.*
42

⁹⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 148-164.

1 *A development permit shall be obtained before construction or development*
2 *begins within any area of special flood hazard established in Section 3.2. The*
3 *permit shall be for all structures including manufactured homes, as set forth in*
4 *the “DEFINITIONS”, and for all development including fill and other activities,*
5 *also as set forth in the “DEFINITIONS”.*

6
7 *4.1-2 Application for Development Permit.*

8
9 *Application for a development permit shall be made on forms furnished by the*
10 *Morrow County Planning Director and may include but not be limited to; plans*
11 *in duplicate drawn to scale showing the nature, location, dimensions, and*
12 *elevations of the area in question; existing or proposed structures, fill, storage*
13 *of materials, drainage facilities, and the location of the foregoing. Specifically,*
14 *the following information is required:*

15
16 *(1) Elevation in relation to mean sea level, of the lowest floor (including*
17 *basement) of all structures;*

18
19 *(2) Elevation in relation to mean sea level to which any structure has been*
20 *flood proofed;*

21
22 *(3) Certification by a registered professional engineer or architect that the*
23 *flood proofing methods for any non-residential structure meet the flood*
24 *proofing criteria in Section 5.2-2; and*

25
26 *(4) Description of the extent to which a watercourse will be altered or*
27 *relocated as a result of proposed development.*

28
29 Portions of the proposed Ayers Canyon Alternative (8.7 miles of transmission line, 26.6 miles of
30 new access road, 103 acres of temporary work areas) fall within the Special Flood Hazard Zone
31 A along Butter Creek.⁹⁵ Development within a Special Flood Hazard Zone is subject to the
32 provisions of MCZO 3.100.4.1-1.

33
34 The Council previously imposed Land Use Condition 1 (GEN-LU-01) requiring that, in relevant
35 part, the certificate holder comply with and provide to the Department an approved flood plain
36 development permit for any work in the Morrow County Flood Plain Overlay Zone, consistent
37 with the requirements of MCZO 3.100.4.1. Because existing conditions would ensure
38 compliance with its provisions, the Department recommends that the Council find that the
39 facility, with proposed RFA2 changes, would comply with MCZO 3.100.4.1.

40
41 MCZO 3.100.5.1 General Standards

42

⁹⁵ B2HAMD2Doc2 RFA2 2024-04-11, Figure 7-3.

1 *In all areas of special flood hazards, the following standards are required:*

2
3 *5.1-1 Anchoring*

4
5 *(1) All new construction and substantial improvements shall be anchored*
6 *to prevent flotation, collapse, or lateral movement of the structure.*

7
8 *(2) All manufactured homes must likewise be anchored to prevent*
9 *flotation, collapse or lateral movement, and shall be installed using*
10 *methods and practices that minimize flood damage. Anchoring methods*
11 *may include, but are not limited to, use of over-the-top or frame ties to*
12 *ground anchors (Reference FEMA's "Manufactured Home Installation in*
13 *Flood Hazard Areas: guidebook for additional techniques).*

14
15 *5.1-2 Construction Materials and Methods*

16
17 *(1) All new construction and substantial improvements shall be*
18 *constructed with materials and utility equipment resistant to flood*
19 *damage.*

20
21 *(2) All new construction and substantial improvements shall be*
22 *constructed using methods and practices that minimize flood damage.*

23
24 *(3) Electrical, heating, ventilation, plumbing, and air-conditioning*
25 *equipment and other service facilities shall be designed and/or otherwise*
26 *elevated or located so as to prevent water from entering or accumulating*
27 *within the components during conditions of flooding.*

28
29 ** * **

30
31 *5.4 FLOODWAYS*

32 *Located within areas of special flood hazard established in Section 3.2 are*
33 *areas designated as floodways. Since the floodway is an extremely hazardous*
34 *area due to the velocity of floodwaters which carry debris, potential*
35 *projectiles, and erosion potential, the following provisions apply:*

36
37 *(1) Prohibit encroachments, including fill, new construction, substantial*
38 *improvements, and other development unless certification by a registered*
39 *professional engineer or architect is provided demonstrating that*
40 *encroachments shall not result in any increase in flood levels during the*
41 *occurrence of the base flood discharge.*

42
43 *(2) If Section 5.4(1) is satisfied, all new construction and substantial*

1 *improvements shall comply with all applicable flood hazard reduction*
2 *provisions of Section 5.0, PROVISIONS FOR FLOOD HAZARD REDUCTION.*

3
4 Portions of the proposed Ayers Canyon Alternative (8.7 miles of transmission line, 26.6 miles of
5 new access road, 103 acres of temporary work areas) fall within the Special Flood Hazard Zone
6 A along Butter Creek.⁹⁶ Development within a Special Flood Hazard Zone is subject to the
7 provisions of MCZO 3.100.5.1 and MCZO 3.100.5.4.

8
9 The Council previously imposed Land Use Condition 2 (GEN-LU-02) requiring that, in relevant
10 part, that all buildings and the fixed bases of the transmission line towers located in Morrow
11 County’s EFU Zone be set back at least 100 feet from the high-water mark of all streams and
12 lakes. Based upon compliance with the condition, the Department recommends that the
13 Council find that the facility, with proposed RFA2 changes, would comply with MCZO 3.100.5.1
14 and MCZO 3.100.5.4.

15
16 MCZO 3.070(A) General Industrial Zone (M-G): Uses Permitted Outright

17
18 *In an M-G Zone, the following uses and their accessory uses are permitted outright; except*
19 *as limited by subsection C of this section. A Zoning Permit is required and projects larger*
20 *than 100 acres are subject to Site Development Review (Article 4 Supplementary Provisions*
21 *Section 4.170 Site Development Review).*

22
23 *15. Utility, transmission and communications towers less than 200 feet in height.*

24
25 MCZO Section 3.070(A)(15) establishes utility and transmission towers less than or equal to 200
26 feet in height, and accessory uses, as a use permitted outright within a General Industrial (M-G)
27 zone, subject to the requirements established in MCZO Section 3.070(C).⁹⁷ MCZO Section
28 3.070(A)(15) also establishes that a zoning permit is required and, for projects larger than 100
29 acres, requires Site Development Review under MCZO Section 4.170.

30
31 The facility is a “utility and transmission towers less than or equal to 200 feet in height”, as
32 provided under MCZO 3.070.A.15, quoted above. Access roads and other ancillary facilities
33 located in the M-G Zone are accessory uses to the transmission line. The proposed Boardman
34 Junction Alternative includes shifts in the location of the approved 500 kV transmission line and
35 new and substantially modified roads within the M-G zone.

36
37 Development within the M-G zone require a zoning permit from Morrow County; Council
38 previously imposed Land Use Condition 1 (GEN-LU-01) requiring that the certificate holder
39 obtain all ministerial county-level permits prior to any phase or segment of the facility where
40 the permit is required. Proposed RFA2 changes within the M-G zone would be subject to use

⁹⁶ B2HAMD2Doc2 RFA2 2024-04-11, Figure 7-3.

⁹⁷ Accessory use, as defined in MCZO Article 1 Section 1.030 defines “accessory use” as a use or structure incidental and subordinate to the main use of the property and located on the same lot as the main use.

1 limitations under MCZO Section 3.070(C), evaluated below. Facility components within Morrow
2 County M-G zoned land would occupy less than 100 acres; therefore, while MCZO Section 4.170
3 Site Development Review include applicable substantive criteria that would apply to uses within
4 M-G zoned land, it would not apply to the facility, with proposed RFA2 changes, based on the
5 area impacted by facility components.

6
7 MCZO 3.070(C): Use Limitations

8
9 *In an M-G Zone, the following limitations and standards shall apply to all permitted uses:*

- 10
11 1. *No use permitted under the provisions of this section that requires a lot area exceeding*
12 *two (2) acres shall be permitted to locate adjacent to an existing residential lot in a duly*
13 *platted subdivision, or a lot in a residential zone, except as approved by the Commission.*
14 2. *No use permitted under the provisions of this section that is expected to generate more*
15 *than 20 auto-truck trips during the busiest hour of the day to and from the subject*
16 *property shall be permitted to locate on a lot adjacent to or across the street from a*
17 *residential lot in a duly platted subdivision, or a lot in a residential zone.*

18
19 The proposed RFA2 changes within Morrow County M-G zoned land are presented in RFA2
20 Figure 7-3. As presented in RFA2 Figure 7-3, the proposed RFA2 micro-siting area additions
21 within Morrow County M-G zoned land would not be located adjacent to an existing residential
22 lot on a duly platted subdivision or a lot in a residential zone. Therefore, while MCZO Section
23 3.070(C) applies to uses within M-G zoned land, they are not applicable to the proposed RFA2
24 micro-siting area additions.

25
26 MCZO 3.073(A) Port Industrial (PI) Zone: Uses Permitted Outright with a Zoning Permit

27
28 *Outside activities are permitted within the scope of allowed uses outlined below. Projects*
29 *larger than 100 acres are subject to Site Development Review (Article 4 Supplementary*
30 *Provisions Section 4.170 Site Development Review)*

31 ***

- 32 9. *Power generating and utility facilities.*

33
34 MCZO Section 3.073(A) establishes permissible uses within PI zoned land, subject to zoning
35 permit requirements and provisions of MCZO Section 3.073. Permissible uses under MCZO
36 3.073(A)(9) include “power generating and utility facilities.” The facility, with proposed RFA2
37 changes, meets this definition.⁹⁸ Proposed RFA2 changes within PI zoned land include other
38 work areas, as presented in RFA2 Figure 4-1 (2/370 and 2/371).

⁹⁸ MCZO Section 1.030 defines a utility facility as “[a]ny major structure owned or operated by a public, private, or cooperative electric, fuel, communication, sewage, or water company for the generation, transmission, distribution, or processing of its products or for the disposal of cooling water, waste, or byproducts, and including power transmission lines, major trunk pipelines, power substations, dams, water towers, sewage lagoons, sanitary landfills, and similar facilities, but excluding local sewer, water, gas, telephone and power distribution lines, and similar minor facilities allowed in any zone.”

1
2 MCZO Section 3.073(A) also requires Site Development Review per MCZO Section 4.170 for
3 projects larger than 100 acres, and adherence to the provisions outlined in MCZO Section
4 3.073(C) Limitation on Uses, (D) Dimensional Standards and (G) Traffic Impact Analysis.

5
6 The Site Development Review under MCZO Section 4.170 is a ministerial review conducted by
7 the county prior to issuance of a zoning permit, defined under MCZO 1.050 as "an
8 authorization issued prior to a building permit, or commencement of a use subject to
9 administrative review, stating that the proposed use is in accordance with the requirements of
10 the corresponding land use zone." Zoning permits must be obtained from Morrow County
11 prior to construction of the facility.⁹⁹ While the certificate holder must comply with the
12 county's applicable Site Development Review requirements and process, the county's
13 administration of its Site Development Review process itself is not under Council jurisdiction
14 or review, and therefore, the Council cannot restrict or condition the county's authority in
15 administering that process. Council previously imposed Land Use Condition 1 (GEN-LU-01)
16 requiring that, prior to construction, the certificate holder obtain a zoning permit for all
17 facility components with PI zoned land, as applicable.

18
19 Compliance with MCZO Section 3.073(C) Limitation on Uses, (D) Dimensional Standards and
20 (G) Traffic Impact Analysis is presented below.

21
22 MCZO 3.073(C): Limitations on Uses

- 23
24 1. *Material shall be stored and grounds shall be maintained in a manner which will not*
25 *create a health hazard.*
26 2. *All related provisions of the Oregon Revised Statutes shall be complied with, particularly*
27 *those dealing with hazardous substances and radioactive materials.*

28
29 MCZO Section 3.073(C) establishes limitations on uses within PI zoned land and specifies that
30 permitted uses must safely store materials, safely maintain grounds, and comply with all
31 applicable ORS requirements for handling and storing hazardous materials.

32
33 Proposed RFA2 changes within PI zoned land include other work areas, as presented in RFA2
34 Figure 4-1 (2/370 and 2/371). Other than temporary, onsite usage of construction equipment
35 and vehicles, there will be no onsite storage of hazardous and non-hazardous materials. Council
36 previously imposed Soil Protection Condition 2 (GEN-SP-02) requiring adherence to the
37 requirements of a Spill Prevention Countermeasure and Control (SPCC) Plan. Based on activities
38 to occur within the areas and compliance with this condition, the Department recommends

⁹⁹ Pursuant to ORS 469.401(3), the county must issue a zoning permit upon submittal of the proper applications and fees, but without hearings or other proceedings and subject only to conditions set forth in the site certificate.

1 Council find that the proposed RFA2 changes within PI zoned land would satisfy the use
2 limitations under MCZO Section 3.073(C).

3
4 MCZO 3.073(D): Dimension Requirements

5
6 *The following dimensional requirements apply to all buildings and structures constructed,*
7 *placed or otherwise established in the PI zone, subject to subsection F of this Section.*

- 8
9 1. *Minimum front yard setback: Thirty (30) feet. No structure shall be erected closer than*
10 *ninety (90) feet from the center line of any public, county or state road. Structures on*
11 *corner or through lots shall observe the minimum front yard setback on both streets.*
12 2. *Minimum side and rear yard setback: ten (10) feet.*
13 3. *Minimum lot coverage: No limitation.*
14 4. *Maximum building height: No limitation.*
15 5. *Exceptions to the setback regulations are as follows:*
16 *a. There shall be no setback requirement where a property abuts a railroad spur if the*
17 *spur will be utilized by the permitted use.*
18 *b. Side and rear lot requirements may be waived on common lot lines when adjoining lot*
19 *owners enter into a joint development agreement for coordinating vehicular access*
20 *and parking development. Party wall or adjoining building walls must meet fire*
21 *separation requirements of the State of Oregon Structural Specialty Code and Fire and*
22 *Life Safety Code. The joint development agreement must be approved by the Port of*
23 *Morrow as to form and content, recorded in the Morrow County Clerk's office and a*
24 *copy must be provided to the Planning Department.*

25
26 MCZO Section 3.073(D) establishes parcel size and setback requirements for buildings and
27 structures within PI zoned land. Council previously imposed Land Use Condition 2 (GEN-LU-02)
28 to ensure final design of facility components with PI zoned land complied. Based on compliance
29 with Land Use Condition 2 (GEN-LU-02), the Department recommends Council find that the
30 facility, with proposed RFA2 changes, would satisfy MCZO Section 3.073(D).

31
32 MCZO 3.073(G): Transportation Impacts Analysis

33
34 *In addition to the other standards and conditions set forth in this section, a TIA will be*
35 *required for all projects generating more than 400 passenger car equivalent trips per day.*
36 *Heavy vehicles B trucks, recreational vehicles and buses B will be defined as 2.2 passenger*
37 *car equivalents. A TIA will include: trips generated by the project, trip distribution for the*
38 *project, identification of intersections for which the project adds 30 or more peak hour*
39 *passenger car equivalent trips, and level of service assessment, impacts of the project, and,*
40 *mitigation of the impacts. If the corridor is a State Highway, use ODOT standards. (MC-C-8-*
41 *98).*

42
43 MCZO Section 3.073(E) requires a Traffic Impact Analysis (TIA) for permitted uses within PI
44 zoned land that would generate more than 400 passenger equivalent trips per day. O&M

1 activities would not generate more than 400 passenger equivalent trips per day; a TIA is
 2 therefore not required.

3
 4 *III.E.1.b Umatilla County Applicable Substantive Criteria*

5
 6 Proposed RFA2 micrositing area additions in Umatilla County include the following, by zone
 7 (use presented in parens):

8
 9 Exclusive Farm Use Zone (Utility Facility Necessary for Public Service); Critical Winter Range
 10 Overlay¹⁰⁰

- 11 • Rugg Canyon Alternative (2.5 miles of transmission line, 2.6 miles of new access road,
 12 21.5 acres of temporary work areas)
- 13 • Sevenmile Creek Alternative (9.9 miles of transmission line, 4.3 miles of new access
 14 road, 74.9 acres of temporary work area)
- 15 • Multi-use areas (MUA-UM-02; MUA-UM-07)¹⁰¹

16
 17 Grazing Farm Zone

- 18 • Other access road and work area changes (portions of 8.6 miles of new access road, 67.6
 19 acres of temporary work area)

20
 21 The zones and uses listed above were previously evaluated by Council in the *Final Order on ASC*.
 22 Council previously imposed conditions to ensure compliance with requirements within each
 23 zone; nonetheless, the following section presents an evaluation of the whether the proposed
 24 RFA2 changes can comply with the applicable substantive criteria within Umatilla County. The
 25 applicable substantive criteria from Umatilla County are listed in Table 18 below.

26 **Table 18: Umatilla County Applicable Substantive Criteria**

Umatilla County Development Code (UCDC)¹	
<i>Exclusive Farm Use Zone</i>	
Section 152.059	Land Use Decisions
<i>Grazing Farm Zone</i>	
Section 152.085	Conditional Uses Permitted
<i>General Provisions</i>	
Section 152.010	Access to Buildings
Section 152.016	Riparian Vegetation
Section 152.017	Conditions for Development Proposals
Source:	
1. B2HAMD2Doc4 UCDC 1983, Amended; Revision Date: July 19, 2022.	

27

¹⁰⁰ UCDC’s Critical Winter Range criteria apply to dwellings. RFA2 is not proposing construction of dwellings and therefore the criteria under UCDC 152.458 are not included in this order.
¹⁰¹ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 (Map 26, 2); Figure 7-4 (Map 2, 26)

1 UCDC 152.059 Exclusive Farm Use Zone, Land Use Decisions

2
3 *In an EFU zone the following uses may be permitted through a land use*
4 *decision via administrative review (§ 152.769) and subject to the applicable*
5 *criteria found in §152.617. Once approval is obtained a zoning permit (§*
6 *152.025) is necessary to finalize the decision.*

7
8 * * * * *

9
10 *(C) Utility facilities necessary for public service, including associated*
11 *transmission lines as defined in ORS 469.300 and wetland waste treatment*
12 *systems but not including commercial facilities for the purpose of generating*
13 *electrical power for public use by sale or transmission or communication*
14 *towers over 200 feet in height. A utility facility necessary for public service*
15 *may be established as provided in § 152.617 (II) (7).*

16
17 UCDC §152.059 provides that a utility facility necessary for public service, excluding a
18 commercial power generation facility or a transmission tower over 200 feet in height, is a
19 permissible use in Umatilla County’s EFU Zone, subject to the provisions under §152.617(II)(7).
20 These criteria mirror the underlying provisions of ORS 215.275.

21
22 UCDC §152.617 (II)(7) identifies utility facilities “necessary” for public service as a Type II Land
23 Use decision on EFU zoned land. Transmission lines are considered utility facilities; utility
24 facilities are considered “necessary” for public service if the facility, after consideration of
25 reasonable alternative locations on non-EFU zoned land, must be sited in EFU zoned land to
26 provide a service, due to one or more factors listed in UCDC §152.617 (II)(7)(A).

27
28 In the *Final Order on ASC*, the Council determined that the transmission line qualifies as a utility
29 facility necessary for public service under ORS 215.275 because there was no reasonably direct
30 route that would allow the certificate holder to construct the transmission line while avoiding
31 all impacts to EFU zoned land, that the certificate holder had demonstrated a “lack of available
32 nonresource lands” for which to site the facility; and that the certificate holder had proposed
33 the route to utilize some available rights-of-ways.¹⁰²

34
35 The proposed Rugg Canyon Alternative, Sevenmile Creek Alternative and new MUA locations
36 (MUA-UM-02 and MUA-UM-07) include shifts in the location of the approved 500 kV
37 transmission line, new and substantially modified roads and temporary works areas (MUAs)
38 within EFU zoned lands. MUA-UM-07 is not located on the same lot as the principal use and
39 therefore does not meet Umatilla County’s definition of “accessory use.”¹⁰³ The certificate
40 holder confirmed that it no longer seeks Council review of MUA UM-07; this MUA location shall
41 be omitted from the certificate holder’s final site boundary.

¹⁰² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 255-256 of 10586.

¹⁰³ UCDC 152.003 definition of accessory use.

1
2 Except for MUA-UM-07, based on RFA2 Figure 7-4 Maps 14-27, the locational adjustments
3 proposed in RFA2 do not change the nature or extent of the use previously evaluated by
4 Council. Accordingly, the Department recommends that the Council continue to rely on its
5 previous findings that the portions of the facility, with proposed RFA2 changes, located in
6 Umatilla County’s EFU Zone, qualify as a utility facility necessary for public service.
7

8 UCDC 152.059 requires a zoning permit for uses approved through administrative review. The
9 Council previously imposed Land Use Condition 3 (GEN-LU-03) requiring that the certificate
10 holder, in relevant part, obtain a Zoning Permit for each tax lot in Umatilla County crossed by
11 facility components evaluated under UCDC 152.059 including transmission lines, new roads,
12 and substantially modified roads.
13

14 UCDC 152.085 Grazing Farm (GF) Zone, Conditional Uses Permitted.
15

16 *In the GF Zone, the following uses may be permitted conditionally via*
17 *administrative review (§ 152.769), subject to the requirements of § 152.086,*
18 *applicable supplementary regulations in §§ 152.010 through 152.016 and §§*
19 *152.545 through 152.562, and applicable §§ 152.610 through 152.615.*
20 *Specific standards for some of the conditional uses listed below are contained*
21 *in § 152.616. A zoning permit is required following the approval of a*
22 *conditional use pursuant to § 152.025. Existing uses classified as conditional*
23 *use and listed in this section may be expanded subject to administrative*
24 *review and subject to the requirements listed in this section, except*
25 *expansions on a parcel or tract meeting the definition of high value farmland*
26 *will not be permitted.*
27

28 * * * * *

29
30 (S) Utilities:

31 * * * * *

32
33
34 (5) *New electric transmission lines on land predominately in forest use with*
35 *right of way widths of up to 100 feet as specified in ORS 772.210. New*
36 *distribution lines on land predominately in forest use (e.g., gas, oil,*
37 *geothermal, telephone, fiber optic cable) with rights-of-way 50 feet or less in*
38 *width on land predominately in forest use.*
39

40 * * * * *

41
42 Umatilla County’s Grazing/Farm (GF) Zone is a hybrid zone that includes forest land, farmland,
43 and rangeland. The Council previously evaluated all portions of the facility located in Umatilla

1 County’s GF Zone as being located on lands predominately in forest use.¹⁰⁴ The location of
2 proposed RFA2 micro-siting additions within Umatilla County’s GF Zone are presented in RFA2
3 Figure 7-4 Maps 28, 29 and 30. These locational shifts are on the same taxlot/parcel and within
4 1,000 feet of previously approved facility components. Therefore, the Department
5 recommends Council continue to evaluate the portions of the facility in Umatilla County’s GF
6 Zone as being located on lands predominately in forest use.

7
8 UCDC 152.085(S)(5) provides that “a new electric transmission line with a right-of-way width of
9 up to 100 feet *as specified in ORS 772.210* (emphasis added)” is a conditionally authorized use
10 in forest lands in Umatilla County’s GF Zone. ORS 772.210 authorizes a public utility to condemn
11 lands for the construction of a service facility that is reasonably necessary for its conduct. The
12 statute provides, in relevant part, as follows:

13
14 *(1) Any public utility, electrical cooperative association or transmission*
15 *company may:*

16
17 * * *

18
19 *(b) Condemn such lands not exceeding 100 feet in width for its lines (including*
20 *poles, towers, wires, supports and necessary equipment therefor) and in*
21 *addition thereto, other lands necessary and convenient for the purpose of*
22 *construction of service facilities. If the lands are covered by trees that are*
23 *liable to fall and constitute a hazard to its wire or line, any public utility or*
24 *transmission company organized for the purpose of building, maintaining and*
25 *operating a line of poles and wires for the transmission of electricity for*
26 *lighting or power purposes may condemn such trees for a width not exceeding*
27 *300 feet, as may be necessary or convenient for such purpose.*

28
29 *(2) Notwithstanding subsection (1) of this section, any public utility, electrical*
30 *cooperative association or transmission company may, when necessary or*
31 *convenient for transmission lines (including poles, towers, wires, supports and*
32 *necessary equipment therefor) designed for voltages in excess of 330,000*
33 *volts, condemn land not to exceed 300 feet in width. In addition, if the lands*
34 *are covered by trees that are liable to fall and constitute a hazard to its wire*
35 *or line, such public utility or transmission company may condemn such trees*
36 *for a width not exceeding 100 feet on either side of the condemned land, as*
37 *may be necessary or convenient for such purpose.*

38
39 * * * *”

¹⁰⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 177 of 10586. Facility components sited on lands predominately in farm use in the GF Zone would be evaluated under UCDC Section 152.084, which provides that a utility facility necessary for public service, other than commercial utilities, is an outright permitted use in Umatilla County’s GF Zone, subject to the standards provided in UCDC 152.617(II)(7).

1
2 The facility, with proposed RFA2 changes within GF zoned land, is a new electric transmission
3 line with a right-of-way width of up to 100 feet as specified in ORS 772.210. Council previously
4 imposed Land Use Condition 15 (GEN-LU-12), which limits the right of way to 300 feet and
5 limits activities other than vegetation management to the central 100 feet of the right-of-way.
6

7 The Council also found that permanent related or supporting facilities, new and substantially
8 modified roads, located outside of the 300-foot right-of-way could not be considered allowed
9 uses under OAR 660-006-0025(4)(q) and would require an exception to Statewide Planning Goal
10 4 be taken. However, none of the RFA2 micro siting area additions in Umatilla County involve
11 new access roads outside the 300 foot-right-of way in the Grazing-Farm Zone/Goal 4
12 Forestlands.¹⁰⁵

13
14 UCDC 152.010 General Provisions, Access to Buildings

15
16 *(A) Every building hereafter erected or moved shall be on a lot that abuts a*
17 *public street or a recorded easement. All structures shall be so located on lots*
18 *as to provide safe and convenient access for servicing, fire protection, and*
19 *required off-street parking. In commercial and industrial zones, access points*
20 *shall be minimized. To accomplish this, access shall be limited to one every*
21 *200 feet and shall be reviewed during the design review stage or the*
22 *conditional use hearing. If necessary to accomplish this, driveways may be*
23 *shared between two lots.*

24
25 *(B) Private driveways and easements that enter onto a public or county road*
26 *or state or federal highway shall be constructed of at least similar if not the*
27 *same material as the public or county road or state or federal highway to*
28 *protect the edge of the road from rapid deterioration. The improvements shall*
29 *extend at least 25 feet back from the edge of the existing travel lane surface.*

30
31 Council previously imposed Land Use Condition 5 (GEN-LU-04(f)) requiring that, prior to
32 construction in Umatilla County, the certificate holder demonstrate that the design of new
33 roads includes similar material as the existing public or county road and that the road extend at
34 least 25 feet from the edge of the existing travel land surface, consistent with UCDC 152.010(B)
35 above.

36
37 Based on compliance with Land Use Condition 5 (GEN-LU-04(f)), the Department recommends
38 Council find that the proposed RFA2 micro siting area additions would satisfy the applicable
39 UCDC 152.010 requirements.

40
41 UCDC 152.016 General Provisions, Riparian Vegetation

42

¹⁰⁵ B2HAMD2Doc2 RFA2 2024-04-11, Section 7.1.3.12.

1 (A) The following standards shall apply for the maintenance, removal and
2 replacement of riparian vegetation along streams, lakes and wetlands which
3 are subject to the provisions of this chapter:
4

5 (1) No more of a parcel's existing vegetation shall be cleared from the setback
6 and adjacent area than is necessary for uses permitted with a zoning permit,
7 accessory buildings, and/or necessary access.
8

9 (2) Construction activities in and adjacent to the setback area shall occur in
10 such a manner so as to avoid unnecessary excavation and/or removal of
11 existing vegetation beyond that required for the facilities indicated in
12 subdivision (A)(1) above. Where vegetation removal beyond that allowed in
13 subdivision (A)(1) above cannot be avoided, the site shall be replanted during
14 the next replanting season to avoid water sedimentation. The vegetation shall
15 be of indigenous species in order to maintain the natural character of the
16 area.
17

18 (3) A maximum of 25% of existing natural vegetation may be removed from
19 the setback area.
20

21 (4) The following uses and activities are excepted from the above standards:
22

23 (a) Commercial forest practices regulated by the Oregon Forest Practices Act,
24 being ORS 527.610 et seq.;

25 (b) Vegetation removal necessary to provide water access for a water
26 dependent use;
27

28 (c) Removal of dead or diseased vegetation that poses a safety or health
29 hazard;
30

31 (d) Removal of vegetation necessary for the maintenance or replacement of
32 structural shoreline stabilization.
33

34 (5) In cases of zoning permits, conditional use permits, variances, and other
35 land use actions which require site plan review or conditions for approval, and
36 which are subject to provisions of this division, the review body shall prepare
37 findings and address the maintenance, removal and replacement of riparian
38 vegetation.
39

40 (B) Minor drainage improvements necessary to ensure effective drainage on
41 surrounding agricultural lands shall be coordinated with the Oregon
42 Department of Fish and Wildlife and Soil and Water Conservation District.
43

1 *Existing drainage ditches may be cleared to original specifications without*
2 *review.*

3
4 Council previously imposed Land Use Condition 5 (GEN-LU-04(b)) requiring, in relevant part,
5 that the certificate holder locate transmission towers and access roads at least 25 feet from
6 Class I streams and retain at least 75 percent of vegetation within the riparian areas within
7 Umatilla County, and coordinate with the Oregon Department of Fish and Wildlife and Soil and
8 Water Conservation District on minor drainage improvements in Umatilla County necessary to
9 ensure effective drainage on surrounding agricultural lands. This condition would apply to the
10 proposed RFA2 micro siting area additions. Because existing conditions would ensure
11 compliance with Umatilla County’s riparian vegetation standards, the Department recommends
12 that the Council find the proposed RFA2 micro siting area additions would comply with UCDC
13 152.016.

14
15 UCDC 152.017 General Provisions, Conditions for Development Proposals

16
17 *(A) The proposed use shall not impose an undue burden on the public*
18 *transportation system. Any increase meeting the definition of significant*
19 *change in trip generation constitutes an undue burden.*

20
21 *(B) For developments likely to generate a significant increase in trip*
22 *generation, applicant shall be required to provide adequate information, such*
23 *as a traffic impact study or traffic counts, to demonstrate the level of impact*
24 *to the surrounding system. The scope of the impact study shall be coordinated*
25 *with the providers of the transportation facility. Proposals that meet the*
26 *requirements in §152.019 (B) are subject to §152.019 (C), Traffic Impact*
27 *Analysis Requirements.*

28
29 *(C) The applicant or developer may be required to mitigate impacts*
30 *attributable to the project. Types of mitigation may include such*
31 *improvements as paving, curbing, bridge improvements, drainage, installation*
32 *or contribution to traffic signals, construction of sidewalks, bikeways,*
33 *accessways or paths. The determination of impact or effect should be*
34 *coordinated with the providers of affected transportation facilities.*

35
36 *(D) Dedication of land for roads, transit facilities, sidewalks, bikeways, paths,*
37 *or accessways may be required where the existing transportation system will*
38 *be impacted by or is inadequate to handle the additional burden caused by the*
39 *proposed use.*

40
41 Council previously imposed Public Services Condition 2 (PRE-PS-02) requiring in relevant part,
42 that the certificate holder prepare and implement a county-specific Transportation and Traffic
43 Plan that identifies expected traffic related impacts and mitigation measures. Because traffic
44 related impacts associated with the proposed RFA2 micro siting area additions in Umatilla

County are subject to compliance with previously imposed conditions, the Department recommends the Council find that, subject to compliance with Public Services Condition 2 (PRE-PS-02), the proposed RFA2 micro-siting area additions would continue to comply with UCDC 152.017.

III.E.1.c Union County Applicable Substantive Criteria

Proposed RFA2 micro-siting area additions in Union County include the following, by zone (use presented in parens):

Exclusive Farm Use (A-1) Zone (Utility Facility Necessary for Public Service)

- Other Access Road and Work Area Changes (1.3 miles of new road, 61.9 acres of temporary work areas [MUA UN-05, MUA UN-06]¹⁰⁶)

Agricultural-Grazing (A-2) Zone (Utility facilities, and similar minor facilities necessary for public service and repair, replacement and maintenance thereof..)

- Midline Capacitor Station

Timber Grazing (A-4) Zone (Utility facilities, and similar minor facilities necessary for public service and repair, replacement and maintenance thereof..)

- Baldy Alternative (7.5 miles of transmission line, 15.4 miles of new road, 87.8 acres of temporary work areas)
- Morgan Lake Alternative (4.7 acres of temporary work areas)
- Rock Creek Alternative 1 (1.4 miles of transmission line, 2.1 miles of new road, 10.8 acres of temporary work areas)
- Rock Creek Alternative 2 (1.5 miles of transmission line, 0.7 miles of new road, 5.4 acres of temporary work areas)
- Wallowa Whitman National Forest H-Frames (8.8 acres of temporary work areas)

The zones and uses listed above were previously evaluated by Council in the *Final Order on ASC*. Council previously imposed conditions to ensure compliance with requirements within each zone; nonetheless, the following section presents an evaluation of the whether the proposed RFA2 changes can comply with the applicable substantive criteria within Union County. The applicable substantive criteria from Union County are listed in Table 19 below.

Table 19: Union County Applicable Substantive Criteria

Union County Zoning, Partition, and Subdivision Ordinance (UCZPSO)	
Article 2.00 ¹ A-1 Exclusive Farm Use Zone	
Section 2.04	Conditional Uses with General Review Criteria
Section 2.05	Use Standards
Article 3.00 ² Agriculture-Grazing Zone	

¹⁰⁶ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 Maps 36, 44.

Table 19: Union County Applicable Substantive Criteria

Section 3.04	Conditional Uses with General Review Criteria
Section 3.05	Use Standards
Section 3.17	Development Standards
Article 5.00³ Timber-Grazing Zone	
Section 5.04	Conditional Uses with General Review Criteria
Section 5.06	Conditional Use Review Criteria
Section 5.08	Development and Fire Siting Standards
Article 20.00⁴ Supplemental Provisions	
Section 20.08	Riparian Zone Setbacks
Section 20.09	Significant Goal 5 Resource Areas
Article 21.00⁵ Conditional Uses	
Section 21.06	General Standards Governing Conditional Uses
Source:	
1. B2HAMD2Doc5 UCZSPO Article 2.00.	
2. B2HAMD2Doc5-1 UCZSPO Article 3.00 June 3, 2015.	
3. B2HAMD2Doc5-2 UCZSPO Article 5.00.	
4. B2HAMD2Doc5-3 UCZSPO Article 20.00.	
5. B2HAMD2Doc5-4 UCZSPO Article 21.00.	

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UCZPSO 2.00 A-1 Exclusive Farm Use Zone

UCZPSO 2.04, Conditional Uses with General Review Criteria

In the A-1 Zone, the following uses and their accessory buildings and uses are permitted subject to county review under Article 24.03 Quasi-Judicial land use decision and the specific standards for the use set forth in Section 2.05, as well as the general standards for the zone and the applicable standards in Article 21.00 (Conditional Uses).

* * * * *

11. Utility facilities necessary for public service, including associated transmission lines as defined in Section 1.08 and wetland waste treatment systems, but not including commercial facilities for the purpose of generating electrical power for public use by sale or transmission towers over 200 feet in height as provided in Subsection 2.05.15.

1 UCZSPO 2.04(11) provides that a utility facility necessary for public service, excluding a
2 commercial power generation facility or a transmission tower over 200 feet in height, is a use
3 conditionally permissible use in Union County’s EFU Zone, subject to provisions under UCZSPO
4 Subsection 2.05(15). These criteria mirror the underlying provisions of ORS 215.275.

5
6 Under UCZSPO Subsection 2.05(15), utility facilities are considered “necessary” for public
7 service if the facility, after consideration of reasonable alternative locations on non-EFU zoned
8 land, must be sited in EFU zoned land to provide a service, due to one or more factors listed in
9 UCZSPO Subsection 2.05(15)(A).

10
11 UCZPSO 2.05, Use Standards

12
13 *15. A utility facility that is necessary for public service*

14
15 *A. A utility facility is necessary for public service if the facility must be sited in*
16 *the exclusive farm use zone in order to provide the service. To demonstrate*
17 *that a utility facility is necessary, an applicant must show that reasonable*
18 *alternatives have been considered and that the facility must be sited in an*
19 *exclusive farm use zone due to one or more of the following*

20
21 *(1) Technical and engineering feasibility;*

22
23 *(2) The proposed facility is locationally-dependent. A utility facility is*
24 *locationally-dependent if it must cross land in one or more areas zoned for*
25 *exclusive farm use in order to achieve a reasonably direct route or to meet*
26 *unique geographical needs that cannot be satisfied on other lands;*

27
28 *(3) Lack of available urban and non-resource lands;*

29
30 *(4) Availability of existing rights of way;*

31
32 *(5) Public health and safety; and*

33
34 *(6) Other requirements of state and federal agencies.*

35
36 *B. Costs associated with any of the factors listed in subparagraph A. of this*
37 *paragraph may be considered, but cost alone may not be the only*
38 *consideration in determining that a utility facility is necessary for public*
39 *service. Land costs shall not be included when considering alternative*
40 *locations for substantially similar utility facilities and the siting of utility*
41 *facilities that are not substantially similar.*

42
43 *C. The owner of a utility facility approved under paragraph A shall be*
44 *responsible for restoring, as nearly as possible, to its former condition any*

1 *agricultural land and associated improvements that are damaged or*
2 *otherwise disturbed by the Article 2.00 Page 15 siting, maintenance, repair or*
3 *reconstruction of the facility. Nothing in this paragraph shall prevent the*
4 *owner of the utility facility from requiring a bond or other security from a*
5 *contractor or otherwise imposing on a contractor the responsibility for*
6 *restoration.*

7
8 *D. The county shall impose clear and objective conditions on an application for*
9 *utility facility siting to mitigate and minimize the impacts of the proposed*
10 *facility, if any, on surrounding lands devoted to farm use in order to prevent a*
11 *significant change in accepted farm practices or a significant increase in the*
12 *cost of farm practices on surrounding farmlands.*

13
14 *E. Utility facilities necessary for public service may include on-site and off-site*
15 *facilities for temporary workforce housing for workers constructing a utility*
16 *facility. Such facilities must be removed or converted to an allowed use under*
17 *the A-1 Zone or other statute or rule when project construction is complete.*
18 *Off-site facilities allowed under this paragraph are subject to Section 2.06*
19 *Conditional Use Review Criteria. Temporary workforce housing facilities not*
20 *included in the initial approval may be considered through a minor*
21 *amendment request. A minor amendment request shall have no effect on the*
22 *original approval.*

23
24 *F. In addition to the provisions of subparagraphs A to D of this paragraph, the*
25 *establishment or extension of a sewer system as defined by OAR 660-011-*
26 *0060(1)(f) shall be subject to the provisions of 660-011-0060.*

27
28 *G. The provisions of subparagraphs A to D of this paragraph do not apply to*
29 *interstate natural gas pipelines and associated facilities authorized by and*
30 *subject to regulation by the Federal Energy Regulatory Commission.*

31
32 Under UCZPSO 2.05(15)(A), the evaluation of reasonable alternatives on non-EFU zoned land
33 does not require a parcel by parcel analysis or require an evaluation of every possible
34 alternative route on non-EFU zoned land. Council previously found that the certificate holder
35 demonstrated that reasonable alternative locations had been considered, none of which would
36 be located entirely on non-EFU zoned land. Council found that the facility had to be sited on
37 EFU zoned land and that therefore the facility qualified as a utility facility necessary for public
38 service.

39
40 The proposed RFA2 micrositing area additions include shifts in the location of new and
41 substantially modified roads and temporary works areas (MUAs) within EFU zoned lands. These
42 locational adjustments do not change the nature or extent of the use. Accordingly, the
43 Department recommends that the Council continue to rely on its previous findings that the

1 portions of the facility, with proposed RFA2 changes, located in Union County’s EFU Zone,
2 qualify as a utility facility necessary for public service.¹⁰⁷

3
4 Because the proposed “use” associated with the RFA2 micro-siting area additions is the same as
5 the “use” previously evaluated by Council, the Department recommends Council find that the
6 proposed RFA2 micro-siting area additions is a permissible use under UCZSPO 2.04(11).¹⁰⁸

7
8 **UCZPSO 3.00 A-2 Agriculture-Grazing Zone**

9
10 UCZPSO 3.04, Conditional Uses with General Review Criteria

11
12 *In the A-2 Zone, the following uses and their accessory buildings and uses are*
13 *permitted subject to county review under Article 24.03 Quasi-Judicial land use*
14 *decision and the specific standards for the use set forth in Section 3.05, as well*
15 *as the general standards for the zone and the applicable standards in Article*
16 *21.00 (Conditional Uses).*

17
18 * * * * *

19
20 *11. Utility facilities necessary for public service, including associated*
21 *transmission lines as defined in Section 1.08 and wetland waste treatment*
22 *systems, but not including commercial facilities for the purpose of generating*
23 *electrical power for public use by sale or transmission towers over 200 feet in*
24 *height as provided in Subsection 3.05.15.*

25
26 UCZPSO 3.05, Use Standards

27
28 * * * * *

29
30 *15. A utility facility that is necessary for public service*

31
32 *A. A utility facility is necessary for public service if the facility must be sited in*
33 *the exclusive farm use zone in order to provide the service. To demonstrate*

¹⁰⁷ MUA UN-07 is located on the same tax lot as the principal use. MUA UN-05 is not located on the same lot as the principal use; however, “accessory use” is not defined in UCZPSO Section 1.08. Therefore, the Department recommends Council evaluate the MUAs as an accessory use to the primary use, without an application of whether the use is on the same tax lot.

¹⁰⁸ During review of pRFA2, Union County Planning Director Scott Hartell requested an evaluation of alternatives to MUA UN-05 be required under UCZSPO Subsection 2.05(15). However, Council previously evaluated the primary use against reasonable alternatives on non-resource land and has not previously required an analysis of alternatives for accessory uses. The Department recommends Council maintain consistency with its prior analysis and application of the evaluation of alternatives – to apply to the primary use. The issue is moot however because the certificate holder affirms that it no longer seeks Council review of MUA UN-05. This MUA should be removed from the final site boundary.

1 that a utility facility is necessary, an applicant must show that reasonable
2 alternatives have been considered and that the facility must be sited in an
3 exclusive farm use zone due to one or more of the following factors:

4
5 (1) Technical and engineering feasibility;

6
7 (2) The proposed facility is locationally-dependent. A utility facility is
8 locationally-dependent if it must cross land in one or more areas zoned for
9 exclusive farm use in order to achieve a reasonably direct route or to meet
10 unique geographical needs that cannot be satisfied on other lands;

11
12 (3) Lack of available urban and non-resource lands;

13
14 (4) Availability of existing rights of way;

15
16 (5) Public health and safety; and

17
18 (6) Other requirements of state and federal agencies.

19
20 B. Costs associated with any of the factors listed in subparagraph A. of this
21 paragraph may be considered, but cost alone may not be the only
22 consideration in determining that a utility facility is necessary for public
23 service. Land costs shall not be included when considering alternative
24 locations for substantially similar utility facilities and the siting of utility
25 facilities that are not substantially similar.

26
27 C. The owner of a utility facility approved under paragraph A shall be
28 responsible for restoring, as nearly as possible, to its former condition any
29 agricultural land and associated improvements that are damaged or
30 otherwise disturbed by the siting, maintenance, repair or reconstruction of the
31 facility. Nothing in this paragraph shall prevent the owner of the utility facility
32 from requiring a bond or other security from a contractor or otherwise
33 imposing on a contractor the responsibility for restoration.

34
35 D. The county shall impose clear and objective conditions on an application for
36 utility facility siting to mitigate and minimize the impacts of the proposed
37 facility, if any, on surrounding lands devoted to farm use in order to prevent a
38 significant change in accepted farm practices or a significant increase in the
39 cost of farm practices on surrounding farmlands.

40
41 E. Utility facilities necessary for public service may include on-site and off-site
42 facilities for temporary workforce housing for workers constructing a utility
43 facility. Such facilities must be removed or converted to an allowed use under
44 the A-1 Zone or other statute or rule when project construction is complete.

1 *Off-site facilities allowed under this paragraph are subject to Section 2.06*
2 *Conditional Use Review Criteria. Temporary workforce housing facilities not*
3 *included in the initial approval may be considered through a minor*
4 *amendment request. A minor amendment request shall have no effect on the*
5 *original approval.*

6
7 * * * * *

8
9 UCZPSO 3.04 provides that a utility facility necessary for public service, excluding a commercial
10 *power generation facility or a transmission tower over 200 feet in height, is a conditional use*
11 *permitted in Union County’s A-2 Zone subject to county review. The criteria for whether a*
12 *utility facility is necessary for public service is provided under UCZPSO 3.05.15. These criteria*
13 *mirror the underlying provisions of ORS 215.275. In the *Final Order on ASC*, the Council*
14 *determined that the transmission line qualifies as a utility facility necessary for public service*
15 *under ORS 215.275 because there was no reasonably direct route that would allow the*
16 *certificate holder to construct the transmission line while avoiding all impacts to EFU zoned*
17 *land, that the certificate holder had demonstrated a “lack of available nonresource lands” for*
18 *which to site the facility; and that the certificate holder had proposed the route to utilize some*
19 *available rights-of-ways.*¹⁰⁹

20
21 The proposed RFA2 microsite area additions include the Midline Capacitor Station within A-2
22 zoned lands. As presented in RFA2 Figure 7-5 Map 45, this proposed new related or supporting
23 facility does not change the nature or extent of the use. Accordingly, the Department
24 recommends that the Council continue to rely on its previous findings that the portions of the
25 facility, with proposed RFA2 changes, located in Union County’s A-2 Zone, qualify as a utility
26 facility necessary for public service.

27
28 UCZPSO 3.05.15.D requires the County, or in this case, the Council, to impose clear and
29 objective conditions to mitigate and minimize impacts of the facility on surrounding
30 lands devoted to farm use in order to prevent a significant change in accepted farm
31 practices or a significant increase in the cost of farm practices on surrounding
32 farmlands.

33
34 The Council previously imposed Land Use Condition 14 (GEN-LU-11) requiring that the
35 certificate holder prepare and implement an Agricultural Assessment and Mitigation Plan
36 prescribing monitoring and mitigation of impacts to soils and activities. This condition applies to
37 the proposed RFA2 microsite area additions.

38
39 UCZPSO 3.17, Development Standards

40
41 *The following standards shall apply to all development in an A-2 Agriculture-*
42 *Grazing Zone.*

¹⁰⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 255-256 of 10586.

1
2 *1. Any proposed division of land included within the A-2 Zone resulting in the*
3 *creation of one or more parcels of land shall be reviewed and approved or*
4 *disapproved by the County (ORS 215.263).*

5
6 *2. Setbacks from property lines or road rights-of-way shall be a minimum of*
7 *20-foot front and rear yards and 10-foot side yards.*

8
9 *3. Animal shelters shall not be located closer than 100 feet to an R-1 or R-2*
10 *Zone.*

11
12 *4. Signs shall be limited to the following:*

13
14 *A. All off-premise signs within view of any State Highway shall be regulated by*
15 *State regulation under ORS Chapter 377 and receive building permit approval.*

16
17 *B All on premise signs shall meet the Oregon Administrative Rule regulations*
18 *for on premise signs which have the following standards:*

19
20 *(1) Maximum total sign area for one business is 8% of building area plus*
21 *utilized parking area, or 2,000 square feet, whichever is less.*

22
23 *(2) Display area maximum is 825 square feet for each face of any one sign, or*
24 *half the total allowable sign area, whichever is less.*

25
26 *(3) Businesses which have no buildings located on the premises or have*
27 *buildings and parking area allowing a sign area of less than 250 square feet*
28 *may erect and maintain on-premises signs with the total allowable area of*
29 *250 square feet, 125 square feet maximum for any one face of a sign.*

30
31 *(4) Maximum height of freestanding signs adjacent to interstate highways is*
32 *65 feet, for all other highways is 35 feet, measured from the highway surface*
33 *or the premises grade, whichever is higher to the top of the sign.*

34
35 *C. All on premise signs within view or 660 feet of any State Highway shall*
36 *obtain permit approval from the Permit Unit, Oregon State Highway Division.*
37 *No sign shall be moving, revolving or flashing, and all lighting shall be directed*
38 *away from residential use or zones, and shall not be located so as to detract*
39 *from a motorist vision except for emergency purposes.*

40
41 In the *Final Order on ASC*, the Council imposed Land Use Condition 7 (GEN-LU-06) requiring that
42 the certificate holder construct the facility consistent with the requirements of UCZPSO 3.08,
43 which has been renumbered as UCZPSO 3.17. This condition applies to the proposed RFA2
44 micrositing area additions.

1
2 Because the Council previously imposed conditions that would ensure compliance with its
3 provisions, the Department recommends that the Council find the proposed RFA2 micrositng
4 area additions would comply with UCZPSO 3.17.

5
6 UCZPSO 5.00 Timber-Grazing Zone

7
8 UCZPSO 5.04, Conditional Uses with General Review Criteria

9
10 *In the A-4 Zone predominantly farmland lots and parcels shall comply with*
11 *Section 5.06 Administrative Uses and predominantly forest land parcels may*
12 *authorize the following uses and activities and their accessory buildings and*
13 *uses subject to county review and the specific standards set forth in Article*
14 *21.00, as well as the general provision set forth by this ordinance.*

15
16 * * * * *

17 *21. New electric transmission lines with right of way widths of up to 100 feet*
18 *as specified in ORS 772.210...*

19
20 * * * * *

21
22 UCZPSO’s Timber Grazing Zone is hybrid farm-forest zone requiring the application of farm or
23 forest standards based on the predominate use of a tract for permissible uses. Under UCZPSO
24 5.04(21), permissible uses include new electrical transmission lines with right of way widths up
25 to 100 feet as specified in ORS 772.210. Council previously determined that based on a parcel
26 by parcel analysis, tracts were both predominately forest and farm use – and therefore both
27 standards were applied. Similarly, the analysis in this section presents and evaluation of both
28 farm and forest standards for the proposed RFA2 micrositng area additions within A-4 zoned
29 land.

30
31 ORS 772.210 authorizes a public utility to condemn lands for the construction of a service
32 facility that is reasonably necessary for its conduct. The statute provides, in relevant part, as
33 follows:

34
35 *(1) Any public utility, electrical cooperative association or transmission*
36 *company may:*

37
38 * * *

39
40 *(b) Condemn such lands not exceeding 100 feet in width for its lines (including*
41 *poles, towers, wires, supports and necessary equipment therefor) and in*
42 *addition thereto, other lands necessary and convenient for the purpose of*
43 *construction of service facilities. If the lands are covered by trees that are*
44 *liable to fall and constitute a hazard to its wire or line, any public utility or*

1 *transmission company organized for the purpose of building, maintaining and*
2 *operating a line of poles and wires for the transmission of electricity for*
3 *lighting or power purposes may condemn such trees for a width not exceeding*
4 *300 feet, as may be necessary or convenient for such purpose.*

5
6 *(2) Notwithstanding subsection (1) of this section, any public utility, electrical*
7 *cooperative association or transmission company may, when necessary or*
8 *convenient for transmission lines (including poles, towers, wires, supports and*
9 *necessary equipment therefor) designed for voltages in excess of 330,000*
10 *volts, condemn land not to exceed 300 feet in width. In addition, if the lands*
11 *are covered by trees that are liable to fall and constitute a hazard to its wire*
12 *or line, such public utility or transmission company may condemn such trees*
13 *for a width not exceeding 100 feet on either side of the condemned land, as*
14 *may be necessary or convenient for such purpose.*

15
16 * * * * *

17
18 In the *Final Order on ASC*, the Council found that while the proposed right-of-way of the
19 transmission line would exceed 100 feet, the facility would still qualify as a conditionally
20 allowed use under OAR 660-006-0025(4)(q) because ORS 772.210(2) specifically authorizes a
21 300-foot right of way for high voltage transmission lines rated to carry more than 330-
22 kilovolts.¹¹⁰ To ensure that the facility would be designed and constructed in accordance with
23 that subsection, the Council imposed Land Use Condition 15 (GEN-LU-12), which limits the right
24 of way to 300 feet and limits activities other than vegetation management to the central 100
25 feet of the right-of-way.

26
27 The Council also found that permanent related or supporting facilities, new and substantially
28 modified roads, located outside of the 300-foot right-of-way could not be considered allowed
29 uses under OAR 660-006-0025(4)(q) and would require an exception to Statewide Planning Goal
30 4 be taken.

31
32 Because portions of the proposed RFA2 micro siting area additions in Union County’s A-4 Zone
33 on forest lands are outside of the 300-foot transmission line right-of-way, the Department
34 recommends the Council find that that the proposed RFA2 micro siting area additions do not
35 comply with UCPSO 5.04 and that an exception to Statewide Planning Goal 4 is required, as
36 evaluated in Section III.E.1.h of this order.

37
38 UCZPSO 5.06, Conditional Use Review Criteria

39
40 *A use authorized by Section 5.04 of this zone may be allowed provided the*
41 *following requirements or their equivalent are met. These requirements are*

¹¹⁰ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 269 of 10586.

1 *designed to make the use compatible with forest operations and agriculture*
2 *and to conserve values found on forest lands.*

3
4 *1. The proposed use will not force a significant change in, or significantly*
5 *increase the cost of, accepted farming or forest practices on agriculture or*
6 *forest lands.*

7
8 *2. The proposed use will not significantly increase fire hazard or significantly*
9 *increase fire suppression costs or significantly increase risks to fire suppression*
10 *personnel.*

11
12 *3. A written statement recorded with the deed or written contract with the*
13 *county or its equivalent is obtained from the land owner that recognizes the*
14 *rights of adjacent and nearby land owners to conduct forest operations*
15 *consistent with the Forest Practices Act and Rules for uses authorized in OAR*
16 *660-006-0025 Subsection 5(c).*

17
18 In the *Final Order on ASC*, the Council evaluated the facility for compliance with OAR 660-006-
19 0025(5), which is implemented by UCZPSO 5.06. The Council previously imposed Land Use
20 Condition 16 (GEN-LU-13) requiring that the certificate holder finalize and implement a Right-
21 of-Way Clearing Assessment that identifies mitigation measures to minimize potential impacts
22 to, and the cost of, accepted forest practices. The Council found that, subject to compliance
23 with this condition, that the facility would not result in significant adverse impacts to accepted
24 forest practices nor result in a significant increase in the cost of accepted forest practices within
25 the surrounding area.¹¹¹

26
27 The Council also imposed Public Services Condition 6 (GEN-PS-02), requiring that the certificate
28 holder prepare and implement a Fire Prevention and Suppression Plan; and Fish and Wildlife
29 Condition 2 (GEN-FW-02), requiring that the certificate holder prepare and implement a
30 Vegetation Management Plan. The Council found that, subject to compliance with the Fire
31 Prevention and Suppression Plan, the impact minimization measures included in the Right of
32 Way Clearing Assessment, and Vegetation Management Plan, that the proposed use would not
33 significantly increase the wildfire hazards, fire suppression costs, or risk to fire suppression
34 personnel within the surrounding area.¹¹²

35
36 The proposed RFA2 micro-siting area additions would result in similar impacts to forest lands as
37 evaluated in the *Final Order on ASC* and are not expected to significantly increase the amount
38 of land taken out of forest use in Union County. Impacts to lands in Union County's A-4 zone
39 would be addressed in the plans required under Land Use Condition 16 (GEN-LU-13); Public
40 Services Condition 6 (GEN-PS-02); and Fish and Wildlife Condition 2 (GEN-FW-02). Subject to

¹¹¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 276 of 10586.

¹¹² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 279 of 10586.

1 compliance with these conditions, the Department recommends Council find that the facility,
2 with proposed RFA2 changes, complies with UCZPSO 5.06.

3
4 UCZPSO 5.08, Development and Fire Siting Standards

5
6 *The following standards shall apply to all development in an A-4 Timber-*
7 *Grazing Zone. Fire siting standards (items 5-8) shall apply only to new*
8 *dwelling and related structures in the A-4 Zone where the predominant use is*
9 *forestry [OAR 660-06-055(3)] and where dwellings are on rangeland within*
10 *one quarter mile of forest land areas.*

11
12 *1. Any proposed division of land included within the A-4 Zone resulting in the*
13 *creation of one or more parcels of land shall be reviewed and approved or*
14 *disapproved by the County (ORS 215.263).*

15
16 *2. Setbacks from property lines or road rights-of-way shall be a minimum of*
17 *20-foot front and rear yards and 10-foot side yards.*

18
19 *3. Animal shelters shall not be located closer than 100 feet to an R-1 or R-2*
20 *Zone.*

21
22 *4. Signs shall be limited to the following:*

23
24 *A. All off-premise signs within view of any State Highway shall be regulated by*
25 *State regulation under ORS Chapter 377 and receive building permit approval.*

26
27 *B. All on premise signs shall meet the Oregon Administrative Rule regulations*
28 *for on premise signs which have the following standards:*

29
30 *(1) Maximum total sign area for one business is 8% of building area plus*
31 *utilized parking area, or 2,000 square feet, whichever is less.*

32
33 *(2) Display area maximum is 825 square feet for each face of any one sign, or*
34 *half the total allowable sign area, whichever is less.*

35
36 *(3) Businesses which have no buildings located on the premises or have*
37 *buildings and parking area allowing a sign area of less than 250 square feet*
38 *may erect and maintain on-premises signs with the total allowable area of*
39 *250 square feet, 125 square feet maximum for any one face of a sign.*

40
41 *(4) Maximum height of freestanding signs adjacent to interstate highways is*
42 *65 feet, for all other highways is 35 feet, measured from the highway surface*
43 *or the premises grade, whichever is higher to the top of the sign*
44

1 C. All on premise signs within view or 660 feet of any State Highway shall
2 obtain permit approval from the Permit Unit, Oregon State Highway Division.
3 No sign shall be moving, revolving or flashing, and all lighting shall be directed
4 away from residential use or zones, and shall not be located so as to detract
5 from a motorist's vision except for emergency purposes.
6

7 D. All dwelling addresses shall be uniquely designated in accordance with the
8 Union County Road Naming and Addressing Ordinance (Court Order 1988-03)
9 on signs clearly visible and placed at the intersection of the driveway and
10 named road. Rural address markers provided and installed by the Union
11 County Public Works Department shall not be removed, modified or
12 obstructed.
13

14 E. Signs identifying pertinent information such as "dead end road", "bridge
15 out", and so forth, shall be appropriately placed as designated by Union
16 County.
17

18 F. Signs identifying location of a fire-fighting water source and each assess to
19 that source shall be permanently identified and shall indicate whether it is a
20 fire hydrant, a dry hydrant, or another type of water supply.
21

22 * * * * *

23
24 In the *Final Order on ASC*, the Council imposed Land Use Condition 7 (GEN-LU-06) requiring that
25 buildings located in Union County's A-4 Zone comply with setback requirements consistent with
26 UCZPSO 5.08.2 and signs to comply with the requirements of UCZPSO 5.08.4. This condition
27 applies to the proposed RFA2 micro siting area additions. Because existing conditions would
28 ensure compliance with its provisions, the Department recommends the Council find the
29 facility, with proposed RFA2 changes, would comply with UCZPSO 5.08.
30

31 UCZPSO 20.00 Supplemental Provisions
32

33 UCZPSO 20.08 Riparian Zone Setbacks
34

35 *In order to maintain vegetative cover along Class I streams, rivers and lakes*
36 *known as riparian habitat a setback for any new development such as*
37 *structures or roads shall be required on a sliding scale proportional to one-half*
38 *the stream width, at right angles to the annual high-water line or mark. A*
39 *minimum of 25-feet either side of streams will be recognized. Woody*
40 *vegetation presently existing in the riparian zone shall be maintained,*
41 *however, thinning or harvesting of merchantable tree species may occur*
42 *within the riparian zone where 75 percent of the existing shade over the*
43 *stream is maintained.*
44

1 In the *Final Order on ASC*, the Council imposed Land Use Condition 6 (GEN-LU-06), which
2 requires in relevant part, that the certificate holder locate transmission towers and access
3 roads at least 25 feet from Class I streams and retain at least 75 percent of vegetation within
4 the riparian zone of all Class I streams within Union County. This condition applies to the
5 proposed RFA2 micro-siting area additions.

6
7 Because existing conditions would ensure compliance with its requirement, the Department
8 recommends that the Council find that the facility, with proposed RFA2 changes, would comply
9 with UCDC 152.016.

10
11 UCZPSO 20.09, Significant Goal 5 Resource Areas

12
13 *1. Any land use action requiring County zoning or partitioning approval or any*
14 *activity listed as a conflict in this ordinance which is within 1320 feet of or*
15 *could have an impact on:*

16
17 *A. Significant historical sites or structures,*

18
19 *B. Significant scientific or natural areas,*

20
21 *C. Significant aggregate resource sites,*

22
23 *D. Big game critical wildlife habitat area and big game winter range*

24
25 *E. Significant avian habitat*

26
27 *F. Significant wetlands, and*

28
29 *G. Designated Scenic Waterways identified by the Union County Land Use*
30 *Plan, shall be reviewed by the Planning Director for appropriate public*
31 *notification measures and conflict resolution.*

32
33 *2. Affected Land Management Agencies, landowners and interested persons*
34 *will be notified of the proposed land use action and will be given an*
35 *opportunity to submit testimony per the applicable application procedure*
36 *prior to a decision on the land use action.*

37
38 *3. Review Classifications*

39
40 *A. When a 3A or 3C (limit conflicting uses) decision has been made as*
41 *indicated in the comprehensive plan, the applicant must, in coordination with*
42 *the responsible agency, develop a management plan which would allow for*
43 *both Article 20.00 Page 6 resource preservation and the proposed use. If the*
44 *responsible agency and the applicant cannot agree on such a management*

1 *plan, the proposed activity will be reviewed through the conditional use*
2 *process. 3A sites will be preserved where potential conflicts may develop.*
3 *Conflicts will be mitigated in favor of the resource on 3C sites.*
4

5 *B. When a 3B (allow conflicting uses) decision has been made as indicated on*
6 *Goal 5 inventory sheets, the request shall not be subject to the standards of*
7 *this Section.*
8

9 *4. Under the conditional use process land use decisions will consider the*
10 *economic, social, environmental, and energy consequences when attempting*
11 *to mitigate conflicts between development and resource preservation.*
12

13 *5. The following criteria shall be considered, as applicable, during the*
14 *appropriate decision making process:*
15

16 *A. ECONOMIC: The use proposed is a benefit to the community and would*
17 *meet a substantial public need or provide for a public good which clearly*
18 *outweighs retention of the resources listed in Section 18.09 (1):*
19

20 *B. SOCIAL: The proposed development would not result in the loss of or cause*
21 *significant adverse impact to, a rare, one of a kind or irreplaceable resource as*
22 *listed in Section 18.09 (1).*
23

24 *C. ENERGY: The development, as proposed, would support energy efficient*
25 *land use activities for such things as transportation costs, efficient utilization*
26 *of urban services, and retention of natural features which create micro*
27 *climates conducive to energy efficiency.*
28

29 *D. ENVIRONMENTAL: If alternative sites in Union County for proposed*
30 *development are available which would create less of an environmental*
31 *impact of any of the resources listed in Section 18.09 (1), major consideration*
32 *should be given to these options.*
33

34 *6. The reviewing body may impose the following conditions, as applicable*
35 *upon a finding of fact that warrants such restrictions:*
36

37 *A. SIGNIFICANT AGGREGATE SITES: Residences and uses listed as conditional*
38 *uses may be required to provide screening, landscaping, and/or setbacks in*
39 *excess of those required in the zone in which the lot or parcel is located. The*
40 *required screening, landscaping, and setback shall be determined by the*
41 *Planning Director after meeting with the applicant and the owner of the*
42 *aggregate resource land to ensure compatibility between present and future*
43 *Article 20.00 Page 7 uses on the properties. Such setback shall be no less than*
44 *50 feet and no greater than 1320 feet.*

1
2 *B. WETLANDS AND NATURAL AREAS: Limitations may be required on draining,*
3 *filling, structural development, and/or removal of vegetation in order to*
4 *protect and preserve existing trees, vegetation, water resources, wildlife*
5 *habitat or other significant natural resources.*

6
7 *C. BIG GAME WINTER RANGE AND BIG GAME CRITICAL HABITAT: A proposed*
8 *new structure requiring a conditional use may be required to:*

9
10 *1. Be located as close as possible to an ADJACENT compatible structure (a*
11 *compatible structure shall be any structure which does not adversely affect*
12 *the intended use of another structure);*

13
14 *2. Share a common access road or where it is impossible to share a common*
15 *access road, locate as closely as possible to the nearest existing public road in*
16 *order to minimize the length of access from the nearest road.*

17
18 *D. AVIAN HABITAT: Any proposed activity permitted outright or conditionally*
19 *may be required to establish a setback from critical nesting or roosting areas*
20 *and to preserve existing trees, vegetation, and water resources.*

21
22 *E. DESIGNATED SCENIC WATERWAYS: The applicant for a proposed use that is*
23 *to be located within the Minam River Scenic Waterway and that is regulated*
24 *under the Oregon Scenic Waterways Rules shall obtain a notice to proceed*
25 *from the State Highway Commission or the time limit for review by the State*
26 *Highway Commission shall have expired prior to obtaining a zoning or building*
27 *permit from the County.*

28
29 Portions of the proposed RFA2 micrositing area additions would be located in Union County's
30 Big Game Winter Range Overlay Zone and are subject to the provisions of UCZPSO 20.09.

31
32 In the *Final Order on ASC*, the Council found that the facility complies with UCZPSO 20.09, in
33 part because the certificate holder had attempted to utilize existing roads and to limit the
34 development of new roads in critical habitat and winter range overlay areas to the extent
35 possible.¹¹³ Because the proposed RFA2 micrositing area additions do not significantly change
36 the nature of the previously approved facility or significantly increase the amount of roads
37 located in Union County's Winter Range areas, the Department recommends that the Council
38 continue to rely on its previous findings.¹¹⁴

39
40 UCZPSO 21.00 Conditional Uses
41

¹¹³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 218 of 10586.

¹¹⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pages 209-211 of 10586.

1 UCZPSO 21.06 General Standards Governing Conditional Uses

2
3 *The following standards and criteria shall govern conditional uses, except as*
4 *provided in subsection 21.07:*

5
6 *1. A conditional use shall ordinarily comply with the standards of the zone*
7 *concerned for uses permitted outright except as specifically modified by the*
8 *Planning Commission in granting the conditional use.*

9 ****

10
11 UCZPSO 21.06 applies to all conditional uses in Union County. UCZPSO 21.06(1) requires that
12 conditional uses meet the development standards relevant to uses permitted outright in the
13 zone, including UCZPSO 5.06 (Minimum Parcel Size), UCZPSO 5.07 (Siting Standards for
14 Dwellings and Structures), and UCZPSO 5.08 (Development and Fire Siting Standards), which
15 would be satisfied via compliance with the previously imposed Land Use Condition 7 (GEN-LU-
16 06). Land Use Condition 7 (GEN-LU-06) expressly requires transmission tower/building yard
17 setbacks and establishes the applicable requirements for any permanent signage associated
18 with the facility.

19
20 Based on compliance with Land Use Condition 7 (GEN-LU-06), the Department recommends the
21 Council continue to find that the facility, with proposed RFA2 changes, would comply with
22 UCZPSO 21.06(1) requirements.

23
24 *III.E.1.d Baker County Applicable Substantive Criteria*

25
26 Proposed RFA2 micrositing area additions and changes in Baker County include the following,
27 by zone (use presented in parens):

28
29 Exclusive Farm Use Zone (Utility Facility Necessary for Public Service)

- 30
- 31 • Highway 203 Crossing Alternative (1.9 miles of transmission line, 1.2 miles of new access
roads, 13.5 acres of temporary work areas);
 - 32 • Proposed Route (230 kV Rebuild) Revised Alternative (0.6-of-a mile of transmission line,
33 0.1 new access road; 0.6 acres of temporary work areas);
 - 34 • Other Access Road and Work Areas (15.3 miles of new access road, 84.8 acres of
35 temporary work areas);
 - 36 • MUA BA-01, MUA BA-12¹¹⁵
- 37

38 Industrial Zone (Temporary Uses Requiring Permits)

- 39
- MUA BA-05^{116,117}

¹¹⁵ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 Map 52, 63.

¹¹⁶ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 Map 66.

¹¹⁷ MUA BA-05 (Figure 4-1 Map 66) presents the MUA site as covering a portion of the Oregon National Historic Trail. This section is represented as “non-intact” with no evidence of the trail in this location.

1
 2 The use within EFU-zoned land, as listed above, was previously evaluated by Council in the *Final*
 3 *Order on ASC*. Council previously imposed conditions to ensure compliance with applicable
 4 requirements within the EFU zone. Uses within Baker County’s Industrial Zone were not
 5 previously evaluated. RFA2 evaluates the use of MUA BA-05 as “Manufacturing, compounding,
 6 fabricating, processing, repairing, packaging, storage and warehousing.” The Department
 7 recommends Council find that the predominant uses at an MUA do not qualify or are not
 8 consistent with the intent of this land use category¹¹⁸, but rather qualify as a temporary use
 9 under BCZO Chapter 250.03(C) (Temporary Uses Requiring Permits). Because the certificate
 10 holder did not propose the MUA as a temporary use in RFA2, the Department recommends
 11 Council find that there is insufficient information to take further action at this time.

12
 13 The following section presents an evaluation of whether the proposed RFA2 changes can
 14 comply with the applicable substantive criteria within EFU-zoned land in Baker County. The
 15 applicable substantive criteria from Baker County are listed in Table 20 below.

Table 20: Baker County Applicable Substantive Criteria

Section ^{1,2}	Description
Chapter 410 Exclusive Farm Use Zone	
Section 410.03.E.2	Uses Permitted Through a Type II Procedure – Utility Facilities Necessary for Public Service
Chapter 620 Big Game Habitat Overlay Zone	
Section 620.03	Permitted Uses
Chapter 630 Flood Plain Development Zone	
Section 630.04(3)	Construction Materials and Methods
Chapter 710 Historic/Cultural and Natural Resources Protection	
Section 710.03	Permits Required
Notes: 1. RFA2 Table 7.1-8 identified BCZO Subsection 530.03(A)(6) as applicable substantive criteria. This subsection establishes “Used Permitted Through a Type I Procedure” in Industrial Zoned Land and includes a “use category” of “major utility facilities and local distribution utility facilities.” In RFA2, the proposed use within Baker County’s Industrial Zoned land is a temporary, multi-use area (MUA BA-05) not located on the same tract as the primary use (utility facility). Because the temporary, multi-use area is not located on same tract as the primary use, it does not meet the definition of an accessory use to the transmission line. Therefore, the Department recommends Council disagree with the certificate holder’s analysis of the applicable “use category” applied to the temporary use in the Industrial Zone, based on BCZO Chapter 150 definition of a major utility facility. Source: All applicable substantive criteria is based on Zoning Ordinances available on the Baker County planning Department website as of April 3, 2024 at: https://www.bakercountyor.gov/planning/planning.html B2HAMD2Doc6.	

16

¹¹⁸ Multi-use areas will serve as field offices; reporting locations for workers; parking spaces for vehicles and equipment; and sites for material delivery and storage, fabrication assembly of towers, cross areas and other hardware, concrete batch plants, and stations for equipment maintenance. B2HAPPDoc3-3 ASC 02a Exhibit B Project Description Section 3.3.2 2018-09-28.

1 BCZO 410.03 Uses Permitted Through a Type II Procedure

2
3 *In the EFU Zone, the following uses and their accessory uses may be permitted*
4 *when authorized in accordance with the provisions of Section 115.06.*

5
6 * * * * *

7
8 *E. Utility Facilities*

9
10 * * * * *

11
12 *2. Utility facilities necessary for public service, including associated*
13 *transmission lines as defined in ORS 469.300 and wetland waste treatment*
14 *systems, but not including commercial facilities for the purpose of generating*
15 *electrical power for public use by sale or transmission towers over 200 feet*
16 *high. To demonstrate that a utility facility is necessary, as described in ORS*
17 *215.283(1)(c), an applicant must:*

18
19 *a. Show that reasonable alternatives have been considered and that the*
20 *facility must be sited in an Exclusive Farm Use Zone due to one or more of the*
21 *following factors:*

- 22
23 *i. Technical and engineering feasibility;*
24 *ii. The proposed facility is locationally-dependent. A utility facility is*
25 *locationally-dependent if it must cross land in one or more areas zoned*
26 *for exclusive farm use in order to achieve a reasonably direct route or to*
27 *meet unique geographical needs that cannot be satisfied on other lands;*
28 *iii. Lack of available urban and non-resource lands;*
29 *iv. Availability of existing rights-of-way;*
30 *v. Public health and safety;*
31 *vi. Other requirements of state and federal agencies*

32
33 *b. Costs associated with any of the factors listed in Section 410.03(D)(1)(a)*
34 *may be considered; however, cost alone may not be the only consideration in*
35 *determining that a utility facility is necessary for public service. Land costs*
36 *shall not be included when considering alternative locations for substantially*
37 *similar utility facilities. The Land Conservation and Development Commission*
38 *shall determine by rule how land costs may be considered when evaluating the*
39 *siting of utility facilities that are not substantially similar.*

40
41 *c. The owner of a utility facility approved under this Section shall be*
42 *responsible for restoring, as nearly as possible, to its former condition any*
43 *agricultural land and associated improvements that are damaged or*
44 *otherwise disturbed by the siting, maintenance, repair or reconstruction of the*

1 *facility. Nothing in this Section shall prevent the owner of the utility facility*
2 *from requiring a bond or other security from a contractor or otherwise*
3 *imposing on a contractor the responsibility for restoration.*

4
5 *d. The governing body of the county or its designee shall impose clear and*
6 *objective conditions to mitigate and minimize the impacts of the proposed*
7 *facility, if any, on surrounding lands devoted to farm use in order to prevent a*
8 *significant change in accepted farm practices or a significant increase in the*
9 *cost of farm practices on the surrounding farmlands.*

10
11 * * * * *

12
13 BCZO 410.03(E)(2) provides that a utility facility necessary for public service, excluding a
14 commercial power generation facility or a transmission tower over 200 feet in height, is a
15 permissible use in Baker County’s EFU Zone. These provisions mirror the requirements of ORS
16 215.275.

17
18 In the *Final Order on ASC*, the Council determined that the transmission line qualifies as a utility
19 facility necessary for public service under ORS 215.275 because there was no reasonably direct
20 route that would allow the certificate holder to construct the transmission line while avoiding
21 all impacts to EFU zoned land, that the certificate holder had demonstrated a “lack of available
22 nonresource lands” for which to site the facility; and that the certificate holder had proposed
23 the route to utilize some available rights-of-ways.¹¹⁹

24
25 The proposed Highway 203 Crossing Alternative, Proposed Route Reviewed Alternative, Other
26 Access Road and Work Areas, MUA BA-01 and MUA BA-12 include shifts in the location of the
27 transmission line, 230 kV transmission line rebuild, new and substantially modified roads and
28 temporary works areas (MUAs) within EFU zoned lands. These locational adjustments do not
29 change the nature or extent of the use. Accordingly, the Department recommends that the
30 Council continue to rely on its previous findings that the portions of the facility, with proposed
31 RFA2 changes, located in Baker County’s EFU Zone, qualify as a utility facility necessary for
32 public service.

33
34 Because the proposed “use” associated with the RFA2 micro siting area additions is the same as
35 the “use” previously evaluated by Council, the Department recommends Council find that the
36 proposed RFA2 micro siting area additions is a permissible use under BCZO 410.03(E)(2).

37
38 BCZO 620.03 Big Game Habitat Overlay Zone, Permitted Uses

39
40 *A. Permitted uses. Uses permitted outright and conditionally in the underlying*
41 *zoning district shall be permitted in the Big Game Habitat Overlay Zone if they*
42 *will not result in the degradation of critical big game habitat.*

¹¹⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 255-256 of 10586.

1
2 * * * * *

3
4 Most of the proposed RFA2 micro-siting area additions in Baker County would be located in the
5 Big Game Habitat Overlay Zone and therefore would result in direct ground disturbance and
6 indirect (noise, vehicular collision risk) impacts within critical big game habitat.¹²⁰ These impacts
7 will be mitigated to ensure that any direct and indirect impacts are minimized and offset.
8 Designated Big Game Habitat is protected under the Council’s Fish and Wildlife Habitat
9 standard (OAR 345-022-0060) as Category 2 Habitat¹²¹, and requires mitigation of impacts to
10 ensure that there is no net loss of either habitat quantity or quality and to provide a net benefit
11 of habitat quantity or quality.

12
13 To minimize and mitigate impacts to critical big game habitat, the Council previously imposed
14 Fish and Wildlife Condition 4 (GEN-FW-04) requiring that the certificate holder provide
15 adequate mitigation for impacts to habitat quantity and quality through mitigation banking, an
16 in-lieu fee program, or permittee-developed mitigation projects. The Council also imposed Fish
17 and Wildlife Condition 11 (Condition CON-FW-01) prohibiting the certificate holder from
18 conducting ground-disturbing activities within elk or mule deer winter range between
19 December and March without prior approval. These conditions apply to the RFA2 micro-siting
20 area additions.

21
22 These existing conditions ensure that any impacts to habitat within proposed RFA2 micro-siting
23 area additions would be mitigated based on a mitigation goal of no net loss of either the
24 quantity or quality of big game winter range. Therefore, the Department recommends the
25 Council find that the proposed RFA2 micro-siting area additions within big game winter range
26 would comply with BCZO 620.03.

27
28 BCZO 630.04 Floodplain Development Zone

29
30 *Provisions for Flood Hazard Reduction*

31 *A. General Standards. In all special flood hazard areas, the following standards shall be*
32 *adhered to:*

33 ***

34 *3. Construction Materials and Methods.*

- 35 *a. All new construction and substantial improvements shall be constructed with*
36 *materials and utility equipment resistant to flood damage.*
37 *b. All new construction and substantial improvements shall be constructed using*
38 *methods and practices that minimize flood damage.*

39
40 Baker County Zoning Ordinance Chapter 630 addresses requirements for development within
41 the county’s designated floodplain development zone. BCZO Chapter 630.03(C) establishes

¹²⁰ B2HAMD2Doc2 RFA2 2024-04-11, Table 7.1-8, p. 86.

¹²¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 350 of 10586.

1 information requirements that must be provided to the county to obtain a floodplain
2 development permit.

3
4 Portions of the proposed RFA2 micrositing area addition cross rivers and streams, which may be
5 located within the floodplain development zone.¹²² Land Use Condition (GEN-LU-07) requires in
6 part that, prior to construction in Baker County, the certificate holder obtain a Floodplain
7 Development Permit from Baker County, if required for construction within Baker County’s
8 Floodplain Overlay Zone. Based on compliance with this previously imposed condition, the
9 Department recommends Council find that the proposed RFA2 micrositing area additions would
10 comply with BCZO Chapter 630.

11
12 BCZO 710.03 Historic/Cultural and Natural Area Protection Procedure

13
14 710.03 Permits Required

15
16 *A. A permit shall be required to destroy or make major alteration to a*
17 *historic/cultural/natural site or structure inventoried as significant in the*
18 *County Comprehensive Plan. Upon receipt of an application for said permit,*
19 *the Planning Department shall institute a 30-day hold. During that time*
20 *various actions will be initiated by the County depending upon the nature of*
21 *the threatened resource. All of the inventoried natural sites, historic sites and*
22 *the cultural sites identified with one, two or three stars will be subject to a*
23 *public hearing. Notice of the proposed change and public hearing will be*
24 *provided to the general public, the State Historic Preservation Office, the State*
25 *Natural Heritage Advisory Council, the State Department of Fish and Wildlife*
26 *and/or affected local historical, cultural, or governmental entities. The*
27 *opportunity to educate, persuade, pay for, and/or require the preservation of*
28 *a significant resource will be provided by the County. At the hearing before the*
29 *Planning Commission a review will be conducted to determine:*

- 30
31 *1. If the change will destroy the integrity of the resource.*
32
33 *2. If the proposal can be modified to eliminate its destructive aspects.*
34
35 *3. If any agency or individual is willing to compensate the resource owner for*
36 *the protection of the resource.*
37
38 *4. If the resource can be moved to another location.*

39
40 *B. If, after this review, it is determined by the County that the integrity of a*
41 *significant historic/cultural structure or townsite or a natural area resource is*

¹²² B2HAMD2Doc2 RFA2 2024-04-11, Table 7.1-8, p. 86.

1 *threatened, the following criteria will be applied to decide whether to allow,*
2 *allow with conditions, or disallow the proposed change:*

3
4 *1. For significant historic/cultural structures and townsites.*

5
6 *a. The historic/cultural structure or townsite constitutes a hazard to the safety*
7 *of the public occupants and cannot reasonably be repaired; or*

8
9 *b. The retention of the historic/cultural structure or townsite would cause*
10 *financial hardship to the owner which is not offset by public interest in the*
11 *structure's/townsite's preservation; or*

12
13 *c. The improvement project is of substantial benefit to the County and cannot*
14 *be reasonably located elsewhere, and overrides the public's interest in the*
15 *preservation of the historic/cultural structure or townsite; or*

16
17 *d. Major exterior alteration shall, to the extent possible, be consistent with the*
18 *historic/cultural character of the structure.*

19
20 *2. For significant natural areas.*

21
22 *a. The Existence of a Site Report. The site's relative significance is indicated by*
23 *the existence of a site report indicating a field survey with one or more*
24 *elements verified.*

25
26 *b. Number of Elements. The site is elevated to a higher priority if it contains a*
27 *diversity of natural elements.*

28
29 *c. Past Use of Land. The degree to which human activities have already*
30 *impacted an area is a significant factor in determining the value of protecting*
31 *the resource.*

32
33 *d. Abundance and Quality of the Same Resource Elsewhere on the County's*
34 *Inventory. In reviewing such comparative information, the County will be able*
35 *to make its decision knowing the relative significance of the resource in*
36 *question.*

37
38 *e. Financial Impact. A determination that the retention of the natural area*
39 *would cause financial hardship to the owner not offset by public interest in the*
40 *site's preservation would be a determining factor in the County's decision.*

41
42 *f. Public Benefit from the Proposed Change. A finding that the change is of*
43 *substantial benefit to the County and cannot be accommodated feasibly*

1 elsewhere on the applicant's property would be a significant factor in the
2 County's decision.

3
4 *3. For Resources on Federally Managed Lands. The findings and conclusions of*
5 *Baker County relative to a proposed alteration or demolition of a significant*
6 *cultural/ historic/natural site/structure shall be forwarded to the appropriate*
7 *federal agency as a recommendation.*

8
9 *4. For Resources Not Inventoried or Designated as 1B. For resources of*
10 *unknown significance or resources not on the inventory, a local review will be*
11 *conducted by BLM and USFS personnel, Oregon Department of Fish and*
12 *Wildlife, State and/or college historians, and local museum and historical*
13 *society members to evaluate the resource's comparative worth and make a*
14 *recommendation as to whether a full public hearing is warranted.*

15
16 BCZSO 710 requires an analysis of significant historic/cultural structures and townsites, as well
17 as significant natural areas and resources not inventoried or otherwise designated. As part of
18 the record of prior proceedings for the Boardman to Hemingway Transmission Line, previous
19 analysis was conducted to evaluate the inventory and potential impacts to Baker County's Goal
20 5 resources within the 0.5-mile land use analysis area. Baker County's inventoried Goal 5
21 resources within the Land Use analysis area include: Rattlesnake Springs Landmark; Farewell
22 Bend State Park; Flagstaff Hill Monument; Virtue Flat Oregon Trail segment; Virtue Flat Mining
23 Area. The proposed RFA2 micrositing area additions in Baker County are located more than 0.5
24 miles from any of the inventoried Goal 5 resources. The Council's prior findings of fact and
25 analysis are incorporated herein by reference.¹²³ Based on the prior analysis and the fact that
26 the proposed RFA2 micrositing area additions do not change those prior findings of fact and
27 analysis, the Department recommends Council find that the proposed RFA2 micrositing area
28 additions would not impact the certificate holder's ability to comply with BCZO 710.03.B.1 to
29 B.3.

30
31 *III.E.1.e Malheur County Applicable Substantive Criteria*

32
33 Proposed RFA2 micrositing area additions in Malheur County include the following, by zone
34 ("use" presented in parens):

35
36 Exclusive Farm Use Zone, C-A1; Special Flood Hazard Overlay Zone (Utility Facility Necessary
37 for Public Service)

- 38 • Willow Creek Alternative (1.4 miles of transmission line; 1.1 miles of new road; 10.2
39 acres of temporary work areas)
40 • MUA BA-02, MUAs MA-08, MUA MA-10¹²⁴

41

¹²³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 218-223.

¹²⁴ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 (Maps 73, 80, 92)

1 Exclusive Range Use Zone, C-A2; Special Flood Hazard Overlay Zone (Utility Facility
 2 Necessary for Public Service)

- 3 • Cottonwood Creek (3.2 miles of transmission line; 5.1 miles of new road; 22.9 acres of
- 4 temporary work areas)
- 5 • MUA BA-02, MUA MA-09, MUA MA-11¹²⁵

6
 7 The zones and uses listed above were previously evaluated by Council in the *Final Order on ASC*.
 8 Council previously imposed conditions to ensure compliance with requirements within each
 9 zone; nonetheless, the following section presents an evaluation of the whether the proposed
 10 RFA2 changes can comply with the applicable substantive criteria within Malheur County. The
 11 applicable substantive criteria from Malheur County are listed in Table 21 below.
 12

Table 21: Malheur County Applicable Substantive Criteria

Section	Description
Title 6: Zoning	
Chapter 3, Article A	Resource Lands (Exclusive Farm Use, Exclusive Range Use, Exclusive Farm-Forest Use)
Section 6-3A-2	Permitted Uses
Title 5: Building and Flood Control Regulations	
Chapter 2 Flood Control	5-2-4-1 Establishment of Development Permit
Source: B2HAMD2Doc7 Malheur County 6-3A-2. B2HAMD2Doc7-1 Malheur County SFHA 5-2-5-1.	

13
 14 MCC 6-3A-2 Permitted Uses

15
 16 *A. The following uses may be permitted outright by ministerial permit in each*
 17 *of the three (3) resource zones except as specifically added or excluded:*

18
 19 * * * * *

20
 21 *14. Utility facilities necessary for public service, including wetland waste*
 22 *treatment systems but not including commercial facilities for the purpose of*
 23 *generating electrical power for public use by sale or transmission towers over*
 24 *two hundred feet (200') in height. A utility facility necessary for public service*
 25 *may be established as provided in ORS 215.275 and section 6-6-8-8, "Wireless*
 26 *Telecommunication Facilities" of this title.*
 27 *(Ord. 86, 12-7-1993; amd. Ord. 146, 4-14-2004)*

28
 29 MCC 6-3A-2 identifies utility facilities “necessary” for public service as a permitted use on EFU
 30 and ERU zoned land, subject to ORS 215.275. Transmission lines are considered utility facilities;
 31 under ORS 215.275, utility facilities are considered “necessary” for public service if the facility,

¹²⁵ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 (Maps 73, 93, 69)

1 after consideration of reasonable alternative locations on non-EFU zoned land, must be sited in
2 EFU zoned land to provide a service, due to one or more factors listed in ORS 215.275.

3
4 In the *Final Order on ASC*, the Council determined that the transmission line qualifies as a utility
5 facility necessary for public service under ORS 215.275 because there was no reasonably direct
6 route that would allow the certificate holder to construct the transmission line while avoiding
7 all impacts to EFU zoned land, that the certificate holder had demonstrated a “lack of available
8 nonresource lands” for which to site the facility; and that the certificate holder had proposed
9 the route to utilize some available rights-of-ways.¹²⁶

10
11 The proposed Willow Creek Alternatives and MUAs (MUA BA-02, MUA MA-08, MUA MA-10)
12 include shifts in the location of the transmission line, new and substantially modified roads and
13 temporary works areas (MUAs) within EFU zoned lands. These locational adjustments do not
14 change the nature or extent of the use. Accordingly, the Department recommends that the
15 Council continue to rely on its previous findings that the portions of the facility, with proposed
16 RFA2 changes, located in Malheur County’s EFU and ERU zoned lands, qualify as a utility facility
17 necessary for public service.

18
19 Because the proposed “use” associated with the RFA2 micro siting area additions is the same as
20 the “use” previously evaluated by Council, the Department recommends Council find that the
21 proposed RFA2 micro siting area additions is a permissible use under MCC 6-3A-2.

22
23 Malheur County Code 6-3K Flood Plain Management Zone

24
25 MCC 6-3K-3 Standards

26
27 *The following standards shall be applicable to any area designated as being*
28 *within the 100-year flood plain:*

29
30 *A. Any development shall comply with Title 5, Chapter 2 of this Code and the*
31 *Federal Insurance Administration requirements for minimizing flood hazards.*

32
33 *B. Any development shall also comply with the standards of the underlying*
34 *primary zone.*

35
36 *C. If a conflict in regulations or procedures occurs, the more restrictive*
37 *provisions shall govern. (Ord. 86, 12-7-1993)*

38
39 MCC 6-3K-3 establishes flood hazard minimization standards for development within Malheur
40 County’s Floodplain Overlay Zone including compliance with primary underlying zone
41 development standards and MCC Title 5, Chapter 2 and the Federal Insurance Administration.

¹²⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 255-256 of 10586.

1 MCC Title 5, Chapter 2, requires among other things, that a development permit be obtained
2 prior to any construction or development in a flood zone:

3
4 *5-2-4-1: ESTABLISHMENT OF DEVELOPMENT PERMIT:*

5 *A development permit shall be obtained before construction or development*
6 *begins within any area horizontally within the special flood hazard area*
7 *established in subsection 5-2-3 B of this chapter. The development permit shall*
8 *be required for all structures, including manufactured dwellings, and for all*
9 *development as defined in 5-2-2, including fill and other activities. Application*
10 *for a development permit shall be made on forms furnished by the Malheur*
11 *County planning director/floodplain administrator and may include, but not be*
12 *limited to, plans in duplicate drawn to scale showing the nature, location,*
13 *dimensions and elevations of the area in question; existing or proposed*
14 *structures, fill, storage of materials, drainage of facilities and the location of*
15 *the foregoing.*

16
17 *Specifically, the following information is required:*

- 18 *A. In riverine flood zones, the proposed elevation (in relation to mean sea*
19 *level), of the lowest floor (including basement) and all attendant utilities of*
20 *all new and substantially improved structures.*
- 21 *B. Proposed elevation in relation to mean sea level to which any non-*
22 *residential structure will be flood proofed.*
- 23 *C. Certification by a registered professional engineer or architect licensed in*
24 *the State of Oregon that the floodproofing methods for any non-*
25 *residential structure meet the floodproofing criteria in subsection 5-2-5-2 C*
26 *of this chapter.*
- 27 *D. Description of the extent to which any watercourse will be altered or*
28 *relocated as a result of proposed development.*
- 29 *E. Base flood elevation data for subdivision proposals or other development*
30 *when required per sections 5-2-4-2 B and 5-2-5-1 F.*
- 31 *F. Substantial improvement calculations for any improvement, addition,*
32 *reconstruction, renovation, or rehabilitation of an existing structure.*
- 33 *G. The amount and location of any fill or excavation activities proposed.*
34 *(Ord. 54, 3-24-1987; amd. Ord. 147, 4-14-2004; Ord. 219, 11-13-2019)*

35
36 The proposed RFA2 micrositing area additions would be located in Malheur County's Floodplain
37 Overlay Zone. The Council previously imposed Land Use Condition 11 (GEN-LU-08), which
38 requires in part that the certificate holder obtain, from Malheur County, and submit, to the
39 Department, a copy of a Floodplain Development Permit for construction within Malheur
40 County's Floodplain Overlay Zone. Based on compliance with Land Use Condition 11 (GEN-LU-
41 08), the Department recommends Council find that the proposed RFA2 micrositing area
42 additions would comply with MCC 6-3K-3.
43

1 *III.E.1.f City of North Powder Applicable Substantive Criteria*

2
3 Proposed RFA2 micro siting area additions and changes in City of North Powder include the
4 following, by zone (use presented in parens):

5
6 Industrial Zone (Other Uses)

- 7 • MUA UN-07¹²⁷

8
9 The following section presents an evaluation of whether the proposed RFA2 changes can
10 comply with the applicable substantive criteria within Industrial-zoned land in City of North
11 Powder. The applicable substantive criteria from City of North Powder are listed in Table 22
12 below.

Table 22: City of North Powder Applicable Substantive Criteria

North Powder Zoning Ordinance (NPZO)	
<i>Industrial Zone</i>	
Article V ¹	
Section 5.02	Conditional Uses/Other Uses
Article C Conditional Uses	
Section 10.02	Application for Conditional Uses
Notes: 1. RFA2 includes NPZO Article V Sections 5.04(2) Setback Requirements; 5.04(3) Outdoor Storage; and 5.05 Development Standards. Based on review of RFA2 Figure 7-5, and the location of MUA UN-07 in Industrial Zoned land adjacent to other Industrial and EFU zoned lands, these provisions do not apply. Source: B2HAMD2Doc9 City of North Powder Zoning Ordinance.	

13
14 The following analysis addresses the applicable substantive criteria identified in the NPZO.

15
16 NPZO Article V Section 5.02

17
18 *North Powder Zoning Article V (I) Industrial Zone*
19 *Section 5.02: Conditional Uses*

20
21 *In an Industrial Zone the following uses and their accessory uses are permitted by*
22 *conditional use approval when authorized in accordance with Articles VII and IX of this*
23 *ordinance:*

- 24 1. *Any use permitted conditionally in the (C-I) Commercial Zone.*
25 2. *Single-family or two-family dwelling units.*
26 3. *Other uses similar to the above and not specifically listed under the Industrial Zone*
27 *provided that:*
28 A. *The use is not objectionable due to odor, dust, smoke, noise, vibration, or*
29 *appearance.*

¹²⁷ B2HAMD2Doc2 RFA2 2024-04-11, Figure 4-1 (Map 46). Figure 7-5 (Map 46).

1 B. *Other uses similar to the uses permitted outright or conditionally which are*
2 *determined by the City Council not to create a nuisance to adjacent activities.*

3
4 NPZO Article V Section 5.02 authorizes “other uses” in the Industrial Zone, including uses that
5 are similar to conditionally permissible uses within the Commercial (C-I) Zone, provided that the
6 use is not objectionable and similar to other outright or conditionally permissible uses within
7 the zone. Multi-use areas will serve as field offices; reporting locations for workers; parking
8 spaces for vehicles and equipment; and sites for material delivery and storage, fabrication
9 assembly of towers, cross areas and other hardware, concrete batch plants, and stations for
10 equipment maintenance.¹²⁸ A conditionally permissible use in the C-I Zone includes a bus depot.
11 The Department recommends Council find that the actions and resulting levels of odor, dust,
12 noise and vibration at an MUA are reasonably similar to a bus depot.

13
14 Therefore, the Department recommends Council find that the proposed multi-use area within
15 City of North Powder is a conditional use permitted within Industrial zoned land subject to the
16 criteria in NPZO Article V Section 5.02.

17
18 NPZO Article X Section 10.02

19
20 *Article X, Conditional Uses*

21
22 *Section 10.02 APPLICATION FOR CONDITIONAL USES*

23
24 *A request for a conditional use or modification of an existing conditional use may be*
25 *initiated by property owner or his authorized agent by filing an application with the City*
26 *Council. The application shall be accompanied by a site plan, drawn to scale, showing*
27 *the dimensions and arrangement of the proposed development and the names of record*
28 *and addresses thereof for all landowners within 300 feet of the parcel in question. The*
29 *City Council may request other drawings or material essential to an understanding of the*
30 *proposed use and its relationship to the surrounding properties.*

31
32 Pursuant to NPZO 5.02(3), the proposed MUA (MUA UN-07) is conditionally permissible in
33 Industrial Zoned land. Conditionally permissible uses require a conditional use permit from the
34 City of North Powder, without substantive review or proceedings outside of the EFSC process.
35 Conditional requirements are evaluated by Council under the Land Use standard. NPZO Article
36 X provides no additional criteria to address specific to “other uses”.

37
38 Council previously imposed Land Use Condition 13 (GEN-LU-10) requiring that a conditional use
39 permit be obtained from the City for the MUA proposed in the Commercial Interchange zone,
40 demonstrating compliance with applicable signage and yard setback requirements. The
41 Department recommends Council amend the condition to apply to the MUA in the Industrial

¹²⁸ B2HAPPDoc3-3 ASC 02a Exhibit B Project Description Section 3.3.2 2018-09-28.

1 zone, and require that a conditional use permit be obtained, prior to use and activities as
2 presented below:

3
4 **Recommended Amended Land Use Condition 13 (GEN-LU-10):** For the multi-use areas
5 in City of North Powder, the certificate holder shall obtain a Conditional Use Permit
6 from City of North Powder, providing sufficient information to the City to verify that the
7 design of the site to comply with the following setback distance and other
8 requirements in the Industrial Zone and Commercial Interchange Zone.

9 In the Commercial Interchange Zone, the site plan shall demonstrate:

- 10 a. All signs shall comply with NPZO 4.04(B) development standards (ASC Exhibit K p. K-
11 275)
- 12 b. Based solely on certificate holder representations in ASC, buildings shall not exceed
13 45 feet in height and shall be setback per NPZO Section 4.03 (ASC Exhibit K p. K-277):
- 14 i. Front yards shall be set back at least 30 feet from property lines;
 - 15 ii. Side yards shall be setback at least 20 feet from a Residential Zone, street, or
16 corner lot; and
 - 17 iii. Rear yards shall be set back at least 20 feet from a Residential Zone.

18 [Land Use Condition 13; Final Order on ASC, AMD2]

19
20 Based on compliance with the above recommended amended condition, the Department
21 recommends Council find that the proposed multi-use area would satisfy the NPZO Article X
22 Section 10.02.

23
24 *III.E.1.h Goal 4 Exception*

25
26 In order to issue an amended site certificate, the Council must find that the facility, with
27 proposed changes, complies with all applicable substantive criteria, Land Conservation and
28 Development Commission administrative rules and goals, and any land use statutes directly
29 applicable to the facility under ORS 197.646(3). If the proposed changes do not comply with
30 one or more applicable substantive criteria, the Council must either find that the facility
31 otherwise complies with the statewide planning goals or that an exception to any relevant goals
32 is justified. Most commonly, an exception is evaluated against the standards in OAR 345-022-
33 0030(4)(c):

34
35 *(4) The Council may find goal compliance for a proposed facility that does not*
36 *otherwise comply with one or more statewide planning goals by taking an*
37 *exception to the applicable goal. Notwithstanding the requirements of ORS*
38 *197.732, the statewide planning goal pertaining to the exception process or*
39 *any rules of the Land Conservation and Development Commission pertaining*
40 *to the exception process, the Council may take an exception to a goal if the*
41 *Council finds:*

42
43 * * *

1 (c) *The following standards are met:*

2
3 (A) *Reasons justify why the state policy embodied in the applicable goal*
4 *should not apply;*

5
6 (B) *The significant environmental, economic, social and energy consequences*
7 *anticipated as a result of the proposed facility have been identified and*
8 *adverse impacts will be mitigated in accordance with rules of the Council*
9 *applicable to the siting of the proposed facility; and*

10
11 (C) *The proposed facility is compatible with other adjacent uses or will be*
12 *made compatible through measures designed to reduce adverse impacts.*

13
14 OAR 660-006-0025(4)(q) establishes conditional uses authorized in Goal 4 forest zoned lands
15 and includes new electric transmission lines with right-of-way widths up to 300 feet, limited to
16 100 feet for the transmission line and 200 feet for vegetative maintenance. The proposed RFA2
17 micrositing addition areas include approximately 25.8 acres within Union County's Timber-
18 Grazing zone located outside of the 300 foot right-of-way, requiring Council review of whether
19 to grant an exception to Goal 4.¹²⁹ The 25.8 acres is associated with approximately 15.4 miles of
20 new and substantially modified roads for the proposed Baldy Alternative.¹³⁰

21
22 The certificate holder proposes two reasons for Council consideration in extending the Goal 4
23 exception taken in the *Final Order on ASC*. These two reasons include: (1) the location of the
24 approximately 15.4 miles of new and substantially modified roads are locationally dependent to
25 the conditionally allowable use; and (2) impacts to forest land would be minimal.

26
27 RFA2 Figure 4-1 (Map 40) presents the location of the longest new road segment, which
28 extends from I-84, a primary haul route to be used to deliver equipment and provide worker
29 access, to existing roads that provide access to a pulling and tensioning site and the Baldy
30 Alternative transmission line segment. The Baldy Alternative and location of new road segment
31 allow the certificate holder to utilize 10.7 miles of existing road, while limiting new road
32 construction in this area to 4.6 miles. Based on these facts, the Department recommends
33 Council agree and accept the certificate holder's reasons.

34
35 In the *Final Order on ASC*, the Council granted an exception to Goal 4 for permanent new and
36 substantially modified roads located outside of the 300-foot right-of-way. The reasons
37 determined to justify an exception to Goal 4 included that the access roads were necessary for
38 the construction of the facility, that there were no reasonable alternative routes that would
39 result in fewer impacts to Forest Lands, and that the approved access road routes would result

¹²⁹ B2HAMD2Doc2 RFA2 2024-04-11, Tables 5.2-5 and 5.2-6.

¹³⁰ B2HAMD2Doc2 RFA2 2024-04-11, Figure 7-5, Map 38-41.

1 in relatively minor impacts on existing forest uses.¹³¹ As described above, the Department
2 recommends Council maintain the findings for two of these reasons.

3
4 The Council also found that the facility, when considering mitigation, would not cause
5 significant adverse environmental consequences or impacts,¹³² would represent a net economic
6 benefit,¹³³ and would have no significant adverse impacts on public services or facilities.¹³⁴ The
7 Council also found that the approved access roads would be compatible with adjacent land
8 uses, and that, subject to compliance with conditions of approval, measures would be taken to
9 reduce any potential adverse impacts.¹³⁵

10
11 The new location and impacts associated with approximately 25.8 acres does not significantly
12 change the nature or extent of the use, or its impacts on forest lands. Therefore, the
13 Department recommends that the Council continue to rely on its previous findings and find that
14 an exception to Statewide Planning Goal 4 is justified for the proposed RFA2 site boundary
15 located on Union County Forest lands.

16
17 **III.E.2. Conclusions of Law**

18
19 Based on the foregoing analysis, and subject to compliance with the existing and recommended
20 amended site certificate conditions described above, the Department recommends the Council
21 find that the proposed RFA2 micro-siting area additions complies with the identified applicable
22 substantive criteria and the directly applicable state statutes and rules and, therefore, complies
23 with the Council’s Land Use standard.

24
25 **III.F. PROTECTED AREAS: OAR 345-022-0040**

26
27 *(1) To issue a site certificate, the Council must find:*

28
29 *(a) The proposed facility will not be located within the boundaries of a*
30 *protected area designated on or before the date the application for site*
31 *certificate or request for amendment was determined to be complete under*
32 *OAR 345-015-0190 or 345-027-0363;*

33
34 *(b) The design, construction and operation of the facility, taking into account*
35 *mitigation, are not likely to result in significant adverse impact to a protected*
36 *area designated on or before the date the application for site certificate or*
37 *request for amendment was determined to be complete under OAR 345-015-*
38 *0190 or 345-027-0363.*

¹³¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 290 of 10586.

¹³² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 291 of 10586.

¹³³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 292 of 10586.

¹³⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 292 of 10586.

¹³⁵ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, p. 293 of 10586.

1
2 (2) Notwithstanding section (1)(a), the Council may issue a site certificate for:
3 (a) A facility that includes a transmission line, natural gas pipeline, or water
4 pipeline located in a protected area, if the Council determines that other
5 reasonable alternative routes or sites have been studied and that the
6 proposed route or site is likely to result in fewer adverse impacts to resources
7 or interests protected by Council standards; or

8
9 (b) Surface facilities related to an underground gas storage reservoir that have
10 pipelines and injection, withdrawal or monitoring wells and individual
11 wellhead equipment and pumps located in a protected area, if the Council
12 determines that other alternative routes or sites have been studied and are
13 unsuitable.

14
15 (3) The provisions of section (1) do not apply to:

16
17 (a) A transmission line routed within 500 feet of an existing utility right-of-way
18 containing at least one transmission line with a voltage rating of 115 kilovolts
19 or higher; or

20
21 (b) A natural gas pipeline routed within 500 feet of an existing utility right of
22 way containing at least one natural gas pipeline of 8 inches or greater
23 diameter that is operated at a pressure of 125 psig.

24
25 (4) The Council shall apply the version of this rule adopted under
26 Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the
27 review of any Application for Site Certificate or Request for Amendment that
28 was determined to be complete under OAR 345-015-0190 or 345-027-0363
29 before the effective date of this rule. Nothing in this section waives the
30 obligations of the certificate holder and Council to abide by local ordinances,
31 state law, and other rules of the Council for the construction and operation of
32 energy facilities in effect on the date the site certificate or amended site
33 certificate is executed.¹³⁶

34
35 **III.F.1. Findings of Fact**

36
37 The Protected Areas standard first prohibits Council from granting approval of a site certificate
38 if a facility would be located within a designated protected area, unless a proposed facility, or
39 amended facility is a transmission line located within 500 feet of an existing utility right-of-way
40 containing at least one transmission line with a voltage rating of 115 kV or higher; and, if this
41 cannot be met, a demonstration that alternative routes have been studied and determined to
42 result in greater impacts. For facilities, or amended facilities located outside protected areas,

¹³⁶ OAR 345-022-0040, effective December 19, 2022.

1 including transmission lines, the Protected Areas standard requires the Council to find that,
2 taking into account mitigation, the design, construction and operation of a facility are not likely
3 to result in significant adverse impacts¹³⁷ from noise, increased traffic, water use, wastewater
4 disposal, visual impacts of facility structures or plumes, and visual impacts from air emissions to
5 any protected area under OAR 345-022-0040 as defined in OAR 345-001-0010(26). The analysis
6 area is the area within and extending 19.75-miles from the site boundary, including areas
7 outside the state if applicable to the Council's standard.¹³⁸

8
9 *III.F.1.a Protected Areas in Analysis Area*

10
11 To identify protected areas impacted by the micrositing area additions proposed in RFA2, the
12 certificate holder reviewed geographic information system (GIS) data, maps, and other
13 information on the updated categories of protected area as listed in OAR 345-001-0010(26).¹³⁹
14 No new protected areas are within the analysis area for the proposed RFA2 micrositing area
15 additions.¹⁴⁰

16
17 Table 23: *Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1*
18 *Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions*, identifies protected
19 areas within the analysis area from the proposed RFA2 micrositing area additions as well as
20 the proximity of approved ASC routes and RFA1 micrositing area additions, and proposed RFA2
21 micrositing area additions to each protected area. The *Final Order on ASC* identified 80
22 protected areas and RFA1 identified 8 additional protected areas that are within the 20-mile
23 proposed RFA1 micrositing area additions analysis area; there are not any new protected areas
24 within the analysis area for RFA2, therefore there is a total of 88 protected areas within the
25 analysis areas for the ASC, RFA1 and RFA2.

¹³⁷ OAR 345-001-0010(29) defines "Significant" as "...having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resource affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact."

¹³⁸ The Department established the site boundary as the analysis area for the Fish and Wildlife Habitat standard. Consistent with the analysis area established in the Second Amended Project Order, the same previously established analysis area applies to review of future proposed changes. B2HAPPDoc15 ApASC Second Amended Project Order 2018-07-26. Table 2, Page 23.

¹³⁹ The Council's protected area rulemaking, which updated the list of protected areas, the effective dates, and land management agency contact information, became effective on December 19, 2022. Council's approval of the Boardman to Hemingway Transmission Line Final Order on ASC was September 27, 2022, therefore the previous protected area rule language applied to Council's approval of the ASC. The review of protected areas for RFA2 is limited to the potential impacts from RFA2 proposed micrositing areas to protected areas and not a re-evaluation of previously approved routes, roads and facility components.

¹⁴⁰ B2HAMMD2Doc2 RFA2 2024-04-11, Section 7.1.4.

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Blue Mountain Forest State Scenic Corridor	State Parks and Waysides/OPRD	Umatilla, Union	0 mi ¹		3.7 mi	NW	0 mi ¹ (Access Road Crosses)		0 mi ¹ (Pulling and Tensioning Area Crosses)	
Ladd Marsh WA/SNHA	State Wildlife Areas and Management Areas/ODFW	Union	0 mi ¹		208.3 ft	E	4.5 mi (Access Road)	NW	0.1 mi (Multi-Use Area)	NE
Oregon Trail ACEC - NHOTIC Parcel	BLM ACECs/BLM	Baker	106 ft ¹⁴¹	NE	-. ²	-. ²	2.1 mi (Access Road)	SW	0.1 mi NW (ASC Approved Route Revised 230-kV Rebuild)	NW
Owyhee River Below the Dam ACEC	BLM ACECs/BLM	Malheur	249 ft	SW	7.6 mi	SE	1.9 mi (Access Road)	E	<0.1 mi ⁵ SW (Pulling and Tensioning)	
Oregon Trail ACEC - Straw Ranch 1 Parcel	BLM ACECs/BLM	Baker	0.1 mi	SW	-. ²	-. ²	0.1 mi (Access Road)	E	0.2 mi NE (Pulling and Tensioning)	NE
Oregon Trail ACEC - Birch Creek parcel	BLM ACECs/BLM	Malheur	0.2 mi	SW	-. ²	-. ²	0.3 mi (Access Road)	E	0.2 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NE
Hilgard Junction State Recreation Area	State Parks and Waysides/OPRD	Union	0.3 mi	E	0.4 mi	N	0.6 mi (Access Road)	SE	0.1 mi ⁵ (Rock Creek Alternative 1 Distribution Power Line to Communication Station)	SE
Deer Flat National Wildlife Refuge (including Snake River Island Units)	National and State Wildlife Refuge/USFWS	Malheur	0.4 mi	E	12.2 mi	E	0.6 mi (Access Road)	SW	0.1 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NW

¹⁴¹ *Final Order on ASC Table PA-1: Protected Areas within Analysis Area and Distance from Approved and Alternative Transmission Line Routes*, identified the distance of the facility centerline to the boundary of NHOTIC as 123.4 feet. However, both the *Final Order on ASC Table SR-1 Scenic Resources within Analysis Area and Section IV.K.1, Recreation*, page 559 state that the distance of the facility centerline to NHOTIC outer boundary is 106 feet (0.02 miles). This is also reiterated in Idaho Power's Closing Arguments for Contested Case Issues R-1, R-2, R-3, R-4, SR-2, SR-3, and SR-7, 2022-02-28, beginning on page 36.

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Oregon Trail ACEC - Tub Mountain Parcel	BLM ACECs/BLM	Malheur	0.5 mi	W	17.2 mi	N	1.5 mi (Access Road)	E	1.0 mi (Pulling and Tensioning)	SE
Columbia Basin - Coyote Springs WA	State Wildlife Areas and Management Areas/ODFW	Morrow	0.5 mi	W	8.9 mi	N	12.2 mi (Access Road)	S	0.4 mi E (Pulling and Tensioning)	E
Farewell Bend State Recreation Area	State Parks and Waysides/OPRD	Baker	0.7 mi	NE	- ²	- ²	0.4 mi (Access Road)	W	0.6 mi (Pulling and Tensioning)	SE
Oregon Trail ACEC - Blue Mountain Parcel	BLM ACECs/BLM	Union	0.9 mi	NE	6.7 mi	NW	0.9 mi (Access Road)	SW	1.0 mi (Pulling and Tensioning)	W
Oregon Trail ACEC - Straw Ranch 2 Parcel	BLM ACECs/BLM	Baker	1.1 mi	NE	- ²	- ²	1.9 mi (Access Road)	SE	1.0 mi (Pulling and Tensioning)	SW
Oregon Trail ACEC - Powell Creek Parcel	BLM ACECs/BLM	Baker	1.2 mi	E	- ²	- ²	2.2 mi (Access Road)	W	1.0 mi (Pulling and Tensioning)	SW
Umatilla National Wildlife Refuge (NWR)	National and State Wildlife Refuge/USFWS	Morrow	1.3 mi	N	9.6 mi	N	12.7 mi (Access Road)	S	1.4 mi (Pulling and Tensioning]	S
Powder River WSR (Scenic)	Scenic Waterway/BLM	Baker, Union	1.4 mi	E	14.8 mi	SE	9.8 mi (Access Road)	SW	1.3 mi (Existing Road, Substantial Modification, 71-100% Improvements)	W
Powder River Canyon ACEC	BLM ACECs/BLM	Baker	1.4 mi	E	16.3 mi	SE	8.8 mi (Access Road)	SW	1.1 mi (Existing Road, Substantial Modification, 71-100% Improvements)	SW
Lindsay Prairie Preserve/ SNHA	State Natural Heritage Areas/TNC	Morrow	1.6 mi	W	3.9 mi	SW	1.3 mi (Little Juniper Canyon Transmission Line Alternative)	E	2.8 mi (Bombing Range SE Transmission Centerline)	NE

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Glass Hill Preserve/SNHA	State Natural Area/Blue Mtn. Land Trust	Union	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	1.6 mi (Access Road)	W	136.6 feet (Baldy Alternative)	NW
Boardman RNA	Lands Designated in Federal Management Plan/USDOD	Morrow	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	2.0 mi (Access Road)	S	0.1 mi (West of Bombing Range Road Alternative 1 Pulling and Tensioning)	E
Five Points Creek (Wild)	Scenic Waterway/USFS	Umatilla, Union	2.0 mi	NE	2.1 mi	NE	2.4 mi (Access Road)	S	1.9 mi (Rock Creek Alternative 1 Distribution Power Line to Communication Station)	S
South Alkali Sand Hills ACEC	BLM ACECs/BLM	Malheur	2.1 mi	E	12.6 mi	N	5.8 mi (Access Road)	W	2.0 mi (Pulling and Tensioning)	NW
Oregon Trail ACEC - White Swan Parcel	BLM ACECs/BLM	Baker	2.9 mi	E	- ²	- ²	2.9 mi (Access Road)	S	2.8 mi (Existing Road, Substantial Modification, 21-70% Improvements)	SW
Emigrant Springs State Heritage Area	State Parks and Waysides/OPRD	Umatilla	3.3 mi	N	16.5 mi	NW	2.9 mi (Access Road)	SW	3.2 mi (Pulling and Tensioning)	SW
Succor Creek State Natural Area/SNA	State Parks and Waysides/OPRD	Malheur	3.4 mi	SW	- ²	- ²	3.5 mi (Access Road)	NE	3.3 mi (Pulling and Tensioning)	NE
Red Bridge State Wayside	State Parks and Waysides/OPRD	Union	4.8 mi	SW	- ²	- ²	5.2 mi (Access Road)	NE	4.9 mi (Wallowa Whitman NF H-Frame [Pulling and Tensioning])	NE
Owyhee Views ACEC	BLM ACECs/BLM	Malheur	5.3 mi	SW	14.7 mi	S	7.2 mi (Access Road)	E	5.5 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NE

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Umatilla Hatchery	National and State Fish Hatcheries/ODFW	Morrow	5.5 mi	N	15.0 mi	NE	18.3 mi (Access Road)	S	5.8 mi (Pulling and Tensioning)	SW
Oregon Trail ACEC - Keeney Pass Parcel	BLM ACECs/BLM	Malheur	5.7 mi	E	5.7 mi	NE	5.4 mi (Access Road)	W	5.6 mi (Pulling and Tensioning)	SW
Lake Owyhee State Park	State Parks and Waysides/OPRD	Malheur	6.0 mi	W	15.4 mi	S	8.1 mi (Access Road)	E	6.1 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NE
Boardman/Willow Creek RNA	Lands Designated in Federal Management Plan/ODFW	Morrow	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	6.1 mi (Access Road)	E	6.1 mi (Proposed Route in Morrow County)	E
Eastern Oregon Ag Research Station	Agricultural Experimental Station	Union	6.4 mi	NE	7.0 mi	E	- ²	- ²	- ²	
Irrigon Hatchery	National and State Fish Hatcheries/ODFW	Morrow	6.6 mi	N	14.7 mi	NE	17.7 mi (Access Road)	SW	7.0 mi (Pulling and Tensioning)	SW
Jump Creek Canyon ACEC	BLM ACECs	Idaho	6.8 mi	SE	- ²	- ²	6.9 mi (Access Road)	NW	8.3 mi (Pulling and Tensioning)	NW
Birch Creek Cove RNA	Lands Designated in Federal Management Plan/USFS	Umatilla	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	6.9 mi (Access Road)	N	7.3 mi (Pulling and Tensioning)	NE
Rogers Wildlife Area (WA)	State Wildlife Areas and Management Areas/ODFW	Malheur	7.1 mi	E	12.0 mi	SE	6.7 mi (Access Road)	SW	5.2 mi (Existing Road, Substantial Modification, 21-70% Improvements)	SW
Columbia Basin - Irrigon WA	State Wildlife Areas and Management Areas/ODFW	Morrow, Umatilla	7.4 mi	NE	14.9 mi	NE	17.9 mi (Access Road)	SW	7.7 mi (Pulling and Tensioning)	SW
Elkhorn - North Powder WA Tract	State Wildlife Areas and Management Areas/ODFW	Baker, Union	7.5 mi	W	7.8 mi	S	7.5 mi (Access Road)	NE	7.0 mi (Multi-Use Area)	E

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Catherine Creek State Park	State Parks and Waysides/OPRD	Union	7.7 mi	NE	- ²	- ²	9.0 mi (Access Road)	W	7.6 mi (Pulling and Tensioning)	SW
Elkhorn - Auburn WA Tract	State Wildlife Areas and Management Areas/ODFW	Baker	7.9 mi	SW	- ²	- ²	8.4 mi (Access Road)	NE	7.9 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NE
Starkey Experimental Forest/Game Management Area	Experiment Area/USFS	Umatilla, Union	8.0 mi	S	12.8 mi	W	8.7 mi (Access Road)	NW	8.0 mi (Sevenmile Creek Alternative Transmission Centerline)	NW
Battle Mountain Forest State Scenic Corridor	State Parks and Waysides/OPRD	Umatilla	8.0 mi	S	- ²	- ²	8.4 mi (Access Road)	N	7.4 mi (Rugg Canyon Alternative Transmission Centerline)	N
McKay Creek National Wildlife Refuge	National and State Wildlife Refuge/USFWS	Umatilla	9.7 mi	N	- ²	- ²	9.6 mi (Access Road)	S	4.4 mi (Multi-Use Area)	SW
Unity Forest State Scenic Corridor	State Parks and Waysides/OPRD	Baker	10 mi	W	- ²	- ²	10.6 mi (Access Road)	NE	10.0 mi (Existing Road, Substantial Modification, 21-70% Improvements)	NE
Government Draw RNA	Lands Designated in Federal Management Plan/USFS	Union	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	10.8 mi (Access Road)	NW	9.4 mi (Sevenmile Creek Alternative Transmission Centerline)	NW
Upper Grande Ronde River (Recreational)	Scenic Waterway/USFS	Union	10.9 mi	SW	10.6 mi	S	11.0 mi (Access Road)	NE	10.8 mi (Rock Creek Alternative 2 Transmission Centerline)	NE
Oregon Trail ACEC - Echo Meadows Parcel	BLM ACECs/BLM	Umatilla	11.1 mi	NE	15.2 mi	E	10.9 mi (Access Road)	NE	4.1 mi (Multi-Use Area)	N

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Keating Riparian ACEC/RNA	BLM ACECs/BLM	Baker	11.2 mi	E	- ²	- ²	15.0 mi (Access Road)	W	11.2 mi (Highway 203 Crossing Alternative Tower [Single Circuit 500kV Lattice – Tangent])	SW
North Fork Catherine Creek (Recreational)	Scenic Waterway/USFS	Union	11.3 mi	E	17.2 mi	E	13.6 mi (Access Road)	W	11.2 mi (Pulling and Tensioning)	SW
Honeycombs RNA	BLM ACECs/BLM	Malheur	11.3 mi	SW	- ²	- ²	11.5 mi (Access Road)	NE	11.2 mi (Pulling and Tensioning)	NE
Squaw Creek RNA	BLM ACECs/BLM	Idaho	11.4 mi	SE	- ²	- ²	11.5 mi (Access Road)	NW	12.9 mi (Pulling and Tensioning)	NW
Elkhorn - Roth WA Tract	State Wildlife Areas and Management Areas/ODFW	Baker	11.6 mi	W	18.4 mi	S	13.1 mi (Access Road)	SE	9.7 mi (Multi-Use Area)	NE
Ontario State Recreation Site	State Parks and Waysides/OPRD	Malheur	11.9 mi	E	- ²	- ²	13.9 mi (Access Road)	NW	11.8 mi (Pulling and Tensioning)	NW
Elkhorn - Muddy Creek WA Tract	State Wildlife Areas and Management Areas/ODFW	Baker	12.1 mi	W	16.5 mi	S	14.5 mi (Access Road)	NE	9.0 mi (Multi-Use Area)	NE
Payette River Wildlife Area	State Wildlife Refuge or Management Areas/ODFW	Malheur	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	12.7 mi (Access Road)	NW	11.3 mi (Pulling and Tensioning)	W
Malheur Experiment Station	Agricultural Experimental Station/OSU	Malheur	13.1 mi	E	19.8 mi	NE	15.5 mi (Access Road)	NW	13.0 mi (Pulling and Tensioning)	NW
Hunt Mountain ACEC	BLM ACECs/BLM	Baker	13.1 mi	W	19.7 mi	W	12.9 mi (Access Road)	W	11.3 mi (Multi-Use Area)	NE
North Fork Catherine Creek (Wild)	Scenic Waterway/USFS	Union	13.4 mi	E	18.3 mi	E	15.2 mi (Access Road)	W	13.3 mi (Pulling and Tensioning)	SW

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Eagle Cap Wilderness	Wilderness area/USFS	Baker, Union, Wallowa	13.7 mi	NE	16.6 mi	NE	14.4 mi (Access Road)	W	13.7 mi (Pulling and Tensioning)	SW
Long-billed Curlew Habitat Area ACEC	BLM ACECs/BLM	Idaho	14.7 mi	E	19.6 mi	E	12.4 mi (Access Road)	E	9.9 mi (Existing Road, Substantial Modification, 21-70% Improvements)	SW
Dry Creek Gorge ACEC	BLM ACECs/BLM	Malheur	15 mi	W	18.7 mi	S	15.9 mi (Access Road)	NE	15.1 mi (Pulling and Tensioning)	NE
South Ridge Bully Creek RNA	BLM ACECs/BLM	Malheur	15.1 mi	W	- ²	- ²	17.4 mi (Access Road)	SE	15.2 mi (Cottonwood Creek Alternative Pulling and Tensioning)	SE
North Powder River (Scenic)	Scenic Waterway/USFS	Baker	15.2 mi	W	17.8 mi	S	16.5 mi (Access Road)	NE	11.7 mi (Multi-Use Area)	NE
McBride Creek RNA	BLM ACECs/BLM	Idaho	15.3 mi	S	- ²	- ²	15.4 mi (Access Road)	N	16.4 mi (Pulling and Tensioning)	N
Upper Grande Ronde River (Wild)	Scenic Waterway/USFS	Grant, Union	15.7 mi	SW	14.9 mi	S	16.4 mi (Access Road)	NE	14.5 mi (Baldy Alternative Tower Single Circuit 500kV Lattice – Dead-end)	NE
Columbia Basin - Power City WA	State Wildlife Areas and Management Areas	Umatilla	15.7 mi	NE	- ²	- ²	- ²	- ²	- ²	- ²
Hermiston Ag Research and Extension Center	Agricultural Experimental Station/OSU	Umatilla	15.8 mi	E	18.6 mi	E	19.3 mi (Access Road)	S	3.8 mi (Multi-Use Area)	SW
Indian Creek RNA	Lands Designated in Federal Management Plan/USFS	Union	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	16.3 mi (Access Road)	SW	12.2 mi (Multi-Use Area)	SW
Columbia Basin Ag Research Station	Agricultural Experimental Station/OSU	Sherman, Umatilla	16.6 mi	N	- ²	- ²	17.7 mi (Access Road)	S	11.7 mi (Multi-Use Area)	SW

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
Eagle Creek (Recreational)	Scenic Waterway	Baker	16.7 mi	E	– ²	– ²	– ²	– ²	– ²	
Rebecca Sand Hill RNA/ACEC	Lands Designated in Federal Management Plan/BLM	Idaho/Washington	x ^{2,3}	x ^{2,3}	x ^{2,3}	x ^{2,3}	16.8 mi (Access Road)	W	16.7 mi (Existing Road, Substantial Modification, 21-70% Improvements)	W
Hixon Columbian Sharp-tailed Grouse Habitat Area ACEC	BLM ACECs/BLM	Idaho/Washington	17.7 mi	NE	– ²	– ²	17.3 mi (Access Road)	SW	16.5 mi (Multi-Use Area)	SW
North Ridge Bully Creek RNA	BLM ACECs/BLM	Malheur	17.7 mi	W	– ²	– ²	20.0 mi (Access Road)	SE	17.8 mi (Cottonwood Creek Alternative Pulling and Tensioning)	SE
Horn Butte ACEC	BLM ACECs/BLM	Gilliam, Morrow	18.1 mi	W	18.2 mi	W	18.1 mi (Access Road)	W	18.2 mi (Proposed Route in Morrow County)	E
Leslie Gulch ACEC	BLM ACECs/BLM	Idaho	18.1 mi	SW	– ²	– ²	18.2 mi (Access Road)	NE	18.4 mi (Pulling and Tensioning)	NE
Columbia Basin - Willow Creek WA/SNHA	State Wildlife Areas and Management Areas/ODFW	Gilliam	18.3 mi	W	18.8 mi	NW	19.9 mi (Access Road)	SE	18.2 mi (Boardman Junction Transmission Centerline)	E
North Fork Umatilla Wilderness	Wilderness area/USFS	Umatilla, Union	18.7 mi	NE	– ²	– ²	18.7 mi (Access Road)	SW	18.6 mi (Pulling and Tensioning)	SW
North Fork John Day Wilderness	Wilderness area/USFS	Baker, Grant, Umatilla	19.1 mi	SW	19.2 mi	SW	19.1 mi (Access Road)	NE	15.8 mi NE (Multi-Use Area)	NE
Hammond Hill Sand Hills RNA	BLM ACECs/BLM	Malheur	19.2 mi	W	– ²	– ²	19.5 mi (Access Road)	NE	19.1 mi (Pulling and Tensioning)	NE
Ukiah-Dale Forest State Scenic Corridor	State Parks and Waysides/OPRD	Umatilla	19.3 mi	S	– ²	– ²	19.5 mi (Access Road)	N	18.8 mi (Rugg Canyon Alternative)	N

Table 23: Protected Areas within Analysis Area for ASC Approved Routes, Approved RFA1 Micrositing Area Additions, Proposed RFA2 Micrositing Area Additions

Protected Areas	Protected Area Category/Management Agency	County	ASC Approved Route		ASC Approved Alternative Route		RFA1 Approved Site Boundary/Micrositing Area Addition		RFA2 Proposed Micrositing Area Addition	
			Distance	Direction	Distance	Direction	Distance	Direction	Distance	Direction
									Transmission Centerline)	
Minam River (Wild)	Scenic Waterway	Union, Wallowa	19.4 mi	E	- ²	- ²	- ²	- ²	- ²	
The Minam Scenic Waterway	Scenic Waterway	Union, Wallowa	19.6 mi	E	- ²	- ²	- ²	- ²	- ²	
Cold Springs National Wildlife Refuge	National and State Wildlife Refuge	Umatilla	20.9 mi ⁴	NE	- ²	- ²	- ²	- ²	- ²	
Sumpter Valley Dredge SNHA	State Natural Heritage Areas	Baker	21.3 mi ⁴	W	- ²	- ²	19.5 mi (Access Road)	E	- ²	
Hat Rock State Park	State Parks and Waysides	Umatilla	21.3 mi ⁴	E	- ²	- ²	- ²	- ²	- ²	
North Fork John Day River (Recreational)	Scenic Waterway	Grant, Umatilla	21.4 mi ⁴	W	- ²	- ²	- ²	- ²	- ²	
North Fork John Day River (Wild)	Scenic Waterway	Baker, Grant	21.7 mi ⁴	W	- ²	- ²	19.1 mi (Access Road)	NE	- ²	
McNary National Wildlife Refuge	National and State Wildlife Refuge	Umatilla	24.5 mi ⁴	NE	- ²	- ²	- ²	- ²	- ²	
^{1.} Crossing of the protected area is allowed per OAR 345-022-0040(2), (3). ^{2.} Outside analysis area for route or related or supporting facility. ^{3.} Potential impacts from approved routes in <i>Final Order on ASC</i> not evaluated for protected area. ^{4.} Location of protected areas associated with transmission line routes is relative to each route segment's centerline, not the micrositing area/site boundary. There may be values greater than 20 miles listed because temporary Project features (multi-use areas, pulling and tensioning sites) are located several miles away from route centerlines. ^{5.} RFA2 Proposed Micrositing Area Additions are immediately adjacent to the given resource's boundary but do not cross the resource. Source: Derived from <i>Final Order on ASC</i> Table PA-1: Protected Areas within Analysis Area and Distance from Approved and Alternative Transmission Line Routes and RFA1 Attachment 7-2, Table 1. Summary of Impact Determinations for Protected Areas; B2HAMD2 RFA2, Attachment 7-2.										

1
2 Because there are not any newly identified protected areas within the analysis area of the
3 micrositing area additions proposed in RFA2, the descriptions of the protected areas within the
4 analysis areas are those as summarized in the *Final Order on ASC* and *Final Order on RFA1* and
5 described in the ASC; and RFA1 continue to be applicable to RFA2 and are not further described
6 in this order.

7
8 *III.F.1.b Potential Impacts to Protected Areas*

9
10 III.F.1.b.1 Protected Areas Crossed by RFA2 Micrositing Area Additions – Exceptions (OAR 345-
11 022-0040(2) and (3))

12
13 RFA2 includes a pulling and tensioning site that would also cross the Blue Mountain Forest
14 State Scenic Corridor (see Figure 4-2; Map 31; Pulling and Tensioning Site 2/345). Pulling and
15 tensioning site 2/345 is associated with its counterpart 2/343. Both of these pulling and
16 tensioning sites are a small deviation from an angle in the previously approved route. The *Final*
17 *Order on ASC* evaluated the facility crossing the Blue Mountain Forest State Scenic Corridor and
18 Council found that the facility, including related or supporting facilities, would be located
19 entirely within a utility corridor designated by the Wallowa Whitman National Forest as a
20 “Power and Transportation Facility Retention Corridor;” and the analysis of alternative routes
21 that would be more impactful was sufficient to allow the facility to be sited through the Blue
22 Mountain Forest State Scenic Corridor in accordance with OAR 345-022-0040(2).¹⁴² The
23 Department recommends Council find that the minor changes in the location of the pulling and
24 tensioning site, which significantly overlap within the already approved site boundary, do not
25 impact Council’s previous findings of compliance with OAR 345-022-0040(2).

26
27 Protected Areas Condition 1 (Condition GEN-PA-01) requires that the certificate holder
28 coordinate construction activities in Ladd Marsh Wildlife Area within ODFW’s wildlife area
29 manager, Protected Areas Condition 2 (Condition GEN-PA-02) requires that the final facility
30 design avoid Ladd Marsh. These conditions apply to the certificate holder but are not
31 implicated by the proposed RFA2 micrositing area additions.

32
33 III.F.1.b.2 Potential Noise Impacts

34
35 As summarized in Section III.R.1., *Noise Control Regulations* of this order, predicted noise levels
36 associated with the combined operation of five pieces of construction equipment is 83 dBA at
37 50 feet, 79 dBA at 100 feet, and attenuates to 46 dBA at 6,400 feet.¹⁴³ For reference, classroom
38 chatter has an approximate dBA of 70 and a soft whisper is a dBA of approximately 40 dBA. The
39 certificate holder provides an evaluation of noise at protected areas within the analysis area for

¹⁴² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 297; B2HAMMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, page 139.

¹⁴³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 299 and Table PA-2: Predicted Noise Levels from General Construction Activities.

1 RFA2 associated with each road and transmission line alternative in RFA2 Attachment 7-2, Table
2 1: *Summary of Impact Determinations for Protected Areas*. Council previously found that
3 protected areas within approximately one-half mile from facility construction may experience
4 short term impacts.¹⁴⁴ Twelve proposed RFA2 micro-siting area additions would be located
5 within 0.5 miles of a protected area. Noise from road construction would predominately result
6 from construction vehicles and equipment (i.e. backhoe, dump truck, grader, pickup truck, and
7 tractor), which generally operate at lower noise levels than other construction-related noise
8 (i.e. blasting, augers). These impacts would progress along the corridor of the transmission line
9 route, and no area would be exposed to construction noise for the entire construction period.
10 Further, noise also attenuates with distance, topography, and vegetative screening so
11 construction noise at protected areas within one-half mile of the facility may be lower during
12 actual facility construction. The Department recommends Council find that construction noise
13 experienced at protected areas from construction the proposed RFA2 changes would be similar
14 to those Council evaluated and approved in the *Final Order on ASC and RFA1*, and any noise
15 would be for a short duration and temporary.

16 *Operation*

17
18
19 Operational noise includes potential corona noise generated from the proposed transmission
20 line and operations and maintenance (O&M) activities. Maintenance activities would include
21 vegetation management, transmission line inspections, transmission line repair and
22 maintenance activities, and access road repair. Maintenance activities are temporary and occur
23 infrequently during facility operation, therefore not anticipated to have an impact on protected
24 areas.

25
26 *Final Order on ASC* states that under typical operating conditions, corona noise from the
27 transmission line is estimated at 27 dBA at the edge of the facility right of way (ROW).¹⁴⁵ A soft
28 whisper three feet away has a noise level of approximately 40 dBA and a conversation at three
29 feet away is approximately 60 dBA; 27 dBA is barely audible and would not cause a significant
30 noise impact at any protected area. During certain foul weather conditions (light rain), when
31 there is low wind, and low ambient environmental noise, corona noise could be greater than 27
32 dBA at the edge of the ROW and may be audible at certain locations in protected areas very
33 near the proposed RFA2 micro-siting areas. However, the maximum sound level associated with
34 the proposed RFA2 transmission line routes, in a “worse-case scenario” (during foul

¹⁴⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 301.

¹⁴⁵ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 301-302.

1 weather/low ambient noise) will be no greater than 45 dBA at any noise sensitive receptor.^{146,}
2 ¹⁴⁷

3
4 The revised 230-kV rebuild proposed in RFA2 would be located 0.1 miles (528 feet) from the
5 outer boundary of the Oregon Trail ACEC, National Historic Oregon Trail Interpretive Center
6 (NHOTIC) parcel. The revised portion of the rebuilding of the existing 230kV transmission line
7 would be located approximately 400 feet further away from the parcel than the previously
8 approved rebuild, therefore, any potential noise impacts would be less than any noise
9 associated with the approved route/rebuild. The analysis provided in the *Final Order on ASC*
10 applicable to NHOTIC is also applicable to the proposed RFA2 changes, mainly that noise would
11 not be audible from the NHOTIC center itself, and users of trail would not likely be using the
12 trail during times of low ambient noise (e.g. 12:00 a.m. to 5:00 a.m.), or rainy conditions.¹⁴⁸

13
14 A distribution line to a communication station associated with the proposed Rock Creek
15 Alternative 1, would be hung from existing poles to the extent practicable, and would be
16 located 0.1 miles (528 feet) away from the Hilgard Junction State Recreation Area.¹⁴⁹
17 Distribution supply lines are typically 34.5-kV or lower and carried on wood poles.¹⁵⁰ Corona
18 typically becomes a design concern for transmission lines at 345-kV and above, therefore would
19 not be a concern for the distribution line.¹⁵¹

20
21 The proposed RFA2 Baldy Alternative is 136.6 feet away from the Glass Hill Preserve State
22 Natural Area. As discussed in the *Final Order on RFA1*, the Glass Hill Preserve/SNHA was
23 established in 2020 and is part of a privately owned nature reserve under a conservation
24 easement managed by the Blue Mountain Land Trust. Conservation easements may allow
25 public hunting and fishing by permission and open public access to the area is unclear.¹⁵² This
26 protected area is designated as a protected area for the research and protection of wildlife and

¹⁴⁶ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-19; Table2. Operational noise is discussed in the context of the DEQ noise regulations is to inform the potential noise impacts under the Council’s Protected Areas standard, however, the analysis or compliance with the DEQ noise rules is not a requirement of the Protected Areas standard. OAR 340-035-0015(38) defines Noise Sensitive Property as “real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries...” Certificate holder’s noise analysis refers to Noise Sensitive Properties as Noise Sensitive Receptors or NSRs.

¹⁴⁷ The noise analysis evaluates the “worst-case” noise generated from operation of the proposed RFA2 transmission line routes by using baseline ambient noise levels during the quietest time of the night (12:00 a.m. to 5:00 a.m.), which for the noise analysis is assumed to be present at all times of the day. Such is not the case as during the daytime ambient noise levels are higher because they include noise from traffic, wildlife, and agricultural activities, etc.

¹⁴⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 302-303, and Table PA-3.

¹⁴⁹ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-2.

¹⁵⁰ B2HAPPDoc3-3 ASC 02a_ Exhibit_B_Project Description_ASC 2018-09-28, Section 3.2.2.3.

¹⁵¹ B2HAPPDoc3-41 ASC 24_ Exhibit X_Noise_ASC 2018-09-28, Section 3.3.2.1.

¹⁵² B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, page 124. Communication between Kristen Gulick, Tetra Tech, and Lindsey Wise, Oregon State University, Institute for Natural Resources, July 13, 2022, and Meghan Ballard, Blue Mountains Conservancy, July 23, 2022, Attachment 7-2. B2HAMD1 RFA1 2023-06-08. Section 7.1.4. Comments from Ms. Geer on AMD1 DPO indicated that the Glass Hill Preserve may be available for the public to access, however, open public access to the area is unclear.

1 sensitive plant resources; the low-level of corona noise expected to occur during certain foul
2 weather conditions, is unlikely to impact those resources protected within the area. Any noise
3 generated from the proposed RFA2 route during the daytime hours would likely be masked by
4 the higher ambient noise levels that occur during the daytime hours.

5
6 For the reasons presented above, and as found in the *Final Order on ASC and RFA1*, the
7 Department recommends Council find that the proposed RFA2 transmission line routes are not
8 likely to result in significant adverse impact from noise to protected areas.

9
10 III.F.1.b.3 Potential Traffic-Related Impacts

11
12 *Construction*

13
14 Construction of the roads and transmission line alternatives proposed on RFA2 would cause
15 short-term impacts to those protected areas that are near the micrositeing area additions or
16 where construction traffic routes pass near those protected areas, however, these potential
17 impacts would be similar or less than Council previously evaluated and approved. Council
18 previously found that traffic impacts would be short-term and limited in duration. Some
19 protected areas would have no impacts from construction due to the distance from the
20 micrositeing area additions as well as planned haul and commuting routes. Some protected
21 areas would have minor construction-related traffic impacts due to proximity of the micrositeing
22 area additions, or haul/commute routes, near the protected areas. The certificate holder
23 provides an evaluation of traffic impacts at protected areas in the analysis area for RFA2
24 associated with each road and transmission line alternative in RFA2 Attachment 7-2, Table 1:
25 *Summary of Impact Determinations for Protected Areas*. Attachment 7-2, Table 1 provides a
26 description of the facility components associated with the proximity to each protected area and
27 describes the haul routes that would be used, and alternative routes used to indicate that there
28 would be a less than significant impact. Public Services Condition 2 requires the finalization of
29 county-specific Transportation and Traffic Plan(s), which would include measures that would
30 reduce construction related traffic impacts such as flagging, posting caution signs and using
31 pilot cars. This condition continues to apply to the facility and certificate holder, and the
32 Department recommends Council find that the proposed RFA2 changes would not cause
33 significant traffic impacts to protected areas within the analysis area.

34
35 *Operation*

36
37 In the *Final Order on ASC and RFA1*, Council previously found that there would not be impacts
38 to protected areas from operation of the facility anticipated during facility operation. Facility
39 operation would involve very infrequent maintenance and inspections by the certificate holder,
40 expected at one or two inspections per year. The Department recommends Council find that
41 the proposed RFA2 changes would not be different from the *Final Order on ASC and RFA1*.

42
43 III.F.1.b.4 Potential Impacts from Water Use and Wastewater Disposal

1 the USFS methodology. The methodology incorporates elements from the USFS methodology
 2 to assess the baseline scenic conditions in forested areas and elements from the BLM’s VRM to
 3 assess baseline scenic conditions in non-forested areas.¹⁵⁴ Similar to the ASC and RFA1, the
 4 visual impact assessment extends 5 miles from the proposed micro-siting area additions in non-
 5 forested settings, and 10 miles in forested settings. Beyond those distances, Council previously
 6 found that visibility of the facility components would be negligible.¹⁵⁵ In the *Final Order on*
 7 *RFA1*, Council found that for roads, most of which do not have a vertical visual component
 8 associated with them, the visual impact assessment is further refined by proximity, i.e.,
 9 foreground (<0.5 miles), middleground (0.5 to 5 miles), or background distances (> 5 miles).

10
 11 To determine whether potential visual impacts would be “significant,” Council approved the
 12 methodology which takes into consideration the combined outcome of context of the impact,
 13 impact intensity, and the degree to which the possible impacts are caused by the proposed
 14 action. This is done by applying the Council’s definition of “significant,” meaning having an
 15 important consequence, either alone or in combination with other factors, based upon the
 16 magnitude and likelihood of the impact on the affected human population or natural resources,
 17 or on the importance of the natural resource affected, considering the context of the action or
 18 impact, its intensity and the degree to which possible impacts are caused by the proposed
 19 action.¹⁵⁶ Table 16: *Definition of Significant (per Council’s Rule OAR 345-001- 0010(29)) and*
 20 *Application for Visual Impacts for Protected Areas, Recreation, and Scenic Resources*, below is
 21 taken from the *Final Order on ASC* to summarize how the certificate holder quantified the
 22 Council’s definition into measurable and repeatable methodology.¹⁵⁷

23
 24 As is noted in Sections IV.J., *Scenic Resources* and IV.L, *Recreation*, the same visual resource
 25 impact assessment methodology was used by the certificate holder to assess visual impacts
 26 from the proposed micro-siting area additions in RFA2 to resources considered in those sections.

Table 24: Definition of Significant (per Council’s Rule OAR 345-001- 0010(29)) and Application for Visual Impacts for Protected Areas, Recreation, and Scenic Resources)

Excerpt	Interpretation for Exhibit L, R, T
“having an important consequence,”	An important consequence is considered a significant impact.
“either alone or in combination with other factors,”	Qualifying language suggests that an “important consequence” may be caused by the proposed development

¹⁵⁴ Certificate holder notes that no site visits were completed for the RFA2 visual analysis, which solely relies on desktop and online data with the support of ASC field assumptions (e.g., existing vegetation screening, site usage, etc.), as applicable, that are not readily available from online sources. B2HAMD2 RFA2. Attachment 7-2, Table 1.

¹⁵⁵ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 305.

¹⁵⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 305-306.

¹⁵⁷ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 432; Table SR-2: Definition of Significance (per Council’s Rule OAR 345-001- 0005(52)) and Interpretation for Visual Impacts in Exhibit L, R, T). Note that the Table name in this order has updated OAR reference.

Table 24: Definition of Significant (per Council’s Rule OAR 345-001- 0010(29)) and Application for Visual Impacts for Protected Areas, Recreation, and Scenic Resources)

Excerpt	Interpretation for Exhibit L, R, T
	either alone or in combination with other past or present actions.
“based upon the magnitude and likelihood of the impact”	Magnitude represents the size and scale of the impact and is measured in terms of visual contrast and scale dominance. Likelihood represents the probability of occurrence of an impact; for the purposes of Exhibit L, impacts analyzed were assumed to be likely to occur.
“on the affected human population”	The impact on the human population is measured in terms of the viewer’s perception of impacts to valued scenic attributes of the protected area.
“or [on the] natural resources”	The impact to the natural resource is measured in terms of the potential change in scenic quality and/or landscape character of the protected area.
“or on the importance of the natural resource affected”	The disjunction of the magnitude of the impact from the importance of the natural resource suggests that an impact to scenic values may not result in an “important consequence” if the scenic value affected is not considered important to the protected area.
“Considering the context of the action or impact,”	The Council shall also consider the other “mitigating” (or “aggravating”) contextual factors, such as the extent to which impacts to visual values are consistent with the standards and guidelines of relevant land management objectives of the protected area.
“[the impact’s] intensity...”	The intensity of the impact considers how impacts would manifest on the landscape by assessing the combined effect of resource change and viewer perception.
“...and the degree to which the possible impacts are caused by the proposed action.”	Consider the extent to which adverse impacts are caused by the proposed facility, as opposed to other past or present actions. The contribution of this action to potential cumulative (additive) impacts should be disclosed.

1
2 *Final Order on ASC and RFA1* provided a summary of the reasons why Council concurred with
3 the certificate holders visual impact assessment methodology:¹⁵⁸
4 • The facility would cross both BLM and USFS land, and on those lands, the certificate
5 holder is required to utilize those agency’s respective visual resource impact
6 assessment methods;

¹⁵⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 432; Section IV.J., Scenic Resources. B2HAM1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22; pp. 142, 144, Table 17.

- Both the BLM and USFS approved the facility location in its ROD(s), indicating compliance with the respective visual impact methodologies and standards;
- The certificate holder adapted each of the methodologies to use evaluative criteria based upon the Council’s definition of “significant” under OAR 345-001-0010(29);
- The BLM and USFS visual impact methodologies provide an objective system to evaluate visual impacts;
- Using the BLM and USFS methods to assess visual impacts to EFSC scenic resources is consistent with the statutory direction at ORS 469.370(13) to conduct a site certificate review in a “manner that is consistent with and does not duplicate the federal agency review;”
- Most facility roads do not have a vertical component, therefore, would not have a visual impact from middleground and background distances.

III.F.1.b.5.2 Results of Visual Impact Assessment

The certificate holder evaluates the visual impacts from RFA2 proposed micro siting area additions in Attachment 7-2 regardless of distance and type of proposed facility in the micro siting areas. In the *Final Order on ASC and RFA1*, the certificate holder evaluated and Council approved methodologies to assess visual impacts from facility transmission structures and permanent facility roads.¹⁵⁹ For instance, a visual impact assessment and significance are provided for protected areas within 5 miles from roads and within 10 miles from proposed transmission line routes because Council previously found that facility structures beyond 10 miles of a protected area would not be visible or would have negligible visual impacts, and roads further than 5 miles away would not have a visual impact. RFA2 Attachment 7-2 provides certificate holder visual of RFA2 micro siting area additions including transmission line routes as well as an assessment of temporary features including multi use areas (MUAs) and pulling and tensioning sites. However, when Council considers visual impacts from energy facilities (for this and other EFSC -approved facilities), temporary construction facilities visual impacts are considered less than significant because they are temporary, and these areas are revegetated according to vegetation management plans and applicable site certificate conditions. This is reiterated in Table 25: *Visual Impact Summary for RFA2 Proposed Micro siting Areas within Analysis Area* when a temporary feature is in close proximity to a protected area. Detailed visual impact assessments to protected areas (and scenic and recreational resources) are conducted for permanent facility features. The Department compiled Table 25, based on applicable information from the *Final Order on ASC and RFA1*, RFA2 Section 7.1.4, RFA2 Attachment 4-1, and RFA2 Attachment 7-2; Tables 1 and 2.

¹⁵⁹ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-2, Table 2: Detailed Visual Analysis of Protected Areas, provides a summary of the results of the visual impact assessment including baseline characteristics, visual impact assessment, and significant determinations. Certificate holder conducted a zone of visual influence (ZVI) viewshed analysis provided in RFA2 Figure 7-11 Figure 7-11 illustrates the visibility of facility towers associated with the RFA2 transmission line micro siting area additions (shaded in pink) as well as the viewshed analysis associated with the previously approved ASC and RFA1 routes (shaded in grey).

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Blue Mountain Forest State Scenic Corridor	OR - Umatilla, Union	Crosses (Pulling and Tensioning site) ³ 5.0 mi NW (Rock Creek Alternative 1 and 2, and Sevenmile Creek Alternative)	Facility (including proposed temporary related or supporting facility (pulling and tensioning site) is allowed to be sited through the Blue Mountain Forest State Scenic Corridor in accordance with OAR 345-022-0040(2). Visual impacts from temporary features are less than significant because they do not have a permanent impact. Towers that would be visible within the protected area as a result of the nearby RFA2 Rock Creek Alternative 1 and 2, and Sevenmile Creek Alternative, which are approximately 5 miles away, would add minimal visual contrast. Steep viewing angles, tall mature vegetation, and topography will continue to screen views of the proposed RFA2 micrositing area additions. Viewers would have primarily intermittent and peripheral views. The site is managed for scenic quality; however, users are generally traveling in vehicles therefore views would be intermittent. For the reasons presented in the <i>Final Order on ASC</i> and <i>RFA1</i> , and as presented here, the Department recommends Council find visual impacts to remain low intensity and less than significant as a result of RFA2.
Owyhee River Below the Dam ACEC	OR - Malheur	<0.1 mi ⁴ SW (Pulling and Tensioning site) Not within 20 mi of RFA2 Transmission Line Structure	Council approved the facility to be located approximately 249 feet outside of the Owyhee River Below the Dam ACEC, where facility structures would be sited approximately 0.75-1.0 mile from an interpretive site, and the BLM directed the location of the facility. Based on the evaluation provided in the <i>Final Order on ASC</i> , Council found that visual impacts to the protected area would be less than significant. Visual impacts from temporary features are less than significant because they do not have a permanent impact. The Department recommends Council find that the minor adjustment to the temporary RFA2 pulling and tensioning site 2/493 does not impact the Council's previous findings.

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Hilgard Junction State Park	OR - Union	<p><0.1 mi⁴ SE (Distribution Power Line to Communication Station for Rock Creek Alternative 1)</p> <p>0.7 mi NW (Rock Creek Alternative 2)</p>	<p>Council approved the facility to be located approximately 0.8 miles west of the Hilgard Junction State Park and approximately 0.4 miles from the Morgan Lake alternative, in Union County. The site is managed for scenic quality. Based on the evaluation provided in the <i>Final Order on ASC</i> (due to the steep topography and forest vegetation adjacent to the Hilgard Junction State Park, views would be very limited, and the current/baseline landscape has existing infrastructure), Council found that visual impacts would have a “low intensity” visual impact, and as such, could not have a significant adverse impact.</p> <p>Aerial components of the distribution lines will be 34.5kV lines or lower and wooden poles, which are anticipated to be smaller than the transmission line approved in the ASC; note that the proposed distribution power line will be hung from existing poles to the extent practicable, thus visual impacts will be negligible in these instances.</p> <p>Towers associated with the nearby RFA2 proposed micrositing area addition, Rock Creek Alternative 2, and the Baldy Alternative, will likely not be visible for the same reasons as provided in the <i>Final Order on ASC</i>. Any visible facility towers associated with the two proposed alternatives would have less of an impact than evaluated in the ASC because their orientation from north to south and that only one alternative would be selected to transmission route to the Morgan Lake alternative. For the reasons presented in the <i>Final Order on ASC</i>, and presented here, the Department recommends Council find that visual impacts are anticipated to remain low intensity and less than significant as a result of RFA2.</p>

Glass Hill Preserve/ SNHA	OR - Union	136.6 feet NW (Structure Work Area/Transmission Centerline Baldy Alternative)	<p>Council approved the Morgan Lake alternative in the <i>Final Order on ASC</i>. The Morgan Lake alternative is an 18.5-mile departure from the approved route, located west of the approved route, leaving that route approximately one mile west of the Hilgard Junction State Park and rejoining the approved route southeast of Ladd Canyon. Compared to the approved route, the Morgan Lake alternative would cross fewer parcels with residences, would not cross the Ladd Marsh Wildlife Area/State Natural Heritage Area (the “Ladd Marsh Wildlife Area”), would not cross Interstate-84 (I-84) and would be 0.5 mile shorter than the approved route.¹⁶⁰ The certificate holder has indicated its intention to select the Morgan Lake alternative for construction and operation (rather than the associated segment of the ASC approved route). At the time of the submission of the ASC and issuance of the final order, the Glass Hill Preserve was listed or not protected under OAR 345-022-0040 in place at the time.¹⁶¹</p> <p>Consequently, the approved Morgan Lake alternative crosses though portions of what now is the Glass Hill Preserve/SNHA, which is now a protected area under the Council’s standard.</p> <p>The Glass Hill Preserve/SNHA was described as a protected area in the <i>Final Order on RFA1</i> because it was within the analysis area of the RFA1 changes (1.6 miles from an access road). Certificate holder further describes Glass Hill in RFA2 Attachment 7-2, which is summarized here. The preserve is 1,230 acre, privately owned nature reserve under a conservation easement managed by the Blue Mountain Land Trust. The Oregon Parks and Recreation Commission registered the property in the natural areas program in the fall of 2019, in October 2020, OPRD received a petition to upgrade the resource from a Registered Natural Area (as it was classified in the Draft 2020 Oregon Natural Areas Plan) to be a maximally subscribed resource in the State Natural Areas program as a Dedicated State Natural Area; granted by the Commission at its November 2020 meeting.¹⁶² The area is dedicated for the purpose of promoting natural diversity of native species and ecosystems in Oregon. The owner allows hunting, thinning for fire protection, and non-motorized vehicles but no livestock, logging, or development. The land is managed for the protection of natural values, and the native plants and animals present site for natural elements.¹⁶³ The site is not managed for its scenic qualities. The Glass Hill Preserve is part of the collective Glass Hill Access Area (totaling over 4,180 acres), which includes both privately-owned property as well as ODFW land.</p> <p>Baseline characteristics are Natural Appearing for existing Landscape Character, offering both Transient and Stationary views based on the hills in the background of the resource, lined with mature forest vegetation, and pastures, or human land uses in the forefront of the resource, including existing utility and road infrastructure. Because Council previously approved the facility to be located within</p>
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Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
			<p>and directly adjacent to what is now the protected area, the approved facility is assumed to be part of the baseline development on the landscape. The Transient and Stationary observer categories were determined based on the potential viewers’ location, i.e., the distance between the viewer and resource. Resource is defined as “C”, i.e., Indistinctive, for Scenic Quality/Scenic Attractiveness Class, determined by the combination of valued landscape elements such as landform, water characteristics, vegetation, color, adjacent scenery, scarcity, and cultural features.</p> <p>There are not any proposed RFA2 micrositing area additions that would cross this protected area. The RFA2 proposed micrositing area addition closest in proximity is the Baldy Alternative which would be located approximately 137 feet from the boundary of the protected area (followed with minor adjustments to temporary pulling and tensioning sites 2/360 and 2/361 and proposed modification to existing road 2/355 and 2/354). Proposed road modification to road /355 and 2/354 is a minor modification from the previously approved road and would modify an already existing road that would not have vertical components. Because it is assumed that the approved facility/transmission line will be located within and adjacent to the SNHA, the minor relocation of the facility proposed in RFA2, Department recommends Council find that the visual impact of the proposed RFA2 changes would be less than significant.</p>

¹⁶⁰ B2HAPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 65-66.

¹⁶¹ Hearing Officer granted the Motion for Summary Determination during the contested case proceeding, finding that because the Rice Glass Hill Natural Area was not registered as a Natural Area as of May 11, 2007, applicant had no obligation to evaluate the Rice Glass Hill Natural Area as a Protected Area in ASC Exhibit L. PCCO, pg. 27. Ms. Geer timely filed exceptions on this issue. After hearing argument, the Council agreed with the findings of facts, conclusions of law and conditions of approval in the PCCO. B2HAPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 38-39.

¹⁶² <https://www.oregon.gov/oprd/CAC/Documents/2020-11-minutesOPRC.pdf> Accessed 03-28-2024 Commissioner Allen moved to approve the dedication of the Glass Hill Natural Area. Commissioner Deur seconded. Motion passed, 6-0.

¹⁶³ Natural Areas Program Dedication – Glass Hill, Oregon Parks and Recreation Commission, November 18, 2020. <https://www.oregon.gov/oprd/CAC/Documents/2020-11-packetOPRC.pdf> Accessed 03-28-2024. Agenda Item 8b Dedication Agreement and Appendix 1.

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Boardman RNA	OR - Morrow	<p>0.1 mi E (Pulling and Tensioning for West of Bombing Range Road Alternative 1)</p> <p>3.4 mi NW (Bombing Range SE Alternative)</p>	<p>Council approved the ASC facility and ASC alternatives in Morrow County to be located adjacent to the Boardman RNA, which was not a protected area at that time. The Boardman RNA was added as a protected area as part of the 2022 protected area rule change. In the <i>Final Order on RFA1</i> Council approved road changes and alternative routes approximately 7 miles away from the RNA. The RNA is within the Boardman Bombing Range, owned and operated by the U.S. Department of Defense; otherwise, the RNA is monitored and maintained by The Nature Conservancy. The site is maintained for research and conservation. The public is excluded from the RNA. Existing developments on the landscape include the Naval Bombing Range, wind energy facilities, transmission lines, agricultural developments, and highways.</p> <p>Visual impacts from temporary features are less than significant because they do not have a permanent impact. Views of the Boardman Junction Alternative and Bombing Range SE Alternative 3.4 miles would be primarily peripheral and intermittent and from a neutral or elevated vantage point. Topography will partially screen the facility from view on an already developed landscape. The towers would add minimal visual contrast and the site is not managed for its scenic values. Department recommends Council find that visual impacts from the proposed transmission line alternative would be low and less than significant.</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Oregon Trail ACEC – National Historic Oregon Trail Interpretive Center (NHOTIC) Parcel	OR - Baker	0.1 mi NW (Revised 230-kV Rebuild)	<p>Council approved the facility to be located within one mile of the NHOTIC main building and within 123.4 feet of the western boundary of the NHOTIC Parcel. The findings of fact provided in the <i>Final Order on ASC</i> remain applicable to the proposed RFA2 230 kV rebuild, as summarized here. The existing landscape include portions of the paved NHOTIC trail system, several light fixtures in the parking area, and the Lode Mine building on the NHOTIC property, an existing 230-kV transmission line is located to the west, OR Highway 86, and agricultural and residential developments within the Baker Valley to the west. Because Council previously approved the facility to be located adjacent to the NHOTIC outer boundary, the approved facility is assumed to be part of the baseline development on the landscape. The BLM approved and designated the location of the facility. The site is managed for scenic quality.</p> <p>Taking into account the mitigation (Scenic Resources Condition 3 – requiring the use of a modified structure [shorter tower height, natina finish, H-frame], and Historic, Cultural, and Archaeological Resources Condition 2 – mitigation required as part of Section 106), Council previously found that the facility would introduce low to medium magnitude impacts depending on tower and viewer location within the NHOTIC parcel. Views of the facility would be experienced from an elevated vantage point and would be predominantly peripheral or intermittent such that viewer perception would be up to medium. Impacts would slightly reduce the scenery adjacent to the NHOTIC parcel but would not alter the overall scenic quality of the NHOTIC parcel such that resource change would be medium.</p> <p>RFA2 proposed micrositing area addition closest in proximity is the proposed Revised 230-kV Rebuild. The proposed rebuild would be located further away than the previously approved rebuild and previously approved facility, therefore based on the reasons discussed here and in the Final Order on ASC, the Department recommends Council find that the visual impacts associated with the proposed RFA2 change would be less than was previously approved, and less than significant.</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Deer Flat National Wildlife Refuge (NWR) (including Snake River Island Units)	OR - Malheur; ID - Ada, Canyon, Owyhee, Payette, Washington	0.1 mi NW (Existing Road, Substantial Modification, 21-70% Improvements) 13.8 mi NE (Willow Creek Alternative)	<p>RFA2 proposed micrositing area addition closest in proximity is a proposed modification to an existing road (road segment 2/501; substantial modification, 21-70%). The site is not managed for scenic quality and is managed for habitat for fish and wildlife. The road improvements will introduce low-intensity impacts at a foreground viewing distance. One of 101 islands within the NWR will remain within 2 miles of the RFA 2 Proposed micrositing area Additions (i.e., Huffman Island), otherwise a majority of the NWR will continue to have no visual impacts. Due to roads not having an aerial component (and the roads in question being preexisting), the Department recommends Council find that the visual impacts are anticipated to be low intensity as a result.</p> <p>The proposed Willow Creek Alternative is completely outside of the RFA2 modeled bare earth viewshed/viewshed of transmission towers (thus no towers are visible).</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Ladd Marsh Wildlife Area/SNHA	OR - Union	0.1 mi N (Baldy Alternative)	<p>Council approved the ASC approved route to cross the Ladd Marsh Wildlife Area/SNHA under OAR 345-022-0040(2). Council approved the Morgan Lake alternative to be located directly adjacent to (within 200 feet) Ladd Marsh, with no facility components approved to be located within the protected area boundaries (Protected Area Conditions 2), which remains applicable to the facility, with proposed RFA2 changes. The findings of fact provided in the <i>Final Order on ASC</i> remain applicable to Ladd Marsh, as summarized here. Potential visual impacts of the Morgan Lake alternative route would include the introduction of moderate contrast and co-dominant visual features to natural and other man-made features with the protected area. Other man-made features within the protected area include an existing 230 kV transmission line, I-84, State Highway 203, four home sites, a wastewater treatment facility, and several scattered buildings. Because Council previously approved the facility to be located directly adjacent to the protected area, the approved facility is assumed to be part of the baseline development on the landscape. The site is not managed for scenic quality. The area is managed for its importance for the protection of wildlife and habitat, which would not be impacted by facility visibility.</p> <p>RFA2 proposed micrositing area addition closest in proximity is the Baldy Alternative, approximately 528 feet away from the outer boundary. The proposed Baldy Alternative would shift the route to the southwest and would be further away from the protected area. For the reasons provided in the <i>Final Order on ASC</i> and presented here, the Department recommends Council find that visual impacts from the proposed RFA2 changes would be less than significant at Ladd Marsh.</p>
Oregon Trail ACEC - Straw Ranch 1 Parcel	OR - Baker	<p>0.2 mi NE (Pulling and Tensioning site)</p> <p>12.7 mi SE (230-kV Rebuild] Revised)</p>	<p>For the reasons provided in the <i>Final Order on ASC</i>, Council approved the facility to be located within 0.1 miles of the Straw Ranch Parcel 1 protected area. The proposed RFA2 micrositing addition closest in proximity is pulling and tensioning sites 2/415 and 2/416 at 0.2 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact.</p> <p>The proposed revised 230 kV rebuild is completely outside of the RFA2 modeled bare earth viewshed/viewshed of transmission towers (thus no towers are visible).</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Oregon Trail ACEC - Birch Creek parcel	OR - Malheur	<p>0.2 mi NE (Existing Road, Substantial Modification, 21-70% Improvements)</p> <p>13.8 mi NE (Willow Creek Alternative)</p>	<p>For the reasons provided in the <i>Final Order on ASC</i>, Council approved the facility to be located within 0.2 miles from the Oregon Trail ACEC - Birch Creek parcel and found that, taking into account mitigation, visual impacts of the facility would be less than significant. The area around the Birch Creek Parcel is characterized by a mixture of privately owned rangeland and federal lands managed by the BLM, surrounded by some developments including a nearby windfarm. Because Council previously approved the facility to be located adjacent to the protected area, the approved facility is assumed to be part of the baseline development on the landscape. The Birch Creek Parcel has a historic landscape character because of the Historic Oregon Trail and relative lack of additional development in the foreground. The BLM Visual Resource Management (VRM) system characterizes the overall scenic quality low (class C), due to the simplicity and uniformity of landform, colors and textures of the landscape. The BLM approved the route to be located in this area.</p> <p>The proposed RFA2 micrositing addition closest in proximity would be proposed modifications to an existing road MA-565. Because the small road segment is largely located within the previously approved site boundary, where the facility will be located and due to roads not having an aerial component (and the roads in question being preexisting), the Department recommends Council find that visual impacts will be less than significant.</p> <p>The proposed Willow Creek Alternative is completely outside of the RFA2 modeled bare earth viewshed/viewshed of transmission towers (thus no towers are visible).</p>
Farewell Bend State Recreation Area (SRA)	OR - Baker	<p>0.6 mi SE (Pulling and Tensioning site)</p> <p>15.8 mi NE (Willow Creek Alternative)</p>	<p>For the reasons provided in the <i>Final Order on ASC</i>, Council approved the facility to be located within 0.7 miles from the Farewell Bend Recreational Area. The proposed RFA2 micrositing addition closest in proximity would be pulling and tensioning site approximately 0.6 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact.</p> <p>The proposed Willow Creek Alternative is completely outside of the RFA2 modeled bare earth viewshed/viewshed of transmission towers (thus no towers are visible).</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Oregon Trail ACEC - Blue Mountain Parcel	OR - Union	1.0 mi W (Pulling and Tensioning site) 7.7 mi NW (Rock Creek Alternative 2)	<p>For the reasons provided in the <i>Final Order on ASC</i>, Council approved the facility to be located within 0.9 miles of the Oregon Trail ACEC – Blue Mountain Parcel. The proposed RFA2 micrositing addition closest in proximity would be a pulling and tensioning site approximately 1.0 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact.</p> <p>Council previously found that the facility would be less than a mile (0.9 mile) from the Blue Mountain Parcel, but the facility would be on the west side of I-84, and it would be unlikely that the facility would be visible from the Blue Mountain Parcel as there is a ridge and existing conifer trees that would screen the view. Because of the limited or absent visibility of the facility from Oregon Trail ACEC - Blue Mountain Parcel and because the facility would be on the other side of I-84 from the parcel, the proposed RFA2 Rock Creek Alternative 2 which would be 7.7 miles away would not likely be visible and cause any visual impact.</p>
Oregon Trail ACEC - Tub Mountain Parcel	OR - Malheur	1.0 mi SE (Pulling and Tensioning) 2.8 mi NE (Willow Creek Alternative)	<p>For the reasons provided in the <i>Final Order on ASC</i>, Council approved the facility to be located within 0.5 miles of the Oregon Trail ACEC - Tub Mountain Parcel. The proposed RFA2 micrositing addition closest in proximity would be a pulling and tensioning site approximately 1.0 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact.</p> <p>Council previously found that the facility would run along the eastern and southern boundary of the ACEC approximately 0.5 mile from the ACEC at its closest point and approximately 1.5 miles east of the Alkali Springs interpretive site. Scenic quality of the existing landscape for the Tub Mountain Parcel is considered low (Class C). The BLM approved the facility location in this area. Viewers from Alkali Springs would have views of the facility transmission towers to the east that would be partially blocked by vegetation, at approximately 1.5 miles distant. The proposed RFA2 Willow Creek Alternative would be located 2.8 miles away and would be screened from vegetation and topography. The Department recommends for the reasons provided in the <i>Final Order on ASC</i> and provided here, that Council find that visual impacts from the proposed RFA2 changes would be less than significant.</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Oregon Trail ACEC - Straw Ranch 2 Parcel	OR - Baker	1.0 mi SW (Pulling and Tensioning site) 9.7 mi SE (Proposed Revised 230-kV Rebuild)	Council approved the facility to be located within 1.1 miles of the Straw Ranch Parcel 2 protected area. Where the approved facility would be visible, it would generally follow the alignment of existing 69- and 138-kV transmission lines. Potential views to the south toward the facility would be primarily blocked by a ridgeline approximately 0.4 mile southwest of the ACEC. Views to the west and northwest toward the facility would not be blocked; however, in this area, the facility would be located four miles or more from the ACEC. The proposed RFA2 micrositing addition closest in proximity is pulling and tensioning site at 1.0 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact. The proposed RFA2 Revised 230-kV Rebuild would be located 9.7 miles away and is a minor adjustment to the approved facility in that location. Due to the distance, screening from vegetation and topography, it is not likely the proposed rebuild will be visible, therefore the Department recommends Council find that the visual impacts would be less than significant.
Oregon Trail ACEC - Powell Creek Parcel	OR - Baker	1.0 mi SW (Pulling and Tensioning site) Not within 20 mi of RFA 2 Transmission Line Structure	For the reasons provided in the <i>Final Order on ASC</i> , Council approved the facility to be located within 1.3 miles of the Oregon Trail ACEC - Powell Creek Parcel. The proposed RFA2 micrositing addition closest in proximity would be a pulling and tensioning site approximately 1.0 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact. No proposed RFA2 transmission line alternatives within 20 miles of protected area.

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Five Points Creek (Wild)	OR - Umatilla, Union	1.9 mi S (Distribution Power Line to Communication Station for Rock Creek Alternative 1) 2.5 mi N (Rock Creek Alternative 2)	Council approved the facility to be located approximately 2.0 miles west of Five Points Creek protected area. Council found that visual impacts would have a “low intensity” visual impact, and as such, could not have a significant adverse impact. Aerial components of the distribution lines will be 34.5kV lines or lower and wooden poles, which are anticipated to be smaller than the transmission line approved in the ASC; note that the proposed distribution power line will be hung from existing poles to the extent practicable, thus visual impacts will be negligible in these instances. Towers associated with the nearby RFA2 proposed micrositing area addition, Rock Creek Alternative 2 will likely not be visible or would have low intensity visual impacts and therefore, the Department recommends Council find that the visual impacts from proposed RFA2 changes would be less than significant.
Lindsay Prairie Preserve/ State Natural Heritage Area (SNHA)	OR - Morrow	2.8 mi NE (Bombing Range SE Alternative)	<p>Council approved the facility to be located approximately 1.6 miles west of the Lindsay Prairie Preserve/State Natural Heritage Area. Council found in the <i>Final Order on ASC</i> that the protected area isn’t managed for its scenic values, rather it is dedicated to the preservation of grasslands. Existing developments within the viewshed include roads, a gravel quarry, agricultural fields, an existing 69-kV transmission line along the western border and dispersed rural development. The area has a cultural landscape character. The BLM VRM ranks the scenic quality as Class C. Views of the approved facility from the majority of Lindsay Prairie Preserve would be experienced from within the canyon and would be primarily blocked and intermittent such that viewer perception would be low.</p> <p>The RFA2 proposed micrositing area addition closest in proximity would be the Bombing Range SE Alternative at 2.8 miles away. Views as a result of the RFA2 proposed micrositing area addition will continue to be experienced from within the canyon and will be primarily blocked by topography. Any views that aren’t screened will remain intermittent and further away than evaluated in the ASC, therefore, the Department recommends Council find that the visual impacts from the proposed RFA2 changes would be less than significant.</p>

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Oregon Trail ACEC - White Swan Parcel	OR - Baker	2.8 mi SW (Existing Road, Substantial Modification, 21-70% Improvements) 6.2 mi SE (Revised 230-kV Rebuild)	Council approved the facility to be located approximately 2.9 miles west of the Oregon Trail ACEC - White Swan Parcel. Council previously found that the facility would not be visible from the protected area. As such, there would be no visual impact to the protected area. The proposed RFA2 proposed micrositing area additions closest in proximity are modifications to an existing road 2.8 miles away and the proposed revised 230 kV rebuild, 6.2 miles away. The protected area remains far outside of both the ASC modeled bare earth viewshed as well as the RFA2 viewshed and is therefore outside of the visual analysis area.
Emigrant Springs State Heritage Area	OR - Umatilla	3.2 mi SW (Pulling and Tensioning site) 4.4 mi NE (Sevenmile Creek Alternative)	Council approved the facility to be located approximately 3.3 miles from the Emigrant Springs State Heritage Area. The facility was determined to have a “low intensity” visual impact, and as such, could not have a significant adverse impact (“low intensity” is defined as not having the potential to alter scenic quality or landscape character, or not be perceived by viewers) at Emigrant Springs State Heritage Area. The RFA2 proposed micrositing area addition closest in proximity is a pulling and tensioning site, 3.2 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact. The proposed Sevenmile Creek Alternative would be 4.4 miles away which is further away than the approved route, therefore, the Department recommends Council find that the proposed RFA2 changes would have a less than significant visual impact to this protected area.
Succor Creek State Natural Area (SNA)	OR - Malheur	3.3 mi NE (Pulling and Tensioning site) Not within 20 mi of RFA 2 Transmission Line Structure	Council approved the facility to be located approximately 3.9 miles from the Succor Creek State Natural Area. Council found that the facility was determined to have a “low intensity” visual impact, and as such, could not have a significant adverse impact to the protected area. The RFA2 proposed micrositing area addition closest in proximity is a pulling and tensioning site 3.3 miles away. Visual impacts from temporary features are less than significant because they do not have a permanent impact. No proposed RFA2 transmission line alternatives within 20 miles of protected area.

Table 25: Visual Impact Summary for RFA2 Proposed Micrositing Areas within Analysis Area

Micrositing Area Addition within Viewshed of Protected Area Resource ¹	State - County	Location of Protected Area Relative to the RFA 2 Proposed Road/Route	Visual Impacts ²
Boardman/Willow Creek RNA	OR - Morrow	<p>6.1 mi E (access road changes and Pulling and Tensioning site)</p> <p>6.4 mi W (Boardman Junction Alternative)</p>	<p>Council approved the ASC facility and ASC alternatives in Morrow County to be located along Bombing Range Road in Morrow County. The Boardman/Willow Creek RNA is immediately west of the Boardman Bombing Range and Boardman RNA and was not listed as a protected area at the time of the ASC. The Boardman/Willow Creek RNA was added as a protected area as part of the 2022 protected area rule change. In the <i>Final Order on RFA1</i> Council approved road changes and an alternative route approximately 6-8 miles away from the RNA. The RNA is part of a privately owned nature reserve/conservation easement managed by The Nature Conservancy and Oregon Department of Fish and Wildlife. The public is excluded from the Boardman/Willow Creek Research Natural Area, and it is not managed for its scenic values. Existing developments within the viewshed include views wind turbines, solar facilities, transmission lines, roads, and agricultural irrigation equipment.</p> <p>The RFA2 proposed micrositing area addition closest in proximity are roads and pulling and tensioning sites. Visual impacts from temporary features are less than significant because they do not have a permanent impact. Views of the proposed Boardman Junction Alternative and Bombing Range SE Alternative would be primarily peripheral and intermittent and from a neutral or elevated vantage point. Further views of the proposed RFA2 changes would not increase visual impacts from the already approved facility. Topography will partially screen the facility from view on an already developed landscape. The towers would add minimal visual contrast and the site is not managed for its scenic values. Department recommends Council find that visual impacts from the proposed transmission line alternative would be low and less than significant.</p>
<p>¹ Visual impact assessment extends 5 miles from the proposed micrositing area additions in non-forested settings, and 10 miles in forested settings. Table summarizes visual impacts within 5 miles for roads and 10 miles for transmission line routes.</p> <p>² See <i>Final Order on ASC</i>, Section IV.F.5., <i>Potential Visual Impacts from Facility Structures</i>, for a summary of methods for visual impact assessment and Exhibit L, Attachment L-3 of the ASC. Roads are further evaluated by proximity, i.e., foreground (<0.5 miles), middleground (0.5 to 5 miles), or background distances (> 5 miles), because they lack vertical features. <i>Final Order on RFA1</i>, Section III.F.1.b.5.1.</p> <p>³ Crossing of the protected area is allowed per OAR 345-022-0040(2).</p> <p>⁴ RFA2 micrositing area additions are immediately adjacent to the given resource’s boundary but do not cross the resource.</p> <p>Source: Derived from ASC Exhibit C, Final Order on ASC, RFA2 Figure 4-1, and RFA2 Attachment 7-2.</p>			

1 Based on the reasons provided above in Table 25, the findings of fact in the *Final Order on ASC*
2 and *RFA*, and the certificate holder’s RFA2 visual impact assessment, the Department
3 recommends Council find that the proposed RFA2 micrositing area additions would not create a
4 significant adverse impact to protected areas within the analysis area.

5
6 **III.F.2. Conclusions of Law**

7
8 Based on the foregoing analysis, and subject to compliance with the existing site certificate
9 conditions, the Department recommends the Council find that the design, construction and
10 operation of the proposed RFA2 micrositing areas are not likely to result in significant adverse
11 impact to any protected areas.

12
13 **III.G. RETIREMENT AND FINANCIAL ASSURANCE: OAR 345-022-0050**

14
15 *To issue a site certificate, the Council must find that:*

16
17 *(1) The site, taking into account mitigation, can be restored adequately to a*
18 *useful, non-hazardous condition following permanent cessation of*
19 *construction or operation of the facility.*

20
21 *(2) The applicant has a reasonable likelihood of obtaining a bond or letter of*
22 *credit in a form and amount satisfactory to the Council to restore the site to a*
23 *useful, non-hazardous condition.*¹⁶⁴

24
25 **III.G.1. Findings of Fact**

26
27 OAR 345-027-0375(2)(e) designates the Scope of Council’s Review for all amendments to the
28 site certificate. It states that for all requests for amendment, the amount of the bond or letter
29 of credit required under OAR 345-022-0050 is adequate. Therefore, as presented below, the
30 scope of the evaluation under OAR 345-022-0050 for RFA2 is an evaluation and
31 recommendations limited to the proposed new facility components (midline capacitor station)
32 and updated unit costs for facility components, tasks, and actions. Certificate holder also
33 provides updated evidence of their ability to secure a bond or letter of credit that reflects the
34 updated cost to restore the site to a useful, nonhazardous condition.

35
36 *III.G.1.a Restoration of the Site Following Cessation of Construction or Operation*

37
38 OAR 345-022-0050(1) requires that the site, taking into account mitigation, can be restored
39 adequately to a useful, non-hazardous condition following permanent cessation of construction
40 or operation of the facility. Restoring the site to a useful, nonhazardous condition for the
41 transmission line route alternatives and roads proposed in RFA2 would involve the same

¹⁶⁴ OAR 345-022-0050, effective April 3, 2002.

1 activities as Council approved in the *Final Order on ASC*, therefore the Department provides a
2 summary of decommissioning activities for transmission lines and roads below.

- 3
- 4 • Transmission line restoration involves the removal of the transmission line, including
5 all support structures, conductors, overhead shield wires, and communication sites.
6 The foundations for each support structure would be removed to a depth of three
7 feet below grade within land zoned EFU and to a depth of one foot below grade
8 (depending on ground slope) in all other areas.¹⁶⁵
- 9 • All structure locations and access roads would be restored to a useful, nonhazardous
10 condition that would be consistent with the site’s zone and suitable for uses
11 comparable to surrounding land uses.¹⁶⁶ Following gravel removal at the locations of
12 tower pads and communication stations, these sites would be re-graded as
13 necessary (for restoration of natural contours) and then re-seeded.¹⁶⁷
- 14 • The majority of facility access roads would be primitive (non-graveled) overland
15 travel roads. Following construction of the primitive roads, vegetation may regrow
16 adjacent to and within the traveled roadway, and new or modified drainages may
17 develop depending on the construction and location of the roads. Re-grading or
18 reshaping primitive roads to match previous land contours would have the potential
19 to create a greater impact compared to leaving in place the contours that developed
20 during the service life of the transmission line. Therefore, restoration of primitive
21 overland travel roads would consist of only minimal re-grading, as well as reseeded
22 and scarifying the roadbed.
- 23 • Built-up all-weather roads, including all communication station roads, would be fully
24 restored. Following gravel removal, built-up all-weather roads would be re-graded as
25 necessary (for restoration of natural contours) and then re-seeded.¹⁶⁸

26

27 Retirement of the midline capacitor station is detailed in RFA2 Attachment 7-20 (under tab 16)
28 and Section 7.1.6 and would also be similar to those approved in the *Final Order on ASC* for the
29 Longhorn Station and include:

- 30
- 31 • Deenergizing and disconnecting electrical equipment for capacitor including
32 capacitor bank(s), switches, breakers, and instrumentation for the control and
33 protection of the equipment. Disconnecting electrical equipment in the control

¹⁶⁵ Except within EFU zones, removal of concrete footings to a depth of one foot below grade is appropriate because it is more environmentally impactful to remove the concrete footings than it is to leave in place the portion of the footing below a one-foot depth. Increasing the removal depth from one foot to three feet would result in significantly more disturbance to the surrounding ground. Removing concrete footings to three feet below ground in EFU lands is appropriate because it allows sufficient clearance for farming equipment and installation of irrigation systems. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 327.

¹⁶⁶ B2HAPPDoc3-40 ASC 23_ Exhibit W_Retirement_ASC 2018-09-28, Section 3.2.

¹⁶⁷ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 331; B2HAPPDoc3-40 ASC 23_ Exhibit W_Retirement_ASC 2018-09-28, Attachment W-1.

¹⁶⁸ B2HAPPDoc3-40 ASC 23_ Exhibit W_Retirement_ASC 2018-09-28, Section 3.2, Section 3.4, and Attachment W-1.

- 1 building and utility structures. Removal, hauling, disposal and recycling of electrical
2 equipment.
- 3 • Demolition of control building. Take down of dead end and H frame structures.
4 Hauling and disposal. Fencing and gate removal (fence would remain in place during
5 decommissioning and would be removed once it would be safe to do so).
 - 6 • Foundations for cap bank, switch, support/utility structures, and control building
7 would be removed to a depth of three feet below grade within land zoned EFU.
 - 8 • Any gravel would be removed, hauled, reused or disposed of.
 - 9 • Access roads and the site would be re-graded as necessary (for restoration of natural
10 contours) and then re-seeded.

11
12 The Department recommends Council find that the tasks and actions associated with retiring
13 the facility, with the proposed RFA2 midline capacitor station, are substantially similar to those
14 approved in the *Final Order on ASC* and *RFA1*.

15
16 *III.G.1.b Amount of Bond or Letter of Credit under OAR 345-022-0050 is Adequate*

17
18 OAR 345-027-0375(2)(e) requires the Council to find that the amount of the bond or letter of
19 credit required under OAR 345-022-0050 is adequate, and OAR 345-022-0050(2), requires a
20 finding that the certificate holder has a reasonable likelihood of obtaining a bond or letter of
21 credit in a form and amount satisfactory to the Council to restore the site to a useful, non-
22 hazardous condition.

23
24 The updated cost estimate is included in RFA2, Attachment 7-20 and attached to this order as
25 Attachment W-1. The tasks, actions, unit costs, and assumptions were developed between the
26 certificate holder, its engineers, and its construction manager, Quanta Infrastructure Solutions
27 Group (QISG), and are based on real-time market costs of similar work. QISG manages multiple
28 projects of similar size and has expertise in this field.¹⁶⁹ All unit costs are updated to first
29 quarter 2024 dollars. All costs include the overall cost of work and, similar to the *Final Order on*
30 *ASC*, include loaded crew rates which are applied to the site restoration cost estimate include
31 contractor overhead charges, profit, and insurance costs.¹⁷⁰ RFA2 Attachment 7-20 and
32 Attachment W-1, to this order includes additional assumptions for each facility component,
33 task or action under the “tab” number in the notes column. For instance, tab 16 includes the
34 methods and assumptions that were used to generate the costs associated with each of the line
35 items for the Midline Capacitor Station.

36

¹⁶⁹ B2HAMD2Doc2 RFA2 2024-04-11, Section 7.1.6, and QISG Gateway West Transmission Line Project; project consisted of 145 miles of 500kV lattice tower construction and 5 miles of 345kV steel pole construction, 50 miles of 230kV and 4 substation upgrades. <https://quantaig.com/projects/energy-vision-2020-230kv-transmission-line/>

¹⁷⁰ Loaded crew rates include wages and benefits, per diem, equipment rates, contractor overheads, and profit. RFA2 Section 7.1.6. B2HAPPDoc3-40 ASC 23_Exhibit W_Retirement_ASC 2018-09-28, Section 3.4 and ASC Attachment W-1.

1 Council previously reviewed the cost estimate and confirmed that the site restoration tasks,
2 unit costs, labor rates, and cost estimate assumptions constitute a reasonable site restoration
3 cost for the facility. In the 2022 *Final Order on ASC*, Council previously found that \$140,779,000
4 (rounded to nearest \$1,000 and in Q3 2016 dollars) was adequate to restore the site to a useful
5 non-hazardous condition. In the 2023 *Final Order on RFA1*, because the total increase of
6 transmission line routes would be 1.8 miles of transmission line and facility components would
7 be less than 0.1% change in the total length of the facility, and Retirement and Financial
8 Assurance Condition 4 and 5 allows updating the bond amount based on final design of the
9 facility, the Council found that the approved decommissioning cost was still adequate.

10
11 As discussed in Section II.B., *Requested Amendment*, if the transmission line routes proposed in
12 RFA2 were selected for construction and operation, this would reduce the overall length of the
13 approved facility by 0.4 miles. Applying the same logic that was approved in the *Final Order on*
14 *RFA1*, because the overall length (and facility components) would be reduced, the previously
15 approved cost estimate should still remain adequate. However, RFA2 includes the proposed
16 midline capacitor which was not previously included in the decommissioning cost estimate and
17 is a different type of facility component not previously evaluated. As noted above, the
18 certificate holder includes this component in an updated cost estimate discussed in RFA2
19 Attachment 7-20 (cost estimate worksheet), attached to this order as Attachment W-1.
20 Additionally, as part of the review of RFA2, the certificate holder also updated the unit costs for
21 other facility components so that all unit costs would be in the same Quarter and year (Q1
22 2024), which are directly referenced (related to adjusting for inflation) in Retirement and
23 Financial Assurance Condition 4 and 5. As presented below in Table 26, the updated cost
24 estimate to retire the facility, with proposed RFA2 changes, is \$170,276,273 (in Q1 2024
25 dollars).¹⁷¹

26
27
28
29
30
31

¹⁷¹ Previously approved contingencies of 4 percent of cost for Department Administration Project Management, 20 percent of cost for a Future Development Contingency, and a 1 percent for the performance bond remain applicable to the facility and equal approximately \$32 million.

Table 26: RFA2 Updated Decommissioning Cost Estimate

Task or Component	Quantity	Unit Cost (\$)¹	Unit	Estimate (\$)
General Costs				
<i>Permits - Utilities/Temp Deconstruct</i>	1	\$ 49,183.12	Lump Sum³	\$49,183.12
<i>Mobilization/Demobilization</i>	1	\$ 5,889,975.50	Lump Sum³	\$5,889,975.50
<i>Engineering</i>	1300	\$ 120.00	Hour	\$156,000.00
<i>Overhead</i>	1	\$ 1,739,946.00	Lump Sum³	\$1,739,946.00
<i>Hazardous Materials</i>	4	\$ 15,000.00	EA	\$60,000.00
<i>Protection/Signage/Equipment</i>	1	\$ 173,320.00	Lump Sum³	\$173,320.00
<i>Subtotal =</i>				<i>\$8,068,424.62</i>
Facility Components				
500 kV Transmission Line Removal				
<i>500 kV Conductor Electrical Line</i>	275	\$ 76,743.60	MILES	\$21,104,490.00
<i>Steel Lattice Tower</i>	1138	\$ 53,650.00	EA	\$61,053,700.00
<i>Tubular steel H-Frame Tower</i>	141	\$ 21,460.00	EA	\$3,025,860.00
<i>Insulator Strings</i>	Included in lattice wrecking and disposal costs			
<i>Remove Foundations To Subgrade</i>	14200	\$ 300.36	Hours	\$4,265,112.00
<i>Load, Haul, Dispose</i>	1	\$ 6,431,729.00	Lump Sum³	\$6,431,729.00
<i>Re-grade tower pads</i>	640	\$ 5,585.00	Acre	\$3,571,607.50
<i>Subtotal =</i>				<i>\$99,452,498.50</i>
230/138 kV Transmission Line Removal				
<i>230/138kV Conductor Electrical Line</i>	1	\$ 118,030.00	Lump Sum³	\$118,030.00
<i>Monopole and structures</i>	Included in electrical line costs			
<i>Remove Foundations To Subgrade</i>	None			Cubic Yd. \$0.00
<i>Load, Haul, Dispose</i>	Included in electrical line costs			Cubic Yd. \$0.00
<i>Restore/Re-seed Site</i>	Included in electrical line costs			\$0.00

Table 26: RFA2 Updated Decommissioning Cost Estimate

Task or Component	Quantity	Unit Cost (\$)¹	Unit	Estimate (\$)
<i>Subtotal =</i>				<i>\$118,030.00</i>
Midline Capacitor station				
<i>Fence Removal</i>	1	\$ 50,000.00	Each	\$50,000.00
<i>Cap bank Removal</i>	3	\$ 31,714.04	Each	\$95,142.12
<i>Remove Control Building</i>	1	\$ 18,693.00	Each	\$18,693.00
<i>Switch Removal</i>	2	\$ 15,901.08	Each	\$31,802.16
<i>Dead-End Structure Removal</i>	2	\$ 569,974.40	Each	\$1,139,948.80
<i>UG Utility & Ground Removal</i>	0	\$ -	Day	\$0.00
<i>Restore/Re-seed Site</i>	Seeding is captured in the road removal and site restoration			
<i>Subtotal =</i>				<i>\$1,335,586.08</i>
Longhorn Station Removal and Disposal				
<i>Fence Removal</i>	1	\$ 50,000.00	Day	\$50,000.00
<i>Cap bank Removal</i>	3	\$ 29,010.80	Each	\$87,032.40
<i>Remove Control Building</i>	1	\$ 18,693.00	Day	\$18,693.00
<i>Reactor Removal</i>	7	\$ 12,505.40	Cubic Yd.	\$87,537.80
<i>Switch Removal</i>	3	\$ 19,505.40	Lump Sum³	\$58,516.20
<i>Dead-End Structure Removal</i>	3	\$ 54,934.40	Each	\$164,803.20
<i>UG Utility & Ground Removal</i>	0	\$ -	Day	\$0.00
<i>Restore/Re-seed Site</i>	Seeding is captured in the road removal and site restoration			
<i>Subtotal =</i>				<i>\$466,582.60</i>
Communication Station Removal				
<i>Fence Removal</i>	10	\$ 5,925.00	Each	\$59,250.00
<i>Control Building Removal</i>	10	\$ 105,930.00	Each	\$1,059,300.00
<i>Remove Foundations To Subgrade</i>	10	\$ 8,100.00	Each	\$81,000.00
<i>Electrical Removal</i>	1	\$ 186,374.40	Lump Sum³	\$186,374.40

Table 26: RFA2 Updated Decommissioning Cost Estimate

Task or Component	Quantity	Unit Cost (\$)¹	Unit	Estimate (\$)
<i>Restore/Re-seed Site</i>	Seeding is captured in the road removal and site restoration			
<i>Subtotal =</i>				\$1,385,924.40
Road Removal and Site Restoration/Revegetation				
<i>Access road restoration</i>	1	\$ 8,920,264.00	Lump Sum³	\$8,920,264.00
<i>Decompact & Remove Gravel From Roads</i>	68,000.00	\$ 18.26	Ton	\$1,241,680.00
<i>Reconstruct temporary Multi-Use Areas</i>	7.00	\$ 430,811.00	Each	\$3,015,677.00
<i>Reconstruct pads >20 cross slope</i>	305.00	\$ 6,668.09	Acre	\$2,033,767.45
<i>Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction</i>	1	\$ 9,921,540.25	Lump Sum³	\$9,921,540.25
<i>Subtotal =</i>				\$25,132,928.70
B2H Max Potential Decommissioning Cost (Cost) Subtotal =				\$135,959,974.90
Council Applied Contingencies				
<i>Department Administration and Project Management (4% Of Cost)</i>	4		Percent	\$5,438,399.00
<i>Future Development Contingency (20% Of Cost)</i>	20		Percent	\$27,191,994.98
Contingency Subtotal =				\$32,630,393.98
Subtotal of Cost Contingencies (Q1 2024 Dollars) - <i>Rounded to nearest \$1</i>				\$168,590,368.88
<i>Performance Bond</i>	1		Percent	\$1,685,903.69
Total Site Restoration Cost (Q1 2024 Dollars) Rounded to nearest \$1				\$170,276,273
<p>Notes:</p> <ol style="list-style-type: none"> All unit costs are in Q1 2024 Dollars. To allow continued use of the land for agricultural or other purposes deemed appropriate at the time of decommissioning purposes, all subsurface features may need to be removed to a minimum of 3 feet below ground surface or as agreed with the landowner. Tasks associated with a Lump Sum unit cost may be calculated using a fraction (in decimal form) of the actual quantities constructed. 				

1 The Department recommends Council find that \$ \$170,276,273.00 (in Q1 2024 dollars) is
2 adequate to restore the site to a useful, nonhazardous condition and recommends amending
3 Retirement and Financial Assurance Condition 4 and 5 to reflect the updated total cost and unit
4 costs as presented below (for brevity, applicable portions of amended conditions presented).

5
6 Retirement and Financial Assurance Condition 4 applies to the construction phase of the
7 facility, where Council approved the amount of bond or letter of credit required during the
8 construction phase be increased on a quarterly basis throughout the estimated four-year
9 construction period (comprised of 16 quarterly periods) to generally correspond with the
10 progress made on construction of the facility.

11
12 **Recommended Amended Retirement and Financial Assurance Condition 4:** Consistent with
13 Mandatory Condition OAR 345-025-0006(8), before beginning construction of the facility,
14 the certificate holder shall submit to the State of Oregon, through the Council, a bond or
15 letter of credit naming the State of Oregon, acting by and through the Council, as
16 beneficiary or payee. During the construction phase (defined as the period of time from the
17 beginning of construction as defined in ORS 469.300(6) to the date when the facility is
18 placed in service), the certificate holder shall adjust the amount of the bond or letter of
19 credit on a quarterly basis, as follows:

20

- 21 c. The estimated total decommissioning cost for the facility is \$170,276,273
22 140,779,000 in 3rd 1st Quarter 20242016 dollars), to be adjusted to the date of
23 issuance of the bond or letter of credit, and on a quarterly basis thereafter during
24 the construction phase. For the purposes of calculating the bond or letter of credit
25 amount required by section (a) of this condition, the certificate holder shall adjust
26 the estimated total decommissioning cost using the following calculation:
- 27 i. Adjust the estimated decommissioning cost to correspond with the progress of
28 the construction of the facility at the beginning of each quarter, based on the
29 unit costs and assumptions identified in the Final Order on ~~the ASCRFA2~~,
30 Attachment W-1.
 - 31 ii. Adjust the estimated total decommissioning cost (expressed in Q13 20242016
32 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price
33 Deflator, Chain-Weight, as published in the Oregon Department of
34 Administrative Services' "Oregon Economic and Revenue Forecast" or by any
35 successor agency and using the first ~~third~~ quarter 2024 2016 index value and the
36 quarterly index value for the date of issuance of the new bond or letter of credit.
37 If at any time the index is no longer published, the Council shall select a
38 comparable calculation to adjust first ~~third~~ quarter 2024 2016 dollars to present
39 value.
 - 40 iii. Round the result total to the nearest \$1,000 to determine the inflation-adjusted
41 estimated total decommissioning cost.

42

- 43 f. The amount of the bond or letter of credit may be amended from time to time by
44 agreement of the certificate holder and the Department to account for adjustments

1 in the construction schedule. Subject to Department approval, the certificate holder
2 may request an adjustment of the bond or letter of credit amount based on final
3 design configuration of the facility by applying the unit costs and assumptions
4 presented in the Final Order on ~~the RFA2 ASC~~ Attachment W-1. Such adjustments
5 may be made without amendment to the site certificate. The Council authorizes the
6 Department to agree to these adjustments in accordance with this condition.
7 [PRE-RT-01, Final Order on ASC, RFA2]

8
9 **Recommended Amended Retirement and Financial Assurance Condition 5:** Consistent
10 with Mandatory Condition OAR 345-025-0006(8), no later than the date the facility is
11 placed in service (the In-Service Date), the certificate holder shall submit to the State of
12 Oregon, through the Council, a bond or letter of credit naming the State of Oregon,
13 acting by and through the Council, as beneficiary or payee. The certificate holder shall
14 maintain a bond or letter of credit as follows:

15 a. Notwithstanding subsections (b) – (g) of this condition, the Council retains the
16 authority to require the certificate holder to submit a bond or letter of credit, in a
17 timeframe identified by Council, and in an amount equal to the estimated total
18 decommissioning cost for the facility (~~\$170,276,273~~ ~~140,779,000~~ in ~~1st~~ ~~3rd~~ Quarter
19 ~~2016~~ ~~2024~~ dollars adjusted to present day value), or another amount deemed by the
20 Council to be satisfactory to decommission the facility and restore the site to a
21 useful, nonhazardous condition.

22

23 e. The estimated total decommissioning cost for the facility is ~~\$170,276,273~~ ~~140,779,000~~ in
24 ~~1st~~ ~~3rd~~ Quarter ~~2016~~ ~~2024~~ dollars), to be adjusted to the date of issuance of the bond or
25 letter of credit in In-Service Year 51, and on an annual basis thereafter. Subject to
26 Department approval, the certificate holder may request an adjustment of the bond or
27 letter of credit amount based on final design configuration of the facility by applying the
28 unit costs and assumptions presented in the Final Order on ~~the ASC~~ RFA2 Attachment
29 W-1. Such adjustments may be made without amendment to the site certificate. The
30 Council authorizes the Department to agree to these adjustments in accordance with
31 this condition. The certificate holder shall adjust the decommissioning cost for inflation
32 using the following calculation:

33 (i) Adjust the estimated total decommissioning cost (expressed in Q3
34 2016 dollars) to present value, using the U.S. Gross Domestic Product
35 Implicit Price Deflator, Chain-Weight, as published in the Oregon
36 Department of Administrative Services' "Oregon Economic and Revenue
37 Forecast" or by any successor agency and using the ~~third~~ ~~first~~ quarter
38 ~~2024~~ ~~2016~~ index value and the quarterly index value for the date of
39 issuance of the new bond or letter of credit. If at any time the index is no
40 longer published, the Council shall select a comparable calculation to
41 adjust ~~third~~ ~~first~~ quarter ~~2024~~ ~~2016~~ dollars to present value.

42 (ii) Round the result total to the nearest \$1,000 to determine the
43 inflation-adjusted estimated total decommissioning cost.

44

1 [OPR-RT-01, Final Order on ASC, RFA2]
2

3 Retirement and Financial Assurance Condition 5 applies to operation of the facility, where
4 Council found that, for an OPUC-regulated entity approved to construct a transmission line, the
5 risk that the facility would be abandoned or retired after construction and before 50 years of
6 service is very low, therefore the amount deemed satisfactory under the standard for the first
7 50 years of operation is \$1. Under the condition, Council retains the authority to adjust the
8 bond or letter of credit amount up to the full amount at any time under the terms of the site
9 certificate.¹⁷² Further, as directed by Council, the condition requires that the 5-year report be
10 presented to Council and include an evaluation and recommendation, based on review of
11 report results, by the Department and, if appropriate, a third-party consultant.¹⁷³ The condition
12 allows the Council to consider whether or not the approach towards the financial assurance
13 instrument remains appropriate and would account for unforeseen shifts in the power grid or
14 the certificate holder’s financial condition. Because these provisions approved by Council are
15 not impacted by the proposed addition of the midline capacitor station, and that Council has
16 approved this approach twice in the last two years since the issuance of this order, the
17 Department does not recommend changes to these aspects of the conditions.¹⁷⁴ The
18 recommended changes to conditions are limited under OAR 345-027-0375(2)(e) which requires
19 that, that for all requests for amendment, the *amount* of the bond or letter of credit required
20 under OAR 345-022-0050 is adequate.

21
22 *III.G.1.c Ability of the Applicant to Obtain a Bond or Letter of Credit*¹⁷⁵
23

24 RFA2 Attachment 20 includes a letter from Wells Fargo Bank, N.A., dated March 21, 2024
25 describing its long standing business relationship with the certificate holder, which includes an
26 arrangement where Wells Fargo acted as a joint book-runner for Idaho Power for senior
27 secured debt and participated as a lender to Idaho Power under various credit agreements,

¹⁷² Issue of operational bonding amount fully litigated during the contested case on proposed order of ASC, upheld by hearing officer, and Council found the amount to be satisfactory. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 336-339. Final Order on ASC Attachment 6: Contested Case Order (CCO) as Amended and Adopted by Council, pages 26, 119-124, 142, 254-260, and 243-245/Contested Case Issue RFA- 1.

¹⁷³ See 2020-03-13-Approved-January-Minutes and 2020-01-24-EFSC-Meeting-Recording Pt 1 of 2; at approx. 11:00 minutes. B2H EFSC Meeting Day 1 PCCO-PO-Exception Hearing Condensed 2022-08-29, pages 132 -160.

¹⁷⁴ The underlying reasons, facts and conclusions of law relied upon by Council resulting in Retirement and Financial Assurance Condition 4 and 5 have not changed and are not impacted by the changes proposed in RFA2. A summary of these is: facility has over 100 year life-span where the facility would be designed, constructed, and operated to be in service in perpetuity, certificate holder is a regulated utility by the Oregon Public Utility Commission and where, if necessary, the utility could recover costs from its ratepayers, and the facility would remain a valuable resource necessary to serve the region. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.G.

¹⁷⁵ Mandatory Condition OAR 345-025-0006(8) requires the certificate holder to submit a bond or letter of credit in a form and amount satisfactory to the Council to restore the site to a useful, non-hazardous condition. Council interprets “form” to include the bond or letter of credit as well as the issuing financial institution as a component of the form of the financial assurance. See May 15, 2015 EFSC Meeting Item D - Financial Assurance Staff Memo and Final EFSC Minutes 2015-05-14-15.

1 including Idaho Power’s current five year \$400 million syndicated credit agreement, under
2 which Wells Fargo Bank also acts as the administrative agent on behalf of all the lenders under
3 the credit facility. The 2024 Wells Fargo letter indicates the financial institution’s interest and
4 ability to arrange a syndicated letter of credit in an amount up to \$180 million for the purpose
5 of ensuring Idaho Power’s obligation that the site of the facility would be restored to a useful
6 and non-hazardous condition. Wells Fargo is on the Council’s list of pre-approved financial
7 institutions. Because the 2024 Wells Fargo letter provides evidence of an existing financial
8 relationship between the institution and the certificate holder and the amount listed in the
9 letter is more than the updated estimate to retire the facility, the Department recommends
10 Council find that the certificate holder has a reasonable likelihood of obtaining a bond or letter
11 of credit in a form and amount to restore the site to a useful, non-hazardous condition.
12

13 Other existing site certificate conditions that apply to the facility, with the proposed in RFA2
14 changes include the following conditions which are also imposed under Mandatory Conditions
15 (OAR 345-025-0006):
16

- 17 • Retirement and Financial Assurance Condition 1 (GEN-RT-01): The certificate holder
18 must prevent the development of any conditions on the site that would preclude
19 restoration of the site to a useful, non-hazardous condition.
- 20 • Retirement and Financial Assurance Condition 2 (RET-RT-01): The certificate holder
21 must retire the facility in accordance with a retirement plan approved by the
22 Council.
- 23 • Retirement and Financial Assurance Condition 3 (RET-RT-02): If the Council finds that
24 the certificate holder has permanently ceased construction or operation of the
25 facility without retiring the facility according to a final retirement plan approved by
26 the Council, the Council must notify the certificate holder and request that the
27 certificate holder submit a proposal. If the certificate holder does not submit a
28 proposed final retirement plan by the specified date, the Council may direct the
29 Department to prepare a proposed final retirement plan for the Council’s approval.
30

31 **III.G.2. Conclusions of Law**

32

33 Based on the foregoing analysis, and subject to compliance with the recommended amended
34 and existing conditions described above, the Department recommends the Council find that
35 under OAR 345-027-0375(2)(e), the amount of the bond or letter of credit required under OAR
36 345-022-0050 is adequate, and that under OAR 345-022-0050(2), the certificate holder has a
37 reasonable likelihood of obtaining a bond or letter of credit in a form and amount satisfactory
38 to the Council to restore the site to a useful, non-hazardous condition.
39

40 **III.H. FISH AND WILDLIFE HABITAT: OAR 345-022-0060**

41

1 To issue a site certificate, the Council must find that the design, construction
2 and operation of the facility, taking into account mitigation, are consistent
3 with:

4
5 (1) The general fish and wildlife habitat mitigation goals and standards of OAR
6 635-415-0025(1) through (6) in effect as of February 24, 2017, and

7
8 (2) For energy facilities that impact sage-grouse habitat, the sage-grouse
9 specific habitat mitigation requirements of the Greater Sage-Grouse
10 Conservation Strategy for Oregon at OAR 635-415-0025(7) and OAR 635-140-
11 0000 through -0025 in effect as of February 24, 2017.¹⁷⁶

12 13 **III.H.1. Findings of Fact (OAR 345-022-0060(1))**

14
15 The analysis area for the Fish and Wildlife Habitat standard includes the area within the
16 proposed amended site boundary (28,150 acres).¹⁷⁷ Proposed RFA2 microsite area additions
17 include approximately 4,142 acres. Under this standard, RFA2 changes evaluated include
18 temporary and permanent habitat impacts in new microsite areas, limited to lands under the
19 same ownership as the approved site boundary; sage grouse habitat impacts; and proposed
20 changes to sage-grouse conditions (Fish and Wildlife Condition 17, 19, 21 and 22 [PRE-FW-03,
21 OPR-FW-03, PRE-FW-04, OPR-FW-04]).

22 23 *III.H.1.a Methodology*

24
25 Literature review and field surveys were conducted in 2022 and 2023 to inform the evaluation
26 of potential impacts to habitat and state sensitive species within the proposed RFA2 microsite
27 area additions. The literature review was also used to evaluate habitat and special status and
28 state listed T&E species within the proposed expanded site boundary. Literature reviewed
29 includes ODFW's current list of sensitive species (2021-2); ODFW's mapped elk and mule deer
30 winter range;¹⁷⁸ Oregon Biodiversity Information Center database information as of February
31 2022; USGS 2011 landcover data; 2022 GIS data from U.S. Forest Service and BLM; and fish
32 distribution data from StreamNet (last updated 2019).¹⁷⁹

33
34 Various species, habitat and vegetation surveys were conducted in 2022 and 2023 to inform
35 habitat type, category and location of state sensitive or state-listed T&E species. The type of
36 surveys and survey protocols were established in the ASC phase – the same surveys and

¹⁷⁶ OAR 345-022-0060, effective Mar. 8, 2017.

¹⁷⁷ The Department established the site boundary as the analysis area for the Fish and Wildlife Habitat standard. Consistent with the analysis area established in the Second Amended Project Order, the same previously established analysis area applies to review of future proposed changes. B2HAPPDoc15 ApASC Second Amended Project Order 2018-07-26. Table 2, Page 23.

¹⁷⁸ ODFW Winter Range for Eastern Oregon. GIS dataset available online at:

<https://nrimp.dfw.state.or.us/DataClearinghouse/default.aspx?p=202&XMLname=885.xml>

¹⁷⁹ B2HAMD2Doc2 RFA2 2024-04-11, Section 11.

1 protocols were implemented and followed for RFA2. Surveys included: terrestrial visual
2 encounter (TVES); pygmy rabbit; Washington ground squirrel (WAGS); raptor nest; avian (for
3 target species: great gray owl, flammulated owl, northern goshawk and American three-toed
4 woodpecker); wetland; and noxious weeds. Due to limitation in the certificate holder’s ability to
5 obtain landowner permission for right-of-entry¹⁸⁰ in advance of biological survey seasons, not
6 all biological surveys applicable to the proposed RFA2 micrositeing area additions covered the
7 entirety of the survey area. Where right of entry was either denied or not obtained, Council
8 previously agreed to review desktop analysis combined with the results of preconstruction
9 surveys to meet the evidentiary threshold. The Department recommends Council continue to
10 authorize the same approach for this review.

11

12 Survey methods and results are provided in RFA2 Attachments 7-3 (WAGS); 7-4 (TVES), 7-5
13 (pygmy rabbit), 7-7 (noxious weeds), 7-8 (avian surveys), 7-21 (wetland), and 7-9 (raptor nest).
14 Key facts regarding timing and survey area are presented below:

15

- 16 • TVES were conducted by biologists, during daylight hours, in late May through June, and
17 late July/early August in 2023. The TVES survey area for the proposed RFA2 micrositeing
18 addition areas include approximately 3,918 acres. Of 3,918 acres, 3,683 acres were
19 surveyed. TVES recorded wildlife, wildlife signs and unique wildlife habitat.¹⁸¹
- 20 • Pygmy rabbit surveys were conducted April 22-27, 2023 and May 11, 2023, using
21 methods adapted from the Interagency Pygmy Rabbit Working Group’s “Surveying for
22 Pygmy Rabbits” and the United States Geological Survey’s “Pygmy Rabbit Surveys on
23 State Lands in Oregon.”¹⁸² Suitable pygmy rabbit habitat within the proposed RFA2
24 micrositeing area additions include approximately 492 acres. Of the 492 acres of suitable
25 pygmy rabbit habitat, 127 acres were surveyed.
- 26 • Raptor nest surveys were conducted via two rounds of aerial surveys on April 9-12 and
27 17; and May 22-28, 2023. The survey area extended 1-mile from the proposed RFA2
28 micrositeing area additions in non-forest lands, and 0.5-mile from the proposed RFA2
29 micrositeing area additions in forest lands.
- 30 • WAGs surveys were conducted in April and May 2022 and 2023 in accordance with a
31 protocol previously reviewed and approved during the ASC permitting phase.¹⁸³ The
32 survey area included all suitable habitat area within and extending 1,000-feet from the
33 proposed RFA2 micrositeing area additions. Suitable habitat includes native grassland,
34 shrub-steppe, and planted native species in Conservation Recovery Program (CRP)

¹⁸⁰ Right of entry refers to obtaining landowner permission for survey crews to access private property. The Council previously concurred with the certificate holder’s phased survey approach, where biological surveys were required where right of entry had been obtained. Where right of entry was either denied or not obtained, Council agreed to review desktop analysis combined with the results of preconstruction surveys. B2HAPPDoc32 Final Order on ASC and Attachments. Section III.D.

¹⁸¹ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-4.

¹⁸² B2HAMD2 Request for Amendment 1 Attachment 7-5.

¹⁸³ B2HAPPDoc3-25 ASC 16A_Exhibit P1_Wildlife_ASC_Part 1_Main thru AttachP1-6 rev 2018-09-28. Appendix B-1, pgs. B1-1 – B1-2.

1 habitat.¹⁸⁴ Suitable WAGs habitat within the proposed RFA2 microsite area additions
 2 include 894 acres. Of the approximately 894 acres of suitable WAGS habitat, 894 acres
 3 were surveyed.

- 4 • Avian surveys were conducted in April, May and June using calling stations.¹⁸⁵ The survey
 5 area for owls includes all areas within and extending ¼-mile of the proposed RFA2
 6 microsite area additions. Within the owl survey area, calling stations are placed
 7 approximately 528 feet apart. The survey area for diurnal species (American Three-toed
 8 Woodpecker and Northern Goshawk) included all area within and extending ½-mile
 9 from the RFA2 site boundary additions. Within the diurnal species survey area, calling
 10 stations were placed approximately 650 feet apart in areas with moderate to high conifer
 11 canopy cover within fairly contiguous stands of forest. For owl surveys, 14 calling
 12 stations were needed and established. For diurnal species, 13 calling stations were
 13 needed and established.
- 14 • Noxious weed surveys were conducted in 2022 and 2023. The proposed RFA2
 15 microsite area additions include 4,142 acres. Of 4,142 acres, 3,765 acres were
 16 surveyed.

17
 18 Survey results, potential impacts and avoidance/mitigation requirements are presented in
 19 Section III.H.1.c and III.H.1.d below.

20
 21 *III.H.1.b Fish and Wildlife Habitat*

22
 23 Habitat category and type within the proposed RFA2 microsite areas are presented in RFA2
 24 Figure 7-12 mapset and presented in RFA2 Table 7.1-13. Within proposed RFA2 microsite area
 25 additions, identified habitat includes Categories 1 through 6; Categories 1 through 5 include:
 26 agriculture/developed, grassland, riparian vegetation, shrub/grass, shrubland, wetland,
 27 forest/woodland, bareground, open water/unvegetated wetlands.¹⁸⁶

28
 29 Estimated temporary, temporal and permanent habitat impacts by habitat category and types
 30 are presented in Tables 27, 28 and 29 below.

31
**Table 27: Proposed RFA2 Microsite Area Additions, Temporary Habitat Impacts
 (Acres)**

Habitat Type	Habitat Category			
	2	3	4	5
Agriculture/Developed ¹	6.5	1	0.7	
Grassland	24	3		15
Riparian Vegetation	8.9			
Shrub/Grass ²	342.9	5.7	74.4	13.3

¹⁸⁴ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-3.

¹⁸⁵ B2HAMD1 Request for Amendment 1 Attachment 7-8 2023-06-08.

¹⁸⁶ These categories and habitat types were evaluated by Council in the *Final Order on ASC*. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 342-347.

Table 27: Proposed RFA2 Micrositing Area Additions, Temporary Habitat Impacts (Acres)

Habitat Type	Habitat Category			
	2	3	4	5
Shrubland ²	54.5	37.5	2.3	
Wetland	0.1			
Forest/Woodland ²	68.8	42.6		
Bare Ground	3.2			
Open Water/Unvegetated Wetlands	0.8			
Approx. Temporary Habitat Impacts from Proposed RFA2 Micrositing Area Additions =	509.7	89.8	77.4	28.3
Notes:				
<ol style="list-style-type: none"> Habitat type “agriculture/developed” is typically Category 6. In the areas identified for the proposed RFA2 micrositing area additions, agriculture/developed as Categories 2, 3 and 4 are due to its location in in Conservation Reserve Program within ODFW’s mapped elk or mule deer winter range. These habitat types will experience a temporal loss. Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes with a shrub component or forest/woodland are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder’s revegetation obligation. 				

1

Table 28: Proposed RFA2 Micrositing Area Additions, Temporal Habitat Impacts (Acres)

Habitat Type ¹	Habitat Category			
	2	3	4	5
Shrub/Grass	342.9	5.7	74.4	13.3
Shrubland	54.5	37.5	2.3	
Forest/Woodland	68.8	42.6		
Approx. Temporal Habitat Impacts from Proposed RFA2 Micrositing Area Additions =	466.2	85.8	76.7	13.3
Notes:				
<ol style="list-style-type: none"> These habitat types will experience a temporal loss. Temporal loss refers to loss of habitat function and values from the time an impact occurs to the time when the restored habitat provides a pre-impact level of habitat function. Habitat subtypes with a shrub component or forest/woodland are reasonably expected to require a longer restoration timeframe (5+ years) and therefore would be expected to result in temporal loss requiring compensatory mitigation beyond the certificate holder’s revegetation obligation. 				

2

Table 29: Proposed RFA2 Micrositing Area Additions, Permanent Habitat Impacts (Acres)

Habitat Type	Habitat Category			
	2	3	4	5
Agriculture/Developed	2.5	--	0.3	--
Grassland	5.5	--	--	--
Riparian Vegetation	0.4	--	--	--
Shrub/Grass	109.1	8.4	14.2	2.3
Shrubland	9	1.2	--	--
Forest/Woodland	15.8	6.3	--	--
Bare Ground	0.1	--	--	--
Approx. Permanent Habitat Impacts from Proposed RFA2 Micrositing Area Additions =	142.4	15.9	14.5	2.3

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III.H.1.c Habitat Impacts and Mitigation

As presented above, the proposed RFA2 micrositing area additions would result in temporary, temporal and permanent impacts to Categories 2, 3, 4 and 5 habitats. Under the Council’s Fish and Wildlife Habitat standard, the Council must find that the design, construction and operation are consistent with ODFW’s fish and wildlife habitat mitigation goals, based on category of habitat impacted. The mitigation goals for Category 2, 3, 4 and 5 habitats are presented below.

"Habitat Category 2" is essential habitat for a fish or wildlife species, population, or unique assemblage of species and is limited either on a physiographic province or site-specific basis depending on the individual species, population or unique assemblage.

If impacts are unavoidable, the mitigation goal for Category 2 habitat is no net loss of either habitat quantity or quality and provision of a net benefit of habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved, and the quantity of habitat preserved must be more than is impacted and the quality of the habitat of the preserved lands must be suitable for uplift or enhancement. To achieve this goal, impacts must be avoided, or unavoidable impacts must be mitigated through reliable “in-kind, in-proximity” habitat mitigation to achieve no net loss of either pre-development habitat quantity or quality. In addition, a net benefit of habitat quantity and quality must be provided.

"Habitat Category 3" is essential habitat for fish and wildlife, or important habitat for fish and wildlife that is limited either on a physiographic province or site-specific basis, depending on the individual species or population.

The mitigation goal for Category 3 habitat is no net loss of either habitat quantity or quality. The Council interprets this to mean that both habitat quantity and quality must be preserved.

1 The goal is achieved by avoidance of impacts or by mitigation of unavoidable impacts through
2 reliable “in-kind, in-proximity” habitat mitigation to achieve no net loss in either pre-
3 development habitat quantity or quality.

4
5 *“Habitat Category 4” is important habitat for fish and wildlife species.*

6
7 Like Category 3, the mitigation goal for Category 4 habitat is no net loss in either existing
8 habitat quantity or quality. The Council interprets this to mean that both existing habitat
9 quantity and quality must be preserved. The goal is achieved by avoidance of impacts or by
10 mitigation of unavoidable impacts. In contrast to Category 3, mitigation options are less
11 constrained and may involve reliable “in-kind or out-of-kind, in-proximity or off-proximity”
12 habitat mitigation to achieve no net loss in either pre-development habitat quantity or quality.

13
14 *“Habitat Category 5” is habitat for fish and wildlife having high potential to become*
15 *either essential or important habitat.*

16
17 If impacts are unavoidable, the mitigation goal for Category 5 habitat is to provide a net benefit
18 in habitat quantity or quality. The Council has previously interpreted this to mean that there
19 must be some improvement in either habitat quality or quantity. To clarify the “net benefit”
20 goal, ODFW has advised: “The improvement in habitat quantity or quality achieved need not
21 rise to the level of improvement required to meet a goal of ‘no net loss’ (i.e. the level required
22 or recommended in the Mitigation Policy for Habitat Categories 2, 3, and 4).” The goal is
23 achieved by avoidance of impacts or by mitigation of unavoidable impacts through “actions that
24 contribute to essential or important habitat.” To achieve the habitat mitigation goals for
25 Category 2, 3, 4 and 5 habitats, the certificate holder is required to mitigate temporary,
26 temporal and permanent habitat impacts.

27
28 To achieve a net benefit for Category 2 temporary impacts, and “no net loss” in quantity of
29 Category 2, 3 and 4 temporary habitat impacts, certificate holder will restore impacts based on
30 the following permanent mitigation approach:

- 31
32 • Category 2, 3 and 4 impacts: 1 acre permanently preserved for every 1 acre impacted
33 (1:1 acreage ratio)

34
35 To achieve a net benefit for Category 2 permanent impacts, and “no net loss” in quantity of
36 Category 2, 3 and 4 permanent habitat impacts, certificate holder will restore impacts based on
37 the following permanent mitigation approach:¹⁸⁷

38

¹⁸⁷ While temporal loss applies to habitat subtypes expected to require a longer restoration timeframe, and therefore would apply to impacted sagebrush steppe but not grasslands, the certificate holder did not delineate between habitat subtypes to be temporarily impacted and provides mitigation for temporal loss for Category 2, 3 and 4 regardless of habitat subtype. Therefore, temporary impacts are being mitigated comparable to permanent impacts.

- Category 2 impacts: 2 acres preserved for every 1 acre impacted (2:1 acreage ratio)
- Category 3 and 4 impacts: 1 acre preserved for every 1 acre impacted (1:1 acreage ratio)
- Category 5 impacts: less than 1 acre preserved for every 1 acre impacted (<1:1 acreage ratio)

Based on the above mitigation ratios, the RFA2 habitat mitigation obligation for approximately 880 impacted acres is approximately 1,016 acres.¹⁸⁸ As allowed under Fish and Wildlife Condition 4 (GEN-FW-04), the certificate holder finalized its Habitat Mitigation Plan through selection of the option to use a mitigation bank. The mitigation bank is the Northern Great Basin Conservation Bank (NGBCB), sponsored by Three Creek LLC. The NGBCB is set up to provide perpetual conservation offsets for compensatory mitigation for adverse impacts to identified species and habitat within its service area.

The certificate holder secured mitigation credits for temporary and permanent habitat impacts for the facility, inclusive of proposed RFA2 impacts, through remittance of required funds to NGBCB with credits reviewed by ODFW. ODFW approved the mitigation credits on January 22, 2024.¹⁸⁹ The mitigation credits secured to date cover 3,989 acres of Category 2 habitat; 508 acres of Category 3 habitat; 323 acres of Category 4 habitat and 21 acres of Category 5 habitat, more than double the amount needed to mitigate estimated impacts from the proposed RFA2 micro-siting addition areas. All temporary habitat impacts will be revegetated and restored consistent with the current condition through General Standard of Review Condition 9 (OPR-GS-03), Fish and Wildlife Condition 1 (GEN-FW-01) and Soil Protection Condition 1 (GEN-SP-01).

Council previously imposed Fish and Wildlife Condition 5 (OPR-FW-01) requiring a post-construction true-up of habitat impacts to confirm the adequacy of the mitigation secured prior to construction. The existing condition requires that, during the third year of operations, the certificate holder must demonstrate that the final calculation for the certificate holder's habitat mitigation obligation be based on the as-constructed facility (final facility design) and inclusive of all indirect impacts resulting from post-construction traffic studies within elk habitat.

Based on the evidence in the record, and compliance with existing conditions, the Department recommends Council find that the certificate holder's mitigation demonstration provided in RFA2 Attachment 7-10 is consistent with all mitigation goals per category under the standard and ODFW's Fish and Wildlife Habitat Mitigation Policy.

III.H.1.d Species Impacts and Mitigation

Results of the 2022 and 2023 biological surveys did not identify any pygmy rabbits, owl or diurnal species. As described in Section III.H.1.a, surveys did not include all survey area. Council

¹⁸⁸ From Table 27, 509 acres + 89 acres + 77 acres + 24 acres = 700 acres. From Table 29, (142 acres x 2) + (15 + 15 + 2 acres) = 315 acres. Total = 1,016 acres.

¹⁸⁹ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-10. ODFW's approval of the quantity and validity of the mitigation credits is provided in RFA2 Attachment 7-10.

1 previously imposed the following conditions that will require surveys in unsurveyed areas to be
2 completed prior to construction within suitable habitat.

- 3
- 4 • Fish and Wildlife Condition 15 (PRE-FW-01) requires that, prior to construction of the
5 facility, facility phase or segment, as applicable, surveys be conducted on any portion of
6 the site boundary not previously surveyed for the following: Northern Goshawk,
7 American Three-Toed Woodpecker, Great Gray Owl, TVES, wetlands and fish.
- 8 • Fish and Wildlife Condition 16 (PRE-FW-02) requires that, prior to construction of the
9 facility, facility phase or segment, as applicable, surveys be conducted on any portion of
10 the site boundary not previously surveyed for the following: WAGS, raptor nests, and
11 pygmy rabbits.

12

13 Surveys completed in 2022-23 identified 3 WAGs colonies and 51 raptor nests within 0.5 mile of
14 potential disturbance activities.

15

16 Potential impacts to State Sensitive species during construction and operation include sensory
17 disturbance (i.e., noise, vibration, and visual) from the presence of personnel, vehicles, and
18 equipment; as well as permanent impacts from habitat loss/modification; collision with
19 equipment and facilities; increased predation risk from transmission lines used for perching, and
20 transmission line electrocution and collision. Council previously imposed the following
21 conditions which will rely on the results of the preconstruction survey data from the above-
22 referenced conditions and ensure avoidance to the greatest possible extent.

- 23
- 24 • Fish and Wildlife Condition 11 (CON-FW-01) limits ground-disturbing activities during
25 the elk and mule deer winter range season.
- 26 • Fish and Wildlife Condition 12 (CON-FW-02) requires a minimization and avoidance plan
27 in any locations identified during preconstruction surveys of pygmy rabbits or State-
28 sensitive bat species.
- 29 • Fish and Wildlife Condition 13 (CON-FW-03) requires a minimization and avoidance plan
30 for any locations identified during preconstruction surveys of ground-nesting bird
31 species.
- 32 • Fish and Wildlife Condition 14 (CON-FW-04) requires a 300-foot to ½-mile avoidance
33 buffer nearing the sensitive nesting season for occupied nests of raptors with suitable
34 habitat within the analysis area.
- 35 • Threatened and Endangered Species Condition 1 (CON-TE-01) requires avoidance of
36 ground-disturbance in Category 1 WAGs habitat (buffer of 785-from edge of colony),
37 based on survey results no older than 3-years at the time of activity.

38

39 **III.H.2. Findings of Fact (OAR 345-022-0060(2))**

40

41 The EFSC Fish and Wildlife Habitat standard has two parts. Sub(1), as described in the section
42 above, relates to all fish and wildlife habitat except for sage-grouse habitat. Sub(2) of the

1 standard is specific to sage-grouse habitat. Proposed RFA2 micro-siting addition areas would be
2 located in Core Area and Low Density sage-grouse habitat within Malheur and Baker counties.

3
4 RFA2 also seeks approval to amend four previously imposed conditions related to sage-grouse
5 habitat mitigation from indirect impacts, discussed below.

6
7 Sub(2) of the standard states:

8
9 *To issue a site certificate, the Council must find that the design, construction, and operation*
10 *of the facility, taking into account mitigation, are consistent with:*

11 ***

12 *(2) For energy facilities that impact sage-grouse habitat, the sage-grouse specific habitat*
13 *mitigation requirements of the Greater sage-grouse conservation strategy for Oregon at*
14 *OAR 635-415-0025(7) and OAR 635-140-0000 through -0025 in effects as of February 24,*
15 *2017.*

16
17 As referenced in the Council’s standard above, OAR 635-415-0025(7) states:

18
19 *For proposed developments subject to this rule with impacts to greater sage-grouse habitat*
20 *in Oregon, mitigation shall be addressed as described in OAR 635-140-0000 through 635-*
21 *140-0025, except that any energy facility that has submitted a preliminary application for*
22 *site certificate pursuant to ORS 469.300 et seq. on or before the effective date of this rule is*
23 *exempt from fulfilling the avoidance test contained in 635-140-0025, Policy 2, subsections*
24 *(a), (b), (c) and (d)(A). Other mitigation provisions contained in 635-140-0025, Policy 2,*
25 *subsections (d)(B) and (e), and Policies 3 and 4 remain applicable.*

26
27 OAR 635-415-0025(7) became effective upon its adoption in March 2016. The pASC for the
28 proposed transmission line was submitted in February 2013. The Department interprets the
29 exception to OAR 635-415-0025(7) to specifically apply during the permitting phase of the ASC
30 – and allowed for projects that were in the pASC phase to be exempt from the requirement.
31 The waiver, however, does not extend to future permitting phases, where changes to facility
32 location, expanded site boundary, and micro-siting areas are proposed. Therefore, the
33 requirements of OAR 635-140-0025, Policy 2, subsections (a), (b), (c), and (d)(A) are applicable
34 to the proposed RFA2 micro-siting area additions that would occur within/impact sage-grouse
35 habitat.¹⁹⁰

36

¹⁹⁰ OAR 345-027-0375(2)(a) requires that changes proposed in a Request for Amendment, specifically micro-siting area additions, to be reviewed under the standards, rules and laws, that would be applied to a new site certificate application submitted to the same date. The Department interprets OAR 635-415-0025(7) only to apply to the proceedings of an ASC because applying the -0025(7) exemption to future EFSC proceedings for an approved facility is not consistent with OAR 345-027-0375 and 345-022-0030.

1 The applicable¹⁹¹ provisions of OAR 635-140-0025(2) and (3) state:

2
3 *(2) Policy 2. The Department [ODFW] may approve or recommend approval of mitigation*
4 *for impacts from a large-scale development permitted by a county; or development*
5 *actions permitted by a state or federal government entity on public land, within sage-*
6 *grouse habitat only after the following mitigation hierarchy has been addressed by the*
7 *permitting entity, with the intent of directing the development action away from the*
8 *most productive habitats and into the least productive areas for sage-grouse (in order of*
9 *importance: core area, low density, general, and non-habitat).*

10
11 *(a) Avoidance in Core Area Habitat. If the proposed development can occur in*
12 *another location that avoids both direct and indirect impacts within core habitat,*
13 *then the proposal must not be allowed unless it can satisfy the following criteria:*

14 *(A) It is not technically feasible to locate the proposed development activity or its*
15 *impacts outside of a core habitat area based on accepted engineering*
16 *practices, regulatory standards or some combination thereof. Costs*
17 *associated with technical feasibility may be considered, but cost alone may*
18 *not be the only consideration in determining that the development must be*
19 *located such that it will have direct or indirect impacts on sage-grouse core*
20 *area habitat; or*

21 *(B) The proposed development is dependent on a unique geographic or other*
22 *physical feature(s) that cannot be found on other lands; and*

23 *(C) If the proposal is for a large-scale development as defined in Oregon Land*
24 *Conservation and Development OAR 660-023-0115 (Greater Sage-*
25 *Grouse) and either (2)(a)(A) or (2)(a)(B) is found to be satisfied, the*
26 *permitting entity must also find that it will provide important economic*
27 *opportunity, needed infrastructure or public safety benefits for local citizens*
28 *or the entire region.*

29
30 *(b) Avoidance in Low Density Habitat. If the proposed development action can occur*
31 *in another location that avoids both direct and indirect impacts within low*
32 *density sage-grouse habitat, then the proposal must not be allowed unless it can*
33 *satisfy the following criteria:*

34 *(A) It is not technically or financially feasible to locate the proposed use outside*
35 *of low density sage-grouse habitat based on accepted engineering practices,*
36 *regulatory standards, proximity to necessary infrastructure or some*
37 *combination thereof; or*

¹⁹¹ Policy 2 states, “The Department [ODFW] may approve or recommend approval of mitigation for impacts from a large-scale development permitted by a county; or development actions permitted by a state or federal government entity on public land..” [emphasis added], because land ownership associated with RFA2 proposed micro-siting areas in sage grouse habitat is not identified in RFA2, the Department evaluates compliance with OAR 635-140-0025(2), the “avoidance test”, in this order. However, if the proposed RFA2 micro-siting areas within sage grouse habitat are entirely on private land ownership, this test is not necessary, yet applicable mitigation within ODFW’s sage grouse rules is.

1 (B) *The proposed development action is dependent on geographic or other*
2 *physical feature(s) found in low density habitat areas that are less common at*
3 *other locations.*

4
5 (c) *Avoidance in General Habitat. If the proposed development activity and its direct*
6 *and indirect impacts are in general sage-grouse habitat (within 3.1 miles of a*
7 *lek), then the permitting entity may allow the activity based on satisfaction of the*
8 *following criteria:*

9 (A) *Consultation between the development proponent and the Department that*
10 *generates recommendations pursuant to the approach identified in*
11 *minimization subsection (d), and*

12 (B) *Incorporation by the project proponent of reasonable changes to the project*
13 *proposal based on the above consultation with the Department, and/or*
14 *justification as to why a given recommendation is not feasible.*

15
16 (d) *Minimization. If after exercising the above avoidance tests, the permitting entity*
17 *finds the proposed development action cannot be moved to non-habitat or into a*
18 *habitat category that avoids adverse direct and indirect impacts to a habitat*
19 *category of greater significance (i.e., core or low density), then the next step*
20 *applied in the mitigation hierarchy will be minimization of the direct and indirect*
21 *impacts of the proposed development action. Minimization consists of how to*
22 *best locate, construct, operate and time (both seasonally and diurnally) the*
23 *development action so as to avoid or minimize direct and indirect impacts on*
24 *important sage-grouse habitat and sage-grouse.*

25
26 (A) *Minimizing impacts from development actions in general habitat shall include*
27 *consultation between the development proponent and the Department that*
28 *considers and results in recommendations on how to best locate, construct,*
29 *or operate the development action so as to avoid or minimize direct and*
30 *indirect impacts on important sage-grouse habitat within the area of general*
31 *habitat.*

32
33 (e) *Compensatory Mitigation. If avoidance and minimization efforts have been*
34 *exhausted, compensatory mitigation to address both direct and indirect impacts*
35 *will be required as part of the permitting process for remaining adverse impacts*
36 *from the proposed development action to sage-grouse habitat, consistent with*
37 *the mitigation standard in (3) Policy 3 below.*

38
39 (3) *Policy 3. The standard for compensatory mitigation of direct and indirect habitat*
40 *impacts in sage-grouse habitat (core low density, and general areas) is to achieve net*
41 *conservation benefit for sage-grouse by replacing the lost functionality of the impacted*
42 *habitat to a level capable of supporting greater sage-grouse numbers than that of the*
43 *habitat which was impacted. Where mitigation actions occur in existing sage-grouse*
44 *habitat, the increased functionality must be in addition to any existing functionality of*

1 the habitat to support sage-grouse. When developing and implementing mitigation
2 measures for impacts to core, low density, and general sage-grouse habitats, the project
3 developers shall:

- 4
- 5 (a) Work directly with the Department [ODFW] and permitting entity to obtain
6 approval to implement a mitigation plan or measures, at the responsibility of
7 the developer, for mitigating impacts consistent with the standard in OAR
8 635-140-0025 (3) or,
- 9 (b) Work with an entity approved by the Department [ODFW] to implement, at
10 the responsibility of the developer, “in-lieu fee” projects consistent with the
11 standard in OAR 635-140-0025 (3).
- 12 (c) Any mitigation undertaken pursuant to (a) or (b) above must have in place
13 measures to ensure the results of the mitigation activity will persist (barring
14 unintended natural events such as fire) for the life of the original impact. The
15 Department will engage in mitigation discussions related to development
16 actions in a manner consistent with applicable timelines of permitting
17 entities.
18

19 OAR 635-140-0002 defines the sage grouse habitat categories as:

- 20
- 21 • *Areas of High Population Richness: Mapped areas of breeding and nesting habitat within*
22 *core habitat that support the 75th percentile of breeding bird densities (i.e., the top*
23 *25%).*
 - 24 • *Core Area: Mapped sagebrush types or other habitats that support greater sage-grouse*
25 *annual life history requirements that are encompassed by areas: a) of very high, high,*
26 *and moderate lek density strata; b) where low lek density strata overlap local*
27 *connectivity corridors; or c) where winter habitat use polygons overlap with either low*
28 *lek density strata, connectivity corridors, or occupied habitat.” Core area maps are*
29 *maintained by the Department.*
 - 30 • *Low Density: Mapped sagebrush types or other habitats that support greater sage-*
31 *grouse that are encompassed by areas where: a) low lek density strata overlapped with*
32 *seasonal connectivity corridors; b) local corridors occur outside of all lek density strata; c)*
33 *low lek density strata occur outside of connectivity corridors; or d) seasonal connectivity*
34 *corridors occur outside of all lek density strata. Low density area maps are maintained*
35 *by the Department.*
 - 36 • *General Habitat: Occupied (seasonal or year-round) sage-grouse habitat outside impact*
37 *core and low density habitats. As explained in Exhibit P2 of the ASC, the analysis area for*
38 *sage grouse includes the entire Site Boundary, which the ASC defines as “the perimeter*
39 *of the site of a proposed energy facility, its related or supporting facilities, all temporary*
40 *laydown and staging areas, and all corridors and micrositeing corridors proposed by the*
41 *applicant” (OAR 345-001-0010(54)).*

42 ODFW’s Sage-Grouse Conservation Strategy focuses primarily on preserving the species’ habitat
43 and not on impacts to individual birds. As applicable to the proposed RFA2 micrositeing area
44 additions, OAR 635-140-0025(2), Policy 2 requires compliance with a mitigation hierarchy,

1 which is intended to “direct[] the development action away from the most productive habitats
2 and into the least productive areas for sage-grouse (in order of importance: core area, low
3 density, general, and non-habitat).” In areas where impacts cannot be avoided, Policy 2(d)
4 requires the impacts to be minimized. As described in the rule, “[m]inimization consists of how
5 to best locate, construct, operate and time (both seasonally and diurnally) the development
6 action so as to avoid or minimize direct and indirect impacts on important sage-grouse habitat
7 and sage-grouse.” Policy 3 requires compensatory mitigation in the event avoidance and
8 minimization efforts have been exhausted.

9

10 The proposed Hwy 203 Crossing Alternative in Baker County, Cottonwood Creek Alternative in
11 Malheur County, and Other Access Road and Work Area Changes in Baker and Malheur
12 counties would be located in Core Area and Low Density habitat.¹⁹² Policy 2 criteria (a) – (d) are
13 evaluated below.¹⁹³

14

15 The Department recommends Council find that Policy 2 criteria (a)(B) and (b)(B) (*the proposed*
16 *development is dependent on a unique or other physical feature(s) that cannot be found on*
17 *other lands*) is met for the proposed RFA2 micrositing addition areas within Core Area and Low
18 Density habitat, based on the following facts.

19

20 The proposed RFA2 micrositing area additions, as presented in RFA2 Attachment 7-10, are
21 dependent on lands reasonably adjacent to the approved site boundary while attempting to
22 shift the facility away from existing pivot irrigation infrastructure for protecting of agricultural
23 practices and shift facility infrastructure closer to an existing geothermal facility, where those
24 locations were also in Core Area and Low Density habitat but not previously evaluated under
25 this rule provision due to timing of the pASC and applicability of the rule.

26

27 The Department recommends Council find that Policy 2 criteria (a)(C) (*..find that it will provide*
28 *important economic opportunity, needed infrastructure or public safety benefits for local*
29 *citizens or the entire region*) is met for the proposed RFA2 micrositing area additions, as
30 presented in RFA2 Attachment 7-10, based on the following facts.

31

32 As evaluated in the *Final Order on RFA1*, the facility, with proposed RFA2 changes, would create
33 temporary, construction jobs and increase the tax base; facility operation would benefit the
34 greater Pacific Northwest economy through increasing transmission capacity to allow for it to
35 provide services to wholesale customers (potential energy sellers). The facility would provide
36 transmission services to wholesale customers; increase transmission capacity and subsequently
37 increase incentives to build and operate additional energy facilities near transmission
38 substations.

39

¹⁹² B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-10.

¹⁹³ Policy 2 criteria (c) applies to general habitat; because the proposed RFA2 micrositing area additions are located in Core and Low Density areas only, (c) is not evaluated in this order.

1 The facility, with proposed RFA2 changes, is a necessary part of the certificate holder’s resource
2 management strategy and is designed to support energy efficiency and demand response as an
3 alternative to the construction of additional generation plants. Additionally, the facility, with
4 proposed RFA2 changes, is important for renewable resource development in northeastern
5 Oregon such as wind and geothermal resources. The facility is expected to relieve congestion
6 on the existing 230-kV transmission system, which could facilitate transmission of renewable
7 energy.

8
9 The Department recommends Council find that Policy 2 criteria (d)(A) (*..how to best locate,
10 construct, or operate the development action so as to avoid or minimize direct and indirect
11 impacts on important sage-grouse habitat within the area of general habitat.*) is met for the
12 proposed RFA2 micro-siting area additions, as presented in RFA2 Attachment 7-10, based on the
13 following facts.

14
15 The *Final Order on ASC* approved the siting of facility components in Core and Low Density
16 habitat areas but that permitting decision did not require an evaluation of Policy 2 criteria
17 (d)(A) because of the exemption under OAR 635-415-0025(7) for energy facilities that had
18 submitted a preliminary application prior to March 2016. ODFW and the Department
19 recommend that while the previously approved route did not have to evaluate Policy 2 criteria
20 (d)(A), credit can be taken for future alternative routes that would have a lessor impact.¹⁹⁴ The
21 Department recommends Council find that the siting of the proposed RFA2 micro-siting area
22 additions, as presented in RFA2 Attachment 7-10, would better avoid and minimize direct and
23 indirect impacts to Core and Low density habitat, compared to the approved facility.

24
25 OAR 635-140-0025(2), Policy 3 requires that indirect and direct impacts within sage-grouse
26 habitat achieve net conservation benefit for sage-grouse by replacing the lost functionality of
27 the impacted habitat to a level capable of supporting greater sage-grouse numbers than that of
28 the habitat which was impacted. Council has implemented this policy through Fish and Wildlife
29 Condition 17 (PRE-FW-03). As allowed and required by the condition, the certificate holder
30 finalized its Sage-Grouse Habitat Mitigation Plan through selection of the option to use a
31 mitigation bank. The mitigation bank is the NGBCB, sponsored by Three Creek LLC. The NGBCB
32 is set up to provide perpetual conservation offsets for compensatory mitigation for adverse
33 impacts to identified species and habitat within its service area.

34
35 The certificate holder secured mitigation credits for direct and indirect sage-grouse habitat
36 impacts, as quantified by ODFW using the Habitat Quantification Tool. Credits have been
37 secured for the facility, inclusive of proposed RFA2 impacts, through remittance of required
38 funds to NGBCB with credits reviewed by ODFW. ODFW approved the mitigation credits on
39 January 22, 2024.¹⁹⁵ The mitigation credits secured to date cover 919 acres of sage-grouse
40 habitat.

¹⁹⁴ ODOE and ODFW communication. Ms. Esterson with Mr. Nigel Siedel. 2023-07-07.

¹⁹⁵ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-10. ODFW’s approval of the quantity and validity of the mitigation credits is provided in RFA2 Attachment 7-10.

1 Council previously imposed Fish and Wildlife Conditions 19 and 22 [OPR-FW-03, OPR-FW-04])
2 requiring a post-construction true-up of indirect sage-grouse habitat impacts to confirm the
3 adequacy of the mitigation secured prior to construction. Based on the evidence in the record,
4 and compliance with existing conditions, the Department recommends Council find that the
5 certificate holder’s mitigation demonstration provided in RFA2 Attachment 7-10 is consistent
6 with 635-140-0025(2) as required under the standard and ODFW’s Fish and Wildlife Habitat
7 Mitigation Policy.

8
9 RFA2 proposes to amend Fish and Wildlife Conditions 17, 19, 21 and 22 [PRE-FW-03, OPR-FW-
10 03, PRE-FW-04, OPR-FW-04]], as presented below and in Attachment 1 of this order, to clarify
11 that indirect impacts from new and substantially modified roads would be evaluated through a
12 post-construction access control study, and not through a pre- *and* post-construction
13 evaluation [Emphasis added]. The Department, in consultation with ODFW, concur and
14 recommend Council amend the conditions as requested because the Habitat Quantification
15 Tool (HQT) required for use in quantifying sage-grouse mitigation already accounts for direct
16 and indirect impacts from new and substantially modified roads.^{196,197} For accounting purposes,
17 the HQT is more conservative than a preconstruction survey, and the post-construction true-up
18 of indirect impacts from new and substantially modified roads (21-100% modification) is still
19 required to adjust the mitigation obligation of the certificate holder based on actual impacts.
20 Recommended amended conditions are presented below:

21
22 **Recommended Amended Fish and Wildlife Condition 17 (PRE-FW-03):** At least 90 days
23 prior to construction of a facility phase or component in sage-grouse habitat as mapped
24 by the Oregon Department of Fish and Wildlife (ODFW) at that time, unless otherwise
25 agreed to by the Department, the certificate holder shall finalize, and submit to the
26 Department for its approval, in consultation with ODFW, a final Sage-Grouse Habitat
27 Mitigation Plan for the phase or segment to be constructed.***

- 28 i. The final Sage-Grouse Habitat Mitigation Plan shall include compensatory
29 mitigation sufficient to address impacts from, at a minimum, all facility
30 components ~~except indirect impacts from existing access roads substantially~~
31 ~~modified for the facility (related or supporting facilities). For calculation~~
32 ~~purposes, new facility roads with access control will be assigned a “no-traffic”~~
33 ~~designation, and new roads without access control will be assigned a “low-~~
34 ~~traffic” designation.~~ As referenced in Fish and Wildlife Condition 19, the
35 certificate holder shall demonstrate during or about the third year of operation
36 that sage-grouse habitat mitigation shall be commensurate with the final

¹⁹⁶ Indirect impacts from all new and substantially modified roads were included in the estimate of mitigation secured by the certificate holder with the mitigation bank. Because indirect impacts were already accounted for, it is not necessary for the certificate holder to obtain pre-disturbance traffic data but can rely on post-disturbance traffic counts to determine whether impacts beyond the estimate occurred and necessitate post-disturbance mitigation.

¹⁹⁷ B2HAMD2Doc2 RFA2 2024-04-11. Attachment 7-10. November 30, 2023 notes from conference call with ODOE, ODFW, Tetra Tech and IPC to discuss appropriateness of amending conditions requiring pre-construction traffic study.

1 compensatory mitigation calculations, either by showing the already-
2 implemented mitigation is sufficient to cover all facility component impacts, or
3 by proposing additional mitigation to address any impacts incremental to the
4 initial calculation. The final compensatory mitigation calculations must be based
5 on the as-constructed facility as well as the ~~pre-and~~ post- construction ~~traffic~~
6 ~~studies, and must include the addition of indirect impacts from substantially~~
7 ~~modified existing access roads~~ access control study.

8 ***

9 [Final Order on ASC, AMD2]

10
11 **Recommended Amended Fish and Wildlife Condition 21 (PRE-FW-04)** Prior to
12 construction of a phase or segment of the facility, the certificate holder shall conduct a
13 one-year traffic study in elk habitat (elk summer range and elk winter range, based on
14 the most recent ODFW maps available at the time) ~~and sage-grouse habitat (areas of~~
15 ~~high population richness, core area habitat, low density habitat, and general habitat,~~
16 ~~based on most recent ODFW maps available at the time)~~. The certificate holder shall
17 submit the traffic study to the Department for its review and approval in consultation
18 with ODFW.

19 [Final Order on ASC, AMD2]

20
21 **Recommended Amended Fish and Wildlife Condition 19 (OPR-FW-03):** During the third
22 year of operation, the certificate holder shall provide to the Department and ODFW the
23 data from the ~~traffic studies~~ access control study in Fish and Wildlife Conditions ~~21 and~~
24 22 for ODFW to calculate the final amount of indirect impact from facility roads that are
25 considered related or supporting facilities to sage-grouse habitat and corresponding
26 compensatory mitigation required using Oregon’s Sage-Grouse Habitat Quantification
27 Tool. After receiving the calculations from the State, the certificate holder shall provide
28 to the Department a report demonstrating that sage-grouse habitat mitigation shall be
29 commensurate with the final compensatory mitigation calculations.

- 30 a. The final calculations shall be based on the as-constructed facility.
31 b. Oregon’s Sage-Grouse Habitat Quantification Tool shall be used to calculate the
32 amount of sage-grouse habitat compensatory mitigation required for the facility,
33 and the information from the ~~pre-and~~ post-construction ~~traffic studies~~ access
34 control study shall be used in the calculation.

35 [Final Order on ASC, AMD2]

36
37 **Recommended Amended Fish and Wildlife Condition 22 (OPR-FW-04):** During the
38 second year of facility operation, the certificate holder shall conduct a one-year traffic
39 study in elk habitat (elk summer range and elk winter range, based on the same maps
40 used for the pre-construction traffic study). During the second year of facility operation,
41 the certificate holder shall conduct a one-year access control study in ~~and~~ sage-grouse
42 habitat (areas of high population richness, core area habitat, low density habitat, and
43 general habitat, ~~based on the same maps used for the pre-construction traffic study).~~

44 [Fish and Wildlife Condition 22; Final Order on ASC, AMD2]

1
2 **III.H.3. Conclusions of Law**
3

4 Based on the foregoing analysis, and subject to compliance with the existing and recommended
5 amended site certificate conditions, as presented in Attachment 1, the Department
6 recommends the Council find that the design, construction and operation of the facility, with
7 proposed RFA2 changes, are consistent with the mitigation goals and requirements of the
8 Oregon Department of Fish and Wildlife’s Fish and Wildlife Habitat Mitigation Policy under OAR
9 635-415-0025.
10

11 **III.I. THREATENED AND ENDANGERED SPECIES: OAR 345-022-0070**
12

13 *To issue a site certificate, the Council, after consultation with appropriate*
14 *state agencies, must find that:*
15

16 *(1) For plant species that the Oregon Department of Agriculture has listed as*
17 *threatened or endangered under ORS 564.105(2), the design, construction and*
18 *operation of the proposed facility, taking into account mitigation:*
19

20 *(a) Are consistent with the protection and conservation program, if any, that*
21 *the Oregon Department of Agriculture has adopted under ORS 564.105(3); or*
22

23 *(b) If the Oregon Department of Agriculture has not adopted a protection and*
24 *conservation program, are not likely to cause a significant reduction in the*
25 *likelihood of survival or recovery of the species; and*
26

27 *(2) For wildlife species that the Oregon Fish and Wildlife Commission has listed*
28 *as threatened or endangered under ORS 496.172(2), the design, construction*
29 *and operation of the proposed facility, taking into account mitigation, are not*
30 *likely to cause a significant reduction in the likelihood of survival or recovery of*
31 *the species.*¹⁹⁸
32

33 The Council’s T&E Species standard does not implement federal requirements. There is not a
34 Council standard authorizing Council to impose or enforce regulations related to federally listed
35 T&E species listed under 16 USC Section 1533.
36

37 **III.I.1. Findings of Fact**
38

¹⁹⁸ OAR 345-022-0070, effective May 15, 2007.

1 The analysis area for the T&E Species standard includes the area within ¼-mile from the
2 proposed amended site boundary.¹⁹⁹ Proposed RFA2 micrositeing area additions include
3 approximately 4,142 acres. Under this standard, the Department consulted with ODFW and
4 Oregon Department of Agriculture Native Plant Conservation Program (ODAg) throughout
5 2nd/3rd Quarter 2023 through 1st Quarter 2024 to evaluate temporary and permanent impacts
6 to state-listed T&E species within the proposed micrositeing area additions and condition
7 changes ((Fish and Wildlife Condition 7 [GEN-FW-06], Threatened and Endangered Species
8 Condition 2 [CON-TE-02])).²⁰⁰

9
10 The methodology used to inform potential impacts to state-listed T&E species from proposed
11 RFA2 changes includes 2022 literature review and field surveys. Literature reviewed includes
12 ODFW’s current list of sensitive species; Oregon Biodiversity Information Center database
13 information as of February 2022; ODA’s current list of Threatened, Endangered and Candidate
14 Species list; 2022 GIS data from U.S. Forest Service and BLM; and 2019 StreamNet fish
15 distribution data.

16
17 Based on the literature review, state-listed T&E species with the potential to occur in the
18 analysis area include Washington ground squirrel (WAGS), Snake River Chinook Salmon
19 (Spring/Summer); Lawrence’s milkvetch; Mulford’s milkvetch; Smooth mentzelia; Cronquist’s
20 stickseed; Oregon semaphore grass; Snake River goldenweed; and Howell’s spectacular
21 thelypody.

22
23 Based on habitat of potential T&E listed species and locations of the proposed RFA2 micrositeing
24 area additions, two specific surveys were conducted: WAGS surveys and rare plant surveys.
25 WAGS surveys were conducted in April and May 2022 and 2023 in accordance with a protocol
26 previously reviewed and approved during the ASC permitting phase.²⁰¹ The survey area included
27 all suitable habitat area within and extending 1,000-feet from the proposed RFA2 micrositeing
28 area additions. Suitable habitat includes native grassland, shrub-steppe, and planted native
29 species in Conservation Recovery Program (CRP) habitat. Suitable WAGS habitat within the
30 proposed RFA2 micrositeing area additions include 2,246 acres. Of the approximately 2,246 acres
31 of suitable WAGS habitat, 2,246 acres were surveyed.²⁰² Survey results are described below.

¹⁹⁹ The Council’s procedural requirements for site certificate amendments (OAR 345-027-0360(3)) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The July 26, 2018 Second Amended Project Order establishes the analysis area as the area within and extending ½ mile from the site boundary. As authorized under OAR 345-027-0360(3), following pre-amendment conferences on March 23 and June 12, 2023, the Department approved a modified analysis area for the Threatened and Endangered Species standard based on the scope and extent of potential impacts associated with the proposed RFA2 changes.

²⁰⁰ B2HAMD2 Preliminary Request for Amendment 2 Reviewing Agency Comments ODAg. 2024-03-11; Preliminary Request for Amendment 2 Reviewing Agency Comments ODFW. 2023-12-14.

²⁰¹ B2HAPPDoc3-25 ASC 16A_Exhibit P1_Wildlife_ASC_Part 1_Main thru AttachP1-6 rev 2018-09-28. Appendix B-1, pgs. B1-1 – B1-2.

²⁰² B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-3. B2HAMD2 Preliminary Request for Amendment 2 Reviewing Agency Comments ODAg. 2024-03-11. ODFW received and reviewed the WAGS survey reports; and concurs with the protocol and results.

1
2 Rare plant surveys were conducted on April 24, 2023 and concluded with later-blooming higher
3 elevation species on July 31, 2023. The survey area includes 3,918 acres. Of the 3,918 acres,
4 3,765 acres were surveyed in 2022 and 2023.²⁰³ Field surveys included systematic transects
5 within suitable habitat, using tablets running Esri's FieldMaps data collection software and
6 linked to sub-meter accurate Geode GPS devices. Species were identified using *Flora of the*
7 *Northwest* (Hitchcock and Cronquist 2018) and *Intermountain Flora* (Cronquist et al 1972;
8 Holmgren et al 2012).²⁰⁴

9
10 *III.I.1.a State listed Species*

11
12 Three WAGS colonies were identified within the proposed RFA2 micrositing area additions
13 during the 2022-23 surveys.

14
15 Multiple populations of state-listed T&E plant species, Snake River goldenweed and Lawrence's
16 Milkvetch, were identified within the proposed RFA2 micrositing area additions during the
17 2022-23 surveys.²⁰⁵

18
19 *III.I.1.b Potential Impacts to Identified Threatened and Endangered Species*

20
21 Impacts of facility construction and O&M, within the proposed RFA2 micrositing area additions,
22 could result in direct and indirect impacts to state-listed T&E species: WAGS, Snake River
23 goldenweed and Lawrence's Milkvetch. Because WAGS habitat is considered Category 1 habitat
24 under the Council's Fish and Wildlife Habitat standard, impacts are prohibited. The certificate
25 holder is prohibited from direct impacts to Category 1 habitat, as further described below.
26 Impacts to state-listed T&E plant species are not automatically prohibited under the Council's
27 T&E Species standard, however, infeasibility of avoidance must first be demonstrated along
28 with evidence that adequate mitigation is planned/proposed and is demonstrated to be
29 implementable/achievable in restoring impacts to the species.

30
31 RFA2 Attachment 7-11 Table 1 presents 2022-2023 survey results of the 3,765 acres associated
32 with the proposed RFA2 micrositing area additions. The results include identification of 34
33 occurrences of state-listed T&E plants Lawrence's milkvetch (32 occurrences in Morrow
34 County/Ayers Canyon Alternative; 2 occurrences in Umatilla County/Rugg Canyon Alternative
35 and other RFA2 areas) and Snake River goldenweed (1 occurrence in Baker County).

²⁰³ Council previously imposed Fish and Wildlife Condition 16 (Condition PRE-FW-02) requiring that the certificate holder complete surveys within previously unsurveyed areas, where facility-related temporary and permanent impacts would occur, for state-listed T&E plant species. This condition applies to any unsurveyed areas with suitable T&E plant habitat within the proposed RFA2 micrositing area additions.

²⁰⁴ B2HAMD2 Preliminary Request for Amendment 2 Reviewing Agency Comments ODAg. 2024-03-11. ODAg concurs with the survey methodology.

²⁰⁵ B2HAMD2Doc2 Request for Amendment 2 2024-04-11, Attachment 7-11.

1 Of the 32 Lawrence’s milkvetch occurrences identified in Morrow County, 9 occurrences will be
2 avoided through micrositeing.²⁰⁶ The remaining 23 Lawrence’s milkvetch occurrences within
3 Morrow County will not be avoided. Of the 2 Lawrence’s milkvetch occurrences within Umatilla
4 County, 1 occurrence will be avoided through micrositeing.²⁰⁷ The 1 occurrence of Snake River
5 goldenweed in Baker County will not be avoided.

6
7 The certificate holder’s basis for why impact avoidance is infeasible includes: population
8 extends beyond micrositeing area or survey area; and engineering constraints. RFA2 Attachment
9 7-11 figures do not include topography or any detail to support review of the engineering
10 constraints. RFA2 Attachment 7-11 figures do not include parcel or taxlot boundary to support
11 an understanding of whether further adjustments on participating landowner property is
12 feasible. Given RFA2s request to expand the site boundary to allow potential further micrositeing
13 adjustments, in part, for resource protection, the Department cannot evaluate whether these
14 reasons have merit. This evaluation is therefore considered preliminary and should be finalized,
15 prior to construction in these RFA2 areas, based on final engineering. The Department
16 recommends Council amend T&E Species Condition 2 [CON-TE-02] requiring that a final review
17 of the final facility design be conducted by the Department in consultation with ODAg to
18 determine whether there are further micrositeing opportunities to either avoid or reduce
19 impacts to the identified T&E plant species, as presented in the subsection below.

20
21 *III.I.1.c Mitigation of Potential Impacts*

22
23 Mitigation for potential impacts to WAGS is addressed in the site certificate. The site certificate
24 precludes impacts within 785-feet of the boundary of a delineated WAGS colony (i.e., Category
25 1 WAGS habitat) (Fish and Wildlife Condition 7 [GEN-FW-06] and T&E Species Condition 1 [CON-
26 TE-01]). Through these conditions, all temporary and permanent impacts/facility infrastructure
27 must be sited a minimum distance of 0.15-mile from a delineated colony boundary.

28
29 Impact avoidance and mitigation for state-listed T&E plant species is addressed in the site
30 certificate. The site certificate precludes impacts within 33-feet of a delineated state-listed T&E
31 plant population unless avoidance is not possible. If avoidance is not possible, the existing site
32 certificate allows for placement of construction matting to protect and avoid impacts (T&E
33 Species Condition 2 [CON-TE-02]).

34
35 In RFA2 Attachment 6-1, the certificate holder requests to amend T&E Species Condition 2
36 (CON-TE-02) to allow use of matting *or* mitigation in the form of seed collection and long-term
37 conservation storage, transplanting and seeding, and research/monitoring activities [Emphasis
38 added]. The certificate holder’s proposed mitigation includes seed collection and long-term
39 conservation storage, transplanting and seeding, and research/monitoring activities to be
40 implemented by qualified experts at ODAg, in the areas of impact. The draft T&E Mitigation

²⁰⁶ B2HAMD2Doc2 Request for Amendment 2 2024-04-11, Attachment 7-11 Figures 1, 2, 8, 12, 13, 14, 15, 18 and 28.

²⁰⁷ B2HAMD2Doc2 Request for Amendment 2 2024-04-11, Attachment 7-11 Figure 33.

1 Plan was developed by the certificate holder and ODAg, based on these representations and is
2 attached to this order as Attachment 5. The draft T&E Mitigation Plan (Attachment 5) describes
3 the methods by which seed collection, banking & associated research would be conducted as
4 well as monitoring, and success criteria. The legal mechanism to ensure that the mitigation will
5 be implemented is the site certificate coupled with an Inter-Agency Agreement between the
6 Department and ODAg.

7
8 The Department consulted with ODAg on the certificate holder’s proposed condition changes,
9 as presented in RFA2 Attachment 6-1.²⁰⁸ Based on this consultation, the Department and ODAg
10 concur with the proposed mitigation, but further recommend that the condition be amended to
11 remove the previously allowed use of temporary placement of protective matting based on
12 limited data supporting the adequacy of actual protection. In addition, as described above, the
13 evaluation of feasibility of impact avoidance for the T&E plant species occurrences identified in
14 RFA2 Attachment 7-11 needs to be finalized based upon final engineering, landowner input and
15 the certificate holder’s demonstration, as concurred with by the Department in consultation
16 with ODAg, that impact avoidance is infeasible before proceeding with implementation of
17 mitigation.

18
19 **Recommended Amended Threatened and Endangered Species Condition 2 (CON-TE-02):**

20 During construction, the certificate holder shall not conduct ground-disturbing activities
21 within a 33-foot buffer around state-listed threatened or endangered (T&E) plant species,
22 based on pre-construction field surveys required per site certificate condition Fish and
23 Wildlife Habitat 16, subject to the following:

- 24 a. Certificate holder shall demonstrate that final facility design includes avoidance
25 through micrositing, consistent with the avoidance presented in RFA2 Attachment 7-
26 11. Prior to construction within 33-feet of documented T&E plant species
27 occurrences, as presented in RFA2 Attachment 7-11 Table 1, certificate holder shall
28 submit a final micrositing evaluation that maximizes impact avoidance, subject to
29 review and approval by the Department in consultation with ODAg. If the
30 Department, in consultation with ODAg, determine that the certificate holder has
31 demonstrated that complete avoidance is not possible (for example, if the
32 threatened or endangered plant species is located within 33 feet of an existing road
33 where upgrades are authorized) for the RFA2 Attachment 7-11 occurrence locations
34 or other areas affected by final facility location, the certificate holder shall implement
35 mitigation including but not limited to seed collection and long-term conservation
36 storage, transplanting and seeding, and research/monitoring activities. The
37 mitigation agreement shall be substantially similar to the draft mitigation agreement
38 provided in Attachment 5 of the Final Order on Amendment 2. ~~shall install temporary~~
39 ~~construction mats over soils where the threatened or endangered plant species have~~
40 ~~been observed and where construction vehicles will be operated~~; and
41 b. If herbicides are used to control weeds, the certificate holder shall follow agency

²⁰⁸ B2HAMD2 Preliminary Request for Amendment 2 Reviewing Agency Comments ODAg. 2024-03-11. ODAg concurs with the Department’s proposed condition changes, as presented in this order.

1 guidelines including guidelines recommended by the herbicide manufacturer, in
2 establishing buffer areas around confirmed populations of threatened or endangered
3 plant species and refrain from using herbicides within those buffers.

4 [Final Order on ASC, [AMD2](#)]

5
6 Based on the evidence in the record and compliance with the recommended amended
7 condition below, the Department in consultation with ODAg recommends Council find that
8 impacts to Snake River goldenweed and Lawrence’s Milkvetch from the facility, with proposed
9 RFA2 changes, would not be likely to significantly impact the recoverability or survivability of
10 the species.²⁰⁹

11
12 The site certificate also includes condition requirements for flagging and avoidance of all “state-
13 protected plant species” (Fish and Wildlife Condition 7 [GEN-FW-06]). The requirement to flag
14 and avoid all “state protected plant species” may cause conflict with the above condition (one
15 condition requires avoidance and mitigation, the other condition requires avoidance without
16 mitigation); and is ambiguous in use of an undefined term (“state protected plant species”). To
17 minimize condition conflict, the Department recommends Council amend Fish and Wildlife
18 Condition 7 (GEN-FW-06) to allow for clear interpretation of requirements applicable to state-
19 listed T&E plant species (remove reference to “state protected plant species” in the condition
20 below, to allow reliance on the avoidance and mitigation established in recommended
21 amended T&E Species Condition 2 [CON-TE-02]).

22
23 **Recommended Amended Fish and Wildlife Condition 7 (GEN-FW-06):** Prior to and during
24 construction, the certificate holder shall flag the following environmentally sensitive areas
25 as restricted work zones:

26 ~~a. State protected plant species;~~

27 b. Wetlands and waterways that are not authorized for construction impacts;

28 c. Areas with active spatial and seasonal restrictions; and

29 d. Category 1 habitat.

30 Prior to construction of a phase or segment of the facility, the certificate holder shall
31 submit a mapset showing the location of environmentally sensitive areas and restricted
32 work zones to the department for its approval. The certificate holder shall make the
33 mapset available to all construction personnel.

34 [Final Order on ASC, [AMD2](#)]

35
36 Council previously imposed the following condition to reduce and minimize any potential direct
37 and indirect impacts to the state-listed T&E species described in this section:

- 38
39 • T&E Species Condition 1 (CON-TE-01) requires that the certificate holder ensure that
40 construction-related ground-disturbing activities avoid all WAGS habitat identified
41 during pre-construction surveys. The condition also requires that if any WAGS are
42 identified during the 3-year validity period of the surveys within areas of anticipated

²⁰⁹ B2HAMD2 Preliminary Request for Amendment 2 Reviewing Agency Comments ODAg. 2024-03-11.

1 ground-disturbance, but after construction has commenced, that the certificate holder
2 develop and avoidance and impact minimization plan.

- 3 • Fish and Wildlife Condition 8 (GEN-FW-07) requires that the certificate holder employ an
4 onsite speed limit on private facility access roads of 25 miles per hour. Reduced speed
5 will minimize impacts to WAGS through vehicular collision.
- 6 • Fish and Wildlife Condition 16 (PRE-FW-02) requires that the certificate holder complete
7 surveys within previously unsurveyed areas, where facility-related temporary and
8 permanent impacts would occur, for state-listed T&E plant species. This condition applies
9 to any unsurveyed areas with suitable T&E plant habitat within the proposed RFA2
10 micrositing area additions.

11 12 **III.I.2. Conclusions of Law**

13
14 Based on the foregoing analysis, and subject to compliance with the existing and recommended
15 amended conditions described above, the Department recommends the Council find that the
16 design, construction and operation of the facility, with proposed RFA2 changes, are not likely to
17 cause a significant reduction in the likelihood of survival or recovery of species listed as
18 threatened or endangered by the Oregon Department of Agriculture or Oregon Fish and
19 Wildlife Commission.

20 21 **III.J. SCENIC RESOURCES: OAR 345-022-0080**

22
23 *(1) To issue a site certificate, the Council must find that the design,
24 construction and operation of the facility, taking into account mitigation, are
25 not likely to result in significant adverse visual impacts to significant or
26 important scenic resources.*

27
28 *(2) The Council may issue a site certificate for a special criteria facility under
29 OAR 345-015-0310 without making the findings described in section (1). In
30 issuing such a site certificate, the Council may impose conditions of approval
31 to minimize the potential significant adverse visual impacts from the design,
32 construction, and operation of the facility on significant or important scenic
33 resources.*

34
35 *(3) A scenic resource is considered to be significant or important if it is
36 identified as significant or important in a current land use management plan
37 adopted by one or more local, tribal, state, regional, or federal government or
38 agency.*

39
40 *(4) The Council shall apply the version of this rule adopted under
41 Administrative Order EFSC 1-2007, filed and effective May 15, 2007, to the
42 review of any Application for Site Certificate or Request for Amendment that
43 was determined to be complete under OAR 345-015-0190 or 345-027-0363*

1 before the effective date of this rule. Nothing in this section waives the
2 obligations of the certificate holder and Council to abide by local ordinances,
3 state law, and other rules of the Council for the construction and operation of
4 energy facilities in effect on the date the site certificate or amended site
5 certificate is executed.²¹⁰
6

7 III.J.1. Findings of Fact 8

9 The analysis area for the Scenic Resources standard includes the area within and extending
10 9.75-miles from the proposed amended site boundary.²¹¹
11

12 In preparation of RFA2, certificate holder reviewed the 47 applicable federal and local land use
13 management plans or development codes within the analysis area of the facility approved in
14 the *Final Order on ASC* and *RFA1* to determine if there had been updates to these plans that
15 may identify new scenic resources. Based on this review of applicable land use plans,²¹² there
16 were not any updates to management plans since the review of *RFA1*, and plans did not
17 identify any new significant or important scenic resources and values.²¹³
18

19 III.J.1.a Significant or Important Scenic Resources Identified in Plans

Final Order on ASC provides a description of each of the plans that contain scenic resources or values which included:

- County Plans: Union and Baker Counties;
- City Plans: City of Pendleton;
- 20 • State Plans: Oregon State Park System/Oregon Parks and Recreation Department, State
21 Wildlife Areas, State Scenic Byways;
- 22 • Federal Plans:
 - 23 ○ Bureau of Land Management (BLM) - Vale District, Baker Resource Area; BLM
24 Baker RMP, Vale District, Malheur Resource Area; BLM SEORMP, Boise District,
25 Owyhee Resource Area (Owyhee Resource Management Plan), Boise District,
26 Cascade Resource Area (Cascade RMP), Spokane District (Spokane RMP);

²¹⁰ OAR 345-022-0080, effective December 19, 2022.

²¹¹ The Council's procedural requirements for site certificate amendments (OAR 345-027-0360(3)) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The July 26, 2018 Second Amended Project Order establishes the analysis area as the area within and extending 10-miles from the site boundary. As authorized under OAR 345-027-0360(3), following pre-amendment conferences on March 23 and June 12, 2023, the Department approved a modified analysis area for the Scenic Resources standard based on the scope and extent of potential impacts associated with the proposed RFA2 changes.

²¹² Excerpts of plans provided in RFA1 Attachment 7-12.

²¹³ B2HAMD2Doc2 RFA2 2024-04-11, Section 7.1.7.

- 1 ○ U.S. Forest Service (USFS) - Wallowa-Whitman National Forest Land and
- 2 Resource Management Plan, Umatilla National Forest Land and Resource
- 3 Management Plan;
- 4 ○ Department of Defense/US Navy
- 5 ○ Bureau of Reclamation (BOR)
- 6 ○ U.S. Fish and Wildlife Service (USFWS) - Umatilla National Wildlife Refuge
- 7 (NWR), McKay Creek National Wildlife Refuge (NWR), Deer Flat National Wildlife
- 8 Refuge (NWR)
- 9

10 Based on the review of these plans and updates to the plans as part of RFA2, there are not any
 11 new scenic resources of values within the analysis area of RFA2. Table 30: Scenic Resources
 12 within Analysis Area for ASC, RFA1, and RFA2 Transmission Line Routes, below, lists the scenic
 13 resources in the analysis area for the ASC, RFA1, and RFA2 with the distance to the closest
 14 transmission line route associated with the ASC, RFA1, and RFA2. Table 30, below, focuses on
 15 transmission line routes, consistent with the evaluation conducted in the Final Order on ASC
 16 and RFA1. For an evaluation potential visual impacts of all proposed RFA2 micro-siting area
 17 additions to scenic resources that area also a protected area, see Section III.F., Protected Areas.

Table 30: Scenic Resources within Analysis Area for ASC, RFA1, and RFA2 Transmission Line Routes

Scenic Resource	Distance to Approved/Proposed Routes	Designating Plan
Blue Mountain Forest Wayside (SR U1)	Crossed (ASC) 4.5 miles (RFA2)	Union County Comprehensive Plan and Oregon Parks and Recreation Department
OR Highway 203 (SR B1)	3.3 miles (ASC) 3.4 miles (RFA2)	Baker County Comprehensive Plan
OR Highway 86 (SR B2)	Crossed (ASC) Crossed (RFA2)	Baker County Comprehensive Plan
OR Highway 245 (SR B3)	7 miles (ASC)	Baker County Comprehensive Plan
Interstate 84, Pleasant Valley Durkee area (SR B4)	Crossed (ASC)	Baker County Comprehensive Plan
Interstate 84, Huntington to Baker/Malheur County line (SR B5)	0.2 miles (ASC) 0.1 miles (RFA1) Durbin Quarry)	Baker County Comprehensive Plan
Hells Canyon Scenic Byway	Crossed (ASC)	ODOT Hells Canyon Scenic Byway Management Plan
Grande Tour Route	0.2 miles (ASC)	ODOT Grande Tour Route Management Plan
Powder River Canyon – Keating (VRM B2)	5.7 miles (ASC) 5.8 miles (RFA2)	BLM – Vale District, Baker Resource Area Management Plan

Table 30: Scenic Resources within Analysis Area for ASC, RFA1, and RFA2 Transmission Line Routes

Scenic Resource	Distance to Approved/Proposed Routes	Designating Plan
Burnt River Canyon (VRM B3)	Crossed (ASC) Crossed (RFA1 True Blue Gulch)	BLM – Vale District, Baker Resource Area Management Plan
Brownlee Reservoir West (VRM B7)	2.1 miles (ASC)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – Blue Mountain Parcel (SR B6)	0.9 miles (ASC) 7.7 miles (RFA2)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – NHOTIC Parcel (SR B6)	0.02 miles (ASC) 0.1 (RFA2 Revised 230 kV Rebuild)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – White Swan Parcel (SR B6)	2.9 miles (ASC) 6.2 miles (RFA2)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – Straw Ranch 2 Parcel (SR B6)	1.1 miles (ASC) 9.7 miles (RFA2)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – Straw Ranch 1 Parcel (SR B6)	0.1 miles (ASC)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – Powell Creek Parcel (SR B6)	1.2 miles (ASC)	BLM – Vale District, Baker Resource Area Management Plan
Powder River Canyon ACEC and WSR (SR B7)	1.4 miles (ASC) 3.2 miles (RFA2)	BLM – Vale District, Baker Resource Area Management Plan
Oregon Trail ACEC – Birch Creek parcel (VRM M1)	0.2 miles (ASC)	BLM, Vale District, Malheur Resource Area Management Plan
Oregon Trail ACEC – Tub Mountain Parcel (VRM M2)	0.5 miles (ASC) 2.8 miles (RFA2)	BLM, Vale District, Malheur Resource Area Management Plan
Sugarloaf Butte (VRM M3)	1.6 miles (ASC) 1.6 miles (RFA2)	BLM, Vale District, Malheur Resource Area Management Plan
Five Points Creek (WSR1)	2.0 miles (ASC) 2.5 miles (RFA2)	BLM, Vale District, Malheur Resource Area Management Plan
Lower Owyhee River (VRM M5)	Crossed (ASC)	BLM, Vale District, Malheur Resource Area Management Plan
Succor Creek (VRM M8)	3.9 miles (ASC)	BLM, Vale District, Malheur Resource Area Management Plan

Table 30: Scenic Resources within Analysis Area for ASC, RFA1, and RFA2 Transmission Line Routes

Scenic Resource	Distance to Approved/Proposed Routes	Designating Plan
Jump Creek Canyon and Jump Creek ACEC (VRM O1)	4.9 miles (in State of Oregon) (ASC)	BLM, Owyhee Resource Area Management Plan
Brownlee Reservoir Southeast (VRM C1)	0.6 miles (ASC)	BLM, Boise District, Cascade Resource Area Management Plan
Brownlee Reservoir Northeast (VRM C2)	6.0 miles (ASC)	BLM, Boise District, Cascade Resource Area Management Plan
VQO 1	Adjacent (ASC) 6.7 miles (RFA2)	USFW Wallowa Whitman National Forest Management Plan
VQO 2	Crossed (ASC) 1.0 miles (RFA2)	USFW Wallowa Whitman National Forest Management Plan
OR 244 Corridor – Red Bridge West (VQO 3)	4.4 miles (ASC) 4.9 miles (RFA2)	USFW Wallowa Whitman National Forest Management Plan
OR 244 Corridor – Red Bridge East (VQO 4)	1.4 miles (ASC) 1.7 miles (RFA2)	USFW Wallowa Whitman National Forest Management Plan
Mt Emily (VQO 6)	5.2 miles (ASC) 6.3 miles (RFA2)	USFW Wallowa Whitman National Forest Management Plan
OR 203 Corridor – Catherine Creek (VQO 8)	8.0 miles (ASC)	USFW Wallowa Whitman National Forest Management Plan

1
2 *III.J.1.b Visual Impact Assessment and Conclusions for Proposed RFA2 Micrositing Area Additions*

3
4 III.J.1.b.1 Summary Methodology for Evaluation of Scenic Resources

5
6 As discussed, and summarized in Section III.F., *Protected Areas*, of this order, to evaluate the
7 impact of the proposed micrositing area additions on protected areas, scenic, and recreational
8 resources, the certificate holder used the Council approved visual impact methodology which is
9 based on the BLM and USFS visual impact assessment methods, and the Council’s definition of
10 significant. Council’s rules do not require, or provide, a specific methodology for evaluating
11 visual impacts to Scenic Resources (or Protected Areas or Recreation resources).²¹⁴ Also, as

²¹⁴ Excerpt from Oregon Supreme Court Decision for the facility regarding methodologies for visual impact assessments, “... nothing in the rule required Idaho Power to utilize a particular methodology or specifically account for subjective perceptions and reactions in assessing whether the transmission line would be likely to result in “significant adverse visual impacts” to scenic resources. B2HAPPDoc7 Supreme Court Decision Stop B2H Coalition v. Dept, of Energy 2023-03-09, page 811. Visual impact assessment methodology, described in ASC Exhibit L, Attachment L-3, approved by Council in the final order on ASC.

1 discussed in Section III.F., *Protected Areas*, of this order, the visual impact assessment extends 5
2 miles from the proposed micro-siting area additions in non-forested settings, and 10 miles in
3 forested settings. Beyond those distances, Council previously found that visibility of the facility
4 components would be negligible.²¹⁵

5
6 *Final Order on ASC* described in detail each scenic resource identified as significant or important
7 in an applicable management plan. Because there are no new scenic resources in the analysis
8 area for RFA2, the Department recommends Council rely upon the descriptions and
9 identification of scenic resources provided in the ASC and *Final Order on ASC*.

10
11 III.J.1.b.1 Potential Impacts to Scenic Resources from Proposed Micro-siting Area Additions in
12 RFA2

13
14 RFA2 Attachment 7-12, Table 2 provides an updated visual impact assessment of the
15 micro-siting area additions proposed in RFA2. Attachment 7-12, Table 2 includes the type of
16 micro-siting area additions (transmission line route, road, or temporary work area), its proximity
17 to the scenic resource, as well as baseline characteristics, impact assessment, and significance
18 determinations. RFA2 Figure 7-13 illustrates the location of scenic resources as well as the
19 proximity to proposed RFA2 micro-siting area additions. As provided in Table 30, above, the
20 distance from the proposed transmission line additions in RFA2 from scenic resources increased
21 (would be further away from the resource) or remained the same compared to the evaluation
22 done for the ASC, thus potential visual impacts would be less than or equal to what was
23 previously approved.²¹⁶

24
25 Previously imposed Scenic Resources Condition 1 (GEN-SR-01) would continue to apply to the
26 RFA2 proposed alternative transmission line routes and ensures that the certificate holder shall
27 use dull-galvanized steel for lattice towers and non-specular conductors. All other previously
28 imposed Scenic Resource conditions specially applied to a certain portion or route of the
29 previously approved facility and does not apply to the micro-siting area additions proposed in
30 RFA2.

31
32 **III.J.2. Conclusions of Law**

33
34 Based on the foregoing analysis, and subject to compliance with the existing site certificate
35 conditions, the Department recommends Council find that the design, construction and
36 operation of facility components within the proposed RFA2 micro-siting area additions are not
37 likely to result in significant adverse visual impacts to significant or important scenic resources.
38

39 **III.K. HISTORIC, CULTURAL, AND ARCHAEOLOGICAL RESOURCES: OAR 345-022-0090**

40

²¹⁵ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 305.

²¹⁶ B2HAMD2Doc2 RFA2 2024-04-11, Section 7.1.7.

1 (1) Except for facilities described in sections (2) and (3), to issue a site
2 certificate, the Council must find that the construction and operation of the
3 facility, taking into account mitigation, are not likely to result in significant
4 adverse impacts to:

5
6 (a) Historic, cultural or archaeological resources that have been listed on, or
7 would likely be listed on the National Register of Historic Places;

8
9 (b) For a facility on private land, archaeological objects, as defined in ORS
10 358.905(1)(a), or archaeological sites, as defined in 358.905(1)(c); and

11
12 (c) For a facility on public land, archaeological sites, as defined in ORS
13 358.905(1)(c).

14
15 (2) The Council may issue a site certificate for a facility that would produce
16 power from wind, solar or geothermal energy without making the findings
17 described in section (1). However, the Council may apply the requirements of
18 section (1) to impose conditions on a site certificate issued for such a facility.

19
20 (3) The Council may issue a site certificate for a special criteria facility under
21 OAR 345-015-0310 without making the findings described in section (1).
22 However, the Council may apply the requirements of section (1) to impose
23 conditions on a site certificate issued for such a facility.²¹⁷

24
25 **III.K.1. Findings of Fact**

26
27 Section (1) of the Historic, Cultural and Archaeological Resources standard requires the Council
28 to find that the facility, taking into account mitigation, is not likely to result in significant
29 adverse impacts to identified historic, cultural, or archaeological resources. Mitigation means
30 one or more of the following, in order of priority: avoidance; minimization; partial or complete
31 restoration of affected resource; preservation and maintenance; partial or complete
32 compensation for replacement or comparable substitute for the resource; or implementing
33 other measures as approved by Council.

34
35 *III.K.1.a Aligning EFSC and Section 106 Review:*²¹⁸ ORS 469.370(13)

36

²¹⁷ OAR 345-022-0090, effective May 15, 2007, amended by minor correction filed on July 31, 2019.

²¹⁸ Section applicable to OAR 345-022-0090(1)(a): “(1) Except for facilities described in sections (2) and (3), to issue a site certificate, the Council must find that the construction and operation of the facility, taking into account mitigation, are not likely to result in significant adverse impacts to:

(a) Historic, cultural or archaeological resources that have been listed on, or would likely be listed on the National Register of Historic Places”***

1 *Final Order on ASC* and RFA1 Sections IV.K. and III.K, respectively, explains how Council
2 approved its review under OAR 345-022-0090 to align with the outcomes of the Section 106 of
3 the National Historic Preservation Act (NHPA) of 1966 (Section 106) review process led by
4 the Bureau of Land Management (BLM), the designated lead federal agency, as part of the
5 federal National Environmental Policy Act (NEPA) review, summarized as follows.

6
7 Under ORS 469.370(13), for facilities that are subject to review by a federal agency under NEPA,
8 such as the approved facility, the Council shall conduct its site certificate review, to the
9 maximum extent feasible, in a manner that is consistent with and does not duplicate the
10 federal agency review. This coordination shall include the elimination of duplicative application
11 materials, study and reporting requirements; and the Council’s use of information and
12 documents prepared for the federal agency review. The NEPA review addresses, among other
13 things, cultural, historic, and archaeological impacts from a facility and compliance with Section
14 106. Under 36 CFR 800.4(c)(1) and as part of the Section 106 process, the BLM is responsible for
15 final eligibility determinations for listing on the National Register of Historic Places (NRHP), to
16 which Council’s standard relies upon. As part of the Section 106 compliance, the BLM issues
17 determinations of eligibility for eligible resources or determines that a resource is not eligible
18 for listing on the NRHP. Pending the BLM’s final determinations, cultural resources may remain
19 with the designation of “unevaluated” if there are no potential impacts from a facility. A
20 resource designation of unevaluated indicates that the resource may have been investigated,
21 however, additional investigations or evaluations are recommended so the resource is assumed
22 to be likely eligible for listing on the NRHP. Council previously approved the designation of
23 resources that may need further evaluation from the Section 106 review as “unevaluated”
24 which treats the resource as likely eligible for listing on the NRHP and the impact analysis and
25 mitigation (if any) is evaluated based on that designation.

26
27 Part of the Section 106 process requires a Programmatic Agreement (PA), which is the binding
28 document to the signatory parties that outlines the process for identification and evaluation of
29 historic and cultural properties, eligibility determinations of specific impacts on historic
30 properties, and measures to avoid, minimize, or mitigate any adverse impacts from a facility.
31 The PA is not a binding document upon the Department and EFSC, however, Council approved
32 the use of the PA process, including the Historic Properties Management Plan (HPMP), to align
33 to the maximum extent feasible, the final eligibility determinations, mitigation and monitoring
34 for resources protected under the Council’s standard.²¹⁹ The PA allows for the final
35 determinations of the potential impacts from a facility to historic and cultural properties
36 (including NRHP-listed, -eligible, and unevaluated resources) and for the mitigation of adverse
37 impacts that are outlined in the HPMP. Discussed further in Section III.K.1.c., below, the PA-
38 required Section 106 HPMP has been circulated to consulting parties as part of the Section 106
39 review and the most recent draft-final HPMP from Section 106 is included as Attachment S-9, to
40 this order.

41

²¹⁹ In accordance with 36 CFR §800.6(c)(3), a concurring party is a consulting party invited to concur in the agreement document but who does not have the authority to amend or terminate the agreement.

1 Council previously approved Historic, Cultural, and Archaeological Resources Condition 2, also
2 discussed further below, which reflects Council’s commitment to conduct its review, including
3 its review of the proposed micrositings area additions in RFA2, consistent with ORS 469.370(13)
4 to the maximum extent feasible, in a manner that is consistent with and does not duplicate the
5 federal agency review.²²⁰ And because OAR 345-022-0090(a) relies upon NRHP eligibility,
6 Council previously found that it could rely on the determinations resulting from the Section 106
7 review and that the final determinations and mitigation may be provided prior to construction
8 of a phase or segment of the facility.²²¹

9
10 *III.K.1.b Survey Methods, Results, and Impact Assessment for RFA2*

11
12 In preparation of RFA2 and as part of the ongoing survey efforts as the certificate holder gains
13 access to properties, the certificate holder evaluated and surveyed for cultural, historical, and
14 archaeological resources with similar methods as was done for the ASC. Record searches were
15 done to identify previously recorded archaeological and historic sites for all micrositings area
16 additions proposed in RFA2, and that might be encountered during the field surveys.²²²

17
18 The Archaeological Survey Plan (ASP) and Visual Assessment of Historic Properties Study Plan
19 (VAHP) were followed to guide the field surveys and documentation of cultural resources. The
20 two-mile study area focuses on collecting information pertaining to archaeological and
21 aboveground resources, as well as any traditional cultural properties (TCPs) or Historic
22 Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT). The five-mile study
23 area focused on collecting information pertaining to above ground resources and cultural
24 resources that had the potential to be TCPs and/or HPRCSITs between the two-mile study area
25 and up to five miles from the proposed routes centerline. The Visual Assessment utilized this
26 study area as well as applicable results from the two-mile study area. The five-mile study area is
27 documented in the Reconnaissance Level Survey – Visual Assessment of Historic Properties
28 (RLS) and Intensive Level Survey – Visual Assessment of Historic Properties (ILS).²²³

29
30 In preparation of RFA2, and consistent with survey methods approved in the *Final Order on ASC*
31 *and RFA1*, archaeological surveys are being conducted in two phases. Phase 1 consists of
32 completed surveys of an intensive pedestrian inventory of the entire direct analysis area to
33 which the applicant had right of entry to access for surveys. Certificate holder indicates that, to

²²⁰ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 470--472.

²²¹ “ORS 469.402 expressly authorizes EFSC to delegate future review and approval to ODOE...” B2HAPPDoc7
Supreme Court Decision *Stop B2H Coalition v. Dept. of Energy* 2023-03-09, page 811.

²²² Oregon State Historic Preservation Office (SHPO), Confederated Tribes of the Umatilla Indian Reservation
(CTUIR) Tribal Historic Preservation Office, U.S. Department of Agriculture, Forest Service (USFS), and BLM offices.
Oregon SHPO databases consulted include Oregon Archaeological Records Remote Access and Oregon Historic
Sites Database. Other resources include Historic Trails website, USGS Mineral Resource Data System, General Land
Office plats, early USGS and state maps, other historic maps and aerial photographs, ethnographic literature, and
historical contexts.

²²³ B2HAMD2Doc2 RFA2 2024-04-11, Section 7.1.8.2 and B2HAPPDoc31 Final Order on ASC and Attachment 2022-
09-27, pp. 538-539.

1 date, 3,417 acres (82 percent) of the proposed RFA2 micro siting area additions have been
2 surveyed for cultural resources.²²⁴ Any additional surveys required to complete an inventory of
3 100 percent of the final selected route, as well as any necessary subsurface inventory or
4 evaluation efforts, would be conducted during Phase 2. Phase 2 is anticipated to occur after the
5 amended site certificate has been issued, but prior to construction, when site access has been
6 secured for all properties as captured in Historic, Cultural, and Archaeological Resources
7 Condition 2.²²⁵ Continued survey efforts would focus on high probability areas, confirming
8 archaeological site boundaries, confirming archaeological isolated finds, NRHP-eligibility testing,
9 and 100 percent inventory of the proposed RFA1 micro siting area additions.

10
11 RFA2 Attachment 7-15 illustrates the locations where surveys were conducted associated with
12 the proposed transmission line routes and road additions.

13
14 *Survey Results and Potential Impacts for RFA2 Resources*

15
16 Below, Table 31: *RFA2 Inventory and Potential Impacts to Historic, Cultural, Archeological*
17 *Resources*, below provides the results from the surveys conducted in preparation of RFA2. Table
18 31 identifies if a resource is newly identified (not identified in the ASC or RFA1) or if it was
19 previously identified, in both cases, certificate holder provides an updated impact assessment
20 based on the proximity of the road or route segment proposed in RFA2 to each resource and
21 proposed or updated mitigation measures.

22
23 During the review of the ASC and RFA1, the Department compiled all the inventoried resources
24 and proposed avoidance and mitigation measures associated with each resource type into
25 tables and added them to the HPMP as *Appendix A.1 Inventory Tables with Management under*
26 *OAR 345-022-0090* (HPMP Appendix A.1 Inventory Tables). Similar to RFA1, the certificate
27 holder and Department have added the RFA2 resources identified below in Table 31 to the
28 HPMP Appendix A.1 Inventory Tables, in redline for convenient identification. The HPMP
29 Appendix A.1 Inventory Tables are attached to this order as Attachment S-9.

30
31

²²⁴ B2HAMMD2Doc2 RFA2 2024-04-11, Section 7.1.8.2.

²²⁵ See Final Order on ASC Section III.D., Survey Data Based on Final Design and Site Access.

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
Oregon National Historic Trail Route	Morrow, Umatilla, Union, Baker, Malheur	Historic Trail	Listed (Criterion A)	RFA2 ASC Approved Route in Baker County	RFA2 Multi-Use Area; Existing Road, Substantial Modification, 21-70% Improvements	BLM, BOR, DOD, FWS, ODOT, PV, STL, STL, STP, USDA, USFS; PV	a) Potential Historic Property;	RFA2 No – potential physical impact	No	RFA2 Figure 4-1 Map 66 (MUA BA-05) and Map 69 (MUA MA-11), show Oregon Trail segments within the MUA area. No evidence of trail at access road, MUA BA-05, or MUA MA-11. MUA-BA-05 is located on the old Lime Cement Plant, which was demolished 10-years ago. This area has been surveyed for cultural resources. There is no evidence of the Oregon Trail at this location. The cement plant demolition was less than 75 years ago, OSHPO doesn't consider it archaeological yet. The historic buildings and structures that were previously recorded are gone. MUA-MA-11 was surveyed for cultural resources in 2023. No resources were identified. The area is zoned as Exclusive Range Use (ERU).
B2H-DM-07	Baker	Homestead / Historic Archaeological Site	Eligible (Criterion A), Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Historic Property; b) Archaeological site on private land	See management	No	RFA2 Physical impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor
4B2H-EK-07	Baker	Historic: Water Conveyance (Smith Ditch)	Unevaluated/Eligible	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Historic Property	See management	No	RFA2 physical impact is not significant with mitigation. No further management
Schuck Irrigation Ditch/ 35BA01370	Baker	Historic Water Conveyance	Eligible	Approved ASC Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Historic Property	See management	No	Physical impact is not significant with mitigation. No evidence of ditch at road crossings. Flag/avoid/monitor.

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
Corral Ditch/ 4B2H-EK-06	Baker	Historic Water Conveyance	Eligible	Hwy 203 Crossing	RFA2 Pulling and Tensioning	PV	a) Historic Property; b) Archaeological site on private lands	See management	Yes	Potential physical impact. To be determined in consultation with Parties to the Section 106 PA.
35BA01613/ 6B2H-SA-11	Baker	Historic Structural Remains	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint), RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	No	Direct impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
35BA01521	Baker	Historic Refuse Scatter & Road: Historic refuse scatter 5 bottles, 30 cans, 20 metal, wood, several road cuts.	Not Eligible	Hwy 203 Crossing	Structure Work Area	State	Potentially protected under c) Archaeological sites on state lands contain archaeological objects and the contextual associations of the archaeological objects may be with each other. May have archaeological significance	Impact avoided, impact less than significant with mitigation	Yes	Avoided. To be determined in consultation with Parties to the Section 106 PA; With not eligible determination and Section 106 recordation, any impact would be less than significant. SHPO determined not eligible 8/15/2016, area surveyed Pre-Con Class III.
8B2H-DM-18	Baker	Historic Agriculture	To be determined/unevaluated. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area; RFA2 Existing Road, Substantial Modification, 71-100% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	No	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA. RFA2 physical impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor
35BA01560/ 3B2H-CH-04	Baker	Archaeological Site Historic Structural Remains including a cracked cement foundation, remnants of a cement cellar with timber segments, and a concentration of bricks.	Not Eligible (A-D)/No further management	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	Recommended protected under b) Archaeological site on private lands because the materials are remains of past human life or activity that may be of archaeological significance and the site contains archaeological objects and the contextual associations of the archaeological objects with: (i) Each other	No, impact less than significant with mitigation	Yes	Existing Road (Substantial Modification, 21-70% Improvements) passes through eastern boundary of site. With not eligible determination and Section 106 recordation, impact is less than significant.

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
B2H-DM-ISO-06	Baker	Historic Refuse One shard of cobalt bottle glass. Several unidentifiable crushed cans are also present.	Not Eligible (A-D)/No further management	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	Recommended not protected under b) Archaeological site on private lands because the material remains are from past human life or activity, but they are not of archaeological significance	No, impact less than significant with mitigation	Yes	Existing Road (Substantial Modification, 21-70% Improvements) passes through isolate. Potential impact, pending NRHP eligibility findings. With not eligible determination and Section 106 recordation, impact is less than significant
B2H-DM-ISO-07	Baker	Historic Refuse includes 18 shards of milk glass and 17 shards of amber bottle glass. The shards appear to be from just two vessels/bottles and have therefore been recorded as an IF.	Not Eligible (A-D)/No further management	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	Recommended not protected under b) Archaeological site on private lands because the material remains are from past human life or activity, but they are not of archaeological significance	No, impact less than significant with mitigation	Yes	Existing Road (Substantial Modification, 21-70% Improvements) passes through isolate. Potential impact, pending NRHP eligibility findings. With not eligible determination and Section 106 recordation, impact is less than significant
B2H-SA-29	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	No	RFA2 physical impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
4B2H-EK-48	Malheur	Quarry & Refuse Scatter / Multicomponent Archaeological Site/ Pre-Contact Lithic Procurement Site	RFA2 Eligible	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	No	RFA2 physical impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
4B2H-EK-50	Malheur	Lithic Scatter & Refuse Scatter /Multicomponent Archaeological Site	RFA2 Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Historic Property	See management	No	RFA2 physical impact is not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
35ML02152/ 6B2H-SA-01	Malheur	Mining / Historic Archaeological Site & Refuse Scatter	RFA2 To be determined. Potentially eligible for purposes of RFA 2.	Approved ASC Route	RFA2 Multi-Use Area	BLM	a) Potential Historic Property	See management	No	RFA2 potential physical impact. To be determined in consultation with Parties to the Section 106 PA.
7B2H-BB-04	Malheur	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
										consultation with Parties to the Section 106 PA.
7B2H-BB-07	Malheur	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area, New Road, Bladed	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
7B2H-BB-ISO-03	Malheur	Pre-Contact Debitage	Unevaluated	Cottonwood Creek Alternative	Direct Analysis Area, New Road, Bladed	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
7B2H-BB-ISO-05	Malheur	Pre-Contact Biface	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area, Structure Work Area	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-17	Malheur	Historic Mining	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-ISO-11	Malheur	Pre-Contact Biface(s) & Debitage	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-03	Malheur	Historic Survey Marker	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-04	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-05	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
					Modification, 21-70% Improvements					consultation with Parties to the Section 106 PA.
9B2H-DM-06	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
Kingman Lateral Canal/ 8B2H-AB-01.1	Malheur	Historic Water Conveyance	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Resource: No; Segment: Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
Kingman Lateral Canal/ 8B2H-AB-01.3	Malheur	Historic Water Conveyance	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 71-100% Improvements; Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	See management	Resource: No; Segment: Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
South Canal/ 9B2H-DM-02	Malheur	Historic Water Conveyance	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM, PV	a) Potential Historic Property	See management	Resource: No; Segment: Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
35ML01619/ 7B2H-BB-08	Malheur	Historic Water Conveyance & Refuse Scatter: Segment 7B2H-BB-08 includes a historic, abandoned canal segment and a historic refuse concentration, limited to nine heavily damaged, metal explosive containers.	Not eligible (A-D)/No further management (for specific segment).	Cottonwood Creek Alternative	Existing Road, Substantial Modification, 71-100% Improvements	BLM	c) Archaeological site on public lands. Recommended not protected under c) Archaeological site on public land because the material remains are from past human life or activity, but they are not of archaeological significance	No – not protected or impact not significant with mitigation.	Resource: No; Segment: Yes	Existing Road (Substantial Modification, 71-100% Improvements) crosses canal. With not eligible determination and Section 106 recordation, impact is less than significant. Prior to B2H reporting, canal was determined by SHPO to be not eligible through a separate project.
8B2H-DM-ISO-10	Malheur	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological object on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
										consultation with Parties to the Section 106 PA.
8B2H-DM-ISO-17	Malheur	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological object on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-16	Malheur	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
Sand Hollow Battleground (SL-MO-001, SL-MO-005)	Morrow	HPRCST/TCP/Trail	Eligible (Criteria A and B)	RFA2 Bombing Range SE; Bombing Range SE Alternative; Proposed Route	RFA2 Structure Work Area; Existing Road, Substantial Modification, 21-70% Improvements; New Road, Bladed	BLM, DOD, PV	a) Potential Historic Property	RFA2 - No – potential physical impact	No	RFA2 To be determined in consultation with Parties to the Section 106 PA.
Sisupa (SL-MO-004)	Morrow	HPRCST	Eligible	RFA2 Bombing Range SE, Bombing Range SE Alternative	RFA2 Structure Work Area; Existing Road, Substantial Modification, 21-70% Improvements; New Road, Bladed	DOD, PV	a) Potential Historic Property	RFA2 No – potential physical impact	No	RFA2 To be determined in consultation with Parties to the Section 106 PA.
8B2H-ZH-02	Morrow	Undetermined Stacked Rock Feature	To be determined. Potentially eligible for purposes of RFA2.	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-ZH-03	Morrow	Historic Stacked Rock Feature	To be determined. Potentially eligible for purposes of RFA2.	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
B2H-UM-006 /Daly Wagon Road	Umatilla	Wagon Road / Historic Site/ Aboveground	Eligible (Criteria A and C)	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 71-100% Improvements	BIA, BLM, BLM, BLM, BLM, PV	a) Historic Property	See management	No	RFA2– physical impact not significant with mitigation. To be determined in consultation with Parties to the Section 106 PA.
Charley Henry Hudson Homestead (35UM00603 / B2H-BS-40)	Umatilla	Historic Homestead	Eligible	Sevenmile Creek Alternative	Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Historic Property; b) Archaeological site on private lands	See management	Yes	Physical impact is not significant with mitigation. Fill placement on existing

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
										road. Flag/avoid/monitor.
7B2H-BB-09	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, New Road, Primitive	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Flag/Avoid/Monitor.
6B2H-MC-17	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Flag/Avoid/Monitor.
6B2H-MC-21	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Flag/Avoid/Monitor.
9B2H-AL-01	Umatilla	Historic Agriculture	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint); RFA2 New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	No	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-AL-02	Umatilla	Historic Agriculture	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	No	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
B2H-SA-24	Union	Rock Alignment /Undetermined Archaeological Site; Undetermined Stone Alignment	Unevaluated	Baldy Alternative	RFA2 Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private land	See management	No	Potential direct/indirect impact. Avoid direct impact until eligibility is determined. Consultation Needed.
B2H-BS-ISO-29	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Rock Creek Alternative 2	Direct Analysis Area, Structure Work Area	BLM	a) Potential Historic Property	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-ISO-06	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological object on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-ISO-07	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	PV	a) Potential Historic Property; b) Archaeological object on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-ND-ISO-03	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area	PV	a) Potential Historic Property; b) Archaeological object on private lands	See management	No	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
8B2H-DM-28	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	No	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-40	Union	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-41	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-42	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-43	Union	Pre-Contact Lithic Scatter & Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-06	Union	Historic Mining	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-07	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-42	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Table 31: RFA2 Inventory and Mitigation Summary for Potential Impacts to Historic, Cultural, Archeological Resources

Resource Number	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route	Project Component	Land Ownership	Applicable EFSC Standard	Impact Avoided?	Resource Newly Considered	Mitigation or Management Comments ¹
8B2H-DM-43	Union	Pre-Contact Lithic Scatter & Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-06	Union	Historic Mining	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-07	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-08	Union	Pre-Contact Lithic Scatter & Historic Buildings & Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, New Road, Primitive	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-09	Union	Historic Structures	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	See management	Yes	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Notes:
 1. See discussion of mitigation in Section III.K.1.c, of this order. Additional details of mitigation measures associated with direct and indirect impacts to various types of resources (e.g. lithic scatter, historic structures, trails, rock features, etc.), can be found in Attachment S-9, the HPMP Appendix A.1 Tables: HCA-4b: Council-Approved Mitigation for NRHP-Eligible Oregon Trail/NHT Segments, Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to Resource Site Types Identified within the Direct Analysis Area, Table HCA-9 Potential Minimization and Mitigation Methods for Indirect Impacts, and Table HCA-10 Potential Minimization and Mitigation Methods for Indirect and Direct Impacts to Aboveground Resources, and in the applicable PSMMPs.
 Source: Table 31 was drafted by the Department using resource information from RFA2 Table 7.1-17. Potentially Impacted Resources and RFA2 Attachment 7-16.

1
2 Under OAR 345-022-0090(1)(b), for a facility located on private land, the Council must find that
3 the construction and operation of the facility, taking into account mitigation, are not likely to
4 result in significant adverse impacts to archaeological objects, as defined in ORS
5 358.905(1)(a)²²⁶, or archaeological sites, as defined in 358.905(1)(c).²²⁷ Surveys for cultural,
6 historic and archaeological resources potentially impacted by RFA2 were done using the same
7 methodologies that was used for the *Final Order on ASC* and *RFA1*.²²⁸ This includes the
8 certificate holder assumption that historic archaeological objects and sites must have been
9 constructed or created 50 years ago or more, compared to 75 years as identified under ORS
10 358.905(1)(a), because the federal Section 106 review uses 50 years and is a more conservative
11 assumption for the EFSC review.²²⁹

12
13 As required under Historic, Cultural, and Archaeological Resources Condition 2, summarized in
14 the next sub section, as part of the Historic Properties Management Plan, the certificate holder
15 will submit updated tables provided in Appendix A.1 of the HPMP based on the outcomes of
16 the Section 106 review, which will include NRHP eligibility, impacts and mitigation for impacts
17 to resources. Several resources listed in Table 31 above state that they may be protected under
18 (a) and (b) of the Council standard. As discussed in the beginning of this section, to align the
19 EFSC process with the federal Section 106 compliance review, many resources have been
20 designated as “unevaluated/likely eligible,” and therefore assumed to be protected under OAR
21 345-022-0090(1)(a). However, it is anticipated that several resources would result in a final
22 determination of “not eligible,” therefore would not protected under OAR 345-022-0090(1)(a),
23 however, these resources may qualify for protections under OAR 345-022-0090(1)(b) because
24 they may meet the definition of archaeological objects or archaeological sites on private lands

²²⁶ ORS 358.905(1)(a) states ““Archaeological object” means an object that: (A) Is at least 75 years old; (B) Is part of the physical record of an indigenous or other culture found in the state or waters of the state; and (C) Is material remains of past human life or activity that are of archaeological significance including, but not limited to, monuments, symbols, tools, facilities, technological by-products and dietary by-products.”

²²⁷ ORS 358.905(1)(c) states “(A) “Archaeological site” means a geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with: (i) Each other; or (ii) Biotic or geological remains or deposits. (B) Examples of archaeological sites described in subparagraph (A) of this paragraph include but are not limited to shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters, homesteads and townsites.

²²⁸ ASC Exhibit S states, “Field surveys were conducted and results reported in accordance with the Guidelines for Conducting Field Archaeology in Oregon and State of Oregon Archaeological Reporting Guidelines issued by the Oregon SHPO. Definitions of sites and isolates are those provided in the Guidelines for Conducting Field Archaeology in Oregon, unless permit stipulations require otherwise.” B2HAPPDoc3-36 ASC 19_Exhibit S_Cultural_ASC_Public 2018-09-28 2013, Section 2.3. Guidelines for Conducting Field Archaeology in Oregon 2013 (Minor Revision January 2016), states, “In general terms, an Archaeological Site is defined as: A) Ten or more artifacts (including debitage) likely to have been generated by patterned cultural activity within a surface area reasonable to that activity..”
<https://www.oregon.gov/oprd/OH/Documents/FieldGuidelines.pdf> Page 9 of 153. Accessed by Department 01-09-2024.

²²⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 526-527.

1 as defined in statute and based on SHPO Guidance in place at the time that the survey
2 methodologies were agreed upon and conducted.

3
4 The Department reviewed confidential information in Attachments 7-14, Oregon Visual
5 Assessment of Historic Properties Report and Attachment 7-13 the Oregon Class III Technical
6 Survey Report²³⁰ for resources designated in RFA2 as “not eligible, but potentially protected
7 under OAR 345-022-0090(1)(b) or OAR 345-022-0090(1)(c). A description of the site or object(s)
8 is provided above in Table 31, with the omission of details of the site or objects’ location. Table
9 31 provides a recommendation of protected under OAR 345-022-0090(1)(b) for resource
10 35BA01560/ 3B2H-CH-04, because it could be an archaeological site on private lands because
11 the materials are remains of past human life or activity that may be of archaeological
12 significance and the site contains archaeological objects and the contextual associations of the
13 archaeological objects with each other.²³¹ Resources B2H-DM-ISO-06 and B2H-DM-ISO-07 are
14 recommended as not protected under OAR 345-022-0090(1)(b) because they are historic refuse
15 and are not of archaeological significance. Resource 35BA01521 is recommended as potentially
16 protected under OAR 345-022-0090(1)(c) because the site on public lands may have
17 archaeological significance and the site contains archaeological objects and the contextual
18 associations of the archaeological objects could be associated with each other. Resource
19 35ML01619/ 7B2H-BB-08 recommended as not protected under OAR 345-022-0090(1)(c)
20 because the archaeological site on public land may have material remains from past human life
21 or activity but they are not of archaeological significance.

22
23 These recommendations are further validated by the reporting conducted under Section 106
24 where they are found to not have or lack contributing attributes under the four criteria that
25 must be evaluated by SHPO and the lead federal agency for listing on the NRHP. Resources not
26 protected under OAR 345-022-0090 may be directly impacted. The Department emphasizes
27 that these resources have been surveyed and recorded during the Section 106 review and
28 Council has relied on up historic and archaeological surveys and recordation for other energy
29 facilities to serve as mitigation reducing a potential impact to less than significant. Therefore,
30 and in the alternative to no protected under the Council’s standard, if the resources listed in
31 Table 31 under OAR 345-022-0090(1)(b) or OAR 345-022-0090(1)(c), are potentially protected
32 under the applicable sub parts of the standard, the Department recommends that, taking into
33 account the Section 106 surveys and recordation, impacts to these resources would be less
34 than significant.

35
36 *III.K.1.c Mitigation: HPMP, PSMMPs, and Existing Site Certificate Conditions*
37

²³⁰ Pursuant to ORS 192.501(11) Information concerning the location of archaeological sites or objects are exempt from public disclosure, certificate holder submits this information under a confidential cover and the Department maintains the information confidential to the fullest extent of the law.

²³¹ Recommendations for resources located on private and public lands are based on the criteria identified in ORS 358.905(1)(a) and ORS 358.905(1)(c), which is provided in the footnotes above.

1 As discussed in the *Final Order on ASC*, the Historic Properties Management Plan (HPMP – Final
2 Order Attachment S-9), imposed under Historic, Cultural, and Archaeological Resources
3 Condition 2, serves as a framework how to address resource surveys, and how to evaluate
4 impacts to resources, avoid, minimize, and mitigate impacts to resources protected under OAR
5 345-022-0090. Since Council approval of the Final Order on ASC and RFA1, the certificate holder
6 and its consultant have submitted documentation on an ongoing basis for the Section 106
7 review, which includes review and comment by state SHPO’s, the BLM and affected Tribal
8 Governments. The draft final HPMP (Section 106 HPMP) that has been circulated for comment
9 by BLM via Section 106 is attached to this order as Attachment S-9.²³² Avoidance, mitigation,
10 and monitoring for unavoidable impacts to various types of resources have been further
11 developed and defined in Property-Specific Mitigation and Monitoring Plans (PSMMPs), which
12 are required by the Section 106 HPMP.

13 The Council-approved HPMP Appendix A.1 Inventory Tables include the following tables, taken
14 from ASC Exhibit S, which identify a specific type of mitigation suite²³³ may be applied for
15 various types of resources:²³⁴

- 16
- 17 • Table HCA-4b: Department Recommended Mitigation for NRHP-Eligible Oregon
18 Trail/NHT Segments
- 19
- 20 • Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to Resource Site
21 Types Identified within the Direct Analysis Area
- 22
- 23 • Table HCA-9 Potential Minimization and Mitigation Methods for Indirect Impacts
- 24
- 25 • Table HCA-10 Potential Minimization and Mitigation Methods for Indirect and Direct
26 Impacts to Aboveground Resources
- 27

²³² An August 2023 HPMP was circulated by BLM for comment to parties to the PA, in response to comments received, a September 2023 draft final HPMP was then re-circulated to parties and submitted to the Department by the certificate holder in November 2023, which is included in this order. B2HAMD2 pRFA2 Precon Coord w Cert Holder BLM Final HPMP and Draft PSMMPs_BLM_Theisen 2023-10-26 and 2023-11-23

²³³ From the Oregon Supreme Court’s Decision regarding the specificity of mitigation for certain types of resources, “EFSC’s final order contains specific information identifying the resources that will be impacted, the extent of those impacts, and how those impacts will be mitigated....final order prescribes in Table HCA-4b the specific types of mitigation that EFSC required for this project: design modification...plus “at least one of the” mitigation methods found in former OAR 345-001-0010(33)(c) - (e), “with a demonstrated direct benefit to affected area (county of resource site),” and with the priority of those additional mitigation methods further specified. The final order also requires Idaho Power to demonstrate that any mitigation efforts required by federal “section 106 review” are sufficient to meet the state law standards articulated in Table HCA-4b...” B2HAPPDoc7 Supreme Court Decision Stop B2H Coalition v. Dept, of Energy 2023-03-09, page 811.

²³⁴ HPMP Appendix A.1 Inventory Tables HCA-4b, HCA-8, HCA-9, and HCA-10 were derived from ASC Exhibit S, Attachment S-9, HPMP (with Inadvertent Discovery Plan) Tables 6-1, 6-2, 6-3, and 6-4. B2HAPPDoc3-36 ASC 19_Exhibit S_Cultural_ASC_Public 2018-09-28.

1 The measures listed in these tables are reflected in Section 106 HPMP, Tables 6-1 and 6-2.
2 These tables list the types of mitigation measures that are associated with different types of
3 resources and offer additional mitigation options. These measures are further refined in
4 Property-Specific Mitigation and Monitoring Plans (PSMMPs), which address unavoidable
5 adverse effects to NRHP eligible resources, consistent with PA Stipulation VII. C. The resource
6 specific and site-specific PSMMPs have been and will continue to be developed in consultation
7 with the parties to the PA.²³⁵ PSMMPs may use the potential mitigation measures described in
8 the tables above and in the Section 106 HPMP or certificate holder may develop alternative
9 measures to be implemented, which would be defined in the PSMMPs and circulated to PA
10 Parties. Further, each PSMMP also includes avoidance and monitoring plans for the properties
11 included in the plan as well as for operation and maintenance and decommissioning of the
12 facility. Where subsurface investigation, such as data recovery, is identified as appropriate
13 mitigation and required in a PSMMP, the research design and strategies outlined in the HPMP
14 Subsurface Investigation Strategy Plan (SISP) would be relied upon.

15
16 Though some PSMMPs may group similar resource types, the purpose of each PSMMP is to
17 supplement the HPMP with site-specific information, including mitigation, treatment, and
18 monitoring for unavoidable adverse effects to each historic property or potential historic
19 property and resources. PSMMPs have been developed and circulated for the following
20 resources, resource groups, or types of resources:

- 21 • Built Environment – six sites
- 22 • Oregon Trail – nine sites
- 23 • Water Conveyance – two sites
- 24 • Rock Shelters – four sites
- 25 • Stacked Rock Features – 45 sites
- 26 • 35UN 00097 - One large site
- 27 • Lithic Procurement Sites – three sites

28
29 As discussed in the *Final Order on ASC and RFA1*, Historic, Cultural and Archeological Resources
30 Condition 2 (GEN-HC-02), the HPMP must be finalized, for a phase or segment of the facility,
31 and submitted to the Department once the final resource eligibility determinations and
32 mitigation are derived from the Section 106 process. Based upon the eligibility determinations
33 the HPMP *Appendix A.1 Inventory Tables with Management under OAR 345-022-0090*, must be
34 updated to determine a final impact assessment and then appropriate mitigation measures
35 associated with direct or indirect impacts to the various historic, cultural, and archaeological
36 resources listed in the tables. To reflect the work that has been ongoing via Section 106
37 consultation, including the PSMMPs, the Department has updated, in redline format, the HPMP

²³⁵ Pursuant to OAR 345-021-0010(1)(s), information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or 192.501(11). Therefore, information submitted in confidential resource documents such as the PSMMPs, as attached to the HPMP, High Probability Area report, Cultural Resources Technical Report Reconnaissance Level Survey – Visual Assessment of Historic Properties Report, and Intensive Level Survey – Visual Assessment of Historic Properties Report, Analysis Area, Construction Footprint, and Resource Location Maps.

1 Appendix A.1 Inventory Tables (included in the updated HPMP, Attachment S-9 to this order) to
2 include that additional site-specific mitigation designated in resource specific PSMMPs may be
3 relied upon to update mitigation and management designated in the HPMP Appendix A.1
4 Inventory Tables as part of pre-construction compliance, based on the outcomes of the Section
5 106 review. The Department recommends Council find that the PSMMPs may be relied upon to
6 designate site-specific and resource-specific avoidance and mitigation measure when updating
7 the HPMP Appendix A.1 Inventory Tables in compliance with GEN-HC-02, because the PSMMPs
8 provide additional detail about the resources, impacts, and site-specific mitigation which has
9 been reviewed by Parties to the PA.

10
11 The Department has also provided edits, in redline format, to the HPMP Appendix A.1 Inventory
12 Tables document front end which are intended to provide instructions to the certificate holder
13 and its contractors on how to update, based on Section 106 outcomes, the HPMP Appendix A.1
14 Inventory Tables. An example of the instructions is provided below in *italics*:

15
16 *How to Update Table HCA-6: Potentially Impacted Resources under OAR 345-022-*
17 *0090(1)(a)*

18
19 *a. In redline, update Table HCA-6 from:*

- 20 • *Eligibility determinations from Section 106.*
- 21 • *Mitigation outcome from Section 106. Applicable mitigation measures*
22 *provided in:*
 - 23 ○ *Table HCA-8: Potential Minimization and Mitigation of Direct Impacts*
24 *to Resource Site Types Identified within the Direct Analysis Area;*
 - 25 ○ *Table HCA-9 Potential Minimization and Mitigation Methods for*
26 *Indirect Impacts;*
 - 27 ○ *Table HCA-10 Potential Minimization and Mitigation Methods for*
28 *Indirect and Direct Impacts to Aboveground Resources;*
 - 29 ○ *Applicable PSMMP(s).*

30 *Notes: Table HCA-6 includes resources that are or may be protected under OAR 345-022-*
31 *0090(1)(a) and/or OAR 345-022-0090(1)(b). If a resource is determined to be eligible or*
32 *likely eligible for listing on the NRHP, it will be reflected in both Table HCA-6 and Table*
33 *HCA-7-1. However, as provided below, the impact assessment and mitigation for the*
34 *resource in Table HCA-6 (OAR 345-022-0090(1)(a)) is sufficient for the same resource in*
35 *Table HCA-7-1 (OAR 345-022-0090(1)(b)), if protected under the standard.*

36
37 *b. If a resource is not eligible for listing on the NRHP (protected under OAR 345-022-*
38 *0090(1)(a)), it may qualify as an archaeological object or archaeological site as*
39 *defined in statute and covered under OAR 345-022-0090(1)(b) of the EFSC standard,*
40 *and must be evaluated in Table HCA-7-1: Inventoried Resources under OAR 345-022-*
41 *0090(1)(b), described below.*

1 The Department has also made other administrative edits to the HPMP Appendix A.1 Inventory
2 Tables which reflect the status of the site certificate such as removing narrative copied from the
3 *Final Order on ASC* and updating terminology (e.g. approved rather than proposed, certificate
4 holder rather than applicant, and Council finds rather than Department recommends). The
5 Department recommends Council find that the administrative updates to the HPMP Appendix
6 A.1 Inventory Tables provide clarity and accuracy to the document.

7
8 Finally, the Department recommends the *HPMP Appendix A.1 Inventory Tables with*
9 *Management under OAR 345-022-0090*, include resources identified in RFA2 to ensure that
10 resources associated with RFA2 are included in the Appendix to the HPMP and updated
11 consistent with Historic, Cultural and Archeological Resources Condition 2 (GEN-HC-02). To
12 reflect the above discussion, the Department recommends Council amend GEN-HC-02 as
13 designated below. The Department recommends changes reflect that a finalized Section 106
14 HPMP would be submitted to the Department, that the Appendix A.1 Tables would be updated
15 based on the Section 106 outcomes, and that the site-specific and general mitigation measures
16 designated in the PSMMP's may be relied up to meet the mitigation necessary under Council's
17 standard.

18 **Recommended Amended Historic, Cultural and Archeological Resources Condition 2**
19 **(GEN-HC-02):** Prior to construction of a phase or segment of the facility, subject to
20 confidential material submission procedures, and based on 1) new survey data from
21 previously unsurveyed areas and 2) the final design of the facility, the certificate holder
22 shall submit to the Department, the State Historic Preservation Office (SHPO), and
23 applicable Tribal Governments, for review and Department approval, a final Section 106
24 Historic Properties Management Plan (HPMP) (with a cover letter explaining changes
25 from the Final Order on RFA24 Attachment S-9). The HPMP shall include updated
26 Appendix A.1 Inventory Tables with Management under OAR 345-022-0090 based on
27 the outcomes of Section 106 Review. Final Property-Specific Mitigation and Monitoring
28 Plans (PSMMPs) shall be submitted as part of the Section 106 HPMP. The Department
29 may engage its consultant to assist in review of the HPMP. The certificate holder shall
30 conduct all construction activities in compliance with the final Department-approved
31 HPMP.

32 [Final Order on ASC, AMD1, AMD2]

33
34 Historic, Cultural, and Archaeological Resources Condition 1 (GEN-HC-01) continues to apply to
35 the proposed micrositing area additions in RFA2 and requires that during final design and
36 construction of the facility, the certificate holder designs and locate facility components to
37 avoid direct impacts to Oregon Trail/National Historic Trail resources.

38
39 Historic, Cultural, and Archaeological Resources Condition 3 (OPS-HC-01) continues to apply to
40 the proposed micrositing area additions in RFA2 and requires the submissions of the HPMP
41 after construction is completed and any results of unanticipated discoveries addressed in the
42 inadvertent Discovery Plan.

1 **III.K.2. Conclusions of Law**

2
3 Based on the foregoing analysis, and subject to compliance with the existing site certificate
4 conditions described above, the Department recommends the Council find construction and
5 operation of the facility, with proposed RFA2 changes, is not likely to result in significant
6 adverse impacts to historic, cultural or archaeological resources that have been listed on, or
7 would likely be listed on the National Register of Historic Places or other archaeological objects
8 or sites identified under OAR 345-022-0090.
9

10 **III.L. RECREATION: OAR 345-022-0100**

11
12 *(1) To issue a site certificate, the Council must find that the design,*
13 *construction and operation of a facility, taking into account mitigation, are*
14 *not likely to result in a significant adverse impact to important recreational*
15 *opportunities.*

16
17 *(2) The Council must consider the following factors in judging the importance*
18 *of a recreational opportunity:*

19
20 *(a) Any special designation or management of the location;*

21
22 *(b) The degree of demand;*

23
24 *(c) Outstanding or unusual qualities;*

25
26 *(d) Availability or rareness;*

27
28 *(e) Irreplaceability or irretrievability of the opportunity.*

29
30 *(3) The Council may issue a site certificate for a special criteria facility under*
31 *OAR 345-015-0310 without making the findings described in section (1). In*
32 *issuing such a site certificate, the Council may impose conditions of approval*
33 *to minimize the potential significant adverse impacts from the design,*
34 *construction, and operation of the facility on important recreational*
35 *opportunities.*

36
37 *(4) The Council must apply the version of this rule adopted under*
38 *Administrative Order EFSC 1-2002, filed and effective April 3, 2002, to the*
39 *review of any Application for Site Certificate or Request for Amendment that*
40 *was determined to be complete under OAR 345-015-0190 or 345-027-0363*
41 *before the effective date of this rule. Nothing in this section waives the*
42 *obligations of the certificate holder and Council to abide by local ordinances,*
43 *state law, and other rules of the Council for the construction and operation of*

1 *energy facilities in effect on the date the site certificate or amended site*
2 *certificate is executed.*²³⁶

3
4 **III.L.1. Findings of Fact**

5
6 The Recreation standard requires the Council to find that the design, construction and
7 operation of a facility are not likely to result in significant adverse impacts to ‘important’
8 recreational opportunities.²³⁷ The analysis area for the Recreation standard includes the area
9 within and extending 1.75-miles from the proposed amended site boundary.²³⁸

10
11 In the *Final Order ASC and RFA1* Council evaluated whether the identified recreational
12 opportunities are “important” using the factors listed in the sub-paragraphs of section (1) of the
13 standard. The Council then evaluated whether the design, construction and operation of the
14 facility and facility with proposed changes could adversely impact the identified important
15 recreational opportunities. If the facility or proposed facility additions could adversely impact
16 the resource, then the Council considered the significance of the possible impact using the
17 definition of significance under OAR 345-001-0010(29).

18
19 *III.L.1.a Important Recreational Opportunities within the Analysis Area*

20
21 The certificate holder provides an evaluation of whether or not recreational opportunities
22 within the RFA2 analysis area are important and an evaluation of potential impacts to those
23 recreation opportunities in RFA2 Attachment 7-12, Figures 7-16 and 7-17. There are no new
24 recreational opportunities within the analysis area for RFA2 or evidence that a previously
25 evaluated recreational opportunity that was determined to be “not important,” should now be
26 considered “important” under the standard. Therefore, the proposed RFA2 micro-siting area
27 transmission line route additions within the analysis area for RFA2 presented below in Table 32:
28 *Proximity of ASC, RFA1, and Proposed RFA2 Transmission Line Routes to Important Recreation*
29 *Opportunities in Analysis Area*, relies on recreational opportunities that Council has already

²³⁶ OAR 345-022-0100, effective December 19, 2022.

²³⁷ OAR 345-001-0010(29) defines “significant” as “having an important consequence, either alone or in combination with other factors, based upon the magnitude and likelihood of the impact on the affected human population or natural resources, or on the importance of the natural resources affected, considering the context of the action or impact, its intensity and the degree to which possible impacts are caused by the proposed action. Nothing in this definition is intended to require a statistical analysis of the magnitude or likelihood of a particular impact.”

²³⁸ The Council’s procedural requirements for site certificate amendments (OAR 345-027-0360(3)) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The July 26, 2018 Second Amended Project Order establishes the analysis area as the area within and extending 2 miles from the site boundary. As authorized under OAR 345-027-0360(3), following pre-amendment conferences on March 23 and June 12, 2023, the Department approved a modified analysis area for the Recreation standard based on the scope and extent of potential impacts associated with the proposed RFA2 changes.

1 determined to be important.²³⁹ Table 32, below, presents important recreational opportunities
 2 within the analysis area of the ASC, RFA1, and the proposed RFA2 route alternatives and their
 3 proximity to the ASC and RFA1 approved routes and transmission line alternatives proposed
 4 in RFA2.

5
 6 Table 32, below provides summary of the proposed RFA2 transmission line alternatives and
 7 their proximity to important recreational opportunities.

8
Table 32: Proximity of ASC, RFA1, and Proposed RFA2 Transmission Line Routes to Important Recreation Opportunities in Analysis Area

Important Recreational Opportunity	Distance to Route Centerline	County
Blue Mountain Forest State Scenic Corridor	Crossed (ASC)	Union
Ladd Marsh Wildlife Area	Crossed (ASC) 208 feet (ASC Morgan Lake alternative) 528 feet (0.1 mile – RFA2 Baldy Alternative)	Union
Burnt River Extensive Recreation Management Area	Crossed (ASC) Crossed (True Blue Gulch alternative RFA1)	Baker
Grande Tour Scenic Bikeway	Crossed (ASC) Crosses (RFA2 Highway 203 Crossing Alternative)	Union and Baker
Blue Mountain Scenic Bikeway	Crossed (ASC) 0.7 mile (RFA2 Rugg Canyon alternative)	Morrow and Umatilla
Oregon Trail Area of Critical Environmental Concern – National Historic Oregon Trail Interpretive Center Parcel (NHOTIC)	106 feet (ASC) 528 feet (0.1 mile - RFA2 Revised 230-kV Rebuild)	Baker
Owyhee River Below Dam Special Recreation Management Area	250 feet (ASC)	Malheur
Morgan Lake Park	0.2 mile (ASC Morgan Lake alternative) 0.6 mile (ASC)	Union
Oregon Trail Birch Creek Special Recreation Management Area	0.2 mile (ASC)	Malheur
Hilgard Junction State Park	0.3 mile (ASC) 0.4 mile (ASC Morgan Lake alternative) 0.7 mile (RFA2 Rock Creek alternative 2)	Union

²³⁹ See B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.L, and B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, Section III.L.

Table 32: Proximity of ASC, RFA1, and Proposed RFA2 Transmission Line Routes to Important Recreation Opportunities in Analysis Area

Important Recreational Opportunity	Distance to Route Centerline	County
Deer Flat National Wildlife Refuge – Snake Island Unit	0.4 mile (ASC)	Malheur
Weiser Dunes Off-highway Vehicle Play Area	0.5 mile (ASC)	Washington County (Idaho)
Oregon Trail Tub Mountain Special Recreation Management Area	0.5 mile (ASC)	Malheur
Bully Creek Reservoir	0.7 mile (ASC) 1.1 mile (RFA2 Cottonwood Creek alternative)	Malheur
Farewell Bend State Recreation Area	0.7 miles (ASC)	Baker
Snake River Breaks Extensive Recreation Management Area	0.8 mile (ASC) 1.2 miles (Durbin Quarry alternative RFA1)	Baker
Snake River Islands (Huffman Island) Wildlife Area	0.9 mile (ASC)	Malheur
Oregon Trail Interpretive Park at Blue Mountain Crossing	1.0 mile (ASC)	Union
Umatilla National Wildlife Refuge	1.3 miles (ASC)	Morrow
Powder River WSR, Area of Critical Environmental Concern	1.4 miles (ASC)	Union and Baker
Virtue Flat Off-highway Vehicle Area	1.5 miles (ASC) 1.9 mile (RFA2 Revised 230-kV Rebuild)	Baker

1

1
2 *III.L.1.b Potential Impacts to Important Recreation Opportunities*

3
4 *III.L.1.b.1 Direct and Indirect Loss of Recreational Opportunity*

5
6 A direct loss of opportunity could occur where the proposed RFA2 microsite area additions
7 result in permanent alteration such that the resource no longer exists in its current state.
8 Indirect loss could result from temporary traffic and noise impacts, and permanent visual
9 impacts of proposed facility structures.

10
11 The proposed RFA2 Highway 203 Crossing alternative would cross the Grand Tour Scenic
12 Bikeway, similar to the previously approved route in the ASC. Council previously found that
13 crossing a scenic bikeway could result in a direct loss of a small portion of the area included
14 within the boundaries of the important recreational opportunity, however, the extent of the
15 loss would not result in a change to the overall use or importance of the resource. Therefore,
16 the Department recommends Council find that the proposed RFA2 microsite area addition
17 would not be likely to result in significant adverse impacts from potential direct losses to the
18 important recreational opportunity.

19
20 Indirect loss could result from temporary traffic and noise impacts associated with the
21 temporary work areas proposed in RFA2 and proposed transmission line alternatives, and
22 permanent visual impacts of proposed facility structures. Indirect loss from traffic and noise
23 impacts would be reduced by measures outlined in the Traffic Management and Control Plan,
24 imposed in Public Services Condition 2, and from noise attenuation due to the linear nature of
25 construction activities. Visual impacts associated with permanent facility structures proposed in
26 RFA2 are discussed further below.

27
28 *III.L.1.b.2 Potential Noise Impacts*

29
30 Construction-related noise impacts from the temporary work areas, roads, and transmission
31 line route additions proposed in RFA2 would be similar to those evaluated in the *Final Order on*
32 *ASC* and would cause some noise impact at recreational opportunity sites that are close to the
33 proposed microsite area additions, however, these impacts would be short-term and
34 temporary. Construction activities that would cause noise impacts at most recreation
35 opportunities include blasting and rock breaking, implosive devices used during conductor
36 stringing, helicopter operations, and vehicular traffic. The construction activities would progress
37 along the corridor of the proposed transmission line, and no area would be exposed to
38 construction noise for the entire construction period. Recreational opportunities within a half-
39 mile or less, would experience noise impacts during facility construction. However, noise would
40 attenuate with distance, topography, and vegetative screening so it is possible that the decibel
41 volume of typical construction equipment may be lower during actual facility construction.²⁴⁰
42

²⁴⁰ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 547.

1 During typical operating conditions, corona noise is estimated at 34 dBA at the edge of the
2 facility right of way (ROW). Thirty-four dBA is barely audible and would not cause a significant
3 noise impact at any recreation opportunity.²⁴¹ Department also highlights that typical
4 recreational activities occur during the day when ambient noise levels are higher and, even
5 under conditions where corona noise may be elevated, it is likely that recreational activities
6 would mask any operational transmission line noise.

7
8 *III.L.1.b.3 Potential Traffic-Related Impacts*
9

10 Construction of the proposed RFA2 micrositing area additions would cause short-term impacts
11 to those recreation opportunity sites that are near or crossed by the additions, or where
12 construction traffic routes pass near those areas, similar to the potential impacts evaluated in
13 the *Final Order on ASC*. The impacts would be short-term and limited in duration to
14 construction related traffic. Construction traffic would include multiple vehicle types, but the
15 majority of traffic trips would be for construction workers daily commuting to work sites.

16
17 Public Services Condition 2 which requires the finalization of a county-specific traffic
18 management plan would continue to apply to the micrositing area additions proposed in RFA2.
19 Measures that would address construction-related impacts include the use of traffic control
20 measures including flaggers, pilot vehicles, and temporary closures if necessary, and that road
21 closures would be publicized in advance and coordinated with landowners, emergency services,
22 and law enforcement.²⁴²
23

24 *III.L.1.b.4 Potential Visual Impacts*
25

26 As discussed, and summarized in Section III.F., *Protected Areas*; III.F.1.b.5.1, *Methodology for*
27 *Visual Impact Assessment*, of this order, to evaluate the impact of the proposed micrositing
28 area additions on protected areas, scenic, and recreation resources, the certificate holder used
29 the Council approved visual impact methodology which is based on the BLM and USFS visual
30 impact assessment methods, and the Council's definition of significant. Council's rules do not
31 require, or provide, a specific methodology for evaluating visual impacts to Recreational
32 Resources (or Protected Areas or Scenic resources). Similar to the ASC and RFA1, the visual
33 impact assessment extends 5 miles from the proposed micrositing area additions in non-
34 forested settings, and 10 miles in forested settings. Beyond those distances, Council previously
35 found that visibility of the facility components would be negligible.²⁴³ In the *Final Order on*
36 *RFA1*, Council found that for roads, most of which do not have a vertical visual component
37 associated with them, the visual impact assessment is further refined by proximity, i.e.,
38 foreground (<0.5 miles), middleground (0.5 to 5 miles), or background distances (> 5 miles).

²⁴¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp 547-548. Idaho Power - Rebuttal Testimony - Kling - Exhibit E page 5, 2022-11-12; Idaho Power / Rebuttal Testimony of Mark Bastasch / Issues NC-1, NC-2, NC-3, NC-4, and NC-6/ Exhibit L, Reanalysis of MP11 Area, p. 2-3 of 4, 2022-11-12.

²⁴² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 547.

²⁴³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 305.

1 Also, as discussed in Section III.F., *Protected Areas*, of this order, Council considers visual
2 impacts associated with permanent facility components (structure towers for transmission
3 lines), rather than visual impacts associated with temporary work areas because they are short
4 term, and the sites are restored.

5
6 RFA2 Attachment 7-17 Table 1 provides the visual impact assessment for the micrositings area
7 additions proposed in RFA2. As noted above, temporary work areas (pulling and tensioning
8 sites, MUAs, etc.) are not evaluated for permanent visual impacts because they are temporary.
9 Proposed micrositings area additions that are roads within the analysis area of recreational
10 opportunities all are modifications to existing roads, which do not have vertical components,
11 and are not likely to have a visual impact.

12
13 Certificate holder indicates that the distance from the transmission line routes proposed in
14 RFA2 from recreational resources increased or remained the same compared to the evaluation
15 done for the ASC, thus potential visual impacts would be less than or equal to what was
16 previously approved.²⁴⁴ This is demonstrated by the summary provided above in Table 32. All of
17 the proposed RFA2 transmission line routes are similar or further away than what Council
18 previously evaluated and approved, therefore, for this reason and the reasons provided in the
19 *Final Order on ASC and RFA1*, the Department recommends Council find that the operation of
20 the facility, with proposed changes, would not have significant adverse impacts to important
21 recreational opportunities.

22
23 Previously imposed Recreation Condition 1, which requires modified h-frame towers within the
24 viewshed of Morgan Lake Park is not impacted by RFA2 because there are not proposed
25 transmission line alternative routes within the viewshed of Morgan Lake Park and continues to
26 apply to the previously facility and certificate holder.²⁴⁵

27 28 **III.L.2. Conclusions of Law**

29
30 Based on the foregoing analysis, and subject to compliance with the existing site
31 certificate conditions, the Department recommends the Council find that the design,
32 construction and operation of the facility, with proposed RFA2 changes, are not likely
33 to result in a significant adverse impact to important recreational opportunities.

34 35 **III.M. PUBLIC SERVICES: OAR 345-022-0110**

36

²⁴⁴ B2HAMD RFA1 2023-06-08. Attachment 7-15.

²⁴⁵ Department highlights that certificate holder is proposing to expand the site boundary within the area around Morgan Lake Park, as illustrated in RFA2 Figure 4-1, Map 22. As discussed in Section II.B and III.A., General Standard of Review, of this order, the expanded site boundary is not an approval to locate facility components within that area. Any Council approval of the RFA2 micrositings areas would be to located facility components only within the micrositings areas. Consistent with representations and the evaluation in the *Final Order on ASC*, the certificate holder is not proposing any facility components within the Morgan Lake Park boundaries. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 555.

1 (1) Except for facilities described in sections (2) and (3), to issue a site
2 certificate, the Council must find that the construction and operation of the
3 facility, taking into account mitigation, are not likely to result in significant
4 adverse impact to the ability of public and private providers within the
5 analysis area described in the project order to provide: sewers and sewage
6 treatment, water, storm water drainage, solid waste management, housing,
7 traffic safety, police and fire protection, health care and schools.

8
9 (2) The Council may issue a site certificate for a facility that would produce
10 power from wind, solar or geothermal energy without making the findings
11 described in section (1). However, the Council may apply the requirements of
12 section (1) to impose conditions on a site certificate issued for such a facility.

13
14 (3) The Council may issue a site certificate for a special criteria facility under
15 OAR 345-015-0310 without making the findings described in section (1).
16 However, the Council may apply the requirements of section (1) to impose
17 conditions on a site certificate issued for such a facility.²⁴⁶

18 19 **III.M.1. Findings of Fact**

20
21 The analysis area for public services is the area within and extending 10-miles from the
22 proposed expanded site boundary. The facility would cross through five Oregon counties:
23 Morrow, Umatilla, Union, Baker, and Malheur.

24
25 Changes proposed in RFA2 include locational adjustments of previously approved infrastructure
26 (transmission line, new and substantially modified roads) on lands under the same ownership
27 as previously evaluated, and shifts and new locations of temporary work areas; and proposes
28 construction and operation of a capacitor station.²⁴⁷ The impacts to providers of public and
29 private services from the facility, with proposed RFA2 changes, would not differ from the
30 impacts previously evaluated by Council in the *Final Order on ASC* and *Final Order on Request*
31 *for Amendment 1 (RFA1)*. Those prior findings are incorporated herein by reference and direct
32 incorporation, as applicable.²⁴⁸

33 34 *III.M.1.a Sewer and Sewage Treatment*

35
36 During construction, portable toilets will be utilized at multi-use areas and construction sites.
37 The proposed RFA2 micrositing area additions are not expected to result in significant changes
38 to the volume of sanitary wastes generated during construction of the facility, and the

²⁴⁶ OAR 345-022-0110, effective April 3, 2002.

²⁴⁷ Proposed capacitor station includes: 500-kV circuit breakers, high-voltage switches, bus supports, two transmission line termination structures, and a 500-kV series capacitor bank.

²⁴⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV. M, and B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, Public Services.

1 certificate holder has not proposed any changes to the method of disposal of those wastes. The
2 Council previously found that, subject to the compliance by the certificate holder’s contractor
3 with applicable state laws and rules, the disposal of sanitary wastes from the portable toilets
4 was not likely to impact public and private sewer and sewage treatment providers within the
5 analysis area.²⁴⁹
6

7 In addition, RFA2 does not propose any changes to facility components that would connect to
8 public sewer and sewage treatment systems during operation of the facility. Accordingly, the
9 Department recommends the Council rely on the aforementioned findings from the *Final Order*
10 *on ASC* as a basis for concluding that the proposed RFA2 changes are not likely to impact public
11 and private sewer and sewage treatment providers within the analysis area.
12

13 *III.M.1.b Stormwater and Wastewater Drainage*

14

15 The facility components to be located within the proposed RFA2 micro siting area additions are
16 not proposed to interconnect with nor impact any public or private stormwater or wastewater
17 drainage systems. Therefore, the Department recommends Council find that the construction
18 and operation of facility components within the proposed RFA2 micro siting area additions are
19 not likely to result in significant adverse impacts to the ability of stormwater or wastewater
20 drainage service providers to provide drainage and processing services.
21

22 *III.M.1.c Water Use*

23

24 Construction would require up to approximately 54.8 million gallons of water.²⁵⁰ Primary water
25 uses would include dust control, sanitation, foundation construction. Potential sources of water
26 for the construction and operation of the facility include the City of Boardman, City of
27 Pendleton, City of La Grande, Baker City, and the City of Ontario. The Council previously found
28 that these providers had adequate capacity to provide the water needed for construction
29 without significant impacts to their ability to meet other water needs.²⁵¹
30

31 The scope and extent of construction activities involved with constructing the facility, with the
32 changes proposed in RFA2, would be similar to those evaluated in the *Final Order on ASC*. As a
33 result, no significant changes to the volume of water needed for construction are expected.
34 Accordingly, the Department recommends the Council find that the proposed RFA2 micro siting
35 area additions are not likely to result in significant adverse impacts on the ability of the
36 aforementioned providers to provide water for the project.
37

38 *III.M.1.d Solid Waste Management*

39

²⁴⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 579 of 10586.

²⁵⁰ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 580 of 10586.

²⁵¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 582 of 10586.

1 Construction is expected to generate approximately 3.7 million cubic yards (yd³) of solid waste,
2 including 3.5 million cubic yards of vegetative waste from site clearing, 197,218 yd³ of
3 excavation spoils, and 6,235 yd³ of other solid wastes. Approximately 2.8 million cubic yards
4 (76%) of the waste would be diverted from landfills, either by mulching vegetative wastes for
5 use at the site, or recycling. The approximately 881,994 yd³ of undiverted wastes would be
6 transported by a waste disposal subcontractor to one of four landfills along the transmission
7 line route: Finley Buttes Landfill in Morrow County, the Baker Sanitary Landfill in Baker County,
8 the Lytle Boulevard Landfill in Malheur County and the Clay Peak Landfill in Payette County,
9 Idaho.

10
11 The scope and extent of construction activities involved with constructing the facility, with
12 proposed RFA2 changes, would be similar to those evaluated in the *Final Order on ASC*. IPC
13 represents that the proposed changes in RFA2 will not result in a significant increase in the
14 amount of solid waste estimated to be generated during construction of the facility.²⁵²
15 Therefore, the Department recommends Council rely on its previous findings and conclude that
16 the construction and operation of the facility, with proposed RFA2 changes, and subject to
17 compliance with waste minimization conditions, are not likely to result in significant adverse
18 impacts to the ability of solid waste management providers to provide services to the Project.

19 20 *III.M.1.e Housing*

21
22 The scope and extent of construction activities involved with constructing the facility, with
23 proposed RFA2 changes, would be similar to those evaluated in the *Final Order on ASC*. The
24 analysis area extends 10-miles from the proposed expanded site boundary; based on housing
25 capacity within the analysis area, there are adequate short-term housing options available
26 within reasonable commuting distance to the facility.²⁵³

27
28 Local housing capacity impacts may be experienced in individual counties if construction
29 workers rely on a specific type of housing – RV camping, for example – that may not have
30 adequate supply. Local housing capacity impacts may be experienced based on cumulative
31 development actions occurring at the time. Because the public services standard requires an
32 evaluation of capacity impacts within the analysis area, targeted impacts to an individual type
33 of housing resource have not been evaluated.

34
35 The Department recommends that the Council find that the facility is not likely to result in
36 significant adverse impacts to the ability of public and private housing and rental providers
37 within the analysis area.

38 39 *III.M.1.f Health Care*

40

²⁵² B2HAMD2Doc2 RFA2 2024-04-11, p. 37.

²⁵³ B2HAPPDoc3-38 ASC 21_Exhibit U_PublicServices_ASC 2018-09-28, Section 3.5.4.

1 The scope and extent of construction activities involved with constructing the facility, with
2 proposed RFA2 changes, would be similar to those evaluated In the *Final Order on ASC*. The
3 proposed RFA2 changes will not result in a need for additional workers during peak
4 construction periods. As a result, no significant changes to the demand for health care services
5 associated with construction of the facility are expected. Accordingly, the Department
6 recommends Council continue to rely on its previous findings and again conclude that, subject
7 to Public Services Condition 5 (PRE-PS-04)²⁵⁴, construction and operation of the facility, with
8 proposed RFA2 changes, is not likely to result in significant adverse impacts to the ability of
9 public and private health care providers to provide health care services within the analysis area.

10
11 *III.M.1.g Schools*

12
13 The scope and extent of construction activities involved with constructing the facility, with
14 proposed RFA2 changes, would be similar to those evaluated In the *Final Order on ASC*. The
15 proposed RFA2 changes will not result in a need for additional workers during peak
16 construction periods, nor permanent employees within the facility area. Therefore,
17 construction and operation of the facility, with proposed RFA2 changes, is not likely to result in
18 significant adverse impacts on the ability of public and private education providers to provide
19 education services within the analysis area. Accordingly, the Department recommends Council
20 continue to rely on its previous findings and again conclude that construction and operation of
21 the facility, with proposed RFA2 changes, is not likely to result in significant adverse impacts to
22 the ability of public and private educations providers to provide educational services within the
23 analysis area.

24
25 *III.M.1.h Traffic Safety*

26
27 The scope and extent of construction traffic volume and road use involved with constructing
28 the facility, with proposed RFA2 changes, would be similar to those evaluated In the *Final Order*
29 *on ASC*. Proposed RFA2 road design changes could impact traffic safety providers, and therefore
30 is evaluated below.

31
32 RFA2 seeks approval to increase the temporary disturbance width for new and substantially
33 modified roads, as presented in Table 16 of this order, and discussed further in Section III.D.,
34 *Soil Protection*, of this order. Certificate holder includes an updated Road Classification Guide as
35 RFA2 Attachment 4-1, the Department has attached the updated document as Attachment B-5,
36 to this order. During the review of pRFA2, the certificate holder provided a table identifying
37 road construction and operation standards, which the Department includes in the attached B-5.
38 Road design for temporary and permanent impacts must demonstrate road safety impacts are
39 minimized. Council previously imposed Public Services Condition 2 (PRE-PS-02) requiring in part
40 that, prior to construction, the certificate older finalize Transportation and Traffic Plans

²⁵⁴ Council previously imposed Public Services Condition 5 (PRE-PS-04) requiring that, prior to construction, the certificate holder finalize and provide to the Department, for review and approval, an Environmental and Safety Training Plan designed to minimize health and safety risks during construction.

1 designed to minimize safety, road damage and congestion/access impacts. The condition also
2 required finalization of a Road Classification Guide (Attachment B-5), which identifies the
3 applicable road design standards based on the location and road improvement type. Under the
4 previously imposed condition, the Road Classification Guide requires that new access roads
5 conform to the most current edition of the American Association of State Highway and
6 Transportation Officials' (AASHTO's) Guidelines for Geometric Design of Very Low-Volume Local
7 Roads, for access roads with an anticipated average daily traffic of less than 400 vehicles.²⁵⁵ It
8 requires that roads on federal lands meet USFS and BLM standards for roads that will be added
9 to federal jurisdiction. Existing USFS and BLM roads which cannot be used in their existing
10 condition will be brought up to these standards. For roads on state forest land, the certificate
11 holder will work with ODOT, Oregon Department of Forestry, and other agencies to ensure
12 compliance with applicable road standards and to obtain any necessary approvals or permits.
13 The previously imposed condition requires that the certificate holder implement the measures
14 identified in the Transportation and Traffic Plans and the Road Classification Guide (Attachment
15 B-5).

16
17 The Department recommends Council amend Public Services Condition 2 (PRE-PS-02) to specify
18 that the version of the Road Classification Guide and Access Control Plan to be finalized, prior
19 to construction, is the version attached to the *Final Order on RFA2*, if approved by Council. The
20 revisions to the condition are limited to referencing the *Final Order on RFA2* and are shown in
21 redline format in Attachment 1 to this order, the recommended second amended site
22 certificate. The updated Road Classification Guide and Access Control Plan is attached to this
23 order as Attachment B-5. Because the Road Classification Guide will identify the appropriate
24 and applicable road design standards for which roads will be designed and constructed, and
25 will apply to the proposed RFA2 road design changes per recommended amended Public
26 Services Condition 2 (PRE-PS-02), the Department recommends Council continue to find that
27 construction and operation of the facility, with proposed RFA2 changes, is not likely to result in
28 significant adverse impacts to the ability of public and private traffic service providers to
29 provide transportation services within the analysis area.

30 *Air Traffic Safety*

31
32
33 The locational adjustments of the proposed RFA2 micrositing area additions do not result in
34 new or different air traffic safety providers not previously evaluated (i.e., no new or different
35 airports within 5-miles of the proposed expanded site boundary).

36
37 Council previously imposed Public Services Condition 4 (PRE-PS-03) requiring that, prior to
38 construction, the certificate holder submit a Notice of Proposed Construction or Alteration (FAA
39 Form 7460-1) to the FAA and to the Oregon Department of Aviation prior to the construction of
40 any transmission structures within 5-miles of a public airport or the use of any cranes exceeding
41 200-ft in height. The certificate holder has obtained a No Hazard Determinations from FAA and
42 ODAv for all facility structures within 5-miles of a public airport.

²⁵⁵ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.M.6.

1
2 The certificate holder may use helicopters to deliver equipment, materials, or personnel to
3 areas with limited access by road during the construction of the facility. When used, helicopters
4 are deployed from multi-use areas or light duty fly yards located within four of the facility's
5 pulling and tensioning sites.²⁵⁶ Under Public Services Condition 3 (GEN-PS-01), the certificate
6 holder must submit to the Department and each affected County Planning Department a
7 proposed Helicopter Use Plan. The plan must be approved by the Department, in consultation
8 with each county where helicopter use is proposed, prior to use of a helicopter during
9 construction. Based on compliance with Public Services Condition 3 (GEN-PS-01), construction-
10 related helicopter use would not likely result in hazards to air navigation.

11
12 Based on the evidence in the record and compliance with previously imposed conditions, the
13 Department recommends the Council find that the facility, with proposed RFA2 changes, is not
14 likely to result in significant adverse impacts to the ability of public and private air traffic safety
15 providers within the analysis area.

16
17 *III.M.1.i Fire Protection*

18
19 RFA2 does not propose any changes that would affect fire safety service providers differently
20 than what Council has previously evaluated.

21
22 Council previously imposed Public Services Condition 6 (GEN-PS-02) requiring that, prior to
23 construction, the certificate holder finalize a construction Fire Prevention and Suppression Plan,
24 designed to ensure the certificate holder and its contractors have adequate fire protection
25 equipment and work limitations to respond and avoid construction-related fire risk. Council
26 previously imposed Wildfire Prevention and Risk Mitigation Conditions 1 and 2 (GEN-WMP-01;
27 OPR-WMP-01) requiring that prior to and during operations, the certificate holder provide its
28 Wildfire Mitigation Plan, as required by and submitted to PUC, that applies to and requires
29 operational measures designed to minimize fire risk from and to the facility.

30
31 Based on compliance with the conditions and associated mitigation plans, the Department
32 recommends Council continue to find that construction and operation of the facility, with
33 proposed RFA2 changes, are not likely to result in significant adverse impact to the ability of
34 public and private providers within the analysis area to provide fire protection.

35
36 *III.M.1.j Police Protection*

37
38 The scope and extent of construction activities involved with constructing the facility, with
39 proposed RFA2 changes, would be similar to those evaluated In the *Final Order on ASC*.

40
41 Council previously imposed Public Services Condition 5 (Condition PRE-PS-04), which requires
42 the certificate holder to conduct all work in compliance with an approved Environmental and

²⁵⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 604 of 10586.

1 Safety Training Plan, which in part, specifies measures for securing multi-use areas and work
2 sites when not in use to address the potential for construction sites to become targets for theft
3 and vandalism. Council also imposed Public Services Condition 2 (Condition PRE-PS-02), which
4 requires the certificate holder to develop and comply with a Transportation and Traffic Plan
5 specifying measures to avoid, minimize, and mitigate impacts to law enforcement agencies due
6 to the expected increase in construction-related traffic.

7
8 The Department recommends Council continue to rely on its previous findings and conclude
9 that subject to existing Public Services Condition 2 (Condition PRE-PS-02) and Public Services
10 Condition 5 (Condition PRE-PS-04), construction and operation of the facility, with proposed
11 RFA2 changes, are not likely to result in significant adverse impact to the ability to provide
12 police services in the analysis area.

13 14 **III.M.2. Conclusions of Law**

15
16 Based on the foregoing analysis, and subject to compliance with the existing and recommended
17 amended site certificate conditions described above, the Department recommends the Council
18 find that the facility, with proposed RFA2 changes, are not likely to result in significant adverse
19 impacts to the ability of public and private providers to provide the services listed in OAR 345-
20 022-0110.

21 22 **III.N. WILDFIRE PREVENTION AND RISK MITIGATION: OAR 345-022-0115**

23
24 *(3) To issue a site certificate, the Council must find that:*

25
26 *(4) The applicant has adequately characterized wildfire risk*
27 *within the analysis area using current data from reputable*
28 *sources, by identifying:*

29
30 *(5) Baseline wildfire risk, based on factors that are expected to*
31 *remain fixed for multiple years, including but not limited to*
32 *topography, vegetation, existing infrastructure, and*
33 *climate;*

34
35 *(6) Seasonal wildfire risk, based on factors that are expected to*
36 *remain fixed for multiple months but may be dynamic*
37 *throughout the year, including but not limited to,*
38 *cumulative precipitation and fuel moisture content;*

39
40 *(7) Areas subject to a heightened risk of wildfire, based on the*
41 *information provided under paragraphs (A) and (B) of this*
42 *subsection;*

1 (8) High-fire consequence areas, including but not limited to
2 areas containing residences, critical infrastructure,
3 recreation opportunities, timber and agricultural resources,
4 and fire-sensitive wildlife habitat; and
5

6 (9) All data sources and methods used to model and identify
7 risks and areas under paragraphs (A) through (D) of this
8 subsection.
9

10 (b) That the proposed facility will be designed, constructed, and operated in
11 compliance with a Wildfire Mitigation Plan approved by the Council. The
12 Wildfire Mitigation Plan must, at a minimum:
13

14 (10) Identify areas within the site boundary that are subject to
15 a heightened risk of wildfire, using current data from
16 reputable sources, and discuss data and methods used in
17 the analysis;
18

19 (11) Describe the procedures, standards, and time frames that
20 the applicant will use to inspect facility components and
21 manage vegetation in the areas identified under subsection
22 (a) of this section;
23

24 (12) Identify preventative actions and programs that the
25 applicant will carry out to minimize the risk of facility
26 components causing wildfire, including procedures that will
27 be used to adjust operations during periods of heightened
28 wildfire risk;
29

30 (13) Identify procedures to minimize risks to public health and
31 safety, the health and safety of responders, and damages
32 to resources protected by Council standards in the event
33 that a wildfire occurs at the facility site, regardless of
34 ignition source; and
35

36 (14) Describe methods the applicant will use to ensure that
37 updates of the plan incorporate best practices and
38 emerging technologies to minimize and mitigate wildfire
39 risk.
40

41 (2) The Council may issue a site certificate without making the findings under
42 section (1) if it finds that the facility is subject to a Wildfire Protection Plan
43 that has been approved in compliance with OAR chapter 860, division 300.
44

1 (3) This Standard does not apply to the review of any Application for Site
2 Certificate or Request for Amendment that was determined to be complete
3 under OAR 345-015-0190 or 345-027-0363 on or before the effective date of
4 this rule.
5

6 **III.N.1. Findings of Fact**
7

8 The Wildfire Prevention and Risk Mitigation standard requires the Council to find the certificate
9 holder has adequately characterized wildfire risk associated with a facility; and that the facility
10 would be operated in compliance with a Council-approved wildfire mitigation plan; or the
11 facility is subject to a Wildfire Protection Plan approved by the Oregon Public Utility
12 Commission (OPUC). The analysis area to evaluate potential wildfire risks is the area within and
13 extending $\frac{1}{4}$ miles from the site boundary.²⁵⁷
14

15 Council’s Wildfire Prevention and Risk Mitigation standard under OAR 345-022-0115 first
16 applied to the facility during the review and approval of RFA1. In the *Final Order on RFA1*
17 Council found that the facility²⁵⁸ is subject to a Wildfire Protection Plan (WMP), the certificate
18 holder’s 2022 WMP was approved in compliance with OPUC rules, and that the OPUC has
19 approved the certificate holder’s WMP, therefore subject to recommended site certificate
20 conditions, the standard was met. Council previously imposed Wildfire Prevention and Risk
21 Mitigation Conditions 1 and 2 (GEN-WMP-01; OPR-WMP-01) requiring that prior to and during
22 operations, the certificate holder provide its OPUC-approved Wildfire Mitigation Plan, as that
23 applies to and requires operational measures designed to minimize fire risk from and to the
24 facility.
25

26 RFA2 Attachment 7-18 includes the certificate holder’s 2023 WMP and the corresponding OPUC
27 approval of the WMP.²⁵⁹ The Department provides a summary of the 2023 WMP applicable to
28 facility operations below.
29

30 The discussion of the certificate holder’s WMP applies to operation of the facility, however,
31 construction-related fire is summarized in Section III.M.1.i, of this order where under existing
32 Public Services Condition 6, a Fire Prevention and Suppression Plan requires the certificate
33 holder to finalize and implement fire prevention measures during construction.
34

²⁵⁷ OAR 345-001-0010(35)(c).

²⁵⁸ Department notes that under OAR 860-300-0001(1), Scope and Applicability of OPUC Rules for Wildfire Mitigation Plans, states “The rules in this division prescribe the filing requirements for risk-based Wildfire Mitigation Plans filed by a Public Utility that provides electric service in Oregon pursuant to ORS 757.005.” The certificate holder is a Public Utility that provides electric service in Oregon, and therefore must comply with the Wildfire Mitigation Plan (WMP) rules.

²⁵⁹ OPUC Order No. 23-222 Approval of 2023 WMP. June 26, 2023. Docket UM 2209.

1 WMP Wildfire Risk Modeling Methodologies:^{260, 261}

2
3 In preparation of the 2023 WMP, certificate holder used an external consultant that specializes
4 in assessing and quantifying the threat of wildfire through a risk-based methodology that
5 leverages weather modeling, wildfire spread modeling (LANDFIRE), and Monte Carlo simulation.

6
7 The simplistic WMP wildfire risk methodology formula is:

8
9
$$\text{Wildfire Risk} = \text{Fire Probability} \times \text{Consequence}^{262}$$

10
11 Where fire probability takes into consideration historical weather, topography, fuel types
12 present, and fuel moisture content. Consequence is the number of structures (i.e., homes,
13 businesses, other man-made structures) that may be impacted by a wildfire. Wildfire risk is fire
14 probability multiplied by the consequence; therefore, the highest wildfire risk areas are those
15 where the landscape, vegetation and weather are conducive for fires and there is more dense
16 man-made infrastructure.

17
18 *III.N.1.a Results of Wildfire Risk Assessment for Facility and OPUC-Approved WMP*

19
20 OAR 860-300-0020 establishes OPUC’s Wildfire Protection Plan Filing Requirements. Under OAR
21 860-300-0020(1)(a)(A) and (B), a WMP must identify areas that are subject to a heightened risk
22 of wildfire.²⁶³ The 2023 WMP wildfire risk modeling considered the permitted, yet not
23 constructed facility, and identified two locations along the route as having an increased wildfire
24 risk (Yellow risk zone – YRZ or Tier 2) and no areas of higher risk (Red risk zone – RRZ or Tier 3).

²⁶⁰ B2HAMD1 RFA1 2023-06-08. Attachment 7-16 (redline WMP PDF page 23/259), Section 3.2

²⁶¹ The evaluation of this section summarizes information provided in certificate holder’s 2022 WMP as it was submitted on the record for the facility for EFSC, however, at Council’s request, the Department highlights that after the issuance of the DPO, the OPUC approved the certificate holder’s 2023 WMP. An online review of the 2023 WMP indicates that the wildfire risk methodologies, conclusions, and preventative measures in the 2023 WMP are substantially similar to the 2022 WMP. 2023 WMP from OPUC Docket UM 2209 available here:

<https://edocs.puc.state.or.us/efdocs/HAQ/um2209haq151044.pdf>. Accessed 08-03-2023. Further, under Recommended Wildfire Prevention and Risk Mitigation Conditions 1 and 2, the certificate holder will submit the most recent WMP prior to operation of the facility and submit OPUC-approved WMP’s annually to ODOE/EFSC.

²⁶² Consequence is defined as “Number of structures (i.e., homes, businesses, other man-made structures) that may be impacted by a wildfire.” These impacts to structures are a proxy for potential impacts to the individuals who would be in or use those structures. “[C]onsequence is the negative impacts to different assets at risk. Assets at risk that are typically prioritized when looking at utility caused fires are loss of life and loss of structures, and those were the two assets at risk that were considered consequences in the risk modeling that was conducted by the certificate holder to inform its Wildfire Mitigation Plan. B2HAMD1 DPO Certificate Holder Responses to RFA1 DPO Public Comments 2023-07-19, Attachment A, Dr. Christopher Lautenberger, expert witness in the Evidentiary Hearing for certificate holder’s OPUC Petition for Certificate of Public Convenience and Necessity (CPCN).

²⁶³ Which under OAR 860-300-0020(1)(a)(B), Wildfire Mitigation Plans and Updates, a WMP must identify areas that are subject to a heightened risk of wildfire within the service territory of the Public Utility, *and outside the service territory of the Public Utility but within the Public Utility’s right-of-way for generation and transmission assets*. [Emphasis added] The 2023 WMP indicates that although the facility is not yet constructed, it is included in the wildfire modeling (with a on both sides of ROW) and that the WMP applies to the facility.

1 The resulting risk tiers reflect risk *relative* to certificate holder’s service territory only and *not*
2 *absolute* risk within all the areas outside the certificate holder’s service territory.²⁶⁴ [Emphasis
3 added]
4

5 The methodologies, programs, and mitigation actions in the 2023 WMP will apply to the facility
6 once it is constructed including the micro-siting areas proposed in RFA2. These measures and
7 programs include the Public Safety Power Shutoff Plan (PSPS Plan), annual updates by its Load
8 Serving Operations (LSO) department of the Fire Season Temporary Operating Procedure, and a
9 Red Risk Zone Transmission Operational Strategy. Other operational wildfire mitigation
10 measures in the WMP include Transmission Asset Management Programs including an annual
11 Aerial Visual Inspection Program, Ground Visual Inspection Program, Detailed Visual (High-
12 resolution Photography) Inspection Program, Wood Pole Inspection and Treatment Program,
13 Cathodic Protection and Inspection Program for select steel towers, and Thermal Imaging
14 (Infra-red) Camera Inspections in RRZs. The WMP also includes a construction Wildland Fire
15 Preparedness and Prevention Plan for certificate holder personnel and its construction
16 contractors.
17

18 Under OAR 860-300-0020(2) Wildfire Mitigation Plans must be updated annually and filed with
19 the OPUC no later than December 31 of each year, and public utilities are required to provide a
20 plan supplement explaining any material deviations from the applicable Wildfire Mitigation Plan
21 acknowledged by the OPUC.²⁶⁵ OPUC staff acknowledge that WMPs are intended to be
22 updated, iterative, and adaptable. OPUC orders approving WMPs, often include and adopt staff
23 recommendations in an attached staff report, OPUC recommendations “look ahead” to the
24 next annual submission of the WMP and require additional information in that WPM.²⁶⁶
25

26 As indicated in RFA2 Attachment 7-18, on June 26, 2023, the OPUC approved the certificate
27 holder’s 2023 WMP. Under OAR 345-022-0115(2), the Department continues to recommend
28 Council find that the Wildfire Prevention and Risk Mitigation standard is met for the facility,
29 including changes proposed in RFA2, subject to existing site certificate conditions, summarized
30 below.
31

32 Wildfire Prevention and Risk Mitigation Condition 1 requires that the WMP, consistent with
33 OAR 860-300-0020(1)(a)(A) and (B), evaluate fire-related risks for the entire facility in all five
34 counties in Oregon, regardless of certificate holder service territory or ownership of the facility.
35 It also ensures that the required mitigation measures included in the WMP apply to the entire

²⁶⁴ B2HAMD2Doc2 RFA2 2024-04-11, Attachment 7-16 Wildfire Mitigation Plan. Attachment 7-16. Section 3.2.2.

²⁶⁵ The certificate holder submitted its 2024 WMP on December 29, 2023, which is currently under review by the OPUC. <https://apps.puc.state.or.us/edockets/DocketNoLayout.asp?DocketID=23112>. Accessed 3-14-2024.

²⁶⁶ Utilities’ annual Wildfire Mitigation Plans under the OPUC’s jurisdiction are intended to be living documents, and changes to them are intended to be iterative. The OPUC approval for the 2023 WMP recommended additional actions that the certificate holder should take when preparing its 2024 Wildfire Mitigation Plan, the OPUC and other stakeholders, will continue to have the opportunity to participate in these annual WMP updates and provide comments and suggestions for updated wildfire mitigation strategies in Docket UM 2209. B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, Section III.N.

1 facility in all five counties in Oregon. Consistent with OAR 860-300-0020(2), recommended
2 Wildfire Prevention and Risk Mitigation Condition 2, requires that, during operation, in its
3 annual report submitted to the Department the certificate holder submit the most recently-
4 OPUC-approved WMP with evidence of the OPUC approval.

5
6 *III.N.1.b Other Applicable Conditions Related to Fire Risk*

7
8 Previously imposed site certificate conditions that address vegetative maintenance, inspections,
9 and fire risk mitigation that continue to apply to the facility and micro-siting area additions
10 proposed in RFA1 are;

- 11
12 • Fire Prevention and Suppression Plan (Public Services Condition 6): Requires the
13 certificate holder to finalize and implement fire prevention measures during
14 construction of the facility. Measures in the Fire Prevention and Suppression Plan(s)
15 include training for construction workers, seasonal work restrictions, onsite fire-
16 fighting equipment and necessary fire protection resources, and a description of the
17 fire districts and rural fire protection districts that will provide emergency response
18 services during construction and copies of any agreements between the certificate
19 holder and the districts related to that coverage.
- 20 • Vegetation Management Plan (Fish and Wildlife Condition 2): Provides practices,
21 protocols and management plans to manage wildfire risk. Vegetation management
22 would be conducted in compliance with the American National Standards Institute
23 (ANSI) Pruning Standards Best Management Practices for Utilities, Oregon Forest
24 Products Act, the U.S. Department of Labor Occupational Safety and Health
25 Administration (OSHA), and the North American Electric Reliability Council’s (NERC)
26 Standard FAC-003-3 Transmission Vegetation Management Program (TVMP).²⁶⁷
- 27 • Right-of-Way Clearing Assessment (Land Use Condition 16): Methods for clearing
28 vegetation within forested areas to reduce the risk that combustible materials would
29 come into contact with the conductors and ignite a fire.
- 30 • Organizational Expertise Condition 1: Requires that, during operation, certificate
31 holder provide documentation of inspections for transmission line
32 patrols/inspections, unscheduled emergency line patrols, aerial vegetation patrols,
33 and comprehensive 10-year maintenance inspection conducted in accordance with
34 its Transmission Maintenance and Inspection Plan and Transmission Vegetation
35 Management Program (TMIP).

36
37 **III.N.2. Conclusions of Law**

38
39 Based on the foregoing analysis, and subject to compliance with the existing site certificate
40 conditions described above, the Department recommends Council continue to find that the
41 Wildfire Prevention and Risk Mitigation standard is met, for the micro-siting area additions

²⁶⁷ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 615.

1 proposed in RFA2 and for the facility, because it finds that the facility is subject to a Wildfire
2 Protection Plan that has been approved in compliance with OAR chapter 860, division 300.

3
4 **III.O. WASTE MINIMIZATION: OAR 345-022-0120**

5 *(1) Except for facilities described in sections (2) and (3), to issue a site*
6 *certificate, the Council must find that, to the extent reasonably practicable:*

7 *(a) The applicant’s solid waste and wastewater plans are likely to minimize*
8 *generation of solid waste and wastewater in the construction and operation*
9 *of the facility, and when solid waste or wastewater is generated, to result in*
10 *recycling and reuse of such wastes;*

11 *(b) The applicant’s plans to manage the accumulation, storage, disposal and*
12 *transportation of waste generated by the construction and operation of the*
13 *facility are likely to result in minimal adverse impact on surrounding and*
14 *adjacent areas.*

15 *(2) The Council may issue a site certificate for a facility that would produce*
16 *power from wind, solar or geothermal energy without making the findings*
17 *described in section (1). However, the Council may apply the requirements of*
18 *section (1) to impose conditions on a site certificate issued for such a facility.*

19 *(3) The Council may issue a site certificate for a special criteria facility under*
20 *OAR 345-015-0310 without making the findings described in section (1).*
21 *However, the Council may apply the requirements of section (1) to impose*
22 *conditions on a site certificate issued for such a facility.*²⁶⁸

23
24 **III.O.1. Findings of Fact**

25
26 The proposed RFA2 micro-siting area additions will not result in substantive changes to the type
27 or amount of solid waste and wastewater generated during facility construction and operation.
28 Therefore, the Department recommends Council rely on its findings and conditions in the *Final*
29 *Order on ASC*, as referenced below.

30
31 *Solid Waste*

32
33 Facility construction would generate approximately 1,870 tons of solid waste including
34 containers, boxes, bags, sacks, packing materials, broken insulators, scrap conductor, empty
35 wire spools, and other miscellaneous non-hazardous paper, plastic or similar materials. As
36 discussed in Section III.M., *Public Services*, waste not recycled would be disposed of in Finley
37 Buttes Landfill in Boardman and Baker County Landfill in Baker City.

38

²⁶⁸ OAR 345-022-0120, effective May 15, 2007.

1 Council previously imposed Waste Minimization Condition 1 (Condition GEN-WM-01) requiring
2 that, prior to construction, the certificate holder develop a Construction Waste Management
3 Plan that would implement waste reducing measures including training employees to segregate
4 and recycle recyclable materials. This condition would continue to apply to the facility, with
5 proposed RFA2 micrositing area additions.
6

7 During operations, the facility would generate an insignificant amount of solid waste, which
8 would include replaced equipment and components, packing materials, and soil.
9

10 *Wastewater*

11
12 Construction-related wastewater would predominately be generated during foundation
13 construction for transmission line towers, from concrete wash water. Concrete wash water
14 would include water with residual concrete, concrete associated liquids, and the wash water
15 from cleaning trucks, hoppers, and chutes. Washout liquids would generally be allowed to
16 evaporate or would be pumped out and properly disposed of by the construction contractor.
17 Washout liquids would not be discharged into storm drains, ditches, streams or other water
18 bodies. Concrete washout areas would be located in designated aboveground earthen berms or
19 straw bale enclosures lined with plastic, a storage tank, or other structure approved by the
20 engineer or inspector.
21

22 Some foundations may require slurry to stabilize foundation shafts during drilling. Slurry fluids
23 would consist of a mixture of bentonite and water. Excess and degraded slurry fluids would be
24 contained in designated aboveground washouts similar to those described above for concrete.
25 The slurry fluids would be allowed to completely evaporate, or they would be pumped out and
26 properly disposed of by the construction contractor. Slurry fluids would not be discharged into
27 storm drains, ditches, streams, or other water bodies.
28

29 Sanitary wastewater would also be generated during construction from portable toilets.
30 Wastewater associated with portable toilets will be disposed by a local contractor in
31 accordance with state law.²⁶⁹ The subcontractor would ensure that a sufficient number of
32 portable toilets are provided.
33

34 **III.O.2. Conclusions of Law**

35
36 Based on the foregoing analysis, and subject to compliance with existing site certificate
37 conditions, the Department recommends the Council continue to find that the certificate
38 holder’s waste management plan is likely to minimize generation of solid waste and
39 wastewater in construction and the plan would result in recycling and reuse of such wastes, and
40 will manage the accumulation, storage, disposal and transportation of wastes in a manner that
41 will result in minimal adverse impacts to surrounding and adjacent areas.
42

²⁶⁹ B2HAPPDoc3-39 ASC 22_Exhibit V_Waste_ASC 2018-09-28, Section 3.3.2.1

1 The Department recommends the Council find that facility operations would not result in a
2 significant generation of solid waste and wastewater and will result in minimal adverse impacts
3 to surrounding and adjacent areas.
4

5 **III.P. NEED FOR A FACILITY: OAR 345-023-0005**
6

7 The Division 23 standards apply only to “nongenerating facilities” as defined in ORS
8 469.503(2)(e)(K), except nongenerating facilities that are related or supporting facilities.
9

10
11 **** To issue a site certificate for a facility described in sections (1) through (3), the*
12 *Council must find that the applicant has demonstrated the need for the facility. The*
13 *Council may adopt need standards for other nongenerating facilities. This division*
14 *describes the methods the applicant shall use to demonstrate need. In accordance with*
15 *ORS 469.501(1)(L), the Council has no standard requiring a showing of need or cost-*
16 *effectiveness for generating facilities. The applicant shall demonstrate need:*
17

18 *(1) For electric transmission lines under the least-cost plan rule, OAR 345-023-0020(1), or*
19 *the system reliability rule for transmission lines, OAR 345-023-0030, or by demonstrating*
20 *that the transmission line is proposed to be located within a “National Interest Electric*
21 *Transmission Corridor” designated by the U.S. Department of Energy under Section 216*
22 *of the Federal Power Act; *****
23

24 The Least-Cost Plan Rule, OAR 345-023-0020, states:
25

26 *(1) The Council shall find that the applicant has demonstrated need for the facility if the*
27 *capacity of the proposed facility or a facility substantially similar to the proposed facility,*
28 *as defined by OAR 345-001-0010, is identified for acquisition in the short-term plan of*
29 *action of an energy resource plan or combination of plans adopted, approved or*
30 *acknowledged by a municipal utility, people's utility district, electrical cooperative, other*
31 *governmental body that makes or implements energy policy****
32

33 ******

34 *(2) The Council shall find that a least-cost plan meets the criteria of an energy resource*
35 *plan described in section (1) if the Public Utility Commission of Oregon has*
36 *acknowledged the least cost plan.*

37 The System Reliability Rule for Electric Transmission Lines, OAR 345-023-0030, states:
38

39 *The Council shall find that the applicant has demonstrated need for an electric*
40 *transmission line that is an energy facility under the definition in ORS 469.300 if the*
41 *Council finds that:*
42

43 *(1) The facility is needed to enable the transmission system of which it is to be a part to*
44 *meet firm capacity demands for electricity or firm annual electricity sales that are*

1 reasonably expected to occur within five years of the facility's proposed in-service date
2 based on weather conditions that have at least a 5 percent chance of occurrence in any
3 year in the area to be served by the facility;

4
5 (2) The facility is consistent with the applicable mandatory and enforceable North
6 American Electric Reliability Corporation (NERC) Reliability Standards in effect as of
7 September 18, 2015 as they apply either internally or externally to a utility system; and

8
9 (3) Construction and operation of the facility is an economically reasonable method of
10 meeting the requirements of sections (1) and (2) compared to the alternatives evaluated
11 in the application for a site certificate.

12
13 **III.P.1. Findings of Fact**

14
15 For non-energy generating facilities such as transmission lines, a certificate holder must
16 demonstrate that the facility is needed under the Need Standard for Nongenerating Facilities.
17 In the *Final Order on ASC*, the certificate holder and the Council agreed that the certificate
18 holder demonstrated that the facility was needed under the least-cost plan rule (OAR 345-023-
19 0020) and the system reliability rule for electric transmission lines (OAR 345-023-0030).
20 Certificate holder maintains, and the Department recommends Council concur that the
21 proposed micro-siting area additions proposed in RFA2 would not alter the findings Council
22 relied upon in the *Final Order on ASC* for the Need Standard, as summarized below.

23
24 *III.P.1.a Least Cost Plan*

25
26 In the *Final Order on ASC*, Council approved the facility, which is an approximately 300-mile,
27 single-circuit transmission line with a capacity of 500-kilovolts (kV).²⁷⁰ Section (1) of OAR 345-
28 023-0020 indicates that the least-cost plan rule requires the certificate holder to demonstrate
29 that the capacity of the facility is identified for acquisition in an energy resource plan. Section
30 (2) of the rule states that the Council shall find that a least-cost plan meets the criteria of an
31 energy resource plan described in Section (1) if the Oregon Public Utility Commission (OPUC)
32 has acknowledged the least cost plan. An Integrated Resource Plan (IRP), as defined in the
33 OPUC's rules, meets the definition of an energy resource plan or combination or least cost plan
34 in the Council's rules. OPUC regulates utilities in Oregon, including the review and
35 acknowledgement IRPs which help ensure that an adequate and reliable supply of energy at the
36 least cost to the utility and customers in a manner consistent with the long-term public interest;
37 and the OPUC's acknowledgement of the IRP means that the OPUC finds that the utility's
38 preferred portfolio is reasonable at the time of acknowledgement.²⁷¹

²⁷⁰ Under ORS 469.300(11)(C), a high voltage transmission line is an energy facility if it is more than 10 miles in length with a capacity of 230,000 volts or more to be constructed in more than one city or county in this state. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section IV.O.1. Need for a Facility: OAR 345-023-0005.

²⁷¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 631.

1
2 As described in the *Final Order on ASC*, when the OPUC acknowledged the 2017 and 2019 Idaho
3 Power IRP, it acknowledged construction of a 500-kV transmission line.²⁷² As explained in OPUC
4 Order No. 18-176 (Docket LC 68), the objective of the IRP is to ensure an adequate and reliable
5 supply of energy at the least cost to the utility and customers in a manner consistent with the
6 long-run public interest and that the OPUC’s acknowledgement of the IRP means that the OPUC
7 finds that the utility's preferred portfolio is reasonable at the time of acknowledgement.²⁷³

8
9 Under OAR 345-023-0020(2), “The Council *shall* find that a least-cost plan meets the criteria of
10 an energy resource plan described in section (1) if the Public Utility Commission of Oregon has
11 acknowledged the least cost plan,” the findings in the *Final Order on ASC* and in the record for
12 the facility supported Council’s finding that the Need Standard was met under the least cost
13 plan rule [Emphasis added]. Certificate holder states in RFA2 that the changes proposed in RFA2
14 would not affect the consideration of the facility under IPC’s IRP reviewed by OPUC.²⁷⁴ The
15 Department agrees and recommends Council affirm and find that the micro siting area additions
16 and other proposed changes in RFA2 would not impact Council’s previously approved findings
17 because Council found that the Need Standard is met by the least cost plan rule because OPUC
18 acknowledged the 2017 and 2019 IRPs, which acknowledged the permitting, construction, and
19 operation of the facility as a new single-circuit 500-kV transmission line approximately 300
20 miles long.

21
22 *III.P.1.b System Reliability*
23

24 The system reliability rule under OAR 345-023-0030, allows for the certificate holder to
25 demonstrate need for an electric transmission line that is an energy facility defined under ORS
26 469.300 if the Council finds that:

- 27 • The facility is needed to enable the transmission system of which it is to be a part to
- 28 meet firm capacity demands for electricity or firm annual electricity sales,
- 29 • The facility is consistent with the applicable mandatory and enforceable North
- 30 American Electric Reliability Corporation (NERC) Reliability Standards, and
- 31 • Construction and operation of the facility is an economically reasonable method of
- 32 meeting the requirements of sections (1) and (2) of the rule compared to the
- 33 alternatives evaluated in the application for a site certificate.

34
35 Certificate holder maintains that the proposed RFA2 micro siting area additions would not
36 impact the need of the facility to enable its transmission system under the system reliability

²⁷² Final Order on ASC provided findings and approval of the Least Cost Plan Rule based upon the OPUC acknowledgments of Idaho Power’s 2017 and 2019 IRP. ODOE - B2HAPPDoc903 RFA-1, RFA-2 IPC Rebuttal Testimony Exhibits A to H Ellsworth (Email 1 of 2) 2021-11-12. Page 298 of 374; Exhibit G: OPUC Order No. 21-184, Acknowledgement of B2H, “The B2H transmission project involves permitting, constructing, operating and maintaining a new single-circuit 500-kV transmission line approximately 300 miles long..” Page 11.

²⁷³ B2HAPPDoc3-23 ASC14b_Exhibit N_Need_ASC_Part 2, Attachment N-10, pp. 2-3. 2018-09-28

²⁷⁴ B2HAM2Doc2 RFA2 2024-04-11, Table 7-1. Standards and Laws Relevant to Proposed Amendment.

1 rule.²⁷⁵ The Department agrees and recommends Council find that the proposed RFA2
2 micrositing area additions and other proposed RFA2 changes would not impact Council’s
3 previous findings of facts and conclusions of law provided in the *Final Order on ASC* for the
4 following reasons:
5

- 6 • The Department evaluated information and data in the certificate holder’s IRP to
7 support the certificate holder’s position that the facility is needed to support the
8 certificate holder’s transmission system of which it is to be a part to meet capacity
9 demands. The technical data evaluated was the same data the OPUC reviews to
10 establish if the proposed energy facility is needed to meet energy needs of the
11 utility’s customers, and it is the lowest cost option to meet demands. The Council
12 concluded that the data supported the conclusion that the facility is needed to
13 support the certificate holder’s transmission system.²⁷⁶ The micrositing area
14 additions proposed in RFA2 would not alter the certificate holder’s need to add the
15 facility to its transmission system to meet customer demands.
- 16 • Council previously found that, as a utility subject to NERC and Western Electricity
17 Coordinating Council reliability criteria and compliance, the certificate holder must
18 not only reliably serve customer demand but must also ensure system stability
19 during both normal system operations and contingency/emergency events. The
20 NERC transmission planning (TPL) standards prescribe acceptable system operating
21 limits for a wide range of system conditions, including loss of generator units and
22 transmission facilities. The facility is evaluated annually as part of NERC TPL
23 compliance requirements, and those modeling results demonstrate that, with the
24 facility in service, it can meet NERC TPL criteria for the planning horizon.²⁷⁷ The
25 proposed micrositing area additions in RFA2 would not impact these requirements.
- 26 • Council previously evaluated the alternatives discussed in the certificate holder’s IRP
27 which included an expanded demand response capacity and development of new
28 electric generating facilities (including natural gas and solar), a range of transmission
29 line capacities (alternate voltages) for the facility, and various re-build scenarios as
30 alternatives to construction and operation of the facility, the certificate holder
31 evaluated a range of transmission line capacities for the facility.²⁷⁸ The facility would
32 include, in part, 270 miles of single-circuit 500-kV transmission line. Based upon the
33 alternatives assessment, and in consideration of the OPUC’s determination that the
34 facility would be a least cost, least risk resource to meet the needs of the certificate
35 holder’s customers, the Council found that construction and operation of the facility
36 is an economically reasonable method of meeting the requirements of sections (1)
37 and (2) of the system reliability rule compared to the alternatives evaluated in the
38 application for a site certificate. The micrositing area additions proposed in RFA2

²⁷⁵ B2HAMD2Doc2 RFA2 2024-04-11, Table 7-1. Standards and Laws Relevant to Proposed Amendment.

²⁷⁶ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 635-636.

²⁷⁷ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 636-638.

²⁷⁸ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 638-640.

1 would not alter this alternatives evaluation of the findings of fact and conclusions of
2 law established in the *Final Order on ASC*.

3
4 **III.P.2. Conclusions of Law**

5
6 Based on the foregoing reasoning and analysis summary from the *Final Order on ASC*, the
7 Department recommends Council find that the micrositing area additions and changes
8 proposed in RFA2 would not impact Council’s previous findings of fact and conclusions of law
9 that the certificate holder and facility, have met the Need Standard for Nongenerating Facilities,
10 by both the least cost plan rule under OAR 345-023-0020 and the system reliability rule under
11 OAR 345-023-0030.

12
13 **III.Q. SITING STANDARDS FOR TRANSMISSION LINES – OAR 345-024-0090**

14
15 *To issue a site certificate for a facility that includes any transmission line under*
16 *Council jurisdiction, the Council must find that the applicant:*

17
18 *(1) Can design, construct and operate the proposed transmission line so that*
19 *alternating current electric fields do not exceed 9 kV per meter at one meter*
20 *above the ground surface in areas accessible to the public;*

21
22 *(2) Can design, construct and operate the proposed transmission line so that*
23 *induced currents resulting from the transmission line and related or*
24 *supporting facilities will be as low as reasonably achievable.²⁷⁹*

25
26 **III.Q.1. Findings of Fact**

27
28 The proposed RFA2 micrositing area transmission line additions do not alter or change anything
29 related to the previously approved facility components, other than potential final location. The
30 changes proposed in RFA2 would therefore not impact the Council’s findings of fact and
31 conclusions of law as presented in the *Final Order on ASC*.²⁸⁰ The Department recommends
32 Council continue to find that the facility, with proposed RFA2 micrositing area additions and
33 changes, satisfies the requirements of this standard. For reference, the key findings of fact are
34 presented below.

35
36 *III.Q.1.a Electro-magnetic fields*

37
38 The 500-kV single-circuit lattice tower configuration would produce the highest electric fields,
39 modeled is 8.9 kV per meter at 1 meter above the ground. This value is below the limit for

²⁷⁹ OAR 345-024-0090, effective May 15, 2007.

²⁸⁰ B2HAPPDoc31 Final Order on ASC. 2022-09-27. Section IV.P.1.

1 electric fields from transmission lines (set at OAR 345-024-0090(1)) of not more than 9 kV per
2 meter at 1 meter above the ground surface in areas that are accessible to the public.

3
4 Council previously imposed Siting Standards for Transmission Line Condition 1 (Condition GEN-
5 TL-01) requiring minimum clearance distances for both the 230- and 500-kV transmission lines;
6 and requiring that the facility design ensure that the alternating current electric fields do not
7 exceed the 9 kV per meter at 1 meter limit established in the standard. This continues to apply
8 to the facility, with proposed RFA2 changes.

9
10 *III.Q.1.b Induced-Currents and Grounding*

11
12 Inducible charge within the ROW of a 500-kV lattice transmission line configuration was
13 modeled to be less than the 5-mA, which is the threshold established by the NESC. Council
14 previously imposed Siting Standards for Transmission Lines Condition 2 (Condition OPR-TL-01)
15 requiring that the certificate holder provide landowners maps of any overhead transmission
16 lines crossing their property with information about potential risks from induced current; and
17 that the certificate holder have protocols for adhering to NESC grounding requirements.

18
19 To further address any potential electrical health and safety risks, Council imposed the
20 following conditions:

- 21
22 • Siting Standards for Transmission Lines Condition 4 (Condition PRE-TL-01) requiring that,
23 prior to construction, the certificate holder brief OPUC on the design, construction, and
24 O&M of the facility.
25 • Siting Standards for Transmission Lines Condition 5 (Condition OPR-TL-02) requiring that
26 the certificate holder provide annual updates to OPUC’s Safety Staff on operations and
27 maintenance; and report bi-annually to OPUC on operations and maintenance activities.

28
29 These continue to apply to the facility, with proposed RFA2 changes.

30
31 **III.Q.2. Conclusions of Law**

32
33 Based on the foregoing analysis, and subject to compliance with the existing site certificate
34 conditions described above and in the site certificate, the Department recommends the Council
35 find that the certificate holder can design, construct, and operate the proposed RFA2
36 micrositing area transmission line additions so that alternating current electric fields do not
37 exceed 9-kV per meter at one meter above the ground surface in areas accessible to the public
38 and that induced currents resulting from the transmission line and related or supporting
39 facilities will be as low as reasonably achievable.

40
41 **III.R. OTHER APPLICABLE REGULATORY REQUIREMENTS UNDER COUNCIL JURISDICTION**

1 Under ORS 469.503(3) and under the Council’s General Standard of Review (OAR 345-022-
2 0000), the Council must determine whether a proposed facility or approved facility, with
3 proposed changes, complies with “all other Oregon statutes and administrative rules..., as
4 applicable to the issuance of a site certificate for the proposed facility.” This section addresses
5 the applicable Oregon statutes and administrative rules that are not otherwise addressed in
6 Council standards, including Oregon Noise Control Regulations, Removal Fill Law and Water
7 Rights.

8
9 As stated in the Final Order on ASC, and as discussed in Council’s review of the DPO for RFA1,
10 the Council does not assert jurisdiction of the Forest Practices Act (FPA) and referred the
11 certificate holder to submit necessary information directly to the Oregon Department of
12 Forestry (ODF).²⁸¹ Certificate holder indicates that Forest Practices Reforestation Rules
13 generally require a landowner to replant (or ensuring natural regeneration of) the forest after a
14 timber harvest and maintain the seedlings to the point that they are "free to grow" at a
15 stocking level that meets the Forest Practices Act’s minimum stocking standards. If forestlands
16 will be converted to a use not compatible with maintaining forest tree cover, the landowner
17 must obtain written approval of a Plan for an Alternate Practice from ODF providing an
18 exemption from the Forest Practices Act’s reforestation requirements. Certificate holder states
19 that it is working directly with ODF on its Plan of Alternate Practice, which applies to
20 reforestation alternatives on private forestland requiring permanent clearance for the
21 transmission line route and for roads, and it will address compliance with the applicable
22 provisions of the FPA through direct coordination with ODF and the finalized plan prior to
23 beginning construction in forestlands.²⁸²

24
25 In the *Final Order on ASC*, Council adopted various conditions related to compliance with FPA
26 requirements based upon certificate holder representations. Compliance with these FPA-
27 related requirements would minimize potential impacts and hazards in forest lands during
28 construction and operation of the facility, with proposed changes in RFA1. Council imposing
29 such conditions is not intended to assume enforcement authority over FPA requirements, but
30 rather indicates Council found that compliance with the FPA requirements would reduce
31 potential impacts evaluated under Council standards.²⁸³

32
33 **III.R.1. Noise Control Regulations: OAR 340-035-0035**

34
35 *(1) Standards and Regulations:*

36
37 ***

38
39 *(b) New Noise Sources:*

²⁸¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 649-650. Placeholder for July 17-19, 2023 EFSC Meeting Minute citation reference,

²⁸² B2HAMMD1 DPO Certificate Holder Responses to RFA1 DPO Public Comments 2023-07-19.

²⁸³ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 649-650.

1
2 (A) *New Sources Located on Previously Used Sites.* No person owning or
3 controlling a new industrial or commercial noise source located on a
4 previously used industrial or commercial site shall cause or permit the
5 operation of that noise source if the statistical noise levels generated by that
6 new source and measured at an appropriate measurement point, specified in
7 subsection (3)(b) of this rule, exceed the levels specified in Table 8, except as
8 otherwise provided in these rules. For noise levels generated by a wind energy
9 facility including wind turbines of any size and any associated equipment or
10 machinery, subparagraph (1)(b)(B)(iii) applies.

11
12 (B) *New Sources Located on Previously Unused Site:*

13
14 (i) *No person owning or controlling a new industrial or commercial noise*
15 *source located on a previously unused industrial or commercial site shall cause*
16 *or permit the operation of that noise source if the noise levels generated or*
17 *indirectly caused by that noise source increase the ambient statistical noise*
18 *levels, L10 or L50, by more than 10 dBA in any one hour, or exceed the levels*
19 *specified in Table 8, as measured at an appropriate measurement point, as*
20 *specified in subsection (3)(b) of this rule, except as specified in subparagraph*
21 *(1)(b)(B)(iii).*

22
23 (ii) *The ambient statistical noise level of a new industrial or commercial noise*
24 *source on a previously unused industrial or commercial site shall include all*
25 *noises generated or indirectly caused by or attributable to that source*
26 *including all of its related activities. Sources exempted from the requirements*
27 *of section (1) of this rule, which are identified in subsections (5)(b)–(f), (j), and*
28 *(k) of this rule, shall not be excluded from this ambient measurement.*

29
30 ***

31
32 (3) *Measurement:*

33
34 (a) *Sound measurements procedures shall conform to those procedures which*
35 *are adopted by the Commission and set forth in Sound Measurement*
36 *Procedures Manual (NPCS-1), or to such other procedures as are approved in*
37 *writing by the Department;*

38
39 (b) *Unless otherwise specified, the appropriate measurement point shall be*
40 *that point on the noise sensitive property, described below, which is further*
41 *from the noise source:*

42
43 (A) *25 feet (7.6 meters) toward the noise source from that point on the noise*
44 *sensitive building nearest the noise source;*

1
2 (B) That point on the noise sensitive property line nearest the noise source.

3
4 (4) Monitoring and Reporting:

5
6 (a) Upon written notification from the Department, persons owning or
7 controlling an industrial or commercial noise source shall monitor and record
8 the statistical noise levels and operating times of equipment, facilities,
9 operations, and activities, and shall submit such data to the Department in the
10 form and on the schedule requested by the Department. Procedures for such
11 measurements shall conform to those procedures which are adopted by the
12 Commission and set forth in Sound Measurement Procedures Manual (NPCS-
13 1);

14
15 ***

16
17 (5) Exemptions: Except as otherwise provided in subparagraph (1)(b)(B)(ii) of
18 this rule, the rules in section (1) of this rule shall not apply to:

19 ***

20 (b) Warning devices not operating continuously for more than 5 minutes;

21
22 (c) Sounds created by the tires or motor used to propel any road vehicle
23 complying with the noise standards for road vehicles;

24 ***

25 (g) Sounds that originate on construction sites.

26
27 (h) Sounds created in construction or maintenance of capital equipment;

28 ***

29 (6) Exceptions: Upon written request from the owner or controller of an
30 industrial or commercial noise source, the Department may authorize
31 exceptions to section (1) of this rule, pursuant to rule 340-035-0010, for:

32
33 (a) Unusual and/or infrequent events;

34
35 (b) Industrial or commercial facilities previously established in areas of new
36 development of noise sensitive property;

37
38 (c) Those industrial or commercial noise sources whose statistical noise levels
39 at the appropriate measurement point are exceeded by any noise source
40 external to the industrial or commercial noise source in question;

41
42 (d) Noise sensitive property owned or controlled by the person who controls or
43 owns the noise source;

1 (e) Noise sensitive property located on land zoned exclusively for industrial or
2 commercial use.²⁸⁴

3
4 **OAR 340-035-0010: Exceptions**

5
6 (1) Upon written request from the owner or controller of a noise source, the Department
7 may authorize exceptions as specifically listed in these rules.

8
9 (2) In establishing exceptions, the Department shall consider the protection of health,
10 safety, and welfare of Oregon citizens as well as the feasibility and cost of noise
11 abatement; the past, present, and future patterns of land use; the relative timing of land
12 use changes; and other legal constraints. For those exceptions which it authorizes the
13 Department shall specify the times during which the noise rules can be exceeded and the
14 quantity and quality of the noise generated, and when appropriate shall specify the
15 increments of progress of the noise source toward meeting the noise rules.

16
17 **OAR 340-035-0100: Variances**

18
19 (1) *Conditions for Granting.* The Commission may grant specific variances from the
20 particular requirements of any rule, regulation, or order to such specific persons or class
21 of persons or such specific noise source upon such conditions as it may deem necessary
22 to protect the public health and welfare, if it finds that strict compliance with such rule,
23 regulation, or order is inappropriate because of conditions beyond the control of the
24 persons granted such variance or because of special circumstances which would render
25 strict compliance unreasonable, or impractical due to special physical conditions or
26 cause, or because strict compliance would result in substantial curtailment or closing
27 down of a business, plant, or operation, or because no other alternative facility or
28 method of handling is yet available. Such variances may be limited in time.

29
30 (2) *Procedure for Requesting.* Any person requesting a variance shall make his request in
31 writing to the Department for consideration by the Commission and shall state in a
32 concise manner the facts to show cause why such variance should be granted.

33 ***

34
35 DEQ 23-2018, minor correction filed 04/02/2018, effective 04/02/2018

36 DEQ 24-2017, minor correction filed 11/08/2017, effective 11/08/2017

37 DEQ 14-2017, amend filed 10/30/2017, effective 11/02/2017

38

²⁸⁴ OAR 345-035-0035, effective November 2, 2017, as amended by minor corrections filed on November 8, 2017 and April 2, 2018.

1 Council has the authority to interpret and implement other state agency and Commission rules
2 and statutes that are relevant to the siting of an energy facility,²⁸⁵ including noise rules adopted
3 by the Environmental Quality Commission and previously administered by the Department of
4 Environmental Quality (DEQ).^{286, 287}

5
6 *III.R.1.a Findings of Fact*

7
8 The analysis area for the Noise Control Regulation includes the area extending ¼-mile from the
9 proposed amended site boundary; and, where the late-night baseline sound level was unusually
10 low (i.e., less than 26 dBA), includes the area within and extending 1-mile from the proposed
11 amended site boundary.²⁸⁸

12
13 *Exempt Construction Noise Summary*

14
15 Under OAR 340-035-0035(5), noise generated during construction of proposed RFA2 changes
16 are exempt from the requirement to meet DEQ’s noise standards. An evaluation of
17 construction-related noise is provided under the Council’s Protected Area, Scenic Resources,
18 and Recreation standards, Sections III.F., III.J., and IIIIII.L, respectively in this order, which
19 reference the following summary of the record for the facility.

20
21 Construction noise related to the proposed RFA2 changes would occur during general
22 construction activities and include operation of construction vehicles and equipment (i.e. auger
23 drill rig, backhoe, crane, dump truck, grader, pickup truck, and tractor).²⁸⁹ The 1-hr average
24 predicted noise level from the combined operation of five pieces of equipment is 83 dBA at 50

²⁸⁵ See ORS 469.310 (stating that the legislative policy behind EFSC was to establish “a comprehensive system for the siting, monitoring and regulating of the location, construction and operation of all energy facilities in this state”) and ORS 469.401(3) (giving EFSC the authority to bind other state agencies as to the approval of a facility).

²⁸⁶ The Environmental Quality Commission and the DEQ suspended their own administration of the noise program because in 1991 the state legislature withdrew all funding for implementing and administering the program. A July 2003 DEQ Management Directive provides information on DEQ’s former Noise Control Program and how DEQ staff should respond to noise inquiries and complaints. The Directive states (among other items) that the Energy Facility Siting Council (EFSC), under the Department of Energy, is authorized to approve the siting of large energy facilities in the State and that EFSC staff review applications to ensure that proposed facilities meet the State noise regulations.

²⁸⁷ “We (the Oregon Supreme Court) conclude that EFSC had the authority to grant (1) an exception to the noise standards under OAR 340-035-0035(6)(a), and (2) a variance under OAR 340-035-0100 and ORS 467.060.” B2HAPPDoc7 Supreme Court Decision Stop B2H Coalition v. Dept, of Energy 2023-03-09, pp 805-807.

²⁸⁸ The Council’s procedural requirements for site certificate amendments (OAR 345-027-0360(3)) allow the Department to authorize modifications to analysis areas established in a Project Order, if warranted based on the scope of changes in the Request for Amendment. The July 26, 2018 Second Amended Project Order establishes the analysis area as the area within and extending ½ mile from the site boundary. As authorized under OAR 345-027-0360(3), following pre-amendment conferences on March 23 and June 12, 2023, the Department approved a modified analysis area for the Noise Control Regulation based on the scope and extent of potential impacts associated with the proposed RFA2 changes.

²⁸⁹ B2HAPPDoc3-41 ASC 24_Exhibit X_Noise_ASC 2018-09-28, Section 3.3.1.

1 feet, 79 dBA at 100 feet, and attenuates to 46 dBA at 6,400 feet. For reference, classroom
2 chatter has an approximate dBA of 70 and a soft whisper is a dBA of approximately 40.²⁹⁰

3
4 The certificate holder anticipates that tower foundations would typically be installed using
5 drilled shafts or piers; however, blasting may be needed if hard rock is encountered. In such
6 circumstances, impulse noise from blasts could reach up to 140 dBA at the blast location or
7 over 90 dBA within 500 feet of the blast location.²⁹¹ Council previously required that a Blasting
8 Plan (imposed under Soil protection Condition 4) be finalized and updated after site-specific
9 geotechnical surveys are completed that would avoid blasting in potential rockslide/landslide
10 areas to the maximum extent possible. Heavy-lift and light duty helicopters may be used during
11 construction of the facility in areas where access roads and/or rough terrain would not permit
12 the delivery of equipment, materials or personnel. Audible noise from light duty and heavy-lift
13 helicopters ranges between 62 and 84 dBA, respectively, at a 1,000-foot distance and
14 helicopter use would be limited to daylight hours. Council previously imposed Public Services
15 Condition 3 (GEN-PS-01) which requires the submission of a Helicopter Use Plan, which has
16 notification and safety measures and consultation with counties, agencies and landowners.

17
18 As noted above, construction noise is exempt from the noise standards pursuant to OAR 340-
19 035-0035(5)(g) and (h). Therefore, the ability of construction-related noise to comply with DEQ
20 noise control regulations is not evaluated further.

21 *Operational Noise Rules*

22
23
24 The DEQ noise rules set noise limits for new industrial or commercial noise *sources* based upon
25 whether those sources would be developed on a previously used or unused *site* [Emphasis
26 added].²⁹²

27
28 The facility is conservatively evaluated as a new industrial or commercial noise source located
29 on previously unused industrial or commercial sites. Operational noise generated by a new
30 industrial or commercial noise source to be located on a previously unused site must comply
31 with two standards: the “ambient antidegradation standard” and the “maximum allowable
32 noise standard.” Under the ambient antidegradation standard, facility-generated noise must
33 not increase the ambient hourly L₁₀ or L₅₀ noise levels at an appropriate measurement point by
34 more than 10 dBA. Within the proposed RFA2 micrositing area additions, there are 41 potential
35 locations meeting the OAR 340-035-0015(38) definition of a noise sensitive property (or noise
36 sensitive receptor [NSR]).²⁹³

²⁹⁰ Table NC-1: Predicted Noise Levels from General Construction Activities and Figure 13: Common Noise Sources and Expected Noise Levels, B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27.

²⁹¹ B2HAPPDoc3-41 ASC 24_Exhibit X_Noise_ASC 2018-09-28, Section 3.3.1.1.

²⁹² The noise “source” within a “site” of a transmission line is the noise generated within the micrositing area.

²⁹³ OAR 340-035-0015(38) defines Noise Sensitive Property as “real property normally used for sleeping, or normally used as schools, churches, hospitals or public libraries. Property used in industrial or agricultural activities is not Noise Sensitive Property unless it meets the above criteria in more than an incidental manner.” The

1
 2 Under the maximum allowable noise standard at OAR 340-035-0035(1)(b)(B)(i), a new industrial
 3 or commercial noise source to be located on a previously unused site may not exceed the noise
 4 levels specified in Table 8 of the noise rules, as represented in Table 33, *Statistical Noise Limits*
 5 *for Industrial and Commercial Noise Sources* below.
 6

Table 33: Statistical Noise Limits for Industrial and Commercial Noise Sources

Statistical Descriptor ¹	Maximum Allowable Noise Standards (dBA)	
	Daytime (7:00 AM - 10:00 PM)	Nighttime (10:00 PM - 7:00 AM)
L50	55	50
L10	60	55
L1	75	60
Notes: 1. The hourly L50, L10 and L1 noise levels are defined as the noise levels equaled or exceeded 50 percent, 10 percent, and 1 percent of the hour, respectively. Source: OAR 340-035-0035, Table 8		

7
 8 ***Operational Noise – Transmission Line Corona Noise***

9
 10 Transmission line operation will result in corona noise under certain operational and climatic
 11 conditions within the proposed RFA2 micro-siting area additions.²⁹⁴ Corona noise within the
 12 proposed RFA2 micro-siting area additions is evaluated through modeling, use of ambient
 13 monitoring data from locations identified as reasonably representative for conditions at the
 14 specific NSR location, and under foul weather conditions.^{295, 296}

15
 16 ***Results of Noise Analysis***

17
 18 RFA2 Section 7.2.1.3.3, RFA2 Attachment 7-19 and Figure 7-2 identify 41 NSRs within ¼-mile
 19 and out to a mile, in areas with low, 26 A-weighted decibels (dBA) ambient noise level, from the

certificate holder refers to Noise Sensitive Properties as Noise Sensitive Receptors or NSRs. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 660-661.

²⁹⁴ Corona noise is a low hum and/or a hissing or crackling sound that occurs as a function of transmission line voltage, altitude, conductor diameter, condition of the conductor and suspension hardware, as well as foul weather conditions that result in rain, snow or condensation concentrating in the electric fields on the line. The highest levels of corona noise may occur under foul weather conditions when the conductors are wet.

²⁹⁵ Council previously reviewed and approved the certificate holder’s methodologies for identifying NSRs, monitoring ambient noise conditions and correlating monitored ambient noise data to NSR location, based on environmental conditions. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 659-652; B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22, pp. 237-244.

²⁹⁶ Council accepted the definitions of foul weather to be a rain rate ranging from 0.8 to five (5) millimeters (mm)/hour, this excludes precipitation heavy enough that it could be expected that the noise from the weather would increase ambient sound levels to the extent that the corona noise would be masked and not audible. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 676.

- 1 proposed RFA2 microsite addition areas. Of the 41 NSRs, 27 NSRs are predicted to experience
- 2 a potential increase of more than 10 dBA above the L₅₀ baseline noise levels, as presented in
- 3 Table 34 below.

Table 34: Summary of Acoustic Modeling Results—Comparison of Predicted Sound Levels to Late Night Baseline L₅₀ (NSR Exceedances) and Maximum Noise Levels for the Proposed RFA2 Micrositing Area Additions

NSR Sequential Number	Distance from NSR to Proposed RFA2 Micrositing Area Addition (feet)	County	Associated Monitoring Position	Late Night Baseline Sound Pressure Level (dBA)	Predicted Sound Level (dBA)		Foul Weather Increase over Late Night Baseline (dBA)
					Fair Weather	Foul Weather	
17	576	Umatilla	MP08	41	17	42	3
18	1,439	Umatilla	MP09	35	14	39	7
19	2,254	Umatilla	MP09	35	12	37	4
29*	1,867	Union	MP100	31	12	37	7
652	1,958	Union	MP11	32	12	37	6
132	610	Union	MP100	31	20	45	14
671	596	Union	MP100	31	20	45	14
69	2,169	Baker	MP15	27	12	37	10
70	1,749	Baker	MP15	27	13	38	11
71**	1,335	Baker	MP15	27	14	39	13
5012**	1,552	Baker	MP15	27	14	39	12
92*	2,434	Malheur	MP35	24	10	35	12
93	2,206	Malheur	MP34	24	11	36	12
94	1,456	Malheur	MP34	24	13	38	13
95	1,647	Malheur	MP34	24	12	37	13
96	1,122	Malheur	MP34	24	14	39	15
97	1,523	Malheur	MP34	24	12	37	13
98	931	Malheur	MP35	24	15	40	16
99	1,909	Malheur	MP35	24	11	36	13
100	2,228	Malheur	MP35	24	11	36	12
101*	673	Malheur	MP34	24	17	42	17
102*	607	Malheur	MP35	24	17	42	18
103*	2,575	Malheur	MP35	24	10	35	11
104*	1,598	Malheur	MP35	24	12	37	14
105*	745	Malheur	MP35	24	16	41	17
106*	2,621	Malheur	MP35	24	10	35	11

Table 34: Summary of Acoustic Modeling Results—Comparison of Predicted Sound Levels to Late Night Baseline L₅₀ (NSR Exceedances) and Maximum Noise Levels for the Proposed RFA2 Micrositing Area Additions

NSR Sequential Number	Distance from NSR to Proposed RFA2 Micrositing Area Addition (feet)	County	Associated Monitoring Position	Late Night Baseline Sound Pressure Level (dBA)	Predicted Sound Level (dBA)		Foul Weather Increase over Late Night Baseline (dBA)
					Fair Weather	Foul Weather	
107*	2,474	Malheur	MP35	24	10	35	12
109*	2,595	Malheur	MP35	24	10	35	11
110*	2,648	Malheur	MP35	24	10	35	11
519	3,773	Malheur	MP34	24	9	34	10
526	3,796	Malheur	MP34	24	9	34	10
515	3,296	Malheur	MP35	24	9	34	11
520*	3,213	Malheur	MP35	24	9	34	11
521*	3,219	Malheur	MP35	24	9	34	11
662	849	Malheur	MP34	24	15	40	16
663	5,101	Malheur	MP34	24	7	32	8
664*	2,894	Malheur	MP35	24	9	34	11
665	4,641	Malheur	MP34	24	8	33	9
666*	2,750	Malheur	MP35	24	10	35	11
5011	4,148	Malheur	MP35	24	8	33	10
605***	2,596	Malheur	MP35	24	10	35	11

Notes:

Receptor IDs are provided for ease in cross-referencing older documentation. An incremental increase presented as (-) signifies that the future increase as a result of the Project is predicted to be less than 1 dBA when considered cumulatively with the baseline condition. The incremental increase is obtained by first logarithmically adding the Predicted Foul Weather Sound Level to the Late Night Baseline Sound Pressure Level. The Late Night Baseline Sound Pressure Level is then arithmetically subtracted from this total to quantify the incremental increase. Note that sound pressure levels cannot be added together linearly. For example, a baseline sound pressure level of 25 dBA plus a received sound pressure level of 33 dBA does not equal 58 dBA; rather, using logarithmic addition, the resultant sound pressure level would be 34 dBA. Sound levels in this table are reported in whole decibels.

* RFA2 seeks to change the alignment of certain segments of the transmission line route approved in the site certificate, leaving the remaining sections unchanged. For the NSRs noted with an asterisk, the NSRs are located closer to the sections of the site certificate route that are unaffected by RFA2 than those sections that are affected. In turn, because of the closer proximity, the noise impacts from the sections of the site certificate route that are unaffected by RFA2 will be greater than the impacts from those sections that are affected by RFA2. Therefore, for these NSRs, Idaho Power modeled the noise impacts from the sections of the site certificate route that are unaffected by RFA2.

**When considered in isolation, IPC’s modeling shows NSR-71 is expected to have an estimated noise increase of +13 A-weighted decibels (dBA). However, there is an existing transmission line located between NSR-71 and the Project, and after taking into account the predicted foul weather corona noise from the existing line, the Project does not result in an exceedance at NSR-71. Similarly, when considered in isolation, NSR-5012 is expected to have an increase of +12 dBA; but when the noise from the nearby existing 230-kV line is considered as part of the baseline, the Project does not result in an exceedance at NSR-5012. Therefore, NSR-71 and NSR-5012 are not expected to result in

Table 34: Summary of Acoustic Modeling Results—Comparison of Predicted Sound Levels to Late Night Baseline L₅₀ (NSR Exceedances) and Maximum Noise Levels for the Proposed RFA2 Micrositing Area Additions

NSR Sequential Number	Distance from NSR to Proposed RFA2 Micrositing Area Addition (feet)	County	Associated Monitoring Position	Late Night Baseline Sound Pressure Level (dBA)	Predicted Sound Level (dBA)		Foul Weather Increase over Late Night Baseline (dBA)
					Fair Weather	Foul Weather	
<p>exceedances after the noise from the existing transmission lines is taken into account. ***Note the Late Night Baseline Sound Pressure Level associated with NSR-605 is unrealistically low given the proximity of the NSR to a geothermal plant. Red font indicates foul weather increase for residence over late night baseline of or greater than 11 dBA. Green highlighted cells indicate an NSR not previously evaluated during the ASC and RFA1; new NSR for RFA2. dBA = A-weighted decibel ft = feet ID = identification m = meter MP = milepost NSR = noise sensitive receptor ODEQ = Oregon Department of Environmental Quality UTM = Universal Transverse Mercator</p>							

1

1 *Compliance with DEQ Noise Rules: Maximum Allowable Sound Level Standard*

2
3 The maximum allowable L₅₀ sound level standard is 50 dBA. As presented in Table 34 above,
4 and in RFA2 Attachment 7-19 Table 2, the maximum sound level in a “worse-case scenario”
5 (during foul weather) will be no greater than 45 dBA. The Department recommends Council find
6 that because the maximum L₅₀ sound levels would be less than the “Table 8” maximum
7 allowable sound level, 50 dBA, even during foul weather conditions, noise impacts within the
8 proposed RFA2 micro siting area additions would be in compliance with the maximum allowable
9 sound level standard identified in OAR 340-035-0035(1)(b)(B)(i). The facility, with proposed
10 RFA2 changes, would continue to comply with this standard.

11
12 *Compliance with DEQ Noise Rules: Ambient Antidegradation Standard*

13
14 The ambient antidegradation standard under OAR 340-035-0035(1)(b)(B)(i) allows a maximum
15 increase in ambient statistical noise of 10 dBA, as measured at an “appropriate measurement
16 point” from noise generated from a new industrial source.²⁹⁷ Operational noise from the facility,
17 within the proposed RFA2 micro siting area additions, during foul weather, low wind, and
18 quietest times during the early morning, may exceed the ambient antidegradation standard as
19 represented by the evaluation at 27 NSRs. Of the 27 NSRs, 7 NSR locations represent new NSR
20 locations not previously evaluated by Council, and the remaining 20 NSR locations were
21 previously evaluated and granted an exception/variance for the ambient antidegradation
22 standard exceedances.

23
24 OAR 340-035-0035(6)(a) allows the Council to consider exceptions to the rule, if the owner of a
25 noise source submits a written request for an exception meeting the criteria in the rules.
26 Additionally, OAR 340-035-0100 allows specific variances from particular requirements of any
27 rule, regulation, or order under certain circumstances as described in the DEQ noise rules. In
28 RFA2, the certificate holder requests that Council continue to grant an exception to the
29 ambient antidegradation standard (L₅₀ ambient sound level) for unusual or infrequent events,
30 as authorized under OAR 340-035-0035(6)(a), for the entirety of the facility.

31
32 *Request for Exception to the Ambient Antidegradation Standard – Unusual or*
33 *Infrequent Events (OAR 340-035-0035(6)(a))*

34
35 In the *Final Order on ASC* and *Final Order on Amendment 1*, the Council granted an exception to
36 the certificate holder from strict compliance with the ambient antidegradation standard due to
37 unusual or infrequent foul weather events, as authorized under OAR 345-035-0035(6)(a).
38 Because the certificate holder followed and applied the same methodologies that Council
39 previously approved in the *Final Order on ASC*, and the basis, assumptions, and interpretations
40 for the approval of the exception have not changed, the Department recommends Council
41 extend and grant the exception for the transmission line within the proposed RFA2 micro siting
42 area additions. Additional supporting findings of fact are provided below.

²⁹⁷ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp. 695-697, 661-671.

1
2 OAR 340-035-0010(2) provides a directive for considerations to be evaluated by Council in
3 determining whether to grant an exception; these considerations include:

- 4
5 • the protection of health, safety, and welfare of Oregon citizens;
6 • the feasibility and cost of noise abatement;
7 • the past, present, and future patterns of land use;
8 • relative timing of land use changes; and
9

10 These considerations are presented below.

11
12 *Protection of Health, Safety, and Welfare of Oregon Citizens*
13

14 Council previously granted an exception, in part, based on findings that granting an exception
15 to DEQ's ambient antidegradation standard would not preclude the protection of health, safety
16 and welfare of Oregon citizens otherwise afforded through mitigation under Site Certificate
17 conditions. Potential impacts from the ambient antidegradation standard exceedance along the
18 proposed transmission line and at the 7 new NSR locations would be infrequent as estimated
19 under worse-case conditions and are anticipated to occur two to seven percent of the time.
20 Further, actual noise-related impacts are anticipated to be minimal as residents are assumed to
21 be indoors at the time of the exceedance during late night and very early mornings (12:00 a.m.
22 to 5:00 a.m.) and during foul weather (i.e. when it is raining). Therefore, it is expected that NSRs
23 would experience noise levels inside their houses 10 dBA (with windows open) to 20 dBA (with
24 windows closed) lower than modeled in RFA2 Attachment 7-19 Table 2 due to noise
25 attenuation and absorption by residential structures.²⁹⁸
26

27 Council previously imposed Noise Control Condition 1 (GEN-NC-01) requiring that the certificate
28 holder work with impacted NSRs to attempt to resolve concerns which includes avoiding,
29 monitoring, and mitigating noise at NSRs caused by audible corona noise and potential
30 exceedances.^{299, 300} Based on the new NSR locations, the Department recommends Council
31 amend the condition as follows:

²⁹⁸ The Federal Highway Administration (FHWA) guidance for estimating the reduction of traffic noise provided by buildings is 10 dBA with the windows open and 20 to 25 dBA for ordinary windows or storm windows, respectively. See U.S. Department of Transportation, Federal Highway Administration, Highway Traffic Noise: Analysis and Abatement Guidance, Table 6 (2011). B2HAPPDoc13 DPO IPC Responses to Select DPO Comments Rec'd by 2019-11-07; B2HAPP DPO IPC Responses - StopB2H - 4. Noise 2019-10-29.

²⁹⁹ In accordance with the OAR 345-021-0010(1)(x) information requirement for DEQ's noise rules, the evaluation of compliance (and potential exceedances) is based on "predicted" noise levels – "predicted" noise levels are derived from acoustic noise modeling, as presented in ASC Exhibit X; monitoring of actual noise levels would only be necessary if required by the Department's or represented by the applicant.

³⁰⁰ While the DEQ noise rules do not expressly require mitigation for noise exceedances, an evaluation of the rule language related to the "Protection of Health, Safety, and Welfare of Oregon Citizens" for an exception to the noise rules may result in mitigation for impacts from operational noise if an applicant did not propose a mitigation and complaint programs, or if the applicant proposal is determined to be insufficient.

1
2 **Recommended Amended Noise Control Condition 1 (GEN-NC-01):** Prior to construction,
3 the certificate holder will initiate discussions with the ~~484~~ NSR property owners at which it
4 has estimated exceedances of the ambient antidegradation standard may occur identified in
5 Attachment X-4 and/or X-5 of the Final Order on the ASC and Attachment 7-19 Table 2 of
6 the Final Order on RFA2 (NSR: 8, 9, 10, 11, 5002, 69, 70, 5004, 46, 118, 125, 5010, 5011, 92,
7 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 518, 111,
8 112, 132, 133, 515, 520, 521, 662, 664, 666, 671, 5008, 5009, 113, and 115) to develop
9 mutually agreed upon Noise Exceedance Mitigation Plans, specific to each NSR location. The
10 site-specific Noise Exceedance Mitigation Plans will include agreed upon measures that
11 would be implemented at the NSR location to minimize or mitigate the ambient
12 antidegradation standard noise exceedance. Prior to and during construction, the certificate
13 holder will initiate (a) – (c), below, to be finalized prior to operations.

14 ...

15 [Noise Control Condition 1, Final Order on ASC, AMD1, **AMD2**]

16
17 Council previously imposed Noise Control Conditions 2 and 3 that ensure that all NSR locations
18 receive mitigation for reducing noise-related impacts. as summarized below:

- 19 • Noise Control Condition 2 (GEN-NC-02) establishes a system for the certificate
20 holder to receive and respond to complaints associated with potential operational
21 corona noise from landowners not identified in Attachment X-5 of this order as well
22 as a dispute mechanism for NSR property owners identified with an exceedance in
23 Attachments X-4 and X-5. The complaint response plan includes a process for
24 complaint filing, receipt, review and response for NSR exceedances evaluated in the
25 ASC and RFA1, and NSRs that are not identified in the ASC or RFA1.
- 26 • Noise Control Condition 3 (CON-NC-01) requires the certificate holder to construct
27 the proposed transmission line using materials to reduce corona noise such as the
28 use of a triple bundled conductor configuration for 500 kV transmission lines,
29 maintain tension on all insulator assemblies to ensure positive contact between
30 insulators, maintain tension on all insulator assemblies to ensure positive contact
31 between insulators, and to protect conductor surface to minimize scratching or
32 nicking.

33
34 Based on the above analysis and compliance with the conditions, the Department recommends
35 Council continue to grant an exception based on a finding that the exception would not
36 preclude the protection of health, safety, and welfare of Oregon citizens otherwise afforded
37 through compliance with DEQ’s noise control regulation.

38 *Feasibility and Cost of Noise Abatement*

39
40
41 Council previously granted an exception, in part, based on findings that granting an exception is
42 appropriate due to the limitations of the feasibility and cost of noise abatement. The Council
43 previously found that typical noise abatement technologies, such as insulators, silencers, and
44 shields, are not reasonable technologies for transmission lines due to length; and safety and

1 operational limitations. Council imposed Noise Control Condition 3 (CON-NC-01) requiring that
2 the transmission line be designed in a manner that would reduce the potential for corona noise,
3 including a requirement that the design include a triple bundled configuration with sufficient
4 subconductor spacing (results in reduction in audible corona noise and radio interference).

5
6 Because there have been no changes in transmission line design and based on compliance with
7 Noise Control Condition 3 (CON-NC-01), the Department recommends Council continue to
8 grant an exception based on a finding that the noise abatement technology is not feasible.

9
10 *Past, Present, and Future Patterns of Land Use and Relative Timing of Land Use Changes*

11
12 For the purposes of the Council’s consideration of the past, present, and future patterns of land
13 use and relative timing of land use changes for evaluating an exception to the DEQ noise rules,
14 this evaluation is the most informative in the context of residential areas because of the
15 increased potential to impact NSRs in the future. The proposed RFA2 microsite area additions
16 would not be located within a residential zone. Consistent with Council’s previous evaluation,
17 the Department recommends Council find that because the proposed RFA2 microsite area
18 additions would not be located in a residential zone, that there is a diminished likelihood of
19 impacting additional NSRs in the future. For these reasons, the Department recommends
20 Council continue to grant an exception based on a finding that it would not conflict with past,
21 present and future land use changes.

22
23 *Other Legal Constraints*

24
25 Ambient antidegradation exceedances at 7 NSRs are due to site-specific microsite outcomes.

26
27 NSR-671 will experience noise level increases of 10 dBA above ambient conditions, but the
28 adjusted location of the transmission line was specifically requested by the landowner to
29 preserve other resources at the subject property (RFA2 Figure 7-18). The Department
30 recommends Council authorize landowner requested adjustments.

31
32 NSRs -515, -520, -521, -662, -664, and -666 are in similar locations as NSR locations previously
33 granted an exception (NSRs 92-110 and -518). These new NSRs will also experience noise level
34 increases of 10 dBA above ambient conditions. The underlying basis of the location of the
35 transmission line route in this area has not changed in that it is preferred by BLM to avoid Sage
36 Grouse Core Area Habitat and Safe Grase Areas of High Population Richness. The specific
37 locational adjustments presented in RFA2 (Figure 7-18 Maps 8 and 9) are based on areas where
38 the certificate holder has obtained access to survey and construct the facility, while also
39 avoiding pivot irrigation infrastructure.

40
41 *Timing of an Exception*

42
43 Council previously imposed Noise Control Condition 4 (OPR-NC-01) establishing that the
44 ambient antidegradation standard may be exceeded at any time during foul weather events

1 (defined as a rain rate of 0.8 to 5 millimeters per hour, as authorized through the OAR 340-035-
2 0035(6)(a) exception. In accordance with OAR 340-035-0010(2), the Council specified via
3 Condition 4, that the exceedance, as measured at any NSR location within the analysis area,
4 shall not be more than 10 dBA above the ambient antidegradation standard (or ambient plus 20
5 dBA) and consist of corona noise.

6
7 *Request for Variance to the Ambient Antidegradation Standard [OAR 340-035-0100]*
8

9 In the *Final Order on ASC Council's* authorization of a variance under OAR 340-035-0100 from
10 compliance with the ambient antidegradation standard was also for the entirety of the
11 approved transmission line route, including alternative routes. Council interprets -
12 0035(1)(b)(B)(i) for linear facilities, such as transmission lines, as establishing a 10 dBA ambient
13 statistical noise level at identified NSRs but that NSRs would only establish the measurement
14 point for use as a proxy in determining compliance of the entire line, as the noise source.³⁰¹
15 Council reviewed and approved the request for variance of the ambient antidegradation
16 standard for the entirety of the transmission line because of conditions beyond the control of
17 the noise source owner, and special circumstances and physical conditions associated with the
18 location of the noise source. As discussed in the *Final Order on ASC*, the approved routes in the
19 ASC were derived from a lengthy siting process, much of which was directed by the BLM, in
20 consultation with agencies, landowners, and affected counties. The routes in the ASC that
21 Council approved were also constrained by factors related to the protection of resources under
22 the EFSC standards. These constraints included the following:
23

- 24 • Federal land management agency requirements, including the federal land management
25 plans governing many of the federal lands in the analysis area;
- 26 • Input on route locations from local governments, counties, and landowners;³⁰²
- 27 • The transmission line route on lands managed by the Bureau of Land Management as
28 issued in the BLM's Record of Decision (ROD);
- 29 • Western Electricity Coordinating Council Common Corridor Criteria and prudent utility
30 practice, including minimum separation distances from existing transmission lines to
31 ensure reliability of facilities;
- 32 • EFSC's Fish and Wildlife Habitat Standard, adopts the Oregon Department of Fish and
33 Wildlife's habitat mitigation policy; which does not permit siting of an energy facility on
34 lands designated Category 1 habitat and recommends avoidance and minimizing
35 impacts to Greater Sage Grouse habitat; and

³⁰¹ Under OAR 340-035-0035(1)(b)(B)(i) as applying to the transmission line as the noise source, where identified NSRs represent the appropriate measurement points for which to determine overall compliance of the transmission line, is a much more practical approach than evaluating the request for an exception at each of the more than 41 identified NSR locations where exceedances could potentially occur. B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 696; Final Order Attachment 6: Contested Case Order (CCO) as Amended and Adopted by Council, page 207-210.

³⁰² OAR 340-035-0100 (special circumstances and physical conditions).

- EFSC’s Protected Area Standard, which does not permit siting of an energy facility in certain protected areas, such as parks, scenic waterways, and wildlife refuges, and certain federally designated areas, such as areas of critical environmental concern, wilderness areas, wild and scenic rivers, BLM Class I and U.S. Department of Agriculture, Forest Service Retention visual management areas, national monuments, and National Wildlife Refuges (NWRs).³⁰³

In the *Final Order on ASC*, Council also found a variance from the DEQ Noise Rules was justified because strict compliance may result in substantial curtailment of operation of the facility (i.e. the facility could not be constructed and operated) and there are a lack of opportunities for an alternative facility that could help meet the certificate holder’s obligations to provide service to its rate payers as a utility.³⁰⁴

Because the certificate holder followed and applied the same methodologies that Council previously approved, and the basis, assumptions, and interpretations for the approval of the variance have not changed, the previously approved variance for the transmission line extends to the proposed RFA2 micrositing area additions. Thus, Noise Control Condition 5 (Condition OPR-NC-02), which relates to the granted variance continues to apply to the certificate holder and would apply the proposed RFA2 micrositing area addition.

III.R.1.b Conclusions of Law

Based on the foregoing analysis, the Department recommends Council find that, subject to compliance with the existing and recommended amended conditions, and subject to the previously approved OAR 340-035-0035(6)(a) exception (unusual or infrequent events) and variance to compliance with the ambient antidegradation standard (OAR 340-035-0035(1)(b)(B)(i)), the areas added to the site boundary would otherwise comply with the Noise Control Regulations in OAR 340-035-0035(1)(b)(B).

III.R.2. Removal-Fill OAR 141-085-0500 through 141-085-0785

The Oregon Removal-Fill Law (ORS 196.795 through 196.990) and Department of State Lands (DSL) regulations (OAR 141-085-0500 through 141-085-0785) require a removal-fill permit if 50 cubic yards or more of material is removed, filled, or altered within any “waters of the state,” (WOS).³⁰⁵ A removal-fill permit is required for the facility because 50 cubic yards or more of material would be removed, filled or altered within waters of the state. The removal-fill permit is a state permit within the Council’s jurisdiction as discussed in the introduction to Section III.A. Pursuant to ORS 469.503(3) and ORS 469.401(3), the Council must determine whether DSL should issue the removal-fill permit and, if so, the Council must determine the conditions of

³⁰³ B2HAPPDoc3-41 ASC 24_Exhibit X_Noise_ASC 2018-09-28, Section 3.4.5.1.

³⁰⁴ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, pp 696-698.

³⁰⁵ ORS 196.800(15) defines “Waters of this state.” The term includes wetlands and certain other waterbodies.

1 that permit.³⁰⁶ During Council’s prior review of the ASC for this facility, Council approved
2 issuance of a removal-fill permit.

3
4 The analysis area for RFA2 for wetlands and other waters of the state is the area within the site
5 boundary.³⁰⁷

6
7 *III.R.2.a Findings of Fact*

8
9 Wetlands and waters of the state potentially impacted by the proposed RFA2 changes were
10 evaluated through literature review and wetland field delineation surveys. Desktop studies
11 included an evaluation of multiple existing data sources including the U.S. Fish and Wildlife
12 Service National Wetlands Inventory (NWI), the USGS National Hydrography Dataset (NHD), and
13 areas of hydric soil mapped by the Natural Resources Conservation Service.³⁰⁸ Prior to
14 conducting the field surveys, wetland specialists plotted data from the Oregon Spatial Data
15 Library (Oregon Wetlands database) and the NHD on high-resolution aerial photography to
16 identify locations of probable wetlands and non-wetland waters within the micro-siting area
17 additions. These data sources were used to estimate potential impacts to wetlands and WOS
18 where site access was not granted, which is summarized in RFA2 Table 5.3-2. Where site access
19 was granted to evaluate the proposed RFA2 micro-siting area additions, field staff identified
20 wetland presence using the methodology provided by the 1987 U.S. Army Corps of Engineers
21 (USACE) *Wetlands Delineation Manual* as well as the USACE *Arid West Regional Supplement*
22 (used in the majority of the analysis area) and the *Western Mountains, Valleys, and Coast*
23 *Regional Supplement* (for the higher elevation areas of the analysis area around the Wallowa-
24 Whitman National Forest). RFA2 Attachment 7-21 includes the 2023 wetland delineation
25 report, which includes the micro-siting areas proposed in RFA2 and submitted to DSL for review
26 and concurrence. The results of the field surveys, based on the 2023 wetland delineation report
27 submitted and being reviewed by DSL, are provided below in Table 35: *Estimated Temporary*
28 *and Permanent Impacts on Delineated Wetlands and WOS for RFA2.*

29
30 *Results of Wetland Field Surveys for Wetlands/WOS for RFA2*

31
32 RFA2 Figure 5-1 illustrates the locations of wetlands and WOS associated with the proposed
33 RFA2 site boundary transmission line route additions and Figure 5-2 illustrates the wetlands
34 and WOS associated with the proposed RFA2 micro-siting area additions. As summarized in
35 Table 35 below, the estimated impact to field surveyed/delineated wetland features includes
36 0.10 acres of total permanent impacts and 1.36 acres of total temporary impacts. The
37 estimated impact to field surveyed/delineated non-wetland WOS includes 0.07 acres of total
38 permanent impacts and 0.97 acres of total temporary impacts.

39
40

³⁰⁶ See also OAR 345-021-0010(1)(j)(E).

³⁰⁷ B2HAMD2 ODOE Letter Approving Analysis Areas for pRFA2 OAR 345-027-0360(3) _2023-12-20.

³⁰⁸ B2HAMD2Doc2 RFA2 2024-04-11, Section 5.3.1

Table 35: Estimated Temporary and Permanent Impacts on Delineated Wetlands and WOS for RFA2

County	Source	Field Delineated Wetland ID	Sum of Area (Acres)	
			Permanent Disturbance	Temporary Disturbance
Wetlands				
Baker	Field Delineated	BA-W-1301	0.000	0.040
Baker	Field Delineated	BA-W-1302	0.000	0.057
Baker	Field Delineated	BA-W-1305	0.00	0.048
Baker	Field Delineated	BA-W-1306	0.00	0.027
Malheur	Field Delineated	MA-W-1202	0.007	0.010
Malheur	Field Delineated	MA-W-1203	0.004	0.301
Morrow	Field Delineated	MO-W-03	0.005	0.001
Umatilla	Field Delineated	UM-W-1200	0.006	0.009
Umatilla	Field Delineated	UM-W-1301	0.00	0.032
Umatilla	Field Delineated	UM-W-1302	0.00	0.036
Umatilla	Field Delineated	UM-W-1304	0.00	0.029
Umatilla	Field Delineated	UM-W-1305	0.00	0.094
Umatilla	Field Delineated	UM-W-1306	0.00	0.013
Umatilla	Field Delineated	UM-W-1307	0.00	0.044
Union	Field Delineated	UN-W-701	0.00	0.593
Union	Field Delineated	UN-W-800	0.017	0.003
Union	Field Delineated	UN-W-801	0.038	0.006
Union		UN-W-803	0.021	0.003
Total			0.10	1.36
Streams				
Baker	Field Delineated	BA-ST-1300	0.00	0.271
Malheur	Field Delineated	MA-PR-ST-115	0.012	0.002
Malheur	Field Delineated	MA-ST-1216	0.00	0.200
Morrow	Field Delineated	MO-ST-1203	0.006	0.001
Umatilla	Field Delineated	UM-ST-1201	0.016	0.003
Umatilla	Field Delineated	UM-ST-1201A	0.003	0.001
Umatilla	Field Delineated	UM-ST-1301	0.028	0.476
Union	Field Delineated	UN-ST-701		0.018
Union	Field Delineated	UN-ST-800	0.001	0.000
Total			0.07	0.97

1
2
3

1 To address site access issues associated with siting a transmission line and to allow for
2 necessary survey information needed for the EFSC process, Council approved a phased
3 approach to collect and submit the additional survey data to the Department and DSL.³⁰⁹ To
4 ensure that additional wetland delineation reports are submitted to the Department and to DSL
5 prior to any construction activities on any unsurveyed parcels within micro-siting areas
6 (previously site boundary), the Council adopted Removal-Fill Condition 1 (PRE-RF-01), which
7 includes stipulations to ensure that, prior to construction, the certificate holder completes
8 wetland/WOS surveys for any unsurveyed areas where facility-related temporary or permanent
9 impacts would occur; submits the resulting wetland delineation report(s) to the Department
10 and DSL; and obtains and provides to the Department DSL's concurrence determination
11 demonstrating that the wetlands/WOS and associated impacts have been accurately
12 delineated. This condition applies to any unsurveyed areas associated with the proposed RFA2
13 micro-siting area additions. Similarly, Removal Fill Condition 4 (PRE-RF-02) requires that, prior to
14 construction, the certificate holder submit an updated Joint Permit Application (JPA) to the
15 Department, which would also continue to apply.

16
17 The estimated 2.33 acres of temporary impacts to wetlands and WOS associated with the
18 proposed RFA2 micro-siting area additions would be mitigated via a Site Rehabilitation Plan,
19 reviewed and approved by the Department, in consultation with DSL (Removal-Fill Condition 2
20 [GEN-RF-01]). According to the draft Site Rehabilitation Plan, impacts to wetlands and non-
21 wetland WOS would be mitigated within 24 months of disturbance. The draft Site Rehabilitation
22 Plan (*Final Order on ASC*, Attachment J-2) requires re-establishing pre-existing contours of the
23 site, soil decompaction, re-establishing the pre-existing vegetation community, and rapid site
24 stabilization to prevent erosion.

25
26 Permanent impacts from the proposed RFA1 micro-siting area additions to wetlands and WOS
27 are estimated at 0.17 acres. Permanent wetland/WOS impacts will be mitigated by the
28 Compensatory Wetland and Non-Wetland Mitigation Plan (CWNWMP), adopted under
29 Removal-Fill Condition 3 (GEN-RF-02). The CWNWMP designates mitigation actions for
30 permanent impacts to wetland functions and values through the creation of functioning
31 wetlands and enhancement of existing wetlands at a mitigation site (referred to as the
32 Hassinger Mitigation Site) adjacent to Catherine Creek in the Grande Ronde Basin in Union
33 County, Oregon.³¹⁰ The CWNWMP uses DSL's mitigation ratio calculators to designate
34 appropriate mitigation acres at the mitigation site, to which DSL previously indicated that it
35 meets DSL requirements.³¹¹

36
37 Removal-Fill Condition 2 (GEN-RF-02) requires that updates to the CWNWMP include the final
38 amount of wetland mitigation credit required which shall be based on the final design

³⁰⁹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Section III.D., Survey Data Based on Final Design and Site Access and IV.Q.2. Removal Fill Law: OAR 141-085-0500 through -0785.

³¹⁰ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 706; B2HAPPDoc3-18 ASC 10a_B2H_2018 Exhibit J Waters of the State Part 1 2018-09-28, Section 3.4.6.2.

³¹¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, page 707; B2HAPPDoc13-3 ASC Reviewing Agency Comment DSL_Cary 2018-11-02.

1 configuration facility, and that following construction and during operation of a phase or
2 segment of the facility, the certificate holder shall implement the actions described in the final
3 CWNWMP. The condition also states that the Department will provide updates to Council on
4 the certificate holder’s implementation of the final CWNWMP.

5
6 Council previously imposed Removal-Fill Condition 6 to ensure that the removal-fill permit is
7 updated prior to construction of the facility and prior to any impacts to wetlands or WOS. The
8 condition also requires that following construction and during operation of the facility, the
9 certificate holder shall implement the actions described in the removal-fill permit and maintain
10 compliance with the General and Special Conditions set forth in the removal-fill permit. These
11 conditions remain applicable to the proposed RFA2 changes.

12
13 *III.R.2.b Conclusions of Law*

14
15 Based on the foregoing analysis, and subject to compliance with the existing site certificate
16 conditions, the Department recommends the Council find that the proposed RFA2 micrositing
17 area additions would comply with Oregon removal-fill law; that the removal-fill permit with
18 conditions contained in the *Final Order on ASC*, and as updated under applicable conditions,
19 apply to the proposed RFA2 micrositing area additions; and that DSL shall continue to issue a
20 removal-fill permit for the facility, with proposed RFA2 micrositing area additions.

21
22 **III.R.3. Water Rights**

23
24 Under ORS Chapters 537 and 540 and OAR Chapter 690, the Oregon Water Resources
25 Department (OWRD) administers water rights for appropriation and use of the water resources
26 of the state. Under OAR 345-022-0000(1)(b), the Council must determine whether the facility,
27 with proposed changes, would comply with the statutes and administrative rules identified in
28 the project order. The project order identifies OAR 690, Divisions 310 and 380 (Water
29 Resources Department permitting requirements) as the administrative rules governing use of
30 water resources and water rights as applicable to the facility.

31
32 *III.R.3.a Findings of Fact*

33
34 In the *Final Order on ASC*, the Council found that the certificate holder had established that it
35 can obtain adequate water for construction and operation of the facility from municipal water
36 service providers in the vicinity of the facility, and would not need a groundwater permit,
37 surface water permit, or water right transfer.³¹²

38
39 In the proceedings on the ASC, the certificate holder estimated that between approximately
40 36.5 and 54.8 million gallons of water would be needed to construct the facility, depending on
41 weather and other conditions during the 36-month construction period.³¹³ The certificate

³¹² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27. Page 731 of 10586

³¹³ B2HAPPDoc3-24 ASC 15_Exhibit O_Water_Use_ASC 2018-09-28, Table O-1a

1 holder also estimated that approximately 30-gallons of water per day would be needed during
2 operations for the facility’s restroom at the Longhorn Substation.³¹⁴

3
4 The scope and extent of construction activities involved associated with facility components
5 located within the proposed RFA2 micrositing area additions and other RFA2 proposed changes
6 would be similar to those evaluated In the *Final Order on ASC*. As a result, no significant
7 changes to the volume of water needed for construction are expected. In addition, no changes
8 to facilities that would require connection to a water source during operations are proposed as
9 part of RFA2, and the certificate holder has not requested approval to obtain water rights or
10 other water use permits.

11
12 *III.R.3.b Conclusions of Law*

13
14 Because the proposed RFA2 changes would not significantly increase demand for water during
15 construction or operation of the facility, because the certificate holder previously
16 demonstrated that it could obtain necessary water from municipal water providers under
17 existing rights, and because the certificate holder has not requested authorization to obtain a
18 water right or other water permit, the Department recommends the Council conclude that the
19 changes proposed in RFA2 would not require a groundwater permit, surface water permit, or
20 water right transfer. If such a permit is required by the certificate holder at a later time, a site
21 certificate amendment would be required to review and consider such a permit application.

22
23 **III.R.4. Fish Passage: OAR 635-412-0035**

24
25 Pursuant to ORS 469.503(3) and under the Council’s General Standard of Review (OAR 345-022-
26 0000), the Council must determine whether the facility complies with “all other Oregon statutes
27 and administrative rules..., as applicable to the issuance of a site certificate for the facility.” In
28 the ASC, the certificate holder requested that fish passage permits be governed by the site
29 certificate and under EFSC jurisdiction. In the *Final Order on ASC* Council made findings of
30 compliance with ODFW Fish Passage laws under OAR 635-412-0020.

31
32 Certificate holder indicates that they are not requesting that any new fish passage permits be
33 governed by the site certificate under EFSC jurisdiction. Certificate holder states that they will
34 coordinate directly with ODFW to obtain necessary fish passage/crossing permits.³¹⁵

35
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³¹⁴ B2HAPPDoc3-24 ASC 15_Exhibit O_Water_Use_ASC 2018-09-28. Page 8 of 32.

³¹⁵ B2HAMD2Doc2 RFA2 2024-04-11, Table 7.1.

1 **IV. PROPOSED CONCLUSIONS AND ORDER**

2
3 Based on the recommended findings of fact and conclusions of law included in this order, under
4 OAR 345-027-0375, the Department recommends Council find that the preponderance of
5 evidence on the record, including RFA2 and the record of the *Final Order on ASC* which includes
6 the record of the contested case on Proposed Order on ASC, supports the following
7 conclusions:

- 8
9 1. The proposed RFA2 changes comply with the applicable substantive criteria under
10 the Council’s Land Use standard, as described in OAR 345-022-0030, from the date
11 RFA2 was submitted.
12
13 2. The proposed RFA2 changes comply with the requirements of the Energy Facility
14 Siting Statutes ORS 469.300 to 469.520.
15
16 3. The proposed RFA2 changes comply with all applicable standards adopted by Council
17 pursuant to ORS 469.501, in effect on the date Council issues its Final Order on
18 RFA2.
19
20 4. The proposed RFA2 changes comply with all other Oregon statutes and
21 administrative rules identified in effect on the date Council issues its Final Order on
22 RFA2.
23
24 5. Taking into account the proposed RFA2 changes, the amount of the bond or letter of
25 credit required under OAR 345-022-0050 is adequate.
26

27 Accordingly, the Department recommends Council find that the facility, with the proposed
28 changes, complies with the General Standard of Review OAR 345-022-0000 and OAR 345-027-
29 0375. The Department therefore recommends that the Council approve Request for
30 Amendment 2 of the Site Certificate for the Boardman to Hemingway Transmission Line, and
31 issue the 2nd Amended Site Certificate included as Attachment 1 to this order.
32

33 Issued April 16th 2024

34
35 OREGON DEPARTMENT OF ENERGY

By: 
Todd Cornett, Assistant Director
Oregon Department of Energy, Energy Facility Siting Division

7.1

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43
44

- 1 **ATTACHMENTS:**
- 2 Attachment 1: Draft Second Amended Site Certificate (red-line)
- 3 Attachment 2: Placeholder for DPO Comment Index and DPO Comments
- 4 Attachment 3: Placeholder for Certificate Holder Responses to DPO Comments
- 5 Attachment 4: Draft Threatened and Endangered (T&E) Plant Mitigation Plan
- 6 Attachment 7-19: Noise Sensitive Receptor Locations with Exceedances with the RFA2
- 7 Micrositing Addition Areas
- 8 Attachment B-5: Updated Road Classification Guide and Access Control Plan
- 9 Attachment S-9: Updated Section 106 HPMP with Appendix A.1 Tables Amended for RFA2
- 10 Attachment W-1: Updated Decommissioning Cost Estimate and Assumptions
- 11

Attachment 1: Draft Second Amended Site Certificate

**ENERGY FACILITY SITING COUNCIL
OF THE
STATE OF OREGON**

**~~First~~ Second Amended Site Certificate for
Boardman to Hemingway Transmission Line**

Issuance Dates:

Site Certificate	September 27, 2022
First Amended Site Certificate	September 22, 2023
Second Amended Site Certificate	TBD

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Attachments

Attachment A Facility Location Mapsets (ASC Exhibit C, RFA1 Figures 4-1 and 4-2, RFA2 Figure 4-1 and Figure 8-1)

Acronyms and Abbreviations

ASC	Application for Site Certificate
C-12	Heavy Industrial
Certificate Holder	Idaho Power Company
Council	Oregon Energy Facility Siting Council
CWNWMP	Compensatory Wetland and Non-Wetland Mitigation Plan
Department	Oregon Department of Energy
DOGAMI	Oregon Department of Geology and Mineral Industries
DSL	Oregon Department of State Lands
EFU	Exclusive Farm Use
email	electronic submission
ERU	Exclusive Range Use
ESCP	Erosion Sediment Control Plan
FAA	Federal Aviation Administration
facility	Boardman to Hemingway Transmission Line Project
Final Order on the ASC	Final Order on the Application for Site Certificate for the Boardman to Hemingway Transmission Line
Final Order on RFA1	Final Order on Request for Amendment 1 of the Site Certificate for the Boardman to Hemingway Transmission Line
Final Order on RFA2	Final Order on Request for Amendment 2 of the Site Certificate for the Boardman to Hemingway Transmission Line
FP	Fish Passage
Ft	feet
FW	Fish and Wildlife Habitat
GEN	general condition
HC	Historic, Cultural, and Archeological Resources
HMP	Habitat Mitigation Plan
HPMP	Historic Properties Management Plan
HQT	Habitat Quantification Tool
JPA	Joint Permit Application
LU	Land Use
MCZO	Morrow County zoning ordinances
MG	General Industrial
MUAs	Multi-use areas
NC	Noise Control Regulations
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NSR	Noise Sensitive Receptor
NWSTF	Naval Weapons Systems Training Facility
O&M	Operations and Maintenance
OAR	Oregon Administrative Rule
ODA	Oregon Department of Aviation
ODFW	Oregon Department of Fish and Wildlife
OE	Organizational Expertise

ORS	Oregon Revised Statute
PA	Protected Area
parent company	IDACORP, Inc.
PS	Public Services
RC	Recreation
RF	Removal Fill Law
RT	Retirement and Financial Assurance
SHPO	State Historic Preservation Office
SP	Soil Protection
SPCC Plan	Spill Prevention Control and Countermeasures Plan
SR	Scenic Resources
SS	Structural Standard
State	State of Oregon
TE	Threatened and Endangered species
TL	Siting Standards for Transmission Lines
TMIP	Transmission Maintenance and Inspection Plan
WAGS	Washington ground squirrel
WM	Waste Minimization
WMP	Wildfire Mitigation Plan

1.0 Introduction and Site Certification

This site certificate is a binding agreement between the State of Oregon (State), acting through the Energy Facility Siting Council (Council), and Idaho Power Company (certificate holder), which is a wholly owned subsidiary of IDACORP, Inc. (parent company). As authorized under Oregon Revised Statute (ORS) Chapter 469, the Council issues this site certificate authorizing the certificate holder to construct, operate and retire the Boardman to Hemingway Transmission Line (facility) within one of the below described approved corridors within Morrow, Umatilla, Union, Baker and Malheur counties subject to the conditions set forth herein.

Both the State and certificate holder must abide by local ordinances, state law and the rules of the Council in effect on the date the site certificate is executed. However, upon a clear showing of a significant threat to public health, safety, or the environment that requires application of later-adopted laws or rules, the Council may require compliance with such later-adopted laws or rules (ORS 469.401(2)).

The findings of fact, reasoning and conclusions of law underlying the terms and conditions of this site certificate are set forth in the following documents, incorporated herein by this reference: (a) *the Final Order on Request for Amendment 2 of the Boardman to Hemingway Transmission Line Site Certificate issued on [DATE] (hereafter, Final Order on RFA2)* (b) *the Final Order on Request for Amendment 1 of the Boardman to Hemingway Transmission Line Site Certificate issued on September 22, 2023 (hereafter, Final Order on RFA1); and (c) the Final Order on the Application for Site Certificate for the Boardman to Hemingway Transmission Line Project issued on September 27, 2022 (hereafter, Final Order on the ASC).* Any ambiguity will be clarified by reference to the following, in order of priority: (1) *Final Order on RFA2*; (2) *Final Order on RFA1* (3) the record of the proceedings that led to the *Final Order on RFA2*, (4) *the record of the proceedings that led to the Final Order on RFA1*; and, (5) the record of the proceedings that led to the *Final Order on the ASC*. This site certificate binds the State and all counties, cities and political subdivisions in Oregon as to the approval of the site and the construction, operation, and retirement of the facility as to matters that are addressed in and governed by this site certificate (ORS 469.401(3)). This site certificate does not address, and is not binding with respect to, matters that are not included in and governed by this site certificate, and such matters include, but are not limited to: employee health and safety; building code compliance; wage and hour or other labor regulations; local government fees and charges; other design or operational issues that do not relate to siting the facility (ORS 469.401(4)); and permits issued under statutes and rules for which the decision on compliance has been delegated by the federal government to a state agency other than the Council (ORS 469.503(3)).

Each affected state agency, county, city, and political subdivision in Oregon with authority to issue a permit, license, or other approval addressed in or governed by this site certificate, shall upon submission of the proper application and payment of the proper fees,

but without hearings or other proceedings, issue such permit, license or other approval subject only to conditions set forth in this site certificate. In addition, each state agency or local government agency that issues a permit, license or other approval for this facility shall continue to exercise enforcement authority over such permit, license or other approval (ORS 469.401(3)). For those permits, licenses, or other approvals addressed in and governed by this site certificate, the certificate holder shall comply with applicable state and federal laws adopted in the future to the extent that such compliance is required under the respective state agency statutes and rules (ORS 469.401(2)).

The certificate holder must construct, operate and retire the facility in accordance with all applicable rules as provided for in Oregon Administrative Rule (OAR) Chapter 345, Division 26. After issuance of this site certificate, the Council shall have continuing authority over the site and may inspect, or direct the Oregon Department of Energy (Department) to inspect, or request another state agency or local government to inspect, the site at any time in order to ensure that the facility is being operated consistently with the terms and conditions of this site certificate (ORS 469.430).

The obligation of the certificate holder to report information to the Department or the Council under the conditions listed in this site certificate is subject to the provisions of ORS 192.502 *et seq.* and ORS 469.560. To the extent permitted by law, the Department and the Council will not publicly disclose information that may be exempt from public disclosure if the certificate holder has clearly labeled such information and stated the basis for the exemption at the time of submitting the information to the Department or the Council. If the Council or the Department receives a request for the disclosure of the information, the Council or the Department, as appropriate, will make a reasonable attempt to notify the certificate holder and will refer the matter to the Attorney General for a determination of whether the exemption is applicable, pursuant to ORS 192.450.

The Council recognizes that many specific tasks related to the design, construction, operation and retirement of the facility will be undertaken by the certificate holder's agents or contractors. Nevertheless, the certificate holder is responsible for ensuring compliance with all provisions of the site certificate.

The duration of this site certificate shall be the life of the facility, subject to termination pursuant to OAR 345-027-0110 or the rules in effect on the date that termination is sought, or revocation under ORS 469.440 and OAR 345-029-0100 or the statutes and rules in effect on the date that revocation is ordered. The Council shall not change the conditions of this site certificate except as provided for in OAR Chapter 345, Division 27.

The definitions in ORS 469.300 and OAR 345-001-0010 apply to the terms used in this site certificate, except where otherwise stated, or where the context clearly indicates otherwise.

2.0 Facility Location, Site Boundary, ~~and~~ Micrositing Areas and Transmission Line Corridors

The facility traverses five counties in Oregon including Morrow, Umatilla, Union, Baker and Malheur; and two cities including North Powder and Huntington, as presented in the mapsets included in Attachment A.

The approved site boundary, ~~the perimeter of the site of the energy facility, its related or supporting facilities, all temporary laydown and staging areas and all corridors and micrositing areas, contains~~ include approximately 28,150 ~~24,000~~ acres. The site boundary is further defined based on the type of facility component. The site boundary for transmission line routes is 0.5-miles (2,640 feet) wide; or 0.25 miles (1,320 feet) from the center of the transmission line. Within the site boundary, Council approved a 500-foot-wide micrositing corridor ~~for the 500-kV transmission line, within which the transmission line, all transmission structures, associated roads, temporary construction facilities, and communication stations are approved to be located.~~ For the 500-kV transmission line, within which the transmission line, all transmission structures, associated roads, temporary construction facilities, and communication stations are approved to be located. Micrositing corridor means a continuous area of land within which construction of facility components may occur subject to site specific conditions. The Council permits final siting flexibility within a micrositing corridor when the certificate holder demonstrates that requirements of all applicable standards have been satisfied by adequately evaluating the entire corridor and location of facility components anywhere within the corridor/site boundary.

The site boundary for facility roads is also 0.5-miles (2,640 feet) wide; or 0.25 miles (1,320 feet) from the center of the road, and the micro siting area for roads is either 100 or 200-foot in width, depending on the nature of the road, as described in Table 1: Approved Facility Routes, Component, Site Boundary, Micrositing Area, and Facility Component Dimensions. The site boundary for the remaining facility components is equal to the micrositing area, and varies, based on the type of feature and use as described in Table 1. The site boundary/micrositing area for the approved Longhorn Station is approximately 190 acres.

~~the site boundary is a 500 foot wide area¹ within which the transmission line, all transmission structures, and communication stations are approved to be located.² The site boundary for the remaining facility features varies, based on the type of feature and use. The site boundary for the approved Longhorn Station is approximately 190 acres. The site boundary for access roads is either 100 or 200 feet in width, depending on the nature of the road.~~

¹ The width of the ~~micrositing area site boundary~~ for the True Blue Gulch alternative route ranges from 500 to 1,800 feet wide (see RFA1 Figure 4-1 Map 2).

² B2HAPPDoc3-3 ASC 02a_Exhibit_B_Project Description_ASC 2018-09-28. Section 3.2.2.3 and 3.5.2.

~~The site boundary is equivalent to a micrositing transmission line corridor. A micrositing/transmission line corridor is a continuous area of land not to exceed 0.5-mile in width within which construction of facility components may occur, subject to site certificate conditions.³ The Council permits final siting flexibility within the approved micrositing transmission corridor because the certificate holder has demonstrated that requirements of all applicable standards have been satisfied by adequately evaluating the entire corridor and location of facility components anywhere within the corridor/site boundary.~~

3.0 Facility Description

The facility includes approximately 300 miles of electric transmission line, with approximately 272.8 miles located in Oregon and 23.8 miles in Idaho. The facility is approved to construct, operate and retire the following major components:

- Transmission Lines: The approved route consists of an approximately 270.8-mile-long single-circuit 500-kV electric transmission line, removal of 12 miles of existing 69-kV transmission line, rebuilding of 0.9 mile of a 230-kV transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line into a new ROW. ~~Seven~~ **Eighteen** approved alternative routes represent approximately ~~42.1~~ **73** miles of transmission line.
- Longhorn Station: A 20-acre switching station, the Longhorn Station, is approved to be located near the Port of Morrow, Oregon. The switching station provides a combination of switching, protection, and control equipment arranged to provide circuit protection and system switching flexibility for the transfer of electric power; it does not incorporate step-down or step-up voltage equipment. The station connects the transmission line to other 500-kV transmission lines and the Pacific Northwest power market.
- Midline Capacitor Station: The Midline Capacitor Station helps to load the transmission line more efficiently and optimally by compensating for the impedance resulting from the line length. The Midline Capacitor Station includes two 500-kV circuit breakers, two high-voltage switches, three single bay 500-kV bus supports with foundations, two 500-kV transmission line termination structures, three 500-kV 4,000 amp air-break switches and three 500-kV series capacitor banks. The approximately 10-acre Midline Capacitor Station would be fenced.
- Communication Stations: Ten communication station sites for the ASC approved route (~~and two ASC and two RFA2~~ alternative communication stations sites) each consisting of a communication shelter and related facilities. Each communication station site is less than 1/4-acre in size.

³ OAR 345-001-0010(7) and (32)

- Access Roads: The facility includes permanent access roads for the approved route, including ~~217.1~~ 225.0 miles of new roads and ~~233.3~~ 278.3 miles of existing roads requiring substantial modification. The approved alternative routes includes ~~32.0~~ 71.2 miles of new roads and ~~20.5~~ 64.0 miles of existing roads requiring substantial modification.
- Temporary Features used during Construction: The transmission line includes 390 temporary multi-use areas and ~~299~~ 414 temporary pulling and tensioning sites, ~~four~~ nine of which have light-duty fly yards within the pulling and tensioning sites.

3.1 Facility Component Requirements

The design of the facility, including related or supporting facilities, shall be substantially similar to the data presented in Table 1, including length of components, number of components and disturbance area limits. Transmission line structures for the approved route and approved alternatives routes shall be substantially similar to the structure type, number, height and disturbance areas presented in Tables 2 and 3 below. Transmission structure foundations shall be substantially similar to the depth and diameter presented in Table 4 below.

Table 1: Approved Facility Routes, Component, Site Boundary Dimensions and Disturbance Area

Component	Length or Count	Site Boundary ¹	Micrositing Corridor/Area ¹	Construction Disturbance	Operations Disturbance
Transmission Lines					
Single-Circuit 500-kV	270.8 miles (Approved ASC Route)/ 33.3 miles (ASC Alternatives) 8.8 miles (RFA1 Alternatives) 40.1 miles (RFA2 Alternatives)	0.5 miles/1320 500 feet (from both sides of centerline width)	500 feet (width)	_2	_2
Single-Circuit 230-kV	0.9 mile (Approved ASC Route) 0.6 mil (RFA2 Alternative)	0.5 miles/1320 500 feet (from both sides of centerline width)	500 feet (width)	_2	_2

Table 1: Approved Facility Routes, Component, Site Boundary Dimensions and Disturbance Area

Component	Length or Count	Site Boundary ¹	Micrositing Corridor/Area ¹	Construction Disturbance	Operations Disturbance
Single-Circuit 138-kV	1.1 miles (Approved ASC Route)	0.5 miles/1320 500 feet (from both sides of centerline width)	500 feet (width)	— ²	— ²
Transmission Structures					
500-kV Lattice	1,085 (Approved ASC Route)/ 118 (ASC Alternatives) 28 (RFA1 Alternatives) 132 (RFA2 Alternatives)	— ³	— ³	250 x 250 feet (1.4 acres)	50 x 50 feet (0.06 acre)
500-kV H-Frame (NWSTF area)	73 (Approved ASC Route)/ 34 (ASC Alternative)	— ³	— ³	250 x 90 feet (0.5 acres) on NWSTF / 250 x 150 feet (0.9 acres) off NWSTF	10 x 40 feet (0.001 acre)
500-kV H-Frame (Birch Creek area)	6 (Approved ASC Route)	— ³	— ³	250 x 250 feet (1.4 acre)	10 x 40 feet (0.001 acre)
500-kV Y-Frame	8 (ASC Alternative)	— ³	— ³	Varies (0.4 acres)	8 x 8 feet (0.001 acre)
500-kV 3-Pole Dead-end (NWSTF area)	1 (Approved ASC Route)/ 2 (ASC Alternative)	— ³	— ³	250 x 90 feet (0.5 acre)	10 x 90 feet (0.02 acre)
500-kV 3-Pole Dead-end (Birch Creek area)	3 (Approved ASC Route)	— ³	— ³	250 x 250 feet (1.4 acre)	10 x 90 feet (0.02 acre)
500-kV H-Frame Dead-end	3 (ASC Alternative)	— ³	— ³	250 x 90 feet (0.5 acre)	10 x 50 feet (0.01 acre)
230-kV H-Frame	5 (Approved ASC Route) 1 (RFA2 Alternative)	— ³	— ³	250 x 100 feet (0.6 acre)	25 x 5 feet (0.01 acre)
230-kV H-Frame (Removal)	9 (Approved ASC Route)	— ³	— ³	150 x 100 feet (0.3 acre)	— ⁴
230-kV 3-Pole Dead-end	4 (Approved ASC Route)	— ³	— ³	250 x 150 feet (0.6 acre)	40 x 130 feet (0.1 acre)
138-kV H-Frame	8 (Approved ASC Route)	— ³	— ³	150 x 250 feet (0.9 acre)	16.5 x 5 feet (0.001 acre)

Table 1: Approved Facility Routes, Component, Site Boundary Dimensions and Disturbance Area

Component	Length or Count	Site Boundary ¹	Micrositing Corridor/Area ¹	Construction Disturbance	Operations Disturbance
138-kV H-Frame (Removal)	10 (Approved ASC Route)	— ³	— ³	100 x 100 feet (0.2 acre)	— ⁴
138-kV 3-Pole Dead- end	3 (Approved ASC Route)	— ³	— ³	250 x 150 feet (0.9 acre)	30 x 130 feet (0.09 acre)
69-kV H-Frame (Removal)	94 (Approved ASC Route)	— ³	— ³	90 x 90 feet (0.2 acre)	— ⁴
Stations					
Longhorn Station	1	188.9 acres	188.9 acres	24.4 acres	19.6 acres
Midline Capacitor Station	1	NA ⁵	10	10	10 acres
Access Roads ^{6, 7 5}					
Existing Road, Moderate Improvements (21-70%)	156.3 196.6 miles (Approved ASC Route)/ 13.2 miles (ASC Alternatives) 1.0 mile (RFA1 Alternatives) 35.7 miles (RFA2 Alternatives)	0.5 miles/1320 100 feet (from both sides of road centerline width)	100 feet (width)	16 feet (width)	14 feet (width)
Existing Road, Extensive Improvements (71-100%)	77.0 81.7 miles (Approved ASC Route)/ 6.3 miles (ASC Alternative) 4.7 miles (RFA1 Alternatives) 7.8 miles (RFA2 Alternatives)	0.5 miles/1320 100 feet (from both sides of road centerline width)	100 feet (width)	30 feet (width)	14 feet (width)
New, Bladed	99.0 miles (Approved ASC Route)/ 12.8 miles (ASC Alternative) 6.1 miles (RFA1 Alternatives) 19.1 miles (RFA2 Alternatives)	0.5 miles/1320 200 feet (from both sides of road centerline width)	200 feet (width)	35 feet (width)	14 feet (width)
New, Primitive	118.1 miles (Approved ASC Route)/ 12.8 miles (ASC Alternatives) 0.3 miles (RFA1 Alternatives) 6.1 miles (RFA2 Alternatives)	0.5 miles/1320 200 feet (from both sides of road centerline width)	200 feet (width)	16 feet (width)	10 feet (width)
Communication Station	10 (Approved ASC Route)/ 2 (ASC Alternative) 2 (RFA2 Alternatives)	— ^{2,3}	— ^{2,3}	100 x 100 feet (0.2 acre)	75 x 75 feet (0.1 acre)

Table 1: Approved Facility Routes, Component, Site Boundary Dimensions and Disturbance Area

Component	Length or Count	Site Boundary ¹	Micrositing Corridor/Area ¹	Construction Disturbance	Operations Disturbance
Distribution Power Lines to Communication Station ^{7,8}	7 (Approved ASC Route)/ 2 (ASC Alternative) 2 (RFA2 Alternatives)	50 feet (width)	50 feet (width)	25 feet (width)	14 feet (width)
Multi-use Areas	39-0 (Approved ASC Route)/ 4 (ASC Alternative) X (RFA2 Alternatives)	Some MUAs - Discrete site boundary; discontinuous from transmission line; some within transmission line site boundary (See Attachment A)	Some within transmission line micrositing area; some with discrete micrositing area adjacent to transmission line micrositing area (See Attachment A)	23 acres	-
Light Duty Fly Yards	4 (Approved ASC Route) 5 (RFA2 Alternatives)	⁹ - Discrete site boundary; adjacent to transmission line site boundary	Some within transmission line micrositing area; some with discrete micrositing area adjacent to transmission line micrositing area (See Attachment A)	5 acres	-
Pulling and Tensioning Sites	299 (Approved ASC Route) 32 (ASC Alternative) 10 (RFA1 Alternatives) 115 (RFA2 Alternatives)	⁹ - Discrete site boundary; adjacent to transmission line site boundary	Some within transmission line micrositing area; some with discrete micrositing area adjacent to transmission line micrositing area (See Attachment A)	4 acres	-

Table 1: Approved Facility Routes, Component, Site Boundary Dimensions and Disturbance Area

Component	Length or Count	Site Boundary ¹	Micrositing Corridor/Area ¹	Construction Disturbance	Operations Disturbance
<p>¹ Micrositing area Site Boundary size may be less than indicated in specific areas to avoid impacts to protected areas or for other reasons.</p> <p>² No temporary or permanent disturbance expected along centerline, other than for specific facility features indicated below in Table 1.</p> <p>³ Component will be sited entirely within the site boundary transmission line micrositing area.</p> <p>⁴ No permanent disturbance expected once existing towers are removed.</p> <p>⁵ The Midline Capacitor Station is sited completely within the previously approved site boundary associated with the transmission line (500-foot wide site boundary centered on transmission line).</p> <p>⁶ See the Road Classification Guide and Access Control Plan (Exhibit B, Attachment B-5) for more information about road types.</p> <p>⁷ Existing roads with no substantial improvements are defined as existing roads that require improvements along 20 percent or less of the entire road segment. These roads have minimal to no temporary or permanent disturbance impacts beyond their existing road surface/profile, are not included in site boundary.</p> <p>⁸ Certificate holder will construct distribution lines to communication stations within their service territory.</p> <p>⁹ Component will be sited entirely within the transmission line site boundary.</p>					

Energy Facility Component Details

Additional descriptions and specifications for energy facility and related or supporting facility components are described in the tables below.

Table 2: Approved Route Structure Characteristics

Structure Type	Number of Structures	Height (ft)	Distance Between Structures (ft)	Construction Disturbance Area per Structure (ft)	Operational Disturbance Area per Structure (ft)
500-kV Single-Circuit Lattice Steel Structure	1,076	109-200	1,200-1,800	250 x 250	50 x 50
500-kV Single-Circuit Tubular Steel Pole H-Frame Structure (NWSTF Boardman area)	70	65-105	350-950	90 x 250 on NWSTF and 150 x 250 off NWSTF	40 x 10
Rebuild Single-Circuit 138-kV Wood H-Frame Structure	9	51-61	500-750	250 x 150	16.5 x 5
500-kV Single-Circuit Tubular Steel Pole H-Frame	6	65-105	450-900	250 x 250	40 x 10
Rebuild Single Circuit 230-kV Steel H-Frame Structure	5	57-75	400-1,200	250 x 100	25 x 5
500-kV Single-Circuit H-Frame	5	85-145	950-1650	250 x 250	40 x 10
230-kV Single-Circuit Tubular Steel 3-Pole Dead-end	4	61-66	NA	250 x 150	130 x 4
500-kV Single-Circuit Tubular Steel 3-Pole Dead-end	4	115	NA	250 x 250	90 x 10
500-kV Single Circuit Tubular Steel 3-Pole Dead-end (NWSTF Boardman area)	3	115	NA	90 x 250	90 x 10
500-kV Single-Circuit Tubular Steel 3-Pole Dead-end	3	75-90	NA	250 x 250	90 x 10
138-kV Single-Circuit 3-Pole Dead-end	3	51.5	NA	250 x 150	130 x 30

Table 3: Approved Alternative Route Structure Characteristics

Structure Type	Number of Structures	Height (ft)	Distance Between Structures (ft)	Construction Disturbance Area per Structure (ft)	Operational Disturbance Area per Structure (ft)
500-kV Single-Circuit Lattice Steel Structure (ASC/RFA1)	114/32/ <u>125</u>	109-200	1,200-1,800	250 x 250	50 x 50
500-kV Single-Circuit Tubular Steel Pole H-Frame (NWSTF Boardman area)	33	90-100	550-1100	90 x 250 on NWSTF and 150 x 250 off NWSTF	40 x 10
500-kV Single-Circuit Tubular Steel Pole Y-Frame (NWSTF Boardman area)	8	85-95	575-980	Varies (0.4 acre)	8 x 8
500-kV Single-Circuit, H-Frame Dead-end (NWSTF Boardman area)	2	95-100	NA	90 x 250	50 x 10
500-kV Single-Circuit, 3-Pole Dead-end (NWSTF Boardman Area)	2	115	NA	90 x 250	90 x 10

Table 4: Foundation Excavation Dimensions

Structure Type	Number of Holes per Structure	Depth (feet)	Diameter (feet)	Concrete (cubic yards)
500-kV Single-Circuit 3-Pole Dead-end	3	30	9	212
500-kV Single-Circuit H-Frame	2	25	8	93
500-kV Single-Circuit Lattice, Heavy Dead-end	4	30	6	126
500-kV Single-Circuit Lattice, Heavy Tangent	4	16	4	30
500-kV Single-Circuit Lattice, Light Tangent	4	16	4	30
500-kV Single-Circuit Lattice, Medium Dead-end	4	22	6	93
500-kV Single-Circuit Lattice, Small Angle	4	16	6	68
500-kV Single Circuit Y-Frame, Tangent	1	43	8	80
500-kV Single-Circuit H-Frame, Tangent	2	25	8	93
230-kV Single-Circuit 3-Pole Dead-end, Guyed	3	12	4	NA
230-kV Single-Circuit H-Frame, Tangent	2	12	4	NA
138-kV Single-Circuit 3-Pole Dead-end	3	9	4	NA
138-kV Single-Circuit H-Frame, Tangent	2	9	4	NA

Longhorn Switching Station

The Longhorn Switching Station is approved to include the following components:

- 500-kV circuit breakers
- high-voltage switches, bus supports
- 125-135' transmission line termination structures
- 500-kV series capacitor bank, and 500-kV shunt reactor
- a control house for communications, control equipment, and a restroom facility
- a new all-weather access road
- fire protection systems with:
 - Automatic suppression systems such as fire sprinklers, foam, gaseous, explosion suppression, or other specialized extinguishing systems and appropriate alarms.
 - Adequate water supply, storage, and distribution systems for water-based extinguishing systems.

- Automatic fire detection, occupant warning, manual fire alarm, and fire alarm reporting systems combined with properly equipped and adequately trained fire departments.
- Fire barrier systems or combinations of physical separation and barriers for outdoor locations.

Midline Capacitor Station

Midline Capacitor Station: The Midline Capacitor Station includes two 500-kV circuit breakers, two high-voltage switches, three single bay 500-kV bus supports with foundations, two 500-kV transmission line termination structures, three 500-kV 4,000 amp air-break switches and three 500-kV series capacitor banks. Foundations for the 500 kV, 4,000 amp air break switches with motor operators, structures are approximately four feet in diameter and ten feet deep. The 500-kV transmission line termination structures are approximately 125 to 135 feet tall. A control building will accommodate the necessary system communications and control equipment, fiber optic signal communication equipment will be installed. The site will be supplied by distribution power brought in from the nearby substation, North Powder substation. The approximately 10-acre Midline Capacitor Station would be fenced.

Communication Systems and Stations

Optical Ground Wire

Each 500-kV structure will have two lightning protection shield wires installed on the structure peaks.

Communication Station Sites

Each communication station site is approved to be 100' by 100' with a fenced area of 75' by 75'. Each communication station site is approved to include:

- a prefabricated concrete communications structure with dimensions of approximately 11.5 feet by 32 feet by 12 feet tall on each site
- a standby generator with a liquefied propane gas tank
- two separate conduit (underground) or aerial cable routes with two-inch-diameter polyvinyl chloride buried three feet below the surface
- smoke detectors

Communication Station Distribution Lines

Distribution lines are approved to serve communication stations BA-02, ~~and~~ MA-01, MA-02, MA-03, CS-03, CS-02, as well as alternative a communication station in Malheur County.⁴

⁴ B2HAPPDoc3-3 ASC 02a_Exhibit_B_Project Description_ASC 2018-09-28, Section 3.3.4.

Related or Supporting Facilities (Permanent and Temporary)

Access Roads

Temporary, permanent and substantially modified access road classification and limits of disturbance are presented in the table below.

Table 5: Summary of Access Road Classifications

Access Road Classification		Site Boundary Micrositing Area	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
New Roads	Primitive	200 feet	> 16 feet	10 feet	Yes	Clearing of vegetation or obstructions. Create roads by direct vehicle travel.
	Bladed	200 feet	0-8% slope – 30 feet. 8-15% slope – 45 feet. 15-30% slope – 75 feet. >30% slope – 120 feet 16-35 feet	14 feet	Yes	Clearing of vegetation or obstructions. Create roads by cutting/filling existing terrain.
Existing Roads - Substantial Modification	Substantial Modification, 21-70% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet 16 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.

Table 5: Summary of Access Road Classifications

Access Road Classification		Site Boundary Micrositing Area	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
	Substantial Modification, 71-100% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet 16–30 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile
Existing Roads – No Substantial Modification	No Substantial Modification, 0-20% Improved	NA ¹	NA ¹	NA ¹	No	Repair of existing road to maintain original road function. No betterment of existing road function or

¹ Existing roads with no substantial modifications are not included in the Site Boundary and do not have an operation or construction disturbance width assigned to them.
Source: B2HAPPDoc3-3 ASC 02a_ Exhibit_B_Project Description_ASC 2018-09-28, Table B-12.

Temporary Multi-Use Areas

The facility is approved to construct temporary multi-use areas approximately every 15 miles along the ROW. The multi-use areas (MUAs) are temporary construction areas to serve as field offices; reporting locations for workers; parking space for vehicles and equipment; and sites for material delivery and storage, fabrication assembly of towers, cross arms and other hardware, concrete batch plants, and stations for equipment maintenance. Each MUA is approved to be approximately 30 acres in size. After construction is complete, MUAs shall be restored to pre-construction conditions in accordance with Condition OPR-GS-03 (General Standard of Review Condition 9).

Helicopter operations are approved at some multi-use areas. Helicopters will be used for delivery of construction laborers, equipment, and materials to structure sites; transmission structure placement; hardware installation; and wire stringing operations. Helicopters may also be used to support the construction and administration and management (either the certificate holder or the construction contractor or both).

Gasoline, diesel fuel, crankcase oil, lubricants, and cleaning solvents will be stored at MUAs. Diesel fuel tanks must be stored within secondary containment and each station must be equipped with a spill kit.

Temporary Pulling and Tensioning Sites and Light-Duty Fly Yards

The facility is approved to include up to ~~299~~ 414 temporary pulling and tensioning sites, approximately every 1.5 to two miles along the ROW and at angle points greater than 30 degrees. Temporary pulling and tensioning sites are approved to be located on approximately five acres at each end of the wire section to accommodate required equipment.⁵ Equipment at pulling and tensioning sites is approved to include tractors and trailers with spooled reels that hold the conductors and trucks with the tensioning equipment.

~~Four~~ **Nine** pulling and tensioning sites are approved to include light-duty fly yards (within Umatilla, Baker and Malheur counties). All of the equipment and activities approved to occur at a multi-use area could also occur at a light-duty fly yard, except that oil, gas and explosive storage would not occur and no batch plants would be located at the light-duty fly yards within the pulling and tensioning sites. The light-duty fly yards are approved to be approximately five-acre sites spaced approximately 15 miles apart.

After construction is complete, the certificate holder shall restore temporary pulling and tensioning sites to pre-construction conditions in accordance with Condition OPR-GS-03 (General Standard of Review Condition 9).

4.0 Facility Development

4.1 Construction

This site certificate authorizes a 4-year construction duration. Construction will generally occur between 7 a.m. and 7 p.m., Monday through Saturday. Additional hours may be necessary to make up schedule deficiencies or to complete critical construction activities.

Construction activities could occur simultaneously across the entirety of the 300-mile transmission line route. Construction activities will generally include the following phases:

Phase I - Civil construction

- Activities along the transmission line will involve clearing the corridor and constructing access roads and, if applicable, harvestable timber will be cleared then hauled off.

Phase II – Foundation Construction

- Foundations will be constructed at each structure site to support the steel towers. Track mounted drills and excavators will be mobilized to each structure site to excavate the

⁵ B2HAPPDoc3-3 ASC 02a_Exhibit_B_Project Description_ASC 2018-09-28, Section 3.3.3.

site and concrete trucks will then deliver concrete to the sites to construct the foundations.

Phase III – Structure Erection

- Steel lattice towers will be assembled at each site and erected on the foundations. Material will be delivered via flatbed trucks to each structure site and unloaded with forklifts and cranes where it will be assembled in pieces in the work area around the foundations.

Phase IV – Conductor Pulling/Tensioning

- Conductor will be pulled along the corridor and through the structures via helicopters while large man lift trucks provide work crews access to each structure.⁶

Construction will include approximately 437 workers and crews for the following activities: substation construction, ROW clearing, roads/pad grading, foundations, tower lacing, tower setting, wire stringing, restoration, blasting, materials management, mechanic & equipment management, refueling, dust control, construction inspection, materials testing, environmental compliance, and surveyors.

Construction will include the following vehicular trips:

- Up to 486 one-way worker trips per day
- Up to 620 one-way light construction trips per day
- Up to 188 one-way heavy construction trips per day

4.2 Operations and Maintenance

Operations and maintenance (O&M) activities shall include routine inspection and maintenance of the transmission line, in compliance with the Transmission Maintenance and Inspection Plan (TMIP) (see Condition OPR-OE-01).

In accordance with the TMIP, three types of line maintenance patrols will be conducted: routine line patrols/inspections, unscheduled emergency line patrols, and aerial vegetation patrols. The routine line patrols shall include a detailed visual inspection of the entire line conducted at least once per year.

Emergency line patrols shall be performed in response to any unexplained system outage or interruption, or whenever requested by a dispatcher, to identify major structural failures or issues.

Aerial vegetation patrols shall be conducted by a transmission utility arborist to identify and manage vegetation encroachments that threaten the transmission lines.

Transmission Patrolmen shall patrol and inspect the transmission lines at a minimum once a

⁶ B2HAPPDoc13 DPO IPC Responses to Select DPO Comments Rec'd by 2019-11-07; B2HAPP DPO IPC Responses - City of La Grande comments 2019-10-09.

year to identify any transmission defects and any vegetation hazards that may develop between vegetation clearing cycles.

The TMIP requires that the certificate holder complete comprehensive 10-year maintenance inspection at least every 10-years.

O&M activities will also include short- and long-term monitoring and minimization measures for noxious weeds, restoration/reclamation, revegetation and habitat enhancement, as required by site certificate conditions provided in Section 5.0 of this site certificate.

4.3 Retirement/Decommissioning

The certificate holder shall retire or decommission the facility based on a retirement to be approved by the Council in accordance with the requirement of OAR 345-027-0110 and applicable conditions provided in Section 5.6 of this site certificate.

5.0 Site Certificate Conditions

5.1 Condition Format

The conditions in Sections 5.2 through 5.6 of this Site Certificate are organized and coded to indicate the phase of implementation, the standard the condition is required to satisfy, and an identification number (1, 2, 3, etc.).⁷ The table below presents a “key” for phase of implementation:

Key	Type of Conditions/Phase of Implementation
GEN	General Conditions: Design, Construction and Operation
PRE	Pre-Construction Conditions
CON	Construction Conditions
OPR	Operational Conditions
RET	Retirement Conditions

The standards are presented using an acronym; for example, the General Standard of Review is represented in the condition numbering as “GS”; the Soil Protection standard is represented in the condition numbering as “SP” and so forth.

For example, the coding of Condition GEN-GS-01 represents that the condition is a general

⁷ The identification number is not representative of an order that conditions must be implemented; it is intended only to represent a numerical value for identifying the condition.

condition (GEN) to be implemented during multiple phases including design, preconstruction, construction and/or operation of the facility, is required to satisfy the Council's General Standard of Review, and is condition number 1. The condition language also includes in brackets [] for the name of the condition as imposed in the Final Order on the Application (i.e. General Standard of Review Condition 1).

5.2 General Conditions: Design, Construction and Operation

Condition Number	(Site certificate conditions for all standards and phases)
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
GEN-GS-01	<p>a. Construction Commencement Deadline: The certificate holder shall begin construction of the facility within four years after the effective date of the site certificate. Under OAR 345-015-0085(8), the site certificate is effective upon execution by the Council chair and the certificate holder. Prior to beginning construction as defined in OAR 345-001-0010(12), the certificate holder shall provide the Department written verification of the date that it will begin construction, acknowledge the commencement of the construction completion timeline, and confirm the construction completion deadline as stated in General Standard of Review Condition 1(b).</p> <p>b. Construction Completion Deadline: The certificate holder shall complete construction of the facility within four years after the construction commencement date outlined in General Standard of Review Condition 1(a). Within 90 days of construction completion, the certificate holder shall provide the Department written notification of the anticipated date of construction completion.</p> <p>c. Authorization to construct and operate facility components, including alternative transmission line routes, expires if not constructed by the construction completion deadline established in General Standard of Review Condition 1(b). [General Standard of Review Condition 1, Mandatory Condition OAR 345-025-0006(4); Final Order on ASC]</p>
GEN-GS-02	<p>a. At least 180 days prior to beginning construction (unless otherwise agreed to by the Department), the certificate holder shall submit to the Department a construction plan outlining construction phasing or segments, activities and schedules for completing construction of the facility consistent with the site certificate. Submission of pre-construction surveys or plans shall be conducted in accordance to site certificate conditions and may occur consistent with the phase or segment of the facility that is being constructed.</p> <p>b. Upon Department verification of compliance with applicable pre-construction requirements in the site certificate for any phase or segment of the facility, the Department shall notify the certificate holder in writing that pre-construction requirements have been met and they may commence construction for that phase or segment. [General Standard of Review Condition 2; Final Order on ASC]</p>
GEN-GS-03	<p>The certificate holder shall design, construct, operate, and retire the facility:</p> <p>a. Substantially as described in the Final Order on the ASC and the site certificate;</p> <p>b. In compliance with the requirements of ORS Chapter 469, applicable Council rules, and applicable state and local laws, rules and ordinances in effect at the</p>

	<p>time the site certificate is issued; and</p> <p>c. In compliance with all applicable permit requirements of other state agencies. [General Standard of Review Condition 6; Mandatory Condition OAR 345-025-0006(3); Final Order on ASC]</p>
<p>GEN-GS-04</p>	<p>If the certificate holder becomes aware of a significant environmental change or impact attributable to the facility, the certificate holder shall, as soon as possible, submit a written report to the Department describing the impact on the facility and any affected site certificate conditions. [General Standard of Review Condition 8; Mandatory Condition OAR 345-025-0006(6); Final Order on ASC]</p>
<p>GEN-GS-05</p>	<p>Before any transfer of ownership of the facility or ownership of the site certificate holder, the certificate holder shall inform the Department of the proposed new owners. The requirements of OAR 345-027-0400 apply to any transfer of ownership that requires a transfer of the site certificate. [General Standard of Review Condition 10; Mandatory Condition OAR 345-025-0006(15); Final Order on ASC]</p>
<p>GEN-GS-06</p>	<p>Subject to conditions of the site certificate, the certificate holder may construct the facility anywhere within the site boundary micrositing areas (approved corridor(s)), and as described in ASC (Exhibit B and represented in Exhibit C Attachment C-2 and C-3 mapsets), and RFA1 Figures 4-1 and 4-2, and RFA2 4-1 and 4-2. The approved transmission line corridors include:</p> <ul style="list-style-type: none"> a. The transmission line route extending approximately 273-miles through Morrow, Umatilla, Union, Baker, and Malheur counties; b. West of Bombing Range Road alternative 1 and the west of Bombing Range Road alternative 2 in Morrow County; c. Morgan Lake alternative in Union County; d. Double Mountain alternative in Malheur County; e. Little Juniper Canyon alternative in Morrow County; f. True Blue Gulch alternative in Baker County; and g. Durbin Quarry alternative in Baker County; h. Ayers Canyon alternative in Morrow County; i. Boardman Junction alternative in Morrow County; j. Bombing Range SE alternative in Morrow County; k. Rugg Canyon alternative in Umatilla County; l. Sevenmile Creek alternative in Umatilla County; m. Baldy alternative in Union County; n. Rock Creek 1 alternative in Union County; o. Rock Creek 2 alternative in Union County; p. HWY 203 Crossing alternative in Baker County; q. Proposed Route (230-kV Rebuild) Revised alternative in Baker County; r. Cottonwood Creek alternative in Malheur County; and s. Willow Creek alternative in Malheur County. <p>[General Standard of Review Condition 11, Site-Specific Condition OAR 345-025-0010(5); Final Order on ASC, AMD1, RFA2]</p>

STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
GEN-OE-01	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction, notify the Department and affected counties of the identity and qualifications of the major design, engineering, and construction contractor(s) for the facility. The certificate holder shall select contractors that have substantial experience in the design, engineering, and construction of similar facilities. b. During construction, report to the Department in its semi-annual construction progress report required pursuant to OAR 345-026-0080(1)(a) the identity and qualifications of any new or changes to its design, engineering and construction contractors. <p>[Organizational Expertise Condition 2; Final Order on ASC]</p>
GEN-OE-02	<p>The certificate holder shall be responsible for any matter of non-compliance under the site certificate. Any notice of violation (NOV) issued under the site certificate will be issued to the certificate holder. Any civil penalties under the site certificate will be levied on the certificate holder.</p> <p>[Organizational Expertise Condition 5; Final Order on ASC]</p>
GEN-OE-03	<p>Within 72 hours after discovery of incidents or circumstances that violate the terms or conditions of the site certificate, the certificate holder must report the conditions or circumstances to the Department, in addition to the requirements of OAR 345-026-0170.</p> <p>[Organizational Expertise Condition 6; Final Order on ASC]</p>
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
GEN-SS-01	<p>The certificate holder shall design, engineer, and construct the transmission lines, Longhorn Station, and communication stations in accordance with the International Building Code, Oregon Structural Specialty Code, and local building codes that are most current at the time that final engineering of each of these components is completed and in a manner that does not conflict with National Electrical Safety Code identified in Siting Standards for Transmission Lines Condition 3.</p> <p>[Structural Standard Condition 2; Final Order on ASC]</p>
GEN-SS-02	<p>The certificate holder shall design, engineer and construct the facility to avoid dangers to human safety and the environment presented by seismic hazards affecting the site that are expected to result from all maximum probable seismic events. As used in this rule “seismic hazard” includes ground shaking, ground failure, landslide, liquefaction triggering and consequences (including flow failure, settlement buoyancy, and lateral spreading), cyclic softening of clays and silts, fault rupture, directivity effects and soil-structure interaction.</p> <p>[Structural Standard Condition 3; Mandatory Condition OAR 345-025-0006(12); Final Order on ASC]</p>
GEN-SS-03	<p>The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if site investigations or trenching reveal that conditions in the foundation rocks differ significantly from those described in the application for a site certificate. After the Department</p>

	receives the notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Structural Standard Condition 4; Mandatory Condition OAR 345-025-0006(13); Final Order on ASC]
GEN-SS-04	The certificate holder shall notify the Department, the State Building Codes Division and the Department of Geology and Mineral Industries promptly if shear zones, artesian aquifers, deformations or clastic dikes are found at or in the vicinity of the site. After the Department receives notice, the Council may require the certificate holder to consult with the Department of Geology and Mineral Industries and the Building Codes Division to propose and implement corrective or mitigation actions. [Structural Standard Condition 5; Mandatory Condition OAR 345-025-0006(14); Final Order on ASC]
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
GEN-SP-01	The certificate holder shall: <ul style="list-style-type: none"> a. Prior to construction of the facility, submit to the Department a ODEQ-issued NPDES 1200-C General Construction Permit and Erosion Sediment Control Plan (ESCP). b. During construction of the facility, the certificate holder shall conduct all work in compliance with the NPDES 1200-C General Construction Permit, ESCP or revised ESCP if applicable. The ESCP shall be revised if determined necessary by the certificate holder, certificate holder's contractor(s) or the Department. Any Department-required ESCP revisions shall be implemented within 14-days, unless otherwise agreed to by the Department based on a good faith effort to address erosion issues. [Soil Protection Condition 1; Final Order on ASC, AMD1]
GEN-SP-02	The certificate holder shall: <ul style="list-style-type: none"> a. Prior to construction of the facility, submit to the Department a final copy of a Construction Hazardous Waste Management and Spill Response Plan (HWMSRP). The protective measures described in the draft Construction HWMSRP, as provided in Attachment G-4 of the Final Order on the RFA1, shall be included in the final HWMSRP, unless otherwise approved by the Department. b. During construction of the facility, the certificate holder shall conduct all work in compliance with the final Construction HWMSRP. [Soil Protection Condition 2; Final Order on ASC, AMD1]
GEN-SP-03	Prior to operation, if the certificate holder is required by DEQ statutes or rules to implement a SPCC Plan for operation of the facility, the certificate holder shall submit to the Department an operation-related SPCC Plan. The certificate holder shall maintain compliance with the operation-related SPCC Plan during operations at the Longhorn Station. [Soil Protection Condition 3; Final Order on ASC]
GEN-SP-04	a. Prior to construction-related blasting, the certificate holder shall finalize, and submit to the Department, a final Blasting Plan inclusive of all measures included

	<p>in the draft Framework Blasting Plan (Final Order on RFA1 Attachment G-5). The final Blasting Plan shall meet all applicable federal, state and local requirements related to the transportation, storage, and use of explosives.</p> <p>b. Prior to construction-related blasting, the certificate holder will consult with landowners regarding right-of-way acquisition, and during these consultations, the certificate holder will discuss with the landowner any blasting that the certificate holder plans to conduct on the landowner’s property. If the landowner identifies a natural spring or well on the property, the certificate holder will notify the landowner that at the landowner’s request, the certificate holder shall conduct pre-blasting baseline flow and water quality measurements for turbidity. The certificate holder shall compensate the landowner for adequate repair or replacement if damages to the flow or quality of the natural spring are caused by blasting.</p> <p>c. During construction-related blasting, the certificate holder shall conduct all work in compliance with the final Blasting Plan approved by the Department.</p> <p>[Soil Protection Condition 4; Final Order on ASC, AMD1]</p>
<p>STANDARD: LAND USE (LU) [OAR 345-022-0030]</p>	
<p>GEN-LU-01</p>	<p>For facility components in Morrow County, the certificate holder shall:</p> <p>a. Prior to construction of any phase or segment of the facility, provide to the Department a copy of the following Morrow County approved permits, if such permits are required by Morrow County zoning ordinances:</p> <ul style="list-style-type: none"> i. Zoning permit for facility components to be located in General Industrial (MG) and Port Industrial Zones. ii. Flood plain development permit, for work in the Flood Plain Overlay Zone; iii. Utility crossing permit; iv. Access approach site permit; and v. Construction permit to build on right-of-way. <p>b. Prior to construction of a stream crossing at, or substantial road modification adjacent to, a Goal 5 stream including Sand Hollow Creek, Little Butter Creek, Butter Creek, and Matlock Creek, consult with ODFW on construction methods, measures to minimize riparian impacts, and measures to evaluate and monitor riparian impacts in order to demonstrate maintenance of 75 percent of vegetation layers or strata within the defined riparian zone will be implemented. Consultation with DEQ and Morrow County Soil Conservation Services shall be completed if determined by the certificate holder, the Department, or ODFW to be necessary based on extent of potential water and erosion impacts. (MCZO Section 3.200(D)).</p> <p>c. During construction, the certificate holder shall comply with the conditions of permits and consultation requirements listed in (a) and (b), and if applicable, (d).</p> <p>d. During construction, if the certificate holder determines additional County-approved permits are required, the certificate holder shall provide to the Department a copy of those additional permits.</p>

	<p>e. Prior to construction of any phase or segment of the facility, the certificate holder shall provide to the Morrow County Weed Supervisor a list of the suppliers that will be supplying the aggregate used in construction in Morrow County. The certificate holder shall ensure that said suppliers provide the Morrow County Weed Supervisor reasonable access to the aggregate sites for inspection for weeds.</p> <p>[Land Use Condition 1; Final Order on ASC]</p>
<p>GEN-LU-02</p>	<p>For facility components in Morrow County, the certificate holder shall design the facility to comply with the following setback distances and other requirements:</p> <p><u>Significant Resource Overlay Zone (MCZO Section 3.200(D)(3)(b))</u></p> <p>a. Buildings and the fixed bases of the transmission line towers shall be setback at least 100 feet from the high-water mark of all Goal 5 streams (i.e. Sand Hollow Creek, Little Butter Creek, Butter Creek and Matlock Canyon Creek) and Little Juniper Creek.</p> <p><u>Sand Hollow and Little Juniper Flood Plain Overlay Zones (MCZO Section 3.100(5.1-1))</u></p> <p>b. Buildings and structures shall not be located within Flood Plain Overlay Zone unless anchored to prevent flotation, collapse or lateral movement of the structure.</p> <p><u>In the EFU Zone (Based solely on certificate holder representations in the ASC)</u></p> <p>c. Buildings and the fixed bases of the transmission line towers shall be setback as follows:</p> <ul style="list-style-type: none"> i. Front yards shall be set back at least 20 feet from minor collector road rights-of-way, 30 feet from major collector road rights-of-way, 80 feet from arterial road rights-of-way, and 100 feet from intensive agricultural uses; ii. Side yards shall be set back at least 20 feet from the property line, 30 feet for corner lots, and 100 feet from intensive agricultural uses; and iii. Rear yards shall be set back at least 25 feet from the property line, and 100 feet from intensive agricultural uses. <p>d. Buildings and the fixed bases of the transmission line towers shall be set back at least 100 feet from the high-water mark of all streams and lakes.</p> <p><u>In the General Industrial Zone (MCZO Section 3.070(D))</u></p> <p>e. Buildings and the fixed bases of the transmission line towers shall be set back at least 50 feet from arterial road rights-of-way, 30 feet from collector road rights of-way, and 20 feet from lower-class road rights-of-way.</p> <p><u>In the Port Industrial Zone (MCZO Section 3.073(D))</u></p> <p>f. Buildings associated with the Longhorn Station and multi-use area, and the fixed bases of the transmission line towers shall be setback as follows:</p> <ul style="list-style-type: none"> i. Front yards shall be set back at least 30 feet from the property line; buildings and structures shall be setback at least 90 feet from the centerline of any public, county, or state road; ii. Rear and side yards shall be set back at least 10 feet from the property line. <p>[Land Use Condition 2; Final Order on ASC, AMD1]</p>

<p>GEN-LU-03</p>	<p>For facility components in Umatilla County, the certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of any phase or segment of the facility, provide to the Department a copy of the following Umatilla-County issued permits: <ul style="list-style-type: none"> i. Zoning Permit for each tax lot crossed by facility components evaluated as a Utility Facility Necessary for Public Service (UCDC 152.059) including transmission line, new roads, substantially modified roads, multi-use areas (including batch plant and helipads), and communication stations in EFU-zoned land; <u>and zoning permits for each tax lot crossed by facility components evaluated as a temporary storage, processing site within LI and RTC zoned land.</u> ii. Installation of Utilities on County and Public Roads Permit. b. Road Approach and Crossing Permits as determined necessary by County Public Works Department. If after construction commencement the certificate holder determines additional County-approved permits are required, the certificate holder shall provide to the Department a copy of those additional permits. c. Prior to construction of any phase or segment of the facility, provide to the Department and Umatilla County a copy of the ODEQ issued Air Contaminant Discharge or General Permit for the mobile batch plant. d. During construction, the certificate holder shall comply with all condition requirements of permits identified under (a), (b), and (c) of this condition. <p>[Land Use Condition 3; Final Order on ASC]</p>
<p>GEN-LU-04</p>	<p>For facility components located in Umatilla County, the certificate holder shall design the facility to comply with the following setback distances and other requirements:</p> <p><u>In All Zones:</u></p> <ul style="list-style-type: none"> a. Buildings, the fixed bases of transmission line towers, and new access roads shall be set back from Class I streams at least 25-feet or one-half the stream width, whichever is greater. b. Permanent vegetation removal within the riparian zone of all Class I streams shall retain 75% of all layers or strata of vegetation. c. Within the transmission line right-of-way, a maximum of 25% of existing natural vegetation along streams, lakes, and wetlands may be removed, unless removal of a greater quantity of vegetation is necessary for reliability purposes. d. The certificate holder shall coordinate with the Oregon Department of Fish and Wildlife and Soil and Water Conservation District on minor drainage improvements necessary to ensure effective drainage on surrounding agricultural lands. Existing drainage ditches may be cleared to original specifications without review. e. Access points to multi-use areas and communication stations shall be limited to one every 200 feet. f. New roads that enter onto a public or county road or state or federal highway shall be constructed of at least similar if not the same material as the public or county road or state or federal highway, and the material shall extend at least 25 feet back from the edge of the existing travel lane surface.

	<p><u>In the EFU Zone (Based solely on certificate holder representations in the ASC):</u></p> <ul style="list-style-type: none"> g. Buildings shall be setback as follows: (i) at least 30 feet from the property line or private road easement boundary; or (ii) at least 60 feet from the center line of the road, highway, or private road easement, whichever is greater. h. Buildings and the fixed bases of the transmission line towers shall be set back at least 100 feet from the high-water mark of all streams, lakes, and wetlands. i. Parking lots shall be designed and operated as follows: <ul style="list-style-type: none"> i. areas used for standing and maneuvering of vehicles at the multi-use areas will have paved surfaces maintained adequately for all weather use and will be drained as to avoid flow of water across public sidewalks; ii. parking spaces along the outer boundaries of any multi-use area parking lot will be contained by a curb at least four inches high and set back a minimum of four and one-half feet from the property line, or by a bumper rail; and iii. artificial lighting, if provided, will not create or reflect glare in a residential zone or on any adjacent dwelling. <p><u>In the LI zone:</u></p> <ul style="list-style-type: none"> j. The temporary multi-use area shall include visibility-obscuring fencing or shall setback the fence or limit areas of activity a minimum of 500 feet from adjacent public roads. k. The temporary multi-use area shall be designed to comply with front, side, and rear yard setbacks of 20 feet. <p><u>In the RTC Zone:</u></p> <ul style="list-style-type: none"> l. The temporary multi-use area shall include a visibility-obscuring fencing as necessary to limit views of the area by travelling public and from surrounding properties. <p>[Land Use Condition 5; Final Order on ASC]</p>
<p>GEN-LU-05</p>	<p>For facility components in Union County, the certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of any phase or segment of the facility, provide to the Department a copy of the following Union County-approved permits, if such permits are required by Union County zoning ordinances: <ul style="list-style-type: none"> 1. Flood plain development permit; 2. Road approach permit; and 3. Work in county right-of-way permit. b. During construction, the certificate holder shall comply with conditions of permits listed in (a) and (c). c. During construction, if the certificate holder determines additional County-approved permits are required, the certificate holder shall provide to the Department a copy of those additional permits. <p>[Land Use Condition 6; Final Order on ASC]</p>
<p>GEN-LU-06</p>	<p>During construction of any phase or segment of the facility in Union County, the certificate holder shall construct the facility to comply with the following setback distances and other requirements:</p> <p><u>In All Zones:</u></p>

	<p>a. Buildings, the fixed bases of transmission line towers, and new access roads shall be set back from Class I streams at least 25-feet or one-half the stream width, whichever is greater.</p> <p>b. Permanent vegetation removal within the riparian zone of all Class I streams shall retain 75% of all layers or strata of vegetation.</p> <p><u>In the EFU Zone (Based solely on certificate holder representations in the ASC):</u></p> <p>c. Buildings shall be setback as follows: (i) front yards shall be set back at least 20 feet from property lines and road rights-of-way; (ii) and rear yards shall be set back at least 10 feet from property lines and road rights-of-way.</p> <p>d. A clear-vision area shall be maintained on the corners of all multi-use area properties at the intersection of two or more streets or a street and a railroad as follows: (i) the clear-vision area shall consist of a triangular area with the two lot lines measuring a distance of 30 feet or at an intersection involving an alley of 10 feet; and (ii) the clear-vision area shall not contain any planting, fence, wall, structure, or temporary or permanent obstruction exceeding 2.5 feet in height, except for trees with branches removed to a height of 8 feet.</p> <p>e. Concrete batch plants shall not be located within 2 miles of a vineyard totaling at least 40 acres and which was planted as of February 27, 2013.</p> <p><u>In the Agricultural Grazing Zone:</u></p> <p>f. Buildings shall be setback as follows: (i) front yards shall be set back at least 20 feet from property lines and road rights-of-way; and (ii) rear yards shall be set back at least 10 feet from property lines and road rights-of-way.</p> <p>g. All signage shall comply with the provisions of UCZPSO 3.17.</p> <p><u>In the Timber-Grazing Zone:</u></p> <p>h. Buildings shall be setback as follows: (i) front and rear yards shall be set back at least 20 feet from property lines and road rights-of-way; (ii) and side yards shall be set back at least 10 feet from property lines and road rights-of-way.</p> <p>i. All signage shall comply with the provision of UCZPSO 5.08.</p> <p>[Land Use Condition 7; Final Order on ASC, AMD1]</p>
<p>GEN-LU-07</p>	<p>For facility components in Baker County, the certificate holder shall:</p> <p>a. Prior to construction in Baker County, the certificate holder shall provide to the department a copy of the following Baker County-approved permits, if such permits are required by Baker County ordinances:</p> <ul style="list-style-type: none"> i. Flood plain development permit; ii. Road approach permit; and iii. Work in county right-of-way permit. <p>b. If after commencement of construction the certificate holder determines additional County-approved permits are required, the certificate holder shall provide to the department a copy of those additional permits.</p> <p>c. During construction, the certificate holder shall comply with conditions of permits listed in (a) and (b).</p> <p>[Land Use Condition 9; Final Order on ASC]</p>
<p>GEN-LU-08</p>	<p>For facility components in Malheur County, prior to construction of any phase or segment of facility components, the certificate holder shall:</p>

	<p>a. Obtain one zoning permit for development of facility components in both the EFU and ERU zone, and one zoning permit for development of facility components in the Heavy Industrial (C-12) zone; copies of zoning permits shall be provided to the Department.</p> <p>b. Provide to the Department a copy of Malheur County-approved Flood plain development permits for each location where development would occur within a regulatory floodplain.</p> <p>c. If after construction commencement, the certificate holder determines additional County-approved permits are required, the certificate holder shall provide a copy of those permits to the Department.</p> <p>[Land Use Condition 11; Final Order on ASC]</p>
<p>GEN-LU-09</p>	<p>For facility components in Malheur County, the certificate holder shall design the facility to comply with the following setback distances and other requirements: <u>In the EFU and ERU Zones (Based solely on certificate holder representations in the ASC):</u></p> <p>a. Buildings shall be setback as follows:</p> <ul style="list-style-type: none"> i. at least 40 feet from a street or road right-of-way; and ii. at least 15 feet from any other property line. <p>b. No sight obscuring fence exceeding three feet in height shall be placed within the 40-foot street setback, also within this setback shrubbery other than trees shall be maintained at heights not exceeding three feet.</p> <p>[Land Use Condition 12; Final Order on ASC]</p>
<p>GEN-LU-10</p>	<p>For the multi-use areas in City of North Powder, the certificate holder shall <u>obtain a Conditional Use Permit from City of North Powder, providing sufficient information to the City to verify that the design of the site to comply with the following setback distance and other requirements in the Industrial Zone and Commercial Interchange Zone.</u></p> <p>In the Commercial Interchange Zone, <u>the site plan shall demonstrate:</u></p> <p>a. All signs shall comply with NPZO 4.04(B) development standards (ASC Exhibit K p. K-275)</p> <p>b. Based solely on certificate holder representations in ASC, buildings shall not exceed 45 feet in height and shall be setback per NPZO Section 4.03 (ASC Exhibit K p. K-277):</p> <ul style="list-style-type: none"> i. Front yards shall be set back at least 30 feet from property lines; ii. Side yards shall be setback at least 20 feet from a Residential Zone, street, or corner lot; and iii. Rear yards shall be set back at least 20 feet from a Residential Zone. <p>[Land Use Condition 13; Final Order on ASC, AMD2]</p>
<p>GEN-LU-11</p>	<p>The certificate holder shall:</p> <p>a. Prior to construction of any phase or segment of the facility, in accordance with the OAR 345-025-0016 agency consultation process outlined in the draft Agriculture Assessment and Mitigation Plan (Attachment K-1 of the Final Order on the ASC), submit to the Department a final Agricultural Assessment and Mitigation Plan.</p>

	<p>b. During construction and operation of any phase or segment of the facility, implement the Agriculture Mitigation Plan as finalized per sub(a) of this condition.</p> <p>c. During operation, implement a post-construction monitoring plan to identify any remaining soil and agricultural impacts associated with construction that require additional restoration or mitigation, in accordance with Section 7.0 of the Agricultural Mitigation Plan, Attachment K-1 of the Final Order on the ASC.</p> <p>[Land Use Condition 14; Final Order on ASC]</p>
<p>GEN-LU-12</p>	<p>The certificate holder shall limit its transmission line right-of-way in Goal 4 forest lands to no wider than 300 feet.</p> <p>a. During construction, the certificate holder shall limit its use of the portion of the transmission line right-of-way located beyond the center 100 feet to vegetation maintenance activities.</p> <p>b. During operation, the certificate holder shall limit its use of the portion of the transmission line right-of-way located beyond the center 100 feet to vegetation maintenance activities.</p> <p>[Land Use Condition 15; Final Order on ASC]</p>
<p>GEN-LU-13</p>	<p>The certificate holder shall:</p> <p>a. Prior to construction of any phase or segment of the facility, in accordance with the OAR 345-025-0016 agency consultation process outlined in the draft Right-of-Way Clearing Assessment (Attachment K-2 of the Final Order on the ASC), submit to the Department for its approval, a final Right-of-Way Clearing Assessment. The protective measures described in the draft Right-of-Way Clearing Assessment in Attachment K-2 of the Final Order on ASC shall be included and implemented as part of the final Right-of-Way Clearing Assessment, unless otherwise approved by the Department.</p> <p>b. During construction, the certificate holder shall conduct all work in compliance with the final Right-of-Way Clearing Assessment.</p> <p>[Land Use Condition 16; Final Order on ASC]</p>
<p>STANDARD: PROTECTED AREA (PA) [OAR 345-022-0040]</p>	
<p>GEN-PA-01</p>	<p>During design and construction of the facility, the certificate holder must:</p> <p>a. Coordinate construction activities in Ladd Marsh Wildlife Area with the Wildlife Area manager.</p> <p>b. Provide evidence to ODFW of a determination of eligibility and findings of effect pursuant to Section 106 NRHP compliance for the facility and the final HPMP for the portion of the facility that would cross Ladd Marsh Wildlife Area subject to confidential material submission materials.</p> <p>[Protected Areas Condition 1; Final Order on ASC]</p>
<p>GEN-PA-02</p>	<p>During design and construction of the facility, if the Morgan Lake alternative route is selected, the certificate holder shall ensure that facility components are not sited within the boundary of the Ladd Marsh Wildlife Area. The certificate holder shall provide to the Department a final design map for Union County demonstrating that the site boundary <u>micrositing areas</u> and facility components are located outside of</p>

	<p>the protected area boundary. [Protected Areas Condition 2; Final Order on ASC]</p>
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
GEN-RT-01	<p>The certificate holder must prevent the development of any conditions on the site that would preclude restoration of the site to a useful, non-hazardous condition to the extent that prevention of such site conditions is within the control of the certificate holder. [Retirement and Financial Assurance Condition 1, Mandatory Condition OAR 345-025-0006(7); Final Order on ASC]</p>
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
GEN-FW-01	<p>The certificate holder shall:</p> <ol style="list-style-type: none"> a. Prior to construction of a phase or segment of the facility, finalize, in accordance with the OAR 345-025-0016 agency consultation process outlined in the draft Reclamation and Revegetation Plan (Attachment P1-3 of the Final Order on the ASC), and submit to the Department for its approval a final Reclamation and Revegetation Plan for that phase or segment of the facility to be constructed. The protective measures described in the draft Reclamation and Revegetation Plan in Attachment P1-3 of the Final Order on the ASC shall be included and implemented as part of the final Reclamation and Revegetation Plan, unless otherwise approved by the Department. If the certificate holder does not mitigate for temporal loss of temporary habitat impacts as presented in HMP Table 10, components of the plan to be finalized are as follows. All components can be specific to the phase or segment of the facility to be constructed: <ol style="list-style-type: none"> i. Habitat (type/subtype) and disturbance impact (acres) assessment based on final facility design and layout and preconstruction field verification of disturbance areas. ii. Identification and mapping of reclamation treatment and control monitoring sites per habitat type. iii. Identification and mapping of transect size and quantity, based on size of disturbance areas, to be paired with treatment and control monitoring sites per habitat type. iv. Collection of preconstruction qualitative and quantitative data at treatment and control monitoring sites. v. Development of site-specific data analysis protocol for photographs and a standardized data-recording form. vi. Identification, and confirmation of availability, of appropriate seed mixes per impacted habitat type b. Post-construction of a phase or segment of the facility, the certificate holder shall conduct all work in compliance with the final Reclamation and Revegetation Plan referenced in sub(a) of this condition. [Fish and Wildlife Condition 1; Final Order on ASC, AMD1]
GEN-FW-02	<p>During facility operations and maintenance, the certificate holder shall</p>

	<p>conduct all work in compliance with Vegetation Management Plan, substantially as presented in Final Order on ASC Attachment P1-4. [Fish and Wildlife Condition 2; Final Order on ASC, AMD1]</p>
<p>GEN-FW-03</p>	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of a phase or segment of the facility, in accordance with the OAR 345-025-0016 agency consultation process outlined in the draft Noxious Weed Plan(s) (Attachment P1-5 of the Final Order on the ASC), finalize, and submit to the Department for its approval, a final Noxious Weed Plan. The protective measures as described in the draft Noxious Weed Plan provided as Attachment P1-5 to the Final Order on the ASC, shall be included and implemented as part of the final Noxious Weed Plan, unless otherwise approved by the Department. b. During operation, the certificate holder shall conduct all work in compliance with the final Noxious Weed Plan referenced in sub(a) of the condition. <p>[Fish and Wildlife Condition 3; Final Order on ASC]</p>
<p>GEN-FW-04</p>	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of any phase or segment of the facility, finalize, and submit to the Department for its approval, a final Fish and Wildlife Habitat Mitigation Plan, based on the plan provided as Attachment P1-6 of the Final Order on the ASC. The final Fish and Wildlife Habitat Mitigation Plan shall include the following, unless otherwise approved by the Department: <u>Information To Be Included in Final Habitat Mitigation Plan, based on the phase or segment of the facility to be constructed:</u> <ul style="list-style-type: none"> i. The areas that were surveyed for biological resources; ii. The location of all facility components and related and supporting facilities; iii. The areas that will be permanently and temporarily disturbed during construction; iv. The protective measures described in the draft Fish and Wildlife Habitat Mitigation Plan in Attachment P1-6 of the Final Order on the ASC; and v. The results of the biological surveys referenced in Fish and Wildlife Conditions 15 and 16. <p><u>Final Habitat Mitigation Plan Shall Address the Following:</u> The final Fish and Wildlife Habitat Mitigation Plan shall address the potential habitat impacts through mitigation banking, an in-lieu fee program, development of mitigation projects by the certificate holder, or a combination of the same.</p> <ul style="list-style-type: none"> i. To the extent the certificate holder shall develop its own mitigation projects, the final Habitat Mitigation Plan shall: <ol style="list-style-type: none"> 1. Identify the location of each mitigation site, including a map of the same; 2. Identify the number of credit-acres that each mitigation site will provide for the certificate holder; 3. Include a site-specific mitigation management plan for each mitigation site that provides for:

	<ul style="list-style-type: none"> A. A baseline ecological assessment; B. Conservation actions to be implemented at the site; C. An implementation schedule for the baseline ecological assessment and conservation actions; D. Performance measures; E. A reporting plan; and F. A monitoring plan. <ul style="list-style-type: none"> ii. To the extent the certificate holder shall utilize a mitigation bank or in-lieu fee program, the final Habitat Mitigation Plan shall: <ul style="list-style-type: none"> 1. Describe the nature, extent, and history of the mitigation bank or in-lieu fee program; and 2. Identify the number of credit-acres that each mitigation site will provide for the certificate holder. iii. Oregon’s Elk Mitigation Framework shall be used to calculate the amount of elk habitat compensatory mitigation required for the facility. iv. The final Fish and Wildlife Habitat Mitigation Plan may be amended from time to time by agreement of the certificate holder and the Department. Such amendments may be made without amendment to the site certificate. The Council authorizes the Department to agree to amendments of the plan and to mitigation actions that may be required under the plan; however, the Council retains the authority to approve, reject, or modify any amendment of the plan agreed to by the Department. <p>b. During construction, the certificate holder shall commence implementation of the conservation actions set forth in the final Fish and Wildlife Habitat Mitigation Plan referenced in sub(a) of this condition. [Fish and Wildlife Condition 4; Final Order on ASC]</p>
<p>GEN-FW-05</p>	<p>Prior to construction of any phase or segment of the facility, the certificate holder shall train all construction personnel on the protection of cultural, paleontological, ecological, and other natural resources such as (a) federal and state laws regarding antiquities, paleontological resources, and plants and wildlife, including collection and removal; (b) the importance of these resources; (c) the purpose and necessity of protecting them; and (d) reporting and procedures for stop work. Prior to the training, the certificate holder must provide the Department with a copy of training materials that will be used such as Power Point slides, information hand-outs, maps, and other materials. [Fish and Wildlife Condition 6; Final Order on ASC]</p>
<p>GEN-FW-06</p>	<p>Prior to and during construction, the certificate holder shall flag the following environmentally sensitive areas as restricted work zones:</p> <ul style="list-style-type: none"> a. State protected plant species; b. Wetlands and waterways that are not authorized for construction impacts; c. Areas with active spatial and seasonal restrictions; and d. Category 1 habitat. <p>Prior to construction of a phase or segment of the facility, the certificate holder shall</p>

	submit a mapset showing the location of environmentally sensitive areas and restricted work zones to the department for its approval. The certificate holder shall make the mapset available to all construction personnel. [Fish and Wildlife Condition 7; Final Order on ASC, AMD2]
GEN-FW-07	During construction and operation, the certificate holder shall employ a speed limit of 25 miles per hour or less on private facility access roads. [Fish and Wildlife Condition 8; Final Order on ASC]
GEN-FW-08	The certificate holder shall construct the transmission line to avian-safe design standards, consistent with the certificate holder's Avian Protection Plan (Idaho Power 2015) as provided in Attachment P1-9 of the Final Order on the ASC. Within 30 days of identification of an avian fatality within micrositing areas the site boundary , where predicted causal factor is electrocution or collision, the certificate holder shall report the species name and location identified (Milepost) and shall consult with ODFW and the Department on retrofit technologies or other adaptive management strategy to minimize fatality risk. [Fish and Wildlife Condition 10; Final Order on ASC, AMD2]
STANDARD: SCENIC RESOURCES (SR) [OAR 345-022-0080]	
GEN-SR-01	The certificate holder shall use dull-galvanized steel for lattice towers and non-specular conductors. [Scenic Resources Condition 1; Final Order on ASC]
GEN-SR-02	If, at final facility design, the transmission line route crosses Ladd Marsh Wildlife Management Area in Union County, the certificate holder shall select transmission structures to be constructed between approximately Milepost 108 and Milepost 113 with design modifications including Lattice-frames with a patina finish. [Scenic Resources Condition 2; Final Order on ASC, AMD1]
GEN-SR-03	At final facility design, the certificate holder shall select transmission structures, to be constructed in the vicinity of the National Historic Oregon Trail Interpretive Center between approximately Milepost 145.1 and Milepost 146.6, with the following design modifications: <ul style="list-style-type: none"> a. H-frames; b. Tower height no greater than 130 feet; and c. Weathered steel (or an equivalent coating). Additionally, the certificate holder shall construct the facility using tower structures that meet the following criteria between approximately Milepost 146.6 and Milepost 146.7: <ul style="list-style-type: none"> a. H-frames; b. Tower height no greater than 154 feet; and c. Weathered steel (or an equivalent coating). [Scenic Resources Condition 3; Final Order on ASC]
GEN-SR-04	At final facility design, the certificate holder shall select transmission structures, to be constructed in the vicinity of Birch Creek Area of Critical Environmental Concern between approximately Milepost 197.9 and Milepost 199.1, with design modifications including H-frame, with structure height not to exceed 100 feet.

	[Scenic Resources Condition 4; Final Order on ASC]
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
GEN-HC-01	During final design and construction of the facility, the certificate holder shall design and locate facility components to avoid direct impacts to Oregon Trail/National Historic Trail resources consistent Attachment S-9 Historic Properties Management Plan (HPMP) of the Final Order on <u>RFA2</u> the ASC . [Historic, Cultural and Archeological Resources Condition 1; Final Order on ASC, <u>RFA2</u>]
GEN-HC-02	Prior to construction of a phase or segment of the facility, subject to confidential material submission procedures, and based on 1) new survey data from previously unsurveyed areas and 2) the final design of the facility, the certificate holder shall submit to the Department, the State Historic Preservation Office (SHPO), and applicable Tribal Governments, for review and Department approval, a final <u>Section 106</u> Historic Properties Management Plan (HPMP) (<u>with a cover letter explaining changes from the</u> Final Order on <u>RFA2</u> Attachment S-9). <u>The HPMP shall include updated Appendix A.1 Inventory Tables with Management under OAR 345-022-0090 based on the outcomes of Section 106 Review. Final Property-Specific Mitigation and Monitoring Plans (PSMMPs) shall be submitted as part of the Section 106 HPMP.</u> The Department may engage its consultant to assist in review of the HPMP. The certificate holder shall conduct all construction activities in compliance with the final Department-approved HPMP. [Historic, Cultural and Archeological Resources Condition 2, Final Order on ASC, AMD1, <u>AMD2</u>]
STANDARD: RECREATION (RC) [OAR 345-022-0100]	
GEN-RC-01	If the Morgan Lake alternative facility route is selected, the certificate holder shall construct the facility using tower structures that meet the following criteria for the transmission line that would be visible from Morgan Lake Park, specifically between milepost (MP) 5.0 to MP 8.0 of the Morgan Lake alternative, as shown on ASC Exhibit C, Attachment C-3, Map 8. a. H-frames; b. Tower height no greater than 130 feet; and c. Weathered steel (or an equivalent coating). [Recreation Condition 1; Final Order on ASC]
STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]	
GEN-PS-01	At least 90 days prior to use of a helicopter(s) during construction, unless otherwise agreed to by the Department, the certificate holder shall submit to the Department and each affected County Planning Department a proposed Helicopter Use Plan. The plan must be approved by the Department, in consultation with each county where helicopter use is proposed, prior to use of a helicopter during construction. The certificate holder shall conduct all work in compliance with the approved Helicopter Use Plan. The Helicopter Use Plan shall identify or provide: a. The type of helicopters to be used (all helicopters must be compliant with the noise certification and noise level limits set forth in 14 CFR § 36.11);

	<ul style="list-style-type: none"> b. The duration of helicopter use; c. Approximate helicopter routes to be used; d. Protected areas and recreation areas within two miles of the approximate helicopter routes; e. Roads or residences over which external loads will be carried; f. Multi-use areas and light-duty fly yards containing helipads shall be located: (i) in areas free from tall agricultural crops and livestock; (ii) at least 500 feet from organic agricultural operations; and (iii) at least 500 feet from existing dwellings on adjacent properties; g. Flights shall occur only between sunrise and sunset; h. At least 3 days prior to initiating helicopter operations at any multi-use area or light-duty fly yard, the certificate holder shall contact adjacent property owners within 1,000 feet of the relevant multi-use area or light-duty fly yard; Prior to helicopter operations, the certificate holder shall consult with the Oregon Department of Aviation regarding the preparation and posting of notices to airmen regarding the location and nature of work being performed. The notice will be posted at each of the public airports in the vicinity of the facility to alert other aviators of the location and timing of facility-related helicopter construction activities; and i. The certificate holder shall maintain a customer service telephone line to address, among other things, complaints regarding helicopter operations. <p>[Public Services Condition 3; Final Order on ASC, AMD1]</p>
<p>GEN-PS-02</p>	<p>Prior to construction of a facility phase or segment, in accordance with the OAR 345-025-0016 agency consultation process outlined in the plan (Attachment U-3 of the Final Order on the ASC), the certificate holder shall submit final Fire Prevention and Suppression Plan(s) to the Department for approval. The plan finalization process shall consider (a)(i) and (a)(ii) unless otherwise identified by a land management agency or other participating review agency:</p> <ul style="list-style-type: none"> a. The protective measures as described in the draft Fire Prevention and Suppression Plan as provided in Attachment U-3 of the Final Order on the ASC and: <ul style="list-style-type: none"> i. Fire training for onsite workers and facility personnel be conducted by individuals that are National Wildfire Coordination Group and Federal Emergency Management Agency certified. ii. Specific seasonal work restrictions, onsite fire-fighting equipment and necessary fire protection resources based on: 1) documented evaluation of reasonably available sources related to wildfire risk and sensitive seasonal conditions such as high temperatures, drought and high winds; and 2) update Table PS-9 of the Final Order on the ASC based on information obtained from the LGRFPD on the number of full-time and volunteer employees, number and type of equipment/vehicles, and response times to the facility. Response time must consider LGRFPD crew mobilization time and access limitations

	<p>(e.g., road condition, level of service and impact of multi-users from Morgan Lake Park, residents and emergency services.</p> <p>b. A description of the fire districts and rural fire protection districts that will provide emergency response services during construction and copies of any agreements between the certificate holder and the districts related to that coverage.</p> <p>During construction and operation of the facility, as applicable, all work must be conducted in compliance with the approved plan. [Public Services Condition 6; Final Order on ASC, AMD1]</p>
<p>GEN-PS-03</p>	<p>[DELETED][Public Services Condition 7; Final Order on ASC; AMD1]</p>
<p>STANDARD: WILDFIRE PREVENTION AND RISK MITIGATION (WMP) [OAR 345-022-0115]</p>	
<p>GEN-WMP-01</p>	<p>a. Prior to and during operation, the OPUC-approved Wildfire Mitigation Plan (WMP) shall:</p> <ul style="list-style-type: none"> i. Evaluate fire-related risks for the entire facility in all five counties in Oregon, regardless of certificate holder service territory or ownership of the facility. ii. Require procedures and mitigation measures, including the applicable measures in the Public Safety Power Shutoff (PSPS) Plan, to apply to the entire facility in all five counties in Oregon, regardless of certificate holder service territory or ownership of the facility. <p>b. Prior to operation, certificate holder shall provide a copy of the most recent OPUC-approved Wildfire Mitigation Plan that applies to the facility to the Department and each affected county. [Wildfire Prevention and Risk Mitigation Condition 1; Final Order on AMD1]</p>
<p>STANDARD: WASTE MINIMIZATION (WM) [OAR 345-022-0120]</p>	
<p>GEN-WM-01</p>	<p>a. At least 90 days prior to construction of a facility phase or segment, unless otherwise agreed to by the Department, the certificate holder shall submit to the Department a Construction Waste Management Plan. The Department must review and approve the plan prior to construction of a facility phase or segment. The site certificate holder shall conduct all work in compliance with the approved Plan. The Plan must address, at a minimum:</p> <ul style="list-style-type: none"> i. The number and types of waste containers to be maintained at multi-use areas and pulling and tensioning sites; ii. Waste segregation methods for recycling or disposal; iii. Names and locations of appropriate recycling and waste disposal facilities, collection requirements, and hauling requirements to be used during construction; iv. Recycling steel and other metal scrap; v. Recycling wood waste; vi. Recycling packaging wastes such as paper and cardboard; vii. Collecting non-recyclable waste for transport to a local landfill by a licensed waste hauler or by using facility equipment and personnel to haul the waste;

	<ul style="list-style-type: none"> viii. Segregating all hazardous and universal wastes such as used oil, oily rags and oil- absorbent materials, mercury-containing lights and lead-acid and nickel cadmium batteries for disposal by a licensed firm specializing in the proper recycling or disposal of hazardous and universal wastes; ix. When possible, discharging concrete truck rinse-out within foundation holes, completing truck wash-down off-site, and burying other concrete waste as fill on-site whenever possible; and x. For waste hauling and disposal within Morrow County, the certificate holder shall ensure its personal or third party contractors adhere to the applicable requirements in the Morrow County Solid Waste Management Ordinance Section 5.000 Public Responsibilities, 5.010 Transportation of Solid Waste and 5.030 Responsibility for Propose Disposal of Hazardous Waste which requires that all loads be covered and secured and that operators be responsible for hazardous waste disposal in accordance with applicable regulatory requirements. xi. If required by county ordinance, solid waste transported on public roads must be covered and secured during transporting, including: <ul style="list-style-type: none"> • Loads which are totally contained within an enclosed vehicle or container; • Loads of solid waste contained in garbage cans with tightly fitting lids, tied plastic bags or similar totally enclosed individual containers that are completely contained within the walls of a vehicle or container, such that no solid waste can reasonably be expected to escape during hauling; • Loads of brush, building materials and similar bulky materials which are secured in or on the hauling vehicle or completely contained within the walls of a vehicle or container, such that none can reasonably be expected to escape during hauling; or • Loads consisting entirely of rock, concrete, asphalt paving, stumps and similar materials that are completely contained within the walls of a vehicle or container, such that none can reasonably be expected to escape during hauling. b. During construction, in the six month construction report required pursuant to OAR 345-026-0080(1)(a), provide information demonstrating compliance with the requirements of sub(a) of the condition. <p>[Waste Minimization Condition 1; Final Order on ASC, AMD1]</p>
<p>STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [DIVISION 24]</p>	
<p>GEN-TL-01</p>	<p>To reduce or manage human exposure to electromagnetic fields, the certificate holder shall design and construct:</p> <ul style="list-style-type: none"> a. All aboveground 500-kV transmission lines with a minimum clearance of 34.5 feet from the ground under all operating conditions; b. All aboveground 230-kV transmission lines with a minimum clearance of 20 feet from the ground under all operating conditions; and

	<ul style="list-style-type: none"> c. All aboveground 138-kV transmission lines with a minimum clearance of 20 feet from the ground under all operating conditions. d. In areas where an aboveground transmission line will cross an existing transmission line, the certificate holder shall construct the transmission line at a height and separation that would ensure that alternating current electric fields do not exceed 9-kV per meter at one meter above the ground surface. e. The Department may authorize a lower conductor clearance in areas determined to not be accessible to the public or otherwise demonstrated by the applicant to be compliant with the standard. <p>[Siting Standards for Transmission Lines Condition 1; Final Order on ASC]</p>
<p>GEN-TL-02</p>	<ul style="list-style-type: none"> a. The certificate holder shall design, construct, and operate the transmission lines, Longhorn Station, and communication stations in accordance with the requirements of the version of the National Electrical Safety Code that is most current at the time that final engineering of each of these components is completed; and b. The certificate holder shall develop and implement a program that provides reasonable assurance that all fences, gates, cattle guards, trailers, or other objects or structures of a permanent nature in place at the time of construction and within the right-of-way, that could become inadvertently charged with electricity are grounded or bonded throughout the life of the line. The certificate holder shall be responsible for costs associated with grounding or bonding of permanent infrastructure in place at the time of construction. <p>[Siting Standards for Transmission Lines Condition 3, Site-Specific Condition OAR 345-025-0010(4); Final Order on ASC]</p>
<p>STANDARD: NOISE CONTROL REGULATIONS (NC) [OAR 340-035-0035]</p>	
<p>GEN-NC-01</p>	<p>Prior to construction, the certificate holder will initiate discussions with the 44 <u>48</u> NSR property owners at which it has estimated exceedances of the ambient antidegradation standard may occur identified in Attachment X-4 and/or X-5 of the Final Order on the ASC <u>and Attachment 7-19 Table 2 of the Final Order on Amendment 2</u> (NSR: 8, 9, 10, 11, 5002, 69, 70, 5004, 46, 118, 125, 5010, 5011, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 518, 111, 112, 132, 133, <u>515, 520, 521, 662, 664, 666, 671,</u> 5008, 5009, 113, and 115) to develop mutually agreed upon Noise Exceedance Mitigation Plans, specific to each NSR location. The site-specific Noise Exceedance Mitigation Plans will include agreed upon measures that would be implemented at the NSR location to minimize or mitigate the ambient antidegradation standard noise exceedance. Prior to and during construction, the certificate holder will initiate (a) – (c), below, to be finalized prior to operations.</p> <ul style="list-style-type: none"> a. If the certificate holder and the NSR property owner agree upon a specific Noise Mitigation Plan, the certificate holder will submit a signed acknowledgement from the property owner to the Department for its records.

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- b. If an agreement between certificate holder and NSR property owner is not obtained, the certificate holder shall concurrently notify the Department and NSR property owner of the dispute and of Council review of the dispute to occur at the next regularly scheduled Council meeting, to the extent possible, from the date of the certificate holder's notice. The notice shall explain that the NSR property owner will be given an opportunity to provide comments to the Council on the dispute, unless the Council Chair defers the dispute review to the Department. Review of the dispute will be based on the information per sub(i) below, and any other relevant facts provided by the NSR property owner and will result in a determination of the appropriate mitigation measure(s), proportional to the facility operational noise levels in excess of the ambient degradation standard, as determined to occur at the NSR property. The Council or Department's determination of appropriate mitigation is not binding on the NSR property owner or certificate holder if the NSR property owner opts not to accept the mitigation.
 - i. At the time of issuance of the notice per (b) above, certificate holder will submit to the Department: (1) the mitigation measures it offered the NSR property owner, the mitigation measures that the NSR property owner requested and an explanation of the dispute; (2) a list of the dates that the certificate holder communicated with, or attempted to communicate with, the NSR property owners; and (3) the names, addresses, and phone numbers of the NSR owners.
 - c. In working with NSR property owners under this condition, certificate holder will propose corona-noise mitigation of installation of sound- attenuating windows for residential structures as follows:
 - i. For NSRs where an 11 to 14 dBA sound level increase above ambient noise levels are expected, certificate holder will purchase and install sound attenuating windows with an STC rating of 25-40.
 - ii. For NSRs where a 15 dBA or greater sound level increase is expected, certificate holder will purchase and install sound attenuating windows with an STC rating of above 40.
 - iii. If an owner of an NSR where an 11 dBA or greater sound level increase is expected provides a letter from a health care provider indicating that health care provider's belief that the owner has a health condition that is exacerbated by increased sound levels, upon request, certificate holder will purchase and install sound attenuating windows with an STC rating of over 40 and would work with the NSR property owner to consider other mitigation options, as appropriate. During landowner consultations required under this condition, the certificate holder will specifically ask each landowner whether that landowner has a health condition that the landowner believes is exacerbated by elevated sound levels.
 - iv. At the request of an NSR property owner, certificate holder will offer alternative mitigation proposals, including but not limited to performing air-sealing of the NSR residence, planting trees, or installing insulation.
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	<p>d. Prior to operation, the certificate holder will implement the mitigation measures agreed upon with the NSR property owners and/or as determined by EFSC or the Department to be the appropriate mitigation measures.</p> <p>[Noise Control Condition 1; Final Order on ASC, AMD1]</p>
<p>GEN-NC-02</p>	<p>a. After the Site Certificate has been issued and before landowner consultations contemplated in Condition 1, the certificate holder will prepare a new version of Attachment X-7, which will update landowner information and correct any errors (Updated Attachment X-7). The certificate holder will send notices to all landowners listed in Updated Attachment X-7, which notice shall: (a) inform the recipient that the recipient is the owner of an NSR; (b) provide the requirements and condition language of Noise Control Conditions 1 and 2 as adopted by the Council; and (c) provide a plain language summary of the steps designated in Noise Control Conditions 1 and 2. In addition, prior to construction, the certificate holder shall develop and submit to the Department an operational noise complaint response plan as well as distribute a simplified operational noise complaint response plan to the landowners listed in Updated Attachment X-7.</p> <p>b. The plan shall specify that it is intended to address complaints filed by persons falling into one of the following categories: (1) the owner of an NSR property identified in Noise Control Condition 1, and for whom has received mitigation under Noise Control Condition 1, but who believes that exceedances (as measured at their NSR property) are occurring in a manner not otherwise allowed under Noise Control Condition 4 or Noise Control Condition 5; or (2) An owner of an NSR property within one mile of the site boundary micrositing areas who was not identified under Noise Control Condition 1 and who has not received mitigation from the certificate holder, but who nevertheless believes that exceedances above the ambient degradation standard have occurred at their NSR property.</p> <p>c. The plan shall include the following: Scope of the complaint response plan, including process for complaint filing, receipt, review and response. The scope shall clearly describe how affected persons will be provided necessary information for filing a complaint and receiving a response, and will specify the information that the complainant must include in its complaint, including the date the certificate holder received the complaint, the nature of the complaint, weather conditions of the date for which the complaint is based (such as wind speed, temperature, relative humidity, and precipitation), duration of perceived noise issue, the complainant’s contact information, and the location of the affected property.</p> <p>d. The plan shall require that the certificate holder notify the Department within three working days of receiving a noise complaint related to the facility. The notification shall include the date the certificate holder received the complaint, the nature of the complaint, weather conditions of the date for which the complaint is based (such as wind speed, temperature, relative humidity, and precipitation) as described by the complainant, duration of perceived noise issue, the complainant’s contact information, the location of the affected</p>

property, and a schedule of any actions taken or planned to be taken by the certificate holder (including inspection and maintenance actions, or actions taken or planned to be taken pursuant to the processes described in subsection (e) of this condition).

- e. The plan shall identify the following process if a noise complaint is received:
 - i. The certificate holder shall assess possible causes of the corona noise. If the complaint is received within the first 12 months of operation, the certificate holder will assess whether the corona noise is typical of noise that occurs during the transmission line “burn in period” (the first 12 months of operation) and ensure that it already has taken appropriate measures near that NSR to minimize corona noise that may occur during the burn in period (e.g., use conductors with a nonspecular finish/sandblasting of conductors to make them less reflective and clean them of manufacturing oils, protect the conductors to minimize scratching and nicking during construction). If the exceedance occurs during the burn-in period, and if the certificate holder complies with the requirements of this condition, the certificate holder will not be found to be in violation of its site certificate because of the exceedance.
 - ii. If it is determined the corona noise is not typical “burn in period” noise, the certificate holder will assess whether the noise exceeds the ambient antidegradation standard in a manner not otherwise allowed under Noise Control Condition 4 or Noise Control Condition 5. If the complainant’s noise sensitive property or properties are included in Attachment X-5 of the Final Order on the ASC, the modeled sound level increases as presented in Attachment X-4 of the Final Order on the ASC may be relied upon to determine whether the corona noise exceeds the ambient antidegradation standard, unless the complainant voluntarily provides alternative noise data.
 - iii. If the complainant’s NSR property or properties are not included in Attachment X-5 of the Final Order on the ASC, the certificate holder shall model the sound level increases using the methods set forth in ASC Exhibit X, unless the complainant voluntarily provides alternative noise data.
 - iv. If the complainant voluntarily provides alternative noise data and the data suggests an exceedance that had not previously been identified and mitigated, and/or an exceedance not otherwise allowed under Noise Control Condition 4 or Noise Control Condition 5, the complaint shall be verified through site specific sound monitoring conducted by an Oregon registered Professional Engineer, Board Certified by the Institute of Noise Control Engineering noise specialist, employed or contracted by the certificate holder, in accordance with NPCS-1 unless otherwise approved by the Department. If site specific sound monitoring is not authorized by the complainant, the certificate holder’s modeling results may be relied upon to determine compliance.

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- v. In the event of a dispute regarding complainant's noise data and the certificate holder's data from site specific sound monitoring, certificate holder shall request that EFSC, in consultation with the Department's noise consultant, if necessary, make the final determination regarding which data will be used to determine whether corona noise exceeds the ambient antidegradation standard and/or in a manner not allowed under Noise Control Condition 4 or Noise Control Condition 5. The EFSC Chair may direct the Department to make this determination.
 - f. The plan shall specify that if it is determined pursuant to the process described in subsection (e) of this condition that corona noise at the complainant's NSR property exceeds the ambient antidegradation standard in a manner not allowed under Noise Control Condition 4 or Noise Control Condition 5, and/or exceeds the ambient antidegradation standard at an NSR property that had not previously been predicted to experience exceedances under Noise Control Condition 1, the certificate holder shall work with the NSR property owner to develop a mutually agreed upon mitigation plan to include agreed upon measures that would be implemented at the NSR location to minimize or mitigate the ambient antidegradation standard noise exceedance. To be clear, the fact that the certificate holder has received an exception or variance under Noise Control Conditions 4 and 5 does not excuse the certificate holder from providing mitigation under this condition.
 - i. If the NSR property was identified in Noise Control Condition 1 and has previously received mitigation by the certificate holder, and if it has been determined that the NSR property experiences exceedances not allowed under Noise Control Condition 4 or Noise Control Condition 5, the certificate holder will work with the complainant to identify supplemental mitigation measures, which may include any of the measures discussed in Noise Control Condition 1 or the ASC, or other measures requested by the complainant.
 - ii. If the NSR property was not identified in Noise Control Condition 1 and has not been provided with mitigation by the certificate holder, certificate holder will work with the NSR property owner to identify appropriate mitigation measures, which may include any of the measures discussed in Noise Control Condition 1 or the ASC, or other measures requested by the landowner.
 - iii. If, through the efforts described above, the certificate holder executes an agreement with the NSR property owner, the certificate holder will submit a signed acknowledgement from the property owner to the Department for its records. If an agreement between certificate holder and NSR property owner is not obtained, the certificate holder shall concurrently notify the Department and NSR property owner of the dispute and of Council review of the dispute to occur at the next regularly scheduled Council meeting, to the extent possible, from the date of the certificate holder's notice. The notice shall explain that the NSR property owner will be given an opportunity to provide comments to the Council on the dispute, unless the Council defers the dispute review to the Department. Review of the dispute will be based on the information per (iv)
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	<p>below, and any other relevant facts provided by the NSR property owner and will result in a determination of the appropriate mitigation measure(s), proportional to the facility operational noise levels in excess of the ambient degradation standard, as determined to occur at the NSR property. The Council or Department’s determination of appropriate mitigation is not binding on the NSR property owner or certificate holder if NSR property owner opts not to accept the mitigation.</p> <p>iv. At the time of issuance of the notice per (iii) above, certificate holder will submit to the Department: (1) the mitigation measures it offered the NSR property owner, the mitigation measures that the NSR property owner requested and an explanation of the dispute; (2) a list of the dates that the certificate holder communicated with, or attempted to communicate with, the NSR property owners; and (3) the names, addresses, and phone numbers of the NSR owners.</p> <p>g. The certificate holder shall provide necessary information to the complainant to support understanding of corona noise, corona noise levels and effects, and of the process to verify actual noise levels of events resulting in complaints. If the complainant opts not to authorize the certificate holder to conduct monitoring, and it is otherwise determined pursuant to the process described in subsection (e) of this condition that corona noise does not exceed the ambient antidegradation standard, the noise complaint shall be considered fully resolved and no mitigation shall be required.</p> <p>[Noise Control Condition 2; Final Order on ASC]</p>
<p>STANDARD: REMOVAL FILL LAW (RF) [OAR 141-085-0500 through -0785]</p>	
<p>GEN-RF-01</p>	<p>The certificate holder shall:</p> <p>a. Prior to construction of a phase or segment of the facility, as applicable, the certificate holder shall submit to the Department and Oregon Department of State Lands (DSL) a final Site Rehabilitation Plan (Plan), consistent with the draft Plan provided in Attachment J-2 of the Final Order on the ASC. The Department shall provide written verification of its review of the final Plan, confirming that the Plan is consistent with the draft Site Rehabilitation Plan.</p> <p>b. Following construction and during operation of a phase or segment of the facility, as applicable, the certificate holder shall ensure that temporary impacts to wetlands and non-wetland waters of the state are restored in accordance with the final plan.</p> <p>c. The Department will provide updates to Council on the certificate holder’s implementation of the final Plan and of any Plan revisions at Council meetings, following submittal of the certificate holder’s six-month construction progress report per General Standard of Review Condition 3 or annual report per General Standard of Review Condition 4.</p> <p>[Removal Fill Condition 2; Final Order on ASC]</p>
<p>GEN-RF-02</p>	<p>The certificate holder shall:</p>

	<ul style="list-style-type: none"> a. Prior to construction of a phase or segment of the facility, as applicable, submit an updated Compensatory Wetland and Non-Wetland Mitigation Plan (CWNWMP Attachment J-1 to the Final Order on the ASC) <u>Updates to the CWNWMP</u> include the final amount of wetland mitigation credit required which shall be based on the final design configuration of the phase or segment of the facility, as applicable, and the estimated acres of wetlands and non-wetland waters of the state that would be permanently impacted, unless otherwise agreed to by the Department. b. Following construction and during operation of a phase or segment of the facility, the certificate holder shall implement the actions described in the final CWNWMP. c. The Department will provide updates to Council on the certificate holder’s implementation of the final CWNWMP and of any Plan revisions at Council meetings, following submittal of the certificate holder’s six-month construction progress report per General Standard of Review Condition 3 or annual report per General Standard of Review Condition 4. d. The final CWNWMP version approved when the facility begins operation may be revised or updated from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council. Such revisions or updates may be made without amendment of the site certificate. The Council authorizes the Department to agree to revisions or updates to this plan, in consultation with DSL. The Department shall notify the Council of all revisions or updates, and the Council retains the authority to approve, reject, or modify any revisions or updates of the plan agreed to by the Department. [Removal Fill Condition 3; Final Order on ASC, AMD1]
<p>GEN-RF-03</p>	<p>[DELETED] [Removal Fill Condition 5; Final Order on ASC; AMD1]</p>
<p>GEN-RF-04</p>	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of a phase or segment of the facility: <ul style="list-style-type: none"> i. Maintain compliance with the General and Special Conditions set forth in the removal-fill permit (Attachment J-3 to the Final Order on the ASC); ii. Receive an updated removal-fill permit (Attachment J-3 to the Final Order on the ASC) reviewed and approved by the Department in consultation with the Oregon Department of State Lands. iii. Submit a final copy of the updated removal-fill permit issued by the Oregon Department of State Lands. b. Following construction and during operation of a phase or segment of the facility, the certificate holder shall implement the actions and maintain compliance with the General and Special Conditions set forth in the removal-fill permit (Final Order on ASC Attachment J-3). c. The Department will provide updates to Council on the certificate holder’s implementation of the removal-fill permit and of any permit revisions at Council meetings, following submittal of the certificate holder’s six-month construction progress report per General Standard of Review Condition 3 or

annual report per General Standard of Review Condition 4.

d. The removal-fill permit version approved when the facility begins operation may be revised or updated from time to time by agreement of the certificate holder and the Oregon Energy Facility Siting Council (“Council”). Such revisions or updates may be made without amendment of the site certificate. The Council authorizes the Department to agree to revisions or updates to this permit. The Department shall notify the Council of all revisions or updates, and the Council retains the authority to approve, reject, or modify any revisions or updates of the permit agreed to by the Department. [Removal Fill Condition 6; Final Order on ASC; AMD1]

STANDARD: FISH PASSAGE [OAR 635-412-0035

GEN-FP-01

- a. Prior to construction within crossings triggering fish passage, the certificate holder shall finalize, and submit to the Department for its approval in consultation with ODFW, a final Fish Passage Plan. As part of finalizing the Fish Passage Plan, the certificate holder shall request from ODFW any new information ODFW may have on the status of the streams within **micrositing areas the site boundary** and shall address the information in the final Fish Passage Plan. In addition, the certificate holder shall seek concurrence from ODFW on the fish-presence determinations for non-fish bearing streams within the Ladd Creek watershed, as presented in ASC Exhibit P1-7B Table 3. If the certificate holder in consultation with ODFW, determines any of the previously identified non-fish bearing streams within the Ladd Creek Watershed to be fish-bearing, the certificate holder shall complete a crossing risk evaluation and obtain concurrence from ODFW on applicability of fish passage requirements. If fish passage requirements apply, certificate holder shall seek approval from the Energy Facility Siting Council of a site certificate amendment to incorporate ODFW approval of new crossings and fish passage design/plans and conditions. The protective measures described in the draft Fish Passage Plan in Attachment BB-2 to the Final Order on the ASC, shall be included as part of the final Fish Passage Plan, unless otherwise approved by the Department.
- b. The certificate holder shall maintain compliance with the measures outlined in the final Fish Passage Plan approved by the Department in consultation with ODFW.
- c. The certificate holder shall comply with the following operational provisions, as required per ODFW’s fish passage approval (December 30, 2015), per Attachment BB-2 Appendix A of the Final Order on the ASC:
 - 1. All in water work shall occur during the ODFW in-water work windows for each waterbody.
 - 2. Temporary water management and fish rescue, salvage, and recovery, is required (as prescribed in OAR 635-412-0035(10)) prior to all in-water work activities (defined as all work at or below the ordinary high water elevation) associated with the project. Fish salvage activities require the certificate holder to obtain State of Oregon Scientific Take Permits from ODFW.

3. Wildlife rescue, salvage, and recovery activities associated with the facility require the applicant to obtain State of Oregon Wildlife Rescue Salvage Permits from ODFW.
4. Fish passage design standards, as defined in OAR 635-412-0035(1) and (3), shall be implemented for all fish passage components of these projects.
5. The certificate holder shall be responsible for all maintenance required such that projects provide adequate passage for native migratory fish. If monitoring by the certificate holder or ODFW indicates that fish passage is not being provided, the certificate holder in consultation with ODFW, shall determine the cause and, during a work period approved by ODFW, shall modify the structure as appropriate to rectify problems as necessary. Failure to maintain fish passage for the duration of these approvals shall constitute a violation of these approvals and applicable fish passage laws (ORS 509.610).
6. After construction completion, the certificate holder or its designee, shall maintain, monitor, evaluate and report on the effectiveness of fish passage as required under ORS 509.610, and shall provide written status reports to ODFW's Fish Passage Program annually for the first three (3) years and then a final report at Year 5, or as determined by ODFW. Reports shall include photographs from established photo-points as part of the fish-passage evaluation and monitoring. Monitoring, evaluation, and reporting shall be conducted annually unless problems are observed that may require additional analysis. Fish passage reports shall consist of visual observations, photographs, as-built plan reviews, and future site visits with regards to fish passage at and through the project sites. Reports shall be submitted to the State Fish Passage Coordinator and the La Grande and Malheur Watershed District Fish Biologists. Electronic or hard copy submissions are acceptable.
7. Failure to maintain fish passage at these locations shall constitute a violation of these approvals and applicable fish passage laws (ORS 509.585 and 509.610).
8. ODFW shall be allowed to inspect the crossing sites at reasonable times for the duration of the approval. Unless prompted by emergency or other exigent circumstances, inspection shall be limited to regular and usual business hours, including weekends.
9. The appropriate ODFW District Fish Biologist shall be contacted 2-weeks in advance and prior to implementation of fish passage projects.
10. These fish passage approvals in no way authorize a take of a federally listed species.

[Fish Passage Condition 1; Final Order on ASC, AMD1]

5.3 Pre-Construction Conditions

STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
PRE-OE-01	<p>Prior to construction, the certificate holder shall notify the Department of the identity and qualifications of any construction managers, including the on-site construction manager(s), to demonstrate that the construction manager is qualified in managing facility construction and has the capability to ensure compliance with all site certificate conditions.</p> <p>[Organizational Expertise Condition 3; Final Order on ASC]</p>
PRE-OE-02	<p>Prior to construction, the certificate holder shall contractually require all construction contractors and subcontractors involved in the construction of the facility to comply with all applicable laws and regulations and with the terms and conditions of the site certificate. The certificate holder shall provide to the Department a copy of the executed contract terms requiring legal/site certificate compliance. Copies of the relevant contract terms may redact business confidential information. The contractors, on behalf of the certificate holder, may perform the requirements set forth in these site certificate conditions. However, such performance and such contractual provisions shall not relieve the site certificate holder of responsibility under the site certificate.</p> <p>[Organizational Expertise Condition 4; Final Order on ASC]</p>
PRE-OE-03	<p>Prior to construction of a phase or segment of the facility, as applicable, the certificate holder shall:</p> <ol style="list-style-type: none"> a. Submit to the Department and affected counties a list of third-party permits to be obtained or that have been obtained by Umatilla Electric Co-Op, Pacific Power and Oregon Trail Electric Cooperation for the communication station distribution lines. b. Prior to distribution line construction or track interconnection at communication stations, as applicable, submit to the Department copies of all obtained third party permits, as identified in (a) of this condition. <p>[Organizational Expertise Condition 7; Final Order on ASC]</p>
STANDARD: STRUCTURAL STANDARD (SS) [OAR 345-022-0020]	
PRE-SS-01	<p>At least 90 days prior to construction of a phase or segment of the facility, unless otherwise approved by the Department:</p> <ol style="list-style-type: none"> a. The certificate holder shall submit investigation plan(s), prepared by a professional engineer or geologist licensed in Oregon, for the pre-construction site-specific geologic and geotechnical investigation to the Department for review in consultation with DOGAMI. The investigation plan shall specify the investigation methods to be used to evaluate site-specific seismic and non-seismic hazards identified in (b) of this condition and should, at a minimum, be consistent with the Oregon State Board of Geologist Examiners Guideline for Preparing Engineering Geologic Reports and include methods for literature review, geotechnical field exploration program, laboratory testing, mapping and detailed site reconnaissance.

	<p>b. The certificate holder shall submit to the Department and DOGAMI pre-construction site-specific geological and geotechnical investigation reports (reports), prepared by a professional engineer or geologist licensed in Oregon, for review, demonstrating that the facility site has been adequately characterized and the facility and temporary construction activities have been designed and located to avoid seismic, soil and geologic hazards.</p> <p>i. The reports may be submitted in phases, based upon completion of the geotechnical investigation, and shall at a minimum include information derived from the geological and geotechnical investigations regarding:</p> <ol style="list-style-type: none"> 1. Subsurface soil and geologic conditions within the site micrositing areas boundary; 2. Site-specific geotechnical design criteria and data for the facility components informed by a Probabilistic Seismic Hazard Assessment and based on, at a minimum, identified fault sources, ground motion, site class for ground motion, and response spectra; 3. Potentially active faults that may affect the facility and their potential risk to the facility; 4. Potential slope instability and landslide hazards based on boring locations spaced approximately 1 mile along the alignment at dead-end structures; any corners or changes in alignment heading (angles); crossings of highways, major roads, rivers, railroads, and utilities as power transmission lines, natural gas pipelines, and canals; locations where blasting may occur; and, locations necessary to verify lithologic changes and/or geologic hazards such as landslides, steep slopes, or soft soil area. 5. Potential liquefaction hazards; 6. Potential soil expansion hazards; 7. Groundwater detections and any related potential risk to the facility; 8. Corrosive soils detections and any related potential risk to the facility; and 9. Facility components within the 100-year flood zone and any related potential risk to the facility 10. Define and delineate geological and geotechnical hazards to the facility and identify means to mitigate the identified hazards. 11. The report shall identify the applicable codes (i.e. Oregon Building Code, Oregon Structural Specialty Code), including name and reference number, that the facility components will be designed to satisfy. <p>[Structural Standard Condition 1; Final Order on ASC, AMD1]</p>
<p>STANDARD: LAND USE (LU) [OAR 345-022-0030]</p>	
<p>PRE-LU-01</p>	<p>Prior to construction of any phase or segment of facility components in Umatilla County, the certificate holder shall work with the Public Works Department on building standards for the road improvements and construction, and for any roads constructed in forest lands in Umatilla County, the certificate holder will ensure road construction is consistent with the Oregon Forest Practices Act.</p> <p>[Land Use Condition 4; Final Order on ASC]</p>

<p>PRE-LU-02</p>	<p>Prior to construction of any phase or segment of the facility in Baker County, the certificate holder shall provide to the Baker County Planning Department a list of the suppliers that will be supplying the aggregate used in construction in Baker County along with a copy of the suppliers' land use permits. [Land Use Condition 8; Final Order on ASC]</p>
<p>STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]</p>	
<p>PRE-RT-01</p>	<p>Consistent with Mandatory Condition OAR 345-025-0006(8), before beginning construction of the facility or phase or segment of the facility, the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. During the construction phase (defined as the period of time from the beginning of construction as defined in ORS 469.300(6) to the date when the facility is placed in service), the certificate holder shall adjust the amount of the bond or letter of credit on a quarterly basis, as follows:</p> <ol style="list-style-type: none"> a. The amount of the bond or letter of credit will be increased on a quarterly basis to correspond with the progress of the construction of the facility at the beginning of each quarter. The amount of the bond or letter of credit at the beginning of any such quarterly period will be equal to the product of (i) the estimated total decommissioning cost for the facility, adjusted for inflation, as specified in section (c) of this condition; and (ii) a fraction, the numerator of which is the number of quarters that have passed since commencement of construction, and the denominator of which will be the number of quarters during which the certificate holder must complete the construction phase; provided that in all cases the number resulting from the calculation shall not exceed 1.0. b. The certificate holder and the Department shall assume a four-year construction phase comprising sixteen quarterly periods. Therefore, for the first quarter of the construction phase, the bond or letter of credit will be maintained in an amount equal to one-sixteenth (1/16) of the total estimated decommissioning cost specified in section (c) of this condition. At the end of the first year of construction—i.e., four quarters—the amount of the bond or letter of credit will be equal to four-sixteenths (4/16) of the total estimated decommissioning costs. c. The estimated total decommissioning cost for the facility is \$140,779,000 (3rd Quarter 2016 dollars), to be adjusted to the date of issuance of the bond or letter of credit, and on a quarterly basis thereafter during the construction phase. For the purposes of calculating the bond or letter of credit amount required by section (a) of this condition, the certificate holder shall adjust the estimated total decommissioning cost using the following calculation: <ol style="list-style-type: none"> ii. Adjust the estimated decommissioning cost to correspond with the progress of the construction of the facility at the beginning of each quarter, based on the unit costs and assumptions identified in the Final Order on the ASC, Attachment W-1.

	<ul style="list-style-type: none"> iii. Adjust the estimated total decommissioning cost (expressed in Q3 2016 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services’ “Oregon Economic and Revenue Forecast” or by any successor agency and using the third quarter 2016 index value and the quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust third quarter 2016 dollars to present value. iv. Round the result total to the nearest \$1,000 to determine the inflation-adjusted estimated total decommissioning cost. d. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council. e. The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080(1)(b). The bond or letter of credit shall not be subject to revocation or reduction before the facility has been placed in service, at which time the certificate holder must provide the bond or letter of credit specified in Retirement and Financial Assurance Condition 5. f. The amount of the bond or letter of credit may be amended from time to time by agreement of the certificate holder and the Department to account for adjustments in the construction schedule. Subject to Department approval, the certificate holder may request an adjustment of the bond or letter of credit amount based on final design configuration of the facility by applying the unit costs and assumptions presented in the Final Order on the ASC, Attachment W-1. Such adjustments may be made without amendment to the site certificate. The Council authorizes the Department to agree to these adjustments in accordance with this condition. <p>[Retirement and Financial Assurance Condition 4; Final Order on ASC]</p>
<p>STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]</p>	
<p>PRE-FW-01</p>	<p>Prior to construction of a phase or segment of the facility, the certificate holder shall conduct, as applicable, the following biological surveys on those portions of the site boundary or micrositing areas that have not been surveyed at the time of issuance of the site certificate or amended site certificates, based on the survey protocols included in ASC Exhibit P Attachment P1-2 Revised Final Biological Survey Work Plan, unless otherwise approved by the Department in consultation with ODFW:</p> <ul style="list-style-type: none"> a. Northern Goshawk; b. American Three-Toed Woodpecker; c. Great Gray Owl; d. Flammulated Owl; e. Terrestrial Visual Encounter Surveys; f. Wetlands; and g. Fish Presence and Crossing Assessment Surveys. <p>[Fish and Wildlife Condition 15; Final Order on ASC]</p>

<p>PRE-FW-02</p>	<p>Prior to construction of a phase or segment of the facility, the certificate holder shall conduct, as applicable, the following biological surveys on all portions of micrositing areas the site boundary, regardless of whether those portions have been surveyed at the time of issuance of the site certificate, based on the survey protocols included in ASC Exhibit P Attachment P1-2 Revised Final Biological Survey Work Plan, unless otherwise approved by the Department in consultation with ODFW:</p> <ul style="list-style-type: none"> a. Washington ground squirrels; b. Raptor nests; c. Pygmy rabbits; d. State-listed Threatened and Endangered plants e. Greater sage-grouse, as necessary for the State of Oregon to calculate the amount of sage-grouse habitat compensatory mitigation required for the facility using Oregon’s Sage-Grouse Habitat Quantification Tool. <p>[Fish and Wildlife Condition 16; Final Order on ASC]</p>
<p>PRE-FW-03</p>	<p>At least 90 days prior to construction of a facility phase or component in sage-grouse habitat as mapped by the Oregon Department of Fish and Wildlife (ODFW) at that time, unless otherwise agreed to by the Department, the certificate holder shall finalize, and submit to the Department for its approval, in consultation with ODFW, a final Sage-Grouse Habitat Mitigation Plan for the phase or segment to be constructed.</p> <ul style="list-style-type: none"> a. The certificate holder shall provide to the Department the information necessary for the State of Oregon to calculate the amount of sage-grouse habitat compensatory mitigation required for the facility using Oregon’s Sage-Grouse Habitat Quantification Tool (HQT). b. The final Sage-Grouse Habitat Mitigation Plan shall address the potential sage-grouse habitat impacts through mitigation banking, an in-lieu fee program, development of mitigation projects by the certificate holder, or a combination of the same. <ul style="list-style-type: none"> i. To the extent the certificate holder develops its own mitigation projects, the final Sage-Grouse Habitat Mitigation Plan shall: <ol style="list-style-type: none"> 1. Identify the location of each mitigation site, including a map of the same; 2. Identify the number of credit-acres that each mitigation site will provide for the certificate holder, including results of the HQT results for the site and mitigation actions; 3. Include a site-specific mitigation management plan for each mitigation site that provides for: <ul style="list-style-type: none"> A. A baseline ecological assessment; B. Conservation actions to be implemented at the site; C. An implementation schedule for the baseline ecological assessment and conservation actions; D. Performance measures and success criteria for mitigation actions; E. Adaptive management considerations for changes in habitat conditions or a results of catastrophic fire;

- F. Weed management plan;
 - G. A reporting plan;
 - H. A monitoring plan; and;
 - I. A description of how the durability of the mitigation site will be achieved, including but not limited to, any long-term stewardship plans and financial assurances.
- ii. To the extent the site certificate utilizes a mitigation bank or in-lieu fee program, the final Sage-Grouse Habitat Mitigation Plan shall:
 - 1. Describe the nature, extent, and history of the mitigation bank or in-lieu fee program;
 - 2. Identify the number of credit-acres that each mitigation site will provide for the certificate holder, and;
 - 3. Demonstrate that ODFW has approved the program to fulfill sage-grouse habitat mitigation requirements.
 - iii. The final Sage-Grouse Habitat Mitigation Plan shall include compensatory mitigation sufficient to address impacts from, at a minimum, all facility components ~~except indirect impacts from existing access roads substantially modified for the facility (related or supporting facilities). For calculation purposes, new facility roads with access control will be assigned a “no-traffic” designation, and new roads without access control will be assigned a “low-traffic” designation.~~ As referenced in Fish and Wildlife Condition 19, the certificate holder shall demonstrate during or about the third year of operation that sage-grouse habitat mitigation shall be commensurate with the final compensatory mitigation calculations, either by showing the already-implemented mitigation is sufficient to cover all facility component impacts, or by proposing additional mitigation to address any impacts incremental to the initial calculation. The final compensatory mitigation calculations must be based on the as-constructed facility as well as the ~~pre-and~~ post- construction access control study traffic studies, and must include the addition of indirect impacts from substantially modified existing access roads.
 - c. Oregon’s Sage-Grouse Habitat Quantification Tool shall be used to calculate the amount of sage-grouse habitat compensatory mitigation required for the facility and the number of credit-acres that each mitigation site will provide for the certificate holder.
 - d. Prior to construction of a phase or segment in sage-grouse habitat as mapped by the Oregon Department of Fish and Wildlife (ODFW) at that time and based on final facility design, Oregon’s Sage-Grouse Development Registry shall be used to calculate and verify compliance with the metering and disturbance thresholds established at OAR 660-023-0115(16) and (17). Evidence of compliance must be provided to the Department prior to construction.
 - e. The Sage-Grouse Habitat Mitigation Plan may be amended from time to time by agreement of the certificate holder and the department. Such amendments may be made without amendment to the site certificate. The Council authorizes the

	<p>Department to agree to amendments of the plan and to mitigation actions that may be required under the plan; however, the Council retains the authority to approve, reject, or modify any amendment of the plan agreed to by the Department.</p> <p>[Fish and Wildlife Condition 17; Final Order on ASC, AMD2]</p>
<p>PRE-FW-04</p>	<p>Prior to construction of a phase or segment of the facility, the certificate holder shall conduct a one-year traffic study in elk habitat (elk summer range and elk winter range, based on the most recent ODFW maps available at the time) and sage grouse habitat (areas of high population richness, core area habitat, low density habitat, and general habitat, based on most recent ODFW maps available at the time). The certificate holder shall submit the traffic study to the Department for its review and approval in consultation with ODFW.</p> <p>[Fish and Wildlife Condition 21; Final Order on ASC, AMD2]</p>
<p>STANDARD: PUBLIC SERVICES (PS) [OAR 345-022-0110]</p>	
<p>PRE-PS-01</p>	<p>Prior to construction within Malheur County,</p> <ol style="list-style-type: none"> a. The certificate holder shall consult with the Owyhee Irrigation District on the segment between Milepost 255 and 258. Consultation shall present results of the geotechnical studies within this segment area, evaluate structure interference with irrigation structures, and confirm adequate clearance to minimize impacts to irrigation canal structures. b. The certificate holder shall develop mitigation for any agreed upon impacts from construction and operation of the facility to the South Canal of the Owyhee Project and any other impacted irrigation pipelines or equipment as determined appropriate by the certificate holder and Owyhee Irrigation District. A copy of any finalized agreement shall be submitted to the Department. <p>[Public Services Condition 1; Final Order on ASC]</p>
<p>PRE-PS-02</p>	<p>At least 90 days prior to construction of a facility phase or segment in each affected county and jurisdiction, unless otherwise approved by the Department, the certificate holder shall complete the following to address traffic impacts and transportation coordination in each county and jurisdiction:</p> <ol style="list-style-type: none"> a. The certificate holder shall, in accordance with the OAR 345-025-0016 agency consultation process outlined in the draft Transportation and Traffic Plan (Attachment U-2 of the Final Order on the ASC) submit to the Department for review and approval, a final county-specific Transportation and Traffic Plan associated with the phase or segment of the facility to be constructed. The protective measures described in the draft Transportation and Traffic Plan, Attachment U-2 to the Final Order on the ASC, shall be included and implemented as part of the final county-specific Plan, unless otherwise approved by the Department, in consultation with the county or jurisdiction; b. The final county-specific Transportation and Traffic Plan submitted to the Department, county, and jurisdictions shall include:

	<ul style="list-style-type: none"> i. The identification of the final material/equipment transportation, access, and haul routes and documentation of the existing condition of the routes/roads; ii. Attachment B-5 Road Classification Guide and Access Control Plan attached to the Final Order on RFA2 the ASC and Final Order on RFA1 updated to reflect the final design of the facility. Include applicable road segment maps with road names for existing public roads, road names in Appendix A: Access Road Segment Attribute Table, road improvements designations, and final access control device description and locations; <ul style="list-style-type: none"> 1. If, at final facility design, substantial modification of existing roads not identified as related or supporting facilities in Attachment B-5 (maps) of the Final Order on RFA2 the ASC is necessary, the certificate holder must submit an Amendment Determination Request (OAR 345-027-0357), or submit a site certificate amendment request to the Department, prior to the modification to determine whether the road modifications are related or supporting facilities. Substantial modification of existing roads shall be as defined in Attachment B-5, which includes repairs to more than 20 percent of road surface, defined by the road prism width and longitudinal distance over a defined road segment. iii. List any road use permits, encroachment permits, oversize/overweight permits, or road use or other legal agreements obtained by the construction contractor or certificate holder. c. The final Transportation and Traffic Plan for a phase or segment of the facility must be approved by the Department, in consultation with each county or jurisdiction, prior to construction. d. Prior to construction or road modification in any area designated as a geologic hazard zone by Oregon Department of Geology and Mineral Industries (DOGAMI) data and maps (e.g., as landslide or debris flow fan), or by relevant local zoning ordinances and maps, the site certificate holder and/or its construction contractors will consult with a licensed civil engineer to assess the proposed construction or road design in relation to potential geologic hazards. <p>[Public Services Condition 2; Final Order on ASC; RFA2]</p>
<p>PRE-PS-03</p>	<p>Prior to construction of any phase or segment of the facility, the certificate holder shall submit to the Federal Aviation Administration (FAA) and the Oregon Department of Aviation (ODA) a FAA Form 7460-1 Notice of Proposed Construction or Alteration for transmission structures within 5-miles of a public airport (La Grande /Union County Airport and Baker City Airport) and cranes exceeding 200 feet in height. The certificate holder shall submit to the Department a copy of the FAA and ODA hazard determinations.</p> <p>[Public Services Condition 4; Final Order on ASC]</p>

<p>PRE-PS-04</p>	<p>At least 90 days prior to construction of a facility phase or segment, unless otherwise agreed to by the Department, the certificate holder shall submit to the Department a proposed Environmental and Safety Training Plan, for review and approval by the Department, in consultation with each county and the medical response entities identified in the plan. The plan must include at a minimum, the following elements:</p> <ul style="list-style-type: none"> a. Measures for securing multi-use areas and work sites when not in use; b. Drug/alcohol/firearm policies with clear consequences for violations; and c. An emergency and medical response plan including: <ul style="list-style-type: none"> i) Contact information for federal, state, and county emergency management services; ii) Emergency response procedures for helicopter emergency response, spill reporting, hospitals closest to the transmission line route, and any other emergency response procedures; iii) Landing locations for medical emergency life-flights. d. Requirements for training workers on the contents of the plan. e. The certificate holder shall maintain copies of the Environmental and Safety Training Plan onsite and conduct all work in compliance with the plan during construction and operation of the facility. <p>[Public Services Condition 5; Final Order on ASC]</p>
<p>STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [DIVISION 24]</p>	
<p>PRE-TL-01</p>	<p>Prior to construction, the certificate holder shall schedule a time to brief the Public Utility Commission Safety, Reliability, and Security Division (Safety) Staff as to how it will comply with OAR Chapter 860, Division 024 during design, construction, operations, and maintenance of the facilities. The certificate holder shall notify the Department how and when it briefed the Public Utility Commission staff.</p> <p>[Siting Standards for Transmission Lines Condition 4; Final Order on ASC]</p>
<p>STANDARD: REMOVAL FILL LAW (RF) [OAR 141-085-0500 through -0785]</p>	
<p>PRE-RF-01</p>	<p>The certificate holder shall:</p> <ul style="list-style-type: none"> a. Prior to construction of a phase or segment of the facility, as applicable, submit updated electronic wetland delineation report(s) to the Department and to the Oregon Department of State Lands. All wetland delineation report(s) submitted to the Oregon Department of State Lands shall follow its submission and review procedures. b. Prior to construction of a phase or segment of the facility, as applicable, the Department must receive a Letter of Concurrence issued by the Oregon Department of State Lands referencing the applicable wetland delineation for the phase or segment of the facility. <p>[Removal Fill Condition 1; Final Order on ASC]</p>
<p>PRE-RF-02</p>	<p>Prior to construction of a phase or segment of the facility, the certificate holder shall provide an electronic copy of the updated Joint Permit Application (JPA) to the Department.</p> <p>[Removal Fill Condition 4; Final Order on ASC]</p>

5.4 Construction Conditions

Condition Number	(Site certificate conditions for all standards and phases)
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
CON-GS-01	<p>Within six months after the Construction Commencement Deadline in General Standard of Review Condition 1, and every six months thereafter during construction of the facility and related or supporting facilities, the certificate holder shall submit a semiannual construction progress report to the Department consistent with OAR 345-026-0080(1)(a). To the extent that information required by this rule is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule, unless otherwise required by a site certificate condition.</p> <p>[General Standard of Review Condition 3; Final Order on ASC]</p>
CON-GS-02	<p>The certificate holder may begin construction, as defined in OAR 345-001-0010(12), or create a clearing on a part of the site if the certificate holder has construction rights on that part of the site and the certificate holder would construct and operate part of the facility on that part of the site even if a change in the planned route of transmission line occurs during the certificate holder’s negotiations to acquire construction rights on another part of the site.</p> <p>[General Standard of Review Condition 7; Mandatory Condition OAR 345-025-0006(5); Final Order on ASC]</p>
STANDARD: LAND USE (LU) [OAR 345-022-0030]	
CON-LU-01	<p>During construction in Baker County, the certificate holder shall construct the facility to comply with the following setback distances and other requirements:</p> <p><u>In the EFU Zone (Based solely on certificate holder representations in the ASC):</u></p> <ol style="list-style-type: none"> Buildings shall be setback as follows: front yards shall be set back at least 20 feet from property lines and road rights-of-way. Buildings and the fixed bases of transmission line towers shall be set back at least 60 feet from the center line of a road or street or 30 feet from any right-of-way in excess of 60 feet. Buildings and the fixed bases of transmission line towers shall be set back at least 10 feet from property lines. Buildings and the fixed bases of the transmission line towers shall be set back at least 50 feet from the high-water mark of naturally-occurring riparian area, bog, marsh, or waterway. <p>[Land Use Condition 10; Final Order on ASC]</p>
CON-LU-02	<p>Within 90-days of construction within Union County, if the Morgan Lake alternative route segment is selected at final facility design, the certificate holder shall provide the Department a copy of the Memorandum of Agreement, if executed, between the City of La Grande and certificate holder for improvements at Morgan Lake Park.</p>

	[Land Use Condition 17; Final Order on ASC]
STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]	
CON-FW-01	<p>During construction, the certificate holder shall not conduct ground-disturbing activities within elk or mule deer winter range between December 1 to March 31. Upon request by the certificate holder, the Department in consultation with ODFW may provide exceptions to this restriction. The certificate holder’s request must include a justification for the request, including any actions the certificate holder will take to avoid, minimize, or mitigate impacts to elk and mule deer in the relevant area.</p> <p>[Fish and Wildlife Condition 11; Final Order on ASC]</p>
CON-FW-02	<p>During construction, if active pygmy rabbit colonies or the roost of a State Sensitive bat species is observed during the biological surveys set forth in Fish and Wildlife Conditions 15 and 16, the certificate holder shall submit to the Department for its approval a notification addressing the following:</p> <ol style="list-style-type: none"> Identification of the State Sensitive bat species observed; Location of pygmy rabbit colony or bat roost; and Any actions the certificate holder will take to avoid, minimize, or mitigate impacts to pygmy rabbit colony or bat roost. The Department in consultation with the Oregon Department of Fish and Wildlife (ODFW) will review and approve the proposed avoidance, minimization, or mitigation measures prior to the action by the certificate holder to impact State Sensitive bat species roosts or hibernacula. <p>[Fish and Wildlife Condition 12; Final Order on ASC, AMD2]</p>
CON-FW-03	<p>During construction, if the certificate holder will be conducting ground-disturbing activities during the migratory bird nesting season between April 1 and July 15, the certificate holder shall conduct, as applicable, biological surveys for native, non-raptor bird species nests on all portions of micrositing areas the site boundary a maximum of 7 days prior to ground-disturbing activities, regardless of whether those portions have been previously surveyed. If the certificate holder identifies a native, non-raptor bird species nest, the certificate holder shall submit to the Department for its approval a notification addressing the following:</p> <ol style="list-style-type: none"> Identification of the native, non-raptor species observed; Location of the nest; and Any actions the certificate holder will take to avoid, minimize, or mitigate impacts to the nest. <p>[Fish and Wildlife Condition 13; Final Order on ASC, AMD2]</p>

<p>CON-FW-04</p>	<p>During construction, the certificate holder shall not conduct ground-disturbing activities within the following timeframes and spatial buffers surrounding occupied nests of certain raptor species. Upon request by the certificate holder, the Department in consultation with ODFW may provide exceptions to this restriction. The certificate holder’s request must include a justification for the request, including any actions the certificate holder will take to avoid, minimize, or mitigate impacts to the raptor and its nest.</p> <table border="1"> <thead> <tr> <th colspan="3">Raptor Nest Buffers</th> </tr> <tr> <th>Nesting Species</th> <th>Spatial Buffers (radius around nest site):</th> <th>Temporal Restrictions</th> </tr> </thead> <tbody> <tr> <td>Bald eagle</td> <td>0.5 mile</td> <td>January 1 to August 15</td> </tr> <tr> <td>Golden eagle</td> <td>0.5 mile</td> <td>February 1 to August 15</td> </tr> <tr> <td>Ferruginous hawk</td> <td>0.50 mile</td> <td>March 15 to August 15</td> </tr> <tr> <td>Flammulated owl</td> <td>0.25 mile</td> <td>March 1 to August 15</td> </tr> <tr> <td>Great gray owl</td> <td>0.25 mile</td> <td>March 1 to August 15</td> </tr> <tr> <td>Northern goshawk</td> <td>0.5 mile</td> <td>May 1 to August 15</td> </tr> <tr> <td>Peregrine falcon</td> <td>0.25 mile</td> <td>January 1 to July 1</td> </tr> <tr> <td>Prairie falcon</td> <td>0.25 mile</td> <td>March 15 to July 1</td> </tr> <tr> <td>Red-tailed hawk</td> <td>300 to 500 feet</td> <td>March 1 to August 15</td> </tr> <tr> <td>Swainson’s hawk</td> <td>0.25 mile</td> <td>April 1 to August 15</td> </tr> <tr> <td>Western burrowing owl</td> <td>0.25 mile</td> <td>April 1 to August 15</td> </tr> </tbody> </table> <p>[Fish and Wildlife Condition 14; Final Order on ASC]</p>	Raptor Nest Buffers			Nesting Species	Spatial Buffers (radius around nest site):	Temporal Restrictions	Bald eagle	0.5 mile	January 1 to August 15	Golden eagle	0.5 mile	February 1 to August 15	Ferruginous hawk	0.50 mile	March 15 to August 15	Flammulated owl	0.25 mile	March 1 to August 15	Great gray owl	0.25 mile	March 1 to August 15	Northern goshawk	0.5 mile	May 1 to August 15	Peregrine falcon	0.25 mile	January 1 to July 1	Prairie falcon	0.25 mile	March 15 to July 1	Red-tailed hawk	300 to 500 feet	March 1 to August 15	Swainson’s hawk	0.25 mile	April 1 to August 15	Western burrowing owl	0.25 mile	April 1 to August 15
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<p>CON-FW-05</p>	<p>During construction of a facility phase or component in sage-grouse habitat as mapped by the Oregon Department of Fish and Wildlife (ODFW) at that time, the certificate holder shall implement the conservation actions set forth in the final Sage-Grouse Habitat Mitigation Plan referenced in Fish and Wildlife Condition 17 within six months of the impact actions.</p> <p>[Fish and Wildlife Condition 18; Final Order on ASC]</p>																																							
<p>CON-FW-06</p>	<p>During construction, the certificate holder shall not conduct ground-disturbing activities within sage-grouse areas of high population richness, core area habitat, low density habitat, or general habitat between March 1 to June 30. Upon request by the certificate holder, the Department in consultation with ODFW may provide exceptions to this restriction. The certificate holder’s request must include a justification for the exception, including any actions the certificate holder will take to avoid, minimize, or mitigate impacts to sage-grouse in the relevant area.</p> <p>[Fish and Wildlife Condition 20; Final Order on ASC]</p>																																							
<p>STANDARD: THREATENED AND ENDANGERED SPECIES (TE) [OAR 345-022-0070]</p>																																								
<p>CON-TE-01</p>	<p>During construction, the certificate holder shall not conduct ground-disturbing activities within Category 1 Washington ground squirrel (WAGS) habitat, subject to the following:</p> <p>a. The identification and categorization of WAGS habitat shall be based on the</p>																																							

	<p>surveys referenced in Fish and Wildlife Condition 16 and the results of the surveys shall apply for up to three years.</p> <ul style="list-style-type: none"> b. The certificate holder may span Category 1 WAGS habitat and may work within Category 1 WAGS habitat, provided such work does not cause any ground disturbance. c. The results of the surveys completed per Fish and Wildlife Condition 16 shall remain valid for 3 years. If, during construction and within three years of the protocol survey, an occupied WAGS colony is encountered, the habitat category identified during the protocol survey shall remain valid (i.e. habitat not considered Category 1); the certificate holder shall submit to the Department for its approval, in consultation with ODFW, a notification addressing the following: <ul style="list-style-type: none"> i. Location of the burrow or colony; and ii. Any actions the certificate holder will take to avoid, minimize, or mitigate impacts to the colony. <p>[Threatened and Endangered Species Condition 1; Final Order on ASC]</p>
<p>CON-TE-02</p>	<p>During construction, the certificate holder shall not conduct ground-disturbing activities within a 33-foot buffer around <u>state-listed</u> threatened or endangered (T&E) plant species, based on pre-construction field surveys required per site certificate condition Fish and Wildlife Habitat 16, subject to the following:</p> <ul style="list-style-type: none"> a. <u>Certificate holder shall demonstrate that final facility design includes avoidance through micrositing, consistent with the avoidance presented in RFA2 Attachment 7-11. Prior to construction within 33-feet of documented T&E plant species occurrences, as presented in RFA2 Attachment 7-11 Table 1, certificate holder shall submit a final micrositing evaluation that maximizes impact avoidance, subject to review and approval by the Department in consultation with ODAg. If the Department, in consultation with ODAg, determine that the certificate holder has demonstrated that</u> complete avoidance is not possible (for example, if the threatened or endangered plant species is located within 33 feet of an existing road where upgrades are authorized) <u>for the RFA2 Attachment 7-11 occurrence locations or other areas affected by final facility location, the certificate holder shall implement mitigation including but not limited to seed collection and long-term conservation storage, transplanting and seeding, and research/monitoring activities. The mitigation agreement shall be substantially similar to the draft mitigation agreement provided in Attachment 5 of the Final Order on Amendment 2. shall install temporary construction mats over soils where the threatened or endangered plant species have been observed and where construction vehicles will be operated;</u> and b. If herbicides are used to control weeds, the certificate holder shall follow agency guidelines including guidelines recommended by the herbicide manufacturer, in establishing buffer areas around confirmed populations of threatened or endangered plant species and refrain from using herbicides within those buffers. <p>[Final Order on ASC, <u>AMD2</u>]</p>

	[Threatened and Endangered Species Condition 2; Final Order on ASC]
STANDARD: NOISE CONTROL REGULATIONS (NC) [OAR 340-035-0035]	
CON-NC-01	<p>During construction, the certificate holder shall implement the following design measures and construction techniques to minimize potential corona noise during operations:</p> <ol style="list-style-type: none"> For 500 kV transmission lines, use a triple bundled conductor configuration. Maintain tension on all insulator assemblies to ensure positive contact between insulators. Protect conductor surface to minimize scratching or nicking. <p>[Noise Control Condition 3; Final Order on ASC]</p>

5.5 Operational Conditions

Condition Number	(Site certificate conditions for all standards and phases)
STANDARD: GENERAL STANDARD OF REVIEW (GS) [OAR 345-022-0000]	
OPR-GS-01	<p>After January 1 but no later than April 30 of each year after beginning operation of the facility, unless otherwise agreed upon by the certificate holder and the Council Secretary, the certificate holder shall submit an annual report to the Department addressing the subjects listed in OAR 345-026-0080(1)(b). To the extent that information required by this rule is contained in reports the certificate holder submits to other state, federal or local agencies, the certificate holder may submit excerpts from such other reports to satisfy this rule, unless otherwise required by a site certificate condition.</p> <p>[General Standard of Review Condition 4; Final Order on ASC]</p>
OPR-GS-02	<p>The certificate holder shall submit a legal description of the site to the Department, Malheur County Planning Department, Baker County Planning Department, Union County Planning Department, Umatilla County Planning Department, and Morrow County Planning Department within 90 days after beginning operation of the facility. The legal description required by this rule means a description of metes and bounds or a description of the site by reference to a map and geographic data that clearly and specifically identify the outer boundaries that contain all parts of the facility.</p> <p>[General Standard of Review Condition 5; Mandatory Condition OAR 345-025-0006(2); Final Order on ASC]</p>
OPR-GS-03	<p>Upon completion of construction, the certificate holder shall restore vegetation to the extent practicable and shall landscape all areas disturbed by construction in a manner compatible with the surroundings and proposed use. Upon completion of construction, the certificate holder shall remove all temporary structures not required for facility operation and dispose of all timber, brush, refuse and flammable or combustible material resulting from clearing of land and construction of the facility.</p>

	[General Standard of Review Condition 9; Mandatory Condition OAR 345-025-0006(11); Final Order on ASC]
STANDARD: ORGANIZATIONAL EXPERTISE (OE) [OAR 345-022-0010]	
OPR-OE-01	<p>During operations, the certificate holder shall provide documentation of inspection, including date inspection(s) occurred, issues identified, and any corrective actions taken, within the annual report submitted to the Department pursuant to OAR 345-026-0080(1)(b), for the following:</p> <ol style="list-style-type: none"> Transmission line(s): Routine line patrols/inspections, unscheduled emergency line patrols, aerial vegetation patrols, and comprehensive 10-year maintenance inspection conducted in accordance with its Transmission Maintenance and Inspection Plan and Transmission Vegetation Management Program. Longhorn Station, <u>if applicable</u>: Monthly inspections including visual inspections of buildings, fencing, and electrical equipment; monitoring of all protective relays, gauges, counters, meters, and communication devices; and, annual infrared assessment of bus and operating equipment carrying capacity in accordance with the Station Maintenance Program. <u>Midline Capacitor Station: Monthly inspections in accordance with the Station Maintenance Program; and annual infrared assessments.</u> <p>[Organizational Expertise Condition 1; Final Order on ASC; AMD2]</p>
STANDARD: SOIL PROTECTION (SP) [OAR 345-022-0022]	
OPR-SP-01	<p>During operation, the certificate holder shall inspect the facility components for soil erosion impacts as part of the certificate holder’s regular transmission line inspection process and shall implement corrective action and mitigation measures, if necessary.</p> <p>[Soil Protection Condition 5; Final Order on ASC]</p>
STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
OPR-RT-01	<p>Consistent with Mandatory Condition OAR 345-025-0006(8), no later than the date the facility is placed in service (the In-Service Date), the certificate holder shall submit to the State of Oregon, through the Council, a bond or letter of credit naming the State of Oregon, acting by and through the Council, as beneficiary or payee. The certificate holder shall maintain a bond or letter of credit as follows:</p> <ol style="list-style-type: none"> Notwithstanding subsections (b) – (g) of this condition, the Council retains the authority to require the certificate holder to submit a bond or letter of credit, in a timeframe identified by Council, and in an amount equal to the estimated total decommissioning cost for the facility (\$140,779,000 in 3rd Quarter 2016 dollars adjusted to present day value), or another amount deemed by the Council to be satisfactory to decommission the facility and restore the site to a useful, nonhazardous condition. From the In-Service Date until In-Service Year 51, the amount of bond or letter of credit shall be \$1.00. On the 50th anniversary of the In-Service Date, the certificate holder shall begin maintaining a bond or letter of credit in an amount that will increase on an annual basis for the next 50 years. In year 51, the amount of the bond or letter of credit will be set at one-fiftieth (1/50) of the total estimated decommissioning

costs, adjusted for inflation, as specified in section (e) of this condition. Each year, through the 100th year of service, the bond or letter of credit shall be increased by one-fiftieth (1/50) of the estimated decommissioning costs. Once the bond or letter of credit is in an amount equal to 100 percent of decommissioning costs, it will remain at that level for the life of the facility.

- d. On the fifth anniversary of the In-Service Date, and on each subsequent quinquennial thereafter, or any year if requested by Council, the certificate holder shall notify the Department 60 days prior and report to the Council in writing or in-person on the following subjects for the prior 5-year reporting period: (i) the physical condition of the facility; (ii) any evolving transmission or electrical technologies that could impact the continued viability of the facility; (iii) the facility's performance in the context of the larger power grid; and (iv) the certificate holder's general financial condition, including the certificate holder's credit rating and current financial statements for that 5-year reporting period. The Department shall review the 5-year report and may engage its consultant in the review of the 5-year report. The Department may also include other information in its evaluation of the 5 year-report, including but not limited to: expertise of other reviewing agencies and internal Department staff, consultation with industry experts, or other consulting parties. The certificate holder shall be responsible for all costs associated with review of the 5-year report, in accordance with applicable rules and statutes. Based on the information provided in the 5-year report, and the Department's review and recommendations, the Council will consider whether the certificate holder should be required to post a bond or letter of credit that varies from the financial assurance requirements set forth in sections (b) and (c) of this condition. The certificate holder shall be subject to Council's determination. The Council's determination may include extending the date on which the certificate holder would be required to begin posting the financial assurances set forth in section (c) of this condition.
- e. The estimated total decommissioning cost for the facility is \$140,779,000 (3rd Quarter 2016 dollars), to be adjusted to the date of issuance of the bond or letter of credit in In-Service Year 51, and on an annual basis thereafter. Subject to Department approval, the certificate holder may request an adjustment of the bond or letter of credit amount based on final design configuration of the facility by applying the unit costs and assumptions presented in the Final Order on the ASC, Attachment W-1. Such adjustments may be made without amendment to the site certificate. The Council authorizes the Department to agree to these adjustments in accordance with this condition. The certificate holder shall adjust the decommissioning cost for inflation using the following calculation:
- i. Adjust the estimated total decommissioning cost (expressed in Q3 2016 dollars) to present value, using the U.S. Gross Domestic Product Implicit Price Deflator, Chain-Weight, as published in the Oregon Department of Administrative Services' "Oregon Economic and Revenue Forecast" or by any successor agency and using the third quarter 2016 index value and the

	<p>quarterly index value for the date of issuance of the new bond or letter of credit. If at any time the index is no longer published, the Council shall select a comparable calculation to adjust third quarter 2016 dollars to present value.</p> <p>ii. Round the result total to the nearest \$1,000 to determine the inflation-adjusted estimated total decommissioning cost.</p> <p>f. The certificate holder shall use an issuer of the bond or letter of credit approved by the Council.</p> <p>g. The certificate holder shall use a form of bond or letter of credit approved by the Council. The certificate holder shall describe the status of the bond or letter of credit in the annual report submitted to the Council under OAR 345-026-0080(1)(b). The certificate holder shall maintain a bond or letter of credit in effect at all times as described in this condition and Retirement and Financial Assurance Condition 4 until the facility has been retired.</p> <p>[Retirement and Financial Assurance Condition 5; Final Order on ASC]</p>
<p>STANDARD: FISH AND WILDLIFE HABITAT (FW) [OAR 345-022-0060]</p>	
<p>OPR-FW-01</p>	<p>During the third year of operation, the certificate holder shall provide to the Department a report demonstrating that fish and wildlife habitat mitigation is commensurate with the final compensatory mitigation calculations.</p> <p>a. The final calculations shall be based on the as-constructed facility.</p> <p>b. Oregon’s Elk Mitigation Framework shall be used to calculate the amount of elk habitat compensatory mitigation required for the facility, and the information from the pre- and post-construction traffic studies, as required by Fish and Wildlife Conditions 21 and 22, shall be used in the calculation.</p> <p>[Fish and Wildlife Condition 5; Final Order on ASC]</p>
<p>OPR-FW-02</p>	<p>During operation, the certificate holder shall employ access control on facility access roads within elk habitat (elk summer range and elk winter range) and sage-grouse habitat (areas of high population richness, core area habitat, low density habitat, or general habitat), subject to approval by the applicable land-management agency or landowner.</p> <p>[Fish and Wildlife Condition 9; Final Order on ASC]</p>
<p>OPR-FW-03</p>	<p>During the third year of operation, the certificate holder shall provide to the Department and ODFW the data from the traffic studies <u>access control study</u> in Fish and Wildlife Conditions s-21 and 22 for ODFW to calculate the final amount of indirect impact from facility roads that are considered related or supporting facilities to sage-grouse habitat and corresponding compensatory mitigation required using Oregon’s Sage-Grouse Habitat Quantification Tool. After receiving the calculations from the State, the certificate holder shall provide to the Department a report demonstrating that sage-grouse habitat mitigation shall be commensurate with the final compensatory mitigation calculations.</p> <p>a. The final calculations shall be based on the as-constructed facility.</p> <p>b. Oregon’s Sage-Grouse Habitat Quantification Tool shall be used to calculate the amount of sage-grouse habitat compensatory mitigation required for the facility,</p>

	<p>and the information from the pre-and post-construction <u>access control study traffic studies</u> shall be used in the calculation. [Fish and Wildlife Condition 19; Final Order on ASC, AMD2]</p>
OPR-FW-04	<p>During the second year of facility operation, the certificate holder shall conduct a one-year traffic study in elk habitat (elk summer range and elk winter range, based on the same maps used for the pre-construction traffic study). <u>During the second year of facility operation, the certificate holder shall conduct a one-year access control study in</u> and sage-grouse habitat (areas of high population richness, core area habitat, low density habitat, <u>and</u> general habitat, based on the same maps used for the pre-construction traffic study). [Fish and Wildlife Condition 22; Final Order on ASC, AMD2]</p>
STANDARD: HISTORIC, CULTURAL, AND ARCHEOLOGICAL RESOURCES (HC) [OAR 345-022-0090]	
OPS-HC-01	<p>Within three year after construction is completed, the certificate holder shall finalize, and submit to the Department for its approval, a final Cultural Resources Technical Report.</p> <ol style="list-style-type: none"> a. The results of all cultural resource monitoring required by the Historic Properties Management Plan (HPMP) referenced in Historic, Cultural, and Archaeological Resources Condition 2; and b. The results of all cultural resources testing or data recovery conducted as a result of unanticipated discoveries as required by the Inadvertent Discovery Plan in the Historic Properties Management Plan referenced in Historic, Cultural, and Archaeological Resources Condition 2. <p>[Historic, Cultural and Archeological Resources Condition 3; Final Order on ASC]</p>
STANDARD: WILDFIRE PREVENTION AND RISK MITIGATION (WMP) [OAR 345-022-0115]	
OPR-WMP-01	<p>During operation, on an annual basis consistent with the annual report under General Standard of Review Condition 4, submit the most recent OPUC approved WMP and a copy of OPUC approval. [Wildfire Prevention and Risk Mitigation Condition 2; AMD1]</p>
STANDARD: SITING STANDARDS FOR TRANSMISSION LINES (TL) [DIVISION 24]	
OPR-TL-01	<p>Prior to placing the facility in service, the certificate holder shall take the following steps to reduce the risk of induced current and nuisance shocks:</p> <ol style="list-style-type: none"> a. Provide to landowners a map of overhead transmission lines on their property and advise landowners of possible health and safety risks from induced currents caused by electric and magnetic fields. b. Implement a safety protocol to ensure adherence to National Electric Safety Code grounding requirements. <p>[Siting Standards for Transmission Lines Condition 2; Final Order on ASC]</p>
OPR-TL-02	<p>During operation, the certificate holder shall:</p> <ol style="list-style-type: none"> a. Annually update the Public Utility Commission Safety Staff as to how the operator will comply with OAR Chapter 860, Division 024 considering future operations, maintenance, emergency response, and alterations until project retirement. b. File information with the Commission before January 2 of each even-numbered

	<p>year, as required by ORS 758.013:</p> <ul style="list-style-type: none"> i. The name and contact information of the person that is responsible for the operation and maintenance of the electric power line, and for ensuring that the electric power line is safe; and ii. The name and contact information of the person who is responsible for responding to conditions that present an imminent threat to the safety of employees, customers and the public. iii. In the event that the contact information described above in Siting Standards for Transmission Lines Condition 5(b) changes or that ownership of the electric power line changes, the person who engages in the operation of the electric power line must notify the commission of the change as soon as practicable, but no later than within 90 days. <p>c. Provide Public Utility Commission Safety Staff with:</p> <ul style="list-style-type: none"> i. Maps and drawings of routes and installation of electrical supply lines showing: <ul style="list-style-type: none"> 11. Transmission lines and structures (over 50,000 Volts) 12. Distribution lines and structures - differentiating underground and overhead lines (over 600 Volts to 50,000 Volts) 13. Substations, station, roads and highways ii. Plan and profile drawings of the transmission lines (and name and contact information of responsible professional engineer). <p>d. Document compliance with the above provisions in its annual report to the Department as provided in General Standard Condition 4.</p> <p>[Siting Standards for Transmission Lines Condition 5; Final Order on ASC]</p>
<p>STANDARD: NOISE CONTROL REGULATIONS (NC) [OAR 340-035-0035]</p>	
<p>OPR-NC-01</p>	<p>During operation:</p> <ul style="list-style-type: none"> a. Pursuant to OAR 340-035-0010, an exception to compliance with the ambient antidegradation standard at OAR 340-035-0035(1)(b)(B) (which prohibits an increase of more than 10 dBA above ambient sound pressure levels) is granted during facility operation when there is foul weather (a rain rate of 0.8 to 5 millimeters per hour), which Council finds constitutes an infrequent event under OAR 345-035-0035(6)(a). b. The ambient antidegradation standard at OAR 340-035-0035(1)(b)(B) may be exceeded by the transmission line at any time of day or night during foul weather events (defined as a rain rate of 0.8 to 5 millimeters per hour). [OAR 340-035-0010(2)] c. The quantity and quality of noise generated in exceedance of the ambient antidegradation standard OAR 340-035-0035(1)(b)(B), during foul weather events (defined as a rain rate of 0.8 to 5 millimeters per hour), shall not be more than 10 dBA (or ambient plus 20 dBA). [OAR 340-035-0010(2)] <p>[Noise Control Condition 4; Final Order on ASC]</p>
<p>OPR-NC-02</p>	<p>During operation:</p> <ul style="list-style-type: none"> a. A variance to compliance with the ambient antidegradation standard at OAR

	<p>340-035-0035(1)(b)(B) (which prohibits an increase of more than 10 dBA above ambient sound pressure levels) is granted pursuant to OAR 345-035-0100(1) for the transmission line at any time of day or night during foul weather events (defined as a rain rate of 0.8 to 5 millimeters per hour).</p> <p>b. The quantity and quality of noise generated in exceedance of the ambient antidegradation standard shall not be more than 10 dBA (i.e., ambient plus 20 dBA), as measured at any NSR location.</p> <p>[Noise Control Condition 5; Final Order on ASC, AMD1]</p>
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5.6 Retirement Conditions

STANDARD: RETIREMENT AND FINANCIAL ASSURANCE (RT) [OAR 345-022-0050]	
<p>RET-RT-01</p>	<p>The certificate holder must retire the facility in accordance with a retirement plan approved by the Council if the certificate holder permanently ceases construction or operation of the facility. The retirement plan must describe the activities necessary to restore the site to a useful, nonhazardous condition, as described in OAR 345-027-0110(5). After Council approval of the plan, the certificate holder must obtain the necessary authorization from the appropriate regulatory agencies to proceed with restoration of the site.</p> <p>[Retirement and Financial Assurance Condition 2; Mandatory Condition OAR 345-025-0006(9); Final Order on ASC]</p>
<p>RET-RT-02</p>	<p>The certificate holder is obligated to retire the facility upon permanent cessation of construction or operation. If the Council finds that the certificate holder has permanently ceased construction or operation of the facility without retiring the facility according to a final retirement plan approved by the Council, as described in OAR 345-027-0110, the Council must notify the certificate holder and request that the certificate holder submit a proposed final retirement plan to the Department within a reasonable time not to exceed 90 days. If the certificate holder does not submit a proposed final retirement plan by the specified date, the Council may direct the Department to prepare a proposed final retirement plan for the Council's approval.</p> <p>Upon the Council's approval of the final retirement plan, the Council may draw on the bond or letter of credit described in OAR 345-025-0006(8) to restore the site to a useful, nonhazardous condition according to the final retirement plan, in addition to any penalties the Council may impose under OAR Chapter 345, Division 29. If the amount of the bond or letter of credit is insufficient to pay the actual cost of retirement, the certificate holder must pay any additional cost necessary to restore the site to a useful, nonhazardous condition. After completion of site restoration, the Council must issue an order to terminate the site certificate if the Council finds that the facility has been retired according to the approved final retirement plan.</p> <p>[[Retirement and Financial Assurance Condition 3; Mandatory Condition OAR 345-025-0006(16); Final Order on ASC]</p>

6.0 Successors and Assigns

To transfer this site certificate or any portion thereof or to assign or dispose of it in any other manner, directly or indirectly, the certificate holder shall comply with OAR 345-027-0400.

7.0 Severability and Construction

If any provision of this agreement and certificate is declared by a court to be illegal or in conflict with any law, the validity of the remaining terms and conditions shall not be affected, and the rights and obligations of the parties shall be construed and enforced as if the agreement and certificate did not contain the particular provision held to be invalid.

8.0 Execution

This site certificate may be executed in counterparts and will become effective upon signature by the Chair of the Energy Facility Siting Council and the authorized representative of the certificate holder.

IN WITNESS THEREOF, this site certificate has been executed by the State of Oregon, acting by and through the Energy Facility Siting Council and Idaho Power Company (certificate holder).

ENERGY FACILITY SITING COUNCIL

Idaho Power Company

By: _____
Kent Howe, Chair

By: _____
Authorized Representative

Date: _____

Date: _____

By: _____

Date: _____

Attachment A

Facility Location Mapsets (ASC Exhibit C, RFA1 Figures 4-1 and 4-2, [RFA2 Figures 4-1 and 8-1](#))

[Attachment A includes Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference, which is a cross walk for maps associated with each approved route or alternative route segment and associated.](#)

Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
Final Order on ASC			
Approved ASC route (270.8 total miles)	Morrow	47.5	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 1-23 -Road alternatives: RFA1 Figure 4-2, Map 1-4 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 1-7, 12-13
	Umatilla	40.9	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 24-44-23 -Road alternatives: RFA1 Figure 4-2, Map 5-11 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 14, 16-30
	Union	39.9	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 44-62 -Road alternatives: RFA1 Figure 4-2, Map 12-14, 16-17 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 31-33, 36, 43-47

Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
	Baker	68.4	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 63-92 -Road alternatives: RFA1 Figure 4-2, Map 18-27 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 48-71
	Malheur	74.1	-Route/Roads: ASC Exhibit C, Attachment C-2; Map 93-125 -Road alternatives: RFA1 Figure 4-2, Map 28-41 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 72-98
West of Bombing Range Road alternative 1	Morrow	3.7	-ASC Exhibit C, Attachment C-3; Map 1-4 -Road alternatives: RFA1 Figure 4-2, Map 1 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 3-5

Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
West of Bombing Range Road alternative 2	Morrow	3.7	-ASC Exhibit C, Attachment C-3; Map 1-4 -Road alternatives: RFA1 Figure 4-2, Map 1 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 3-5
Morgan Lake alternative	Union	18.5	-ASC Exhibit C, Attachment C-3; Map 5-14 -Road alternatives: RFA1 Figure 4-2, Map 14-15 -Road alternatives and other work areas: RFA2 Figure 4-1; Map 34-35, 39-43,
Double Mountain alternative	Malheur	7.4	ASC Exhibit C, Attachment C-3; Map 15-19
Final Order on RFA1			
Little Juniper Canyon Transmission Line Alternative	Morrow	1.4	RFA1 Figure 4-1, Map 1
True Blue Gulch Transmission Line Alternative	Baker	4.6	RFA1 Figure 4-1, Map 2-3
Durbin Quarry Transmission Line Alternative	Baker	2.8	RFA1 Figure 4-1, Map 5-6

Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference

Approved Route Name ¹	County	Length of Transmission Line (miles)	Map Reference ²
Final Order on RFA2			
Boardman Junction Alternative	Morrow	0.6	RFA2 Figure 4-1; Map 1
Bombing Range SE Alternative	Morrow	1.0	RFA2 Figure 4-1; Map 5
Ayers Canyon Alternative	Morrow	8.7	RFA2 Figure 4-1; Map 8-12
Rugg Canyon Alternative	Umatilla	2.5	RFA2 Figure 4-1; Map 15-16
Sevenmile Creek Alternative	Umatilla	9.9	RFA2 Figure 4-1; Map 23-27
Rock Creek 1 Alternative	Union	1.4	RFA2 Figure 4-1; Map 33
Rock Creek 2 Alternative	Union	1.5	RFA2 Figure 4-1; Map 33
Baldy Alternative	Union	7.5	RFA2 Figure 4-1; Map 39-43
Hwy 203 Crossing Alternative	Baker	1.9	RFA2 Figure 4-1; Map 53-54
Approved ASC Route (230-kV Rebuild) Revised Alternative	Baker	0.6	-Alternative rebuild to ASC approved 230 kV rebuild: ASC Exhibit C, Attachment C-2; Map 69-70 -RFA2 Figure 4-1; Map 55
Willow Creek Alternative	Malheur	1.4	RFA2 Figure 4-1; Map 76-77

Table 6: Approved Route, Approved Alternative Routes, and Road Map Reference

Approved Route Name¹	County	Length of Transmission Line (miles)	Map Reference²
Cottonwood Creek Alternative	Malheur	3.2	RFA2 Figure 4-1; Map 80-81
Notes: ¹ Table presents routes in order of north to south by county (Morrow, Umatilla, Union, Baker, Malheur county and then north to south within the county and corresponding mapset). ² Map number reflected for ASC Route when routes approved in RFA1 and RFA2 overlap with routes approved in Final Order on ASC. Source: B2HAMD2Doc2 RFA2 2024-04-11, Table 4.1-1. B2HAMD1Doc1 Final Order 2023-09-22_Signed_No Attachments 2023-09-22; B2HAMD RFA1 2023-06-08, Table 4.1-1. B2HAPPDoc3-4 ASC 03_Exhibit C_Project_Location_ASC 2018-09-28			

Attachment 2: Placeholder for DPO Comment Index and DPO Comments

Attachment 3: Placeholder for Certificate Holder Responses to DPO Comments

Attachment 4: Draft Threatened and Endangered (T&E) Plant Mitigation Plan

Attachment 5: Draft Threatened and Endangered (T&E) Plant Mitigation Plan



Boardman to Hemingway Transmission Line (B2H) T&E Plants Mitigation Summary
Oregon Department of Agriculture Native Plant Conservation Program (ODA)
March 2024

Project impacts and context:

The construction and operation of the Boardman to Hemingway Transmission Line within proposed RFA2 micro-siting addition areas is expected to result in temporary and permanent impacts to documented occurrences of the following state listed threatened and endangered plant species: Lawrence's milkvetch and Snake River goldenweed.

The previously approved facility is expected to result in temporary and permanent impacts to documented occurrences of the following state listed threatened and endangered plant species: Lawrence's milkvetch, Mulford's milkvetch, Cronquist's stickseed and Snake River goldenweed.

The following mitigation actions will be based on Impacts associated with final facility design, following a demonstration by Idaho Power Company that avoidance is not possible.

Mitigation:

Supported by mitigation funding to be provided by Idaho Power Company (certificate holder), ODA will work to compensate for the losses and impacts associated with B2H by enacting the following conservation and recovery actions: Seed collection and long-term storage at the regional conservation seed bank will conserve the unique genetic diversity present in high-value occurrences that will be impacted. Maternal-line seed collections for research will be accessioned along with bulk seed for use in general recovery actions; banked seeds will be critical for future research and recovery efforts. The seed source populations will be permanently documented via herbarium specimen collection. Seed viability testing will be conducted on seeds of different ages and length of time in storage to understand the limits of banked seed longevity. Results will be synthesized in a seed banking planning document that provides species specific recommendations for seed banking timelines. Research on the introduction of seeds and/or transplants will be conducted to investigate our ability to establish plants in the wild and successful techniques will help replace the losses resulting from the development while also informing future recovery-based introductions. Transplant production will entail germination and cultivation trials to help understand factors affecting germination and growth. Introductions will be focused on protected public lands. Monitoring the natural and introduced populations is essential for understanding the long-term effectiveness of our minimization and mitigation efforts and will provide context to guide improved protocols in the future.

1. Seed collection, banking & associated research

- 1.1. Multiple years of seed collection from the plants and population being impacted; multiple years of seed collection from populations near the population being impacted, or elsewhere, may be pursued if access to impacted seed source is not possible.
- 1.2. Seed banking and long-term storage of seeds at the regional conservation seed bank (Rae Selling Berry Seed Bank) for use in future recovery and research.
- 1.3. Financially sponsoring the long-term storage of seeds of each species at the regional seed bank for at least 10 years.
- 1.4. Research to assess wild-produced seed quality and viability, and compare that to the viability of old stored seed to inform a seed banking conservation strategy that accounts for declines in seed longevity over time.

2. Plant re-establishment & associated research

- 2.1. Research reintroduction techniques, including germination and cultivation methods as needed, for each species.
- 2.2. Seed introductions using a variety of methods including basic seed dispersal, assisted seed sowing with special planting and site preparation methods, and treated-seed sowing using seeds pre-treated for germination; transplant introductions may be pursued if seed and plant biology are more conducive to this approach.
- 2.3. Research the effectiveness of plant establishment techniques by monitoring survival, growth, and reproduction.

3. Monitoring

- 3.1. Monitor impacted natural populations or plants to observe post impact conditions and recovery; this can include photo point monitoring, repeatable plant counts, and the collection of other basic population monitoring information.
- 3.2. Monitor introduced plants or populations to document performance (see 2.3. above).
- 3.3. Continue periodic monitoring for up to 5-10 years.

Success criteria

1. Banking at least 10,000-20,000 seeds, for each species, in long-term storage at Rae Selling Berry Seed Bank for use in future research and recovery.
2. Completing and/or updating a seed banking conservation strategy for the four impacted species that presents and incorporates seed viability testing results from this mitigation and helps account for decreasing seed longevity over time.
3. Introducing thousands of propagules of each of the four impacted species, both seeds and transplants, to establish more plants in the wild; the intent is to establish plants to replace those eliminated during construction.
4. Introducing and/or augmenting populations on protected public lands.
5. Completing introduction summary reports for the four impacted species that presents seeding and transplant methods, monitoring results, and recommendations for future introduction efforts.
6. Compiling a monitoring report for the four species focused on site and population conditions following construction to address the effectiveness of our avoidance, minimization, and mitigation efforts.

Approximate timeline of tasks

YEAR 1 – Seed collection site scouting, seed collections, collection site documentation, seed cleaning, seed accessioning (into seed bank), seed viability testing of banked seed and year zero seed, and initiating long-term storage.

YEAR 2 – Seed collection site scouting, second round seed collections, collection site documentation, seed cleaning, seed accessioning (into seed bank), seed viability testing of year zero and year 1 seed, and draft seed banking strategy recommendations.

YEAR 3 – Draft reintroduction trial plans, introduction site selection, additional seed collection contingency (if needed), seed pre-treatments, seed introductions, and preliminary reporting on introduction protocols.

YEAR 4 – Conduct germination and cultivation trials, monitor seed introductions from year 3, data entry, preliminary analysis, and reporting, introduction of second round of seeds or transplant care and transplanting trials.

YEAR 5 – Seed viability testing for banked seed, year 3 and year 4 seeds, seed banking planning document, monitoring introductions from years 3 and 4, data entry, analysis and reporting.



Budget

Mitigation activities were budgeted on a per species, per year basis and include personnel costs, services and supplies, sub-awards to partners (i.e.- seed bank) and indirect costs at 15.65% of project total. The simplified budget table below combines those costs into annual totals with sub-awards included with services and supplies. A detailed, line-item budget will be provided as necessary.

	Personnel	Services & Supplies	Annual Total
Year 1	\$58,473.84	\$33,699.80	\$92,173.64
Year 2	\$63,579.26	\$21,424.80	\$85,004.06
Year 3	\$70,573.05	\$19,229.60	\$89,802.65
Year 4	\$79,233.25	\$14,395.60	\$93,628.85
Year 5	\$45,979.43	\$13,378.00	\$59,357.43
Project Total	\$317,838.83	\$102,127.80	\$419,966.63
Total Indirect Costs*			\$58,371.14
Grand Total			\$478,337.77

**no indirect costs for sub-awarded funds*

Costs are estimated based on best available information at the time of budgeting and are subject to change if project impacts are significantly different from projected impacts at time of budgeting and/or if mitigation activities are able to be completed more efficiently than anticipated and/or if mitigation activities are unable to be completed due to circumstances beyond the control of Idaho Power, Oregon Department of Energy or the Oregon Department of Agriculture. In the event that mitigation activities are unable to be completed due to Idaho Power's inability to provide access to project sites, ODA would seek an amendment to this plan that would facilitate proportionate mitigation at a different time/place.



ESTERSON Sarah * ODOE

From: Sarah.ESTERSON@energy.oregon.gov
Subject: B2H RFA2 - ODOE:ODAg Consultation - Updated/pending data from IPC

From: BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>
Sent: Monday, March 11, 2024 3:20 PM
To: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>; ABERCROMBIE Troy * ODA <Troy.ABERCROMBIE@oda.oregon.gov>
Subject: Re: B2H RFA2 - ODOE:ODAg Consultation - Updated/pending data from IPC

Sarah,
Thanks for sending these. They look good to me.

Jordan Brown, Program Lead Conservation Biologist
Oregon Department of Agriculture – Native Plant Conservation
635 Capitol St NE, Salem, OR 97301-2532
PH: 541.737.2346 | CELL: 541.224.2245 | WEB: Oregon.gov/ODA
Pronouns: he, him, his

*Please note my email address has changed to jordan.a.brown@oda.oregon.gov

From: ESTERSON Sarah * ODOE <Sarah.ESTERSON@energy.oregon.gov>
Date: Monday, March 11, 2024 at 2:16 PM
To: BROWN Jordan A * ODA <Jordan.A.BROWN@oda.oregon.gov>, ABERCROMBIE Troy * ODA <Troy.ABERCROMBIE@oda.oregon.gov>
Subject: B2H RFA2 - ODOE:ODAg Consultation - Updated/pending data from IPC

Hi Jordan and Troy,

Attached are revised consultation notes for Boardman to Hemingway Transmission Line Request for Amendment 2 (RFA2). Per your prior comment on the consultation notes, I am working to get data from IPC that explains the specific reasons why, within the new 4,142 acres, avoidance of impacts to T&E plants is not possible. I will provide the explanation and mapping for your review as soon as it is received.

Notes – the ODAg mitigation we have been discussing will apply to all T&E plant impacts within the 25,000 acre site boundary for the facility, but the detailed evaluation of polygons and reasons based analysis for avoidance is specific to the new areas not previously evaluated/approved (Request for Amendment 2, 4,142 acres).

Please let me know if additional clarification is needed. If you have comments on the consultation notes, please let me know. Otherwise, we can plan to update once the avoidance evaluation is provided.

Thank you,
Sarah



Sarah T. Esterson

Pronouns: She|Her|Hers

Senior Policy Advisor

550 Capitol St. NE | Salem, OR 97301

M: 971-239-7087

P (In Oregon): 800-221-8035



Stay connected!

**Oregon Department of Energy’s Review of Boardman to Hemingway Transmission Line,
Request for Amendment 2:
Consultation Summary with Oregon Department of Agriculture Native Plant Conservation Program
(Jordan Brown, Troy Abercrombie)**

3/4th Qtr 2023 – 1st Qtr 2024

Regulatory Overview: The Oregon Department of Energy (Department) act as staff to the Energy Facility Siting Council (EFSC). EFSC issues and enforces site certificates for utility-scale energy facilities. EFSC has established rules and statutes which govern the permitting process for utility-scale energy facilities. EFSC has adopted OAR 345-022-0070, *Threatened and Endangered Species*, a standard that utility-scale energy facility developers must comply with, which is designed to preserve and protect listed threatened and endangered (T&E) plant species through evaluation of potential construction and operational impacts, and mitigation, if appropriate, of actual impacts. The standard states the following:

*To issue a site certificate, the Council, **after consultation with appropriate state agencies**, must find that:*

(1) For plant species that the Oregon Department of Agriculture has listed as threatened or endangered under ORS 564.105(2), the design, construction and operation of the proposed facility, taking into account mitigation:

(a) Are consistent with the protection and conservation program, if any, that the Oregon Department of Agriculture has adopted under ORS 564.105(3); or

*(b) If the Oregon Department of Agriculture has not adopted a protection and conservation program, **are not likely to cause a significant reduction in the likelihood of survival or recovery of the species.***

[Emphasis added]

This summary is intended to document consultation between the Department and Oregon Department of Agriculture (ODAg) Native Plant Conservation Program staff on the evaluation of potential impacts associated with the changes proposed in Request for Amendment 2 of the Boardman to Hemingway Transmission Line Site Certificate (RFA2).

Approved Facility Overview: Boardman to Hemingway Transmission Line (not yet constructed)

- 500 kV Transmission Line, 275 miles in Oregon; communication stations; permanent new and improved roads, and temporary access roads; temporary multi-use areas, pulling and tensioning sites, fly yards in Morrow, Umatilla, Union, Baker and Malheur counties
- Through the EFSC process, prior survey results as presented in the Application for Site Certificate (ASC) Exhibit Q identified 4 State of Oregon listed threatened and endangered plant species within the facility’s construction-related temporary and permanent disturbance areas, including: Cronquist Stickseed, Lawrence’s Milkvetch, Mulford Milkvetch and Snake River Goldenweed
- The EFSC-issued site certificate required that impacts to T&E plant species be avoided, inclusive of a 33-foot buffer, unless avoidance was not possible. In the alternative, the site certificate allowed placement of construction mats.

Amendment Request (scope of review)

- Change some locations of potential temporary and permanent disturbance from transmission line, roads and temporary work areas
- Construct and operate a midline series capacitor station
- Establish the previously approved site boundary as the micrositing corridor; expand the site boundary to ½ mile in width (site certificate is a term in the EFSC process used to define the bounds of the perimeter of the facility, and the location for which the terms/conditions of the site certificate apply)

B2H Request for Amendment 2 Consultation Notes/Questions:

Facts:

- RFA2 Literature Review Sources:
 - 2019 Streamnet fish distribution data
 - 2022 ODA About the Plants, list of Oregon’s T&E plant species.
 - 2022 ORBIC Element Occurrence Polygons
 - 2022 BLM GeoBOB Flora and Fauna Sites Polygon and Weed Infestation Locations
 - 2022 USFS Observations of T&E plants, GIS data.
- RFA2 Field Survey Methods: Systematic transects within suitable habitat, using tablets running Esri’s FieldMaps data collection software and linked to sub-meter accurate Geode GPS devices. Species were identified using *Flora of the Northwest* (Hitchcock and Cronquist 2018) and *Intermountain Flora* (Cronquist et al 1972; Holmgren et al 2012)
- In RFA2 Table 7.1-16, Idaho Power Company (IPC) presents that the T&E plant survey area includes 4,142 acres. Note that the total T&E plant survey area for the facility includes 25,273 acres (2023 SSP Report), 98% of which had been surveyed as of July 2023. Remaining unsurveyed areas will be surveyed, as required under Site Certificate Condition PRE-FW-02.
- In RFA2 Attachment 7-11 Table 1, potential temporary and permanent impacts to ODA-listed T&E plants are presented. Impacts are identified for Lawrence’s milkvetch and Snake River goldenweed.

The approved EFSC site certificate includes a condition that applies to T&E plant species, and states the following:

Condition CON-TE-02 [Threatened and Endangered Species Condition 2]: During construction, the certificate holder shall not conduct ground-disturbing activities within a 33-foot buffer around threatened or endangered plant species, based on pre-construction field surveys required per site certificate condition Fish and Wildlife Habitat 16, subject to the following:

- a. If complete avoidance is not possible (for example, if the threatened or endangered plant species is located within 33 feet of an existing road where upgrades are authorized), the certificate holder shall install temporary construction mats over soils where the threatened or endangered plant species have been observed and where construction vehicles will be operated; and
- b. If herbicides are used to control weeds, the certificate holder shall follow agency guidelines including guidelines recommended by the herbicide manufacturer, in establishing buffer areas around confirmed populations of threatened or endangered plant species and refrain from using herbicides within those buffers.

In RFA2 Section 7.1.6.4, IPC states the following, “IPC requests a modification to condition CON-TE-02 to allow for mitigation activities to compensate for impacts to threatened and endangered plant species where micro-siting and installation of construction mats is not practical and does not minimize impacts. Mitigation activities that would be implemented by ODA may include but are not limited to seed collections, outplanting, and research/monitoring activities. All mitigation would be developed in conjunction with and approved by ODA with funding from IPC.”

IPC’s proposed changes to the condition are presented in track-changes below:

During construction, the certificate holder shall not conduct ground-disturbing activities within a 33-foot buffer around threatened or endangered plant species, based on pre-construction field surveys required per site certificate condition Fish and Wildlife Habitat 16, subject to the following:

- a. If complete avoidance is not possible (for example, if the threatened or endangered plant species is located within 33 feet of an existing road where upgrades are authorized), the certificate holder shall install temporary construction mats where practical and minimizes impacts to threatened or endangered plant species over soils where ~~the threatened or endangered plant~~ species have been observed and where construction vehicles will be operated; and
- b. In situations where construction matting is not practical nor minimizes impacts to threatened or endangered plant species, mitigation activities commensurate with impacts would be developed in conjunction with and approved by ODA with funding from IPC. Mitigation would be implemented by ODA and may include but are not limited to seed collections, outplanting, and research/monitoring activities; and
- c. If herbicides are used to control weeds, the certificate holder shall follow agency guidelines including guidelines recommended by the herbicide manufacturer, in establishing buffer areas around confirmed populations of threatened or endangered plant species and refrain from using herbicides within those buffers.

ODAg Native Plant Conservation Program Review Comments

Q: Does ODAg consider the literature and field surveys conducted to evaluate potential T&E plant impacts adequate? Are there any issues/concerns with the methods used?

A: ODAg considers the literature review sufficient in terms of identifying which plant species needed to be surveyed; the remaining 2% unsurveyed area needs to be surveyed. ODAg understands that these unsurveyed areas will be surveyed prior to construction/ground disturbance under Condition PRE-FW-02(d). As long as these survey requirements remain unchanged, ODAg concurs that the literature and field surveys are adequate to evaluate presence of state listed T&E plant species.

Q: Does ODAg consider the impact evaluation accurate/appropriate? Have the impacts been adequately addressed?

A: ODAg understands that all impacts, whether temporary or permanent, are considered a permanent impact by IPC, and where a 33-foot avoidance buffer is not feasible, has accounted for these impacts in quantifying required mitigation. ODAg has been involved in the development of the mitigation and concurs that it reasonably ensures that the impacts from the facility would not significantly impact the likelihood of survivability or recovery of the species.

Q: Does ODAg consider RFA2 to adequately demonstrate impacts have been avoided and/or minimized to the extent possible?

A: Avoidance and minimization measures need to be finalized, based on final engineering and associated facility impacts. There were a specific number of polygons detected in the survey area that they did end up avoiding thanks to micrositing changes. ODAg acknowledges the evaluation in RFA2 Attachment 7-11, but needs a final evaluation of impact sites and avoided impact sites with reasons for why avoidance was or was not possible.

Q: Does ODAg have comments on the details of mitigation, and of the circumstances that will warrant mitigation?

A: Supported by mitigation funding from IPC, ODA will work to compensate for the losses and impacts associated with B2H by enacting the following conservation and recovery actions:

- Seed collection and long-term storage at the regional conservation seed bank will conserve the unique genetic diversity present in high-value occurrences that will be impacted. Maternal-line seed collections for research will be accessioned along with bulk seed for use in general recovery actions; banked seeds will be critical for future research and recovery efforts. The seed source populations will be permanently documented via herbarium specimen collection. Seed viability testing will be conducted on seeds of different ages and length of time in storage to understand the limits of banked seed longevity. Results will be synthesized in a seed banking planning document that provides species specific recommendations for seed banking timelines.
- Research on the introduction of seeds and/or transplants will be conducted to investigate our ability to establish plants in the wild and successful techniques will help replace the losses resulting from the development while also informing future recovery-based introductions. Transplant production will entail germination and cultivation trials to help understand factors affecting germination and growth. Introductions will be focused on protected public lands.
- Monitoring the natural and introduced populations is essential for understanding the long-term effectiveness of our minimization and mitigation efforts and will provide context to guide improved protocols in the future.

Mitigation will be required in all areas where avoidance is not possible due technological or geographic constraints.

Q: Does ODAg have comments on the proposed amended condition language?

A: ODAg recommends Condition CON-TE-02(b), as presented above, be deleted; and that the Department/EFSC not accept IPC's proposed language to place matting "where practical." Matting is not likely a viable or protective measure for T&E plant species preservation; the mitigation proposed above would minimize impacts to the impacted species.

Other ODAg comments:

In RFA2 Section 7.1.6.4, IPC states the following, "IPC requests a modification to condition CON-TE-02 to allow for mitigation activities to compensate for impacts to threatened and endangered plant species where micrositing and installation of construction mats is not practical and does not minimize impacts.

Mitigation activities that would be implemented by ODA may include but are not limited to seed collections, outplanting, and research/monitoring activities.”

This should be revised as follows.. “Mitigation activities that would be implemented by ODA may include but are not limited to seed collections and long-term conservation storage, transplanting and seeding outplanting, and research/monitoring activities.”

**Attachment 7-19: Noise Sensitive Receptor Locations with Exceedances with the RFA2
Micrositing Addition Areas**

Attachment 7-19. RFA 2 Potential Noise Receptor Locations and Supplement to Final Order Attachment X-4

Table 1. RFA 2 Potential Noise Sensitive Receptors

County	Taxlot	NSR ID	Owner	Address	City State	Zip	Distance from Proposed Changes in RFA 2 (feet)
Umatilla	1S34000003000	17	Broken Spur Ranch Llc	30522 Oldfield St	Hermiston, OR	97838	<0.5 mile
Umatilla	1S34000001700	18	Skillman E Margaret (Le) Et Al	38106 Reith Rd	Echo, OR	97826	<0.5 mile
Umatilla	1S34000002000	19	Anderson Terry M	68601 Motanic Rd	Pilot Rock, OR	97868	<0.5 mile
Union	03S36E00100	29	Oregon State Of Parks & Rec	725 Summer St Suite C	Salem, OR	97301	<0.5 mile
Union	03S37E00500	652	516 Ranch Partnership Et Al	1904 Adams Ave	La Grande, OR	97850	<0.5 mile
Union	04S38E02204	132	John Hancock Life Insurance Co	17700 Se Mill Pln Blvd Ste 180	Vancouver, WA	98683	<0.5 mile
Union	04S38E02205	671	Golden Pond Timberlands Inc	17700 Se Mill Pln Blvd Ste 180	Vancouver, WA	98683	<0.5 mile
Baker	08S40E1300200	69	Grove Timmy Ray & Vera May	20968 Medical Springs Hwy	Baker City, OR	97814	<0.5 mile
Baker	08S40E1300400	70	Coombes Jasper H	20970 Medical Springs Hwy	Baker City, OR	97814	<0.5 mile
Baker	08S40E2500201	71	Richard John Et Al	20701 Prowell Ln	Baker City, OR	97814	<0.5 mile
Baker	09S40E0100401	5012	Ragsdale Michael O Ttee Et Al	Po Box 467	Baker City, OR	97814	<0.5 mile
Malheur	17S44E11200	92	Schultz Donald R & Sandra K	4415 Old Oregon Trail	Vale, OR	97918	<0.5 mile
Malheur	17S44E10600	93	Mc Ginnis Jeffrey L & Michele	4408 N Rd C	Vale, OR	97918	<0.5 mile
Malheur	17S44E10500	94	Occupant	1923 6th Ave E	Vale, OR	97918	<0.5 mile
Malheur	17S44E2600200	95	Occupant	1923 6th Ave E	Vale, OR	97918	<0.5 mile
Malheur	17S44E2600300	96	Flynn Clancy M & Monica M	1951 6th Ave W	Vale, OR	97918	<0.5 mile
Malheur	17S44E10100	97	De Long Mark E	2090 7th Ave W	Vale, OR	97918	<0.5 mile
Malheur	17S44E2201000	98	Fifer Michael T & Mary L	4449 S Rd D	Vale, OR	97918	<0.5 mile
Malheur	17S44E2600600	99	Sholund Stanley L & Shirley A	Po Box 56	Vale, OR	97918	<0.5 mile
Malheur	17S44E2600700	100	Dixon Marvin A & Dorothy	4364 S Rd D	Vale, OR	97918	<0.5 mile
Malheur	17S44E2700100	101	Reed Patricia Rev Liv Trust	4393 S Rd D	Vale, OR	97918	<0.5 mile
Malheur	17S44E2200900	102	Bair Marti J	2048 6th Ave W	Vale, OR	97918	<0.5 mile
Malheur	17S44E2700201	103	Child Chancey A	2081 6th Ave W	Vale, OR	97918	<0.5 mile
Malheur	17S44E2200700	104	Child Dallin E & Michelle D	Po Box 262	Vale, OR	97918	<0.5 mile
Malheur	17S44E2700200	105	Maag Rex & Patti Family Trust	1547 Vale View Rd	Vale, OR	97918	<0.5 mile
Malheur	17S44E2700900	106	Skerjanec Daniel D & Carol D	4325 S Rd D	Vale, OR	97918	<0.5 mile
Malheur	17S44E2700400	107	Clark Bryon O & Rebecca D T	44025 Heppner Spray Hwy	Spray, OR	97874	<0.5 mile
Malheur	17S44E12800	109	Hester Kurt Et Al	4391 S Rd E	Vale, OR	97918	<0.5 mile
Malheur	17S44E12800	110	Hester Kurt Et Al	4391 S Rd E	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E2600900	519	Wintle Gary L & Robin L	4361 John Day Hwy	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E2200300	526	Davis Gary	2053 7th Ave W	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E12600	515	Clark Roger W	4317 S Rd D	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E08800	520	Murrey Frances L	2110 6th Ave W	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E13100	521	Bates Ryan E & Theresa A	2133 6th Ave W	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E09900	662	White David E	4457 John Day Hwy	Vale, OR	97918	<0.5 mile
Malheur	17S44E2200200	663	Cook Michael Quentin Et Al	4478 S Rd F	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E2200500	664	Scott Walter B Rev Trust 1/2	4876 N Rd H	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E2200100	665	Bair Jeffrey R & Marti Jo	2048 6th Ave W	Vale, OR	97918	0.5-1.0 mile
Malheur	17S44E2700700	666	Skerjanec Tracy D & Trisha A	4345 S Rd D	Vale, OR	97918	0.5-1.0 mile
Malheur	18S43E00400	5011	J R Land & Livestock Inc	Po Box 800	Harper, OR	97906	0.5-1.0 mile
Malheur	18S43E00400	605	J R Land & Livestock Inc	Po Box 800	Harper, OR	97906	<0.5 mile

Table 2. RFA 2 Supplement to Final Order Attachment X-4

NSR Sequential Number	Receptor ID	Receptor Status	Distance from Receptor to the RFA 2 Transmission Line (feet)	Project Transmission Line Milepost	County	UTM Coordinates (m)		Associated Monitoring Position	Late Night Baseline Sound Pressure Level (dBA)	Predicted RFA 2 Sound Level (dBA)		RFA 2 Foul Weather Increase over Late Night Baseline (dBA)	Previously Evaluated (ASC) Foul Weather Increase over Late Night Baseline (dBA)
						Easting	Northing			Fair Weather	Foul Weather		
17	new	Residence	576	75.7	Umatilla	374,908	5,035,471	MP08	41	17	42	3	-
18	123	Residence	1,439	78.5	Umatilla	377,967	5,038,280	MP09	35	14	39	7	7
19	128	Residence	2,254	79.8	Umatilla	379,730	5,039,276	MP09	35	12	37	4	4
29*	257	School/Correctional Facility	1,867	99.1	Union	402,712	5,021,145	MP 100	31	12	37	7	7
652	652	Residence	1,958	99.8	Union	404,791	5,020,248	MP11	32	12	37	6	NA
132	blank	Residence	610	110	Union	416,014	5,008,955	MP 100	31	20	45	14	11
671	671	Residence	596	110.9	Union	415,880	5,007,994	MP 100	31	20	45	14	NA
69	83	Residence	2,169	142.6	Baker	439,860	4,968,035	MP15	27	12	37	10	12
70	82	Residence	1,749	142.7	Baker	439,993	4,967,946	MP15	27	13	38	11	14
71**	-1	Residence	1,335	144.3	Baker	440,661	4,965,581	MP15	27	14	39	13	13
5012**	5012	Residence	1,552	147.1	Baker	439,939	4,961,807	MP15	27	14	39	12	12
92*	887	Residence	2,434	215.2	Malheur	478,340	4,879,805	MP35	24	10	35	12	12
93	888	Residence	2,206	216	Malheur	477,194	4,879,669	MP34	24	11	36	12	11
94	891	Residence	1,456	216.2	Malheur	476,768	4,879,627	MP34	24	13	38	13	12
95	890	Residence	1,647	216.3	Malheur	476,735	4,879,525	MP34	24	12	37	13	12
96	892	Residence	1,122	216.5	Malheur	476,299	4,879,547	MP34	24	14	39	15	13
97	929	Residence	1,523	216.5	Malheur	475,893	4,880,423	MP34	24	12	37	13	13
98	925	Residence	931	216.8	Malheur	475,509	4,880,072	MP35	24	15	40	16	15
99	895	Residence	1,909	216.9	Malheur	475,678	4,879,196	MP35	24	11	36	13	13
100	896	Residence	2,228	217	Malheur	475,620	4,879,057	MP35	24	11	36	12	12
101*	899	Residence	673	217	Malheur	475,459	4,879,468	MP34	24	17	42	17	17
102*	924	Residence	607	217.3	Malheur	474,932	4,879,676	MP35	24	17	42	18	18
103*	915	Residence	2,575	217.4	Malheur	474,051	4,879,545	MP35	24	10	35	11	11
104*	916	Residence	1,598	217.4	Malheur	474,382	4,879,621	MP35	24	12	37	14	14
105*	919	Residence	745	217.4	Malheur	474,630	4,879,540	MP35	24	16	41	17	17
106*	904	Residence	2,621	217.7	Malheur	475,377	4,878,437	MP35	24	10	35	11	11
107*	905	Residence	2,474	217.9	Malheur	474,640	4,878,052	MP35	24	10	35	12	12
109*	913	Residence	2,595	218.1	Malheur	473,894	4,879,450	MP35	24	10	35	11	11
110*	914	Residence	2,648	218.1	Malheur	473,920	4,879,474	MP35	24	10	35	11	11
519	519	Residence	3,773	217.5	Malheur	476,944	4,878,880	MP34	24	9	34	10	NA
526	526	Residence	3,796	217.5	Malheur	474,386	4,880,511	MP34	24	9	34	10	NA
515	515	Residence	3,296	217.5	Malheur	475,502	4,878,262	MP35	24	9	34	11	NA
520*	520	Residence	3,213	217.5	Malheur	473,823	4,879,634	MP35	24	9	34	11	NA
521*	521	Residence	3,219	217.5	Malheur	473,532	4,879,556	MP35	24	9	34	11	NA
662	662	Residence	849	218	Malheur	475,938	4,880,220	MP34	24	15	40	16	NA
663	663	Residence	5,101	218	Malheur	474,441	4,880,962	MP34	24	7	32	8	NA
664*	664	Residence	2,894	218	Malheur	473,970	4,879,621	MP35	24	9	34	11	NA
665	665	Residence	4,641	218	Malheur	475,158	4,881,137	MP34	24	8	33	9	NA

NSR Sequential Number	Receptor ID	Receptor Status	Distance from Receptor to the RFA 2 Transmission Line (feet)	Project Transmission Line Milepost	County	UTM Coordinates (m)		Associated Monitoring Position	Late Night Baseline Sound Pressure Level (dBA)	Predicted RFA 2 Sound Level (dBA)		RFA 2 Foul Weather Increase over Late Night Baseline (dBA)	Previously Evaluated (ASC) Foul Weather Increase over Late Night Baseline (dBA)
						Easting	Northing			Fair Weather	Foul Weather		
666*	666	Residence	2,750	218	Malheur	475,512	4,878,679	MP35	24	10	35	11	NA
5011	5011	Residence	4,148	227.1	Malheur	460,787	4,874,759	MP35	24	8	33	10	
605***	605	Residence	2,596	227.5	Malheur	462,902	4,874,275	MP35	24	10	35	11	NA

Notes:

Receptor IDs are provided for ease in cross-referencing older documentation. An incremental increase presented as (-) signifies that the future increase as a result of the Project is predicted to be less than 1 dBA when considered cumulatively with the baseline condition. The incremental increase is obtained by first logarithmically adding the Predicted Foul Weather Sound Level to the Late Night Baseline Sound Pressure Level. The Late Night Baseline Sound Pressure Level is then arithmetically subtracted from this total to quantify the incremental increase. Note that sound pressure levels cannot be added together linearly. For example, a baseline sound pressure level of 25 dBA plus a received sound pressure level of 33 dBA does not equal 58 dBA; rather, using logarithmic addition, the resultant sound pressure level would be 34 dBA. Sound levels in this table are reported in whole decibels.

* RFA2 seeks to change the alignment of certain segments of the transmission line route approved in the site certificate, leaving the remaining sections unchanged. For the NSRs noted with an asterisk, the NSRs are located closer to the sections of the site certificate route that are unaffected by RFA2 than those sections that are affected. In turn, because of the closer proximity, the noise impacts from the sections of the site certificate route that are unaffected by RFA2 will be greater than the impacts from those sections that are affected by RFA2. Therefore, for these NSRs, Idaho Power modeled the noise impacts from the sections of the site certificate route that are unaffected by RFA2.

**When considered in isolation, IPC's modeling shows NSR-71 is expected to have an estimated noise increase of +13 A-weighted decibels (dBA). However, there is an existing transmission line located between NSR-71 and the Project, and after taking into account the predicted foul weather corona noise from the existing line, the Project does not result in an exceedance at NSR-71. Similarly, when considered in isolation, NSR-5012 is expected to have an increase of +12 dBA; but when the noise from the nearby existing 230-kV line is considered as part of the baseline, the Project does not result in an exceedance at NSR-5012. Therefore, NSR-71 and NSR-5012 are not expected to result in exceedances after the noise from the existing transmission lines is taken into account.

***Note the Late Night Baseline Sound Pressure Level associated with NSR-605 is unrealistically low given the proximity of the NSR to a geothermal plant.

Red font indicates foul weather increase for residence over late night baseline of or greater than 11 dBA.

Green highlighted cells indicate an NSR not previously evaluated during the ASC and RFA1; new NSR for RFA2.

dBA = A-weighted decibel

ft = feet

ID = identification

m = meter

MP = milepost

NSR = noise sensitive receptor

ODEQ = Oregon Department of Environmental Quality

UTM = Universal Transverse Mercator

Attachment B-5: Updated Road Classification Guide and Access Control Plan

Attachment 4-1. RFA 2 Supplement to Final Order Attachment B-5 Appendix A

Boardman to Hemingway Transmission Line Project

Road Classification Guide and Access Control Plan

Prepared By



*1221 West Idaho Street
Boise, Idaho 83702*

Joe Stippel, Project Leader
(208) 388-2675
jstippel@idahopower.com

Zach Funkhouser, Permitting
(208) 388-5375
zfunkhouser@idahopower.com

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- Appendix A – Access Road Segments Attribute Table
- Appendix B – Access Road Mapbook

ACRONYMS AND ABBREVIATIONS

ASC	Application for Site Certificate
BLM	U.S. Department of the Interior, Bureau of Land Management
EFSC	Energy Facility Siting Council
GIS	Geographical Information System
IPC	Idaho Power Company
OAR	Oregon Administrative Rules
ODFW	Oregon Department of Fish and Wildlife
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statute
Plan	Road Classification Guide and Access Control Plan
Project	Boardman to Hemingway Transmission Line Project
ROW	right-of-way
USFS	U.S. Department of Agriculture, Forest Service

AGENCY REVIEW PROCESS

The agency review process outlined in this section aligns with the OAR 345-025-0016 agency consultation process applicable to monitoring and mitigation plans.

To afford an adequate opportunity for applicable local, state, and federal agencies to review the draft plan prior to finalization and implementation, and any future plan amendments, the certificate holder shall implement the following agency review process.

- Step 1: Certificate Holder's Update of Draft Plan or Future Plan Amendment:
The certificate holder may develop one Road Classification Guide and Access Control Plan to cover all construction activities for the entire facility; or, may develop individual plans per county, segment or phase, as best suited for facility construction. Based on the draft Road Classification Guide and Access Control Plan included as Attachment B-5 of the Final Order on the ASC, the certificate holder shall update the draft plan(s) based on facility design and construction plans. If the plan(s) are amended following finalization, the certificate holder shall clearly identify and provide basis for any proposed changes.
- Step 2: Certificate Holder and Department Coordination on Appropriate Review Agencies and Agency Review Conference Call(s): Prior to submission of the updated draft plan, or any future amended plans, the certificate holder shall coordinate with the Department's Compliance Officer to identify the appropriate federal, state, and local agencies to be involved in the plan review process. Once appropriate federal, state, and local agency contacts are identified by the Department and certificate holder, the Department's Compliance Officer will initiate coordination between agencies to schedule review/planning conference call(s). The Department and certificate holder may agree to schedule separate conference calls per county.
- The intent of the conference call(s) are to provide the certificate holder, or its contractor, an opportunity to describe details of the updated draft or amended plan; and, agency plan review schedule. Agencies may provide initial feedback on requirements to be included in the plan during the call, or may provide written comments during the 14-day comment period. The Department will request that any comments provided be supported by an analysis and local, state, or federal regulatory requirement (citation).
- The certificate holder may coordinate with appropriate review agencies, in advance of or outside of the established agency review process; however, this established agency review process is necessary under OAR 345-025-0016 and may result in more efficient plan finalization and amendment if managed in a consolidated process, utilizing the Department's Compliance Officer as the lead Point of Contact.
- Step 3: Agency Review Process: Either with, or prior to, the agency conference call(s), the certificate holder shall distribute electronic copies of the draft, or future amended, plan(s) requesting that the Department coordinate agency review comments within 14-days of receipt, or as otherwise

determined feasible. Following the 14-day agency review period, the Department will consolidate comments and recommendations into the draft, or amended, plan(s), using a Microsoft Word version of the plan provided by certificate holder. Within 14-days of receipt of the agency review comments, the certificate holder shall provide an updated final version of the plan, incorporating any applicable regulatory requirements, as identified during agency review or must provide reasons supporting exclusion of recommended requirements. Final plans will be distributed to applicable review agencies by the Department, including the certificate holder's assessment of any exclusions of agency recommendations, and a description of their opportunity for dispute resolution.

Step 4: Dispute Resolution: If any review agency considers the final, or amended, plan(s) not to adhere to applicable state, federal or local laws, Council rules, Council order, or site certificate condition or warranty, the review agency may submit a written request of the potential violation to the Department's Compliance Officer or Council Secretary, requesting Council review during a regularly scheduled Council meeting. The Council would, as the governing body, review the violation claim and determine, through Council vote, whether the claim of violation is warranted and identify any necessary corrective actions.

1.0 INTRODUCTION

Idaho Power Company (IPC) is proposing to construct, operate, and maintain a high-voltage electric transmission line between Boardman, Oregon, and the Hemingway Substation in southwestern Idaho as an extension of IPC's electric transmission system. The Project consists of approximately 296.6 miles of electric transmission line, with 272.8 miles located in Oregon and 23.8 miles in Idaho. The Project includes 270.8 miles of single-circuit 500-kilovolt (kV) transmission line, removal of approximately 9 miles of existing 69-kV transmission line, rebuilding of 0.9 mile of a 230-kV transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line into a new right-of-way (ROW).

This Road Classification Guide and Access Control Plan (Plan) for the Boardman to Hemingway Transmission Line Project (Project) provides detailed information regarding proposed access roads. This Plan was initially prepared as an attachment to Exhibit B of the Application for Site Certificate (ASC) (IPC 2018). Construction and operation of access roads described in this Plan will adhere to applicable site certificate conditions.

This Plan outlines the measures that IPC and contractor(s) will implement during Project construction. IPC and its contractor(s) will be required to submit a Road Classification Guide and Access Control Plan prior to construction of a facility phase or segment.

1.1 Purpose

The purpose of this Plan is to define which Project roads are included in the Site Boundary, to classify each access road by the type and amount of disturbance, and to determine which Project roads are included in the indirect impact calculations performed for Rocky Mountain elk (*Cervus canadensis nelsonii*) and greater sage-grouse (*Centrocercus urophasianus*). to supplement the analysis in Exhibit P2 and Exhibit P3 of the ASC. Neither resource-specific nor Project-wide analyses on the type and amount (acres) of impacts from roads are presented in this Plan. This Plan focuses instead on how each access road segment is defined in preparation for inclusion in impact analyses and mitigation planning.

1.2 Regulatory Framework

A number of agencies have jurisdiction over the access and transportation related components of the Project. These include the U.S. Department of the Interior, Bureau of Land Management (BLM), the U.S. Department of Agriculture Forest Service (USFS), Oregon Department of Transportation, Idaho Transportation Department, Federal Highway Administration, local law enforcement and road departments, local highway districts in the counties, and private lands crossed by the Project. The Project will comply with applicable federal, state, and local transportation regulations. IPC will impose on its construction contractor(s) the responsibility to meet all applicable legal requirements. The following list describes the responsibilities of IPC and its construction contractor for implementing road work:

- *Physical Improvements* – IPC's construction contractor will need to improve some local roads to accommodate oversize truck deliveries. This work will involve improvements to road segments, intersections, and bridges, as needed. Any responsibility for IPC or IPC's construction contractors to rehabilitate or reconstruct roadways and structures during and after use will be stipulated in road-use permits or similar documents;
- *Construction Permits and Property Agreements* – The construction contractor will obtain encroachment permits or similar legal agreements from the public agencies responsible for affected roadways and other applicable rights-of-way. IPC will require its construction

contractor(s) to ensure that all suppliers of Project equipment and materials obtain applicable oversize and overweight permits and comply with all permit requirements. Timber harvest during right-of-way (ROW) clearing in forested areas will comply with all Oregon Department of Forestry or USFS standards and policies; and

- **Road Standards and Maintenance** – New access roads will conform to the most current edition of the American Association of State Highway and Transportation Officials' Guidelines for Geometric Design of Very Low-Volume Local Roads, for Access Roads with an Anticipated Average Daily Traffic of Less than 400 Vehicles. Roads will meet USFS and BLM standards for roads that will be added to federal jurisdiction. Existing USFS and BLM roads that cannot be used in their existing condition will be brought up to these standards. For roads on state forest land, IPC will work with Oregon Department of Transportation, Oregon Department of Forestry, and other agencies to ensure compliance with applicable road standards and to obtain any necessary special approvals. Roads that remain in IPC's jurisdiction may not be designed to all federal standards.

1.2.1 Federal

BLM resource management plans and USFS land and resource management plans provide direction on road management along with other resources that govern road construction and use on federal lands. Both the USFS and BLM have access and travel management plans that designate areas for motorized use, prohibit some uses to protect resources, or limit road use to certain times of the year for resource protection.

IPC and its contractor(s) will comply with applicable standards and guidelines described in this section and the County Specific Traffic and Transportation Plans per PRE-PS-02, except where IPC requests Project-specific amendments to those standards. New roads that do not become BLM or USFS roads and remain under IPC's or private landowner jurisdiction may not be constructed to all BLM and USFS standards.

1.2.2 State

In Idaho, the Idaho Transportation Department Guide for Utility Management will be adhered to for the permit, encroachment, and occupancy requirements for construction and operations activities.

In Oregon, activities on non-federal forest lands must also comply with the Oregon Forest Practices Act rules, Oregon Revised Statute (ORS) 527 and its attendant rules, and Oregon Administrative Rules (OAR) Chapter 629, Divisions 605 through 665. These rules will apply to portions of the Project that cross forest lands.

Where a road must cross a fish-bearing stream, bridges will be engineered to comply with the Oregon Department of Fish and Wildlife's (ODFW) Fish Passage Program to allow fish passage and to pass flood flows without damage. Project stream crossings are presented in the Revised Fish Passage Plans and Designs (In preparation).

The Site Boundary for an Energy Facility Siting Council (Council or EFSC) project must cover, among other things, certain road access associated with the project (see OAR 345-001-0010(55) and -0010(51)). Not all roads used to access the project must be included in the Site Boundary. Rather, the relevant OARs provide the Site Boundary must include only the new roads constructed for the project and the existing roads that will be substantially modified for access to the project (see ORS 496.300(24); OAR 345-001-0010(51)).

Except under certain circumstances, no facility shall be constructed without a site certificate issued by the Council (see OAR 345-021-0000(1)). In this context, the term “facility” applies to energy facilities together with any “related or supporting facilities” (ORS 496.300(14); see also OAR 345-001-0010(21)). “Related or supporting facilities” means “any structure, proposed by the applicant, to be constructed or substantially modified in connection with the construction of an energy facility, including associated road access” (ORS 496.300(24)). The Council interprets the terms “proposed to be built in connection with” as meaning “that a structure is a related or supporting facility if it would not be built but for construction or operation of the energy facility” (OAR 345-001-0010(51)). Further, related or supporting facilities “does not include any structure existing prior to construction of the energy facility, unless such structure must be significantly modified solely to serve the energy facility” (Id.). The Site Boundary for an EFSC project must include the perimeter of the energy facility and its related and supporting facilities (see OAR 345-001-0010(55)).

The information in this Plan provides details on access roads to meet the requirements of Exhibits B, C, and P of the ASC. Access roads are considered a “related or supporting facility” under this ASC. This Plan provides information required to be consistent with the following OARs:

- *OAR 345-021-0010(1)(b)(B)* – provides that Exhibit B to an ASC must include a “description of major components, structures, and systems of each related or supporting facility”. This Plan describes each road segment (supporting facility) within the Site Boundary in terms of the road classifications defined in Section 2.
- *OAR 345-021-0010(1)(c)(B)* – provides that Exhibit C must include a “description of the location of the...proposed site of each related or supporting facility and areas of temporary disturbance, including the total land area (in acres) within the proposed site boundary, the total area of permanent disturbance, and the total area of temporary disturbance.” This Plan includes: a description of the methods applied to determine if a road segment is included in the site boundary; a detailed set of maps showing the location of each road segment; and a description of each road segment in terms of width, length, and total area within temporary and permanent disturbances.
- *OAR 345-021-0010(1)(p)(F)* – provides that Exhibit P must include a “description of the nature, extent, and duration of potential adverse impacts on the habit...” and (G) a “description of any measures proposed by the application to avoid, reduce or mitigate the potential adverse impacts described in (F) in accordance with the ODFW mitigation goals described in OAR 635-415-0025.” Application of the methods in this Plan creates a road disturbance dataset that provides information regarding the nature, extent, and duration of road impacts as well as identifies which roads are included in indirect impact calculations. In addition, the Plan includes proposed locations of access control structures. This Plan, along with information provided in Exhibits P1, P2, P3, and Q of the ASC, provides the Council with adequate information to determine that the Project meets the Fish and Wildlife Habitat Standard (OAR 345-022-0060). The standard requires the Project be consistent with ODFW’s fish and wildlife habitat mitigation goals and standards (OAR 635-415-0025).
- *OAR 635-140-0025* – Mitigation Hierarchy of Impacts in Sage-grouse Core, Low Density, and General Habitats. This rule reads “Adverse impacts in sage-grouse core, low density, and general habitat from development actions must be mitigated by the developer for both direct and indirect adverse impacts to sage-grouse and their habitats. When ascertaining direct and indirect adverse impacts from development actions, the Department will use the most current and best available science related to sage-grouse

biology and habitat conservation as outlined in the ODFW Oregon Sage-Grouse Mitigation Program (ODFW 2023). Mitigation is comprised, in hierarchical order, of avoidance, minimization, and compensatory mitigation.” This Plan defines which road segments will be included in the indirect impact analysis in sage-grouse habitat per ODFW guidance.

1.2.3 County and Other Agencies

Counties and other public agencies typically require that the placement of any structures on, over, or under roads require an encroachment permit, road-use permits, or other appropriate license for ROW occupancy.

In addition, an encroachment permit or similar authorization will be required from the applicable jurisdictional agency at locations where construction activities will occur within or above the public-road ROW. The specific requirements of the encroachment permit from the applicable transportation agencies are determined on a project-by-project basis.

2.0 ACCESS ROAD CLASSIFICATION

Construction of the Project will require vehicle, truck, and crane access to all construction areas. Existing roads will be used as the main access road network. IPC assumes that existing paved roads and bridges were designed to meet Oregon Department of Transportation and Idaho Transportation Department and other applicable standards and will therefore not require improvements prior to Project construction. Access to construction sites will require improvements to existing unpaved roads and construction of new access roads. Construction of new access roads will be required only as necessary to access structure sites lacking direct access from existing roads, or where topographic conditions such as steep terrain, rocky outcrops, and drainages prohibit safe overland access to the Project. Most construction areas will be accessed using low-standard roads including those owned by private parties, counties, and state and federal agencies.

2.1 Definitions

The following definitions and figures are provided for clarification:

- Access Road:** A linear travel route designated to support construction, operation, and maintenance of the transmission line.
- Bladed Road:** Roads constructed using heavy equipment and designed to support vehicular traffic. Bladed road features typically include cuts and/or fills to construct a smooth travel surface and manage surface water drainage and include the manipulation or creation of a road prism and profile. Bladed roads are used where side slope is over 5 percent or over rough and uneven terrain. Typical construction disturbance is 16 feet wide but can be up to 120 feet wide as dictated by terrain and soil condition. The operational width is 14 feet.
- Primitive Road:** Commonly called a “two track” or “overland travel” road, a primitive road is a road created by the operator’s direct vehicle use with little or no grading and includes overland routes within a defined travel corridor that leave no defined roadway beyond crushed vegetation. Clearing of woody vegetation and other obstruction will commonly occur along the travel way to allow safe vehicular travel. Drainage must be maintained, where appropriate, to avoid erosion or the creation of a muddy, braided road. Primitive roads or

routes necessitate low vehicle speed and are typically limited to four-wheel drive or high clearance vehicles. Primitive roads are not intended for use as all-weather roads.

- Road Alignment:** The series of horizontal curves and tangents that define the travel path.
- Road Prism:** The area consisting of the road surface and any cut slope, fill slope and contiguous drainage features (Figures 1, 2, and 3). For primitive roads, the road prism is defined as the travel surface and extent of clearing necessary for horizontal clearance or the extent of modification from the natural condition, whichever is greater (Figure 4).
- Road Profile:** The trace of a vertical plane intersecting the surface along the longitudinal centerline of the roadbed.
- Road Segment:** The section of road between nodes of a road network (Figure 5). Nodes occur at one of the following three points:
- Intersections/splits in the road network;
 - Points where new roads (bladed or primitive) meet existing roads (substantial modification or no substantial modification); or
 - Points where new bladed roads meet new primitive roads.
- Road Surface:** The surface of the road on which vehicles would travel.

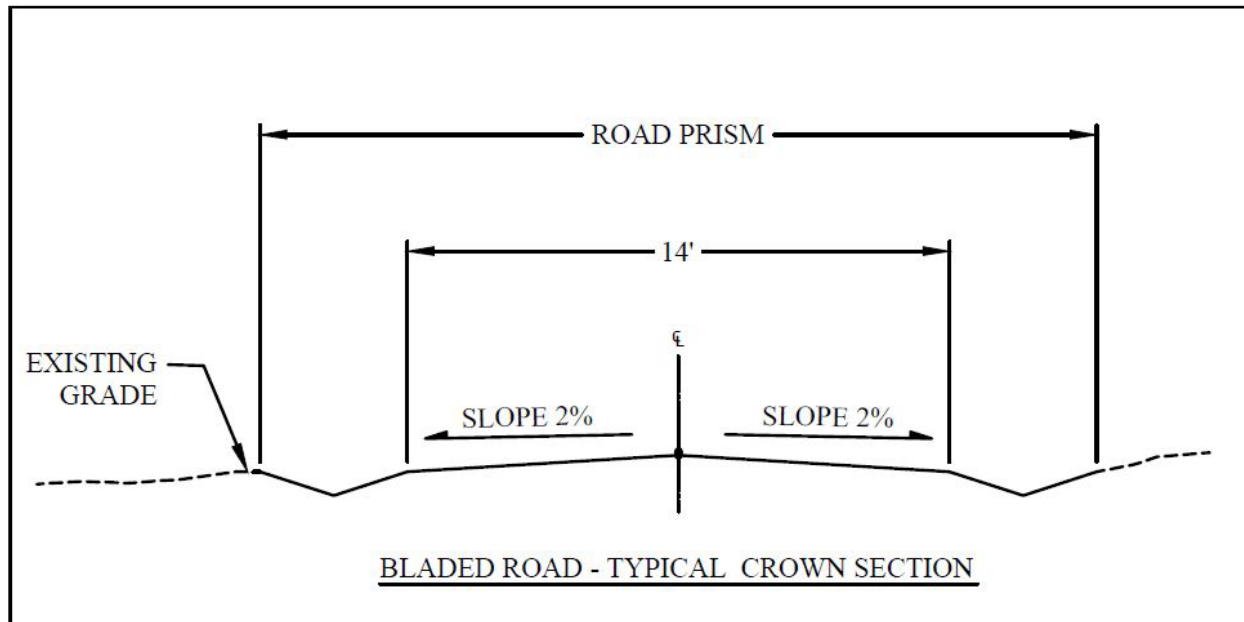


Figure 1. Road Prism Typical Crown Section

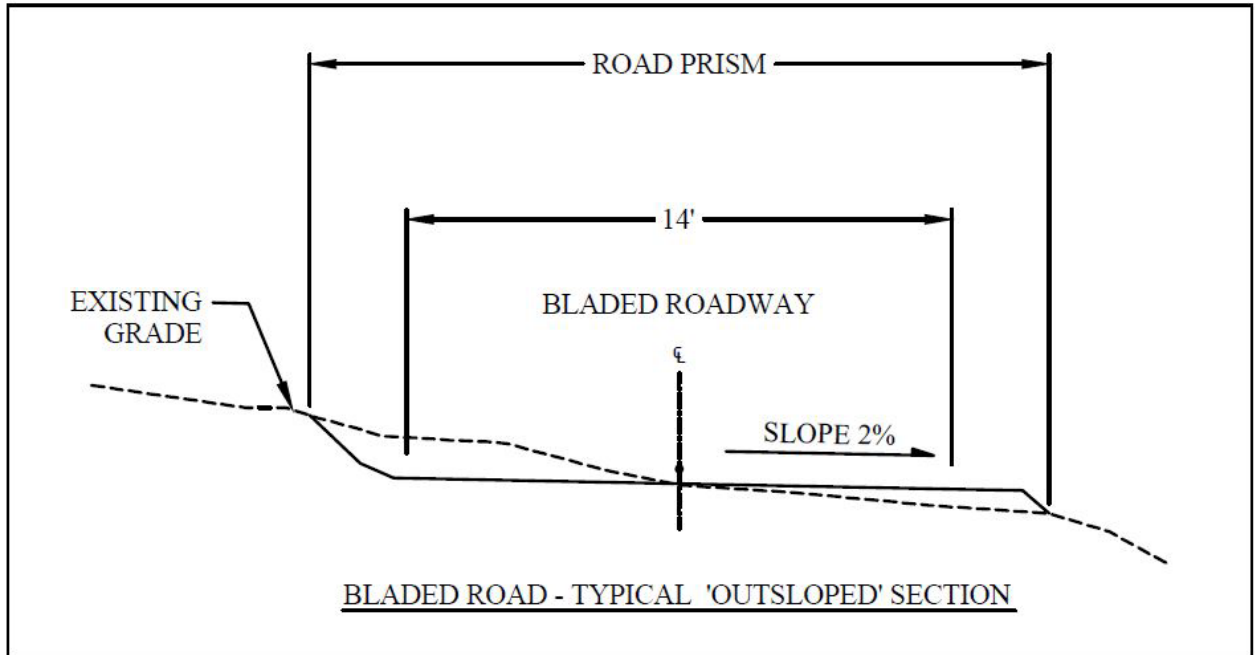


Figure 2. Road Prism Typical Outsloped Section

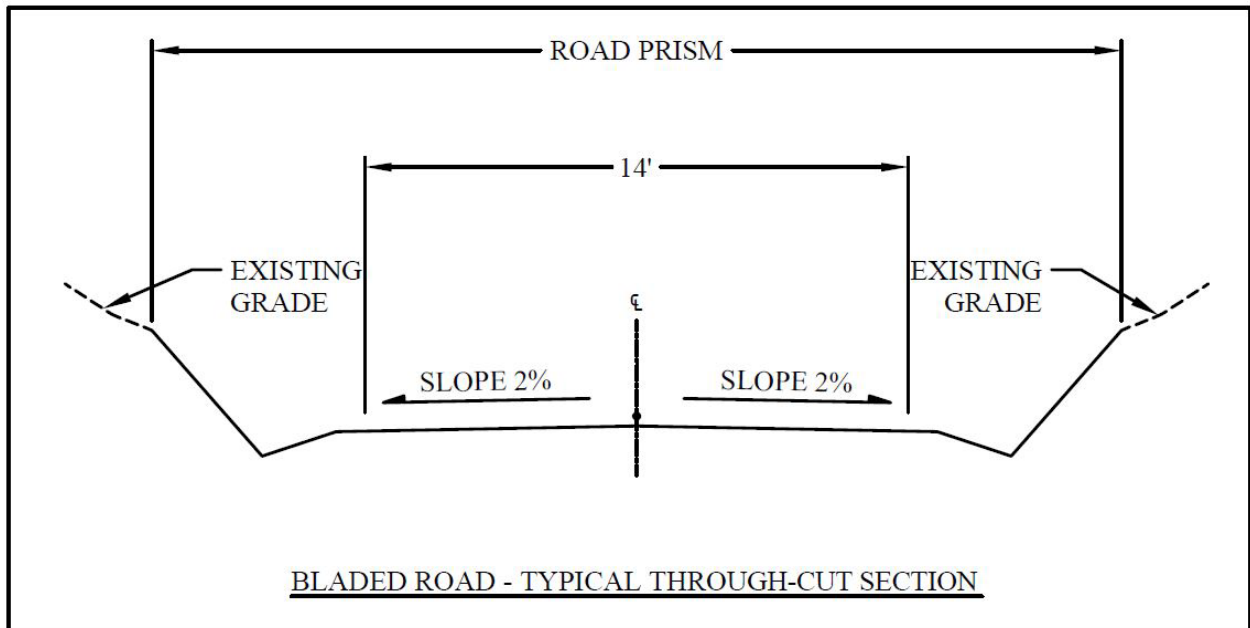


Figure 3. Road Prism Typical Through-Cut Section

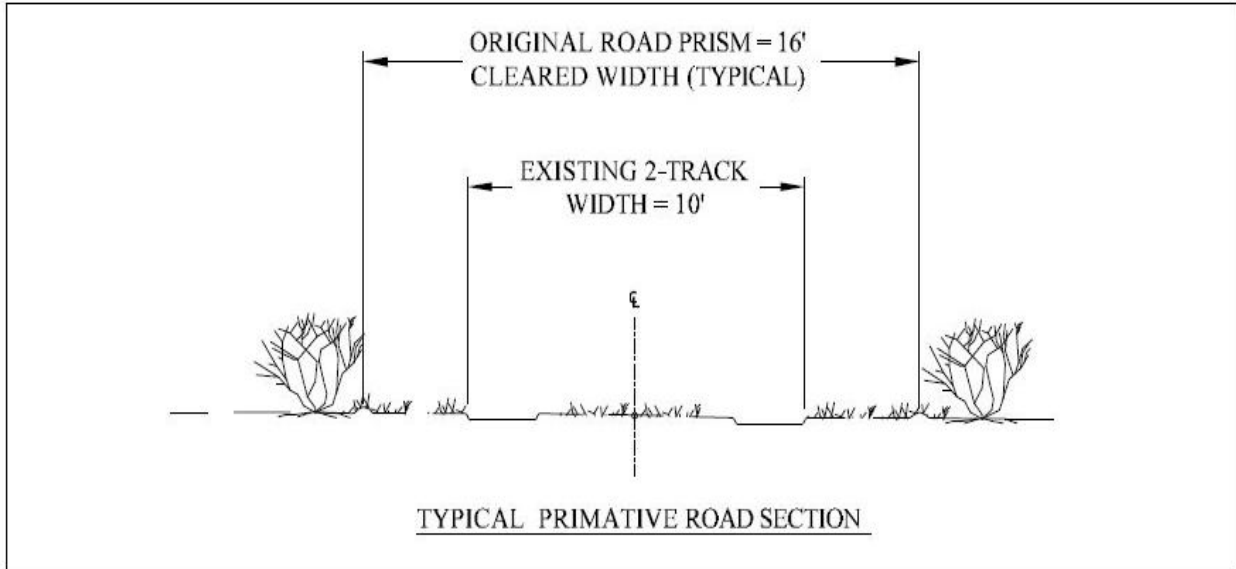


Figure 4. Road Prism Typical Primitive Road Section

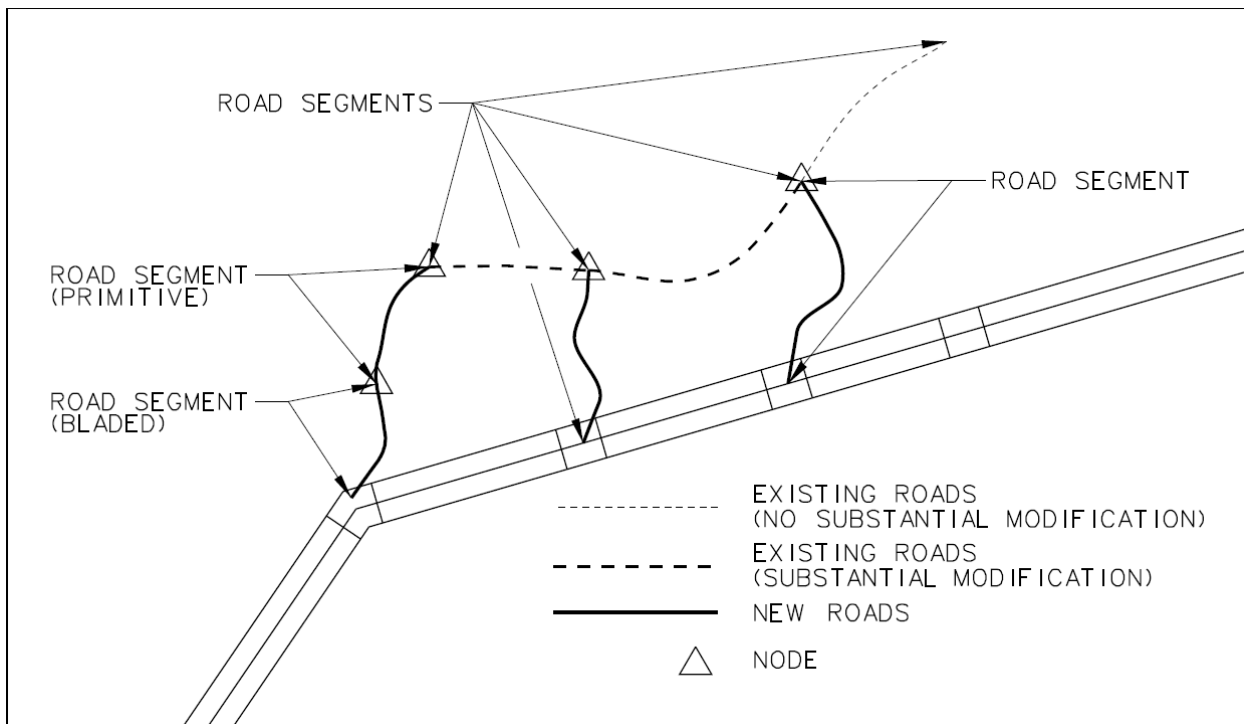


Figure 5. Road Segment Diagram

2.2 Access Road Classification Methodology

2.2.1 Identifying Road Segments

As a first step, IPC identified each of the roads that will be used to access the transmission line and its related and supporting facilities. Next, IPC segmented the roads so that each segment could be classified. The endpoints (also referred to as nodes) of each road segment were located at the following points:

- Intersections/splits in the road network;
- Points where new roads (bladed or primitive) meet existing roads (substantial modification or no substantial modification); or
- Points where new bladed roads meet new primitive roads.

2.2.2 Classifying Road Segments

IPC classified each road segment based upon the type of repair or level of disturbance that will be needed to make the roads usable for construction and operation of the Project. Each road segment was placed into one of the following three classifications: (i) new roads constructed for the Project; (ii) existing roads that will be substantially modified; and (iii) existing roads that will not be substantially modified.¹ The classifications are described in detail in Sections 2.2.2.1 through 2.2.2.3 and summarized in Table 1 below.

¹ IPC reserves the right to request that ODOE acknowledge the reclassification of the road segments based on the final Project design and construction—for example, if the construction contractor determines that a road segment identified as requiring substantial modification needs no or limited improvements, IPC may request that the road segment be reclassified as “no substantial modification.”

Table 1. Summary of Access Road Classifications

Access Road Classification		Site Boundary	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
New Roads	Primitive	200 feet	16 feet	10 feet	Yes	Clearing of vegetation or obstructions. Create roads by direct vehicle travel.
	Bladed>	200 feet	0-8% slope – 30 feet. 8-15% slope – 45 feet. 15-30% slope – 75 feet. >30% slope – 120 feet	14 feet	Yes	Clearing of vegetation or obstructions. Create roads by cutting/filling existing terrain.
Existing Roads – Substantial Modification	Substantial Modification, 21-70% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
	Substantial Modification, 71-100% Improved	100 feet	0-15% slope – 25 feet >15% slope 60 - feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
Existing Roads – No Substantial Modification	No Substantial Modification, 0-20% Improved	NA ¹	NA ¹	NA ¹	No	Repair of existing road to maintain original road function. No betterment of existing road function or design.

¹ Existing roads with no substantial modifications are not included in the Site Boundary and do not have an operation or construction disturbance width assigned to them.

2.2.2.1 New Roads

New Primitive Roads. New primitive roads are characterized as follows:

- Created by direct vehicle travel over native material and existing vegetation.
- Disturbance may include clearing of large woody vegetation and other obstructions to ensure safe vehicle operation.
- Will generally be present on the landscape as two-track roads leaving no disturbance beyond the edge of the travel surface.
- May require intermittent maintenance work to support continued safe vehicle passage during construction.
- Typical construction disturbance is 16 feet wide. The operational width is 10 feet. The Site Boundary for a new primitive road will be 200 feet wide (100 feet each side of centerline).

New Bladed Roads. New bladed roads are characterized as follows:

- Construction of new road prism across side slope over 5 percent or over rough and uneven terrain.
- Typical construction disturbance is 16 feet wide but can be up to 120 feet wide as dictated by terrain and soil conditions. The operational width is 14 feet. The Site Boundary for a new bladed road will be 200 feet wide (100 feet each side of centerline).

New roads are identified as being primitive or bladed for purposes of describing the disturbance width. The disturbance width may affect the Project's impact analysis elsewhere in the application, but it does not affect the classification of the roads for purposes of determining whether they are included in the Site Boundary. All new roads—primitive or bladed—are considered related or supporting facilities and are included in the Site Boundary.

2.2.2.2 Existing Roads – Substantial Modification

To determine whether existing roads will require improvements, IPC conducted field reconnaissance and surveyed aerial photos of existing road segments. If IPC determined improvements to an existing road will involve one or more of the following activities, the road segment was classified as requiring substantial improvements: (1) increasing the width of the existing road prism, (2) changing the existing road alignment, (3) using materials inconsistent with the existing road surface, (4) changing the existing road profile, or (5) involving repairs to more than 20 percent of the road surface area defined by road prism width and longitudinal distance over a defined road segment.

Existing roads that will require substantial modification are characterized as follows:

- Typical construction disturbance is 16 feet wide but can be up to 30 feet wide when road modification exceeds 70 percent. The operational width is 14 feet. The Site Boundary for a substantial modification existing road will be 100 feet wide (50 feet each side of centerline).

Existing roads requiring substantial modification are identified as requiring 21–70 percent improvements or 71–100 percent improvements. The distinction between the two improvement categories may affect the Project's impact analysis, but it does not affect the classification of the roads for purposes of determining whether they are included in the site boundary. Each existing road requiring improvements to more than 20 percent of the road is considered a related or supporting facility and is included in the site boundary.

2.2.2.3 Existing Roads – No Substantial Modification.

IPC classified existing road segments as requiring no substantial improvements if the road segments will meet each of the following criteria:

1. Road maintenance activities will be limited to repair of the road prism to (i) produce a stable operating surface, (ii) ensure proper drainage and erosion control, and (iii) establish horizontal clearance;
2. Proposed repair and/or construction activities will not (i) increase the width of the existing road prism, (ii) change the existing road alignment, (iii) use materials inconsistent with the existing road surface, and/or (iv) change the existing road profile; and
3. Repairs will be limited to 20 percent or less of the road surface area defined by the road prism width and longitudinal distance over a defined road segment.

2.3 Access Control

Access control will be implemented where agencies and landowners have concern about increased or unauthorized access to lands. Access control will also be implemented to minimize the effects that roads have on wildlife and wildlife habitat. These effects are discussed in Exhibits P1, P2, P3, and Q of the ASC. This Plan only identifies potential access control locations for road segments within elk and sage-grouse habitat, access control on road segments outside of elk and sage-grouse habitat are determined on a case-by-case basis. Proposed access control locations are being vetted with landowners as part of the ROW acquisition process. Field verifications will need to occur prior to installation.

Many of the proposed locations for access control occur in locations where it is anticipated that some level of access control is already present, such as fence lines, property boundaries, and private driveways. Therefore, some of the proposed access control locations are likely already providing sufficient access control and little to no improvement of those access controls would be required to maintain effectiveness. IPC developed this Plan in consideration of ORS 105.700 regarding prohibiting public access to private land, and ORS 164.245 regarding criminal trespass. This Plan assumes that access control on private property is effective because of these statutes. Placement of access control on private parcels was reviewed for the ingress and egress required to support construction and operation of the Project.

This Plan does not propose any new access control for existing roads on public land. Access control for new roads on public lands depends on how those lands are designated within the respective agency's travel management plan. Access control is not proposed for any Project roads on public lands that are designated as open. Access control is proposed for all new roads on public lands that are designated as limited, except where multiple existing roads cross the proposed new road making access control a burden and unlikely to be ineffective. No Project roads occur within public lands designated as closed.

Access control proposed in this Plan would typically involve the installation of gates. However, other forms of barriers, and/or signage may be used as preferred by the landowner or agency while maintaining effectiveness. Figure 6a and 6b show details of typical gates that would be used to control access. These include a single 16-foot wide gate, a single 20-foot wide gate, and two 16-foot wide gates (32-feet total).

There are two access control designations: Primary and Secondary. Primary access control points are new and are located where placement of a control device would block access to an entire road or network of roads. Primary access control points are most often located where a

Project road departs from a public road, crosses from private to public lands, or enters into elk or sage-grouse habitat. Secondary access control points occur along Project roads on private land and are either existing gates or proposed gates where new roads will cross property boundaries. There are 118 primary and 84 secondary access control points proposed.

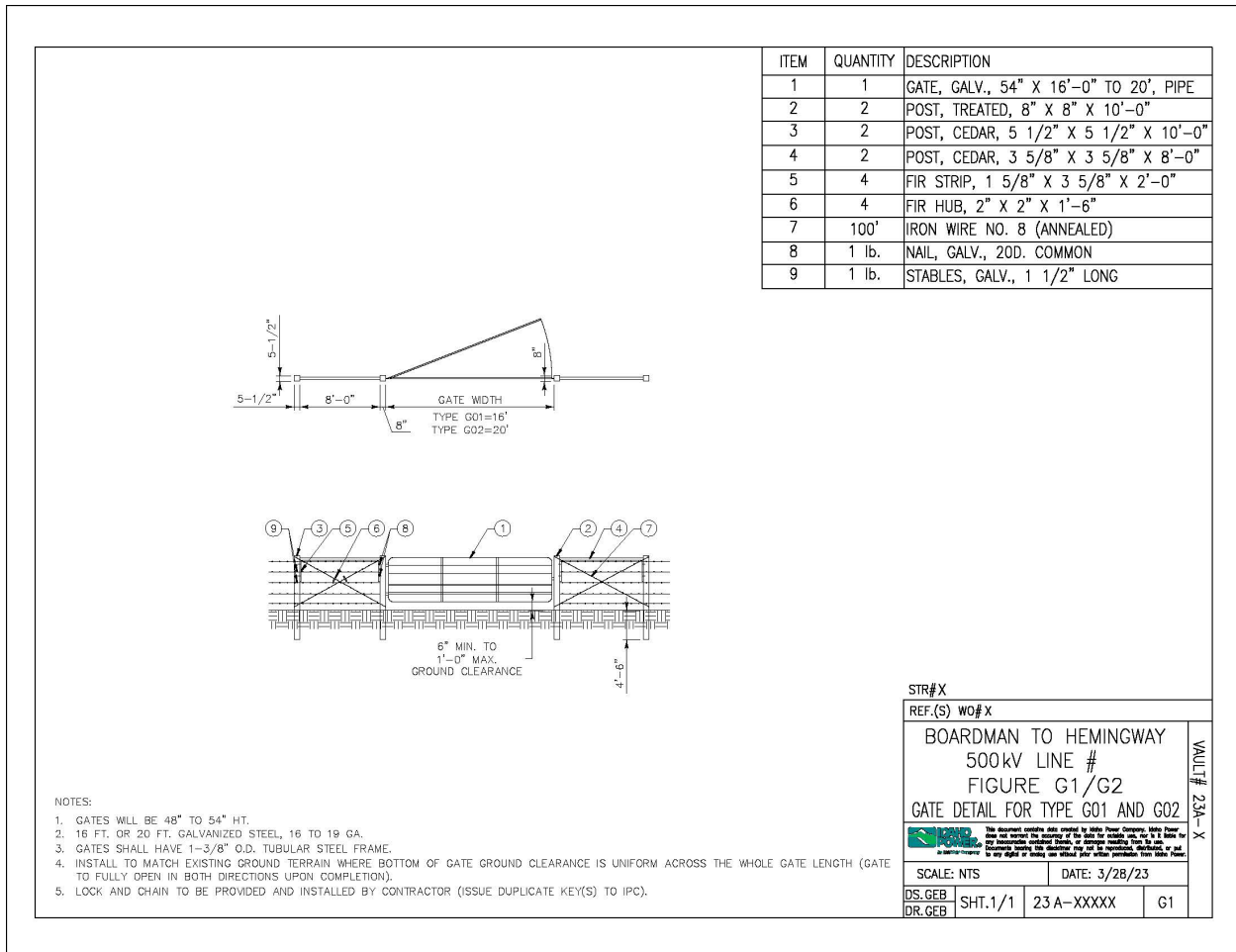


Figure 6a. Typical Gate 16-20 Feet Wide

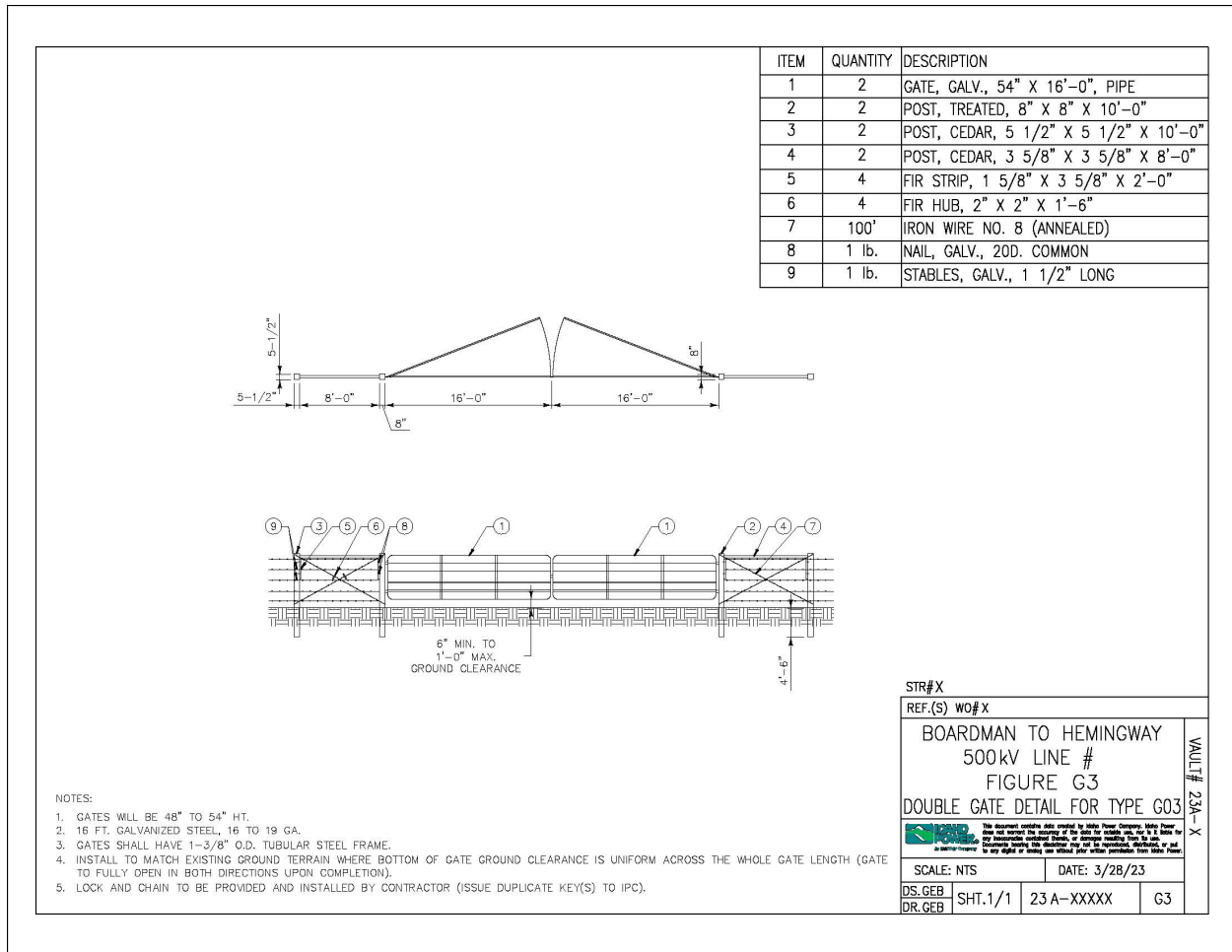


Figure 6b. Typical Gate 32 Feet Wide

3.0 ACCESS ROAD DIRECT IMPACT CALCULATIONS AND INDIRECT IMPACT DESIGNATION

The Project layout is maintained within a Geographical Information System (GIS) for analysis during Project permitting. Access roads are maintained within their own dataset within the GIS. Within the access road dataset each road segment has its own entry (row) where attributes (columns) are maintained that provide information on the nature, extent, and duration of impacts.

All ground disturbance associated with road segments within the Site Boundary will have direct impacts on wildlife habitat, and those impacts are part of the analysis discussed in Exhibits P1, P2, P3, and Q of the ASC. Ground-disturbing activities can also have indirect impacts on wildlife habitat. Indirect impacts are those that are caused by the direct impact but occur later in time or farther removed in distance. Specific examples of indirect impacts on wildlife habitat are presented in Exhibits P2 and P3 of the ASC.

Table 1 above summarizes the access road classifications. The nature of the impact is defined by the road classification attributed to each road segment (i.e., definition of substantial modification or primitive or bladed roads). The extent of the impact for direct impacts is defined by the construction and operational widths as described in the road classifications and the length of each road segment which is generated by default within the GIS. The duration of the impacts depends on whether the road disturbance is attributed as temporary or permanent. The definition of temporary and permanent impacts and their duration can be found in Exhibit P1 of the ASC. The extent of indirect impacts depends on guidance provided by ODFW and is detailed in Exhibits P1, P2, and P3 of the ASC.

Table 2 defines each attribute found within the access road GIS dataset and included in Appendix A.. Attributes are considered when determining if a road segment will be included in the calculation of indirect impacts. A flowchart was developed (Figure 7) to make the determination whether to include a road in the indirect impact analysis.

Table 2. Access Road GIS Attributes

Attribute	Definition
Unique ID	The unique identification for each road segment. The identification contains a two-letter acronym for the county where it occurs (BA=Baker, MA=Malheur, etc.), and a sequential number based on the northing coordinate of the midpoint of the road segment (ordered from north to south). Example: BA-126.
Road Name	Identifies named roads that have some type of access control associated with them.
Map Number	Identifies which map in Appendix B the road section and access control is located on.
Route	Identifies which route the road segment is accessing(Proposed Route or RFA reroute .
Road Classification	Identifies the road classification based on Section 2.2. Example: Existing Road, Substantial Modification, 21-70% Improved.
Ownership	Identifies the landowner at the midpoint of the road segment. PV = private; DOD = Department of Defense; BLM = Bureau of Land Management; USFS = U.S. Forest Service; STATE = State of Oregon/Idaho; and BOR = Bureau of Reclamation.
Access Control	Identifies if access control is proposed or not and the type of access control being proposed (gate type, signage, other)
Other	Identifies road segments that are controlled by a gate that is on different road segment.
Road Length	Total length of road segment in linear feet.
Spur Road	Is the road a “spur road”? Yes or No A spur road is one that ends at a structure and whose endpoint is visible from the point of departure. This consideration is part of the indirect impact flowchart (Figure 7). A spur road is assumed to have no increase in traffic regardless of access control.
Traffic Volume Increase	Is there an anticipated increase in traffic volume? Yes or No (or NA if outside sage-grouse and/or elk habitat). (Figure 7)

Table 2. Access Road GIS Attributes

Attribute	Definition
Include in Indirect	Will the road be included in indirect impacts calculation? Yes or No . (If 'Traffic Volume Increase' = Yes and 'Wildlife' = Yes, then 'Include in Indirect Impacts Mitigation' = Yes; otherwise = No). (Figure 7).
New Access Control	Identifies if access control locations are newly defined in 2023 or were part of the ASC from 2018. The <Null> values are either in Owyhee County, Idaho or "Not Included in Impacts Calculations" which means they weren't in the wildlife habitat data.

PROCESS FLOWCHART

DECIDING WHETHER A PROJECT ROAD WILL HAVE AN ANTICIPATED INCREASE IN TRAFFIC VOLUME AND THEREFORE BE INCLUDED IN INDIRECT IMPACTS CALCULATIONS

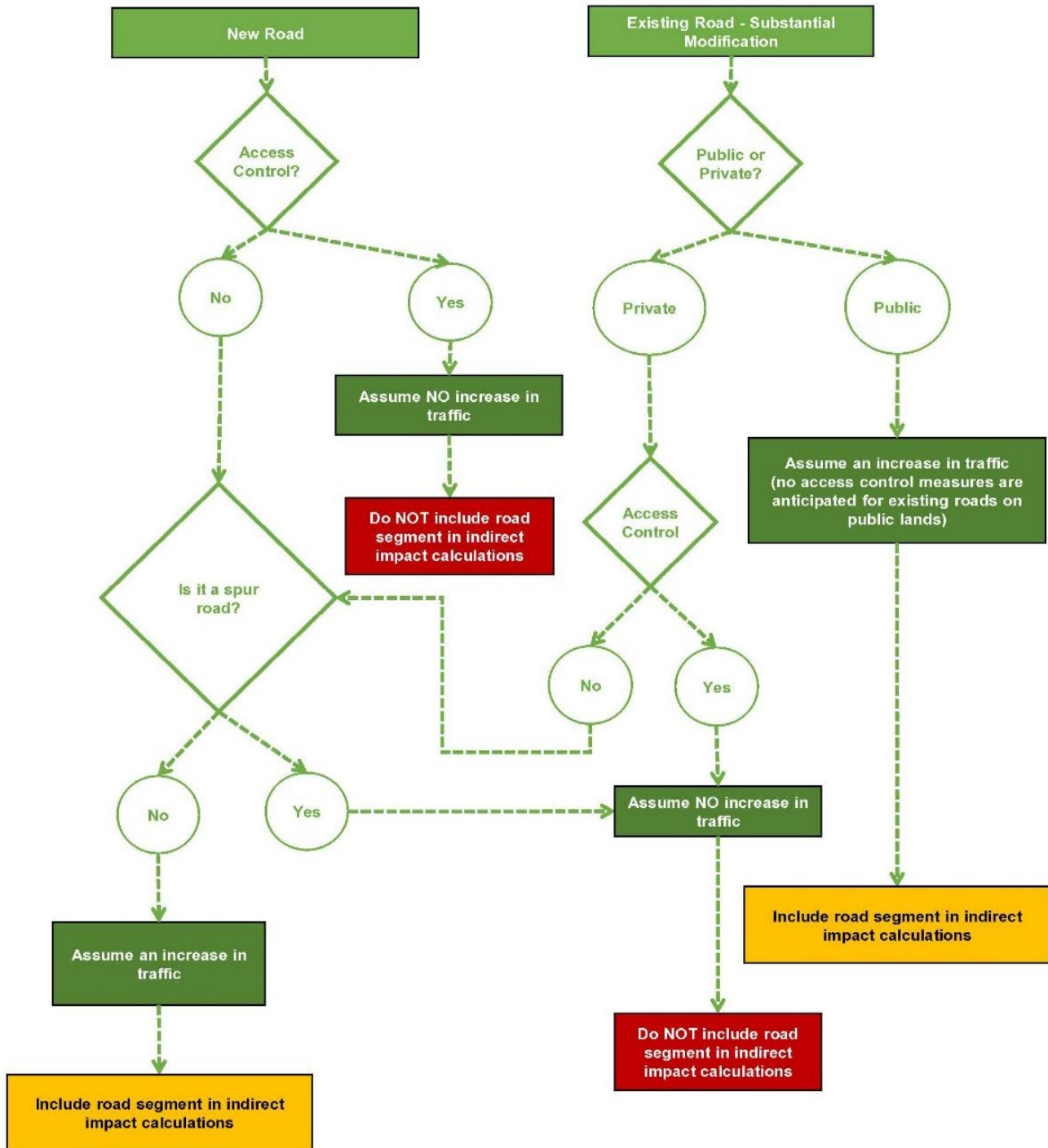


Figure 7. Indirect Impact Flowchart

3.1 Example of Road Segments

Figure 8 shows an example of the Project road segment classification and access control. Table 3 shows the attribute table for the road segments in the example. The table only shows construction impacts attributes for ease of explanation.

Road segment UN-102 is an existing road with substantial modification (21-70 percent improvements) on USFS land within elk winter range. No access control is proposed for this road or any existing roads on USFS- or BLM-managed lands. Modifications would provide improved access; therefore, an increase in traffic volume is assumed. Since the road segment is within elk winter range and an increase in traffic is assumed, UN-102 will be included in indirect impact calculations for elk. It will result in 0.636 acre of direct impact during construction.

Road segment UN-105 is a new, bladed road on USFS land within elk winter range. No access control is proposed for this road segment. This road segment is considered a spur road (Figure 7); therefore, no increase in traffic volume is assumed. UN-105 will not be included in indirect impact calculations for elk. It will result in 0.261 acre of direct impacts during construction.

Road segment UN-106 is an existing road with substantial modification (21-70 percent improvements) on both USFS (0.087 acre of direct impact) and private land (0.173 acre of direct impact) within elk winter range. Access control is proposed for this road segment at the property line shared with the USFS. The portion of UN-106 on USFS land will be included in the indirect impact calculations for elk. The portion of the road segment on private land has access control and will not be included in indirect impact calculations for elk.

Road segments UN-112 (0.338 acre of direct impact) and UN-116 (0.383 acre of direct impact) are existing roads with substantial modification (21-70 percent improvements) on private land within elk winter range. Access control for both road segments occurs on road segment UN-106; therefore, neither road segment is included in the indirect impact calculations for elk.

Road segments Un-111 (0.041 acre), UN-113 (0.250 acre), UN-114 (0.100 acre), UN-115 (0.365 acre), UN-117 (0.527 acre), and UN-128 (1.627 acres) are all new road segments on private land within elk winter range. UN-128 is a new bladed road segment while the others are new primitive road segments. UN-111 and UN-114 are both considered spur roads. All of these road segments are access controlled at road segment UN-106 and not included in the indirect impact calculation for elk.

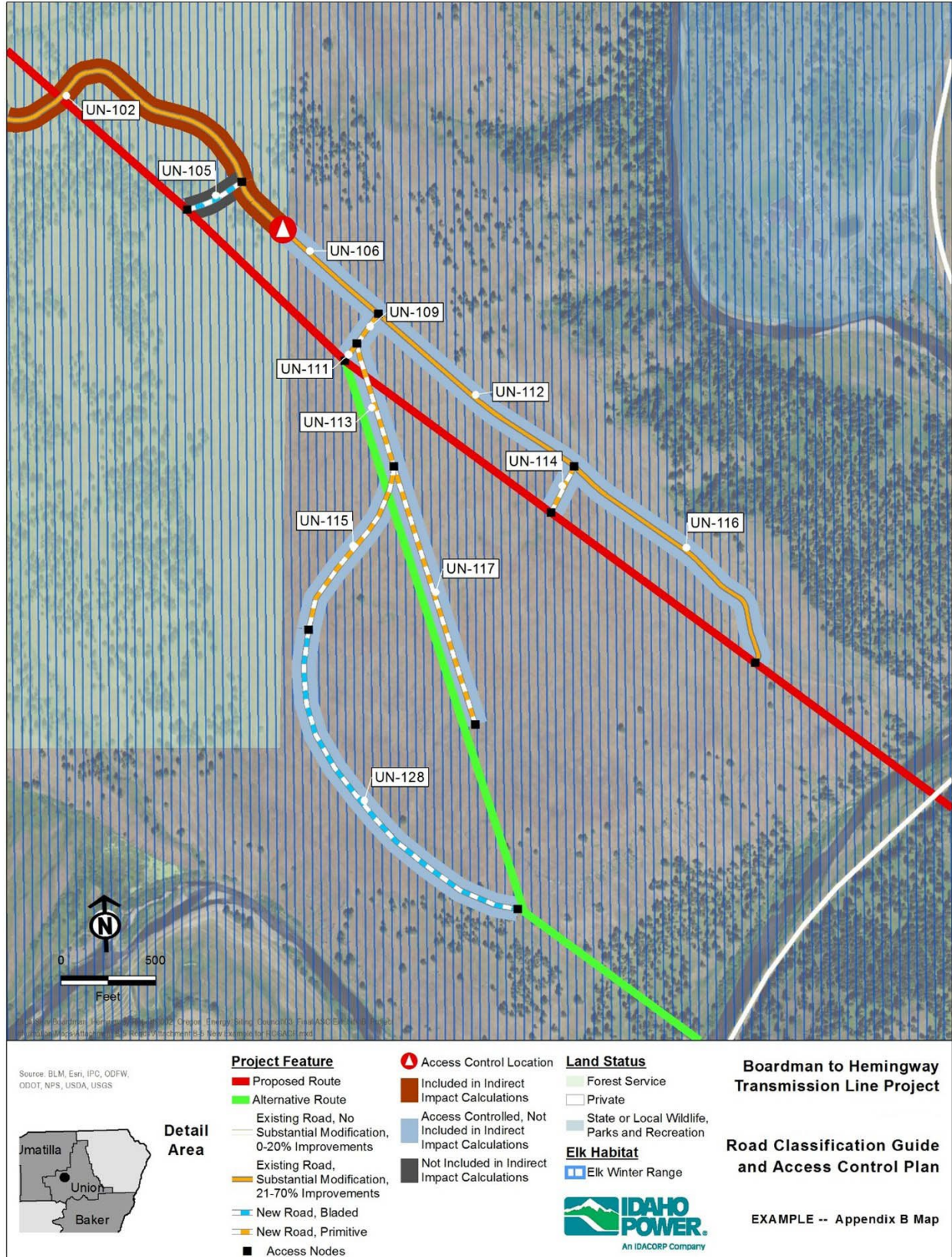


Figure 8. Road Segment Example

Table 3. Attribute Table for Road Segment Example

Unique ID	Map Number	Route	Road Classification	Owner	Access Control	Other	Road Length (miles)	Spur Road	Traffic Volume Increase	Include in Indirect	New Access Road
UN-102	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS	No	NA	2,474.67	No	Yes	Include in Indirect	NA
UN-105	61	Proposed Route	New Road, Bladed	USFS	No	NA	325.08	Yes	No	Yes	NA
UN-106	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	PV	Yes	NA	671.70	No	No	No	NA
UN-106	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS	No	NA	338.89	No	Yes	No	NA
UN-109	61	Proposed Route	New Road, Primitive	PV	Other	UN-106	192.57	No	No	Yes	NA
UN-109	61	Morgan Lake Alt.	New Road, Primitive	PV	Other	UN-106	192.57	No	No	No	NA
UN-111	61	Proposed Route	New Road, Primitive	PV	Other	UN-106	111.43	Yes	No	No	NA
UN-111	61	Morgan Lake Alt.	New Road, Primitive	PV	Other	UN-106	111.43	Yes	No	No	NA
UN-112	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	PV	Other	UN-106	1,316.03	No	No	No	NA
UN-113	61	Morgan Lake Alt.	New Road, Primitive	PV	Other	UN-106	680.01	No	No	No	NA
UN-114	61	Proposed Route	New Road, Primitive	PV	Other	UN-106	273.40	Yes	No	No	NA
UN-115	61	Morgan Lake Alt.	New Road, Primitive	PV	Other	UN-106	994.42	No	No	No	NA

Unique ID	Map Number	Route	Road Classification	Owner	Access Control	Other	Road Length (miles)	Spur Road	Traffic Volume Increase	Include in Indirect	New Access Road
UN-116	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	PV	Other	UN-106	1,490.65	No	No	No	NA
UN-117	61	Morgan Lake Alt.	New Road, Primitive	PV	Other	UN-106	1,433.49	No	No	No	NA
UN-128	61	Morgan Lake Alt.	New Road, Bladed	PV	Other	UN-106	2,025.16	No	No	No	NA

4.0 ACCESS ROAD SUMMARY

Classification of Project access roads follows the methods shown in Section 3. A complete list of all Project road segments is provided in Appendix A. The location of each access road segment is displayed on maps in Appendix B. The maps display each road segment, preliminary access control locations, ownership, and elk and sage-grouse habitat. A discussion on the type and amount (acres) of impact associated with roads are not presented in this Plan. The road impacts are part of the analysis performed within other Exhibits throughout the ASC. The following is a summary of miles of road segments according to their road classification and access control status.

Vehicular traffic associated with construction and operation of the Proposed Route in Oregon will require access to 652.5 miles of new and existing roads including:

- 75.8 miles of existing roads with no improvements required;
- 123.8 miles of existing roads with no substantial improvements;
- 190.0 miles of existing roads with 21-70 percent improvement;
- 68.7 miles of existing roads with 71-100 percent improvement;
- 155.8 miles of new, bladed roads; and
- 38.4 miles of new, primitive roads.

Of the 453.0 miles of existing roads requiring improvement, and new roads associated with the Proposed Route in Oregon:

- 210.2 miles occur within elk habitat outside of elk de-emphasis areas (includes the Columbia Basin and East Beulah Wildlife Management Units);
- 174.9 miles of the 210.2 miles within elk habitat are access controlled;
- 35.2 miles are identified for inclusion in the indirect impact analysis for elk (Exhibit P3);
- 97.6 miles occur within sage-grouse habitat;
- 71.3 miles of the 97.6 miles within sage-grouse habitat are access controlled;
- 26.2 miles are identified for inclusion in the indirect impact analysis for sage-grouse (Exhibit P2 of the ASC).

5.0 REFERENCES

IPC (Idaho Power Company). 2018. Idaho Power Company Application for Site Certificate for the Boardman to Hemingway Transmission Line Project. September.

ODFW (Oregon Department of Fish and Wildlife). 2023. Oregon Sage-Grouse Mitigation Program. Available online at: <https://www.dfw.state.or.us/wildlife/sagegrouse/mitigation.asp> (accessed April 13, 2023).

APPENDIX A
ACCESS ROAD SEGMENTS ATTRIBUTE TABLE

Map Unique ID	Map Number	Route	Road Classification	Owner	Access Control		Road Length (miles)	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
					Other	Other					
BA-550	57	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.227333	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-551	57	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.06177	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-552	57	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.16823	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-553	57	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.099954	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-554	57	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.404589	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-555	57	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.084533	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-556	58	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.39177	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-557	58	Reroute "K" Huntington	New Road, Bladed	Private	Other	BA-565	0.063485	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-558	58	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.178058	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-559	58	Reroute "K" Huntington	New Road, Primitive	Private	Other	BA-565	0.067441	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-560	58	Reroute "K" Huntington	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-565	0.226187	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-561	58	Reroute "K" Huntington	New Road, Bladed	Private	Other	BA-565	0.023332	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-566	58	Reroute "K" Huntington	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-565	0.271203	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-567	58	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.161068	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-568	58	Reroute Bokides	New Road, Bladed	Private	Other	BA-565	0.297464	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-569	58	Reroute Bokides	New Road, Bladed	Private	Other	BA-565	0.05826	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-570	58	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-565	0.296656	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-571	58	Reroute Bokides	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-565	0.281909	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-572	58	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.198641	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-573	58	Reroute Bokides	New Road, Bladed	Private	Other	BA-565	0.048837	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-574	58	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.135625	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-575	58	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.158409	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-580	59	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM	Other	BA-580	0.060842	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-580	59	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Bureau of Land Management	Yes	(blank)	0.127632	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-584	60	Proposed Route	New Road, Bladed	BLM	Other	BA-580	0.295546	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-585	60	Proposed Route	New Road, Primitive	Private	Other	BA-701	0.152861	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-590	60	Proposed Route	New Road, Primitive	Private	Other	BA-668	0.244339	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-594	60	Proposed Route	New Road, Primitive	Private	Yes	(blank)	0.306144	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-595	60	Proposed Route	New Road, Bladed	Private	Yes	(blank)	0.632695	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-596	60	Proposed Route	New Road, Bladed	Private	Other	BA-595	0.033623	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-597	60	Proposed Route	New Road, Bladed	BLM	Other	BA-595	0.296503	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-597	60	Proposed Route	New Road, Bladed	Private	Other	BA-595	0.182178	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-598	61	Proposed Route	New Road, Bladed	BLM	Other	BA-595	0.154809	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
BA-599	42	Proposed Route (138-kV Rebuild)	New Road, Bladed	Private	(blank)	(blank)	0.073389	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-600	42	Proposed Route (138-kV Rebuild)	New Road, Bladed	Private	(blank)	(blank)	0.033322	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-601	59	Reroute Bokides	New Road, Bladed	Private	Yes	(blank)	1.069038	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-602	60	Proposed Route	New Road, Bladed	Bureau of Land Management	Other	BA-580	1.274357	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-614	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	<Null>	<Null>	0.291651	No	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-616	61	Proposed Route	New Road, Bladed	BLM	Other	BA-595	0.179949	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-618	53	Proposed Route	New Road, Bladed	Private	Other	BA-505	0.111808	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-619	53	Proposed Route	New Road, Bladed	Private	Other	BA-505	0.107503	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-620	43	Proposed Route	New Road, Bladed	Private	No	(blank)	0.053566	Yes	No	Included in Indirect Impact Calculations	New 2023
BA-621	<Null>	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Bureau of Land Management	(blank)	(blank)	0.252398	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-623	<Null>	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	(blank)	(blank)	0.537337	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-627	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.307141	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-628	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.889408	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-629	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.203446	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-630	49	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.225225	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-632	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.126601	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-635	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.428335	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-636	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.046381	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-637	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Yes	(blank)	0.629138	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-638	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.06817	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-640	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.21081	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-641	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.023956	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-642	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.17189	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-643	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Bureau of Land Management	Other	BA-637	0.16513	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-644	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.168941	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-645	49	Reroute "A" Owen	New Road, Bladed	Bureau of Land Management	Other	BA-637	0.084536	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-647	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.175526	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-648	49	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-637	0.595411	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-649	49	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.191725	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-650	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.216847	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-651	49	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.221907	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-652	49	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.13329	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>

Map Unique ID	Map Number	Route	Road Classification	Owner	Access Control		Road Length (miles)	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
BA-653	50	Reroute "A" Owen	Existing Road, Substantial Modification, 71-100% Improvements	Private	(blank)	(blank)	0.541535	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-654	50	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.267454	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-655	50	Reroute "A" Owen	New Road, Bladed	Private	(blank)	(blank)	0.210502	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-656	43	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.027636	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-658	43	Proposed Route	New Road, Primitive	Private	Other	BA-218	0.033857	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-659	48	Proposed Route	New Road, Bladed	Private	Other	BA-370	0.318378	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-662	<Null>	Proposed Route	New Road, Primitive	Private	(blank)	(blank)	0.096945	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-663	<Null>	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.04203	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-664	57	Proposed Route	New Road, Bladed	Private	Other	BA-565	0.026981	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-665	47	Proposed Route	New Road, Bladed	Private	Other	BA-348	0.1102	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-666	48	Proposed Route	New Road, Bladed	Private	Other	BA-370	0.049977	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-667	48	Proposed Route	New Road, Bladed	Bureau of Land Management	Other	BA-370	0.232068	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-668	60	Proposed Route	New Road, Primitive	Private	Yes	(blank)	0.113446	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-669	45	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.045381	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-670	61	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	No	(blank)	1.330134	No	Yes	Included in Indirect Impact Calculations	New 2023
BA-671	45	Proposed Route	New Road, Bladed	Private	Other	BA-303	0.0108	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-672	46	Proposed Route	New Road, Bladed	Private	Yes	(blank)	0.269549	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-673	46	Proposed Route	New Road, Bladed	Private	Yes	(blank)	0.235957	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-674	46	Proposed Route	New Road, Bladed	Private	Other	BA-315	0.296235	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-675	<Null>	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.025594	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-676	53	Proposed Route	New Road, Bladed	Private	Other	BA-505	0.113864	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-677	54	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-505	0.593051	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-679	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.080357	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-680	51	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Bureau of Land Management	Other	BA-449	0.053752	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-681	48	Proposed Route	New Road, Primitive	Private	Other	BA-370	0.115337	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-682	47	Proposed Route	New Road, Bladed	Private	Other	BA-349	0.131589	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-683	60	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Bureau of Land Management	Other	BA-580	0.480155	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-684	60	Proposed Route	New Road, Bladed	Bureau of Land Management	Other	BA-580	0.110207	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-685	60	Proposed Route	New Road, Bladed	Bureau of Land Management	Other	BA-580	0.060227	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-686	46	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-686	0.12563	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-687	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Bureau of Land Management	(blank)	(blank)	0.033335	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-688	<Null>	Proposed Route	New Road, Bladed	BLM	(blank)	(blank)	0.046188	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-689	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	BLM	(blank)	(blank)	0.606404	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-691	42	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.057323	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-692	42	Proposed Route	New Road, Primitive	Private	(blank)	(blank)	0.04406	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-693	42	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.048676	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-695	43	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.056644	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-696	41	Proposed Route	New Road, Bladed	Private	Yes	(blank)	0.568756	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-697	41	Reroute "P" Tetrault	New Road, Bladed	Private	No	(blank)	0.207394	No	Yes	Included in Indirect Impact Calculations	New 2023
BA-698	45	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-303	0.188341	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-699	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private	(blank)	(blank)	1.215719	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-700	46	Proposed Route	New Road, Bladed	Private	Other	BA-686	0.049609	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-701	60	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private	Yes	(blank)	0.174259	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-702	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.425444	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-703	39	Proposed Route	New Road, Primitive	Private	Other	BA-114	0.054158	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-704	40	Proposed Route	New Road, Bladed	Private	Other	BA-133	0.035559	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-705	41	Reroute "P" Tetrault	New Road, Bladed	Private	Other	BA-696	0.093708	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-706	49	Proposed Route	New Road, Bladed	Private	Other	BA-637	0.113773	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-707	<Null>	Proposed Route	New Road, Bladed	Bureau of Land Management	(blank)	(blank)	0.219022	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-708	49	Reroute "A" Owen	New Road, Bladed	Private	Other	BA-637	0.234726	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-710	50	Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.151665	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-711	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.117195	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-715	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private	(blank)	(blank)	0.485184	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-716	<Null>	Proposed Route	New Road, Bladed	BLM	(blank)	(blank)	0.156834	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-717	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	BLM	(blank)	(blank)	0.568494	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-718	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	BLM	(blank)	(blank)	0.229837	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-719	55	Proposed Route	New Road, Bladed	Private	No	(blank)	0.134513	No	Yes	Included in Indirect Impact Calculations	New 2023
BA-720	37	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	BA-059	1.760092	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-721	36	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	BA-054	0.329781	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-722	40	Proposed Route	New Road, Bladed	Private	Other	BA-118	0.085727	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-723	37	Proposed Route	New Road, Bladed	Private	Other	BA-077	0.055916	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-724	38	Proposed Route	New Road, Bladed	Private	Other	BA-077	0.082609	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-725	39	Proposed Route	New Road, Bladed	Private	Other	BA-101	0.06254	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
BA-726	41	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.011916	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
BA-726	41	Proposed Route	New Road, Bladed	ODOT	(blank)	(blank)	0.011827	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>

Unique ID	Map		Route	Road Classification	Owner	Access		Road Length (miles)	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
	Number	Proposed Route				Control	Other					
MA-081	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.445149	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-082	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		(blank)	(blank)	0.913323	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-085	<Null>	Proposed Route	New Road, Primitive	BLM		(blank)	(blank)	0.1032	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-086	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	1.212526	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-087	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.020796	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-088	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	1.088521	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-091	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	1.98403	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-093	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.090469	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-094	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.27879	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-095	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	1.769922	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-097	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.153137	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-099	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.81355	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-100	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.040124	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-101	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.072465	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-102	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.183964	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-103	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.252251	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-105	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.054154	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-106	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.11794	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-107	<Null>	Proposed Route	New Road, Primitive	BLM		(blank)	(blank)	0.351258	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-108	<Null>	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	1.336229	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-111	<Null>	Proposed Route	New Road, Bladed	Private		(blank)	(blank)	1.883664	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-116	<Null>	Proposed Route	New Road, Primitive	Private		(blank)	(blank)	0.070149	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-120	<Null>	Reroute "D" De Long/White - Lower Snake River Properties	New Road, Primitive	Private		(blank)	(blank)	0.039501	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-122	<Null>	Proposed Route	New Road, Bladed	Private		(blank)	(blank)	0.250599	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-123	<Null>	Proposed Route	New Road, Primitive	Private		(blank)	(blank)	0.267247	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-129	<Null>	Proposed Route	New Road, Primitive	Private		(blank)	(blank)	0.166059	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-133	<Null>	Proposed Route	New Road, Primitive	Private		(blank)	(blank)	0.014866	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-148	<Null>	Proposed Route	New Road, Bladed	Private		(blank)	(blank)	0.274267	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-153	62	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.564132	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-154	62	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.026949	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-155	62	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.070165	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-156	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		No	(blank)	0.17929	No	Yes	Included in Indirect Impact Calculations	Included in 2018
MA-157	63	Proposed Route	New Road, Primitive	BLM		(blank)	(blank)	0.082685	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-158	62	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.559311	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-159	62	Proposed Route	New Road, Primitive	BLM		Other	MA-615	0.32495	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-160	63	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.712356	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-161	62	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-615	0.099801	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-163	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-615	0.103753	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-164	63	Proposed Route	New Road, Bladed	BLM		Other	MA-615	0.053132	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-167	63	Proposed Route	New Road, Bladed	BLM		No	(blank)	0.311721	Yes	No	Included in Indirect Impact Calculations	Included in 2018
MA-168	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		No	(blank)	0.046387	No	Yes	Included in Indirect Impact Calculations	Included in 2018
MA-172	63	Proposed Route	New Road, Bladed	BLM		Other	MA-178B	0.470055	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-174	62	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-615	0.83061	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-175	63	Proposed Route	New Road, Bladed	BLM		Other	MA-178B	0.241159	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-176	63	Proposed Route	New Road, Bladed	BLM		Other	MA-178B	0.03655	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-177	64	Proposed Route	New Road, Bladed	BLM		Other	MA-178B	0.545064	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-178A	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		(blank)	(blank)	0.184538	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-178B	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		(blank)	(blank)	0.079674	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-178X	63	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		<Null>	<Null>	0.058486	No	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-181	63	Proposed Route	New Road, Bladed	BLM		Other	MA-178B	0.074876	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-182	64	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-623	1.057003	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-183	64	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.410212	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-185	64	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.731266	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-186	64	Proposed Route	New Road, Bladed	BLM		(blank)	(blank)	0.12594	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-188	64	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Malheur County		(blank)	(blank)	0.900516	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
MA-189	65	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-623	0.274305	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-190	65	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-623	0.196756	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-190	65	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		Other	MA-623	0.21079	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-191	64	Proposed Route	New Road, Bladed	BLM		Other	MA-183	1.211415	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-213	66	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	MA-210	0.774342	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-219	66	Proposed Route	New Road, Bladed	Private		Other	MA-210	0.051984	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-219	66	Proposed Route	New Road, Bladed	Private		Other	MA-210	0.682088	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
MA-220	67	Proposed Route	New Road, Primitive	BLM		(blank)	(blank)	0.141284	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
MA-220	67	Proposed Route	New Road, Primitive	Private		(blank)	(blank)	0.283716	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
MA-221	68	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	BLM		No	(blank)	0.041686	No	Yes	Included in Indirect Impact Calculations	Included in 2018

Appendix A – Access Road Segments Attribute Table

Unique ID	Map		Route	Road Classification	Owner	Access Control		Road Length (miles)	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
	Number						Other					
OW-444	<Null>	Proposed Route	New Road, Bladed	Bureau of Land Management		<Null>	<Null>	0.138284	No	<Null>	<Null>	<Null>
OW-445	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Bureau of Land Management		<Null>	<Null>	0.173968	No	<Null>	<Null>	<Null>
OW-446	<Null>	Proposed Route	New Road, Bladed	State or Local		<Null>	<Null>	0.024184	No	<Null>	<Null>	<Null>
OW-447	<Null>	Proposed Route	New Road, Bladed	Bureau of Land Management		<Null>	<Null>	0.107379	No	<Null>	<Null>	<Null>
OW-450	<Null>	Proposed Route	New Road, Bladed	Private		<Null>	<Null>	0.094212	No	<Null>	<Null>	<Null>
OW-451	<Null>	Proposed Route	New Road, Bladed	Private		<Null>	<Null>	0.097539	No	<Null>	<Null>	<Null>
OW-452	<Null>	Proposed Route	New Road, Bladed	Bureau of Land Management		<Null>	<Null>	0.105409	No	<Null>	<Null>	<Null>
OW-454	<Null>	Proposed Route	New Road, Bladed	BLM		<Null>	<Null>	0.116026	No	<Null>	<Null>	<Null>
OW-457	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Owyhee County		<Null>	<Null>	0.054767	No	<Null>	<Null>	<Null>
OW-458	<Null>	Reroute "M" Aevermann (Jump Creek)	Existing Road, Substantial Modification, 71-100% Improvements	BLM		<Null>	<Null>	0.134544	No	<Null>	<Null>	<Null>
OW-459	<Null>	Proposed Route	New Road, Bladed	BLM		<Null>	<Null>	0.187156	No	<Null>	<Null>	<Null>
OW-460	<Null>	Reroute "M" Aevermann (Jump Creek)	Existing Road, Substantial Modification, 21-70% Improvements	BLM		<Null>	<Null>	0.17351	No	<Null>	<Null>	<Null>
OW-461	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	BLM		<Null>	<Null>	0.208994	No	<Null>	<Null>	<Null>
OW-462	<Null>	Proposed Route	New Road, Bladed	BLM		<Null>	<Null>	0.174307	No	<Null>	<Null>	<Null>
OW-463	<Null>	Reroute "M" Aevermann (Jump Creek)	Existing Road, Substantial Modification, 21-70% Improvements	BLM		<Null>	<Null>	0.069633	No	<Null>	<Null>	<Null>
OW-464	<Null>	Reroute "M" Aevermann (Jump Creek)	Existing Road, Substantial Modification, 21-70% Improvements	State of Idaho		<Null>	<Null>	0.435903	No	<Null>	<Null>	<Null>
OW-465	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	State of Idaho		<Null>	<Null>	0.114576	No	<Null>	<Null>	<Null>
OW-466	<Null>	Proposed Route	New Road, Bladed	State of Idaho		<Null>	<Null>	0.368959	No	<Null>	<Null>	<Null>
OW-469	<Null>	Proposed Route	New Road, Primitive	BLM		<Null>	<Null>	0.458331	No	<Null>	<Null>	<Null>
OW-470	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		<Null>	<Null>	0.110001	No	<Null>	<Null>	<Null>
OW-470	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		<Null>	<Null>	0.16063	No	<Null>	<Null>	<Null>
OW-471	<Null>	Proposed Route	New Road, Bladed	Private		<Null>	<Null>	0.17021	No	<Null>	<Null>	<Null>
OW-471	<Null>	Proposed Route	New Road, Bladed	Private		<Null>	<Null>	0.839814	No	<Null>	<Null>	<Null>
OW-472	<Null>	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Bureau of Land Management		<Null>	<Null>	0.590943	No	<Null>	<Null>	<Null>
UM-011	9	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-023	0.201895	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-012	9	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-023	0.142655	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-013	9	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-023	0.352049	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-019	9	Proposed Route	New Road, Primitive	Private		Other	UM-023	0.024521	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-020	9	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-023	0.024147	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-021	9	Reroute "V" Skillman	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	0.449478	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-022	9	Reroute "G" Harvey Revert	New Road, Bladed	Private		Other	UM-023	0.393929	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-023	9	Reroute "G" Harvey Revert	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	0.222498	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-025X2	8	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Umatilla County		Yes	(blank)	0.432985	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-031	9	Reroute "G" Harvey Revert	New Road, Bladed	Private		No	(blank)	0.187013	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UM-037	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.199819	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UM-038	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.019177	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UM-039	8	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	0.661498	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-040	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.699863	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UM-046	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.325668	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UM-049	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.200391	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UM-052	10	Proposed Route	New Road, Bladed	Private		No	(blank)	0.119121	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UM-054	10	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	0.634902	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-055	8	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-309	0.142833	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-057	10	Proposed Route	New Road, Bladed	Private		Other	UM-054	0.126459	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-059	10	Proposed Route	New Road, Bladed	Private		Other	UM-054	0.129763	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-060	10	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-054	0.057195	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-062	10	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-054	0.187403	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-063	10	Proposed Route	New Road, Bladed	Private		Other	UM-054	0.194849	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-065	11	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-054	0.209496	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-066	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	0.949799	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-067	11	Proposed Route	New Road, Bladed	Private		Yes	(blank)	0.084325	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-069	11	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-054	0.028359	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-070	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		No	(blank)	0.218332	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UM-072	12	Proposed Route	New Road, Bladed	Private		Other	UM-066	0.025209	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-073	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-066	0.183353	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-074	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Yes	(blank)	1.182638	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-075	12	Proposed Route	New Road, Bladed	Private		Other	UM-066	0.0327	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-078	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-066	0.359469	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-080	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-360	0.286922	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-082	12	Proposed Route	New Road, Bladed	Private		Other	UM-091	0.125502	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-083	12	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-091	0.137297	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-084	12	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-360	0.496394	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-085	12	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-091	0.086255	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-086	12	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	Private		Other	UM-091	0.101937	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UM-089	12	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UM-096	0.484758	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023

Unique ID	Map		Route	Road Classification	Owner	Access Control		Road Length	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
	Number					Other	(miles)					
UM-367	1	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	Private	Yes	(blank)	1.509026	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-368	<Null>	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	1.237473	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-369	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.886779	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-370	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.110792	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-371	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.262731	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-372	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.214696	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-373	<Null>	Reroute "E" Cunningham		New Road, Bladed	Private	(blank)	(blank)	0.834925	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-374	6	Proposed Route		New Road, Bladed	Private	Other	UM-308	0.046927	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-375	<Null>	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.026219	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-376	2	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.010073	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-377	8	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.144065	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-378	<Null>	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.330994	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-379	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.62676	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-380	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.21334	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-381	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.778603	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-382	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.01944	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-383	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	3.040304	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-385	2	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.5121	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-386	<Null>	Proposed Route		New Road, Bladed	Private	<Null>	<Null>	1.589452	No	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-387	<Null>	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	Private	(blank)	(blank)	0.179741	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-388	8	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	UM-025X2	0.537302	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-389	8	Proposed Route		New Road, Bladed	Private	Other	UM-025X2	0.126665	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-390	8	Proposed Route		New Road, Bladed	Private	Other	UM-309	0.1866	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-391	8	Proposed Route		New Road, Bladed	Private	Other	UM-025X2	0.120878	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-392	8	Proposed Route		New Road, Bladed	Private	Other	UM-025X2	0.138693	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-392	8	Proposed Route		New Road, Bladed	Private	Other	UM-025X2	0.442313	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-393	9	Proposed Route		New Road, Bladed	Private	Other	UM-021	0.094994	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-394	9	Proposed Route		New Road, Bladed	Private	Other	UM-021	0.220796	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023
UM-395	7	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.009137	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-396	2	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.583764	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UM-397	2	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.344778	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-002b	14	Proposed Route		New Road, Bladed	USDA Umatilla National Forest	No	(blank)	0.558759	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-006	14	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	Private	No	(blank)	0.162771	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-009	14	Reroute Railroad Crossing		New Road, Bladed	Private	No	(blank)	0.239122	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-010	14	Proposed Route		New Road, Bladed	Private	No	(blank)	0.034554	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-012	13	Reroute Railroad Crossing		New Road, Bladed	Private	No	(blank)	0.026397	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-013	13	Proposed Route		New Road, Bladed	Private	No	(blank)	0.032473	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-014	13	Reroute Railroad Crossing		New Road, Bladed	Private	No	(blank)	0.035866	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-015	13	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	No	(blank)	0.161818	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-018	14	Reroute Railroad Crossing		Existing Road, Substantial Modification, 21-70% Improvements	Private	Yes	(blank)	0.360044	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-019	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.092335	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-020	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Yes	(blank)	1.247923	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-021	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.434427	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-022	14	Proposed Route		New Road, Bladed	Private	Other	UN-018	0.311813	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-023	14	Proposed Route		New Road, Bladed	Private	Other	UN-018	0.015931	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-024	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.380202	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-026	14	Proposed Route		New Road, Bladed	Private	Other	UN-018	0.038128	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-027	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.086114	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-028	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.287886	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-029	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-018	0.131162	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-030	14	Proposed Route		New Road, Bladed	Private	Other	UN-018	0.02187	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-031	14	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	Private	Yes	(blank)	0.332472	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-033	14	Proposed Route		New Road, Bladed	Private	Other	UN-018	0.017729	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-034	14	Proposed Route		Existing Road, Substantial Modification, 71-100% Improvements	State or Local Parks and Recreation or Wildlife	No	(blank)	0.111586	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-035	14	Proposed Route		New Road, Bladed	Private	No	(blank)	0.357992	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-036	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	No	(blank)	0.055296	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-037	14	Proposed Route		New Road, Bladed	Private	No	(blank)	0.019851	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-038	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Forest Service	(blank)	(blank)	0.126534	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
UN-038	14	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	USFS	(blank)	(blank)	0.106199	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
UN-039	<Null>	Proposed Route		New Road, Bladed	USFS	(blank)	(blank)	0.026152	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-040	<Null>	Proposed Route		Existing Road, Substantial Modification, 21-70% Improvements	Private	(blank)	(blank)	0.115534	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-041	<Null>	Proposed Route		New Road, Bladed	Private	(blank)	(blank)	0.072416	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-041	<Null>	Proposed Route		New Road, Bladed	USFS	(blank)	(blank)	0.329906	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-043	<Null>	Proposed Route		New Road, Bladed	USFS	(blank)	(blank)	0.187273	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-044	<Null>	Proposed Route		New Road, Bladed	USFS	(blank)	(blank)	0.19613	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>

Unique ID	Map		Route	Road Classification	Owner	Access Control		Road Length	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
	Number	Proposed Route				Control	Other	(miles)				
UN-045	<Null>	Proposed Route	New Road, Bladed	USFS		(blank)	(blank)	0.134113	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-046	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.163763	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-048	<Null>	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.200807	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-049	<Null>	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		(blank)	(blank)	0.040637	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-050	15	Wallowa Whitman NF H-Frame	Existing Road, Substantial Modification, 71-100% Improvements	USFS		No	(blank)	0.722202	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-052	15	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.019386	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-053	15	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		No	(blank)	0.519937	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-054	15	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.104185	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-055	15	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		No	(blank)	0.264221	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-056	15	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.018798	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-058	15	Wallowa Whitman NF H-Frame	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.327047	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-059	15	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.312839	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-060	15	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.080404	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
UN-060	15	Wallowa Whitman NF H-Frame	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.03072	(blank)	<Null>	Not Included in Indirect Impact Calculations	Included in 2018
UN-060X1	15	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		(blank)	(blank)	0.109762	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-060X2	15	Proposed Route	Existing Road, Substantial Modification, 71-100% Improvements	USFS		No	(blank)	0.036404	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-062	15	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		(blank)	(blank)	0.102148	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>
UN-064	15	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.056482	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-066	15	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.058796	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-068	15	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.057252	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-072	15	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.129223	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-075	16	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.042342	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-077	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.040396	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-078	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.17932	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-079	16	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.070434	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-080	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.245928	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-081	16	Wallowa Whitman NF H-Frame	New Road, Bladed	USFS		No	(blank)	0.055324	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-082	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.165599	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-083	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.090778	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-084	16	Proposed Route	New Road, Primitive	USFS		No	(blank)	0.061019	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-085	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.650658	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-086	16	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.043372	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-087	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.245358	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-089	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.057961	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-090	16	Proposed Route	New Road, Primitive	USFS		No	(blank)	0.022262	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-091	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Forest Service		No	(blank)	0.11514	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-091	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.072458	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-091X	16	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.093256	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-092	16	Proposed Route	New Road, Bladed	Private		No	(blank)	0.052083	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-093	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Private		No	(blank)	0.09958	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-093	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.130257	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-094	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.059927	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-096	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.274226	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-097	17	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.043546	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-098	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Forest Service		No	(blank)	0.283549	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-098	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.07153	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-101	17	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.013355	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-102a	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.321078	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-102b	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.035613	No	Yes	Included in Indirect Impact Calculations	New 2023
UN-105	17	Proposed Route	New Road, Bladed	USFS		No	(blank)	0.061573	Yes	No	Included in Indirect Impact Calculations	Included in 2018
UN-106	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Forest Service		Yes	(blank)	0.119977	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-106	17	Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	USFS		No	(blank)	0.071432	No	Yes	Included in Indirect Impact Calculations	Included in 2018
UN-109	17	Reroute BLM	New Road, Primitive	Private		Other	UN-106	0.057781	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-163	19	Morgan Lake Alternative	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UN-103	1.479946	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-168	18	Morgan Lake Alternative	Existing Road, Substantial Modification, 21-70% Improvements	Private		Other	UN-103	0.674582	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-174	18	Reroute "S" Ranch Partnership	New Road, Bladed	Bureau of Land Management		Other	UN-179	0.021372	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-176	18	Morgan Lake Alternative	New Road, Primitive	Bureau of Land Management		Other	UN-179	0.197939	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-177	18	Morgan Lake Alternative	New Road, Bladed	Bureau of Land Management		Other	UN-179	0.084407	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-179	18	Reroute "S" Ranch Partnership	New Road, Primitive	Bureau of Land Management		Yes	(blank)	0.13736	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-181	18	Morgan Lake Alternative	New Road, Primitive	Bureau of Land Management		Other	UN-179	0.126515	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-184	18	Morgan Lake Alternative	New Road, Primitive	Private		Yes	(blank)	0.410302	No	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-192	18	Morgan Lake Alternative	New Road, Bladed	Private		Other	UN-188	0.023206	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-195	20	Morgan Lake Alternative	New Road, Bladed	Private		Other	UN-103	0.213738	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-207	20	Morgan Lake Alternative	New Road, Bladed	Private		Other	UN-236	0.287051	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018
UN-208	20	Morgan Lake Alternative	New Road, Bladed	Private		Other	UN-103	0.187528	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	Included in 2018

Map Unique ID	Map Number	Route	Road Classification	Owner	Access Control	Other	Road Length (miles)	Spur Road	Traffic Volume Increase	Included in Indirect	New Access Road
UN-584	25 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-405	0.194111	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-585	25 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-405	0.153442	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-586	25 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-405	0.377157	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-587	27 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-628	0.140492	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-589	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-631	0.532521	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-590	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-631	0.280192	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-592	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-631	0.241355	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-593	27 Reroute Timberlands-Counsell	New Road, Bladed	Private	Other	UN-631	0.105606	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-594	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-631	0.392052	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-597	25 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-405	0.095073	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-598	25 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-379	0.081898	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-599	24 Morgan Lake Alternative	New Road, Bladed	Private	Other	UN-379	0.080437	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-601	24 Morgan Lake Alternative	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	UN-379	0.9142	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-603	23 Morgan Lake Alternative	New Road, Bladed	Private	Other	UN-284	0.711205	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-604	22 Morgan Lake H-Frame	New Road, Bladed	Private	Yes	(blank)	2.434856	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-605	21 Morgan Lake H-Frame	New Road, Bladed	Private	Other	UN-237	0.845396	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-606	21 Morgan Lake H-Frame	New Road, Bladed	Private	Other	UN-236	0.11848	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-607	21 Morgan Lake H-Frame	New Road, Bladed	Private	Other	UN-236	0.218665	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-608	21 Morgan Lake H-Frame	New Road, Primitive	Private	Other	UN-236	0.042785	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-609	21 Morgan Lake Alternative	New Road, Bladed	Private	Other	UN-236	0.492055	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-611	20 Morgan Lake Alternative	New Road, Bladed	Private	No	(blank)	0.021067	No	Yes	Included in Indirect Impact Calculations	New 2023	
UN-612	18 Morgan Lake Alternative	New Road, Bladed	Private	Other	UN-572	0.693976	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-613	<Null> Wallowa Whitman NF H-Frame	New Road, Bladed	Forest Service	(blank)	(blank)	0.054772	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-614	14 Proposed Route	New Road, Bladed	Private	Other	UN-018	0.214676	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-615	28 Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.102228	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-616	29 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.875796	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-617	30 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.139827	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-618	30 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.136445	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-619	30 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.162742	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-620	30 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.129391	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-621	30 Proposed Route	New Road, Bladed	Private	Other	UN-473	0.217767	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-622	32 Proposed Route	New Road, Bladed	Private	No	(blank)	0.079827	Yes	No	Included in Indirect Impact Calculations	New 2023	
UN-623	<Null> Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.023094	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-624	<Null> Proposed Route	New Road, Bladed	Forest Service	(blank)	(blank)	0.005088	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-625	<Null> Proposed Route	Existing Road, Substantial Modification, 21-70% Improvements	Forest Service	(blank)	(blank)	0.333568	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-626	16 Proposed Route	New Road, Bladed	Forest Service	No	(blank)	0.057188	No	Yes	Included in Indirect Impact Calculations	New 2023	
UN-627	17 Proposed Route	New Road, Bladed	Forest Service	No	(blank)	0.103086	No	Yes	Included in Indirect Impact Calculations	New 2023	
UN-628	26 Proposed Route	New Road, Bladed	Private	Yes	(blank)	1.687462	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-629	27 Proposed Route	New Road, Bladed	Private	Other	UN-631	0.341629	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-630	24 Morgan Lake Alternative	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	UN-379	0.079256	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-631	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Yes	(blank)	1.06031	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-632	24 Morgan Lake Alternative	Existing Road, Substantial Modification, 71-100% Improvements	Private	Other	UN-379	1.357333	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-633	13 Reroute Railroad Crossing	New Road, Bladed	Private	No	(blank)	0.241623	No	Yes	Included in Indirect Impact Calculations	New 2023	
UN-638	<Null> Proposed Route	New Road, Bladed	Private	(blank)	(blank)	0.00973	(blank)	<Null>	Not Included in Indirect Impact Calculations	<Null>	
UN-641	27 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-458	0.280546	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-642	27 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-458	0.156651	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-643	27 Reroute "J" NC Lands	Existing Road, Substantial Modification, 21-70% Improvements	Private	Other	UN-631	0.27801	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-644	27 Reroute "J" NC Lands	New Road, Bladed	Private	Other	UN-458	0.269691	No	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	
UN-645	14 Reroute Railroad Crossing	New Road, Bladed	Private	No	(blank)	0.057957	Yes	No	Included in Indirect Impact Calculations	New 2023	
UN-646	18 Reroute "S" Ranch Partnership	New Road, Bladed	Private	Other	UN-570	0.15394	Yes	No	Access Controlled, Not Included in Indirect Impact Calculations	New 2023	

APPENDIX B
ACCESS ROAD MAPBOOK (See RFA2 Figure 4-1 for road details)

Boardman to Hemingway Transmission Line Project Road Construction and Operation Standards

Landowner	Road Construction and Operation Rules or Guidance
BLM	Roads on BLM lands will comply with BLM MANUAL Rel. No. 9-391 Date: 3/06/2012. APP-1 9115 – PRIMITIVE ROADS MANUAL Appendix A – Primitive Road Maintenance Intensities, Level 0
USFS	FSH 7709.56 – ROAD PRECONSTRUCTION HANDBOOK Chapter 40 – DESIGN. Level of Service J.
State, Idaho	Roads in Idaho are primarily on BLM lands. The few roads on private lands will be constructed and operated to comply with BLM MANUAL Rel. No. 9-391.
State, Oregon	Roads on non-federal forest lands will comply with the Oregon Forest Practices Act rules, Oregon Revised Statute (ORS) 527 and its attendant rules, and Oregon Administrative Rules (OAR) Chapter 629, Divisions 605 through 665.
Baker County	Baker County Chapter 340 Transportation Standards. Baker County Project Road Use Agreement, November 29, 2023.
Malheur County	Malheur County Road Manual Malheur County Project Road Use Agreement, January 10, 2024
Morrow County	Morrow County Zoning Ordinance, Article 4 – Supplementary Provisions. American Association of State Highway and Transportation Officials (AASHTO). Morrow County Project Road Use Agreement, September 6, 2023.
Umatilla County	Umatilla County Project Road Use Agreement, September 20, 2023.
Union County	25.09 GENERAL DESIGN & IMPROVEMENT STANDARDS Union County Project Road Use Agreement, October 4, 2023.

Attachment S-9: Updated Section 106 HPMP with Appendix A.1 Tables Amended for RFA2

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT HISTORIC PROPERTIES MANAGEMENT PLAN

Case File Numbers:

**IDI-(pending)
OR Case # 08-2232, #PA-121**

BLM Report #VD-23-01

Prepared by:

*AECOM
555 SW 5th Avenue
Portland, OR 97204*

And

*Tetra Tech, Inc.
3380 Americana Terrace, Suite 201
Boise, ID 83706*

Prepared for:



*Idaho Power Company
1221 West Idaho Street
Boise, ID 83702*

September 2023

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ABBREVIATIONS AND ACRONYMS

ACHP	Advisory Council on Historic Preservation
APE	area of potential effect
BA	Bachelor of Arts
BLM	U.S. Bureau of Land Management
BMP	best management practice
BOR	Bureau of Reclamation
BS	Bachelor of Science
CCEM	Construction Contractor's Environmental Manager
CFR	Code of Federal Regulations
CIC	Compliance Inspection Contractor
CRM	Cultural Resources Monitor
CRS	Cultural Resources Specialist
CRT	Cultural Resources Team
ECMP	Environmental Compliance Management Plan
EFSC	Oregon Energy Facility Siting Council
EIS	Environmental Impact Statement
GIS	geographic information system
HABS	Historic American Building Survey
HAER	Historic American Engineering Record
HALS	Historic American Landscape Survey
HPA	high-probability area
HPMP	Historic Properties Management Plan
IDP	Inadvertent Discovery Plan
IF	isolated find
IPC	Idaho Power Company
kV	kilovolt
NAGPRA	Native American Graves Protection and Repatriation Act
NHPA	National Historic Preservation Act of 1966
NHT	National Historic Trail
NRHP	National Register of Historic Places
NTP	Notice to Proceed
NTSA	National Trails System Act of 1968
O&M	operations and maintenance
OAR	Oregon Administrative Rule
OCTA	Oregon-California Trails Association
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statute
PA	Programmatic Agreement
POD	Plan of Development
Project	Boardman to Hemingway Transmission Line Project
PSMMP	Property-Specific Mitigation and Monitoring Plan

ROW	right-of-way
SHPO	State Historic Preservation Office
SISP	Subsurface Investigation Strategy Plan
TCRM	Tribal Cultural Resource Monitor
THPO	Tribal Historic Preservation Office
Undertaking	Boardman to Hemingway Transmission Line Project
U.S.C.	United States Code
USFS	U.S. Department of Agriculture Forest Service
VAHP	Visual Assessment of Historic Properties

1.0 INTRODUCTION

This Project-wide Historic Properties Management Plan (HPMP) is the first step in preparing mitigation measures for properties eligible for, or listed on, the National Register of Historic Places (NRHP) that will be adversely affected during construction, reclamation of temporary disturbance areas, or operations and maintenance (O&M) of the Boardman to Hemingway Transmission Line Project (Project or Undertaking). The main body of this document provides the basic overview and context within which mitigation treatments will occur. Resource-specific treatment plans will be developed separately and attached to the HPMP. The HPMP also provides the Monitoring Plan for construction. This HPMP is a requirement of the Programmatic Agreement (PA) that has been prepared for compliance with Section 106 of the National Historic Preservation Act (NHPA) and appears in Appendix A of this HPMP. The HPMP is also a requirement of the Project's Site Certificate from the Oregon Energy Facility Siting Council (EFSC).¹

The PA designates the U.S. Bureau of Land Management (BLM) as the lead federal agency. The BLM, U.S. Department of Agriculture Forest Service (USFS), U.S. Bureau of Reclamation (BOR), Bonneville Power Administration, U.S. Army Corps of Engineers, Advisory Council on Historic Preservation (ACHP), Oregon State Historic Preservation Office (SHPO), Idaho SHPO, Washington Department of Archaeology and Historic Preservation, and the Confederated Tribes of the Umatilla Indian Reservation Tribal Historic Preservation Office (THPO) are signatories to the PA. Invited signatories to the PA include the National Park Service and the Idaho Power Company (IPC). Concurring party signatories include Oregon Department of Energy, the Burns Paiute Tribe, the Fort McDermitt Paiute and Shoshone Tribe, the Oregon-California Trails Association (OCTA), Oregon Historic Trails Advisory Council, U.S. Fish and Wildlife Service, and Lewis and Clark Heritage Trail Foundation Washington state chapter. Invited signatories who elected not to sign the PA include the Confederated Tribes of the Yakama Nation, Confederated Tribes of the Warm Springs Reservation, Confederated Tribes of the Colville, Nez Perce Tribe, Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, Confederated Tribes of the Umatilla Indian Reservation, and Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. All entities invited to sign to the PA are referred to here as "the Consulting Parties." This HPMP is being prepared in consultation with the Parties consistent with Stipulations IV.B and VII.A–VII.H of the PA.

When this HPMP is approved, it will become an attachment to the PA, and IPC intends to include it as an appendix to the final approved version of the Project's Plan of Development (POD). The draft POD was submitted by IPC to the BLM on December 19, 2007, and was published in 2017 as part of the BLM's Record of Decision. The draft is available on the BLM's e-planning website (<https://eplanning.blm.gov/eplanning-ui/project/68150/570>). It is being finalized at the time of this publication and may be requested from the BLM. It will be made public again once finalized.

1.1 Requirements and Purpose of HPMP

Generally, the purpose of this HPMP is to provide a Project-wide set of plans and procedures to avoid, minimize, or mitigate adverse effects to historic properties under Section 106 and the EFSC compliance process. Additionally, it addresses other requirements of the EFSC compliance process. Prior to drafting of this HPMP, a framework was developed by the Consulting Parties, as required in Stipulation VII.A of the PA. This HPMP follows that framework.

¹ While this document primarily uses terminology applicable to Section 106 of the NHPA, it also serves the EFSC process for the State of Oregon. See Section 1.3.2.1 for a correlation of terminology.

Stipulation VII.B² (page 17 of PA) of the PA required that the draft HPMP:

- Characterize the historic properties identified with the area of potential effect (APE) so it can be used as a guide to address pre-construction and post-construction treatment measures to avoid, minimize, and mitigate adverse effects to historic properties (see Section 4.5);
- Broadly identify classes of historic properties, relevant research, and potential data gaps in research for classes of properties present in the APE (see Sections 1.2 and 4.5); and
- Identify property-specific strategies, including, but not limited to, mitigation and monitoring, to address reasonably foreseeable adverse effects that may be caused by the Undertaking (see Sections 1.2, 6, and 7). The mitigation measures will be commensurate with the nature of the effect and the significance of the resources, and shall take into account the views of the Parties and the public.

Stipulation VII.C (page 17 of PA) requires that the HPMP include plans and provisions to minimize or mitigate adverse effects to historic properties. Specifically, the HPMP must include measures to protect identified historic properties from adverse effects that may result from the Undertaking. These may include, but not be limited to, placement of barricades and fencing (see Section 7.3.4), notices to law enforcement, seasonal restrictions, and other appropriate measures. Property-Specific Mitigation and Monitoring Plans (PSMMP) for unavoidable adverse effects must also be included in the HPMP (these are included in Appendix D and will continue to develop through consultation; see Section 1.2). Other plans required include a Monitoring Plan (Section 7) and Operations and Maintenance Plan (Sections 3.3 and 7.6). POD Appendix A3, Section A3.2 Construction Schedule states that scheduling will take place year-round with consideration given “to avoid environmental resource seasonal and spatial restrictions” and “seasonal exclusionary areas.”

The HPMP also includes a previously approved Inadvertent Discovery Plan (IDP; Appendix B), which specifies the procedures to follow in the event that cultural resources are found during construction, reclamation, and O&M that were not detected during the various surveys conducted prior to ground-disturbing activities. A previously approved Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action is also included (Appendix C), which describes how NAGPRA requirements will be met on federally managed lands. The BLM, as the lead federal agency, has completed and consulted with the Consulting Parties regarding both plans.

The HPMP will be implemented and adhered to during construction, reclamation, and O&M, per the PA, in a manner that aligns with Section 106 standards while fulfilling the applicable EFSC standards for the management of cultural resources.

1.2 Property-Specific Mitigation and Monitoring Plans

IPC or its designated contractor(s), in consultation with the BLM and the Consulting Parties, will develop PSMMPs for historic properties where there are adverse effects determined through completion of pre-construction studies or, in the event of an inadvertent discovery during construction or operation, through the IDP process. A PSMMP may also be prepared for properties for which IPC will request a separate Notice to Proceed (NTP) from the BLM (PA Stipulation XII.B). A PSMMP will not be required for a Project feature where no historic properties have been identified within the APE or for Project features with a no adverse effect determination. Though some PSMMPs may group similar resource types, the purpose of each PSMMP is to supplement this HPMP with *site-specific* information, including mitigation, treatment, and monitoring for unavoidable adverse effects to each historic property or potential

² Due to a misnumbering in subsections under Stipulation VII of the PA (two VII.B and VII.C are included), page numbers of the PA are provided to avoid confusion as to which subsection is being referred to.

historic property. As each PSMMP is prepared and approved, it will be appended to Appendix D of this HPMP. PSMMPs will be prepared as findings of effect are determined by the BLM. Given the phased nature of the Project, PSMMPs may continue to be developed through the construction phase as inadvertent discoveries occur, or even through the operations phase as needed for maintenance activities (see Section 3.3). Prior to construction, IPC will submit to the BLM a financial instrument approved under the right-of-way (ROW) regulations (43 Code of Federal Regulations [CFR] 2800) in an amount sufficient to cover all post-fieldwork costs associated with implementing the HPMP, including work defined in the PSMMPs.

As specified above, the PA requires PSMMPs where there are adverse effects to historic properties, after issuance of the Record of Decision and prior to the initiation of construction (PA Stipulation VII.C(2)(a-f)). The intent of each PSMMP is to specify the general terms of avoidance and monitoring and provide a framework for mitigating unavoidable adverse effects, specific to the resource(s) addressed in the PSMMP.

To meet PA Stipulation VII.C(2) (page 18 of PA), each PSMMP will contain the following, at a minimum:

- A description of the property(s) or potential property(s), including maps.
- An assessment of the adverse effects and proposed resolution of adverse effects to the specific characteristics of each historic property that make it eligible for the NRHP, and how the adverse effect will be resolved in consultation with the Consulting Parties (Stipulation VII.C(2d through 2e)).
 - For visual, auditory, and/or coronal effects, the assessment will also include a discussion of the nature of the effect and an evaluation of the need for long-term monitoring (Stipulation VII.C(2e)).
- Documentation of the measures that IPC has already taken or will take to avoid and minimize impacts to properties eligible for or listed on the NRHP, or likely to be.
- A clear description of the specific mitigation strategies proposed to avoid the adverse effects for individual historic properties and which include a description of tribal participation in the selection of those specific strategies.
- For PSMMPs that propose to mitigate adverse effects to historic properties through archaeological excavations, data recovery plans must be included with specific research designs and all the elements outlined below in BLM Manual 8140.26.A-I.

8140 - PROTECTING CULTURAL RESOURCES – (Public)

.26 Data Recovery. If treatment includes data recovery, data recovery plans should be prepared. For archaeological properties, these should be consistent with the Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 44734-37), and take into account the Advisory Council on Historic Preservation's Treatment of Archeological Properties. For historic buildings and structures, these should be consistent with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (48 FR 44730-34. Data recovery plans should include, at a minimum, the following:

- A. The property, properties, or portions of properties where data recovery will be carried out.*
- B. Any property, properties, or portions of properties that will be destroyed or altered without data recovery.*
- C. The research questions to be addressed through data recovery, with an explanation of their relevance and importance.*
- D. The field and laboratory analysis methods to be used with an explanation of their relevance to the research questions.*

- E. *The methods to be used in data management and dissemination of data, including a schedule.*
- F. *The proposed disposition of recovered materials and records.*
- G. *A proposed schedule for the submission of progress reports.*
- H. *Proposed methods by which Indian tribes and local governments will be kept informed of the work and afforded the opportunity to comment, as appropriate.*
- I. *The methods to be used for evaluating and treating cultural properties that may be discovered during construction of the project.*

- Requirements, including content and timeframe, for documentation and reporting of implemented property-specific treatment results.
- Identification of the responsible parties involved in the mitigation and their roles.

All PSMMPs will adhere to ACHP Section 106 archaeology guidance and other guidance from appropriate SHPOs/THPOs; Secretary of the Interior's Professional Standards for archaeological, historical, and architectural documentation; Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER)/Historic American Landscapes Survey (HALS) guidance; and appropriate state guidelines (Stipulation VII.C(2b)). All PSMMPs will address monitoring as a defined strategy to identify and minimize effects and quickly resolve adverse effects to historic properties yet to be identified in previously surveyed areas through implementation of the IDP (see Appendix B of this HPMP).

Each PSMMP is submitted to the BLM and signatories of the PA for a review and comment period. The document review process is specified in the PA Stipulations V.D–V.F. Upon acceptance by the BLM and final acceptance by the SHPOs/THPOs, each PSMMP is then incorporated into Appendix D to this HPMP and, thus, as an attachment to the Project POD.

At the time of this publication, required PSMMPs are based on the Initial Class III inventories (Anderson et al. 2023; King et al. 2023) and Visual Assessment of Historic Properties (VAHP; AECOM 2022a, 2022b) inventories completed for the Project. These plans include archaeological site 35UN 00097; built environment resources; lithic procurement sites; Oregon Trail-related resources; rockshelters; stacked rock features; and water conveyance features. These will be incorporated into Appendix D of this HPMP as they are finalized. Additional plans will be drafted and consulted upon as inventories are finalized and additional inventories are completed. Once final, these too will be incorporated into Appendix D.

1.3 Guiding Legal Context

The following section briefly discusses the federal and state laws and regulations applicable to the Project regarding cultural resources.

1.3.1 Federal

1.3.1.1 National Historic Preservation Act

The BLM is the lead federal agency for the purposes of assessing the Project's compliance with the NHPA. Section 106 of the NHPA, 54 United States Code (U.S.C.) 306308 (as implemented in 36 CFR Part 800), provides as follows:

The head of any Federal agency having direct or indirect jurisdiction over a proposed Federal or federally assisted undertaking in any State and the head of any Federal department or independent agency having authority to license any undertaking, prior to the approval of the expenditure of any Federal funds on the undertaking or prior to the issuance of any license, shall take into account the effect of the undertaking on any historic property. The head of the Federal agency shall afford the Council a reasonable opportunity to comment with regard to the undertaking.

The ACHP has issued regulations implementing Section 106 at 36 CFR Part 800, *Protection of Historic Properties*.

Identification and Evaluation of Historic Properties, Effects Assessment, and Effects Resolution

To comply with Section 106, a federal agency must take the following steps:

- Gather information to decide which properties in the area that may be affected by the Project are listed, or eligible for listing, in the NRHP (referred to as “historic properties”);
- Determine how those historic properties might be affected;
- Explore measures to avoid or mitigate adverse effects to historic properties; and
- Reach agreement with the SHPO or THPO (and the ACHP in some cases) on such measures to resolve any adverse effects or, failing that, obtain advisory comments from the ACHP, which are sent to the head of the agency.

Additional Applicable Federal Laws and Regulations

The NHPA requires that, in carrying out the requirements of Section 106 of the NHPA, the lead federal agency must consult with any Native American tribe that attaches traditional religious and cultural significance to historic properties that may be affected by the agency’s undertakings (36 CFR 800.2(a)(4)). Other parties to the NHPA consultation process include, as necessary, SHPOs, THPOs, the Project proponent(s), and interested members of the public. The NHPA also requires that the lead federal agency “coordinate the steps of the Section 106 process, as appropriate, with the overall planning schedule for the undertaking and with any reviews required under other laws,” such as the National Environmental Policy Act (40 CFR Chapter V, Subchapter A); NAGPRA; the Secretary of the Interior’s Professional Qualification Standards, as described in 36 CFR 61; American Indian Religious Freedom Act (36 CFR 60, 36 CFR 79); Archaeological Resources Protection Act (16 U.S.C. 470aa); and implementing regulations at 43 CFR 7 for the BLM and 36 CFR 296 for the USFS.

1.3.1.2 National Trails System Act

According to the National Trails System Act of 1968 (NTSA), federal agencies must consider the effects of proposed actions on National Historic Trails (NHT). The NTSA states that the Secretary charged with administration of the NHT may permit other uses along the trail provided that they do not “substantially interfere with the nature and purpose of the trail” (16 U.S.C. 1246). In this regard, “reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts shall be made to avoid activities incompatible with the purposes for which such trails were established” (16 U.S.C. 1246). The implementation of this HPMP and the development of the PSMMP for the Oregon Trail have been designed to resolve the impacts upon the Oregon NHT consistent with the NTSA.

1.3.2 State

1.3.2.1 State of Oregon

The Oregon Revised Statutes (ORS) are the codified laws of the State of Oregon. As a state agency, EFSC must comply with each statute when approving and issuing site certificates for facilities.

ORS 469.370(13) requires that EFSC shall conduct its site certificate review, to the maximum extent feasible, in a manner that is consistent with and does not duplicate the federal agency review. Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at Oregon Administrative Rule (OAR) 345-022-0090(1)3 requires that EFSC, taking into account mitigation, consider the Project’s impacts on:

- (a) Historic, cultural, or archaeological resources that have been listed on, or would likely be listed on, the NRHP;
- (b) For a facility on private land, archaeological objects, as defined in ORS 358.905(1)(a), or archaeological sites, as defined in ORS 358.905(1)(c); and
- (c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).

The Project’s Site Certificate was issued on September 27, 2022. The amended Project Order describes four statutes that are applicable to historic, cultural, and archaeological resources:

- ORS 97.740 to ORS 91.760 (Indian Graves and Protected Objects);
- ORS 358.905 to 358.961 (Archaeological Objects and Sites);
- ORS 390.235 (Permits and Conditions for Excavation or Removal of Archaeological Sites and Historical Material); and
- OAR 736-051-0080 to 0090 (OARs for issuance of archaeological excavation permits on state and private lands).

In the event of the inadvertent discovery of Native American human remains on non-federal public lands as well as privately owned lands, the Project must also comply with ORS 91.740 to 97.760, *Treatment of Native American Human Remains Discovered Inadvertently or through Criminal Investigations on Private and Public, and State-owned Lands in Oregon*. This protocol was created by the Government-to-Government Cultural Resources Cluster Group formed under State Executive Order Number 96-30.

While the HPMP primarily uses terminology applicable to Section 106 of the NHPA, it also serves the EFSC process for the State of Oregon. Considering this, some specific terms must be correlated between the two processes (Table 1-1).

Table 1-1. Correlation of EFSC and Section 106 Terms

EFSC Terminology	Section 106 Equivalent Terminology
Analysis Area or Project Site Boundary	APE
Archaeological Object	NRHP-eligible or -listed Isolated Find
Impact	Effect
Project	Undertaking
Significant	Adverse

APE=area of potential effect; EFSC=Oregon Energy Facility Siting Council; NRHP=National Register of Historic Places

1.3.2.2 State of Idaho

The following Idaho statutes are applicable to historic, cultural, and/or archaeological resources located in the state on non-federal lands:

- Idaho Code Title 67 Chapter 41, *Idaho Historical Society*; and
- Idaho Code Title 27 Chapter 5: Sections 27-502 through 27-504, *Protection of Graves*.

2.0 PROJECT AND APE DESCRIPTION

This section provides a brief Project description and outlines the APE as defined in PA Stipulations I.A (1) and I.A (2).

2.1 Project Description

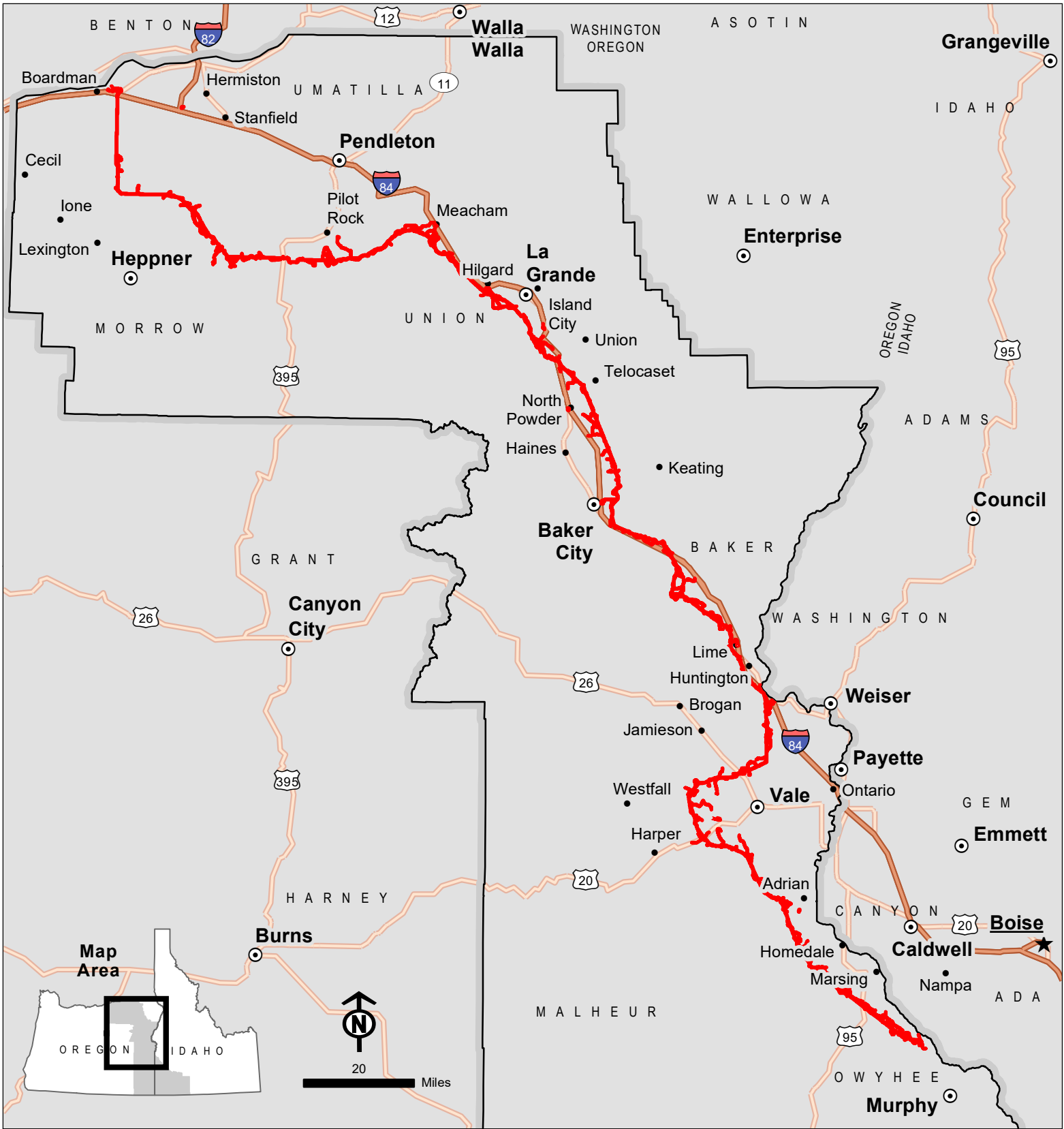
IPC is building a 500-kilovolt (kV) transmission line beginning in north-central Oregon near Boardman and ending in southwestern Idaho at the Hemingway Substation, approximately 15.25 miles southeast of Marsing, Idaho (Figure 2-1). The proposed transmission line will be constructed on federal, state, and private land in portions of two states and six counties: Morrow, Umatilla, Union, Baker, and Malheur Counties in Oregon, and Owyhee County in Idaho. The Project consists of approximately 296.6 miles of electric transmission line, with 272.8 miles located in Oregon and 23.8 miles in Idaho. The Project includes 270.8 miles of single-circuit, 500-kV transmission line; removal of 12 miles of existing 69-kV transmission line; relocation of 0.9 mile of a 230-kV transmission line; and relocation of 1.1 miles of an existing 138-kV transmission line into a new ROW.


IPC submitted the original Standard Form 299 application and POD to the BLM on December 19, 2007. The BLM determined that approval of the request is a major federal action requiring the preparation of an Environmental Impact Statement (EIS) consistent with the requirements of the National Environmental Policy Act. The Draft and Final EIS were published on December 19, 2014, and November 25, 2016, respectively. On November 17, 2017, the BLM issued the agency's Record of Decision, which included a PA for compliance with Section 106 of the NHPA. Stipulation VII of the PA requires the preparation of this HPMP.

2.1.1 Best Management Practices






Through standard best management practices (BMP), IPC will take general precautions to protect historic properties from excessive noise, vibration, excavation, emissions, fugitive dust, lighting, glare, and traffic impacts consistent with the Project's POD. In general, the Project has been intentionally designed and permitted to minimize visual impacts of the physical structures themselves and their routes while also considering other Project regulatory and engineering constraints. At a more specific planning level, the Project has been subjected to microsite planning that identifies conflicts with historic properties and that identifies opportunities for avoiding, minimizing, and/or resolving potential adverse effects.

When possible, Project features have been designed to avoid historic properties by a minimum of 30 meters (approximately 100 feet) to avoid physical adverse effects. In some instances, existing access roads may intersect archaeological resources that have the potential to be eligible for the NRHP. In most cases, IPC has committed to avoiding roadway improvements within 30 meters of that historic property or potential historic property. In all instances, IPC will use gravel fill material to further minimize effects to historic properties. A description of heavy machinery to be used on the Project is located in Chapter 2 of the EIS. Flagging and avoidance procedures for the overall Project are described in the POD's Appendix A1, *Flagging, Fencing, and Signage* (IPC 2023). General efforts by IPC to avoid cultural resources of all types are discussed in Section 6.1. A flagging and avoidance plan specific to cultural resources is included in Section 7.3.4 of this HPMP. These measures incorporate elements of the POD's Appendix A1. Although these processes are specific to federal lands, these procedures will apply to all lands within the direct APE.



 Direct Area of Potential Effects (APE)

Other Features

-  State Capital
-  County Seat
-  Other City or Town
-  Interstate
-  Other Highways


 Boardman to Hemingway Transmission Line Project

Figure 2-1
Project Overview

Other BMPs developed specifically for the protection of historic properties and potential historic properties include “capping” of existing access roads through archaeological sites as well as vegetation management measures throughout the direct APE. BMPs for the capping of existing access roads have been incorporated into Appendix A2, *Traffic and Transportation Plan*, of the final POD. BMPs for vegetation management are incorporated into Appendix A3, *Project Construction Plan*, of the final POD. These measures are repeated here³:

Existing Road Capping –

In order to avoid adverse effects to the historic properties or potential historic properties from the use of existing roads, as described in Section 4, uncontaminated fill material free of organics will be placed atop the existing road surface within and in proximity to the resource prior to construction. Widening of the road by blading, grading, or other excavation will not be allowed. If necessary, hand tools may be used to cut down and clear small growth vegetation in the road prior to laydown of gravel. Use of heavy equipment or blading within road will not occur. If it is necessary to widen an existing road outside the limits of disturbance analyzed in the Project’s Class III inventories, matting and/or fill material may be placed atop the site beyond the limits of the existing road. If these methods will be insufficient to achieve a road surface or grade that is usable by construction vehicles and physical widening of the existing road is necessary via blading, grading, or other excavation, studies necessary to assess those effects will be undertaken and submitted to the Consulting Parties for consultation. The planned placement of fill and/or matting atop each site is depicted on sketch maps in Appendix A, as well as placement of avoidance flagging (as prescribed in the HPMP).

The surface of existing access roads that require capping via placement of fill material through historic properties and 30 meters (98 feet) beyond the resource boundary will be capped with a minimum layer of 8 inches of locally available, certified weed free road base (3/4-inch minus or similar) aggregate (Figure 5-1). (Geofabric will not be used on BLM-managed lands due to BLM environmental restrictions on its use.) Additional aggregate beyond the 8-inch minimum depth may be required to level the driving surface. Avoidance flagging will adhere to methods prescribed in the HPMP. No grading of the existing road surface will occur within the capped area. Compaction of fill material will be limited to the extent necessary for road construction and to allow fill material to be stabilized. Placement of fill materials will avoid “crushing” archaeological materials to the extent practical. Use of heavy vehicles (over 29,000 pounds) along these roads will be minimized to the extent practical for construction. Driving on roads when wet will also be avoided. The fill material will be maintained throughout construction and operation of the Project.

³ Note, restrictions on use of geofabric as described in this quoted text is applicable only to the Project.

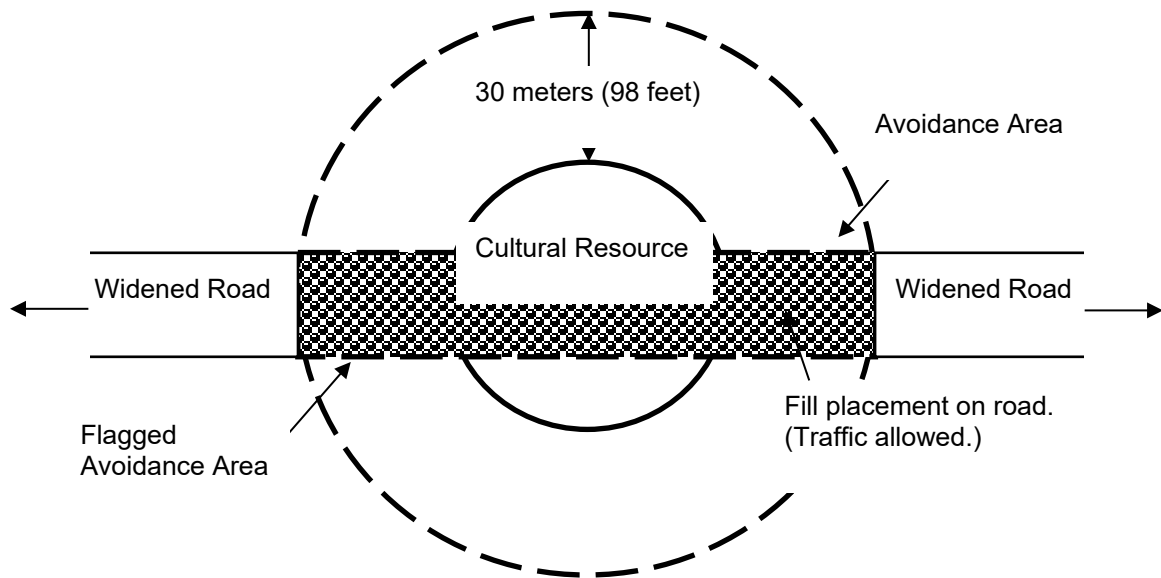


Figure 5-1. Example of Fill Placement on Existing Road and Flagging/Fencing Placement (Dashed Line) at Road Edges and at 30-meter (98-foot) Buffer on Resource Boundary (Solid Line) (Not to Scale)

IPC has committed to avoiding physical impacts to as many cultural resources as feasible in design, regardless of resource type and NRHP eligibility. Despite these efforts, not all resources could be avoided by the design due to a variety of reasons ranging from engineering requirements to topographic restrictions to landowner requests. For access roads, the use of an existing access road was considered preferable to introducing the greater disturbance of a new access road in order to avoid a known resource. A flagging and avoidance plan is outlined in the HPMP, including specifically for resources crossed by existing access roads.

During Project construction and during the operational phase of the Project, IPC will manage the applicable historic properties and potential historic properties within its approved right-of-way consistent with the requirements of the HPMP (AECOM and Tetra Tech 2023). The adverse or potentially adverse effects of the use of existing access roads through historic properties or potential historic properties during construction will be mitigated through capping and/or matting as well as avoidance flagging as described in Sections 5 and 7. Operational maintenance of Project features will be required over the life of the Project. Maintenance of access roads through historic properties will avoid grading and instead focus on the maintenance and, as necessary, replacement of the fill material. Maintenance crews will avoid driving on access roads through historic properties when roads are wet.

If, during Project operations, road maintenance requires grading beneath the maintained fill material, the adverse effect would be resolved by implementing the applicable sections of the HPMP that address the resolution of adverse effects through the development and implementation of a PSMMP.

The maintenance or lack thereof of protective fill along access roads during construction will be documented by monitors as non-compliance incidents, consistent with the HPMP. While areas of capping fill placement are shown in maps in Appendix A for use in the construction process, the final areas of fill will be mapped by monitors using sub-meter Global Positioning System unit as part of updating the site. Such documentation, as well

as steps taken to resolve infractions, will be included in the Cultural Monitoring Results report required by the HPMP.

Vegetation Management –

As part of the Boardman to Hemingway Transmission Line Project (Project), removal of vegetation above a specific height will require removal within the right-of-way (ROW) and outside the disturbance footprint of Project features, such as structures and access roads. Although general sections of the Project's ROW have been identified as forested and require timber clearing for the purposes of height clearance for the transmission line. However, specific trees within this area have not been identified for removal, nor have areas elsewhere in the ROW where clearance of vegetation outside of Project features may be required. Most areas are anticipated to be identified as needing vegetation clearance "on the fly" during construction. To avoid adverse effects to historic properties of this undefined vegetation clearance under Section 106 of the National Historic Preservation Act, as required by the Project's Section 106 Programmatic Agreement (PA), the following best management practices (BMPs) will be adhered to when planning and during vegetation clearance activities. These BMPs will apply during Project construction as well as operation.

1. Activities within historic property boundaries and a 30-meter avoidance buffer zone will be prohibited except for the use of developed transportation systems when the BLM has determined that such use will not adversely affect the historic property. All avoidance buffer zones around historic properties or potential historic properties within the direct APE of timber clearing will be delineated as specified in the Cultural Resources Flagging and Avoidance Plan of the Project's Historic Property Management Plan (HPMP). Monitoring of timber clearing within 200 feet of a historic property or potential historic property will be monitored, consistent with the Project's monitoring plan in the HPMP.
2. Felling and removal of vegetation within historic properties under the following conditions:
 - a. Vegetation is not considered a contributing element of the historic property (i.e., planted landscape vegetation);
 - b. Trees will be limbed or topped to prevent soil gouging during felling;
 - c. Vegetation will be removed using only the following techniques: hand bucking of trees, including use of chain saws, and hand carrying, rubber tired loader, crane/self-loader, helicopter, or other non-disturbing, Federal Agency approved methods;
 - d. Equipment operators shall be briefed on the need to reduce ground disturbances (e.g., minimizing turns);
 - i. No skidding nor tracked equipment shall be allowed within historic property boundaries;
3. Where vegetation removal within historic properties is necessary, all such activities would be documented in the Project's Cultural Monitoring Results report, required by the HPMP and Section VII.B of the PA. Within known archaeological sites, logging will be conducted over snow or when the ground is frozen hard to avoid ground disturbance. The USFS defines appropriate over snow logging conditions as at least 20 inches of snow on the ground, overnight temperatures of less than 25 degrees Fahrenheit and afternoon temperatures less than 35 degrees Fahrenheit. Coordination with signatories is not necessary for this work.
4. Where root balls must be removed outside of a historic property, but within the avoidance buffer zone or within a high probability area (HPA) for archaeological resources (as identified in the Project's HPA model and Class III inventory

- reports), removal will be monitored in compliance with the monitoring plan in the HPMP.
5. *Avoid clearing of culturally significant plants. (List to be provided by the Consulting Parties.) If clearing of such vegetation is necessary, tribes may be afforded the opportunity to collect desirable part of the plant or the entirety of the plant prior to its removal.*
 6. *Trees selected for vegetation removal will not include culturally modified trees (i.e. trees with blazes marking trail routes, trees with marks of prehistorically or historically stripped bark) unless determined by Federal Agencies to not be eligible for listing on the NRHP and removal of those trees would not be an adverse effect.*
 7. *Trees that may impact at-risk historic properties should they fall on site features will be directionally felled away from properties. Should mechanically treated (crushed/cut) brush or downed woody material fall into a historic property, it may be removed by hand, through the use of off-resource equipment, or by rubber-tired equipment. Ground disturbance shall be minimized to the extent practicable during such removals.*
 8. *Woody material may be chipped and spread within the boundaries of historic properties, however, woody material or other removed vegetation may not be stored/piled within the boundaries of historic properties.*
 9. *Approved herbicides as listed in POD Appendix B2 Noxious Weed Management Plan may be used. When possible, consulted tribes may be notified by IPC (with landowner permission) of herbicide application to avoid traditional collection activities during exclusion periods.*

2.2 Area of Potential Effect

The APE is the geographic area, regardless of land ownership, within which an Undertaking (in this case, the Project) may directly or indirectly cause alterations in the character or use of historic properties, if such properties exist. Historic properties are “any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places” (54 U.S.C. 306308). The BLM, in consultation with the Parties, has defined and documented the APE based on direct, indirect, and cumulative effects from the Project (PA Stipulations I.A–I.B). The APE includes private land and public lands administered by the BLM, USFS, and BOR within the states of Idaho and Oregon that may be affected by the Project’s aboveground, single-circuit transmission line corridor, towers, multipurpose areas, fly yards, pulling sites, access roads, borrow areas, transmission substations, and other related transmission infrastructure. Additionally, the National Park Service, though it does not administer public lands located in the APE, administers the Oregon NHT. The APE, as defined and documented, is a baseline for survey and inventory. If the BLM determines that unforeseen changes to the Undertaking may cause direct, indirect, or cumulative effects to historic properties beyond the extent of the established APE, then the BLM shall adjust the APE using the process set forth in the PA (Stipulation I.B(1–6)).

2.2.1 Direct APE

The APE for physical effects (as defined in PA Stipulation I.A(1(a–g))) is the area within which historic properties may sustain physical alteration or destruction as a result of the Project. The following APE descriptions consider ground-disturbing activities associated with the Project:

- For transmission lines, the APE will be 500 feet (i.e., 250 feet on either side of centerline for the ROW), extending the length of the Project.

- The APE for new or improved access roads, except for existing crowned and ditched or paved roads, will be 100 feet on either side of the centerline for a total width of 200 feet.
- The APE for existing unimproved service roads will be 100 feet (i.e., 50 feet on either side of the centerline).
- The APE for staging areas, borrow areas, substations, and other ancillary areas of effects will include the footprint of the facility and a buffer of 200 feet around the footprint of the proposed facility and activity.
- The APE for pulling/tensioning sites that fall outside the ROW will be a 250-foot-wide by 500- to 1,000-foot long area, depending on topography and engineering requirements.
- The APE for borehole locations for geotechnical studies is a 250-foot-radius area centered on the borehole location, if outside the transmission line direct APE.
- The APE for O&M of the transmission lines and other facilities is defined as above (PA Stipulation I.A(2(a-g))) and includes the area of the ROW grants.

2.2.2 Indirect APE

The APE for visual, auditory, and coronal effects on historic properties, as described in the PA, considers visual, atmospheric, and audible elements that could diminish the integrity of the properties for which setting, feeling, and/or association are qualifying characteristics of NRHP eligibility. The indirect APE for the Project extends for 5 miles, or to the visual horizon, whichever is closer, on either side of the authorized Project route. The indirect APE may extend beyond the 5-mile convention to encompass properties that have traditional religious and cultural importance, including traditional cultural properties, or other geographically extensive historic properties, such as trails, when effects have been determined to extend beyond this distance (PA Stipulation I.A (2(a-d))). The visual elements of the indirect APE were identified using geographic information system (GIS) viewshed analysis and field verification. Details regarding the process for assessing visual effects are provided in the VAHP Study Plan (Tetra Tech 2013).

3.0 SEQUENCE OF PROJECT-RELATED TASKS

This section outlines steps required to be taken prior to, during, and after construction (including during operation) to ensure adverse effects to historic properties and potential historic properties are avoided, minimized, or mitigated. As part of the Section 106 consultation process for this Project, the BLM, in consultation with the Consulting Parties, reviews and helps develop different strategies to avoid, minimize, or mitigate adverse effects to historic properties through the Consulting Parties' review of draft survey reports (Class III reports, VAHP reports, as well as others listed in Appendix F) as well as the forthcoming reviews of PSMMPs. This provides the Consulting Parties multiple opportunities to provide input through substantive comments. A series of tasks is completed to ensure that historic properties or potential historic properties are avoided or Project impacts are minimized or mitigated. These tasks are identified as those that must take place before construction, during construction, and after construction during reclamation and O&M, as applicable. As described above, if avoidance of adverse effects is not feasible, the historic property or potential historic property is treated as specified in a PSMMP.

3.1 Pre-construction Tasks

Pre-construction tasks include completion, submittal, and approval of the Project-wide HPMP (i.e., this document) and PSMMPs as required for specific resources. The completion of PSMMPs relies upon cultural resource inventories for the Project (see Appendix F). The BLM may issue NTP(s) to IPC for individual construction phases as defined by IPC in its construction plans, under the conditions listed below (PA Stipulation XII.B(1–3)). Note, when the PA was drafted, it was thought that the Project would be constructed in localized segments. This is no longer the case and NTPs will instead specify Project features or localities that are approved for construction, meeting the below conditions.

1. Construction of the segment or specified area will not restrict subsequent rerouting of the ROW corridor or affiliated ancillary feature locations to avoid, minimize, or mitigate the Undertaking's adverse effects on historic properties; and
2. The permitting agencies, in consultation with the Consulting Parties, determine that all surveys have been completed and no cultural resources have been identified through Class III inventories and there are no historic properties within the APEs for the construction segment or specified area; or
3. The permitting agencies, in consultation with the SHPOs/THPOs, have ensured the implementation of the procedures described in the HPMP and PSMMP(s), if any, within the construction segment or specified area; and
 - a. The fieldwork phase of the treatment option has been completed;
 - b. The federal agencies that are a party to the PA have accepted a summary description from IPC of the fieldwork performed and a reporting schedule for that work;
 - c. The permitting agencies have provided the Consulting Parties with a summary description of the fieldwork performed and a reporting schedule for that work⁴; and
 - d. The permitting agencies, in consultation with the Consulting Parties, have determined that all pre-construction fieldwork is complete and adequate.

⁴ Property-specific reporting requirements are described in the PSMMPs.

Additional pre-construction tasks to be completed include the following:

- The BLM will select the Compliance Inspection Contractor (CIC) to act on the behalf of the BLM to provide construction oversight and monitor compliance.
- IPC will select the Construction Contractor and Cultural Resources Team (CRT) (see Section 7.1).
- The Construction Contractor shall provide the CRT and BLM with maps and/or drawings of the Project's final design within the APE. Maps will be available to the Consulting Parties.
- The CRT will ensure avoidance measures (e.g., sensitive resource flagging, complete avoidance) are in place where needed (see Section 7.3.4).
- The Construction Contractor, with assistance from the CRT, will develop and implement a cultural resource training program as part of the overall environmental training program for all Project construction staff and those who will access the Project ROW (see Project POD).

3.2 Construction Phase Tasks

The construction process is detailed in the POD and in the Final EIS. What follows is a summary of the activities needed to ensure compliance with the PA during construction.

Construction phase tasks to be completed by the CRT include, but are not limited to, the following:

- Provide ongoing environmental training for newly hired construction staff. The training may be a previously recorded video and may not require additional CRT support, unless requested. The CRT will ensure on-site construction personnel are in compliance and have the appropriate required training sticker displayed on their hard hats.
 - As a requirement of the BLM, USFS, and Oregon Department of Energy (ODOE) Notice to Proceed, IPC is required to ensure an environmental and safety education program is developed and implemented for the Project. The environmental and safety program will educate all construction and maintenance personnel on the requirements for environmental and cultural protection set forth in the Project POD during the construction and operation and maintenance phases of the Project with the intent of identifying, avoiding, minimizing, reducing, or eliminating effects on the environment and cultural resources. All Project personnel and visitors, including BLM and USFS personnel, will undergo this training program prior to accessing the Project ROW. Prior to construction, the CIC would instruct all personnel on the protection of cultural, paleontological, ecological, and other natural resources such as (a) federal and state laws regarding antiquities, paleontological resources, and plants and wildlife, including collection and removal; (b) the importance of these resources; (c) the purpose and necessity of protecting them; and (d) reporting and procedures for stop work (POD, Appendix A4, Section A4.3.1, paragraph 1).
 - The environmental, cultural, and safety training will be conducted at the preconstruction meeting(s) or as necessary prior to any Project personnel or visitors being able to access the Project right-of-way (ROW). After participating in the environmental and safety education program, each participant will receive a card and hardhat sticker indicating clearance for Project right-of-way access. The Construction Contractor(s) will provide the CIC and IPC with an updated weekly list of Project personnel who have received the training. A noncompliance violation will be issued if Project personnel are found working on the Project

ROW without having completed the required training. Program will include, but not be limited to, a comprehensive PowerPoint presentation covering identification and examples of cultural resources, inadvertent discovery and processes to follow, regulatory settings, requirements of specific PODs within the project including Cultural and Paleontological Resources Protection, and the roles of specific monitors present during the project. (All details are outlined further in POD Appendix A4, *Environmental Safety Training Plan*, Sections A4.2 and A4.3.1.)

- Construction monitoring, as described in Section 7.
- If design cannot be modified to avoid an inadvertent discovery, conduct and complete appropriate mitigation as determined in the PSMMPs developed through consultation with the Consulting Parties.

Additional construction phase tasks may also include variances. The CRT will provide support, as needed, for any Project variance, as discussed below (see HPMP Section 7.4.1), in a manner that is also consistent with PA Stipulation VII.C.4(c) (page 20 of PA), which states:

The HPMP will identify a variance review process for construction, operations and maintenance, to [avoid] any changes in procedures that could have an adverse effect on historic properties in the ROW. The Proponent [IPC] will submit a request for variance review to the BLM through BLM's third party Compliance Inspection Contractor for any proposed changes in use of equipment, additional work areas, access roads, ancillary features, reroutes or other changes that may result in ground disturbing activities outside of the previously surveyed APE. At a minimum the variance area will be checked to ensure that it falls within an area where the following have been completed:

- *Class I literature review in accordance with Stipulation II.E.1.*
- *Class III inventory in accordance with Stipulation II.E.4*
- *Determinations of Eligibility in accordance with Stipulation III.G.*
- *Assessment of Effects in accordance with Stipulation IV.*
- *Protection, Mitigation and Monitoring plans in accordance with Stipulation VII.C.1-3.*

Where BLM determines that additional inventory is needed through the variance request process, no ground disturbance will be authorized in the variance area until the above items and any mitigation measures are completed, in consultation with the Consulting Parties, and BLM approves the variance.

Additional inventory and evaluation undertaken for these variances will be reported as soon as feasible and sent to the BLM for review in accordance with Stipulation V.B, as part of the Class III inventory. Any variance reports will also be included in the comprehensive report outlined in Stipulation V.I. Such documentation will tier to the previous background context in the existing reports so that only new information such as site forms, eligibility determinations, etc., will be included.

The BLM will develop a list of operation and maintenance activities in consultation with [the Consulting Parties] that will NOT be subject to additional Section 106 review, and will identify the types of activities that will require additional Section 106 review.

BLM administration of the ROW grant shall include appropriate BLM cultural resource specialists to participate in ROW grant review and to review compliance with stipulations or changes in procedures that may affect historic properties in the ROW.

During construction, the need for changes to Project construction procedures or approved mitigation measures or other stipulations, and/or Project changes, such as route realignments, new or changed existing access roads, or additional work areas not previously analyzed in the EIS or permitted within the Project ROW, may arise. Under these or similar circumstances, a variance will need to be filed and approved by the BLM, the USFS, or the BOR, depending on land manager of the affected area, to stay in compliance. The BLM will consult with the applicable SHPO and other Consulting Parties, as appropriate. The final POD includes an Environmental Compliance Management Plan (ECMP; Appendix A5 of the POD) that will specify the variance levels, protocols, and procedures for completing a variance request.

3.3 Post-construction Phase Tasks

Post-construction phase tasks to be completed by the CRT include completing test investigation or data recovery analysis for inadvertent discovery, preparing artifacts for curation (as applicable), transferring these materials to the approved curation facility or appropriate landowner (if requested), and preparing the final reports. The CRT will also prepare and finalize the mitigation and monitoring report. Per Stipulations V.J and VII.C.5 of the PA, prior to decommissioning the Project the BLM will assess the effects to historic properties from decommissioning the Project. The BLM will consult with the Consulting Parties to seek ways to avoid, minimize or mitigate adverse effects under the plan.

3.3.1 Reclamation

Once construction is completed, various reclamation treatments will be applied to reclaim Project temporary use areas to a condition agreed upon by the landowner, tenant, or land-managing agency. Appendix C1 of the POD provides the Reclamation, Revegetation, and Monitoring Plan containing the specifics of site reclamation. The below is based on that plan.

The purpose of this Reclamation, Revegetation, and Monitoring Plan (Plan) is to prescribe reclamation actions, standards of revegetation success, and reclamation monitoring protocols and requirements to accomplish the following: mitigate Boardman to Hemingway Transmission Line Project (Project)-related disturbance; prevent unnecessary degradation of the environment; reclaim disturbed areas to make them ecologically functional and visually compatible with the surrounding environment to the greatest extent practicable; and ensure reclamation and revegetation activities comply with federal, state, or other agency requirements. This Plan specifies the preconstruction, construction, and postconstruction reclamation measures that will be implemented by the Construction Contractor(s) during construction and, as applicable, by Idaho Power Company (IPC) during operation and maintenance activities. (IPC 2023:C.1-1)

Post-construction reclamation actions occur after Project construction is completed and will focus on stabilizing permanent use areas and reclaiming temporary use areas to support vegetation reestablishment. These actions will be implemented by the Construction Contractors(s). Reclamation activities may require 4x4 trucks, 2-ton trucks, bulldozers, motor graders, dump trucks, front-end loaders, and water trucks. Reclamation treatments that involve ground-disturbing activities within previously undisturbed soils may have the potential to affect historic properties. Table 3-1 shows typical activities but is not a comprehensive list. Such reclamation activities may require monitoring and avoidance measures by the CRT. The HPMP and appendices, including any applicable PSMMP, will be adhered to during the Reclamation Phase (PA Stipulation V.A).

Table 3-1. Examples of Reclamation Activities

Reclamation Activity	Description of Activity	Possible Equipment	Monitoring Requirements
Management of Waste Materials	Cleanup of debris from construction area, such as scrap metals, oil, wood, etc.	4x4 trucks, dump trucks, front-end loaders	None.
Earthworks	Reestablishment of slope and surface stability and recontouring.	4x4 trucks, dump trucks, front-end loaders, motor graders, bulldozers	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property.
Topsoil Replacement	Reclamation to pre-construction/disturbance: replacement of soils, recontouring, etc.	4x4 trucks, front loader, motor grader	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property.
Seeding	Planting new seeds of indigenous native species.	4x4 trucks	None. No ground disturbance within undisturbed soils.
Alternative Seeding	Seeding of annual grasses or forbs.	4x4 trucks	None. No ground disturbance within undisturbed soils.
Vertical Mulch Replacement	Vegetation previously cleared will be replaced back onto site.	4x4 trucks, front loader, motor grader	None. No ground disturbance within undisturbed soils.
Visual Composition	Enhancement restoration to mitigate visual impacts under the National Environmental Policy Act.	4x4 trucks, front loader, motor grader	May require monitoring.

3.3.2 Operations and Maintenance

Appendix A6 of the POD provides the O&M Plan for the overall Project. The plan provides information describing the O&M activities that will occur on BLM- and USFS-administered lands, as well as all other lands on the Project upon construction completion. Maintenance activities will range from routine equipment inspections (no new ground disturbance outside of the Project’s footprint and/or permitted area/ROW) performed by relatively small crews to major maintenance activities, such as pole replacement or access road maintenance performed by larger crews with heavy equipment to emergency maintenance activities, defined as situations that could threaten life, property, or resources. Typical O&M activities include transmission line patrols, climbing inspections, structure and wire maintenance, insulator washing (as needed), inspection and maintenance of stations and communication facilities, access road repairs, vegetation management activities to maintain conductor to vegetation clearances, and keeping structures clear of vegetation. Activities that result in new ground disturbance have the most potential to affect historic properties. Table 3-2 lists some of the typical routine O&M activities and when monitoring of those activities is necessary.

Table 3-2. Operations and Maintenance Activities

O&M Activity	Description of Activity	Schedule, Crew, Equipment	Monitoring Requirements
Transmission Line Maintenance	Ground and aerial inspections of transmission line and nearby vegetation to determine if repairs are necessary.	Semi-annually/crew of three to four; aerial inspection uses helicopter; ground crew uses 4x4 trucks or all-terrain vehicles.	None.

O&M Activity	Description of Activity	Schedule, Crew, Equipment	Monitoring Requirements
Hardware Maintenance Repairs	Repair or replacement of individual components (no new ground disturbance outside of ROW).	Schedule depends on inspection results; crew may use 4x4 trucks, material truck (flatbed), bucket trucks (low reach), boom trucks (high reach), or personal lift.	None.
Access Road and Work Repair	Grading or repair of existing maintenance access roads and work areas, spot repair of sites subject to flooding or scouring.	Schedule depends on inspections or response to emergency; crews may use a grader, backhoe, four-wheel-drive pickup truck, and a tracked-loader or bulldozer.	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property. Comply with requirements of the Flagging and Avoidance PSMMP.
Vegetation Management	Within the ROW under the wires and up to 10 feet outside outermost conductor, vegetation maintained under 5 feet tall. From this zone to the edge of the ROW, vegetation maintained up to 25 feet in height or as needed to ensure safe operations.	Schedule depends on inspections; crew size varies, and vegetation will be removed using chain saws, weed trimmers, rakes, shovels, mowers, and brush hooks. Clearing efforts in heavy growth areas will use a Hydro-Ax or similar equipment.	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property. Follow BMPs for vegetation management.
Station and Communication Station Maintenance	Equipment testing, monitoring, and repair; emergency and routine procedures for service continuity and preventive maintenance of remote surveillance system.	Scheduled once monthly or as needed; crew of two to four persons, use light utility truck.	None.
Emergency Response	Activities necessary to repair natural hazard, fire, or human-caused damages to line.	Equipment is similar to that for conducting routine maintenance, with use of similar equipment to complete repairs (e.g., helicopters for quick response).	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property.
Fire Protection	All federal, state, and county laws, ordinances, rules, and regulations pertaining to fire prevention and suppression will be strictly adhered to.	Typical practices include brush clearing prior to work, stationing a water truck at the job site to keep the ground and vegetation moist in extreme fire conditions, enforcing red flag warnings, providing "fire behavior" training to all pertinent personnel, and keeping vehicles on or within designated roads or work areas.	Monitoring if new ground disturbance is anticipated and/or if the work takes place within 60 meters of a known historic property.

BMP=best management practice; O&M=operations and maintenance; PSMMP=Property-Specific Mitigation and Monitoring Plan; ROW=right-of-way.

Normal operation of the Project would not involve any new ground disturbance outside of the Project ROW or APE; therefore, no impacts to previously known historic properties are anticipated. Inadvertent discoveries during O&M activities will be treated the same as during construction phase tasks and will follow the IDP (Appendix B) and, as applicable, the NAGPRA Plan of Action (Appendix C). The IDP and NAGPRA Plan of Action contain procedures that reference construction personnel specific to the construction phase of the Project; however, the general practices contained within the IDP will be followed by IPC's personnel or contractor(s) during operation. IPC's O&M staff and contractor(s) will notify the applicable land-managing agency personnel of any discovery and afford said discovery with the applicable protections. While avoidance of discoveries during operation is unlikely to be possible since Project features will have already been established, IPC will seek alternative and suitable options for use in lieu of the discovery location. For example, if an archaeological resource becomes exposed in an access road during operations and an alternative access route is available, the road with the discovery will be closed and the alternative route utilized. IPC's O&M staff and contractor(s) will undergo environmental training (including a cultural resource section), be responsible for coordinating activities with the applicable land-managing agency, and avoid, minimize, or mitigate adverse impacts to historic properties from O&M activities in accordance with the applicable procedures outlined in this HPMP and Appendices and in consultation with the lead BLM agency, as necessary. The BLM will continue to coordinate and consult with IPC's O&M staff, SHPO, and other Consulting Parties as needed.

4.0 PREVIOUS RESEARCH AND CULTURAL RESOURCE TYPES IDENTIFIED WITHIN THE APE/PROJECT AREA

This section discusses the identification of resources and briefly discusses previous literature review, pedestrian field surveys, and research conducted for the Project. It also identifies cultural resource types within the APE. Because of the phased nature of the Project, surveys will be conducted up until construction, and where changes in the Project footprint occur, surveys will be conducted during construction. The methods for conducting these surveys, reporting on them, documenting sites, determining eligibility, determining effects, and finally determining needed mitigation or management where adverse effects cannot be avoided are provided in PA Stipulation III. It should be noted that the PSMMPs will contain applicable detailed information about previous research and the historic properties identified within the APE.

4.1 Identification and Evaluation of Historic Properties

This HPMP is based on the results of cultural resource inventories consisting of background records and literature research and a pedestrian survey of the Project APE. The PA outlines six phases in which IPC has conducted, and will continue to conduct, cultural resources inventory and identification of historic properties for this Project (see PA Stipulation II.E(1–6)). The BLM will ensure that all work undertaken for this Project will satisfy the terms of the PA; meet the Secretary of the Interior’s Standards for Archeology and Historic Preservation (48 *Federal Register* 44716); meet the requirements outlined in BLM Manual 8110; meet state SHPO standards, including guidance and standards found in respective BLM and SHPO state protocols; and meet the individual state BLM permitting requirements. The six phases are outlined in the PA and can be found in Stipulation II.E(1–6).

4.1.1 Archival Research and Results

IPC’s team of cultural resources consultants performed a literature and records review encompassing a 5-mile area on either side of the Proposed and Alternative Project routes. Available existing records of previously recorded sites and studies/inventories were gathered by an official file search through each state’s SHPO’s database. In addition, other data sources were used, including published and unpublished literature, chronologies, cultural and historical contexts, and information provided by the BLM, USFS, Oregon Historic Trails website, U.S. Geological Survey Mineral Resource Data System, Oregon Historic Sites Database, Idaho Historic Sites Inventory, U.S. General Land Office maps, early state maps, and the National Park Service Trails Office (which include global information system [GIS] shapefiles for NHTs within the APE). The Class I literature review presented in the Class III inventories and VAHP studies for the Project provide in-depth discussions of research as well as the environmental and cultural contexts of the APE, including an overview of prehistory, ethnography, and history. At the time of this publication, the most recent reports were the Background Information Report for Oregon (King et al. 2022), the Initial Class III Inventory for Idaho (Anderson et al. 2023), and the VAHPs (AECOM 2022a, 2022b, 2022c, 2022d). A list of completed, in progress, and anticipated reports for the Project is contained in Appendix F to this HPMP.

4.1.2 Field Survey Methods and Results

A series of cultural resource field surveys were conducted to confirm known cultural resources and identify previously unrecorded cultural resources within the APE. IPC contracted with Tetra Tech, Inc. (Tetra Tech), who conducted nine cultural resources survey sessions of accessible private and public land between the spring of 2011 and the summer of 2023. The surveys were conducted by professional archaeologists who meet the Secretary of the Interior Standards, as well as requirements outlined in BLM Manual 8110 and state standards for Oregon and Idaho.

Surveys were conducted consistent with the Archaeological Survey Plan (Tetra Tech 2012) and the Subsurface Investigation Strategy Plan (SISP; Appendix E), which contain the details of the research design and sampling strategy for the subsurface investigation as outlined by the PA.

The pedestrian survey area consisted of 250 feet on either side of the centerline (500 feet wide) of IPC's Project route and alternatives, 100 feet on either side of new roads or roads that would require improvement, and the footprint of attendant facilities outside the transmission line corridor. Existing crowned and ditched roads and paved roads did not require survey (PA Stipulation I.A(1)(b)). The agreed protocol included using 20-meter (66-foot) interval pedestrian linear survey transects across each sample.

The inventory reports (Anderson et al. 2023; King et al. 2023) are filed as confidential documents at the appropriate Idaho and Oregon BLM field and state offices, as well as with SHPOs, IPC, and all Consulting Parties. Appendix F includes a list of the cultural resource reports completed for the Project. Additional field survey reports will be provided to the Consulting Parties, consistent with the PA and this HPMP.

Consistent with PA Stipulation V(K), a final Class III inventory report (also referred to as a "summary report" in the PA) will be prepared no more than 3 years following completion of surveys. That report will document survey results of fieldwork outside the direct APE (as reported in the Initial and Pre-construction Class III reports and addendums) and summarize all changes to previous report findings and additional cultural resources-related work not included in the Initial or Pre-construction Class III Inventory reports. The summary report's outline and content will be consistent with the outline of prior Class III inventory reports for the Project. (Note, reporting of construction monitoring and any additional inventories completed as a result of the variance process will be reported separately in the monitoring summary report required by PA Stipulation VII(B). See Section 7.5.)

The Initial Class III report provides the results of the data discovered during the Class I site file search and literature review, as well as the sites and isolated finds (IF) located during the Class III pedestrian survey of the Project direct APE. The Class III pedestrian survey of the proposed and alternative routes for the Project conducted in the summers of 2011 (B2H), 2012 (3B2H), September 2020 to January 2021 (7B2H), and March 2022 to November 2022 (8B2H) included approximately 23.5 miles of 500-foot-wide transmission line corridor, 43.5 miles of 200-foot-wide access roads, and approximately 373.9 acres of work area support facilities (i.e., 5 temporary multi-use areas and 29 pulling and tensioning sites). The Class I literature review portion of the Initial Class III report included a compilation of all reasonably available cultural resource data and literature for areas encompassed by the Project in southwestern Idaho over the past 10 years. Previously recorded cultural resources data were derived from published and unpublished documents, cultural resource inventory records, institutional site files, state and national registers, and other available information sources. The Class III survey portion of this report included all of the newly recorded sites and IFs located during the pedestrian survey. The total acreage of the survey was approximately 4,954.05 acres.

During the four field sessions (i.e., B2H [May–August 2011], 3B2H [May–August 2012], 7B2H [September 2020–January 2021], and 8B2H [March 2022–November 2022]), Tetra Tech recorded 73 new archaeological sites and 66 new IFs and revisited 10 previously recorded sites. Of the 73 new archaeological sites, 18 are pre-contact, 35 are historic, 10 are multicomponent (historic and pre-contact), and 10 are culturally undetermined sites. The pre-contact sites consist of lithic flake scatters, lithic flake and tool scatters, lithic procurement zones, rock features, quarries, and a rockshelter. The historic sites include water conveyance segments, refuse scatters, mining claims, mining prospects, quarries, a telephone line segment, a utility line segment, a retaining wall, a dump, and a grave. The multicomponent sites include lithic flake and refuse scatters, lithic scatters and mining claims, a lithic scatter and General

Land Office survey marker, a lithic scatter and prospect pit, and a lithic procurement zone and refuse scatter. The culturally undetermined sites are stacked rock features. Despite measures to ensure physical avoidance, further consultation with Native American tribes is necessary to determine the physical effect of the undertaking to these resources.

Of the 28 previously recorded sites, 9 are pre-contact archaeological, 12 are historic archaeological, 4 are historic structures (i.e., Idaho Historic Sites Inventory sites), 1 is multicomponent archaeological, and 2 are undetermined. The pre-contact sites include lithic scatters, lithic procurement zones, and rockshelters. The historic sites include ditch segments, refuse scatters, a highway segment, utility line segments, mine claims, a mine, quarries, a sheepherder camp, and a retaining wall. The multicomponent sites combine lithic scatters with various historic elements, including mining claims, a General Land Office marker, and refuse scatters. The undetermined sites are rock cairns.

Of the 66 newly recorded IFs, 40 are pre-contact and 26 are historic. The pre-contact IFs include lithic flakes, bifaces, cores, and projectile points. The historic IFs include domestic trash, an automobile part, tobacco tins, cans, mining claims, and a horseshoe. One previously recorded IF was not relocated.

At the time of this publication, the BLM is in the process of making determinations of eligibility and effect based upon the recommendations presented in the Class III inventories. While other reports have been completed in the past, the most complete and applicable inventories at the time of publication of this HPMP are:

Anderson, Stephen R, RPA; Collette Chambellan, Jen Lemminger, and Emily Milton, RPA
2023 Boardman to Hemingway Transmission Line Project: Initial Class III Intensive Level Survey, Owyhee County, Idaho. Prepared by Tetra Tech, Inc. Prepared for Idaho Power Company for submission to BLM Oregon, Vale District. BLM Report Number 21O22. January.

King, Erin, RPA; Stephen R. Anderson, RPA; Jenna Farrell, RPA; Lara Rooke, RPA; Sydni Kitchel; Lynn Peterson; Brady Berger; Jennifer Lemminger; Jessica DeMaso; Andrew Lambert; and Mary Connell

2023 Boardman to Hemingway Transmission Line Project Initial Class III Intensive Level Cultural Resources Survey. Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon. Prepared by Tetra Tech, Inc. Prepared for Idaho Power Company for submission to BLM, Vale District Office. BLM Report VD-22-01. SHPO Project #08-2232. January.

Additional survey reporting, including subsurface surveys guided by the SISP (Appendix E), will be provided in a forthcoming Pre-Construction Class III Intensive Level Survey report as required by the PA. Additional addendum reports will be completed, as necessary. Subsurface surveys include boundary probing of resources within 30 meters (100 feet) of proposed disturbance and probing in proposed disturbance within high probability areas (HPA).

The SISP acts as a guiding document for excavations, such as presence/absence probing and NRHP eligibility testing, and to support archaeological excavation permit applications in Oregon. At this time, no subsurface investigations are anticipated in Idaho. It also supports compliance with sections II.E.4 through 6 and III of the PA. Section III.C.3 of the PA specifically requires completion of the SISP. The SISP discusses in general methods anticipated to be used in resource boundary probing, probing of HPAs, and testing for NRHP eligibility. Methods to be employed at specific resources are specified in those archaeological excavation permits. Potential research questions for NRHP-eligibility testing are also included.

An appendix with a list of reports submitted to date for the project is included in Appendix F to the HPMP.

4.2 Ethnographic Studies

To identify and protect contemporary and ongoing tribal use of culturally significant areas and/or sites and to assist the BLM with its tribal consultation, three ethnographic studies were completed. The Confederated Tribes of the Umatilla Indian Reservation completed an ethnographic study for the Project area and adjacent lands traditionally occupied and used by the Tribes. In addition, the Shoshone Paiute of Duck Valley contracted with anthropologist Dr. Deward Walker, Jr., Ph.D., to conduct an ethnographic study, and the Burns Paiute also completed its own ethnographic study. These are confidential documents that are generally not available without the approval of the Tribes.

4.3 National Historic Trails Study

A study of visual impacts to NHTs, non-NHTs, and trail-related historic properties was conducted for the Project analysis area, which included the direct and indirect APEs. The study discusses adverse visual effects (e.g., viewshed) to historic properties on public lands and specifically analyzes the impacts of the Project on the setting of these historic properties, where appropriate. Consistent with the BLM's obligations under the NTSA, the report, *Inventory and Impacts Analysis for National Historic Trails and Study Trails for the Boardman to Hemingway 500-kV Transmission Line Project*—BLM Manual 6280 (Logan Simpson Design Inc. 2014), was prepared as supporting documentation for the National Environmental Policy Act EIS and supplements the information prepared for the VAHP to support compliance with Section 106. The VAHP reports for Washington, Oregon, and Idaho also identified NHTs on public and private lands. The initial Class III report also included information about historic trails.

4.4 Visual Assessment of Historic Properties (VAHP)

Studies of visual effects to historic properties inclusive of precontact and historic period resources were prepared for Idaho, Washington, Oregon, and the Umatilla Indian Reservation. These studies were guided by the VAHP Study Plan (see list of Project-related documents in Appendix F). While principally focused on visual effects to historic properties located in the indirect APE, these studies also consider atmospheric, audible, and cumulative effects from Project activities. Consultation regarding these studies is ongoing but will be finalized prior to NTP.

The VAHP documents the results of the Visual Assessment of Historic Properties Intensive Level Survey (VAHP ILS) conducted for the Project to satisfy the requirements of Section 106 of the NHPA (54 U.S.C. 306108 and its implementing regulations [36 CFR Part 800]). The report addresses resources in Morrow, Umatilla, Union, Baker, and Malheur counties, Oregon, the portion of the Project subject to review by the Oregon SHPO. Separate VAHP ILS reports have been completed in the states of Idaho and Washington (AECOM 2022b and 2022d). It should be noted that this report also considers other effects, including noise, atmospheric effects, and corona, upon historic properties.

The objectives of the ILS Report include:

- Providing ILS results consistent with the Visual Assessment of Historic Properties Study Plan (Tetra Tech 2013) and the PA, which was developed in coordination with the BLM, USFS, SHPO, and other consulting parties;
- Providing agencies with information on historic resources to facilitate compliance with Section 106 of the NHPA and NEPA;

- Satisfying Stipulations II (Identification of Cultural Resources), III (Evaluation and Determination of Eligibility), IV (Assessment of Effects), and V (Reporting and Review of Documentation) of the PA;
- Providing preliminary resource evaluation and Project impact information about historic-period resources associated with construction within the Project’s analysis area;
- Identifying precontact and/or historic resources that are listed in or eligible/not eligible for the NRHP;
- Identifying cultural resources that would be eligible for the NRHP and that have the potential to be affected by the Project;
- For historic properties (properties listed in or eligible for the NRHP), assessing potential for visual, noise, and/or atmospheric effects; and
- Making recommendations on which historic properties (i.e., properties eligible for or listed in the NRHP) would be affected by the Project and proposing recommendations for mitigation to resolve adverse effects on historic properties.

4.5 Definition of Cultural Resources Resource Types

Table 4-1 summarizes the different cultural resource types found in the direct APE in Oregon and Idaho by the Class III and VAHP inventories. This was initially developed based upon Oregon BLM’s GIS metadata format provided for the Project’s cultural resources surveys. It has been refined based upon survey results and review of the HPMP by the Consulting Parties. The table is provided for the benefit of the CRT to consistently apply resource types. It should be noted that resources identified in the field may not fit “cleanly” into these categories nor be easily determined based upon observations of surface artifacts and features. As such, these definitions are intended only as a guide for monitors’ use in the event of inadvertent discoveries. Although not specifically described below, multicomponent resources (i.e., combinations of the pre-contact and historic-era resources listed below) have been identified in the direct APE as well.

Despite changes to the definition of an archaeological site *in Oregon*, per Stipulation III.B of the PA, the Project’s definition of archaeological sites in Oregon adheres to SHPO’s guidelines at the time of the signing of the PA (2016): more than nine artifacts constitute an archaeological site.

Table 4-1. Resource Categories Identified in the APE

Resource Category/Type	Definition
Pre-contact Sites	
Burial	An area containing human remains and/or associated funerary goods.
Lithic Procurement	Locality where lithic material was obtained, either as nodules on the surface or through quarrying.
Lithic Scatter	A scatter of material produced during the process of lithic reduction and the production of chipped stone tools.
Stacked Rock Feature	A pattern or alignment of at least one course of continuous or intermittent stones in a linear, circular, or semicircular design. Includes cairns (in Oregon), hunting blinds, walls, etc.
Rockshelter	Shallow overhang/coverage with archeological deposit and/or other indication of use or habitation. The shelter is greater in width than depth.
Pre-contact Isolated Finds	
Biface	A stone tool that has been culturally and bifacially (i.e., along ventral and dorsal) modified, but are not refined enough for identification as a formal tool.

Resource Category/Type	Definition
Cairn (Idaho Only)	A collection of stones marking a location. Cairns are to be recorded as isolated finds only in Idaho.
Core	A scarred nucleus artifact that results from the practice of lithic reduction.
Debitage	Material produced during the process of lithic reduction and the production of chipped stone tools.
Groundstone	Large stones that display smoothed or ground flattened surfaces resulting from the processing of plant and animal foods.
Hammerstone	Cobbles or cobble fragments that exhibit battered and pitted edges resulting from use as a percussor.
Lithic Scraper	A flake that displays regularized edge retouch to produce a uniform and continuous edge.
Lithic Tool	A manufactured lithic artifact that had an intended design and purpose.
Preform	A well-thinned biface that does not have well-shaped or retouched lateral margins.
Projectile Point	A finished biface with lateral edges that converge to a point and have been modified at the proximal end to facilitate hafting.
Tested Cobble	A cobble that exhibits percussion breaks or flake removal scars.
Tool	A manufactured artifact that had an intended design and purpose.
Utilized/Modified Flake	A flake with flake scars resulting from use that extend less than 2 millimeters from the tool edge.
Historic-era Sites	
Agriculture	Farming- or ranch-related artifacts or features.
Cairn (in Oregon)	A collection or a set of stacked stones marking a location. Cairns are recorded as sites only in Oregon.
Cemetery	An area set apart for or containing graves, tombs, or funeral urns.
Homestead	The location of an abandoned or in-use historic residence originating from the Homestead Act or other historic-era ranching or farming locality with residence. Includes the land and associated structures.
Logging	Associated with timber harvesting.
Mining	Associated with the process or industry of obtaining coal or other minerals from a mine.
Railroad	A track or set of tracks made of steel rails along which passenger and freight trains run.
Ranching	Associated with the practice of animal rearing or husbandry.
Refuse Scatter	Localized historic trash.
Road	An established pathway leading from one place to another and used for travel or transport by wagons or vehicles.
Rock Alignment	A pattern or alignment of at least one course of continuous or intermittent stones in a linear, circular, or semicircular design.
Structure	Any aboveground, constructed historic feature retaining enough of its physical integrity to be determined more than a foundation or ruin.
Survey Marker	U.S. Geological Survey marker.
Trail	A defined beaten path used for travel and transport on foot. (Although the Oregon Trail developed into a wagon road, it is recorded here as a trail.)
Utility Line	Overhead electric or telephone lines and poles.
Water Conveyance	A series of linear segments or features that ensure the transport and/or retention of water.
Historic-era Isolated Finds	
Agriculture	Farming- or ranch-related artifacts.
Cairn (Idaho Only)	A collection of stones marking a location. Cairns are to be recorded as isolated finds only in Idaho.
Claim Marker (Idaho Only)	Post, sign, or stacked rocks located on, and designating, a mining claim. Claim markers are to be recorded as isolated finds only in Idaho.
Refuse	Localized historic trash.

Resource Category/Type	Definition
Multicomponent Sites	
TCPs	Traditional cultural properties
HPRCSITs	Historic Property of Religious and Cultural Significance to Indian Tribes
Traditional Use Areas	Areas of traditional Native American hunting, gathering, or other uses.

5.0 METHODS FOR DETERMINATION OF ELIGIBILITY AND EFFECTS

This section discusses the methods used to determine NRHP eligibility and Project effects. These methods were employed in the pre-construction resource inventories (Class III and VAHP). These same methods will be used if previously unidentified cultural resources are discovered within the Project APE during construction or operation. Consultation is an ongoing process for the BLM's determinations of eligibility and effects. This applies for pre-construction inventories as well as discoveries made during construction and post-construction phases. For any and all determinations of eligibility and findings of effect at any time during the Undertaking, the BLM will consult with the Consulting Parties.

5.1 Determinations of Eligibility

The NHPA is the principal federal law guiding BLM action with respect to the management of cultural, archaeological, and historic resources. Section 106 (54 U.S.C. 306108) of the NHPA requires that federal agencies consider the effects of their undertakings on historic properties listed or eligible for listing on the NRHP and give the ACHP and SHPO/THPO a reasonable opportunity to comment on the undertaking. Historic properties are "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in the National Register of Historic Places" (54 U.S.C. 306308). The criteria used to evaluate NRHP eligibility of properties affected by federal agency undertakings are contained in 36 CFR 60.4.

The Class III reports and VAHP reports submitted to date by IPC's teams of archaeologists and architectural historians contain recommendations for eligibility. For each property that is within the APE, the BLM, in consultation with SHPOs/THPOs and the Consulting Parties, will determine NRHP eligibility pursuant to 36 CFR 800.4(c)(1) for each such property (PA Stipulations II, III, and IV). The BLM will then seek consensus determinations and concurrence of eligibility with the appropriate SHPOs/THPOs for all properties, whether on federal, state, Tribal, or private lands (PA Stipulations II, III, and IV). Additional Class III and/or VAHP reports will be developed based on Project changes and on design engineering work in the future. The determination of eligibility and effects for those reports will follow the same procedure. IPC will treat all unevaluated sites as though they are eligible and will try to avoid all unevaluated sites. If avoidance is not feasible, site eligibility will be evaluated, possibly through subsurface testing, conducted under the guidance of the Project's SISP (Appendix E), and or consultation and research, to determine individual site significance.

The CRT will include recommendations of eligibility for cultural resources identified within the Project APE after the initial Class III reports have been approved. The BLM, in consultation with the Consulting Parties, will determine the NRHP eligibility pursuant to PA Stipulation III.

5.2 Assessment and Determination of Effects

Each historic property is evaluated to determine if the Undertaking will adversely affect it. Generally, an adverse effect is an action that alters a quality that makes the resource NRHP eligible. For example, something that is eligible under Criterion D could be adversely affected by physical disturbance across most of the site, significant deposits, etc., without protective measures. Resources where the setting is an integral aspect of what makes them NRHP eligible could be adversely affected by the new construction of the Undertaking. The BLM, in consultation with the Consulting Parties, makes determinations of effect consistent with 36 CFR 800.4(d) and identifies if adverse effects occur to historic properties within the APE in accordance with the criteria established at 36 CFR 800.5(a)(1) and (2)(i)–(vii). The BLM provides said parties with the results of the finding following 36 CFR 800.11(e)(4)–(6), *Documentation Standards* (PA Stipulation IV.A).

The BLM relies upon the recommendations of consultants, using the methods identified in the Archeological Survey Plan (Tetra Tech 2012) and VAHP Study Plan (Tetra Tech 2013) to determine the physical effects of the Project on historic properties. Both plans were reviewed and consulted upon by the BLM with the Consulting Parties. In addition, the BLM relies upon consultant recommendations to broadly assess atmospheric, audible, and cumulative effects under Section 106 to identify reasonably foreseeable, potentially adverse effects as a result of the proposed Project (PA Stipulation IV.A). All assessments are conducted in consultation with the Consulting Parties.

The pre-construction Class III inventories assess the physical effects of the Undertaking within the direct APE. A generalized approach to avoid resources by a minimum of 30 meters (98 feet), regardless of eligibility or type, with flagging and monitoring incorporated, was discussed with the BLM and Oregon SHPO as an appropriate method to ensure physical adverse effects were avoided. A recommendation of an adverse physical effect considered the degree and type of ground disturbance proposed within a historic property or potential historic property after implementation of minimization efforts, such as capping existing roads through sites and flagging for avoidance.

The VAHP inventories assess the visual, auditory, and coronal effects of the Undertaking within the indirect APE, which encompasses the direct APE. Based upon the VAHP Study Plan, resources considered for adverse effects were limited to built environment resources, archaeological sites with aboveground components (i.e., stacked rock features, rockshelters), and Traditional Cultural Properties or Historic Properties of Religious or Cultural Significance to Indian Tribes. The effects analyses were limited to those such resources with a view of the Undertaking, based on a bare-earth viewshed analysis in GIS. A recommendation of an adverse visual, auditory, or coronal effect considered the degree to which the Undertaking will be visible and the importance of the current setting in a resource's NRHP eligibility.

These final determinations of effects to historic properties serve as the basis for IPC's development of specific avoidance, minimization, or mitigation measures presented for review and approval in the PSMMPs. The nature of each adversely affected historic property and potential historic property is described in each PSMMP, as well as the qualities that make the property NRHP eligible and the nature of the adverse effect.

6.0 AVOIDANCE, KNOWN EFFECTS OF UNDERTAKING, AND POTENTIAL MITIGATION AND MINIMIZATION PLANS FOR INADVERTENT DISCOVERIES

Presented below is a general framework for resolution of adverse effects from the Project on historic properties. Mitigation and minimization plans are generally guided by this framework; however, each PSMMP will contain resource-specific plans, determined through consultation to be appropriate for the adverse effect and resource (see Section 1.2).

6.1 Avoidance

IPC has designed the Project to avoid cultural resources, regardless of NRHP-eligibility status or resource type, to the extent feasible in consideration of engineering constraints and landowner requests. Cultural resources were identified within or near the Project area early in Project planning through literature reviews and cultural resource inventories. The Project design has been altered where feasible to avoid effects to known cultural resources. IPC made numerous revisions to the proposed transmission line routes and access roads to avoid effects to known cultural resources. For example, if a proposed new access road affected a resource, the road was redesigned to avoid the site boundaries. Similarly, where work areas could be modified to avoid a resource, those modifications were made, such as “clipping” the work area to avoid a buffer around the resource. This was done on a resource-by-resource basis with IPC’s cultural resource team and the Project’s design engineers. Where resource conflicts with disturbance areas were identified, each location was examined by the design engineers to attempt to find a method to avoid the resource, in consideration of topography, other resources (including biological resources), and landowner requests. Design modifications are described in more detail in the Initial Class III report and are also detailed in PSMMPs where design modifications did not result in the avoidance of adverse effects.

IPC treats all unevaluated resources as though they are potential historic properties eligible under all four NRHP criteria, consistent with Stipulation III.A of the PA. In many cases, physical adverse effects to historic properties were avoided by relocating a Project facility; however, the proposed facility may be installed nearby. To avoid physical damage to historic properties and potential historic properties, resources and a buffer will be marked for avoidance by flagging, fencing, or staking, and monitored. Flagging and signage procedures are detailed in Section 7.3.4 of this HPMP. Each buffer is established on a site-by-site basis and initially recommended in the Class III inventories (see Appendices F and G) for consultation with the Consulting Parties. Construction monitoring will be conducted to ensure successful avoidance of identified sites and to watch for inadvertent subsurface discoveries during grading, blading, excavation, and other initial mechanical ground-disturbing activities, as detailed in the Monitoring Plan (see Section 7).

During Project construction, reclamation, and O&M activities, it is possible that surface and/or subsurface resources not identified during pre-construction inventories could be discovered. The IDP (Appendix B) details the required response to such discoveries. Flagging, avoidance, and monitoring of known historic properties or potential historic properties within the approved ROW will occur during reclamation and O&M activities (see Section 7.6).

6.2 Summary of Known Effects of Undertaking

Project-related construction, reclamation, or O&M can cause known effects including unavoidable physical, visual, atmospheric or coronal, audible, and cumulative effects to historic

properties. Based on the inventories completed to date, there are 70 sites adversely affected either physically, visually, atmospherically or coronally, or audibly by the Project.

These effects can be mitigated by, but not limited to, the following: historic documentation, photographic documentation (both modern and historic), collection of oral histories, historic context creation, Historic Properties interpretation, Conservation easements, NRHP nominations, public archaeology projects, architectural, landscape, or engineering documentation, digital, print, or media public interpretation, public improvements, signage, data recovery, fencing, marking, capping, and site protection. Actual management will be determined through BLM consultation with the Consulting Parties and through the preparation of PSMMPs. All mitigation plans will be consistent with Secretary of the Interior Standards for archaeological, historical, and architectural documentation; the ACHP Section 106 archaeology guidance, and other guidance from the appropriate SHPOs/THPO. PSMMPs anticipated and drafted at the time of this publication are described below. Additional PSMMPs may be added to the HPMP as additional inventories are finalized, consultations continue, and as inadvertent discoveries are potentially made during construction.

6.2.1 Built Environment

The PSMMP addressing the Built Environment covers six sites: four in Oregon and two in Idaho. This mitigation task would create a series of historic contexts that build upon existing historical information collected as a part of the Project in the context portion of the VAHP and Interim Class III Reports, but supplemented by broader contextual research that focuses on regional historical themes and time periods that align with the applicable resources adversely affected by the Project. The historic contexts shall be consistent with “The Components of a Historic Context: A National Register White Paper” by Barbara Wyatt (2009).

6.2.2 Oregon Trail

The PSMMP addressing the Oregon Trail covers nine sites. General mitigation measures may be overall applied to all nine historic properties identified in this treatment plan and include options for digital public interpretation, driveway, and parking improvements. General mitigation measures are especially suited for resolving potential adverse effects to historic properties located on private property that lack public access and/or visibility, including 6B2H-RP-09, 4B2H-EK-41, 3B2H-CH-05, and the segments at Straw Ranch I and II.

6.2.3 Water Conveyance

The PSMMP addressing Water Conveyance systems covers two sites. This site-specific mitigation and monitoring plan includes two categories of recommended mitigation types—site-specific mitigation and general mitigation. Site-specific mitigation is designed to resolve potential adverse effects to built environment historic properties and is targeted at the specific location where the adverse effect occurs. Although not informed by site-specific conditions, general mitigation recommendations align with overarching goals and management expectations associated with the historic properties. Furthermore, general mitigation measures are especially well suited to address potential adverse effects on historic properties located on privately owned land where other types of public mitigation are limited, access may be limited. The mitigation options and recommendations for this category of site were informed by consultation with consulting parties, including the Oregon SHPO, BLM, and USFS following their review of the *Visual Assessment of Historic Properties: Intensive-Level Survey* (AECOM 2022a, 2022b, and 2022d).

6.2.4 Rock Shelters

The PSMMP addressing Rock Shelters systems covers four sites. This property-specific mitigation and monitoring plan includes two property-specific mitigation types: signage and

monitoring. Property-specific mitigation is designed to resolve potential adverse effects to rock shelters and considers existing conditions at each historic property, such as the degree of public access to those particular sites. Due to the nature of the Project, the property-specific mitigation measures in this PSMMP are contingent upon coordination with the BLM because they are designed to address ongoing issues regarding public access.

6.2.5 Stacked Rock Features

The PSMMP addressing Stacked Rock Features covers 45 sites and identifies the mitigation measures that BLM and IPC sought to resolve adverse effects to affected stacked rock features. Property-specific mitigation is designed to resolve potential adverse effects to stacked rock features when possible and considers existing conditions at each historic property, such as the presence or absence of existing modern infrastructure within the viewsheds of stacked rock features. Each property was assessed to determine whether property-specific or general measures were appropriate and/or feasible.

As noted in the PSMMP, project planning over time has in some instances been able to reduce effects to stacked rock features but in others has increased effects during the post-ROD planning and micrositing phases of the Project. Property-specific mitigation is designed to resolve potential adverse effects to specific sites. General mitigation is designed to apply broadly to all stacked rock features and may be implemented to address potential adverse effects to concentrations of stacked rock features in their entirety as a result of the Project. Although not informed by property-specific conditions, general mitigation aligns with overarching goals and management expectations associated with the historic properties. Furthermore, general mitigation measures are especially well suited to address potential adverse effects to historic properties located on privately owned land where other types of mitigation are limited.

In most if not all instances, direct physical adverse effects were able to be avoided and/or minimized using a variety of different strategies including realigning or redesigning Project features.

6.2.6 35UN 00097

The PSMMP addressing site 35UN 00097 covers one large site. This property-specific mitigation is designed to resolve adverse effects to the specific historic property 35UN 00097 and includes, but is not limited to, road capping, flagging and fencing, and data recovery. The BLM has consulted with the Consulting Parties regarding the mitigation in this plan. Additional research topics offered by tribes and other Consulting Parties will be included in the final PSMMP for this historic property. Data recovery activities as management for unavoidable physical adverse effects will be confined to the direct APE on federal lands and to the acquired easement on private lands (see Section 6.3.2 below). The proposed data recovery consists of the following elements:

- Research Design
- Data Recovery Methods
- Tribal participation/monitoring
- Analysis, Curation, Reporting

6.2.7 Lithic Procurement Sites

The PSMMP addressing Lithic Procurement covers three sites. This mitigation and monitoring plan includes site-specific mitigation and *does not include* general mitigation. Site-specific mitigation measures including but not limited to data recovery, submission of obsidian flow samples to Oregon Obsidian Registry, site protection and flagging are all designed to resolve

adverse physical effects to the subject obsidian lithic procurement historic properties and are targeted at the specific locations where the adverse effect occurs. The mitigation options and recommendations were informed by consultation with the Consulting Parties, including the SHPO, BLM, and tribes following their review of the Initial Class III Inventory. Additional research topics offered by tribes and other Consulting Parties will be included in the final PSMMP for these historic properties.

6.3 Potential Mitigation Measures for Classes of Historic Properties

Based on the results of the pre-construction inventories and substantial avoidance efforts, adverse effects to historic properties and potential historic properties cannot be entirely avoided by the Undertaking. Even if redesign could avoid all adverse effects caused by ground disturbance, there are resources which, due to their critical location or size, cannot be entirely avoided physically. In addition, the substantial change in the setting of some important resources, where setting is an aspect of integrity, cannot be entirely avoided.

Per PA Stipulation VII.C:

Wherever feasible, avoidance and preservation in place shall be the preferred treatment for historic properties located within the APE. Avoidance may include design changes or relocation of specific components of the Undertaking and/or use of fencing or barricades to limit access to identified historic properties. For historic properties that cannot be avoided the HPMP will include ... plans and provisions to minimize or mitigate direct, indirect and/or cumulative adverse effects to historic properties that may result at any time during the Undertaking.

The following sections generally discuss potential mitigation options that may be considered for specific classes of historic properties or potential historic properties where avoidance and preservation were not possible. These general types of mitigation are common measures implemented in cultural resource management, but will not necessarily be selected through consultation with the Parties as the appropriate mitigation for all adverse effects. Consistent with PA Stipulation VII. C, resource-specific PSMMPs will be developed in consultation with the Parties. PSMMPs may use the potential mitigation measures described below or may develop alternative measures to be implemented. Further, as discussed in Section 1.2 of this HPMP, each PSMMP will also include avoidance and monitoring plans for the properties included in the plan as well as for O&M and decommissioning of the Project. Where subsurface investigation, such as data recovery, is identified as appropriate mitigation and required in a PSMMP, the research design and strategies outlined in the Project's SISP (Appendix E) may be relied upon, as outlined in the PA. However, in each case, a research design and strategies specific to the resource being mitigated will be included in the PSMMP.

6.3.1 Mitigation for Physical and/or Visual, Auditory, and Coronal Effects to Historic Properties

The visual, auditory, or coronal effects from Project-related construction, reclamation, or O&M to historic properties may be mitigated by, but not limited to, the following: historic documentation, photographic documentation (both modern and historic), collection of oral histories, or architectural, landscape, or engineering documentation. Table 6-1 lists potential management methods for consideration to mitigate for unavoidable physical, visual, atmospheric, audible, and cumulative effects to historic properties. These types of effects are discussed in the pre-construction inventories for the Project (see document list in Appendix F). Actual management will be determined through BLM consultation with the Consulting Parties and through the preparation of PSMMPs.

Table 6-1. Potential Management Methods for Adverse Physical, Visual, Atmospheric, Audible, and Cumulative Effects

Historic Property Category	Example Site Types (not a complete list)	Management Methods for Adverse Physical, Visual, Atmospheric, and Audible Effects
Traditional Cultural Properties and Historic Properties of Religious and Cultural Significance to Indian Tribes (may include pre-contact historic properties)	Types could include ceremonial areas, vision quest, or gathering areas	<ul style="list-style-type: none"> • Tribal ceremonies and education • Additional literature and archival review • Ethnographic documentation • Oral histories • Stacked Rock Features NRHP Multiple Property Documentation Form • Monitoring of affected stacked rock features • Road access restrictions if possible
Trails (NHT, stage trails, freight roads, etc.)	Stations Corrals Trail traces Burial Burial inscriptions	<ul style="list-style-type: none"> • Recordation, including federal/state level HABS/HAER/HALS • Additional literature or archival review (e.g., historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Signage and interpretive plans for adversely affected historic trail segments near Project area • Historic trail publications in OCTA or other historical journal • Elementary/high school curriculum materials • Online TED talks • Internship program • Preparation of OCTA recordation forms for segments not already in SHPO records • Installation of protective barriers where motorized vehicles have impacted trail segments
Historic Structures	Farms and ranch sites, buildings, utility lines, water conveyance systems, mining, bridges, etc.	<ul style="list-style-type: none"> • Photograph documentation and scale drawings • Federal/state level HABS/HAER/HALS documentation • Additional archival and literature review • Restoration of historic structure • Relocation of historic structure

HABS= Historic American Building Survey; HAER=Historic American Engineering; Record; HALS=Historic American Landscape Survey; NHT=National Historic Trail; NRHP=National Register of Historic Places; OCTA=Oregon-California Trails Association, SHPO=State Historic Preservation Office.

6.3.2 Data Recovery as Mitigation for Physical Adverse Effects to Historic Properties

The Project has been designed to avoid physical adverse effects to cultural resources where feasible. Mitigation measures for physical adverse effects to historic properties and potential historic properties, including when data recovery is selected as appropriate mitigation through consultation with the Consulting Parties, will be addressed in PSMMPs. Historic properties that would be physically adversely affected by the Project consist of both pre-contact and historic-era resources whose surface or subsurface features or artifacts cannot be entirely avoided. After all reasonable avoidance and minimization measures have been implemented and a physical adverse effect is still probable, mitigation may include data recovery. While alternatives that do not include excavation, such as “off-site” mitigation, will be sought and the selection

based upon the qualities that make a resource NRHP eligible, data recovery remains a commonly employed mitigation measure for physical adverse effects to archaeological sites. Methods for potential data recovery mitigation are summarized in Table 6-2. Mitigation plans may also include the development of partnerships and funding for public archaeology projects and/or historic properties interpretation.

Table 6-2. Data Recovery Methods for Unavoidable Physical Adverse Effects

Historic Property Category	Example Site Types (not a complete list)	Data Recovery Steps for Impacts to Sites without a Subsurface Component (i.e., surficial sites)	Data Recovery Steps for Impacts to Sites with Subsurface Features or Artifacts
Pre-contact	Lithic scatters, campsites, hearths and features, quarries/lithic procurement locales	Data recovery that includes: <ul style="list-style-type: none"> • Surface collection or in-field artifact analysis and recording • Detailed surface mapping • Geomorphological studies • Photograph documentation • Curation 	Data recovery that includes: <ul style="list-style-type: none"> • Surface collection or in-field artifact analysis and recording • Detailed surface mapping • Geomorphological studies • Controlled scientific excavation • Laboratory analysis • Photograph documentation • Curation
Historic Era	Refuse scatters, mining sites, homesteads	Data recovery that includes: <ul style="list-style-type: none"> • Recording • Surface collection or in-field artifact analysis • Detailed surface mapping • Photograph documentation • Curation 	Data recovery that includes: <ul style="list-style-type: none"> • Recording • Surface collection or in-field artifact analysis • Detailed surface mapping • Controlled scientific excavation • Laboratory analysis • Photograph documentation • Curation

When data recovery through excavation is the only feasible mitigation, as determined in consultation with the Consulting Parties (or necessitated by an inadvertent discovery), a data recovery plan will be drafted as a PSMMP, which makes provisions for adequately recovering scientific information from and about the resource. Planning for data recovery excavation to mitigate the loss of substantial spatial percentage of a significant archaeological site(s) will be guided by data gathered during the test investigations and by the research design and anticipated degree of effects. Such data recovery activities, as management for unavoidable physical adverse effects, would be confined to the direct APE on federal lands and to the acquired easement on private lands. IPC’s consultants will develop a data recovery plan in consultation with the BLM and in coordination with the applicable federal land manager (if not the BLM). The BLM will consult with the Consulting Parties during the development of the data recovery plan. The appropriate federal and state permits will be acquired to conduct all fieldwork.

The data recovery plan, submitted as a part of the PSMMP, will also include excavation, analysis, collection, and cataloging methods. Once data recovery and analysis are completed, the results will be provided in a report consistent with the PSMMP’s requirements. In the event

of an inadvertent discovery, reporting must be complete within 6 months of treatment as required by the IDP.

7.0 MONITORING PLAN

This Monitoring Plan specifically addresses monitoring for cultural resources (including, but not limited to, historic properties determined to be eligible for the NRHP) during construction of the Project. This Monitoring Plan provides details regarding roles and responsibilities of various personnel in the field, in coordination with the Project-wide ECMP, which is Appendix A5 to the POD. The PA stipulates the development of this Monitoring Plan as a subsection of the HPMP for implementation during construction, operations, and maintenance (Stipulation VII.C(3)). The below describes cultural resources monitoring staff and procedures in general for the Project. PSMMPs will discuss any additional resource-specific monitoring requirements, as necessary.

The purpose of this Monitoring Plan is to specify:

- How avoidance of known and inadvertently discovered resources will be ensured and documented during construction;
- How monitors will interact with other environmental compliance staff and construction personnel;
- How monitors will employ the IDP; and
- How monitors will employ the NAGPRA Plan of Action.

The goal of monitoring is to reduce and, where possible, ensure avoidance of inadvertent adverse effects during construction. Monitoring will occur whenever ground disturbance occurs, whenever work is taking place within 60 meters (200 feet) of a historic property or potential historic property, as well as in HPAs that have not been previously shovel probed to identify subsurface archaeological materials. Appendix G lists the resources, HPAs, and Project features to be monitored. This list will be updated as the BLM makes final effects determinations and as the Project proceeds to final design. Monitoring locations will also be illustrated on Project maps for construction. The following subsections present the roles and responsibilities of the CRT and specify the monitoring procedures to be followed during construction activities.

Procedures and protocols involving inadvertent discovery are outlined step-by-step in the Project IDP. Of note in this accompanying document are the roles of “Proponent’s Senior Archaeologist (SA)” and “IPC’s B2H Project Archaeologist,” both of whom are IPC staff. Project personnel will follow the direction of these IPC staff and BLM Authorized Officers in the case of any inadvertent discovery.

7.1 Cultural Resources Team

The CRT is a part of the Construction Contractor’s environmental inspection team and will report to and coordinate with the Construction Contractor’s Environmental Manager (CCEM). The CCEM is separate from the CIC and is the overall manager of environmental compliance for the selected Construction Contractor, coordinating between construction personnel, IPC, the CIC, and the CRT outlined below.

The CRT will conduct cultural resource field monitoring, ensure compliance with requirements within the HPMP, and implement treatment as prescribed within the PSMMPs. Such activities will be inspected and coordinated by the BLM’s CIC.

The following sections describe the qualifications, roles, and responsibilities of each member of the CRT. The reporting structure and organization of these staff within larger Project construction team is depicted in Figure 7-1.

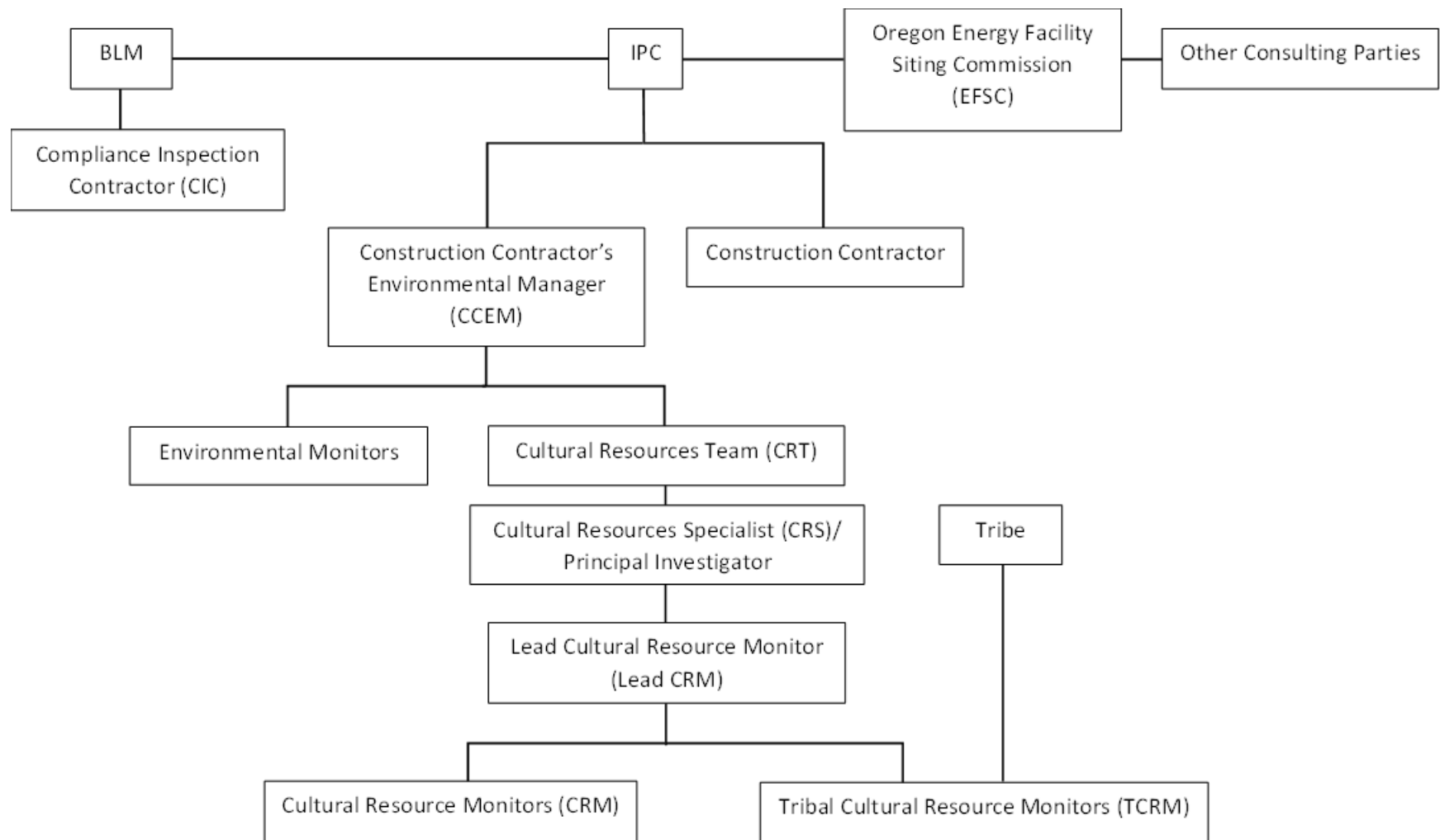


Figure 7-1. Flowchart of CRT Structure

7.1.1 Cultural Resources Specialist (Principal Investigator)

Qualifications—The Cultural Resources Specialist (CRS) must meet, at a minimum, the Secretary of the Interior’s Professional Qualifications Standards for archaeology, history, or architectural history, as published in Title 36 CFR 61, and in addition must have:

- At least 5 years of archaeological resource mitigation and field experience; and
- At least 3 years of experience in a decision-making capacity regarding cultural resources on construction projects, and the appropriate training and regional (i.e., Columbia Plateau and Great Basin) experience to knowledgeably make recommendations regarding the significance of cultural resources.

In addition, before construction begins, the CRS must hold current appropriate state BLM Cultural Use Permit and Field Authorizations, USFS permit, and any other federal and state excavation permits that are required for conducting cultural resources activities on such lands managed by other federal or state agencies. The CRS will have sufficient understanding of the cultural resource laws, both the federal and at state level, as they pertain to the implementation of the Monitoring Plan and IDP.

The CCEM will provide written documentation, such as a resume, on the qualifications of the CRS to the CIC and IPC’s Environmental Manager(s) no less than 75 days prior to the start of ground disturbance. At least 15 days prior to ground disturbance, the CRS will provide a letter naming Cultural Resources Monitors (CRM), including sufficient alternates to account for absences, for the Project demonstrating that the identified CRMs meet the minimum qualifications for cultural resource monitoring.

Responsibilities—The CRS will be the primary point of contact for the CRT. The CRS will coordinate directly with the BLM and CCEM and with the CIC. The CIC will act as the conduit to the BLM Project Manager and Lead Archaeologist. The CRS will be responsible for cultural resource-related notifications to the BLM Lead Archaeologist and CCEM, who will be responsible for notifying IPC. The CRS will be responsible for the analysis and the overall quality of the monitoring reports and discovery reports, if any. The CRS is responsible for the planning, execution, completion, and quality of the cultural resources monitoring tasks undertaken just prior to and during Project construction.

The CRS will be responsible for obtaining construction plans and schedules from the Construction Contractor and for tasking field personnel to monitor construction and evaluate or conduct data recovery (e.g., excavations), if determined necessary through consultation for any archaeological sites discovered during construction.

The CRS will direct the preparations for and execution of day-to-day construction monitoring activities, which will include the following actions:

- Present the cultural resources section of the environmental training program (an employee training program for all construction personnel prior to ground-disturbing activities, in coordination with procedures outlined in the ECMP). Cultural resource training developed in consultation with the BLM and Consulting Parties will include the proper procedures to follow if cultural resources are encountered during Project ground disturbance. The environmental training program may include a BLM-approved video, training pamphlets, or other media resources. This training will include the assistance the Consulting Parties in the review of training materials, if requested.
- Direct the CRM regarding where and when to monitor Project construction activities.
- Review the CRM’s daily monitoring log(s).

- Prepare a monthly summary report during active construction on the progress or status of cultural resources-related activities and submit to the CIC, who will submit the report to the BLM Lead Archaeologist. The summary will include any new archaeological/built environment site/resource forms (appropriate state form) for any finds identified under the monitoring program.
- Notify the CCEM, the CIC, and the BLM Lead Archaeologist by telephone or email of unanticipated discoveries of any cultural resources and associated work stoppage as soon as possible, but within 24 hours of becoming aware of the situation, consistent with the IDP and the Project's ROW grant (see Section 7.3.3.)
- As soon as possible, but within 24 hours of becoming aware, notify the CCEM, the CIC, and BLM Lead Archaeologist by telephone or email of any incidents of noncompliance related to cultural resources and required stoppage of work, consistent with the IDP and the Project's ROW grant, and recommend corrective action to resolve the problem or achieve compliance with the grant stipulations.
- Obtain additional technical specialists or additional monitors, if warranted or required.
- Oversee the implementation and/or implement the IDP (Appendix B).
- Oversee the completion of site forms and other appropriate documentation of discoveries by members of the CRT.
- Oversee responses and resolutions to inadvertent discoveries consistent with the IDP (Appendix B) and NAGPRA Plan of Action (Appendix C).
- If a site is determined eligible for the NRHP, consistent with Sections 2.1.2 and 2.1.3 of the IDP (Appendix B), the CRS will consult with the BLM Lead Archaeologist and the CCEM. The CCEM will be responsible for coordinating with IPC's Environmental Manager(s). The CRS will develop a treatment plan for the historic property if it is not covered by the HPMP or relevant property-specific PSMMP. The BLM Lead Archaeologist will be responsible for coordinating with the Consulting Parties.
- Propose the scope, methods, and techniques to be used for test investigations or data recovery and analysis of artifacts and other materials consistent with the SISP (Appendix E) or the applicable PSMMP.
- Oversee the completion of any required test excavations or data recovery excavations, and any curation.
- Oversee the completion of field analysis, curation, reports of tests excavations, and data recovery excavations, and ensure that the reports meet PA requirements and the appropriate SHPO standards for completeness and quality.
- Oversee the completion of the final mitigation and monitoring report, post-construction.

7.1.2 Cultural Resource Monitors

The CRS will assign a Lead CRM to direct daily monitoring activities of the CRMs. CRMs will conduct the daily archaeological construction monitoring as specified in an applicable PSMMP and at locations determined necessary to avoid physical adverse effects (see Appendix G). Preference will be given to monitors who are familiar with the types of historic and pre-contact resources in the area. The qualifications and responsibilities of the CRM are as follows.

Qualifications—The Lead CRM will have, at minimum, a Master of Science or Master of Arts degree in anthropology, archaeology, historic archaeology, or a related field and at least 2 years of experience conducting archaeological fieldwork under direction of a professional archaeologist, with at least 3 months of that time conducting archaeological fieldwork and construction monitoring in the region. All CRMs will have, at minimum, a Bachelor of Science

(BS) or Bachelor of Arts (BA) degree in one of the above fields, be under the direct supervision of the Lead CRM and CRS, and have at least 2 years of experience conducting archaeological fieldwork under direction of a professional archaeologist, with at least 3 months of archaeological construction fieldwork and monitoring experience in the region.

Responsibilities—The Lead CRM will be present full time at the Project construction site, as directed by the CRS, to oversee and direct the daily monitoring task of the CRMs. The CRMs, including the Lead CRM, will watch ground-disturbing construction activities and inspect cleared ground and excavation areas for signs of previously undiscovered archaeological resources during construction, as indicated in the PSMMP or until monitoring reduction has been approved by the BLM. At the monitors' discretion, inspection or screening of backdirt will be conducted when time allows.

Prior to the start of construction or beginning of monitoring duties, all CRM staff will be trained in the consistent and accurate identification and recording of local cultural resource types within the Project region, with specific attention given to resource types that the Project's Class III inventory reports identified within the direct APE (see Section 4 of this HPMP). The training location and training staff have not been determined at this time. Consulting Parties may be involved in this training if requested.

The CRM will provide daily documentation of construction activity and any findings. The monitor will prepare a daily monitoring log (see template in Appendix H), briefly describing the field conditions, construction progress and activities, and noncompliance activities, and will record any finds of cultural material.

The CRM will be responsible for implementing the requirements outlined in the environmental training program. If the CRM or other construction personnel discover archaeological finds during construction, the CRM will have authority to halt construction in the vicinity of the find and will notify the CRS and follow the procedures of inadvertent discoveries consistent with Appendix B of this HPMP.

7.1.3 Tribal Cultural Resource Monitors

Tribal Cultural Resource Monitors (TCRM), as determined by tribes, will serve roles similar to the CRMs and work under the direction of the CRS and Lead CRM. TCRMs may monitor in place of or in addition to CRMs. TCRMs will complete daily logs as do other CRMs. Qualifications for TCRMs will be determined by tribes providing these staff. The duties and responsibilities of the TCRMs will be the same as described above for CRMs. Landowners may restrict use of TCRMs on private lands.

7.2 Potential Additional Cultural Support Staff

In the event of inadvertent discoveries that cannot be avoided, additional mitigation measures will be determined through consultation with the Consulting Parties. When discoveries occur during construction, it is more likely that avoidance will not be possible. As a result, treatment of the discovery is more likely to include NRHP-eligibility testing and/or data recovery. The following additional staff may be acquired to complete those activities and avoid removal of CRMs from their monitoring duties. All archaeological field crews will work under the supervision of the CRS.

7.2.1 Field Director

Qualifications—The Field Director will have a Master of Arts in anthropology, archaeology, historic archaeology, or a related field and meet the Secretary of the Interior's Qualification Standards for Archaeologists and/or be listed on the state BLM Cultural Use Permit as a Principal Investigator and/or Field Director (as approved by the BLM state office). Additionally, the Field Director should have at least 2 years of experience directing fieldwork, with at least

4 months of experience with comparable cultural resource types and in similar cultural contexts and environmental settings.

Responsibilities—The Field Director, under the supervision of the CRS, will be responsible for the in-field activities associated with testing and data recovery investigations, including management of field personnel and coordination of crews. The Field Director will also be responsible for compiling and ensuring the quality of the field data daily. Additionally, the Field Director will coordinate the work of sub-consultants or other contractors participating in the archaeological field investigations and will be responsible for implementing the requirements of the environmental training, including daily safety briefings.

7.2.2 Crew Chief

Qualifications—The Crew Chief will have a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field and at least 2 years of experience as an archaeological crew chief, with at least 4 months of experience with comparable cultural resources in similar cultural contexts and environmental settings.

Responsibilities—The Crew Chief, in consultation with the Field Director, will be responsible for implementing the field strategies at individual sites. The Crew Chief will direct the field crew, lay out excavations, and compile collections and field documentation daily. Additionally, the Crew Chief will be responsible for implementing on-site safety procedures and/or environmental training.

7.2.3 Field Crew

Qualifications—The field crew for any field recording or excavation activities will have a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field, and field school experience.

Responsibilities—Field crew members will conduct surface examinations and hand excavations. Each crew member will operate under the direct supervision of the Crew Chief and will conduct basic documentation of field operations, including the completion of excavation-level records, bag labeling, and trench monitoring forms.

7.2.4 Laboratory Director

Qualifications—The Laboratory Director will have a BS or BA degree in anthropology, archaeology, historic archaeology, or a related field and field school experience.

Responsibilities—The Laboratory Director will be responsible for directing all phases of laboratory processing of the data recovery collections, including check-in, cleaning, sorting, cataloguing, analyzing, distributing special samples, and preparing for curation. The Laboratory Director will coordinate closely with the CRS to ensure that the appropriate data are documented and compiled.

7.3 Monitoring and Avoidance Procedures

This section describes the monitoring procedures that will apply Project wide. Where warranted, a PSMMP will include additional site-specific monitoring requirements. The objectives of monitoring are to ensure and document avoidance of all historic properties encountered during Project construction; to identify, at the time of discovery, any archaeological materials exposed during ground disturbance; and to protect such resources from damage while recommendations of eligibility for the NRHP are reviewed and approved by the BLM Lead Archaeologist. The BLM Lead Archaeologist is responsible for contacting the appropriate land managing agency and consulting with the Consulting Parties, as applicable.

7.3.1 Cultural Resource Construction Monitoring

As described above, monitoring will occur in the vicinity of cultural resources and HPAs (see Appendix G). Additional locations may be identified by resource-specific PSMMPs. Construction is not expected to proceed from one end of the Project to the other, but, rather, will be dispersed across the direct APE. Construction may be occurring simultaneously at disparate and distant parts of the very long direct APE. Though monitors will not be placed on a one-to-one ratio with earth-moving machinery, they will be placed so as to observe ground disturbance and be able to halt ground disturbance should an inadvertent discovery occur. For the purposes of this HPMP, archaeological construction monitoring is defined as on-the-ground, close-up observation by a CRS or CRM, meeting the qualifications prescribed in Section 7.1, *Cultural Resources Team*.

The CRS and/or CRM will be present during mechanical scraping, grading, excavating, and other ground-disturbing activities. A CRS and/or CRM will be present for any new ground disturbance at monitoring locations (Appendix G). Cultural resource monitoring will not be required once all surface and subsurface ground disturbance in a construction area is complete or if equipment or vehicles are traveling over previously disturbed surfaces, or as specified in a PSMMP. The Lead CRM, in coordination with the CRS, will coordinate with the Construction Manager and the CIC to determine when maximum depths and widths of disturbance have been achieved in construction areas. Routine travel on existing or disturbed roads or across disturbed transmission structure pads will not be monitored for cultural resources. However, additional blading or excavating at a depth beyond the previously disturbed area will be monitored for cultural resources, even within previously graded or bladed areas. A CRM will be required when sensitive resources barriers are installed to protect historic properties. The CRM will ensure that the barrier is erected in the proper place. The barriers or sensitive resource signage will be removed once construction is completed in that area (see Section 7.3.4.)

The CRM will maintain daily monitoring logs (Appendix H) of Project-related construction activities. Logs will reflect the daily monitoring activities and will include the following:

- Date, time of work, and amount of time spent at a construction monitoring location;
- Area of work (defined by Project feature ID[s] and/or resource number);
- Type of work, equipment present, and name of construction crew being monitored;
- Construction activities being performed (e.g., grading, excavation, etc.);
- Documentation of successful resource avoidance;
- Activities for which there are cultural resource problems, noncompliance, or other concerns;
- Identification of any unanticipated discoveries, steps taken to protect the discovery, and documentation of notifications (i.e., name, agency, time, and notes); and
- Color digital photographs (as appropriate) to document construction and monitoring activities and submitted as attachments to the daily log.

CRMs will prepare and provide their monitoring logs daily to the CRS. The CRS will prepare and provide monthly summary reports on the progress or status of cultural resources-related activities during active construction. The monthly reports will summarize construction progress, monitoring (i.e., monitor name, dates worked, finds, issues, etc.), and status of cultural resource-related issues. These reports will also include the appropriate state archaeological isolate or site forms for finds identified under the monitoring program. The CRS will submit the reports to the BLM Lead Archaeologist. The BLM Lead Archaeologist will distribute to the appropriate land-managing agency and other consulting parties, as applicable.

The CRS will direct the preparation and distribution of a Cultural Monitoring Results Report, or any other outstanding report actions (e.g., mitigation) under a PSMMP, no later than 3 years after the completion of the relevant Project work element (PA Stipulation V.K). All reports will be submitted to the BLM Lead Archaeologist. For additional survey reporting and review times during construction, please see Section 7.4.1, *Construction Variance Management*.

7.3.2 Change in Full-time Monitoring Status

If the CRS determines that full-time monitoring is not necessary in certain construction locations and that monitoring will be conducted on an “as needed” intermittent schedule, the CRS will provide a detailed letter or email to the BLM Lead Archaeologist, who will coordinate with the appropriate land agency and state SHPO, as well as notify other consulting Parties (at least 24 hours prior to implementing any change), explaining the decision to reduce the level of monitoring. The BLM will provide a written approval to the CRS and CIC via email within 10 days of receiving notice to reduce monitoring.

7.3.3 Inadvertent Discoveries

If an unanticipated cultural resource discovery is made during construction, the notification procedures found in the IDP (Appendix B) shall be followed. Tribes will be notified regardless of the time period of the discovery. If human remains are discovered on federal land, the NAGPRA Plan of Action will be followed (Appendix C).

The CRS and the CRM will have the authority to temporarily halt construction operations within a 100-foot radius of a find or exposed resource to determine if cultural resources are present. Minor additional exposure of the discovery, such as by trowel or hand shovel, will be allowed at the discretion of the CRS to facilitate initial identification of the discovery. Backdirt soils from construction excavations may be screened through 1/4-inch mesh. If the discovery cannot be avoided, the CRS will provide an NRHP-eligibility recommendation to the BLM for a determination based upon the exposed materials. The CRS or CRM will be responsible for delineating the area within which construction will halt using flagging tape, rope, or any other means/materials available, as necessary.

Artifacts associated with an inadvertent discovery on public land (i.e., federal or state) will not be collected for curation unless specifically requested by the BLM Lead Archaeologist or other land-managing archaeologist or until a plan of excavation has been made. On private land, no artifacts will be collected unless permission to do so is granted from the landowner.

7.3.4 Flagging, Fencing, and Signage Measures

This section outlines procedures for ensuring avoidance of historic properties and potential historic properties as well as HPAs within the direct APE, but outside of the Project’s physical disturbance footprint. Once final construction plans are provided, IPC will develop a final list of cultural resources and locations that this plan applies to. This in-development list is provided in Appendix G.

Efforts have been made in IPC’s design process to avoid as many known cultural resources as possible by a minimum of 30 meters (98 feet) through micrositing. To ensure avoidance of these resources and HPAs, a physical barrier preventing access and temporarily demarcating cultural resource avoidance areas will be installed. CRMs or TCRMs will also monitor work within 200 feet of each resource following the procedures described in Section 7.3.1. Flagging and fencing will be consistent with the Project’s POD, Appendix A1, *Flagging, Fencing, and Signage*.

Signs, flags, and/or fencing will be used to establish exclusion areas to protect historic properties and potential historic properties in the vicinity of construction activities. A system of standardized and simplified exclusion markings are outlined in the POD. The respective federal

land management agencies' Authorized Officers (or their designated representative) or the CIC, as needed, will determine whether flagging or fencing (as described below) is the appropriate protective device for a given location. Installation will be completed by the CRT with assistance from construction personnel as needed. The CIC will be consulted if there is uncertainty as to the type or location of needed exclusion devices for a specific resource.

Construction crews will review relevant avoidance areas at daily meetings to ensure they are avoided when working in the vicinity.

7.3.4.1 Flagging

Survey flagging is typically surveyor's ribbon tied to wooden stakes, metal posts, or vegetation. The flagging and signage scheme from the POD's Table A1-1 will be used for cultural resource avoidance, specifically the "[p]rotected animals/plants or sensitive environmental areas" flagging and signage scheme. The flagging and signage scheme will indicate to construction personnel that driving vehicles or equipment near the flagged area is not allowed.

Flagging will be yellow and black (black text on yellow background). Flagging will be placed at least 30 meters (98 feet) from the most recently documented boundary of the resource or HPA (Figure 7-2). Depending on proximity to the disturbance area, the CIC may determine that use of fencing instead of flagging is appropriate. If a larger resource boundary is observed by the CRT during installation, the avoidance area will be expanded based upon the larger boundary. The site record will be updated accordingly and included with the CRM's or TCRM's daily log. If the expanded avoidance area encroaches upon a final design disturbance area, IPC and the BLM will be notified by the CIC and/or CRS to determine if the disturbance area can be modified or if additional mitigation measures are needed before disturbance may occur. Any additional mitigation measures will be consulted upon with the Consulting Parties before being completed.

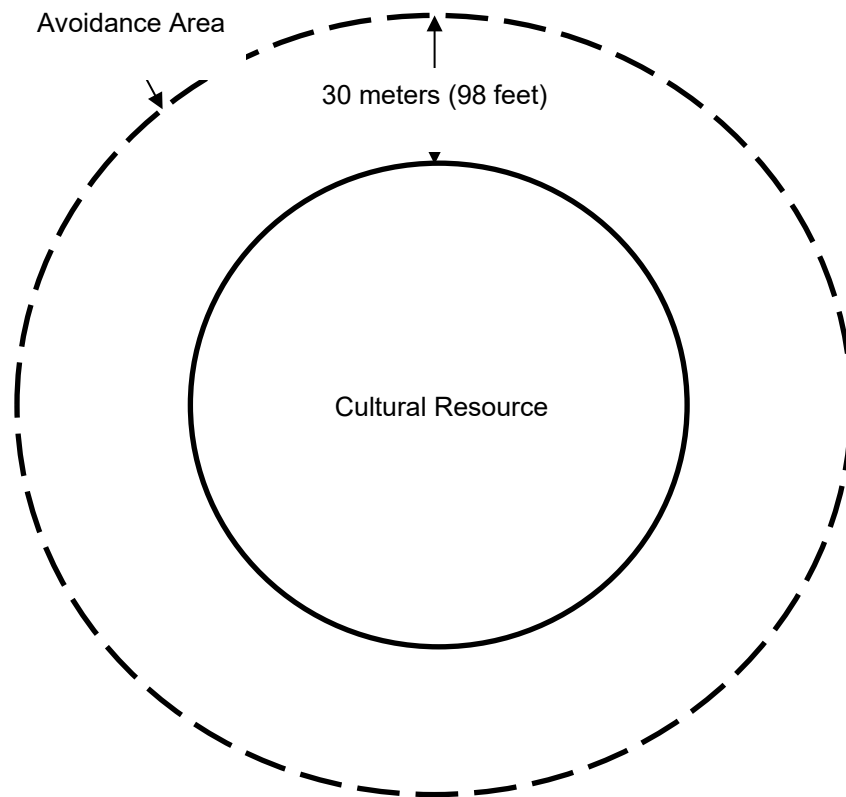


Figure 7-2. Example of Avoidance Flagging/Fencing Placement (Dashed Line) Around Resource Boundary (Solid Line) (Not to Scale)

Alterations to the predetermined avoidance buffer will be specified in the final list of cultural resources in Appendix G. Where existing roads pass through a historic property or potential historic property, the existing edges of those roads will be flagged, and traffic will be allowed to pass through the resource with additional measures in place (see PSMMP for capping existing access roads in Appendix D). This is limited to existing roads in the Project design only. All flagging will be recorded using a sub-meter global positioning system unit and photographed at the time of installation.

7.3.4.2 Signage

Signs will be installed on metal posts and/or wooden stakes or attached to exclusion fencing/roping, as appropriate. The signage will read “Sensitive Resource Area – Keep Out” and will be a minimum of 8.5 by 11 inches on durable material. This signage scheme avoids indicating the area is a cultural resource location that could be targeted by the public. Signs for all sensitive resource areas, including for cultural resources, will be oriented for visibility from both directions of likely travel.

7.3.4.3 Installation, Monitoring, and Maintenance of Flagging and Signage

The Construction Contractor, with assistance from the CIC and CRT, will be responsible for the installation and maintenance of the avoidance area markings for the duration of construction activities.

Prior to Project construction, the CRT, in coordination with the CIC and with the assistance of construction staff, will mark avoidance areas in the field. Placement of avoidance markings will occur no earlier than 1 week prior to work commencing at the resource location and will remain in place while construction is active at the resource location. Avoidance measures will be removed no later than 1 week after a construction phase is completed at the location. If construction recommences at the location later, the measures will be reinstalled as described above and according to this schedule.

Cultural resources monitoring will include an ongoing assessment of the need for replacement or repair of field markings. Maintenance needs related to field markings will be corrected at the time of observation or shortly (within 48 hours) thereafter. If maintenance of a field marking is needed in an active construction area, corrective action will be taken within one workday. The Construction Contractor will be required to fix the issue within 24 hours or as soon as practical if ground conditions prevent safe access. If the situation is not addressed in a timely manner, it will be deemed a noncompliance event and the noncompliance process described in POD Appendix A5, *Environmental Compliance Management Plan*, will be followed.

7.3.5 Monitoring Locations and Schedule

The CRS and/or Lead CRM and CRM will observe ground disturbance as specified in Section 7.3.1, *Cultural Resource Construction Monitoring*, and Appendix G. The CRS will obtain a construction schedule from the Construction Contractor at least 2 weeks prior to the start of ground-disturbing activities to ensure proper CRM staffing. The CRS and/or Lead CRM will then establish a schedule for the CRM to follow and a protocol for communication and safety with the CIC and the CCEM, who will confer with the CRS on any changes to construction dates. Daily updates or changes to the construction schedule will be provided by the Construction Contractor to the CRS and the CIC, as appropriate.

7.4 Construction Compliance

The CRS and Lead CRM will coordinate with the CIC to monitor and report within 24 hours problem areas and any non-compliance issues anywhere in the APE (not just in monitored areas) to the BLM Project Manager and BLM Lead Archaeologist. The CRS will then notify the CCEM, who will notify IPC’s Environmental Manager(s) within 24 hours.

If the situation is not addressed in a timely manner, it will be deemed a non-compliance event and the noncompliance process described in POD Appendix A5, *Environmental Compliance Management Plan*, will be followed:

- *A non-compliance report will be prepared and issued by the CIC when construction activities violate the environmental laws and regulations, including all Project-specific permitting documents (including the POD, the final EIS, the ROD, the BLM ROW grant, the USFS special-use authorization, and the ODOE ESFC Site Certificate). Reports will be escalated in the event of unresolved noncompliance issues that could reasonably be expected to result in a risk of death or harm to persons or repeat violations of environmental requirements that have a substantial detrimental effect to sensitive resources.*
- *Corrective actions taken can include but are not limited to: on-site immediate discussion and resolution, issuance of non-compliance report, meeting with personnel to establish the appropriate corrective actions and timeframes for the resolution of a non-compliance, Temporary Suspension, a halt to specific activities or all activities in a localized or generalized work area, Work Stoppage Orders, or Grant Suspension or Termination.*
- *The CIC will submit all reports documenting a non-compliance resolution to the BLM, USFS, IPC, and the Construction Contractor(s). (Complete Non-Compliance policies and procedures are detailed in POD Appendix A5: ECMP, Section A5.4.1.3 Non-Compliance)*

If the noncompliance includes unauthorized or unmonitored ground disturbance, cultural resource surveys to determine presence of or damage to cultural resources will be required, effects determinations and mitigation must also be completed if indicated, and a written notice from the Lead BLM Field Office must be received before construction will be allowed to continue in the noncompliance area.

7.4.1 Construction Variance Management

During construction, operation, and/or maintenance of the Project, unforeseen or unavoidable site conditions may result in the need for changes from approved mitigation measures and construction and O&M procedures. Additionally, the need for route realignments, extra workspaces, or access roads outside of the previously approved construction work areas may arise (e.g., to avoid an inadvertent discovery), resulting in the need to prepare a variance request (see Section 3.2 for the variance process). The CIC will consult with the CRS for any variances requested by the Construction Contractor to ensure cultural resource compliance. All applicable procedures as specified in the ECMP, PA, HPMP, and/or PSMMP will be followed.

If a new area outside the previously surveyed APE is proposed for ground disturbance, a Class III survey (PA Stipulation II.E(6)) for cultural resources must be conducted and an addendum report documenting the presence or lack of surface resources will be submitted as part of the variance approval process. If cultural resources are found, NRHP eligibility and effects determinations, as well as any applicable mitigation, must be completed before ground disturbance can be permitted in those new areas. If a cultural resource is identified that could be classified as an aboveground resource that would be older than 50 years old by the time construction is completed, an addendum to the VAHP inventory would be prepared to include NRHP eligibility and effects recommendations. Any proposed mitigation must be agreed to by the Consulting Parties before ground disturbance would be permitted in those new areas.

The BLM and SHPO/THPOs will make every effort to expedite review of Class III addendum reports generated from construction change management. If the inventory results in no cultural resources identified, IPC will submit copies of the draft report to the BLM Lead Archaeologist for

distribution to the appropriate field offices for a 14-calendar day review and comment period. If the BLM accepts the findings of the report, it can issue the NTP without SHPO/THPO review. If not, IPC's CRS will revise the report and resubmit to the BLM within 14 calendar days. The BLM will send the revised report to the SHPO/THPO. Should the inventory report result in no historic properties identified, IPC will submit it to the BLM Lead Office for distribution to the Consulting Parties for a 14-calendar day review and comment period. If changes are necessary, IPC's CRS will address these comments and provide them to the BLM Lead Archaeologist within 10 calendar days of receipt. The BLM Lead Archaeologist will distribute the revised report to the SHPO/THPO office for a 14-calendar day review and comment period. If the SHPO/THPO does not respond, the BLM will assume concurrence and issue the NTP or other applicable authorization, and construction will begin in the new area.

If historic properties are identified, the CRS will submit a draft report that includes summaries of potential effects to any historic properties to the BLM for distribution to the Consulting Parties for a 15-calendar day review and comment period with an additional 15 days for BLM to respond. Any required changes to the report will be resubmitted by the CRS to the BLM within the first 15 calendar days. The BLM Lead Archaeologist will send the report to SHPO/THPO for the 15-calendar day review and comment period. The BLM will have an additional 15 calendar days to respond to any SHPO or Consulting Parties comments. If the SHPO/THPO does not respond with comments during that first 15-calendar day period, the BLM can assume concurrence and issue the NTP or other applicable authorization to proceed with construction.

7.5 Construction Monitoring Summary Report

In compliance with Section VII(B), *Reporting*, of the PA, a monitoring summary report will be prepared by the CRS at the end of construction monitoring. The report will summarize the results of monitoring activities, based on the daily field logs of the CRMs and TCRMs. The report will be consistent with the reporting requirements outlined in the PA. The format or outline of the report will be consistent with the Class III reports prepared for pre-construction inventories, with the addition of the following:

- Locations, activities, and resources or HPAs monitored;
- Description and location of inadvertent discoveries and the results of their treatment;
- Identification and description of locations and results of any noncompliance incidents;
- Documentation of any additional fieldwork, such as additional survey, completed as a result of the variance process and after the pre-construction inventories; and
- Reference to and summary of the reporting completed under PSMMPs.

Separately, a final Class III inventory report (referred to as a "summary report" in the PA) will be prepared to document survey results of fieldwork outside the direct APE, summarize the monitoring summary report, and summarize all changes to previous report findings (see Section 4.1.2). This report is required to be submitted no more than three years after construction.

7.6 Post-construction Monitoring

During post-construction restoration and the operational phase of the Project, IPC will continue to avoid historic properties and potential historic properties within its approved ROW. Operational maintenance of Project features will be required over the life of the Project. Where such activities occur within 60 meters (200 feet) of a historic property or potential historic property, the resource will be flagged, avoided, and monitored in the same manner as described in procedures for construction monitoring (see Section 7). If, during Project operations,

maintenance requires physically impacting a historic property or potential historic property, the potential for adverse effects will be assessed by IPC. The BLM will utilize IPC's recommendations to determine the effects through consultation with the Consulting Parties. If adverse effects cannot be avoided and mitigation is necessary, those measures will be determined in consultation with the Consulting Parties and detailed in a PSMMP.

IPC will also monitor some areas of the approved ROW outside of restoration and maintenance activities, such as where access roads pass through archaeological sites (see PSMMP for capping existing access roads in Appendix D). Where new roads are established for the Project on public lands (i.e., federal, state, or local) and maintained during operation of the Project, known historic properties and potential historic properties along the length of the road and within the ROW will be monitored to ensure the resources are not being impacted by public off-road travel or looting. If these activities are identified, the land managing agency will be notified by IPC and appropriate treatments will be determined in consultation with the Consulting Parties.

In addition, if erosional areas develop within proximity of known historic properties or potential historic properties as a result of Project infrastructure, despite erosion prevention measures, these areas will be monitored. If erosion begins or appears likely to impact a historic property or potential historic property, measures will be taken to prevent further impact to the resource. If erosional impacts cannot be avoided, the BLM will consult with the Consulting Parties regarding NRHP eligibility of and/or adverse effects to the resource. If mitigation of the resource is necessary, it will be determined in consultation with the Consulting Parties and detailed in a PSMMP. If mitigation of the resource is necessary, it will be determined in consultation with the Consulting Parties and detailed in a PSMMP.

8.0 REFERENCES CITED

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2022b *Intensive Level Survey–Visual Assessment of Historic Properties Report–Idaho, Boardman to Hemingway Transmission Line Project.* Prepared by AECOM, Inc., Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho. BLM Report #VM-21-14.

2022c 2022 Reconnaissance Level and Intensive Level Survey Report for the Umatilla Indian Reservation: Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project. Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho.

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2023 *Boardman to Hemingway Transmission Line Project: Initial Class III Intensive Level Survey, Owyhee County, Idaho.* Prepared by Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company, Boise, Idaho, for submittal to U.S. Bureau of Land Management, Oregon, Vale District Office, Vale, Oregon, and U.S. Bureau of Land Management, Idaho, Owyhee District Office, Owyhee, Idaho. BLM Report 21O22/VM-22-01.

Idaho Power Company (IPC)

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Tetra Tech, Inc. (Tetra Tech)

2012 *Boardman to Hemingway Transmission Line Project, Archaeological Survey Plan.* Prepared by Tetra Tech, Inc., Boise, Idaho. Submitted to Idaho Power Company, Boise, Idaho.

2013 *Visual Assessment of Historic Properties Study Plan.* Prepared by Tetra Tech, Inc., Boise, Idaho. Report on file at the Oregon and Idaho U.S. Bureau of Land Management state offices.

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2009 The Components of a Historic Context: A National Register White Paper. April 9, 2009. Electronic document, https://www.nps.gov/subjects/nationalregister/upload/White_paper_on_historic_context_508_200904.docx, accessed September 26, 2023.

APPENDIX A
PROGRAMMATIC AGREEMENT

Boardman to Hemingway Programmatic Agreement

1 FINAL
2 PROGRAMMATIC AGREEMENT
3 AMONG
4 THE BUREAU OF LAND MANAGEMENT
5 THE U.S.D.A. FOREST SERVICE
6 THE BONNEVILLE POWER ADMINISTRATION
7 THE U.S. ARMY CORPS OF ENGINEERS
8 BUREAU OF RECLAMATION
9 THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
10 THE OREGON STATE HISTORIC PRESERVATION OFFICER
11 THE IDAHO STATE HISTORIC PRESERVATION OFFICER
12 THE WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)
13 THE CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION,
14 TRIBAL HISTORIC PRESERVATION OFFICER
15 NATIONAL PARK SERVICE
16 IDAHO POWER COMPANY

17 REGARDING COMPLIANCE WITH
18 THE NATIONAL HISTORIC PRESERVATION ACT
19 FOR THE CONSTRUCTION OF THE
20 BOARDMAN TO HEMINGWAY 500 KV TRANSMISSION LINE PROJECT

21 **WHEREAS**, Idaho Power Company (Proponent) has proposed to construct, operate, maintain and
22 eventually decommission the Boardman to Hemingway 500 kV Transmission Line Project (Undertaking),
23 an approximately 300-mile-long transmission line stretching from near Boardman, Oregon to near
24 Melba, Idaho across multiple federal, state and local jurisdictions and across the ancestral lands of
25 several Indian tribes, requiring permits from multiple federal agencies; and

26 **WHEREAS**, the Bureau of Land Management (BLM), in consultation with the State Historic Preservation
27 Officers (SHPOs) / Tribal Historic Preservation Officer (THPO), determined that a phased process for
28 compliance with Section 106 of the National Historic Preservation Act (NHPA), as amended (54 USC
29 §306108), through a Programmatic Agreement (PA) is appropriate, as specifically permitted under 36
30 Code of Federal Regulation (CFR) 800.4(b)(2), such that the identification and evaluation of historic
31 properties, determinations of specific effects on historic properties, and consultation concerning
32 measures to avoid, minimize, or mitigate any adverse effects will be carried out in phases as part of
33 planning for and prior to the issuance of any Notices to Proceed (NTP) as detailed in stipulation XII; and

34 **WHEREAS**, the Proponent intends to construct, operate and maintain and eventually decommission the
35 Boardman to Hemingway Transmission Line Project according to general parameters contained in the
36 project Plan of Development (POD) for the Undertaking which shall be appended to and made a part of
37 the Record of Decision (ROD) authorizing the right of way (ROW) grant; and

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1 **WHEREAS**, the BLM is considering the issuance of a ROW grant for the construction, operation and
2 maintenance, and eventual decommissioning of the Undertaking, and the ROW grant will incorporate
3 this PA by reference; and

4 **WHEREAS**, this PA, and the Historic Properties Management Plan (HPMP) that will be developed
5 pursuant to this PA, will be incorporated into the approved project POD; and

6 **WHEREAS**, the BLM is a multiple use agency responsible for permitting and issuing a ROW grant and the
7 protection of cultural resources on federal public lands as authorized under the Federal Lands Policy and
8 Management Act (FLPMA) of 1976 (43 USC §1701) and the Proponent has requested a 30-year,
9 renewable ROW grant from the BLM for the Undertaking; and

10 **WHEREAS**, portions of this Undertaking will occur on lands managed by the United States Department
11 of Agriculture Forest Service (USFS), and USFS has designated that the BLM will serve as lead federal
12 agency for Section 106 of the NHPA compliance pursuant to 36 CFR 800, the regulations implementing
13 Section 106 of the NHPA of 1966, as amended (54 USC §306108) and is a Signatory to this PA; and

14 **WHEREAS**, portions of this Undertaking will occur on lands managed by the Bureau of Reclamation
15 (Reclamation) and the Reclamation has designated that the BLM will serve as lead federal agency for
16 Section 106 of the NHPA compliance pursuant to 36 CFR 800, the regulations implementing Section 106
17 of the NHPA and is a Signatory to this PA; and

18 **WHEREAS**, the Bonneville Power Administration (BPA), owner of the Boardman to Lone transmission
19 line and proposed Longhorn substation, may market and distribute power transmitted by the
20 Undertaking, has agreed to fund a portion of the environmental and cultural compliance and permitting
21 of the line, may participate in the construction of the line, has designated the BLM to serve as lead
22 federal agency to serve as the agency official who shall act on its behalf, fulfilling any BPA
23 responsibilities under Section 106 of the NHPA regarding the Undertaking, and is a Signatory to this PA;
24 and

25 **WHEREAS**, the Portland and Walla Walla Districts, U.S. Army Corps of Engineers (USACE), with the
26 Portland District serving as the lead district per a Memorandum of Agreement with the Walla Walla
27 District, will evaluate a permit application for the Undertaking to place structures in, under, or over
28 navigable waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 USC §403)
29 and for the placement of dredged or filled material in the Waters of the U.S. pursuant to Section 404 of
30 the Clean Water Act (33 USC §1344; 33 CFR 323) and the issuance of a permit under either statute will
31 be a federal action associated with the Undertaking that requires compliance with Section 106 of the
32 NHPA, and USACE has designated that the BLM will serve as lead federal agency for Section 106 of the
33 NHPA compliance pursuant to 36 CFR 800, and is a Signatory to this PA; and

34 **WHEREAS**, the BLM has determined the Undertaking may have direct, indirect and cumulative effects
35 on properties listed in, or eligible for the National Register of Historic Places (NRHP); and

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- 1 **WHEREAS**, the BLM has notified the Advisory Council on Historic Preservation (ACHP) pursuant to
2 Section 106 of the NHPA and the implementing regulations (36 CFR 800.6(a)(1)) and the ACHP has
3 elected to participate in consultations and is a Signatory to this PA; and
- 4 **WHEREAS**, the Undertaking crosses both Oregon and Idaho, and the SHPOs for each state are
5 participating in this consultation and are Signatories to this PA; and
- 6 **WHEREAS**, the Undertaking does not physically cross into Washington but the Area of Potential Effect
7 (APE) for indirect effects on one of the alternatives extends into Washington and the Department of
8 Archaeology and Historic Preservation (DAHP) is a Signatory to this PA; and;
- 9 **WHEREAS**, the APE for indirect effects extends onto the Umatilla Indian Reservation (UIR), and the
10 Confederated Tribes of the Umatilla Indian Reservation (CTUIR) THPO is a Signatory to this PA;
- 11 **WHEREAS**, the National Park Service (NPS) has been invited to participate in this consultation in its
12 capacity as administrator of the Oregon National Historic Trail and the Lewis and Clark National Historic
13 Trail, as this Undertaking may affect segments of the Oregon National Historic Trail and the Lewis and
14 Clark National Historic Trail, and is an Invited Signatory to this PA; and
- 15 **WHEREAS**, the Proponent has participated in consultation per 36 CFR 800.2(c)(4), agrees to carry out
16 the terms of this agreement under BLM oversight, and is an Invited Signatory to this PA; and
- 17 **WHEREAS**, the Undertaking may have an adverse effect under NHPA Section 106 on the Oregon
18 National Historic Trail, the Oregon-California Trails Association (OCTA) is committed to protect emigrant
19 trails by working with government agencies and private interests, OCTA has been invited to participate
20 in consultation and is a Concurring Party to this PA; and
- 21 **WHEREAS**, the Undertaking may have an adverse effect under NHPA Section 106 on some of Oregon's
22 16 legislatively designated historic trails, as well as some National Historic Trails (NHT) in Oregon; and
23 the Governor's Oregon Historic Trails Advisory Council (OHTAC) is committed to evaluating and
24 recording trail conditions and making recommendations for marking, interpretation, education, and
25 protection for Oregon's Historic Trails; and OHTAC has been invited to participate in consultation and is
26 a Concurring Party to this PA; and
- 27 **WHEREAS**, the Undertaking does not physically cross into Washington but the APE for indirect effects on
28 one of the alternatives extends into Washington and the Umatilla National Wildlife Refuge and the US
29 Fish and Wildlife Service has been invited to participate in consultation and may be a Concurring Party
30 to this PA; and
- 31 **WHEREAS**, the BLM has initiated government-to-government consultation with the following Indian
32 tribes that may be affected by the proposed Undertaking and invited them to be concurring parties to
33 this PA: The CTUIR; Shoshone-Paiute Tribes of the Duck Valley Indian Reservation; Nez Perce Tribe;
34 Yakama Nation; Confederated Tribes of the Colville Reservation; Burns Paiute Tribe; Fort McDermitt

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1 Paiute and Shoshone Tribe; Shoshone-Bannock Tribes of the Fort Hall Indian Reservation; and the
2 Confederated Tribes of Warm Springs Reservation of Oregon. These Tribes understand that,
3 notwithstanding any decision by these tribes, the BLM will continue to consult with them throughout
4 the implementation of this PA pursuant to 36 CFR 800.2(c); and

5 **WHEREAS**, the BLM recognizes that historic properties may also include Traditional Cultural Properties
6 (TCPs). Per NPS Bulletin 38, a TCP is defined as a type of historic property that is eligible for inclusion in
7 the National Register because of its association with cultural practices or beliefs of a living community
8 that are rooted in that community's history and are important in maintaining the continuing cultural
9 identity of the community. A community may include a Native American tribe, a local ethnic group, or
10 the people of the nation as a whole. TCPs may include historic properties that Native American
11 communities consider to be traditional ecological knowledge properties or of traditional religious and
12 cultural importance; and

13 **WHEREAS**, the CTUIR, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, the Burns Paiute,
14 the Fort McDermitt Paiute and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation have
15 expressed interest in the Undertaking and desire to review studies conducted on their ancestral lands;
16 and

17 **WHEREAS**, it is the position of Oregon Department of Energy (ODOE) that the execution of this PA can
18 assist the Energy Facility Siting Council (EFSC), to which ODOE serves as technical staff, in determining
19 whether the Undertaking complies with EFSC's Historic, Cultural and Archaeological Standard at OAR
20 345-022-0090 during its review of the site certificate application for the Undertaking; and ODOE is a
21 Concurring Party to this PA; and

22 **WHEREAS**, the project does not physically cross into Washington but the APE for indirect effects on one
23 of the alternatives extends into Washington and the Undertaking may be visible from Lewis and Clark
24 Historic Trail in both Oregon and Washington and the Lewis and Clark Heritage Trail Foundation
25 Washington and Oregon state chapters have been invited to consult on this PA and are Concurring
26 Parties to this PA; and

27 **WHEREAS**, the Navy was invited to be a Concurring Party to this PA and has opted not to sign this
28 PA, and should any portion of the undertaking be proposed to occur on Naval Weapons Systems
29 Training Facility (NWSTF) Boardman in Morrow County, Oregon, the U.S. Navy will serve as the lead
30 federal agency for that portion of the Undertaking for Section 106 of the NHPA compliance pursuant to
31 36 CFR 800, the regulations implementing Section 106 of the NHPA; and

32 **WHEREAS**, reference to "parties to this agreement" shall be taken to include the Signatories to this PA,
33 Invited Signatories, and Concurring Parties. Tribes and other parties consulting under Section 106 of the
34 NHPA may decline to sign this document; however, the decision not to sign shall not preclude their
35 continued or future participation as consulting parties to this Undertaking; and

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1 **WHEREAS**, all parties agree that the PA will serve as the definitive document delineating Section 106
2 procedures to be followed for the undertaking, if actual or construed discrepancies arise between the
3 PA's requirements and direction found in other documents, or appendices to the PA, the requirements
4 set forth in the main body of the PA will be followed; plans/documents completed prior to execution of
5 the PA will not necessarily require revision due to these circumstances; and

6 **NOW, THEREFORE**, the Signatories to this PA agree that the proposed Undertaking will be implemented
7 in accordance with the following stipulations in order to take into account the effect of the Undertaking
8 on historic properties and to satisfy all NHPA Section 106 responsibilities for all aspects of the
9 Undertaking.

10 **STIPULATIONS**

11 The BLM will ensure that the following stipulations are carried out:

12 I. **Area of Potential Effects (APE)**

13 A. Defining the APE

14 The BLM, in consultation with the parties to this agreement, has defined and documented the
15 APE based on potential direct, indirect and cumulative effects. The APE will apply to all lands
16 regardless of management status that may be affected by the transmission line corridor,
17 staging areas, access roads, borrow areas, transmission substations, or other related
18 transmission infrastructures for this Undertaking. The APE, as defined and documented, is a
19 baseline for survey and inventory.

- 20 1. Direct Effects—The following definition of direct effects APE takes into account ground-
21 disturbing activities associated with the Undertaking:
 - 22 a. The direct effects APE for the above ground transmission line will be 250 feet on either
23 side of centerline (500 feet total) for the ROW and extend the length of the
24 Undertaking, approximately 300 miles.
 - 25 b. The direct effects APE for new or improved access roads will be 100 feet on either side
26 of centerline (200 feet total). Existing crowned and ditched or paved roads will be
27 excluded from inventory.
 - 28 c. The direct effects APE for existing unimproved service roads will be 50 feet on either
29 side of centerline (100 feet total).
 - 30 d. The direct effects APE for the staging areas, borrow areas, substations and other
31 ancillary areas of effects will include the footprint of the facility and a buffer of 200 feet
32 around the footprint of the proposed activity.
 - 33 e. The direct effects APE for pulling/tensioning sites that fall outside the ROW will be a 250
34 foot radius around these points.

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1 f. The direct effects APE for borehole locations needed for geotechnical studies conducted
2 as part of detailed engineering will include a 250 foot radius area centered on the
3 borehole location if outside the transmission line direct effects APE.

4 g. The direct effects APE for operation and maintenance activities will be the same as the
5 APEs described in a.-f. above and within the area of the ROW grant.

6 2. Indirect Effects

7 a. The APE for indirect effects on historic properties will include, but not be limited to, the
8 visual, audible and atmospheric elements that could adversely affect NRHP listed or
9 eligible properties. Consideration will be given to all qualifying characteristics of a
10 historic property, including those that may have been identified subsequent to the
11 original evaluation of the property's eligibility for the NRHP.

12 b. The indirect effects APE for the Undertaking will extend generally for five miles or to the
13 visual horizon, whichever is closer, on either side of the centerline of the proposed
14 alignment and alternative routes.

15 c. Studies for previous 500 kV lines have identified noise created by corona and
16 electromagnetic fields as possible indirect effects for transmission lines. These same
17 studies indicate that these effects are greatest immediately under the line and within
18 the APE for direct effects. Although they may on occasion be measured as far as 300
19 feet from the centerline of a 500 kV line, data gathered for this Undertaking indicate
20 that the noise created by corona and electromagnetic fields will be limited to within the
21 inventoried indirect effects APE.

22 d. Where the indirect APE includes TCPs, NHTs, and other classes of visually-sensitive
23 historic properties, additional analyses may be required and the indirect APE may need
24 to be modified accordingly. These areas will require analysis on a case by case basis.

25 3. Cumulative Effects

26 a. The identification of the APEs will consider cumulative effects to historic properties as
27 referenced in 36 CFR 800.5. Cumulative effects may be direct and/or indirect, or
28 reasonably foreseeable effects caused by the Undertaking that may occur over time, be
29 farther removed in distance or be cumulative.

30 B. Modifications to the APE

31 1. An APE may be modified where tribal consideration, additional field research or literature
32 review, consultation with parties to this agreement, or other factors indicate that the
33 qualities and values of historic properties that lie outside the boundaries of the APEs may
34 be affected directly, indirectly and/or cumulatively.

35 2. Any party to this agreement may propose that the APEs be modified by submitting a
36 written request to the BLM providing a description of the area to be included, justification
37 for modifying the APE(s), and map of the area to be included. The BLM will notify the

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1 parties to this agreement of the proposal with a written description of the modification
2 requested within 15 days of receipt of such a request. From the date of notification, the
3 BLM will consult with the parties to this agreement for no more than 30 days to reach
4 consensus on the proposal.

5 3. If the parties to this agreement cannot agree to a proposal for the modification of the APEs,
6 then the BLM will consider their concerns and will render a final decision within 30 days
7 after the consultation period closes.

8 4. For all modifications to the APE(s) the BLM will provide a written record of the decision to
9 the parties to this agreement.

10 5. Amending the APEs will not require an amendment to the PA.

11 6. Minor changes to the APE during construction of the Undertaking that may require
12 additional fieldwork, regardless of land ownership, may be handled through the BLM ROW
13 grant variance process in accordance with stipulation VII.C.4.c.

14 II. Identification of Cultural Resources

15 A. For the purposes of this document cultural resources are defined as archaeological, historical
16 or architectural sites, structures or places that may exhibit human activity or occupation
17 and/or may be sites of religious and cultural significance to tribes (excerpted from BLM
18 Manual 8100).

19 B. All cultural resources within the APEs that will have achieved 50 years of age or more at the
20 time of the completion of construction, defined as "the cessation of all construction activities
21 associated with the Undertaking", or shall have achieved "exceptional significance" (National
22 Register Bulletin 15, Criteria Consideration G) shall be identified and evaluated.

23 C. The BLM will ensure that work undertaken to satisfy the terms of this PA and to adequately
24 identify and document cultural resources that may be affected by this Undertaking and as
25 described herein, will be consistent with ACHP and NPS guidance. The BLM will also ensure
26 that all identification, evaluation, assessment and treatment of cultural resources will be
27 conducted by, or under the direct supervision of, persons with applicable professional
28 qualifications standards set forth in the Secretary of the Interior's Standards for Archaeology
29 and Historic Preservation (48 FR 44716 Federal Register, September 29, 1983) and the federal
30 agency or SHPOs/THPO guidance or permitting requirements.

31 D. The Proponent will directly fund all fieldwork, analysis, reporting, treatment and curation.
32 Fieldwork will be conducted only after the Proponent has obtained the appropriate federal,
33 tribal and state permits for such fieldwork. Depending on land ownership, the appropriate
34 federal or state agency will require fieldwork authorizations to conduct inventories on public
35 lands upon receipt of an application from the Proponent and within the timeframes stipulated
36 in the land-managing agency's procedures. The CTUIR THPO will require fieldwork
37 authorizations to conduct inventories on tribal lands.

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1 E. The Proponent will conduct the identification effort and inventory of cultural resources in
2 order to identify historic properties for this Undertaking through the following series of steps
3 including a literature review and phased field surveys. Details on these surveys are found in
4 the Archaeological Survey Plan (Appendix A) and the Visual Assessment of Historic Properties
5 (VAHP) Study Plan (Appendix B).

6 Class I Literature Review—The Proponent will conduct a literature review/record search
7 and include a review of cultural resource investigations and all cultural resources previously
8 identified within a corridor two miles wide on either side of the transmission centerline
9 (four miles total) and will include the proposed and alternative routes to be considered for
10 detailed analysis in the Draft Environmental Impact Statement (DEIS).

11 The Proponent will also conduct a literature review and record search for the indirect APE,
12 which will comprise a corridor five miles wide on either side of the transmission centerline
13 (10 miles total) and will include the proposed and alternative routes to be considered for
14 detailed analysis in the DEIS. The literature review for the indirect APE will at minimum
15 consist of review of ethnographic literature, General Land Office (GLO) and other available
16 historic maps, an electronic search of the National Register Information System (NRIS), the
17 Oregon Historic Sites Database, Archaeological Survey of Idaho Database, the Idaho Historic
18 Sites Inventory forms, the Washington Information System for Architectural and
19 Archaeological Records Data (WISAARD), the CTUIR THPO site database, local landmarks
20 and registers, and an investigation of historic and contemporary aerial photography.
21 Information on cultural resources existing in the indirect APE that may require further
22 analysis will also be sought from parties to this agreement.

23 1. Class II Sample Inventory—The Proponent will undertake a Class II pedestrian inventory to
24 document cultural resources within the 15 percent sample area of the direct effects APE for
25 the Proponent's proposed alignment and analyzed DEIS alternatives. The 15 percent
26 sample survey will consist of a series of one-mile long by 500-foot-wide units, centered on
27 the centerline of the Proponent's proposed alignment and DEIS alternatives. The Class II
28 survey will also record the location of areas judged to have high potential for buried
29 cultural resources which may require further subsurface probing, as discussed under
30 stipulation II.E.7.

31 2. Indirect Effects APE Inventory—The Proponent will identify cultural resources, within the
32 indirect APE that may be affected by the visual, atmospheric and audible elements of the
33 Undertaking.

34 The visual elements of the indirect APE will be identified using Geographic Information
35 Systems (GIS) viewshed analysis and field verification. Details regarding the process for
36 indirect visual effects are provided in the VAHP Study Plan (Appendix B). The BLM will
37 consult with tribes to identify TCPs and properties of religious and cultural significance
38 within the APE as described in stipulation VI.

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1 A reconnaissance level survey will be conducted to identify potential historic properties,
2 including cultural landscapes. The preliminary results report will be distributed to the
3 federal agencies that are parties to this agreement, SHPOs, THPO and tribes for
4 consultation on eligibility as per stipulations V. and VIII. At their discretion, any federal
5 agency may decline receipt and review of the report by notifying the BLM in writing prior
6 to report distribution. Intensive level surveys (VAHP) will be conducted on select properties
7 upon consultation with the appropriate parties to this agreement (the BLM to determine
8 based on location, state and/or jurisdiction, property ownership, etc.). The reconnaissance
9 and intensive level surveys (VAHP) will be documented in reports.

10 Once historic properties are identified, the BLM will seek additional information from
11 relevant technical studies (such as the noise and electromagnetic field studies) as well as
12 consult with parties to this agreement to assess indirect effects from atmospheric or
13 audible elements that may diminish the integrity of the property's significant historic
14 features (36 CFR 800.5(a)(2)(v)).

- 15 3. Initial Class III Intensive Level Inventory—The Proponent will complete a 100 percent Class
16 III inventory to document cultural resources within the direct effects APE of the BLM-final
17 selected alternative(s) and all roads and facilities related to the Undertaking on lands
18 where access has been granted, including all federal, state, and private lands. Previously
19 surveyed areas from the Class II inventory will count toward the 100 percent inventory. This
20 survey will also record the location of areas judged to have high potential for buried
21 cultural resources which may require further subsurface probing, as discussed under
22 stipulation II.E.7.
- 23 4. Class III Intensive Level Inventory of Geotechnical Testing APE—The Proponent will
24 complete Class III surveys around each proposed borehole location for areas outside the
25 direct effects APE. See stipulation I.A.1.f.
- 26 5. Preconstruction Class III Intensive Level Inventory—The BLM shall ensure that Class III
27 inventory is completed by the Proponent for areas within the direct effects APE that have
28 not been subject to previous Class III inventories. See stipulation XII. These will include any
29 areas where access was previously denied or where there are modifications to the
30 Undertaking, such as modified access roads or lay-down yards that are identified after the
31 ROD has been issued. Prior to conducting this Class III inventory, a record search will be
32 conducted to obtain currently available data.
- 33 6. Subsurface Investigations for Purposes of Identifying Cultural Resources—The BLM will
34 employ reasonable and good faith efforts to identify historic properties, in accordance with
35 ACHP guidance titled *Meeting the "Reasonable and Good Faith" Identification Standard in*
36 *Section 106 Review*. There will be neither collection of artifacts nor disturbance of ground
37 during initial Class II and Class III intensive level pedestrian cultural resources surveys.
38 Wherever possible, existing information and professional judgment will prevail in an effort
39 to be efficient, pragmatic and protect the resources during the identification of historic
40 properties. A sampling strategy model, including a provision for reporting the results and

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1 validity of the methods, may be employed. The sampling strategy will be tailored to
2 account for results of previous strategies employed in the region.

3 Areas identified as possessing a high potential for buried cultural resources located within
4 the direct APE may be subjected to subsurface probing to determine the presence or
5 absence of cultural resources, where ground disturbing activities will occur. Selection of
6 areas with a high potential for buried deposits, which include factors such as proximity to
7 water, deep soils, geological features, etc. which may be coupled with low surface visibility,
8 will be based on professional judgment, in consultation with the consulting parties, and
9 comparison with existing site context in the area.

10 The BLM will develop a research design and sampling strategy for the subsurface
11 investigation, in consultation with the Proponent, and parties to this agreement, prior to
12 undertaking any such investigation. The details of the research design and sampling
13 strategy for the subsurface investigation will be encompassed within the HPMP. The BLM
14 will consult with Indian tribes and parties to this agreement regarding the potential areas
15 proposed for this testing.

- 16 7. Subsurface Investigations Alternatives—For certain classes of resources, less invasive
17 technologies, such as remote sensing, may be appropriate. Such methods may be
18 considered as an alternative to subsurface testing.

- 19 F. The BLM will make a reasonable and good faith effort to identify properties of religious and
20 cultural significance to Indian tribes, through tribal participation. Identification of historic
21 properties of religious and cultural significance to Indian tribes will occur through
22 government-to-government consultation and ethnographic studies.

23 The BLM will make a reasonable and good faith effort to identify TCPs as discussed in *National*
24 *Register Bulletin #38, Guidelines for Evaluating and Documenting Traditional Cultural*
25 *Properties*, of the NPS guidance, through the consultation and/or through ethnographic
26 studies. Reports identifying such historic properties will be prepared with the participation of
27 the associated group.

- 28 G. The BLM will ensure that the Proponent completes draft and final reports for the steps of
29 stipulation II. The BLM will send the reports out to the parties to this agreement for review as
30 described in stipulation V. Review times will be 30 days unless otherwise agreed to.

31 III. Evaluation and Determination of Eligibility

- 32 A. The BLM, in consultation with the appropriate parties to this agreement in each state, will
33 determine the NRHP eligibility of cultural resources within the APEs, pursuant to 36 CFR
34 800.4(c)(1), and 36 CFR 60.4 NRHP evaluations may be conducted in phases as project plans
35 are refined. Initial evaluations may be followed by more thorough evaluations using NRHP
36 Criteria A-D and NPS Bulletin 15 as the APEs become better defined. Cultural resources may
37 remain unevaluated if there is no potential for effect from the Undertaking. Cultural resources
38 that possess some or all of the characteristics of both archaeological and built environment

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1 resources, such as cultural landscapes and trails, shall be evaluated according to the provisions
2 of stipulations C. through G. of this section.

3 B. Determinations of eligibility will be consistent with applicable SHPO/THPO guidelines in each
4 respective jurisdiction, in effect at the time of the signing of this PA. Determinations of
5 eligibility require concurrence by the SHPO/THPO as detailed in stipulation III.H.

6 C. Archaeological Resources

7 1. Initial evaluations for archaeological resources may rely on surface observations,
8 additional research or remote sensing. If a site is recommended as "eligible" during the
9 initial evaluation and will be affected by the Undertaking, subsurface investigations (i.e.
10 archaeological testing) may be required to make a final determination of NRHP eligibility,
11 but shall be undertaken only after consultation with affected tribes.

12 2. Determinations of eligibility will be based on reasonable and good faith efforts using
13 available knowledge and data such as existing surface manifestations of the site and
14 cultural context from other site investigations, as well as the environmental and
15 paleoenvironmental setting. Subsurface investigation may be considered as a tool to
16 determine eligibility on an as needed basis but must be prudent and minimize disturbance
17 of cultural deposits. The research design and sampling strategy outlined under stipulation
18 II.E.7 will include provisions for the determinations of eligibility. Such testing will only
19 occur in areas that cannot be avoided and will be directly impacted by the Undertaking.

20 3. In cases where surface observations, additional research or remote sensing are not
21 sufficient to provide an initial recommendation of NRHP eligibility, the recorder will
22 recommend the resource as requiring further investigation to assess eligibility. Further
23 subsurface investigations will be undertaken in the event that final design will directly
24 impact the resource, per stipulation II.E.7.

25 Subsurface investigation strategy shall include an assessment of the depositional
26 environment and objectives for subsurface testing; methods to be employed for
27 subsurface testing and probing; proposed disposition of materials associated with
28 subsurface testing and probing; provisions for reporting and consultation on results of
29 testing. If the site is found ineligible, the evaluation will be reported per the procedures
30 established in stipulation III.G. If the site is found to be eligible, then effects will be
31 assessed as outlined in stipulation IV, and a mitigation plan will be prepared, as applicable
32 per stipulation VII.C.2.

33 Subsurface investigation strategy shall be subject to review and consultation per the
34 terms of stipulations V. and VI. of this agreement.

35 4. In cases where surface observations are adequate to support a recommendation that the
36 resource is "not eligible" for listing in the NRHP, this evaluation will be reported per the
37 procedures established in stipulation III.G.

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1 D. Built Environment

2 The BLM, in consultation with the parties to this agreement, will determine NRHP eligibility of
3 built environment resources (e.g., buildings, structures, objects, districts, and sites with above
4 ground components), pursuant to 36 CFR 800.4(c)(1).

5 1. Initial assessment of eligibility for built environment resources will take into account the
6 resources' age and integrity (location, setting, design, materials, workmanship, feeling and
7 association) per the guidance provided in NRHP Bulletin 16A, and per other applicable NPS
8 and state guidance.

9 2. Resources determined NRHP eligible per Initial assessment and assessed as affected by the
10 Undertaking per the procedures established in stipulation IV. of this PA will be reassessed
11 to verify their eligibility in terms of the resources' association with the NRHP criteria of
12 significance. This secondary assessment may involve additional research into the history,
13 events and people associated with the resource, as well as more detailed recordation of the
14 resources' physical attributes and character-defining features.

15 E. Historic Trails

16 The BLM, in consultation with the parties to this agreement, will determine the National
17 Register eligibility of historic trails, trail segments and associated sites pursuant to 36 CFR
18 800.4(c)(1). Historic trails will be evaluated for eligibility as historic properties including linear
19 resources along with associated trail sites such as camps, associated markers, glyphs or other
20 trail elements. For designated National Historic Trails, such as the Oregon Trail, the trail
21 elements, as well as trail segments, will be evaluated as contributing or non-contributing in
22 terms of National Register eligibility based on their integrity (primarily for feeling, association,
23 location and setting).

24 BLM may seek input and utilize existing information and strategies from other agencies and
25 groups, such as the NPS and trail associations, as well as consulting parties in determining the
26 National Register eligibility of sites and trail segments.

27 F. Traditional Cultural Properties

28 Like all historic properties, to be considered eligible a Traditional Cultural Property (TCP) must
29 be a district, site, building, structure, or object that meets at least one of the four criteria
30 established by the NRHP. It must also be associated with cultural practices or beliefs of a living
31 community that (a) are rooted in that community's history, and (b) are important in
32 maintaining the continuing cultural identity of the community. TCPs apply to groups of every
33 ethnic origin that have properties to which they ascribe traditional cultural value (NRHP
34 Bulletin 38).

35 To identify TCPs, the BLM will rely on NRHP Bulletin 38 and other NPS guidance, and
36 consultation with Indian tribes, ethnic groups or communities ascribing traditional significance
37 to an area. The BLM will make its determinations of eligibility based on consultation and

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1 information from literature reviews, ethnographies, traditional use studies, field inventories,
2 oral histories, interviews, and other forms of research.

3 G. Properties of Religious and Cultural Significance to Indian Tribes

4 Federal agencies are required to consult with Indian tribes to identify properties of religious
5 and cultural significance and to determine if they are eligible for the NRHP (NHPA Section
6 101(d)(6)(B) and 38 CFR 800.2(c)(2)). The BLM acknowledges that Indian tribes possess special
7 expertise in assessing the eligibility of properties that may possess religious and cultural
8 significance to them (NHPA Section 101(d)(6)(A) and 36 CFR 800.4(c)(1)). Unlike TCPs, the
9 determinations of NRHP eligibility of such properties are not tied to continual or physical use
10 of the property (ACHP Handbook on Consultation with Indian Tribes, 2012).

11 To identify properties of religious and cultural significance, the BLM will rely on consultation
12 with Indian tribes. The BLM will make its determinations of eligibility based on consultation
13 and information from literature reviews, ethnographies, traditional use studies, field
14 inventories, oral histories, interviews, and/or other forms of research.

15 H. Reporting on Initial and Final Recommendations of NRHP Eligibility

16 1. The BLM will distribute recommendations of initial NRHP eligibility to the appropriate
17 parties to this agreement in each state for review and comment following 36 CFR 800.4(c).
18 After a 30 day review period, the BLM will consider all comments and consult with parties
19 to this agreement before submitting its determinations of eligibility, with all comments and
20 responses, to the applicable SHPOs/THPO for concurrence. The BLM will then seek
21 consensus on its determinations of eligibility with the appropriate SHPOs/THPO for all
22 properties regardless of ownership.

23 a. If the applicable SHPOs/THPO, tribes, and BLM agree that the cultural resource is
24 eligible, an assessment of effects will be completed in accordance with stipulation IV.

25 b. If the applicable SHPOs/THPO, tribes, and BLM agree that the cultural resource is
26 ineligible, then the resource will receive no further consideration under this PA.

27 c. If the applicable SHPOs/THPO, tribes, and BLM do not agree on eligibility, the BLM will
28 discuss issues of eligibility with the parties to this agreement and continue to consult to
29 reach consensus. If agreement cannot be reached within 30 days, then the BLM will
30 obtain a determination of eligibility from the Keeper of the NRHP pursuant to 36 CFR
31 800.4(c)(2) and 36 CFR 63. The Keeper's determination will be final. The BLM will
32 distribute the Keeper's comments to the appropriate parties to this agreement in each
33 state.

34 2. The BLM will distribute the results of the final evaluations to parties to this agreement for
35 review and comment following 36 CFR 800.4(c). After a 30 day review period, the BLM will
36 submit the final determinations of eligibility, with all comments to the applicable
37 SHPOs/THPO for concurrence. The BLM will then seek consensus on the final determination
38 of eligibility with the appropriate SHPOs/THPO for all properties regardless of ownership.

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1 IV. Assessment of Effects

2 A. The BLM, in consultation with the parties to this agreement, will assess the direct, indirect and
3 cumulative effects of this Undertaking on historic properties consistent with 36 CFR 800.4(d)
4 and identify effects on each historic property within the APEs in accordance with the criteria
5 established in 36 CFR 800.5(a)(1)-(2), and provide the parties to this agreement with the
6 results of the finding following 36 CFR 800.11(e)(4)-(6), as outlined under stipulation V. The
7 assessment of effects will serve as the basis for the development of the Historic Properties
8 Management Plan (HPMP) for those properties determined to have the potential to be
9 adversely affected by the Undertaking.

10 B. The BLM will consult with the parties to this agreement to seek ways to avoid or minimize
11 adverse effects to historic properties. If historic properties cannot be avoided, subsurface
12 investigation may be necessary for archaeological sites within the direct effects APE which
13 may be adversely affected. Determination of the site boundaries in relation to the direct effect
14 APE, and actual area of ground disturbance, may be undertaken through subsurface
15 investigation to aid in developing alternative design and/or mitigation strategies. If adverse
16 effects cannot be avoided, the BLM will consult with the parties to this agreement to
17 determine appropriate mitigation measures to be detailed in the HPMP.

18 C. The Proponent has developed a VAHP Study Plan, (Appendix B) in consultation with federal
19 agencies party to this agreement, SHPOs, THPO and tribes, to assess whether the Undertaking
20 will introduce visual effects that may alter the characteristics that qualify the historic property
21 for the NRHP or that may diminish the integrity of the property's setting, feeling and/or
22 association. The guidelines for conducting the assessment of visual effects of the Undertaking
23 are located in the VAHP. The inventory will focus on indirect visual effects. Other potential
24 indirect effects, including but not limited to atmospheric and audible elements, will be
25 addressed as per stipulation IV.A. above.

26 D. The Proponent will prepare maps indicating the extent of electromagnetic fields, corona and
27 noise generated by the proposed Undertaking as well as the distribution of identified historic
28 properties in the APE. The BLM will employ these maps in the agency's assessment of effects
29 and will consult with parties to this agreement per the procedures outlined in stipulation V.

30 E. The BLM, in consultation with the parties to this agreement, will broadly assess cumulative
31 effects under Section 106 in order to identify all reasonably foreseeable, potentially adverse
32 effects, such as effects due to increased access, as a result of the Undertaking (36 CFR 800.5
33 (a)(1)). Potential cumulative or reasonably foreseeable effects will be based on the APEs for
34 direct and indirect effect and be addressed in the HPMP.

35 F. The BLM will provide all assessments of effect to historic properties in writing to the parties to
36 this agreement. Review will proceed according to the procedures and timeframes established
37 in stipulation V.

38 G. Disagreement regarding assessments of effect will be handled according to the procedures
39 established in stipulation XIV.

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1 V. Reporting and Review of Documentation

2 A. Consistent with the terms and conditions of this PA, the Proponent will prepare reports of
3 cultural resource activities (inventory, evaluation, mitigation/treatment, monitoring and
4 related cultural resource actions) including associated site records and organize them for
5 distribution and review following these general guidelines:

6 1. Organization of reports by geographic/administrative boundaries: The Proponent will
7 prepare separate reports, as applicable, for those cultural resource inventories and
8 evaluations involving cultural resources and/or historic properties and the built
9 environment (a) within the state of Oregon (excluding lands within the Umatilla Indian
10 Reservation); (b) within the state of Idaho; and (c) on lands within the Umatilla Indian
11 Reservation, utilizing the guidelines in the respective jurisdictions in effect at the time of
12 the signing of this PA.

13 a. The Proponent will prepare reports (including report revisions) of activities within the
14 state of Oregon (excluding the Umatilla Indian Reservation) for the BLM's distribution to
15 the Oregon SHPO, federal agencies, applicable parties to this agreement and tribes.

16 b. The Proponent will prepare reports (including report revisions) of activities within the
17 state of Idaho for the BLM's distribution to the Idaho SHPO, federal agencies party to
18 this agreement and tribes.

19 c. The Proponent will prepare reports (including report revisions) of activities, cultural
20 resources and/or historic properties on CTUIR tribal lands for the BLM's distribution to
21 both the THPO and Chairman of the CTUIR.

22 2. Reports shall clearly identify land ownership and administrative jurisdiction for both (a)
23 lands covered by the report and (b) cultural resources/historic properties discussed in the
24 report(s).

25 B. At the conclusion of the phases of fieldwork described under stipulation II.E, as well as any
26 variances undertaken, as described in stipulation VII.C.4.c, the Proponent will submit the draft
27 report for the phases to the lead BLM office for distribution to the appropriate parties to this
28 agreement in each state.

29 C. Each report will follow appropriate state guidelines and formats including recommendations
30 of eligibility and effect that are in effect at the time of the signing of this PA. Reports will
31 include appropriate site inventory forms and recommendations on the NRHP eligibility of
32 cultural resources (36 CFR 800.4(c)).

33 D. The BLM will consolidate comments received from parties to this agreement on the reports
34 and submit comments to the Proponent within 60 days of receipt of all comments. The
35 Proponent will produce a revised report addressing these comments within 30 days of receipt.
36 Additional time may be necessary depending on the extent of the revisions.

37 E. Comments received by the BLM within 30 calendar days of receipt of the report will be
38 considered. Comments may address issues such as the adequacy of inventory, methods of

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1 assessment and reporting, the eligibility of historic properties identified during each phase (36
2 CFR 800.4(c)), and the effects of the Undertaking on any historic properties (36 CFR 800.4(d)
3 and 36 CFR 800.5). Reviewers will notify the lead BLM office if the 30 day review time frame
4 cannot be met and request an extension from the BLM. Within 10 days of receipt of a request
5 for an extension, the BLM will determine if the request will be granted and send written
6 notification to the requesting party. After 30 days, provided there is no request for extension,
7 the BLM will submit all comments to the Proponent for the Proponent to address per the
8 process outlined in stipulation V.D.

9 F. For reports that are not time sensitive or are in excess of 200 pages, the BLM may expand
10 review times beyond 30 calendar days.

11 G. The BLM will submit revised reports to the appropriate agencies, SHPOs/THPO, tribes and
12 parties to this agreement for their records.

13 H. Versions of reports redacted (see stipulation VIII.) by the BLM for sensitive information, such
14 as site-specific locations and names, may also be distributed to other parties to this
15 agreement, who do not fall under the applicable professional qualifications standards set
16 forth in the Secretary of the Interior's Standards for Archaeology and Historic Preservation (48
17 FR 44716 Federal Register, September 29, 1983) for review and comment.

18 I. The BLM will prepare a HPMP per the terms specified in stipulation VII.

19 J. Prior to any eventual decommissioning of the Undertaking, the Proponent will prepare a plan
20 for protecting historic properties per the terms in stipulation VII.C.5.

21 K. The Proponent will provide a state specific, final summary report for each respective
22 SHPO/THPO documenting all changes to previous report findings and additional cultural
23 resources-related work not included in the pre-construction reports. The report format will be
24 identified in the HPMP. A summary report may also be provided to parties to this agreement
25 in accordance with stipulation VIII. The summary report will be produced no later than three
26 years after the final surveys and will be considered the final Class III inventory report(s).

27 VI. Consultation

28 A. Through government-to-government consultation with Indian tribes, based on the U.S.
29 Constitution and Federal treaties, statutes, executive orders and policies, the BLM, in
30 consultation with appropriate federal agencies, will make a good faith effort to identify
31 properties that have traditional religious and cultural importance to Indian tribes and to
32 determine whether they are historic properties. Discussion of these properties may be
33 submitted as a separate report, such as an ethnographic study. Ethnographic studies are not
34 required, but may be requested by tribes. Confidentiality concerns expressed by tribes for
35 properties that have traditional religious and cultural importance will be respected and will be
36 protected to the extent allowed by law. See stipulation VIII.

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1 B. BLM will ensure that tribes and parties to this agreement will be kept informed as to the
2 development of the Undertaking and engaged in review and comment on all pertinent
3 documents associated. The BLM will seek, discuss and consider the views of the consulting
4 parties throughout the Section 106 process. Such consultation may take a variety of forms in
5 order to accommodate the consultation process with different tribes and parties to this
6 agreement. The consultation will occur through previously established protocols, Memoranda
7 of Understanding and/or forums established for the Undertaking. BLM will consult with tribes
8 and parties to this agreement during the identification of cultural resources, the
9 determination of NRHP eligibility, determination of effect and avoidance and mitigation steps
10 of the process. While the nature of consultation is fluid and the input may vary from tribes
11 and parties to this agreement, in general, the procedures and schedule for review of
12 documents outlined in stipulation V. will be followed.

13 VII. Historic Properties Management Plan (HPMP)

14 A. The BLM will begin to draft an outline of the HPMP in consultation with the parties to this
15 agreement following execution of the PA that includes mitigation options for anticipated
16 general classes of historic properties that may be affected by the Undertaking. This outline
17 may include options for treatment of specific properties, as discussed under stipulation
18 VII.C.2, if the details of the historic property are available and the exact effects have been
19 determined. The final HPMP, including protection measures, property-specific mitigation
20 plans, and monitoring plans will be finalized prior to the NTP.

21 B. The draft HPMP will characterize historic properties identified within the APE and will be used
22 as a guide to address pre-construction and post-construction treatment measures to avoid,
23 minimize and mitigate adverse effects to historic properties identified through subsequent
24 phases of the Undertaking. The draft HPMP will also broadly identify classes of historic
25 properties, relevant research, and potential data gaps in research for classes of properties
26 present in the APE. A range of resource-specific (e.g. historic trails) strategies, will include but
27 not be limited to, mitigation and monitoring, to address reasonably foreseeable direct,
28 indirect and/or cumulative adverse effects that may be caused by the Undertaking. The
29 mitigation measures will be commensurate with the nature of the effect and the significance
30 of the resource, and shall take into account the views of the parties to this agreement and the
31 public. The BLM will consult with the parties to this agreement to obtain written comments
32 and recommendations for proposed treatment measures to be included in the HPMP per the
33 procedures established in stipulations V. and VI. BLM, in consultation with the parties to this
34 agreement, will develop a process for review and acceptance of mitigation to be outlined in
35 the HPMP.

36 C. Wherever feasible, avoidance and preservation in place shall be the preferred treatment for
37 historic properties located within the APE. Avoidance may include design changes or
38 relocation of specific components of the Undertaking and/or use of fencing or barricades to
39 limit access to identified historic properties. For historic properties that cannot be avoided the

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1 HPMP will include the following plans and provisions to minimize or mitigate direct, indirect
2 and/or cumulative adverse effects to historic properties that may result at any time during the
3 Undertaking.

4 1. Protection Measures

5 The HPMP shall include measures to protect identified historic properties from adverse effects
6 that may result from the Undertaking. These measures may include but not be limited to
7 placement of barricades and fencing, notices to law enforcement, seasonal restrictions, and
8 other appropriate measures.

9 2. Mitigation Plans

10 a. All historic properties adversely affected by the Undertaking will be subject to property-
11 specific mitigation plans to be drafted after issuance of the ROD to resolve adverse
12 effects as determinations of effect for these properties are made pursuant to stipulation
13 IV. The mitigation plans will be included in the final HPMP.

14 b. Mitigation plans shall include appropriate measures to resolve adverse effects to the
15 qualities of the historic property that make it eligible for listing in the NRHP. All
16 mitigation plans will be consistent with Secretary of Interior Standards for
17 archaeological, historical and architectural documentation; the ACHP Section 106
18 archaeology guidance and other guidance from the appropriate SHPOs/THPO.

19 c. For effects to archaeological sites that will be mitigated through data recovery,
20 mitigation plans shall include but not be limited to a research design that articulates
21 research questions; data needed to address research questions; methods to be
22 employed to collect data; laboratory methods employed to examine collected materials;
23 and proposed disposition and curation of collected materials and records.

24 d. Mitigation plans for direct effects to historic properties eligible for listing in the NRHP
25 under criteria other than or in addition to criterion D shall articulate the context for
26 assessing the properties' significance, an assessment of the character-defining features
27 that make the property eligible for listing in the NRHP, and an assessment of how the
28 proposed mitigation measures will resolve the effects to the property.

29 e. Mitigation plans for indirect effects to historic properties eligible under any NRHP
30 criteria shall include an assessment of the character-defining features that make the
31 property eligible for listing in the NRHP; the nature of the indirect effect; an evaluation
32 of the need for long-term monitoring; and an assessment of how the proposed
33 mitigation measure(s) will resolve the effects to the property.

34 f. Mitigation plans for direct, indirect, and cumulative effects to historic properties may
35 include, but will not be limited to:

36 1) Completion of NRHP nomination forms

37 2) Conservation easements

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1 3) Purchase of land for long-term protection of historic properties

2 4) Partnerships and funding for public archaeology projects

3 5) Partnerships and funding for Historic Properties interpretation

4 6) Print or media publication

5 3. Monitoring Plan

6 A Monitoring Plan will be developed as a subsection of the HPMP for implementation
7 during construction, operation, and maintenance.

8 a. This plan will address monitoring for compliance with stipulations of the HPMP, as well
9 as a potential strategy to avoid, minimize, or mitigate direct, indirect and/or cumulative
10 adverse effects to historic properties at any time during the Undertaking.

11 b. All monitoring plans shall identify monitoring objectives and the methods necessary to
12 attain these objectives, and in particular address those areas determined under the
13 inventory to show a high probability for buried cultural deposits.

14 Monitoring shall, as appropriate, include archaeological inspection of construction
15 activities by personnel either meeting the Secretary of Interior Professional Qualification
16 standards or working under the direct supervision of a person meeting the standards.
17 Provisions for tribal monitors will meet the above qualifications as well, per the
18 discretion of consulting tribes.

19 c. Any cultural resources, human remains or funerary objects discovered at any time
20 during construction, construction monitoring, or operation and maintenance activities
21 will be treated in accordance with the Inadvertent Discovery Plan (IDP) contained within
22 the HPMP.

23 4. Operations and Maintenance

24 The HPMP shall include operations and maintenance to address all activities related to the
25 functioning of the Undertaking after construction and reclamation are completed and prior
26 to decommissioning. During operations and maintenance, the ROW grant holder will be
27 required to follow all the terms, conditions, and stipulations concerning historic properties
28 which are included in the POD as part of the ROW grant.

29 a. The HPMP will identify those stipulations necessary to ensure the consideration of
30 historic properties throughout the life of the ROW grant.

31 b. The BLM will be responsible for ensuring that the stipulations in the BLM ROW grant are
32 enforced for the life of the ROW grant. Federal or state agencies issuing a permit for the
33 Undertaking will take responsibility for permit enforcement under their jurisdiction.

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1 c. The HPMP will identify a variance review process for construction, operations and
2 maintenance, to address any changes in procedures that could have an adverse effect
3 on historic properties in the ROW. The Proponent will submit a request for variance
4 review to the BLM through BLM's third party Compliance Inspection Contractor for any
5 proposed changes in use of equipment, additional work areas, access roads, ancillary
6 features, reroutes or other changes that may result in ground disturbing activities
7 outside of the previously surveyed APE. At a minimum the variance area will be checked
8 to ensure that it falls within an area where the following have been completed:

- 9 • Class I literature review in accordance with stipulation II.E.1.
- 10 • Class III inventory in accordance with stipulation II.E.4
- 11 • Determinations of Eligibility in accordance with stipulation III.G.
- 12 • Assessment of Effects in accordance with stipulation IV.
- 13 • Protection, Mitigation and Monitoring plans in accordance with stipulation
14 VII.C.1-3.

15 Where BLM determines that additional inventory is needed through the variance
16 request process, no ground disturbance will be authorized in the variance area until the
17 above items and any mitigation measures are completed, in consultation with parties to
18 this agreement, and BLM approves the variance.

19 Additional inventory and evaluation undertaken for these variances will be reported as
20 soon as feasible and sent to the BLM for review in accordance with stipulation V.B, as
21 part of the Class III inventory. Any variance reports will also be included in the
22 comprehensive report outlined in stipulation V.L. Such documentation will tier to the
23 previous background context in the existing reports so that only new information such
24 as site forms, eligibility determinations, etc. will be included.

25 The BLM will develop a list of operation and maintenance activities in consultation with
26 parties to this agreement that will NOT be subject to additional Section 106 review, and
27 will identify the types of activities that will require additional Section 106 review.

28 BLM administration of the ROW grant shall include appropriate BLM cultural resource
29 specialists to participate in ROW grant review and to review compliance with
30 stipulations or changes in procedures that may affect historic properties in the ROW.

31 5. Decommissioning

32 The POD will contain a stipulation to develop a decommissioning plan to address the
33 potential effects of decommissioning on historic properties. Prior to decommissioning, the
34 BLM, in consultation with the parties to this agreement, will assess the direct, indirect and
35 cumulative effects of decommissioning this transmission line and associated facilities on
36 historic properties and to seek ways to avoid, minimize or mitigate adverse effects under
37 the plan.

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1 B. Reporting

2 The HPMP shall provide for the preparation of reports as called for during the implementation
3 of plan activities, including but not limited to monitoring reports, Historic American Buildings
4 Survey / Historic American Engineering Record / Historic American Landscapes documentation,
5 and archaeological data recovery documentation, if applicable.

6 The BLM will ensure that the Proponent completes draft and final reports as called for under
7 the implementation of the HPMP. The BLM will send the reports out to the parties to this
8 agreement for review as described in stipulation V. Review times will be 30 days unless
9 otherwise noted.

10 C. HPMP and Mitigation Plans Review

- 11 1. The BLM shall submit the draft HPMP to the consulting parties for review. Distribution and
12 review of the HPMP and associated documents shall proceed according to the terms
13 outlined in stipulation V. of this agreement.
- 14 2. After consultation with the parties to this agreement to address comments and/or
15 objections, and acceptance by the SHPOs/THPO, the BLM will finalize the HPMP.
- 16 3. Any party to this PA may object at any time to any actions proposed or the manner in which
17 the terms of the HPMP are implemented. The objecting party must submit in writing to the
18 BLM the reasons for, and a justification of, its objections. The BLM will consult with the
19 party and the parties to this agreement to resolve the objection within 30 days. If the BLM
20 determines that such objection cannot be resolved, the BLM will follow the procedures
21 defined in this PA under stipulation XIV.

22 D. The HPMP will be finalized prior to the NTP to resolve adverse direct, indirect and/or
23 cumulative effects to historic properties that may result from this Undertaking.

24 E. The Proponent, in consultation with the Signatories, will conduct a formal review of the HPMP
25 and associated mitigation plans annually during the period of construction and every five (5)
26 years thereafter throughout the life of this agreement.

27 F. Any party to this agreement may suggest an amendment to the HPMP and should submit the
28 contents of the amendment in writing to the BLM. The BLM will consider the amendment
29 within 30 days of receipt and consult with the parties on the amendment. An amendment to
30 the HPMP will not require an amendment to the PA. After consultation with the parties to the
31 agreement, the BLM will determine if an amendment will be incorporated into the HPMP by
32 the Proponent.

33 **VIII. Confidentiality of Cultural Resources Information**

34 A. The parties to this agreement acknowledge that certain information about cultural resources
35 may be protected from public disclosure under NHPA (54 USC §307103), ARPA (43 CFR 7.18),
36 Idaho state law (Idaho Code § 9-340E(1),(2) and Oregon state law (ORS 192.501(11)). Parties
37 to this agreement will ensure that all actions and documentation prescribed by this PA are

Boardman to Hemingway Programmatic Agreement

1 consistent with the non-disclosure requirements of these laws. BLM will ensure that reports
2 sent to parties to this agreement who do not have staff meeting the Secretary of Interior
3 Professional Qualifications have certain confidential information such as place names,
4 location, etc. redacted, unless the party receiving the documents has an executed data sharing
5 agreement with BLM. Due to the potential for inadvertent discoveries, incomplete prior
6 evaluations or the passage of time resulting in changing perceptions of significance (36 CFR
7 800.4(c)(1)), cultural resources that have not been evaluated for eligibility or that have been
8 determined Not Eligible will be afforded the same level of confidentiality under this
9 agreement. The BLM may require data sharing agreements with parties interested in
10 obtaining confidential information. The data sharing agreements will be written in
11 consultation with the tribes and other parties which so request.

- 12 B. The Proponent will not retain sensitive information that tribes and interested parties
13 authorize them to collect, including but not limited to ethnographic data and similar
14 information beyond the time that it is needed to inform the decision-makers and complete
15 compliance with the terms of the PA. The Proponent will return sensitive information to the
16 BLM, or destroy it and provide written documentation of such action to the BLM.

17 **IX. Inadvertent Discovery of Cultural Resources and Human Remains on Non-Federal Lands**

18 The BLM in consultation with federal agencies that are a party to this agreement, SHPOs, THPO
19 and tribes has prepared an IDP for the HPMP to include cultural resources and human remains,
20 that establishes procedures for immediate work stoppage and site protection to be followed in
21 the event that previously unreported and unanticipated cultural resources or human remains are
22 found on state or private lands during the Undertaking in accordance with 36 CFR 800.13(a)(2)(b)
23 and appropriate state laws.

24 **X. Inadvertent Discovery of Human Remains, Funerary Objects, Sacred Objects or Objects of
25 Cultural Patrimony (NAGPRA) on Federal Lands**

26 A. The BLM in consultation with federal agencies party to this agreement, SHPOs, THPO and
27 tribes has prepared an IDP for the HPMP, to include cultural resources and human remains,
28 that establishes procedures for immediate work stoppage and site protection to be followed
29 in the event that previously unreported and unanticipated cultural resources or human
30 remains are found on federal lands during the Undertaking.

31 B. Discovery of Native American human remains, funerary objects, sacred objects, or objects of
32 cultural patrimony on federal lands shall be subject to 25 USC §3001 et seq., the Native
33 American Graves Protection and Repatriation Act (NAGPRA), and its implementing
34 regulations, 43 CFR 10 et. seq. The BLM will prepare a NAGPRA Plan of Action (POA) in
35 consultation with federal agencies party to this agreement and in consultation with Native
36 American tribes party to this agreement. The POA will describe the procedures for the
37 treatment and disposition of Native American human remains, funerary objects, sacred
38 objects or objects of cultural patrimony for intentionally excavated and inadvertent

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1 discoveries during construction and planned, if any, excavation of sites located within the
2 Project APE on federal lands. The POA will be completed prior to any ground disturbing
3 activities associated with the Undertaking.

4 XI. Curation

- 5 A. The BLM will ensure curation and other disposition of cultural materials and associated
6 records not subject to the provisions of NAGPRA resulting from implementation of this PA on
7 federal land is completed in accordance with 36 CFR 79. Documentation of the curation of
8 these materials will be provided to the BLM and the appropriate SHPOs/THPO within 30 days
9 of acceptance of the final cultural resource report for the Undertaking. Cultural materials not
10 subject to the provisions of NAGPRA found on BLM and USFS lands will remain federal
11 property when curated. Curation will be undertaken in a manner consistent with and
12 respectful of cultural sensitivities. Materials found on federal land in Oregon will be curated at
13 the federally approved Oregon Museum of Natural and Cultural History (OMNCH). Materials
14 found on federal land in Idaho will be curated at the Archaeological Survey of Idaho-Western
15 Repository in Boise at the Archaeological Survey of Idaho-Western Repository federally
16 approved curation facility.
- 17 B. Native American human remains, funerary objects, sacred objects, or objects of cultural
18 patrimony recovered from federal lands shall be subject to the provisions of NAGPRA, and
19 shall be treated in accordance with protocol developed between the BLM, USFS, and
20 consulting tribes and memorialized in the approved NAGPRA Plan of Action for the
21 Undertaking. This protocol shall be consistent with 43 CFR 10.3-10.7, the regulations
22 implementing NAGPRA.
- 23 C. Collections made on state land in the State of Oregon, will comply with ORS 390.235 and ORS
24 97.745. Collections on state land in Idaho will be curated at the Archaeological Survey of
25 Idaho-Western Repository in accordance with Idaho Statute Title 33, Chapter 39, Idaho
26 Archaeological Survey, Sections 3901-3905.
- 27 D. For collections recovered from private lands in Oregon, the Proponent will work with
28 landowners and parties to this agreement, through applicable state permits, to arrange for the
29 disposition of cultural resources collections. In Oregon, private landowners will be encouraged
30 to rebury or donate cultural resources collections to the OMNCH and will be informed that
31 Oregon state law (ORS 97.745) excludes retention of Native American human remains,
32 funerary objects, or objects of cultural patrimony and requires the return of such objects to
33 the appropriate tribe. Collections from private lands to be returned to the landowner will be
34 maintained in accordance with 36 CFR 79 until any specified analysis is complete. The
35 Proponent will provide documentation of the transfer of the collection to the landowner as
36 well as to the BLM and the appropriate parties to this agreement within 30 days of acceptance
37 of the final cultural resource reports for the Undertaking. In the event a landowner chooses to
38 retain a collection they will be notified by the BLM or Proponent that tribes may prefer

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1 collected items be reburied. Any arrangements for reburial will be negotiated with the tribe(s)
2 outside of the Section 106 process.

3 E. Collections recovered from private lands in Idaho remain the property of the landowner. The
4 landowner will be encouraged to donate the collections to the Archaeological Survey of Idaho-
5 Western Repository. Collections from private lands to be returned to the landowner will be
6 maintained in accordance with 36 CFR 79 until any specified analysis is complete.

7 F. The Proponent will assume the cost of curation including the preparation of materials for
8 curation in perpetuity.

9 XII. Initiation of Construction Activities

10 A. Construction will only occur after issuance of a federal ROW grant, Special Use Authorization
11 and specific NTP or any other federal or state authorization to the Proponent which will occur
12 after the ROD.

13 B. The BLM will ensure that mitigation for adversely affected historic properties is implemented
14 to the degree required in the mitigation plans prior to issuance of NTPs. The BLM will
15 authorize construction to begin once the parties to this agreement have been provided with
16 documentation of mitigation activities and consultation has occurred pursuant to stipulation
17 V. Disagreements regarding the adequacy of the implementation of mitigation plans are
18 subject to resolution as described in stipulation XIV. NTPs may be issued to the Proponent for
19 individual construction segments under the following conditions:

- 20 1. Construction of the segment will not restrict subsequent rerouting of the ROW corridor or
21 affiliated ancillary feature locations to avoid, minimize, or mitigate the Undertaking's
22 adverse effects on historic properties; and
- 23 2. The permitting agencies, in consultation with parties to this agreement, determine that all
24 surveys have been completed and no cultural resources have been identified through Class
25 III inventories and there are no historic properties within the APEs for the construction
26 segment; or
- 27 3. The permitting agencies, in consultation with the SHPOs/THPO, have implemented the
28 procedures described in the HPMP within the construction segment; and
 - 29 a. The fieldwork phase of the treatment option has been completed;
 - 30 b. The federal agencies that are a party to this agreement have accepted a summary
31 description from the Proponent of the fieldwork performed and a reporting schedule for
32 that work;
 - 33 c. The permitting agencies have provided the parties to this agreement with a summary
34 description of the fieldwork performed and a reporting schedule for that work; and
 - 35 d. The permitting agencies, in consultation with the parties to this agreement, have
36 determined that all preconstruction fieldwork is complete and adequate.

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1 C. Changes in Ancillary Areas/Construction ROW

- 2 1. The BLM will notify the parties to this agreement of proposed changes in ancillary areas or
3 the ROW. The BLM will ensure that the APE of the new ancillary area or reroute is
4 inventoried and evaluated in accordance with stipulation II, and will consult with the
5 parties to this agreement on the proposed APE and the determination of eligibility and
6 effect in accordance with stipulations III. and IV. The reports addressing these areas will be
7 reviewed in accordance with stipulation V. of this PA.
- 8 2. The BLM will provide the tribes, and parties to this agreement with the revised addendum
9 reports and findings on eligibility and effects for a 30 day review and comment period. The
10 BLM will seek consensus determinations of eligibility for all properties identified in the
11 APEs. If consensus cannot be reached, the process articulated in stipulation III. for seeking a
12 determination of eligibility from the Keeper of the NRHP will be followed.

13 XIII. PA Evaluation

- 14 A. The BLM will evaluate the implementation and operation of this PA annually until all
15 construction and reclamation activities and mitigation reports are complete. The annual
16 evaluation will include a written report submitted by the BLM to the parties to this agreement
17 and may include in-person meetings among the BLM and parties to this agreement to discuss
18 any potential PA modifications or amendments.
- 19 B. The BLM's written report will describe all activities pertaining to the Undertaking for that year
20 and will be sent to all parties to this agreement by December 31st of each year. Parties to this
21 agreement may provide comments on reports to the BLM within 30 days of receipt. The BLM
22 will collate and distribute comments to the parties to this agreement, revise the report, as
23 necessary, and explain why particular revisions were or were not made. If there are significant
24 revisions needed, and if the parties to this agreement agree, the BLM may hold a meeting or
25 conference call to discuss any needed revisions.

26 XIV. Dispute Resolution

- 27 A. Any party to this agreement may object at any time to any actions proposed or the manner in
28 which the terms of this PA are implemented. The objecting party must submit in writing to the
29 BLM the reasons for, and a justification of, its objections. The BLM will consult with the
30 objecting party and all parties to this agreement to resolve the objection within 30 days. If the
31 BLM determines that such objection cannot be resolved, the BLM will:
 - 32 1. Forward all documentation relevant to the dispute, including the BLM's proposed
33 resolution, to the ACHP within 30 days after the BLM's initial determination that the
34 objection cannot be resolved. The ACHP will provide the BLM with its advice on the
35 resolution of the objection within 30 days of receiving adequate documentation. Prior to
36 reaching a final determination on the dispute, the BLM will prepare a written response that
37 takes into account any timely advice or comments regarding the dispute from the ACHP

Boardman to Hemingway Programmatic Agreement

1 and parties to this agreement, and provide them with a copy of this written response
2 within 30 days of receiving advice from the ACHP. The BLM will then proceed according to
3 its final determination.

4 2. If the ACHP does not provide its advice regarding the dispute within the 30 day time period,
5 the BLM may make a final determination on the dispute and proceed accordingly. Prior to
6 reaching such a final determination, the BLM will prepare a written response that takes
7 into account any timely comments regarding the dispute from the parties to this
8 agreement to the PA, and provide to all parties to this agreement with a copy of such
9 written response within 30 days.

10 3. The BLM's responsibilities to carry out all other actions subject to the terms of this PA that
11 are not the subject of the dispute remain unchanged.

12 **XV. Review of Public Objection**

13 At any time during implementation of the measures stipulated in this PA, should an objection to
14 any such measure or its manner of implementation be raised by a member of the public, the BLM
15 will take the objection into account, consult as needed with the objecting party and the parties to
16 this agreement to resolve the objection. The BLM will determine the final resolution.

17 **XVI. Amendment**

18 Signatories and Invited Signatories of this PA may request an amendment to the PA by providing
19 proposed changes in writing. The BLM will notify all parties to this agreement of the proposed
20 amendment and consult with them for no more than 30 days to reach agreement. The
21 amendment will be effective on the date the amendment is signed by all Signatories. If the
22 amendment is not signed within 60 days of receipt the BLM will reinitiate consultation for another
23 30 days. If all the signatories do not agree to the amendment, BLM will determine that the PA will
24 stand as is.

25 **XVII. Termination**

26 A. If any Signatory or Invited Signatory to this PA determines that its terms will not or cannot be
27 carried out, that party will immediately provide written notice to the BLM and the other
28 Signatories and Invited Signatories stating the reasons for the determination. BLM will
29 then consult with all parties to this agreement to attempt to develop an amendment per
30 stipulation XVI, above. If within 60 days (or another time period agreed to by all Signatories)
31 an amendment cannot be reached, any Signatory or Invited Signatory may terminate the PA
32 upon written notification to the other parties to the agreement.

33 B. If an individual SHPO/THPO terminates their participation in this PA, that termination will
34 apply only within the jurisdiction of the SHPO/THPO electing to terminate

35 C. An individual SHPO/THPO may withdraw from the PA upon written notice to all Signatories
36 and Invited Signatories after having consulted with them for at least 30 days to attempt to find

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1 a way to avoid the withdrawal. Upon withdrawal, the BLM and the withdrawing SHPO/THPO
2 will comply with Section 106 in accordance with 36 CFR 800.3 through 800.7 or the execution
3 of an agreement in accordance with 36 CFR 800.14(b). Such Section 106 compliance will be
4 limited to consideration of effects of the Undertaking solely within the jurisdiction of the
5 withdrawing SHPO/THPO. This PA will still remain in effect with regard to the portions of the
6 Undertaking located in the jurisdiction of the SHPO that have not withdrawn from the PA. If
7 both SHPOs/THPO withdraw from the PA, the PA will be considered to be terminated. In the
8 event this PA is terminated, and prior to work continuing on the Undertaking, the BLM will
9 comply with 36 CFR 800.6(c)(8) and will take reasonable steps to avoid adverse effects to
10 historic properties until another PA has been executed or will request, take into account, and
11 respond to ACHP comments, in accordance with 800.7 BLM must either (a) execute a PA
12 pursuant to 36 CFR 800.6 or (b) request, take into account, and respond to the comments of
13 the ACHP under 36 CFR 800.7. If a withdrawal occurs, the BLM will notify all parties to this
14 agreement as to the course of action it will pursue for Section 106 compliance for the
15 Undertaking.

16 XVIII. Duration of This PA

- 17 A. Until the Undertaking has been initiated, the BLM shall convene a meeting of the Signatories
18 and Invited Signatories five years after execution of the PA, and every five years following, to
19 review the status of the Undertaking and the ROW, and to determine whether any
20 amendments to the agreement are needed. This PA will expire if the Undertaking has not
21 been initiated within 15 years of the execution of this PA, or the BLM ROW grant is terminated
22 or is withdrawn. At that time, the BLM will notify, in writing, the parties to this agreement of
23 this determination, whereupon this PA will be null and void.
- 24 B. Unless this PA is terminated pursuant to stipulation XVII. above, another agreement executed
25 for the Undertaking supersedes it, or the Undertaking itself has been terminated, this PA will
26 remain in effect until the BLM, in consultation with the parties to this agreement, determines
27 that construction of all aspects of the Undertaking has been completed and that all terms of
28 this PA and any subsequent agreements have been fulfilled in a satisfactory manner, not to
29 exceed 15 years. Upon a determination by BLM that implementation of all aspects of the
30 Undertaking have been completed and that all terms of this Agreement and any subsequent
31 tiered agreements have been fulfilled in a satisfactory manner, BLM will notify the parties to
32 this agreement in writing of the agency's determination. The duration of the PA may be
33 extended through an amendment as per stipulation XVI, through consultation with the parties
34 to this agreement.
- 35 C. Parties to this agreement shall meet at least one year prior to the expiration of the PA to
36 determine if the conditions of this PA have been met. At that time, the parties to this
37 agreement may agree to amend or terminate the PA or to meet again within an agreed-upon
38 period of time to consider the status of the PA.

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1 D. Upon termination of the PA, the instrument for addressing cultural resource concerns will be
2 the POD within the ROW grant. The POD will contain the HPMP which outlines the
3 management of historic properties through construction as well as operations and
4 maintenance and decommissioning. The BLM will retain responsibility for administering the
5 terms and conditions of the ROW grant pertaining to historic properties for the life of the
6 grant.

7 **XIX. Financial Security**

8 The proponent will post a financial instrument approved under the ROW regulations (43 CFR
9 2800) with the BLM in an amount sufficient to cover all post-fieldwork costs associated with
10 implementing the HPMP, or other mitigative activities such as data recovery, curation, and report
11 completion, as negotiated by the Proponent where they contract for services in support of this
12 PA. Details regarding the instrument will be developed in the HPMP and posted prior to issuance
13 of any NTP.

14 **XX. Failure to Carry Out the Terms of this PA**

15 In the event that the Proponent fails to follow the terms of this PA, the BLM will comply with 36
16 CFR 800.4 through 800.6 with regard to individual actions pertaining to this Undertaking.

17 **EXECUTION** of this PA by the BLM, USFS, BPA, USACE, Reclamation, OR SHPO, ID SHPO, WA SHPO, and
18 CTUIR THPO, as Signatories to this PA, and implementation of its terms evidence that the BLM has taken
19 into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity
20 to comment.

21 This PA may be executed in two or more counterparts, each of which shall be deemed an original but all
22 of which together shall constitute one and the same instrument. The BLM may consolidate the original
23 signature pages to produce the final copies. The BLM will distribute copies of all pages to all Consulting
24 Parties once the PA is signed.

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF LAND MANAGEMENT

Signature:

Donald Gonzalez, Authorized Officer

Date:

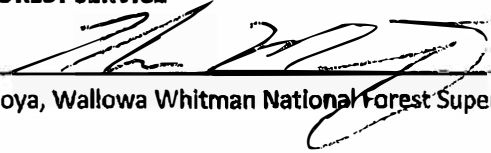
11/21/16

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

U.S.D.A. FOREST SERVICE

Signature: _____



Date: _____

10/24/16

Tom Montoya, Wallowa Whitman National Forest Supervisor

SEPT. 30, 2016

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

BONNEVILLE POWER ADMINISTRATION

Signature: G. St. Donnell ACTING FOR Date: 10/27/2016
F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

U.S. ARMY CORPS OF ENGINEERS

Signature: _____

Date: 26.6.16

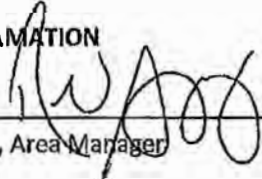
Jose L. Aguilar, Colonel, District Commander

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF RECLAMATION

Signature: _____



Date: _____

11/21/16

Roland K. Springer, Area Manager

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

1 **BUREAU OF LAND MANAGEMENT**

2 Signature: _____ [See page S-1] Date: _____

3 Donald Gonzalez, Authorized Officer

4 **U.S.D.A. FOREST SERVICE**

5 Signature: _____ [See page S-2] Date: _____

6 Tom Montoya, Wallowa Whitman National Forest Supervisor

7 **BONNEVILLE POWER ADMINISTRATION**

8 Signature: _____ [See page S-3] Date: _____

9 F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

10 **U.S. ARMY CORPS OF ENGINEERS**

11 Signature: _____ [See page S-4] Date: _____

12 Jose L. Aguilar, Colonel, District Commander

13 **BUREAU OF RECLAMATION**

14 Signature: _____ [See page S-5] Date: _____

15 Jerrold D. Gregg, Area Manager

16 **OREGON STATE HISTORIC PRESERVATION OFFICER**

17 Signature: Christine Curran Date: 11.21.16

18 Christine Curran, Deputy SHPO

19 **IDAHO STATE HISTORIC PRESERVATION OFFICER**

20 Signature: _____ [See page S-7] Date: _____

21 Janet Gallimore, SHPO

22 **WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)**

23 Signature: _____ [See page S-8] Date: _____

24 Allyson Brooks, SHPO

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

IDAHO STATE HISTORIC PRESERVATION OFFICER

Signature: _____

Janet Gallimore, SHPO

Date: _____

November 30, 2016

SEPT. 30, 2016

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

1 BUREAU OF LAND MANAGEMENT

2 Signature: _____ [See page S-1] Date: _____
3 Donald Gonzalez, Authorized Officer

4 U.S.D.A. FOREST SERVICE

5 Signature: _____ [See page S-2] Date: _____
6 Tom Montoya, Wallowa Whitman National Forest Supervisor

7 BONNEVILLE POWER ADMINISTRATION

8 Signature: _____ [See page S-3] Date: _____
9 F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

10 U.S. ARMY CORPS OF ENGINEERS

11 Signature: _____ [See page S-4] Date: _____
12 Jose L. Aguilar, Colonel, District Commander

13 BUREAU OF RECLAMATION

14 Signature: _____ [See page S-5] Date: _____
15 Jerrold D. Gregg, Area Manager

16 OREGON STATE HISTORIC PRESERVATION OFFICER

17 Signature: _____ [See page S-6] Date: _____
18 Christine Curran, Deputy SHPO

19 IDAHO STATE HISTORIC PRESERVATION OFFICER

20 Signature: _____ [See page S-7] Date: _____
21 Janet Gallimore, SHPO

22 WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)

23 Signature:  _____ Date: 12/14/16
24 Allyson Brooks, SHPO

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION TRIBAL HISTORIC PRESERVATION OFFICER

Signature: Carey Miller Date: Jan 22, 2017
Carey Miller, Tribal Historic Preservation Officer

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – REQUIRED SIGNATORIES

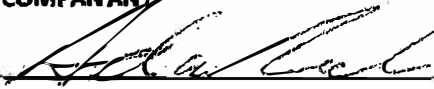
ADVISORY COUNCIL ON HISTORIC PRESERVATION

Signature: John M. Fowler Date: 2/3/17
John M. Fowler, Executive Director

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – INVITED SIGNATORIES

IDAHO POWER COMPANY

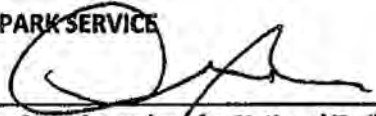
Signature:  Date: 11-7-16
Adam Richins, General Manager of Customer Operations, Engineering and Construction

SEPT. 30, 2016

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – INVITED SIGNATORIES

NATIONAL PARK SERVICE

Signature: 

Date: 10/28/16

Aaron Mahr, Superintendent for National Trails, Intermountain Region

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGE - CONCURRING PARTIES

OREGON DEPARTMENT OF ENERGY

Signature: 
Michael Kaplan, Director

Date: 12.16.16

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – CONCURRING PARTIES

1 **OREGON DEPARTMENT OF ENERGY**

2 Signature: _____ [See page S-13] _____ Date: _____

3 Michael Kaplan, Director

4 **SHOSHONE-PAIUTE TRIBES OF THE DUCK VALLEY INDIAN RESERVATION**

5 Signature: _____ Date: _____

6 Lindsey Manning, Chairman

7 **CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION**

8 Signature: _____ Date: _____

9 Gary Burke, Chair, Board of Trustees

10 **SHOSHONE-BANNOCK TRIBES OF THE FORT HALL INDIAN RESERVATION**

11 Signature: _____ Date: _____

12 Blaine Edmo, Chairman

13 **NEZ PERCE TRIBE**

14 Signature: _____ Date: _____

15 Mary Jane Mills, Chairman

16 **CONFEDERATED TRIBES OF THE COLVILLE RESERVATION**

17 Signature: _____ Date: _____

18 Dr. Michael E. Marchand, Chairman

19 **BURNS PAIUTE TRIBE**

20 Signature: _____ Date: 1-12-17

21 Jose DeLaRosa Jr., Chairperson

22 **FORT MCDERMITT PAIUTE AND SHOSHONE TRIBE**

23 Signature: _____ [See page S-15] _____ Date: _____

24 Brad Crutcher, Chairperson

25 **CONFEDERATED TRIBES OF THE WARM SPRINGS INDIAN RESERVATION**

26 Signature: _____ Date: _____

27 Eugene Austin Greene Jr., Chair

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES -- CONCURRING PARTIES

FORT MCDERMOTT PAIUTE AND SHOSHONE TRIBE

Signature: 

Date: 11-7-2016

Brad Crutcher, Chairperson

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – CONCURRING PARTIES

OREGON-CALIFORNIA TRAILS ASSOCIATION

Signature: William Symms
William Symms, NW Chapter Preservation Officer

Date: 10/21/2016

SEPT. 30, 2016

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – CONCURRING PARTIES

1 CONFEDERATED TRIBES OF THE YAKAMA NATION

2 Signature: _____ Date: _____
3 JoDe L. Goudy, Chairman

4 OREGON AND CALIFORNIA TRAILS ASSOCIATION

5 Signature: _____ [See page S-16] Date: _____
6 William Symms, NW Chapter Preservation Officer

7 OREGON HISTORIC TRAILS ADVISORY COUNCIL

8 Signature: Glenn Harrison Date: 10/22/16
9 Glenn Harrison, Oregon Historic Trails Advisory Council representative

10 U.S. FISH AND WILDLIFE SERVICE

11 Signature: _____ [See page S-18] Date: _____
12 Lamont Glass, Manager, USFWS Umatilla National Wildlife Refuge

13 LEWIS AND CLARK HERITAGE TRAIL FOUNDATION

14 Signature: _____ [See page S-19] Date: _____
15 Robert Heacock, Director Washington State Chapter

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – CONCURRING PARTIES

U.S. FISH AND WILDLIFE SERVICE

Signature: _____

Date: _____

Lamont Glass, Manager, USFWS Umatilla National Wildlife Refuge

SEPT. 30, 2016

Boardman to Hemingway Programmatic Agreement

SIGNATURE PAGES – CONCURRING PARTIES

LEWIS AND CLARK HERITAGE TRAIL FOUNDATION

Signature: Robert Heacock
Robert Heacock, Director Washington State Chapter

Date: 10/25/16

Boardman to Hemingway Programmatic Agreement

APPENDICES

- 1 Appendix A: Archaeological Survey Plan
- 2 Appendix B: Visual Assessment of Historic Properties Study Plan

APPENDIX B
INADVERTENT DISCOVERY PLAN

**B2H PA Attachment for Section IX.
Inadvertent Discovery Plan**

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LIST OF ATTACHMENTS

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
ARPA	Archaeological Resources Protection Act
APE	Area of Potential Effect
B2H Project	Boardman To Hemingway Transmission Line
BLM	U.S. Department of the Interior, Bureau of Land Management
BPA	Bonneville Power Administration
CFR	Code of Federal Regulations
CIS	Oregon Commission on Indian Services
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
HPMP	Historic Properties Management Plan
IDP	Inadvertent Discovery Plan
IPC	Idaho Power Company
NAGPRA	Native American Graves Protection and Repatriation Act
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rule
ORS	Oregon Revised Statute
PA	Programmatic Agreement
POD	Plan of Development
Proponent	Idaho Power Company
SA	Senior Archaeologist
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
U.S.	United States
USACE	U.S. Army Corps of Engineers
USBR	U.S. Department of the Interior, Bureau of Reclamation
USC	United States Code
USFS	U.S. Department of Agriculture, Forest Service

1.0 INTRODUCTION

The Proponent, Idaho Power Company (IPC), proposes to construct, operate, and maintain approximately 300 miles of 500-kilovolt transmission line, known as the Boardman to Hemingway Transmission Line Project (B2H Project). The B2H Project is complex, located in Oregon and Idaho and involving multiple federal and state agencies. Lands and jurisdictions crossed by the B2H Project include the United States (U.S.) Department of the Interior, Bureau of Land Management (BLM) Vale and Boise Districts; the U.S. Department of Agriculture, Forest Service (USFS) Wallowa-Whitman National Forest; U.S. Army Corps of Engineers (USACE); U.S. Department of the Interior, Bureau of Reclamation (USBR); Bonneville Power Administration (BPA), state and municipal lands; and privately owned lands. Lands and jurisdictions in proximity to the B2H Project include the Naval Weapons System Training Facility at Boardman and the Umatilla Indian Reservation.

This Inadvertent Discovery Plan (IDP) provides guidance on the process that will be followed if previously undocumented cultural materials or human remains are discovered during construction, operations, and maintenance of the B2H Project. All guidance described herein follows regulatory requirements of Section 106 (54 United States Code [USC] 306108) of the National Historic Preservation Act (NHPA) (Public Law 89-665; codified in 54 USC 300101 *et seq.*) and its implementing regulation 36 Code of Federal Regulations (CFR) 800 (as amended August 5, 2004) and the Native American Graves Protection and Repatriation Act (NAGPRA; 25 USC 3001) and its implementing regulations at 43 CFR 10. Additionally, applicable state laws and Code were reviewed for guidance related to treatment of cultural resources and human remains for non-federal public lands, which includes state, county, and other municipally owned or administered lands. The Proponent has stipulated the following procedures to be followed by the Proponent's personnel and its contractors in the event unanticipated human remains, funerary objects, sacred objects, objects of cultural patrimony, or other cultural materials are discovered during construction, operations, and maintenance of the B2H Project, in accordance with 36 CFR 800.13 (a)(2)(b). Inadvertent discovery procedures as presented below are designed to ensure compliance with the Programmatic Agreement (PA) among the BLM, USFS, USBR, BPA, USACE, the Advisory Council on Historic Preservation (ACHP), the State Historic Preservation Officers (SHPOs), the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Tribal Historic Preservation Officer (THPO), and IPC. The provisions of the Historic Properties Management Plan (HPMP) will be developed under the guidance of the PA. The IDP will be an appendix to the HPMP and be included in the National Environmental Policy Act (NEPA) Plan of Development (POD) to provide guidance in the field for inadvertent discoveries.

1.1 Project Description

IPC proposes to develop a 500-kilovolt transmission line beginning in north-central Oregon, near Boardman, and ending near Melba, in southwestern Idaho, at the Hemingway Substation. The Oregon portion of the B2H Project consists of approximately 270 linear miles across private, state, and federally owned land in Morrow, Umatilla, Union, Baker, and Malheur counties. The transmission line trends northwest to southeast, beginning near Boardman south of the Columbia River, extending through the Blue Mountains, then southeast through Malheur County to the Idaho Oregon state line, near Nyssa, Oregon. In Idaho, roughly 23 linear miles of transmission line would proceed southeasterly through Owyhee County, ending at the Hemingway Substation, about 6.5 miles west-southwest of Melba. The portion of the B2H Project in Idaho would be in the southwestern part of the state along the Snake River Plain.

The BLM is the lead federal agency for the purposes of compliance with NEPA and Section 106 of the NHPA. The BLM, in consultation with other agencies, Tribes, and consulting parties for the B2H Project, has defined the Area of Potential Effects (APE) that will apply to all lands regardless of management status. Lands may be directly affected by the transmission line corridor, staging areas, access roads, borrow areas, transmission substations, or other related transmission infrastructure and ground disturbing activity for the B2H Project. The indirect effects APE includes, but is not limited to, the areas where visual, audible, and atmospheric elements could adversely affect National Register of Historic Places (NRHP) listed or eligible properties. Inadvertent discoveries are most likely to occur within the direct effects APE, at areas where ground disturbing activities will be conducted. However, there is potential for inadvertent discoveries to occur during survey or other project related activity within the indirect effects APE. CTUIR Tribal lands are located within the indirect effects APE and are included in this plan.

1.2 Regulatory Context

During the course of B2H Project construction, operations, and maintenance, the Proponent, its contractors, and all project personnel must comply with federal and state laws and regulations including, but not limited to:

- Section 106 of the National Historic Preservation Act [NHPA] (54 USC 306108); implementing regulations at 36 CFR 800, including Planning for Subsequent Discoveries Using a Programmatic Agreement (36 CFR 800.13(a)(1)) and Post-Review Discoveries Without Prior Planning (36 CFR 800.13(a)(2)(b)).
- Secretary of Interior's Professional Qualification Standards as described in 36 CFR 61 and Oregon Revised Statute (ORS) 390.235(6)(b);
- The Native American Graves Protection and Repatriation Act (NAGPRA; 25 USC 3001), implementing regulations at 43 CFR 10;
- The Archaeological Resources Protection Act (ARPA; 16 USC 470aa), implementing regulations at 43 CFR 7 for BLM and USBR, and 36 CFR 296 for the USFS;
- The requirements of the Oregon Energy Facility Siting Council Statutes, ORS 469.300 to 469.520, including standards adopted by the Council pursuant to ORS 469.501 and site certificate conditions adopted under ORS 469.401, including state and local permits governed by the site certificate.
- ORS 358.905–955, Archaeological Sites and Objects;
- ORS 390.235, Permits and Conditions for Excavation and Removal of Archaeological or Historical Material; Rules; Criminal Penalty and its associated Oregon Administrative Rules (OAR; 736-051-0080 to 0090);
- ORS Chapter 97.740 to 97.760, Indian Graves and Protected Objects;
- Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Public, and State-Owned Lands in Oregon created by the Government to Government Cultural Resources Cluster Group formed under State Executive Order Number 96-30;
- Idaho Code Title 67 Chapter 41: Idaho Historical Society; and
- Idaho Code Title 27 Chapter 5: Sections 27-502 through 27-504: Protection of Graves.

2.0 INADVERTENT DISCOVERY PROCEDURES

This section provides detailed guidance for B2H Project personnel to follow if cultural resources or human remains are inadvertently discovered. The procedures differ depending on whether unanticipated cultural materials (Section 2.1) or human remains (Section 2.2) are encountered (see Attachment 1). The appropriate contacts for the discovery of unanticipated cultural materials or human remains will be determined by the location of the discovery on federal, non-federal public (state, county, and other municipally owned or administered lands), and private lands.

Prior to construction, Proponent personnel, including project managers, inspectors, monitors, and heavy equipment operators, will receive cultural resources training to ensure the procedures detailed here are properly implemented. Additional information on training will be included in the HPMP and the B2H Project POD. Training courses will include, but not be limited to cultural resources identification, and sensitivity training including restrictions on photography, communication, and confidentiality.

2.1 Inadvertent Discovery of Cultural Materials

2.1.1 Initial Discovery and Assessment

If B2H Project personnel make inadvertent discoveries of cultural materials during construction, operations, and maintenance the following steps shall be taken:

- a. Project personnel will immediately cease work within a minimum of 100 feet of the discovery to provide reasonable security, protection, and integrity of the item(s) as discovered. The discovery will be flagged and fenced to prevent access and further disturbance in the vicinity. Signage also may be posted delineating the area as “Environmentally Sensitive,” providing further security measures. The archaeological monitor will be called to the scene and will immediately contact the BLM Compliance Inspector, the Proponent’s Senior Archaeologist (SA) or IPC’s B2H Project Archaeologist who will in turn notify the BLM Authorized Officer within 24 hours of the discovery. All contact with the BLM Authorized Officer will be via telephone, followed by written confirmation.

The avoidance area may be adjusted after a visit by the SA, Project Archaeologist, or agency archaeologist, that will allow for expansion or reduction of the area depending on conditions and the nature of the discovery. Vehicles, equipment, and unnecessary personnel will not be permitted to traverse within the established avoidance area. No cultural material will be further disturbed or transported from their original location, unless approved by the BLM Authorized Officer.

- b. Once the Proponent’s SA is notified, that person will contact the Proponent’s archaeological consultant. The Proponent’s archaeological consultant will provide an initial assessment of the find and ensure that appropriate steps have been taken to protect the area of the find.
- c. The Proponent’s archaeological consultant will determine if the discovery represents an archaeological site and will make a preliminary assessment of significance. This determination will involve no excavation. If the discovery is located on public land, the Proponent’s SA will notify the appropriate agency archaeologist of the discovery. If the discovery is determined to be non-cultural, the Proponent’s SA, in communication with the BLM, will have the authority to remove the stop-work order, and construction may resume in all areas of the previously defined avoidance area. The archaeological

consultant will submit a brief written overview of the find including procedures being followed and any recommendations to the Proponent and BLM within 24 hours of the discovery. A preliminary written report regarding the discovery and professional findings will be submitted to the Proponent and the BLM within 30 days of the discovery.

- d. If the materials encountered are determined by the Proponent's archaeological consultant to be cultural, the applicable procedures outlined in Sections 2.1.2 or 2.1.3 of this document will be followed. If the materials are determined to be human remains, the applicable procedures addressed in Sections 2.2.2 or 2.2.3 of this document will be followed.

2.1.2 Inadvertent Discovery of Cultural Materials on Non-Federal Public and Private Lands

- a. Within 24 hours following a discovery, the Proponent's archaeological consultant will notify the B2H Project's BLM Cultural Resources Lead and any applicable land manager, who in turn will contact the appropriate (Oregon or Idaho) State Archaeologist or Assistant State Archaeologist at the Oregon or Idaho SHPO, and/or the appropriate THPO (for discoveries on Tribal lands), and other appropriate consulting parties. No ground-disturbing activities will commence within the avoidance area until the SHPO and/or appropriate THPO and other consulting parties have concurred with the assessment and recommendation of the Proponent's archaeological consultant, and if necessary, appropriate state archaeological permits have been issued.
- b. All Tribes that have participated as consulting parties in the B2H Project will be notified of the inadvertent discovery of cultural materials, as the B2H Project area is known to be an area that has overlapping use by many Tribes. If the find is in Oregon, the BLM Cultural Resources Lead will, discuss the find with the CTUIR, the Burns Paiute, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, Ft. McDermitt Shoshone-Paiute Tribe Indian Reservation and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation. In Idaho, the BLM will specifically discuss finds with the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, the Burns Paiute and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation. If the site is located on private land in Oregon or Idaho, BLM will also ensure appropriate notification of the landowner, in accordance with state laws.
- c. The BLM, in consultation with the SHPO and/or THPO (as appropriate for discoveries on Tribal lands) and the Tribes, will determine the NRHP eligibility of the find, the nature and extent of the B2H Project effects on the discovery, and the potential mitigation methods or treatment of adverse effects on historic properties caused during construction, and those that may be caused during operation and maintenance.
- d. If the site boundaries can be determined (using the same standard field methods employed during Class III site recordation), the discovery may be avoided by the Proponent's construction activities, and the discovery may not be adversely affected by the B2H Project; a determination of eligibility may not be necessary. The site will be treated as an NRHP eligible historic property and BLM, in consultation with SHPO and/or THPO (as appropriate), will contact the Proponent by telephone and email indicating that construction may resume. Alternatively, it may be necessary to complete a determination of eligibility to understand whether the presence of, operation of, and maintenance of the transmission line will adversely affect the characteristics of the site that make it eligible for inclusion in the NRHP.
- e. If the BLM, in consultation with the SHPO, involved Tribes, and/or the THPO (as appropriate), determines the discovery is not NRHP-eligible, the BLM Authorizing Officer

will contact the Proponent by telephone and email indicating that construction may resume. No further consultation between these parties will be necessary regarding this site.

- f. If the location of a discovery cannot be avoided and limited testing is required to ascertain the level of additional investigation to determine appropriate mitigation, the Proponent will prepare and submit a testing plan, in accordance with the Subsurface Investigation Strategy developed for the B2H Project, to the BLM, other land managing agencies, applicable consulting parties, SHPOs and/or appropriate THPOs, and the appropriate involved Tribes for review and consultation. Upon completion of consultation and acceptance of the testing plan by the involved parties, the Proponent will execute the testing plan. In Oregon, excavation will be conducted under a state archaeological permit granted under ORS 390.235; in Idaho, it will be done under a permit granted under Idaho Code 67-4120.
- g. If the BLM, in consultation with the consulting parties and involved Tribes, finds that the site is eligible for the NRHP but that the B2H Project will have no adverse effect, the BLM will send an email indicating that construction may resume. No further consultation between these parties will be necessary regarding that particular historic property.
- h. If the discovery is determined eligible for the NRHP and the B2H Project will have an adverse effect on the historic property, the Proponent and BLM will direct the archaeological consultant to develop a treatment plan for review and consultation by the BLM, the Oregon or Idaho SHPO and/or THPO (as appropriate for discoveries on Tribal lands), and the Tribes to avoid, minimize, or mitigate the adverse effect pursuant to 36 CFR 800.6. The BLM will provide the ACHP the opportunity to comment (36 CFR 800.13).
- i. The Proponent will execute the treatment plan after the BLM Authorizing Officer issues a Notice to Proceed. Additionally, an archaeological permit may be necessary from the appropriate SHPO. Within 3 weeks of completion of any excavation, the Proponent will submit a letter report with the results of the excavation. A final mitigation report detailing results of excavation or other measures employed to mitigate adverse effects to historic properties will be prepared by the Proponent's archaeological consultant and submitted within 6 months of completion of mitigation measures.
- j. The BLM will notify the Proponent that construction activities may resume in the area of an inadvertent discovery once excavation or other appropriate mitigation measures have been completed.

2.1.3 Inadvertent Discovery of Cultural Materials on Federal Lands

If unanticipated cultural materials are discovered during construction, operations, and maintenance on federal lands, the procedures identified in this section will be followed to protect the discovery from further disturbance and to assess the discovery.

- a. If a discovery is made on lands managed by the BLM, the Proponent's SA will immediately notify the B2H Project's BLM Cultural Resources Lead and the applicable Field Office Archaeologist of the discovery.
- b. If a discovery is made on federal lands not managed by the BLM, the Proponent's SA will identify and notify the appropriate federal land manager and cultural resources lead for that agency, as well as the BLM Cultural Resources Lead, of the discovery.
 1. If a discovery is made on lands managed by the U.S. Department of Defense, U.S. Navy (Naval Weapons System Training Facility [NWSTF] Boardman in Morrow County, Oregon), the U.S. Navy will act as the lead federal agency

for that portion of the undertaking for Section 106 of the NHPA compliance, and their Inadvertent Discovery Plan will be used to appropriately treat the find.

- c. The federal land-managing agency will notify the Oregon or Idaho SHPO and/or appropriate THPO, and Tribes within 72 hours of the discovery, as appropriate, per the jurisdictional location of the find.
- d. If the site boundaries can be determined, the discovery can be avoided by the Proponent's construction activities, and the discovery will not be and has not been affected by the B2H Project, a determination of eligibility will not be necessary. The site will be treated as an NRHP eligible historic property and BLM, in consultation with the Oregon or Idaho SHPO and/or appropriate THPO, will send an email indicating that construction may resume.
- e. If the discovery is recommended not eligible for listing in the NRHP by the archaeological consultant, in consultation with the BLM, a summary report will be submitted within 30 days to the federal land-managing agency as well as the BLM, the Oregon or Idaho SHPO and/or appropriate THPO, and any applicable Tribes for review. Review time of the summary report will be 30 days, unless otherwise agreed to, after which time a final report will be prepared for submittal. If the federal land manager determines, in consultation with the Tribes, that the site is not eligible and the Oregon or Idaho SHPO and/or THPO (as appropriate) concur, BLM will notify the Proponent's SA that construction may resume. If concurrence is not reached, the discovery will be treated as an NRHP eligible historic property and the steps listed below will be followed.
- f. If a discovery cannot be avoided and BLM determines that more data about the discovery is needed to determine NRHP eligibility, the Proponent will prepare and submit a testing plan in accordance with the Subsurface Testing Strategy for the B2H Project to BLM, the applicable federal land-managing agency, the SHPOs and/or appropriate THPOs, and any applicable Tribes for review. Testing plans will be submitted within 5 days of a discovery. Upon receiving concurrence from all consulting parties, per stipulations defined in the "Evaluation and Determination of Eligibility" section of the PA (III.C.1, p.11), the Proponent will execute the testing plan under the appropriate federal permit. The Proponent's archaeological consultant will prepare a summary report that describes the field results and provides recommendations of NRHP eligibility (under all four criteria) and for avoidance or treatment. BLM will make determinations of eligibility, effect, and treatment for all discovered cultural materials, in consultation with the applicable federal land-managing agency, Oregon or Idaho SHPO and/or THPO (as appropriate), and any applicable Tribes.
- g. If the BLM, in consultation with the applicable consulting parties, finds that the site is eligible for the NRHP but that the B2H Project has had, and will have no adverse effect, the BLM Authorized Officer will notify the Proponent's SA that construction may continue.
- h. If the discovery is determined eligible for the NRHP and the B2H Project will have an adverse effect on the historic property, the Proponent will develop a treatment plan for review and consultation by BLM, the applicable federal land-managing agency, the Oregon or Idaho SHPO and/or applicable THPO (as appropriate), and any applicable Tribes and consulting parties to avoid, minimize, or mitigate the adverse effect pursuant to 36 CFR 800.6. BLM will afford the ACHP the opportunity to comment (36 CFR 800.13).
- i. An ARPA permit will be obtained by the Proponent's archaeological consultant prior to any formal site testing (non-NRHP evaluative testing) or data recovery on federal lands.

The appropriate Tribes will be consulted by the applicable federal agency prior to submitting the permit application pursuant to the ARPA. Upon issuance of the permit and completion of tribal notification, the Proponent will execute the treatment plan.

- j. Upon completion of consultation and completion of any field work required for mitigation, the BLM Authorizing Officer will issue a written notice to the Proponent's SA to resume construction activities. A final mitigation report will be prepared and submitted within 6 months of completion of mitigation measures. The report will be submitted by the Proponent to the lead BLM office for distribution to the appropriate parties for review and comment.

2.2 Inadvertent Discovery of Human Remains

2.2.1 Initial Discovery of Human Remains

If B2H Project personnel identify human remains, funerary objects, sacred objects, or objects of cultural patrimony during construction, operations, and maintenance, the procedures in the following sections will apply. The discovery/identification of all human skeletal remains, funerary objects, sacred objects, or objects of cultural patrimony will be kept confidential, except to those individuals required for coordination and treatment, and will be treated with dignity and respect at all times.

- a. Project personnel will cease work immediately within a minimum of 100 feet of the area of the discovery and the Construction Supervisor will immediately notify law enforcement, who will be responsible for determining whether the discovery represents a crime scene or a human burial that is archaeological in origin. Human remains of archaeological origin could be either Euro American or Native American. After contacting law enforcement, the Proponent's SA will be notified, who will in turn notify the BLM Authorizing Officer by telephone, followed by written confirmation. Contact will be made by the BLM within 24 hours to other authorities and Tribes as described below.
- b. The Proponent's SA will notify the Proponent's archaeological consultant to make an in-field determination whether the remains are human, and whether or not they are suspected to be Native American. All human remains will be presumed Native American until proven otherwise. Consultants responsible for this determination will have appropriate experience and expertise in human osteology and in the identification of human remains.

No skeletal remains or associated materials will be moved from the location of their discovery, and no photographs will be taken.

- c. The discovery will be flagged and fenced to prevent access and further disturbance in the vicinity. The protected area will be no smaller than a 100-foot radius around the maximum limits of the discovery. Security measures during after-work hours will be implemented to prevent vandalism or looting. This could include installation of motion activated cameras, or posting an on-site monitor until the remains are treated properly. Remains will be appropriately protected to prevent damage from the elements.

2.2.2 Inadvertent Discovery of Human Remains on Non-Federal Public Lands and Private Lands

"Non-Federal Public Lands" refer to state lands, county-owned lands, and city and other municipal lands (such as city and county parks) that are available for public use. If B2H Project personnel make inadvertent discoveries of human remains on non-federal public and private lands during construction, operation, and maintenance, the following steps will be taken.

In Oregon, treatment of human remains discovered will follow the protocol developed by the State of Oregon's Tribal/State Agency Government to Government Cultural Resource Cluster Group in September 2006: *Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigation on Private and Public, State-Owned Lands in Oregon*.

- a. If the inadvertently discovered human remains are not determined by authorities to be recent, there is a high probability that the remains are Native American, and ORS 97.745(4) applies. The Proponent's SA will immediately notify the Oregon State Police and the BLM. The BLM will notify the SHPO, THPO (as appropriate for discoveries on Tribal lands), Tribes, and the landowner as soon as possible but no later than one working day. In cases where ancestry cannot be immediately determined, tribal notifications will be conducted and maintained until such time as a positive identification is reached. In all cases, communications will be by telephone or in writing.
- b. For any human remains discovered on Oregon State or Oregon private lands, Oregon statutes ORS Section 97.740 through 97.760 will apply. Oregon laws (ORS 146.090 and 146.095) define the types of deaths that necessitate investigation and the responsibilities associated with such investigations. The law enforcement official, district medical examiner, and the district attorney for the county where the death occurred are responsible for deaths requiring investigation.

In accordance with State of Oregon guidance regarding the treatment of human remains, the procedures outlined below will be followed.

- a. If inadvertently discovered human remains are not clearly recent and are determined to be archaeological in nature, ORS 97.745(4) applies, which requires immediate notification of the State Police, SHPO, and/or THPO (as appropriate for discoveries on Tribal lands), and Legislative Commission on Indian Services (CIS). The CIS determines the appropriate Native American Tribe(s) and notifies the Proponent of the results. The Proponent will work with the SHPO and CIS to ensure notification of the appropriate Tribe(s). ORS 97.745 is applicable to federally recognized Tribes within Oregon. Notification of Tribes located outside of Oregon would be the responsibility of the BLM.
- b. In cases of the discovery of human remains, the area will be secured from further disturbance. The human remains and associated objects will not be disturbed, manipulated, or transported from the original location until treatment is agreed upon and until consultation has occurred. These actions will help ensure compliance with Oregon law that prohibits any person from willfully removing human remains and/or objects of cultural significance from their original location (ORS 97.745).
- c. If in danger of imminent destruction, excavation by a professional archaeologist of a Native American burial shall be initiated only after prior written notification to the SHPO and/or appropriate THPO and the state police, as defined in ORS 358.905, and with the prior written consent of the appropriate Indian Tribe(s) in the vicinity of the intended action. Failure of a Tribe to respond to a request for permission within 30 days of its mailing shall be deemed consent. If a Tribe determines that additional time is needed, written request must be provided. Tribes may make a request to the BLM to be present and perform traditional ceremonies if human remains are excavated.
- d. All parties involved and the appropriate Tribes shall develop and implement a culturally sensitive plan for reburial. Reburial plans will be developed specific to each discovery. Reburial plans should exclude USBR lands because USBR public conduct rules prohibit burial, deposit, or scattering of human remains on USBR facilities, lands, or waterbodies (43 CFR 423.28).

- e. If the remains are found to be non-Native American, the Proponent's SA will consult with the BLM, the Oregon Commission on Historic Cemeteries, and Oregon SHPO and/or THPO (as appropriate for discoveries on Tribal lands) to determine the best course of action for the excavation, scientific study, and the eventual reinterment of the remains. The reburial location, if needed, will be determined in consultation between the Proponent (IPC), BLM, and the Oregon SHPO and/or appropriate THPO, applicable consulting parties, and the landowner.
- f. In Oregon, pursuant to ORS 97.745(1), the Proponent "shall at their own expense, reinter the human remains or funerary object under the supervision of the appropriate Indian tribe."

In Idaho, the following procedure will be followed:

- a. The Proponent's SA will immediately notify the Idaho State Police and the BLM, who will in turn notify the Director of the Idaho State Historical Society and the Tribes identified by the SHPO and defined in this plan. In addition to these parties, the Proponent will notify the applicable state lands manager or the private landowner of the discovery.
- b. For human remains discovered on Idaho State or Idaho private lands, Idaho's burial law, Protection of Graves Act (Title 27, Chapter 5: Sections 27-502 through 27-504) applies. Such discoveries require that the Proponent immediately notify the Director of the Idaho State Historical Society, who will then determine the cultural affiliation of the remains and contact the proper county sheriff and/or the coroner.
- c. If the remains are found to be Native American, the Director of the Idaho State Historical Society will determine which Tribe or Tribes need to be notified. Excavation of the remains, conducted by a professional archaeologist, can occur only after written notification of the SHPO and the receipt of written consent from the appropriate Native American Tribe in the vicinity (Title 27, Chapter 5: Section 27-503.2). The failure of a Tribe to respond to a consent request within 60 days of its mailing by certified mail (return receipt requested) shall be deemed consent (Title 27, Chapter 5: Section 27-503.2). Materials and remains recovered during the excavation will, after scientific study, be reinterred under the supervision of the Native American Tribe(s). Preference will be to re-inter Native American human remains as near as possible to their discovery location within the limitations required by the need to prevent further future disturbance. The location for reburial and determination of appropriate ceremonial treatment will be determined in consultation with the appropriate Native American Tribe(s) and in compliance with the requirements of the state code.
- g. If the remains are found to be historic and non-Native American, the Proponent's SA will consult with the BLM and SHPO to determine the best course of action for the remains. The reburial location, if needed, will be determined in consultation between the Proponent, BLM, the SHPO and applicable consulting parties, and the landowner.
- h. In cases where ancestry cannot be immediately determined, tribal notifications will be conducted and maintained until such time as a positive identification is reached. Regardless of cultural affiliation (historic or Native American), if the remains are in imminent danger of further damage, a professional archaeologist may excavate the remains after notifying the SHPO and THPO (as appropriate for discoveries on Tribal lands) and the appropriate Native American Tribe(s) in the vicinity, if applicable, as provided for in state code (Title 27, Chapter 5: Section 27-503.1).
- f. If the human remains are determined to be non-Native American burials older than 50 years, BLM, SHPO, THPO (as appropriate), and other applicable consulting parties will

determine the appropriate treatment. The Proponent will prepare a treatment plan to be reviewed and approved by the appropriate parties.

- g. Upon completing the measures stated in the treatment plan, the Proponent will prepare a report and submit it within 60 days to the BLM for review and submittal to the Oregon or Idaho SHPO and/or THPO (as appropriate) and the appropriate consulting parties. Upon submitting a draft summary report with the results of the treatment and completing consultation, the BLM Authorizing Officer will issue a written notice to the Proponent's SA to resume construction activities.

Tribes may request to be present and perform traditional ceremonies if human remains are excavated. As discussed in Section 2.2, the area containing the human remains will be secured to prevent further disturbance. The human remains and associated objects will not be disturbed, manipulated, or transported from the original location of discovery, and no photographs will be taken, until a treatment plan is developed by the Proponent in consultation with BLM and the appropriate SHPO and/or THPO, Oregon CIS (for discoveries in Oregon), and involved Tribes. These actions will help ensure compliance with Oregon and Idaho state laws, which prohibit any person willfully removing human remains and/or objects of cultural significance from their original location (ORS 97.745; Idaho Code 27-502)."

2.2.3 Inadvertent Discovery of Human Remains on Federal Lands

On federal lands, NAGPRA and its implementing regulations at 43 CFR 10 apply to unanticipated discoveries of human remains. The applicable federal land manager is responsible for complying with NAGPRA and implementing the procedures defined in 43 CFR 10.4. A NAGPRA Plan of Action, an Appendix to the HPMP, will be completed prior to authorization of ground disturbing activities associated with the B2H Project.

If any B2H Project personnel identify potential human remains during construction, operations, and maintenance on federal lands, the procedures described in Section 2.2 and the NAGPRA Plan of Action, will be implemented to protect the site from further disturbance. In general, the following actions will occur:

- a. The Construction Supervisor will notify the Proponent's SA who will immediately notify the applicable federal land-managing agency's Authorized Officer, and as appropriate the CTUIR THPO, the CTUIR Cultural Resource Protection Program Manager, the Oregon or Idaho State Police, or the County Sheriff, and the B2H Project's BLM Cultural Resources Lead to determine whether the discovery represents a crime scene or a human burial of Native American ancestry. Contact with the Authorized Officer will be by telephone, followed by written confirmation.
- b. If the discovery is made on lands managed by the U.S. Navy (NWSTF), the U.S. Navy will act as the lead federal agency for that portion of the undertaking for NAGPRA compliance. The Proponent's SA will immediately notify the Naval Criminal Investigative Service (NCIS) Naval Air Station Special Agent and the NWSTF Cultural Resources Program Manager via telephone and email.
- c. If the discovery is on Wallowa-Whitman National Forest lands, the Proponent's SA will immediately call the USFS Law Enforcement Officer. The USFS Law Enforcement Officer is responsible for calling the Oregon State Police and the medical examiner. The Proponent will also notify the USFS Forest Archaeologist and the Ranger District Archaeologist, if appropriate.
- d. After notification is made to the appropriate law enforcement official and applicable federal land-managing agency and Tribes, the federal land-managing agency will determine the necessary actions to take, including continued tribal consultation, and notification and

consultation with SHPOs and/or the THPO (as appropriate), the applicable Tribes, and other consulting parties. These actions will adhere to the procedures identified in the NAGPRA Plan of Action if the remains are associated with a Native American Tribe(s). If the remains are not associated with a Native American Tribe(s) or a crime scene, the federal land-managing agency is responsible for establishing cultural affiliation and will determine what treatment is appropriate.

As discussed in Section 2.2 and the NAGPRA Plan of Action (Section C, p. 7), the area containing the human remains will be secured to prevent further disturbance. The human remains and associated objects will not be disturbed, manipulated, or transported from the original location of discovery until a treatment plan is developed by the Proponent in consultation with BLM, other applicable federal agencies, and the Oregon or Idaho SHPO and appropriate THPO (for discoveries on Tribal lands), Oregon CIS (for discoveries in Oregon), and the Tribes. These actions will help ensure compliance with Oregon and Idaho state laws, which prohibit any person from willfully removing human remains or objects of cultural significance from their original location (ORS 97.745; Idaho Code 27-502).

Table 1. IDP Contact Information (Updated 6/30/2022)

Name	Organization	Role	Phone	Email
Shane Baker	Proponent (IPC)	Senior Archaeologist	Office:208-388-2925	sbaker@idahopower.com
Adam Leroy	Proponent (IPC)	Project Archaeologist		aleroy@idahopower.com
<i>TBD</i>	Tetra Tech	Archaeological Consultant		
<i>TBD</i>	<i>TBD</i>	Archaeological Monitor		
Wayne Monger	BLM	Vale District Manager, B2H Authorized Officer	Office: 541-473-6201	dmonger@blm.gov
Caryn Burri	BLM	B2H Project Leader	541-709-6300	cburri @blm.gov
Jennifer Theisen	BLM	B2H Project Archaeologist	541-523-1424	jtheisen@blm.gov
Heather Ulrich	BLM	BLM OR Cultural Resources Lead	Office: 541-683-6425 Mobile 541-510-6468	hulrich@blm.gov
Kelli Barnes (acting)	BLM	BLM ID Cultural Resources Lead	Office: 208-33844 208-373-3844	kbarnes@blm.gov
Stephanie Cox	BLM	Vale District Law Enforcement	Office: 541-523-1493	sacox@blm.gov
Michael Wanzenried	BLM	Archaeologist, Vale Office	Office: 541-473-6348	mwanzenried@blm.gov
Katy Coddington	BLM	Archaeologist, Baker Office	Office: 541-523-1460	kcoddington@blm.gov
Tanis Partee	BLM	Owyhee Field Office Archaeologist	Office: 208-896-5914	tpartee@blm.gov
Sunshine Schmidt	BPA	Senior Archaeologist	503-230-1815	srclark@bpa.gov

Table 1. IDP Contact Information (Updated 6/30/2022) (Continued)

Name	Organization	Role	Phone	Email
Tia Cody	BPA	Archaeologist	503-230-5132	trcody@bpa.gov
Sarah Crump	USFS Wallowa-Whitman NF	Forest Archaeologist	Office: 541-523-1249	scrump@fs.fed.us
Bill Gamble	USFS Wallowa-Whitman NF	La Grande District Ranger	541-962-8582	william.gamble@usda.gov
Shaun McKinney	USFS Wallowa-Whitman NF	Forest Supervisor	541-523-6391	
Grant Cooper	USFS Wallowa-Whitman NF	Law Enforcement Officer	Office: 541-523-6391	gcooper@fs.fed.us
Elizabeth (Lyz) Ellis	Naval Weapons System Training Facility	Cultural Resource Program Manager	360-257-6780	lyz.ellis@navy.mil
Special Agent Whidbey	Naval Weapons System Training Facility	NCIS N.A.S. Special Agent	360 275 3359	
Jenny Rilk	USBR	Snake River Area Office Archaeologist	Office: 208-383-2257	jrilk@usbr.gov
Brian Heil	USACE	Archaeologist	503-808-4382	brian.s.heil@usace.army.mil
Bill Marzella	ACHP	Program Analyst/BLM Liaison	Office:202-517-0209	bmarzella@achp.gov
John Pouley	Oregon SHPO	State Archaeologist	Office: 503-986-0675 Cell: 503-480-9164	John.Pouley@oregon.gov
Ian Johnson	Oregon SHPO	Associate Deputy State Historic Preservation Officer	Cell 971-718-1137	Ian.Johnson@opr.d.oregon.gov
Kuri Gill	Oregon State Parks and Recreation Department	Oregon Commission on Historic Cemeteries	Office 503-986-0685	Kuri.Gill@oregon.gov
Kellen Tardaewether	Oregon Department of Energy	Staff to the Energy Facility Siting Council	Office 503-373-0214	Kellen.tardaewether@oregon.gov
Janet Gallimore	Idaho State Historical Society	Executive Director	Office:208-334-2682	janet.gallimore@ishs.idaho.gov
Lindsay Johansson	Idaho SHPO	State Archaeologist	Office: 208-488-7470	lindsay.johansson@ishs.idaho.gov
Travis Pitkin	Idaho SHPO	Compliance Coordinator and Deputy	Office: 208-488-7466	travis.pitkin@ishs.idaho.gov
Mitch Sparks	Oregon Legislative CIS	Executive Director	Office: 503-986-1067	LCIS@oregonlegislature.gov
Teara Farrow Ferman	Confederated Tribes of the Umatilla Indian Reservation	Program Manager, Natural Resources Division	Office: 541-429-7230 Cell: 541-377-2959	tearafarrowferman@CTUIR.org
Carey Miller	Confederated Tribes of the Umatilla Indian Reservation	Tribal Historic Preservation Officer	Office: 541-429-7234	careymiller@ctuir.org

Table 1. IDP Contact Information (Updated 6/30/2022) (Continued)

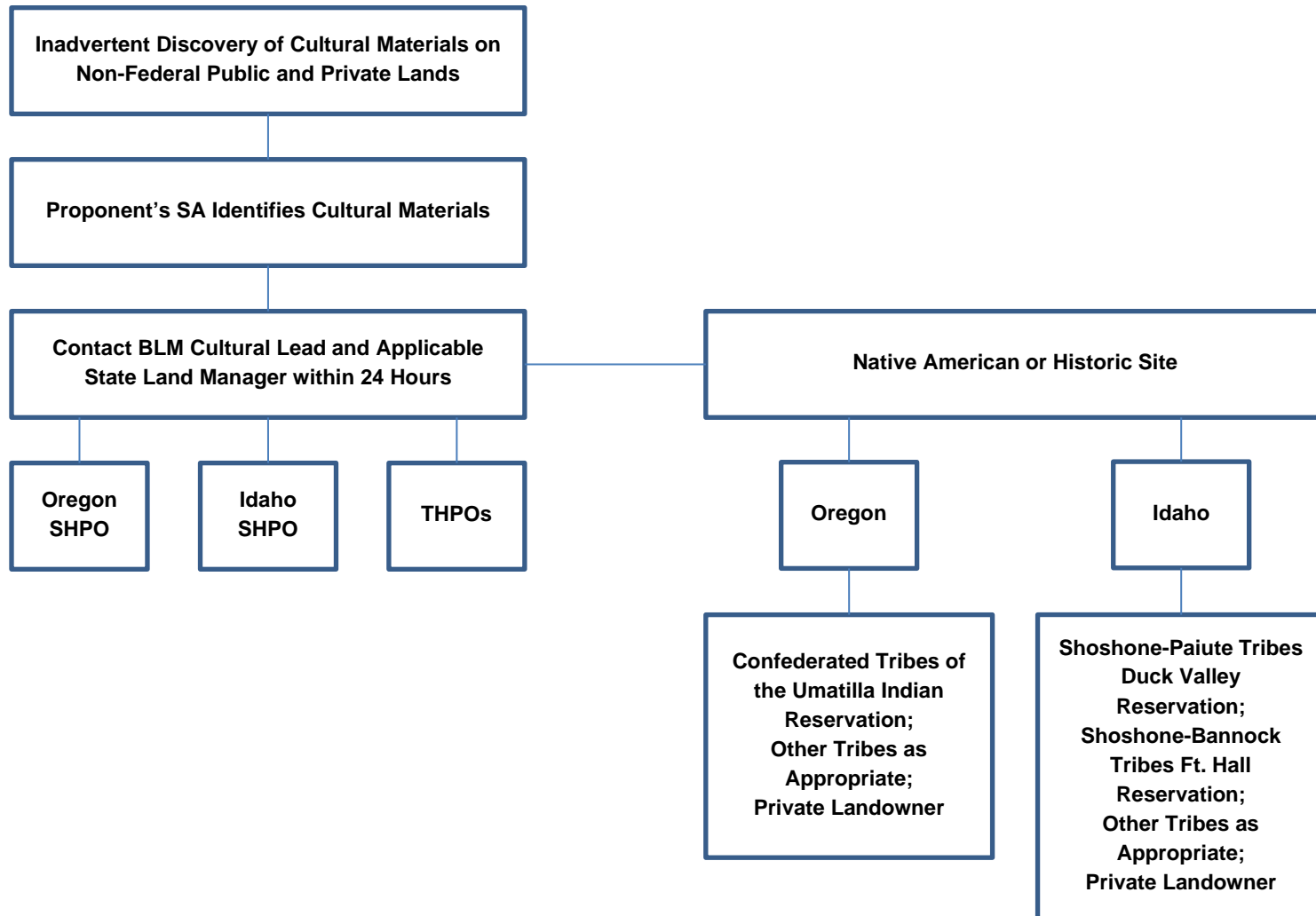
Name	Organization	Role	Phone	Email
Audie Huber	Confederated Tribes of the Umatilla Indian Reservation	Intergovernmental Affairs Manager	Office: 541-429-7228	audiehuber@ctuir.org
N. Kathryn Brigham	Confederated Tribes of the Umatilla Indian Reservation	Board of Trustees Chair	Office: 541-276-3165	
Brian Thomas	Shoshone Paiute Tribes of Duck Valley	Chairman	(208) 759-3100 ext. 1291	thomas.brian@shopai.org
Nathan Small	Shoshone Bannock Tribes of Fort Hall	Tribal Chairman	208.478.3700	nsmall@sbtribes.com
Carolyn Smith	Shoshone-Bannock Tribes of Fort Hall	Cultural Resources Coordinator	208-478-3707 208-236-1086	csmith@sbtribes.com
Louise E. Dixey	Shoshone-Bannock Tribes of Fort Hall	Cultural Resources Director	(208) 236-1185	ledixey@sbtribes.com
Christian Nauer	Confederated Tribes of the Warm Springs Reservation of Oregon	Cultural Resources Manager	541-553-2026	christian.nauer@ctwsbnr.org
Raymond Tsumpti	Confederated Tribes of the Warm Springs Reservation of Oregon	Tribal Council Chairman	(541) 553-0447	raymond.tsumpti@wstribes.org
Samual Penney	Nez Perce Tribe	Tribal Chairman	Tribal office: 208-843-2253	
Patrick Baird	Nez Perce Tribe	Tribal Historic Preservation Officer	208-621-3851	keithB@nezperce.org
Nakia Williamson-Cloud	Nez Perce Tribe	Cultural Resource Program Director	208-621-3850	nakiaw@nezperce.org
Diane Teeman	Burns Paiute Tribe	Chairwoman and Cultural Resource Director	Office: 541-413-1190	diane.teeman@burnspaiute-nsn.gov
Calla Hagle	Burns Paiute Tribe	Director Natural Resources		calla.hagle@burnspaiute-nsn.gov
Guy Moura	Confederated Tribes of the Colville Reservation	Tribal Historic Preservation Officer	509-634-2695	guy.moura@colvilletribes.com
Andrew Joseph, Jr.	Confederated Tribes of the Colville Reservation	Tribal Chairman	Tribal office switchboard 509-634-2200 509-634-2635	andy.joseph@colvilletribes.com
Delano Saluskin	Yakama Nation	Tribal Chairman	509.865.5121	delano_saluskin@yakama.com

Table 1. IDP Contact Information (Updated 6/30/2022) (Continued)

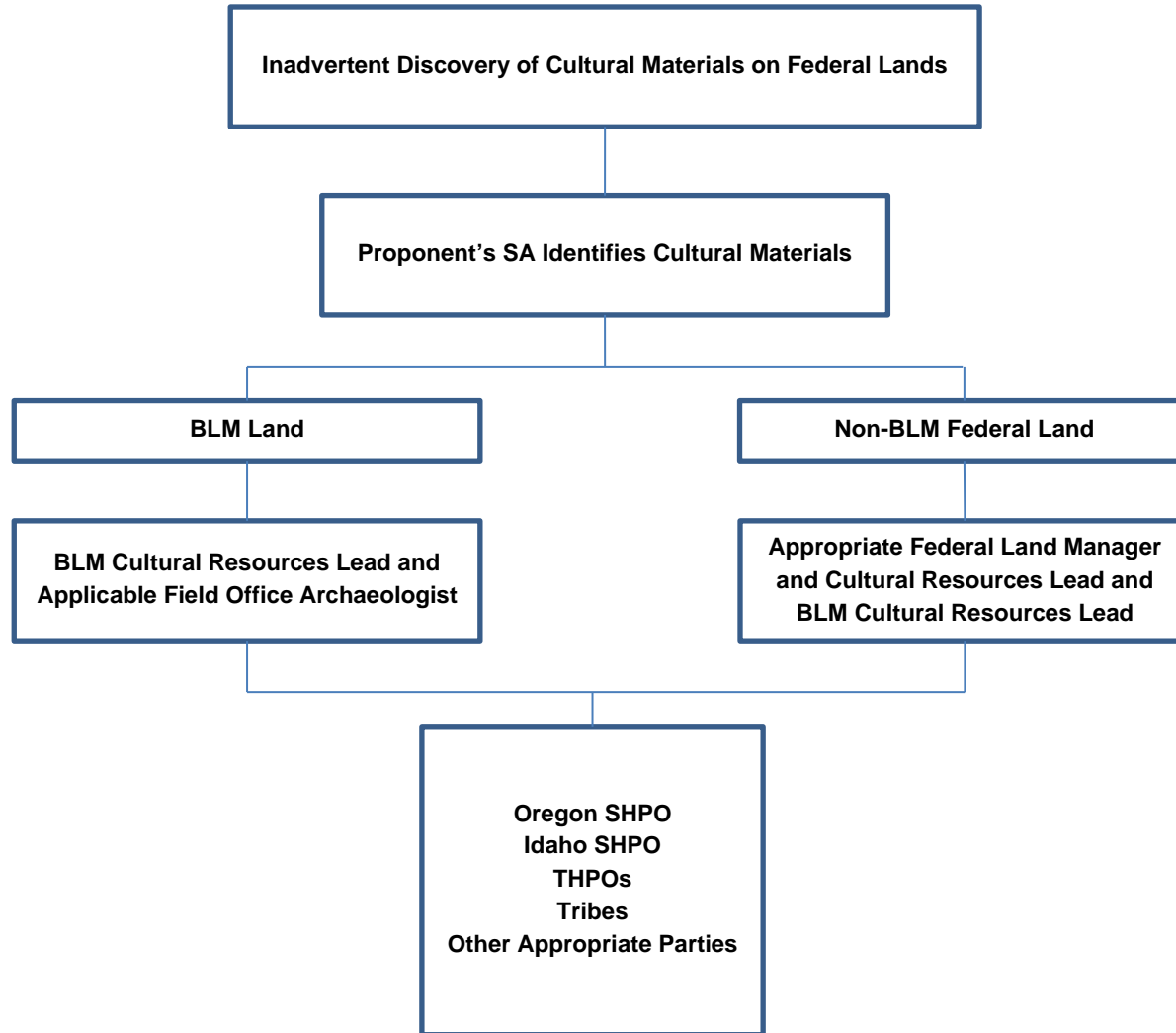
Name	Organization	Role	Phone	Email
Kate Valdez	Yakama Nation	THPO	509-985-7596	kate_valdez@yakama.com
Jessica Lally	Yakama Nation	Archaeologist	(509) 865-8800	jessica_lally@yakama.com
Jerry Meninick	Yakama Nation	Deputy Director of Cultural Resources	509-865-5121	jerry_meninick@yakama.com
Maxine Redstar	Fort McDermitt Shoshone Paiute Tribes	Chairwoman	775-532-8259 ext 1101	Maxine.redstar@fmpst.org
Jackie Jaurez	Fort McDermitt Shoshone Paiute Tribes	Vice Chairwoman		Jck_jrz@yahoo.com
Craig Heuberger	Oregon Department of State Police	Lieutenant	OSP Dispatch: 503-731-3030 Office: 503-508-0779	cheuber@osp.oregon.gov
Nici Vance	Oregon State Medical Examiner	State Forensic Anthropologist	Office: 971-673-8300	Nici.Vance@state.or.us
Idaho State Police	Investigation Section	District 3	Dispatch:208-846-7550	
Sheriff's Department	Owyhee County		208-495-1154	
Sheriff's Department	Baker County		541-523-6415	
Sheriff's Department	Malheur County		541-473-5510	
Sheriff's Department	Morrow County		541-676-5317	
Sheriff's Department	Umatilla County		541-966-3600	
Sheriff's Department	Union County		541-963-1017	

**ATTACHMENT 1:
FLOW CHARTS FOR INADVERTENT DISCOVERIES ON NON-
FEDERAL PUBLIC AND PRIVATE LANDS AND FEDERAL LANDS**

SECTION 2.1.2
Inadvertent Discovery of Cultural Materials on Non-Federal Public and Private Lands

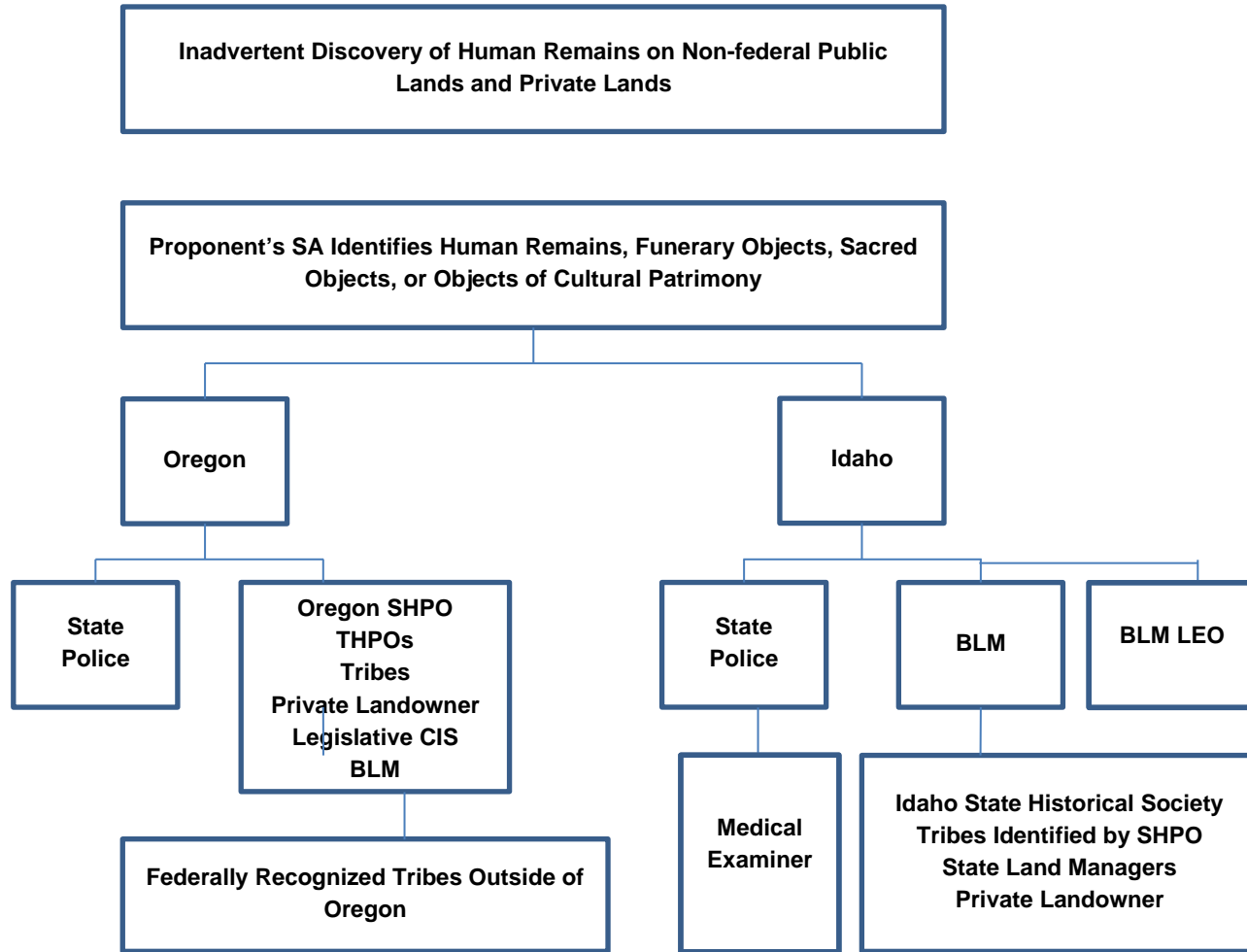


**SECTION 2.1.3
Inadvertent Discovery of Cultural Materials on Federal Lands**

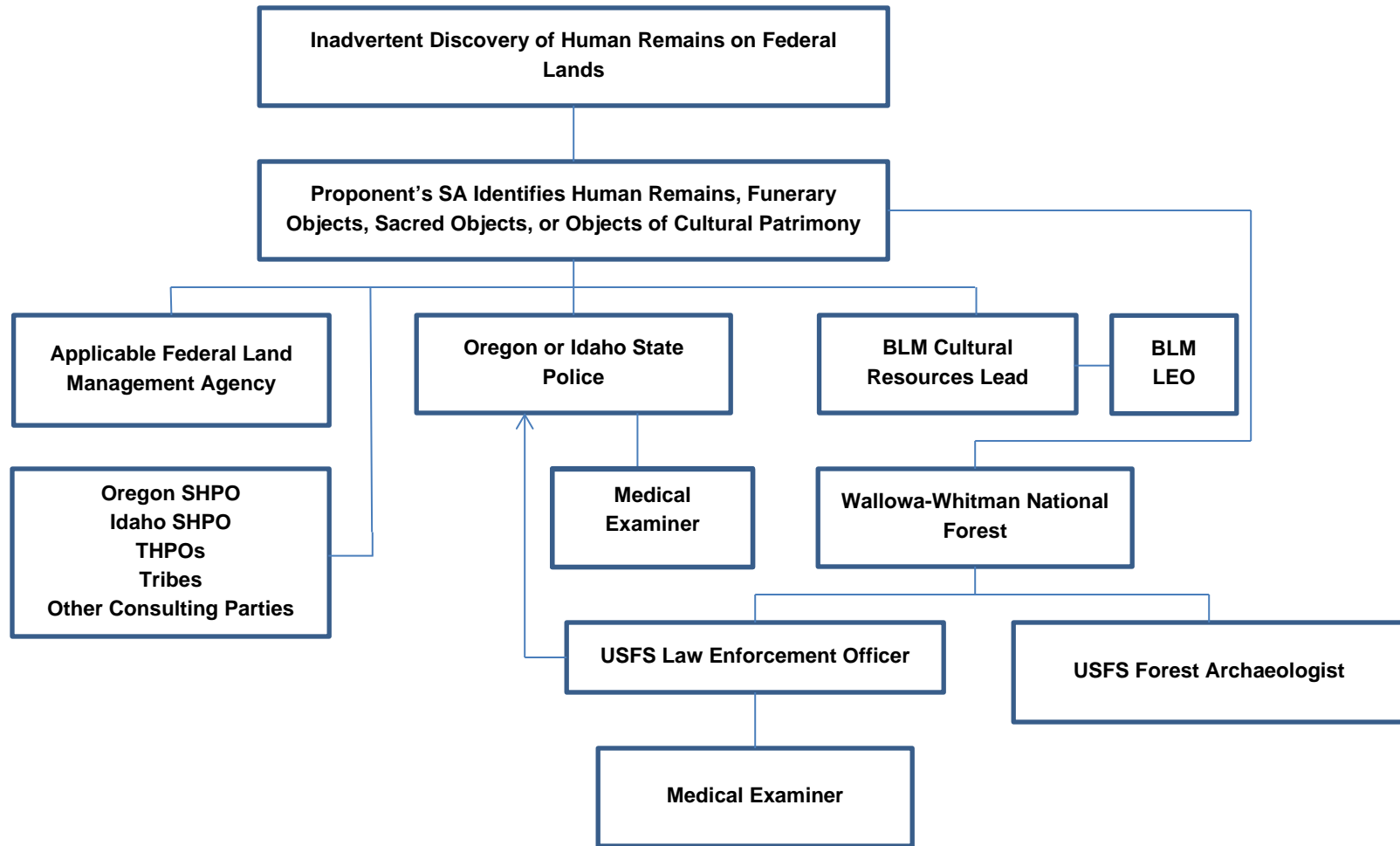


SECTION 2.2.2

Flowchart Inadvertent Discovery of Human Remains on Non-federal Public Lands and Private Lands



**SECTION 2.2.3
Inadvertent Discovery of Human Remains on Federal Lands**



APPENDIX C
NAGPRA PLAN OF ACTION

**NATIVE AMERICAN GRAVES PROTECTION
AND REPATRIATION ACT
PLAN OF ACTION**

A Written Plan of Action for the
Treatment of Inadvertently Discovered
Human Remains, Funerary Objects, Sacred Objects,
or Objects of Cultural Patrimony
for the
Boardman to Hemingway Transmission Line Project
Idaho Power Company

I. INTRODUCTION

This Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action (POA or plan) is for the Boardman to Hemingway Transmission Line Project (B2H Project) described below in Section II, Planned Action. This POA defines the procedures to be followed in the event of a discovery on federal land for the treatment and disposition of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony; hereinafter called cultural items. For the purposes of this document, the definition of “Native American” refers to any individual descended from a native (indigenous) group of the Americas, including Aleuts, Eskimos, and American Indians who may also be members of federally recognized tribes or American Indian and Alaska Native organizations. This POA is authorized under NAGPRA, 25 United States Code (USC) §§ 3001 et seq. and its implementing regulations as set forth in 43 Code of Federal Regulations (CFR) §10 (specifically 43 CFR § 10.5(e)).

This NAGPRA POA is for federally managed lands in Oregon and Idaho administered by the Bureau of Land Management (BLM) Oregon Vale District Office and the BLM Idaho Owyhee Field Office. In addition, it includes the United States Forest Service Wallowa-Whitman National Forest (USFS), Bureau of Reclamation (BOR), and Bonneville Power Administration (BPA); hereafter referred to as federal land. The land managers will review and agree to the plan and will apply it to their respective administered lands in the event of a discovery. For the purposes of the B2H Project, the BLM has been designated as the lead federal agency.

Nine Native American Tribes are consulting on the B2H Project and were invited to participate in the development of this NAGPRA POA. Four of those Tribes—the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, the Shoshone-Paiute Tribes of the Duck Valley Reservation, the Burns Paiute Tribe, and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR)—are actively participating in developing the plan. Tribal information from consultation included in this document are set apart or defined separately from regulatory language and are indicated by bold text as **Specific Tribal Details**.

References used in the preparation of this plan include USC; CFR; BLM Manual, Handbook and Memorandum guidance; Forest Service Handbook and Manual; Bureau of Reclamation Directive and Standards LND 02-02 for Museum Property Management and LND 02-01 for Cultural Resources; Tribal Agreement Documents; Tribal Policy; and example NAGPRA Plans. References in this plan are cited, while the remainder of the text was developed by the BLM in consultation with the Tribes.

Under the stipulations provided in the Programmatic Agreement prepared for the B2H Project, an Inadvertent Discovery Plan has been developed. The Inadvertent Discovery Plan outlines the process if unexpected human remains, cultural items or cultural resources are found on state or private land. Human remains and cultural items could be found during all phases of the B2H Project, particularly during construction as an inadvertent discovery, during a planned excavation, regular operations and maintenance, surveys, or any other activity through the course of the B2H Project.

II. PLANNED ACTION

The Proponent, Idaho Power Company (IPC), proposes to construct, operate, and maintain the B2H Project that includes approximately a 300-mile-long single-circuit 500-kilovolt alternating-current overhead electric transmission line and ancillary facilities. The transmission line, if permitted, would be constructed within a 250-foot right-of-way and would connect the proposed Longhorn Substation, adjacent to the Boardman Generating Plant near the city of Boardman in Morrow County, Oregon, to the existing Hemingway Substation, near the city of Murphy in Owyhee County, Idaho.

During construction, the B2H Project would temporarily utilize additional acres for a number of ancillary facilities that include new, improved, and existing access roads; internal communications sites; pulling yards; fly yards (helicopter landing areas); and staging areas. The project action includes geotechnical investigations within the B2H Project right-of-way in advance of final project design and engineering.

III. Regulatory Context

The lead federal agency is responsible for ensuring compliance with all applicable federal laws and regulations during the implementation of the B2H Project. All contractors and project personnel working on federal lands must comply with these laws and regulations including, but not limited to:

- NAGPRA (25 USC § 3001 et seq., implementing regulations at 43 CFR Part 10).
- Section 106 of the National Historic Preservation Act (NHPA), as amended (54 USC § 306108); implementing regulations at 36 CFR Part 800, including Planning for Subsequent Discoveries Using a Programmatic Agreement (36 CFR § 800.13(a)(1)) and Post-Review Discoveries Without Prior Planning (36 CFR § 800.13(a)(2)(b)).
- Secretary of Interior's Professional Qualification Standards as described in 36 CFR Part 61 and Oregon Revised Statute 390.235(6)(b).
- Archaeological Resources Protection Act of 1979 (ARPA; 16 USC § 470aa), implementing regulations at 43 CFR Part 7 for BLM and 36 CFR Part 296 for the USFS.
- National Environmental Policy Act (NEPA) of 1969 (42 USC § 4321-4347 et seq., as 22 amended); with Council on Environmental Quality regulations for implementing NEPA (40 CFR Parts 1500–1508).
- American Indian Religious Freedom Act, 42 USC § 1996 and 1996a.
- Religious Freedom Restoration Act, 42 U.S.C. § 2000bb et seq. Executive Order 13007 Indian Sacred Sites.
- Executive Order 13175 Consultation and Coordination with Indian Tribal Governments.
- 43 CFR 423.28 [Memorials](#)

- Food, Conservation, and Energy Act of 2008 (P.L. 110–246, Title VIII, Subtitle B, sections 8101 through 8107; codified at 25 U.S.C. 3051-3057)

IV. CONSULTATIONS

The following Tribes are consulting on the B2H Project:

- Burns Paiute Tribe
- Confederated Tribes of the Umatilla Indian Reservation
- Shoshone-Bannock Tribes of the Fort Hall Indian Reservation
- Shoshone-Paiute Tribes of the Duck Valley Indian Reservation
- Fort McDermitt Paiute-Shoshone Tribes
- Confederated Tribes of the Warm Springs Reservation
- Nez Perce Tribe
- Confederated Tribes of the Colville Reservation
- Confederated Tribes and Bands of the Yakama Nation

Through consultation, the Tribes listed above have indicated the B2H Project is within ancestral territory. In November 2014, a letter was sent to these Tribes inviting them to participate in the development and implementation of this POA. The Burns Paiute Tribe, the CTUIR, the Shoshone-Bannock Tribes of Fort Hall, and the Shoshone-Paiute Tribes of Duck Valley have indicated they want to be involved in the development and implementation of this Plan and they are engaging in ongoing consultation. When the plan is finalized, it will be sent to all Tribes listed above who consult on the B2H Project. In the event that an inadvertent discovery of human remains or associated cultural items occurs on federal land during the course of the B2H Project, work will be halted, and all nine Tribes listed above will be notified.

Specific Tribal Details

Understanding that federal regulations do not always consider various Native American customs, additional clarifications of the definitions have been provided through consultation. Specific Tribal Details have been requested by consulting Tribes to be added to this plan and are identified by a bold header **Specific Tribal Detail** followed by the Tribe requesting the change.

Through discussions with Tribes it has been noted that each Tribe may vary on the meaning of what constitutes funerary objects, sacred objects, and objects of cultural patrimony; and for some Tribes these objects are not always located with a burial.

Specific Tribal Details: *Shoshone-Paiute Tribes of the Duck Valley Indian Reservation*

...To ensure that potential human remains, funerary objects, sacred objects, or objects of cultural patrimony on federal or tribal lands located within the areas identified as aboriginal to the Shoshone-Paiute Tribes are treated respectfully, the BLM will appropriately treat those discoveries that potentially have Native American associations. Once determined to be of Native American origin, the BLM will seek

to determine lineal descent and cultural affiliation through consultation in accordance with the consultation requirements articulated in 43 CFR § 10.4 and 10.5. The BLM also must at the same time meet federal and local law enforcement requirements . . .

The Shoshone Paiute Tribes have requested the *2015 Memorandum of Understanding between the Shoshone-Paiute Tribes and the Idaho Bureau of Land Management (MOU)* be reviewed for consistency with this Plan and have requested that specific language from the MOU be included in the POA.

In consultation with the Shoshone Paiute Tribes and according to the MOU, the BLM is obligated under the regulations promulgated for the agencies of the Department of the Interior based on NAGPRA, 25 USC § 3001-3013. These obligations include:

- Taking reasonable steps to determine whether a planned activity may result in the excavation of human remains, funerary objects, sacred objects, or objects of cultural patrimony from federal lands.
- Notifying through consultation, and “in writing,” minimally, “the Indian tribes that are likely to be culturally affiliated with any human remains, funerary objects, sacred objects, or objects of cultural patrimony that may be excavated.”
- Consulting and notifying any federally recognized Indian Tribe which aboriginally occupied the area of the planned activity and any other Indian Tribes that the authorized federal agency official reasonably believes are likely to have a cultural relationship to the human remains, funerary objects, sacred objects, or objects of cultural patrimony that are expected to be found (the federal agency will consult with the Tribes in determining which Tribes are affiliated).
- Providing for the inadvertent discovery of human remains, funerary objects, sacred objects, or objects of cultural patrimony on federal lands as specified in 43 CFR § 10.4; and consulting and preparing of plans of action and/or agreements on inadvertent discoveries as specified in 43 CFR § 10.5. All human remains will be presumed Native American until determined otherwise.

Specific Tribal Details: *Confederated Tribes of the Umatilla Indian Reservation*

In consultation with the CTUIR and according to their *Policy and Procedure Manual for the Repatriation of Ancestral Human Remains and Funerary Objects*, the CTUIR have never had a tradition of unearthing ancestral human remains. Due to the social, legal, and political chronicles surrounding the passage of NAGPRA, the CTUIR have developed fundamental policies and procedures to guide the CTUIR Board of Trustees in the decision-making process regarding NAGPRA and repatriation.

Specific Tribal Details: *Burns Paiute Tribe of Indians*

In addition to requesting that the project proponent and various agencies follow the requirements outlined in State and Federal law, BLM manuals, as well as the various documents created over the course of the Boardman to Hemingway Project (e.g., the Programmatic Agreement and Inadvertent Discovery Plan), the Burns Paiute Tribe seeks to state unequivocally that they cannot ever condone the exhumation and relocation of an Ancestor. The Burns Paiute Tribe advocates avoidance and project redesign to relocate such things as structures or roads rather than exhume bodies and/or remove funerary objects. Additionally, due to issues where traditional archaeological surveys may miss or

misinterpret burials, the Burns Paiute Tribe requests to have Tribal monitors on the ground during activities that involve ground disturbance.

A. Objects to be Considered as Cultural Items

For the purposes of this plan, the objects considered as cultural items are defined in 43 CFR § 10.2(d) and include:

1. *“Human remains* means the physical remains of the body of a person of Native American ancestry. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets. For the purposes of determining cultural affiliation, human remains incorporated into a funerary object, sacred object, or object of cultural patrimony, as defined below, must be considered as part of that item” (43 CFR § 10.2(d)(1)).
2. *“Funerary objects* means items that, as part of the death rite or ceremony of a culture, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains. Funerary objects must be identified by a preponderance of the evidence as having been removed from a specific burial site of an individual affiliated with a particular Indian tribe . . . or as being related to specific individuals or families or to known human remains. The term *burial* site means any natural or prepared physical location, whether originally below, on, or above the surface of the earth, into which, as part of the death rite or ceremony of a culture, individual human remains were deposited, and includes rock cairns or pyres which do not fall within the ordinary definition of gravesite.” (43 CFR § 10.2(d)(2)).
Funerary objects include:
 - (i) *“Associated funerary objects* means those funerary objects for which the human remains with which they were placed intentionally are also in the possession or control of a museum or Federal agency. Associated funerary objects also means those funerary objects that were made exclusively for burial purposes or to contain human remains.” (43 CFR § 10.2(d)(2)(i)).
 - (ii) *“Unassociated funerary objects* means those funerary objects for which the human remains with which they were placed intentionally are not in the possession or control of a museum or Federal agency. Objects that were displayed with individual human remains as part of a death rite or ceremony of a culture and subsequently returned or distributed according to traditional custom to living descendants or other individuals are not considered unassociated funerary objects.” (43 CFR § 10.2(d)(2)(ii)).
3. *“Sacred objects* means items that are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents. While many items, from ancient pottery sherds to arrowheads, might be imbued with sacredness in the eyes of an individual, these regulations are specifically limited to objects that were devoted to a traditional Native American religious ceremony or ritual and which have religious significance or function in the continued observance or renewal of such ceremony. The term *traditional* religious leader means a person who is recognized by members of an Indian Tribe . . . as:
 - (i) *“Being responsible for performing cultural duties relating to the ceremonial or religious traditions of that Indian tribe . . . , or”*

- (ii) *“Exercising a leadership role in an Indian tribe . . . based on the tribe or organization's cultural, ceremonial, or religious practices.”* (43 CFR § 10.2(d)(3)).
4. *“Objects of cultural patrimony means items having ongoing historical, traditional, or cultural importance central to the Indian Tribe . . . itself, rather than property owned by an individual tribal or organization member. These objects are of such central importance that they may not be alienated, appropriated, or conveyed by any individual tribal or organization member. Such objects must have been considered inalienable by the culturally affiliated Indian tribe . . . at the time the object was separated from the group.”* (43 CFR § 10.2(d)(4)).
5. *“Cultural affiliation means that there is a relationship of shared group identity that can be reasonably traced historically or prehistorically between members of a present-day Indian tribe and an identifiable earlier group. Cultural affiliation is established when the preponderance of the evidence—based on geographical, kinship, biological, archaeological, anthropological, linguistic, folklore, oral tradition, historical evidence, or other information or expert opinion—reasonably leads to such a conclusion.”* (43 CFR § 10.2(4)(e)(1)).

Specific Tribal Detail: *Shoshone-Paiute Tribes of the Duck Valley Indian Reservation*

Through consultation, the Shoshone-Paiute has told the BLM that not all *funerary objects* are placed with the burial. Although not placed with the burial physically, these items are still associated. Some items in their traditions should not be buried. Associated funerary objects can also be placed nearby on a mountain top or at a spring.

Through consultation, it is noted that Tribes with an interest in the B2H Project have a broader view of what constitutes a sacred object than the regulatory description above. The Shoshone-Paiute Tribes has told the BLM that medicine people do not always use the same tools during ceremonies. It depends on their spiritual direction what tools are needed at that time. The Tribes will determine what is sacred in consultation with the BLM if not covered under the CFR.

Specific Tribal Detail: *Burns Paiute Tribe*

In consultation with the Burns Paiute Indian, the identification of “funerary objects, sacred objects, and objects of cultural patrimony” is difficult because they can include a broad range of objects. They can include those things people typically associate with burial goods, like intricately made objects crafted from rare materials, as well as the everyday articles of clothing and objects a person would have been carrying before they died as well as those objects left by their friends or family in memoriam (modified eagle feathers, dishes, and so forth). Importantly, for the Burns Paiute Tribe, funerary objects or bones are not simply representative of a past life. Burials are a focused relationship among the Ancestor’s physical remains, funerary objects, soul, *and the place* where an Ancestor died. In a way, this association should be seen as constituting a complex and on-going funerary action with a spiritual existence that continues until the first two have returned to the earth. For that reason, the Burns Paiute Tribe views any disturbance to a grave not simply as being materially disrespectful of their Ancestors, where issues are easily solved through reburial, but as a more significant and direct threat to their continued spiritual wellbeing. Any and all disturbances should be avoided.

B. Specific Information to Determine Custody

Information to be included in this section will cite 25 USC 3001(9), 25 USC 3005(a)(4), 43 CFR 10.2 (b, e), 43 CFR 10.14(b, c, e), 43 CFR 10.6(a), and 43 CFR 10.10(a)(2) .Pursuant to 43 CFR § 10.6, in the event of

the removal of human remains or cultural items on federal lands during the B2H Project, the following specific information will be used to determine custody pursuant to the regulations found in 43 CFR § 10.14 and 43 CFR § 10.6:

This section, adapted from 43 CFR § 10.14, which “identifies procedures for determining lineal descent and cultural affiliation between present-day individuals and Indian tribes . . .” related “. . . to human remains, funerary objects, sacred objects, or objects of cultural patrimony . . . discovered inadvertently from federal lands” in the B2H Project area.

1. *Lineal descendant* means “. . . an individual tracing his or her ancestry directly and without interruption by means of the traditional kinship system of the appropriate Indian tribe . . . or by the common law system of descent to a known Native American individual whose remains, funerary objects, or sacred objects are being requested under these regulations” (43 CFR § 10.14(b)).
2. Cultural affiliation means “. . . a relationship of shared group identity that may be reasonably traced historically or prehistorically between members of a present-day Indian tribe . . . and an identifiable earlier group” (43 CFR § 10.14(c)).
3. The federal agency official will determine cultural affiliation between a present-day individual or Indian Tribe by a preponderance of evidence based on geographical, kinship, biological, archaeological, anthropological, linguistic, folkloric, oral traditional, historical, or other relevant information or expert opinion (25 USC § 3002; 43 CFR § 10.2(e); and 43 CFR § 10.14).
4. Priority order of custody of the cultural items will be established consistent with 43 CFR § 10.6. In the event that cultural affiliation cannot be established under 43 CFR § 10.6, the human remains or cultural items will be addressed under 43 CFR § 10.7.

Specific Tribal Detail: All Tribes.

The Tribes that have participated in the development of this POA have requested that if a burial is found on federal lands, the federal agencies will continue to consult closely with all Tribes having an interest or are known to have used the area when determining cultural affiliation. The Project area is known to be an area that has overlapping use by many Tribes.

C. Planned Treatment, Care, and Handling of Native American Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony

All discovered human remains and funerary objects, sacred objects, or objects of cultural patrimony found on federal lands in the Project area shall be treated with respect and dignity. Burial sites and associated contents will be left undisturbed and remains or items will not be moved, whenever possible. The federal land agencies will make every effort to avoid and leave in situ any inadvertently discovered human remains and cultural items on federal land.

If B2H Project personnel identify human remains or cultural items during the implementation of the project, the procedures in the following sections will apply.

1. Project personnel will cease work immediately within the area of the discovery and notify the construction supervisor who will notify the cultural monitor (if not already on site), the BLM Compliance Inspection Contractor (CIC), and IPC’s Senior Archaeologist. Once verified, the BLM CIC will notify the BLM Authorized Officer, who will in turn notify law enforcement, the federal

land manager, federal land archaeologist, and the Tribes. All human remains will be presumed Native American until proven otherwise. The BLM CIC will provide written confirmation of the discovery within 24 hours to the Authorized Officer. No invasive testing shall be performed on the remains. The BLM CIC, working with the Authorized Officer, will ensure that everyone on the contact list (Attachment A) will be notified as soon as possible, but no later than three working days.

2. IPC's Senior Archaeologist will notify the archaeological consultant who retains appropriate expertise in human osteology and contact Tribal representatives to invite Tribal osteologists to assist in the identification of human remains. Upon notification, the archaeological consultant will proceed to the discovery. Every opportunity should be made for Tribal osteologists to investigate human remains *in situ*.
3. If the discovery was moved prior to realization, all disturbed materials (e.g., bones, funerary items, other objects) suspected to have come from the discovery will be placed near the location they were found and secured. In all other cases, the discovery will be left as it is found. No photographs will be taken except a) those taken by a cultural monitor or IPC's Senior Archaeologist for the purposes of identification if requested by a tribe; or b) by law enforcement during the investigation. All photographs taken over the course of identification shall be destroyed after identification is made. No media will be contacted. Construction personnel will maintain confidentiality of all sensitive information as instructed during their mandatory environmental training. No additional excavation or movement of the human remains or cultural items will occur until the Authorized Officer, in consultation with the Tribes, can assess the situation and establish a plan for the next steps. This plan may include, but not be limited to, avoidance, minimizing disturbance, making changes to the project alignment, or excavation.
4. The discovery will be secured and protected as necessary to prevent further disturbance in the vicinity. The protected area will be no smaller than a 200-foot radius around the maximum limits of the discovery. Security measures during after-work hours will be implemented as necessary to prevent unauthorized excavation, vandalism, or looting. Human remains and cultural items will be protected to prevent damage from the elements.
5. No persons other than the proper law enforcement personnel, state medical examiner and or the county coroner, management and cultural resource staff from the federal agencies, cultural resource staff or consultants of IPC, and designated tribal representatives will be authorized direct access to the discovery location after the area is secured. If the human remains and cultural items are determined to be of Native American ancestry, tribal access will be coordinated between the BLM, the involved federal agency, and IPC. The strict control of access of the discovery location will ensure the safety, integrity, and confidentiality of the burial and associated cultural items.

D. Steps to be Followed to Contact Indian Tribes and Officials at the Time of Discovery

As described above, if B2H Project personnel identify human remains or cultural items on federal lands in the Project area, work will cease immediately, and the BLM CIC will notify the Authorized Officer who will contact law enforcement, the Tribes, and involved federal land manager and archaeologist. All persons listed on Attachment A: Contact Information, will be notified as soon as possible, but no later than three working days.

E. Kind of Traditional Treatment to be Afforded the Human Remains and Cultural Items

All discovered human remains and cultural items shall be treated with respect and dignity. The involved federal agencies will provide the Tribes an opportunity to examine the human remains and cultural items after the discovery and during the decision-making process. The Tribes will decide what type of traditional treatment certain items will receive on a case-by-case basis. If human remains and cultural items need to be removed, the Tribes will be part of that decision-making process and will have the opportunity to perform a traditional spiritual ceremony prior to removal.

F. Planned Archaeological Recording of the Human Remains and Cultural Items

Human remains and cultural items, as defined in this plan, may be recorded further as agreed in consultation between the Authorized Officer and the Tribes. In the event recordation occurs, human remains and cultural items will be treated appropriately as described in this Plan. Items will be recorded and described using current standards and following current archaeological practices and methods. The archaeological documentation of the exposed human remains will be limited to visually evident characteristics that indicate such things as age, gender, obvious pathologies, and any obvious visual traits that may help to indicate cultural affiliation. No excavation of the human remains and cultural items will take place unless approved by the Authorized Officer in consultation with the Tribes, and involved land-managing agency.

In the event recordation occurs, it will proceed through nondestructive visual inspection, measurement, and illustration. No photographs will be taken. Examinations will take place onsite. The burial will remain intact, no portion of the burial or associated funerary objects will be removed for inspection without approval by the Authorized Officer in consultation with the Tribes. Funerary objects will be recorded at a descriptive noninvasive level including measurements, type, and morphology.

G. Nature of Recordings and Reports to be Prepared

The archaeological consultant will perform the initial recordings as described above. Human remains and cultural items found on federal lands in the Project area will be recorded and described using current standards. Drawings may be made, but no photographs will be taken. Items will be mapped in place and will not be removed during recordation. Initial recording for notification will occur, and additional recording through the consultation and a planning process could occur as described in this Plan. If human remains and cultural items are excavated, current standards will apply including report preparation. All activities related to an inadvertent discovery of human remains or cultural items will be part of a prepared report or series of reports. Consultation on the report(s) will follow the process outlined in Section V of the programmatic agreement. The report(s) will be provided to the federal land agency where the discovery was made and hard copies will be archived at the BLM Vale District. A copy of the report shall be provided to the appropriate Tribe(s) in the vicinity of the find, and/or those Tribes that have requested notification of such discoveries.

H. Process to Decide if Human Remains and Cultural Items Need to be Excavated

Avoidance is the preferred option, which may include project redesign. If the project area cannot be moved or changed to avoid human remains and cultural items, intentional excavation may need to occur. Intentional excavation will be a decision made by the BLM Authorized Officer in consultation with the involved Tribes and involved land managing agency, pursuant to NAGPRA and other applicable

regulations. Should data recovery be required, the involved Tribes have the option to participate in the data recovery. A copy of the Data Recovery Plan shall be provided to the involved Tribes for comment and approval.

I. Procedures for Intentional Excavation

If it is determined that human remains and cultural items found on federal lands in the project area will be excavated, an excavation plan will be developed by the BLM in consultation with the Tribes, involved land managing agency, and in coordination with IPC and a qualified archaeological consultant with the required expertise in the recovery of human remains. The excavation plan will be written pursuant to Section 4 of the ARPA of 1979, as amended (16 USC § 470cc), and pursuant to NAGPRA (25 USC § 3002(c)), the permit conditions therein, and to the procedures of Intentional archaeological excavations (43 CFR § 10.3).

Prior to the planned excavation of human remains and cultural items on federal land, the archaeological consultant will obtain an ARPA permit from the appropriate federal agency. The involved Tribes shall have the opportunity to review the ARPA permit. The Tribes will be consulted by the applicable federal agency prior to issuing the permit pursuant to the ARPA. Upon issuance of the permit and completion of tribal consultation, IPC, the agency, the Tribe(s), and/or the archaeological consultant will execute the excavation plan .

Specific Tribal Details: All Tribes.

It is possible that Tribes may want to have their own qualified contractor or Tribal person perform the excavation. The decision of who will perform the excavation will be made by the BLM Authorized Officer in consultation with the Tribes.

J. Planned Disposition of Human Remains and Cultural Items

This section contains information on reburial in the event human remains and cultural items are discovered and/or subsequently excavated on federal land. Notification of excavation and reburial will be completed pursuant to 43 CFR § 10.6.

The preferred treatment of human remains and cultural items is to leave them in place and not remove them. If items need to be removed (excavated) because of impending damage or destruction or for other reasons, the preferred treatment is to rebury the items at a nearby location on public land.

Reburial of NAGPRA items on public lands may be authorized on a case-by-case, depending on the involved regulations, handbooks, and/or manuals guiding the involved federal agency in reburial practices on public land. Reburial on Bureau of Reclamation land, however, is prohibited by 43 CFR 423.28. Tribal requests for reburial of ancestral human remains and cultural items are, in general, closely tied to repatriations of those human remains and cultural items by involved federal agencies under the terms of NAGPRA. However, in practice, repatriation and reburial are treated as separate, although often related, processes.

The following should be considered by the federal land agency during the reburial process:

1. The federal land manager will decide whether to authorize reburial of American Indian human remains and cultural items on federal lands and under what conditions reburials will occur.

2. Respect is the foundation for all decisions regarding reburial of American Indian human remains and cultural items on federal lands, and federal officials are expected to be sensitive to the diversity of tribal cultural beliefs.
3. All activities and documentation related to reburial of American Indian human remains and cultural items will be kept confidential to the maximum extent authorized by law.
4. Prior to authorizing reburial on federal BLM lands, the federal land manager shall ensure that the requirements of NAGPRA have been met.
5. When the federal land manager authorizes reburial on federal lands, including wilderness and other special designation areas, the agency shall attempt to accommodate all aspects of lineal descendants and culturally affiliated Tribe(s) requests. Reburials should be at or as close as practicable to the burial sites from which those human remains and cultural items were originally recovered. When authorizing reburials, the federal land managers shall comply with the NEPA, the NHPA, and other applicable laws.
6. In pursuance of the reburial, the federal land manager shall identify any future responsibilities, such as providing access to tribes (if requested) and monitoring. The use of fencing or other protective devices that would require ongoing monitoring are discouraged. The responsible federal agency official shall consider entering into a reburial agreement (e.g., a MOU) with the tribes that articulates the roles and responsibilities of each party.
7. For excavations of inadvertent discoveries (Section 3 of NAGPRA) related to a federally-funded, permitted or licensed project, costs associated with (excavation and) reburial, if authorized, will be considered part of the project costs of the project Proponent, IPC.
8. Lineal descendants and/or culturally affiliated Tribal representatives shall be given opportunities to be present and conduct ceremonies at reburial(s) and to be allowed future access to these sites for cultural and spiritual purposes to the extent permitted by law.
9. Lands that may be considered for reburial activities include lands withdrawn from multiple uses and mineral entry. The responsible Federal agency official shall make this decision per 43 CFR § 10.6.

The following references provide guidance and should be referred to for how involved federal agencies implement NAGPRA; however, this list is representative of current guidance, and any inadvertent discovery of human remains and cultural items will follow procedures outlined in federal agency manuals, handbooks, or policy:

- BLM Handbook 1780-1 Improving and Sustaining BLM-Tribal Relations
- BLM Manual 8140 Protecting Cultural Resources
- BLM Manual 8150 Permitting Uses of Cultural Resources
- Forest Service Handbook 1509.13 American Indian and Alaska Native Relations Handbook
- Forest Service Handbook 2309.12 Heritage Resource Management
- Forest Service Manual 2300 Recreation Wilderness, and Related Resource Management

- Food, Conservation, and Energy Act of 2008 (P.L. 110–246, Title VIII, Subtitle B, sections 8101 through 8107; codified at 25 U.S.C. 3051-3057) Reclamation Manual Directive and Standard (D&S) LND 02-02 for Museum Property Management
- Reclamation Manual D&S LND 02-01 for Cultural Resources Management

K. Agency Personnel and Tribal Representatives Involved in this NAGPRA Effort

The following agencies, Tribes and the Proponent, IPC, have been identified as being involved in this NAGPRA effort:

- Bureau of Land Management
- United States Forest Service
- Bonneville Power Administration
- Bureau of Reclamation
- Confederated Tribes of the Umatilla Indian Reservation
- Burns Paiute Tribe of Burns Oregon
- Shoshone-Bannock Tribes of the Fort Hall Indian Reservation
- Shoshone-Paiute Tribes of the Duck Valley Indian Reservation
- Idaho Power Company

The names and contact information of the agency officials, tribal members, IPC and contractors are in Attachment A.

L. Permitting

In furtherance of its obligations under NAGPRA and consistent with applicable regulations, the involved federal land agency will respect tribal custom and tradition in handling of human remains and cultural items. In the event that human remains and cultural items need to be excavated, the involved federal land agency in consultation with the Tribes and in coordination with IPC and contractors will develop a written plan of excavation for the treatment of intentionally excavated human remains and cultural items.

Prior to the planned excavation of human remains and cultural items on federal land, the archaeological consultant will obtain an ARPA permit from the overseeing federal agency (BLM, USFS, BPA, or BOR). The Tribes will be consulted by the applicable federal agency prior to issuing the permit pursuant to the ARPA. The excavation plan will be written pursuant to Section 4 of the ARPA, as amended (16 USC § 470cc), NAGPRA (25 USC § 3002(c)) and the permit conditions therein, and 43 CFR § 10.3, Intentional Archaeological Excavations. Upon issuance of the permit and completion of tribal notification and consultation, the federal agency, the Tribes, IPC, and/or the archaeological consultant will implement the excavation plan.

M. References

- Native American Graves Protection and Repatriation Act (NAGPRA), 25 USC §§ 3001 et seq. and its implementing regulations as set forth in 43 CFR §10
- 2015 Memorandum of Understanding Between the Shoshone-Paiute Tribes and the Idaho Bureau of Land Management
- 2004 revised Confederated Tribes of the Umatilla Indian Reservation Policy and Procedure Manual for the Repatriation of Ancestral Human Remains and Funerary Objects
- 2020 finalized B2H Inadvertent Discovery Plan
- BLM Handbook (H) 1780-1, Improving and Sustaining BLM-Tribal Relations
- BLM Manual 8100 The Foundations for Managing Cultural Resources
- Forest Service Handbook 1509.13 American Indian and Alaska Native Relations Handbook Chapter 20 – Repatriation and Reburial Documentation
- Forest Service Handbook 1509.13 American Indian and Alaska Native Relations Handbook
- Forest Service Handbook 2309.12 Heritage Resource Management
- Forest Service Manual 2300 Recreation Wilderness, and Related Resource Management
- Food, Conservation, and Energy Act of 2008 (P.L. 110–246, Title VIII, Subtitle B, sections 8101 through 8107; codified at 25 U.S.C. 3051-3057)
- Reclamation Manual Directive and Standard (D&S) LND 02-02 for Museum Property Management
- Reclamation Manual D&S LND 02-01 for Cultural Resources Management

N. Signature Pages

Federal Officials

BUREAU OF LAND MANAGEMENT

Signature: _____ Date: _____
Darrel W. Monger, Vale District Manager, B2H Authorized Officer

UNITED STATES DEPARTMENT OF AGRICULTURE, FOREST SERVICE

Signature: _____ Date: _____
Anthony B. Botello, Wallowa Whitman National Forest Supervisor (Acting)

BUREAU OF RECLAMATION

MELANIE PAQUIN Digitally signed by MELANIE
PAQUIN
Date: 2021.12.27 16:27:05 -07'00'

Signature: _____ Date: _____
Melanie J. Paquin, Snake River Area Manager

BONNEVILLE POWER ADMINISTRATION

Signature: _____ Date: _____

BURNS PAIUTE TRIBE

Signature: _____ Date: _____
Diane Teeman, Chairperson/Culture & Heritage Director

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

Signature:  Date: 4/8/22
N. Kathryn Brigham, Board of Trustees Chair

SHOSHONE-PAIUTE TRIBES OF THE DUCK VALLEY INDIAN RESERVATION

Signature: _____ Date: _____
Brian Thomas, Chairman

SHOSHONE-BANNOCK TRIBES OF THE FORT HALL INDIAN RESERVATION

Signature: _____ Date: _____
Nathan Small, Chairman

Attachment A Contact Information

(This information will need to be reviewed yearly and updated as needed.)

Name	Organization	Role	Phone	Email
Lead Agency Contacts				
Darrel W. Monger	BLM	Authorized Officer Vale District	Office: 541-473-6201	dmonger@blm.gov
Caryn Burri	BLM	B2H Project Manager	Office: 541-709-6300	cburri@blm.gov
Stephanie Cox	BLM	Vale District Law Enforcement Malheur Field Office	Office: 541-523-1493	sacox@blm.gov
State Contacts				
Craig Heuberger	Oregon Department of State Police	Lieutenant	Office: 503-508-0779 Cell: 503-708-6461	OSP Dispatch: 503-731-3030 cheuber@osp.oregon.gov
Nici Vance	Oregon State Medical Examiner	State Forensic Anthropologist	Office: 971-673-8300	Nici.Vance@state.or.us
Idaho State Police	Investigation Section		208-884-7110	invinfo@isp.idaho.gov
Sheriff's Department	Owyhee County (Idaho)		208-495-1154	
Sheriff's Department	Baker County (Oregon)		541-523-6415	
Sheriff's Department	Umatilla County (Oregon)		541-966-3600	
Sheriff's Department	Malheur County (Oregon)		541-473-5126	
Sheriff's Department	Union County (Oregon)		541-963-1017	
Tribal Contacts				
Teara Farrow Ferman	Confederated Tribes of the Umatilla Indian Reservation	Cultural Resource Protection Program Manager	Office: 541.276.3447 Cell: 541-377-2959	tearafarrowferman@ctuir.org
Carey Miller	Confederated Tribes of the Umatilla Indian Reservation	Tribal Historic Preservation Officer	Office: 541-429-7234	careymiller@ctuir.org

Name	Organization	Role	Phone	Email
Audie Huber	Confederated Tribes of the Umatilla Indian Reservation	Intergovernmental Affairs Coordinator	Office: 541-276-3165	audiehuber@ctuir.org
N. Kathryn Brigham	Confederated Tribes of the Umatilla Indian Reservation	Board of Trustees Chair	Office: 541-429-7374	
Brian Thomas	Shoshone-Paiute Tribes of Duck Valley	Chairman	Office: 208-759-3100 Ext. 1231	thomas.brian@shopai.org
Louise E. Dixey	Shoshone-Bannock Tribes of Fort Hall	Cultural Resources Director	Office: 208-236-1185	ledixey@sbtribes.com
Carolyn Smith	Shoshone-Bannock Tribes of Fort Hall	Cultural Resources Coordinator	208-478-3707 208-236-1086	csmith@sbtribes.com
Nathan Small	Shoshone-Bannock Tribes of Fort Hall	Tribal Chairman	Office: 208-478-3805	nsmall@sbtribes.com
Diane Teeman	Burns Paiute Tribe	Chairman/Culture & Heritage Director	541-413-1190	dlteeman.burns.paiute@gmail.com
Calla Hagle	Burns Paiute Tribe	Natural Resources Department	541-573-8021	Calla.Hagle@burnspaiute-nnsn.gov
Maxine Redstar	Fort McDermitt Paiute-Shoshone Tribes	Tribal Chairwoman	775-532-8259 775-532-8402	maxine.redstar@fmpst.org
Raymond Tsumpti, Jr	Confederated Tribes of the Warm Springs Reservation of Oregon	Tribal Council Chairman	541-553-1161	raymond.tsumpti@wstribes.org
Christian Nauer	Confederated Tribes of the Warm Springs Reservation of Oregon	Cultural Resource Manager	541-553-2021	Christian.nauer@ctwsbnr.org
Patrick Baird	Nez Perce Tribe	Tribal Historic Preservation Officer	208-621-3851	keithB@nezperce.org
Samuel Penney	Nez Perce Tribe	Chairman	(208) 843-2253 (General)	NPTEC@nezperce.org (general email for executive committee)

Name	Organization	Role	Phone	Email
Kate Valdez	Yakama Nation	Tribal Historic Preservation Officer	509.865.5121 x4041	kate_valdez@yakama.com
Delano Saluskin	Yakama Nation	Chairman	509-865-5121	delano_saluskin@yakama.com
Guy Moura	Confederated Tribes of the Colville	Tribal Historic Preservation Officer	509-634-2695	guy.moura@colvilletribes.com
Jackie Cook	Confederated Tribes of the Colville	NAGPRA Officer	509-634-2635	jackie.cook@colvilletribes.com
Andrew Joseph Jr.	Confederated Tribes of the Colville	Tribal Chairman	Office: 509-634-2218	Andy.joseph@colvilletribes.com
Additional Agency Contacts				
Jennifer Theisen	BLM	B2H Archaeologist	Office: 541-523-1424	jtheisen@blm.gov
Michael Wanzenried	BLM	Archaeologist, Malheur Field Office	Office 541-473-3144	mwanzenried@blm.gov
Katy Coddington	BLM	Archaeologist, Baker Office	Office: 541-523-1460	kcoddington@blm.gov
Tanis Partee	BLM	Owyhee Field Office Archaeologist	Office: 208-896-5914	tpartee@blm.gov
Heather Ulrich	BLM	BLM OR Cultural Resources Lead	Office: 503-808-6233	hulrich@blm.gov
Kelli Barnes	BLM	BLM ID Cultural Resources Lead (acting)	Office: 208-373-3844	kbarnes@blm.gov
Gene Yates	USFS Wallowa-Whitman NF	Environmental Coordinator	Office: 541-523-1290	eugene.yates@usda.gov
Sarah Crump	USFS Wallowa-Whitman NF	Forest Archaeologist	Office: 541-523-1249	sarah.crump@usda.gov
Stephen Betts	USFS Wallowa-Whitman NF	Law Enforcement Officer	Office: 541-523-1356	Stephen.betts@usda.gov
Sunshine Schmidt	Bonneville Power Administration	Senior Archaeologist	503-230-5015	srclark@bpa.gov
Tia R Cody	Bonneville Power Administration	Archaeologist	503-230-5132	trcody@bpa.gov
Jenny Rilk	Bureau of Reclamation	Snake River Area Office Archaeologist	Office: 208-383-2257	jrilk@usbr.gov
<i>Secondary Reclamation contact TBD</i>				

Name	Organization	Role	Phone	Email
Lead Agency Key Contractor Contacts				
<i>TBD</i>		BLM Compliance Inspection Contractor		
<i>TBD</i>		Cultural Monitor		
Proponent Contacts				
Shane Baker	Proponent (Idaho Power)	Archaeologist	Office: 208-388-2925	sbaker@idahopower.com
Adam Leroy	Proponent (Idaho Power)	Archaeologist		aleroy@idahopower.com
Erin King	Tetra Tech	Archaeological Consultant	612-643-2227	erin.king@tetrattech.com
Stephen Anderson	TetraTech	Archaeological Consultant	303-980-3601	stephen.anderson@tetrattech.com

APPENDIX D
PROPERTY-SPECIFIC MITIGATION AND MONITORING PLANS

APPENDIX E
SUBSURFACE INVESTIGATION STRATEGY PLAN (SISP)

**Boardman to Hemingway Transmission
Line Project – Oregon Cultural Resources
Subsurface Investigation Strategy Plan
Morrow, Umatilla, Union, Baker, and Malheur
Counties, Oregon**

**FINAL
BLM Report #VD-22-02
OR SHPO Case #08-2232**

Prepared by:

Tetra Tech, Inc.
350 Indiana Street
Suite 500
Golden, CO 80401

Prepared for:



1221 W. Idaho Street
Boise, ID 83702

For Submission to:

U.S. Bureau of Land Management, Vale District Office

July 2022

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Not for Public Distribution.*

Boardman to Hemingway Transmission Line Project Oregon Cultural Resources Subsurface Investigation Strategy Plan

Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon

FINAL

Authors:

Deborah Huntley, PhD, RPA; Erin King, RPA; Stephen R. Anderson, RPA; Mary
Connell; Jenna Farrell; and Lara Rooke, RPA

Prepared by:

Tetra Tech, Inc.
350 Indiana St., Suite 500
Golden, CO 80401
Project No. 106-4422

Prepared for:

Idaho Power Company
Contract No. CM - 3901

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ABSTRACT

Idaho Power Company proposes to develop a 500-kilovolt transmission line beginning in north-central Oregon near Boardman and ending in southwestern Idaho at the Hemingway Substation approximately 15.25 miles southeast of Marsing, Idaho. The Boardman to Hemingway Transmission Line Project (Project or undertaking) consists of approximately 296.6 miles of electric transmission line, with 272.8 miles located in Oregon and 23.8 miles in Idaho. The U.S. Bureau of Land Management (BLM) is the lead agency and will determine if the Project will have adverse effects on historic properties under Section 106 of the National Historic Preservation Act.

Results of cultural resources surveys to date have been presented in multiple reports. These reports recommended subsurface investigations at some locations where the undertaking and/or associated geotechnical investigations (which are treated as a separate undertaking by BLM) may have an adverse effect on historic properties or potential historic properties. This Subsurface Investigation Strategy Plan is intended to act as a guiding document for those investigations and to support archaeological excavation permit applications in Oregon. At this time, no subsurface investigations are anticipated in Idaho.

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Appendix A. Inadvertent Discovery Plan for Human Remains

ACRONYMS AND ABBREVIATIONS

°C	degrees Celsius
°F	degrees Fahrenheit
AD	Anno Domini
AMS	accelerator mass spectrometry
APE	area of potential effect
ASL	above sea level
BLM	U.S. Bureau of Land Management
BP	before present
BPA	Bonneville Power Administration
CCC	Civilian Conservation Corps
cm	centimeters
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
GIS	geographic information system
GLO	General Land Office
GPS	Global Positioning System
HPA	high probability area
HPRCSIT	Historic Property of Religious or Cultural Significance to Indian Tribes
IF	isolated find
IPC	Idaho Power Company
km	kilometer
km ²	square kilometers
kV	kilovolt
mi ²	square miles
NHPA	National Historic Preservation Act
NHT	National Historic Trail
NRHP	National Register of Historic Places
NWSTF	Naval Weapons System Training Facility
NWSTF Boardman	NWSTF Boardman Bombing Range
OR&N	Oregon Railroad & Navigation Company
ORS	Oregon Revised Statutes
OSL	Oregon Short Line
PA	programmatic agreement
POW	prisoner of war
Project	Boardman to Hemingway Transmission Line Project
Reclamation	U.S. Bureau of Reclamation
ROW	right-of-way
SHPO	State Historic Preservation Office

SIS, or Plan	Subsurface Investigation Strategy Plan
TCP	Traditional Cultural Property
Tetra Tech	Tetra Tech, Inc.
UPRR	Union Pacific Railroad
USFS	U.S. Department of Agriculture, Forest Service
USGS	U.S. Geological Survey
VLF	very low frequency

1.0 INTRODUCTION

Idaho Power Company (IPC) proposes to develop a 500-kilovolt (kV) transmission line beginning in north-central Oregon near Boardman and ending in southwestern Idaho at the Hemingway Substation approximately 15.25 miles southeast of Marsing, Idaho (Figure 1-1). The Boardman to Hemingway Transmission Line Project (Project/undertaking) consists of approximately 296.6 miles of electric transmission line, with 272.8 miles located in Oregon and 23.8 miles in Idaho. The Project includes 270.8 miles of single-circuit 500-kV transmission line, removal of 12 miles of existing 69-kV transmission line, relocation of 0.9 mile of a 230-kV transmission line, and relocation of 1.1 miles of an existing 138-kV transmission line into a new right-of-way (ROW). The U.S. Bureau of Land Management (BLM) is the lead agency and will determine if the Project will have adverse effects on historic properties under Section 106 of the National Historic Preservation Act (NHPA).

Tetra Tech, Inc. (Tetra Tech), is conducting subsurface investigations in support of the Project and in order to better assess effects to historic properties under Section 106 of the NHPA. These investigations are anticipated to be limited to Oregon. The results of pedestrian cultural resources surveys conducted since 2011 in Oregon and ahead of the subsurface investigations are presented in multiple reports (Anderson et al. 2015; Anderson et al. 2018; Anderson and King 2019; King et al. 2021; King and Anderson 2021; King et al. 2022). These reports have recommended subsurface investigations at locations where Project-related ground disturbance may have direct adverse effects on historic properties or potential historic properties.

This document, the Subsurface Investigation Strategy Plan (SIS or Plan), is intended to guide those investigations in Oregon and will be used in support of archaeological excavation permits. It also supports compliance with sections II.E.4 through 6 and III of the Project's Programmatic Agreement (PA) for compliance with Section 106 of the NHPA (see Section 1.2.1 below). Section III.C.3 of the PA specifically requires completion of this Plan. The Plan discusses in general methods anticipated to be used in resource boundary probing, probing of high potential areas (HPAs), and testing for National Register of Historic Places (NRHP) eligibility. Methods to be employed at specific resources or HPAs will be specified in those archaeological excavation permits. No subsurface investigations are anticipated in Idaho.

1.1 Undertaking Description

The purpose of the Project is to provide additional capacity connecting the Pacific Northwest and the Intermountain regions of southwestern Idaho. This will alleviate existing transmission constraints and ensure sufficient capacity to meet present and forecasted load requirements. The Oregon portion of the transmission line trends northwest-southeast beginning near Boardman south of the Columbia River, extending through the Blue Mountains, and ending at the Oregon/Idaho state line just north of the Owyhee Mountains. The Project consists of the following facilities in Oregon:

- The Proposed Route, consisting of 270.4 miles of new 500-kV electric transmission line, 16.5 miles of single-circuit 500-kV transmission line for a single alternative, removal of 12 miles of existing 69-kV transmission line, rebuilding of 1.1 mile of a 230-kV transmission line, and rebuilding of 1.1 miles of an existing 138-kV transmission line;
- One proposed 20-acre station (Longhorn Station), with 20 acres for operation and 24.4 acres for construction;



IDAHO POWER Boardman to Hemingway Transmission Line Project
an IOACORP Company

- Direct APE
- State Capital
- County Seat
- Other City or Town
- Interstate
- Other Highways

Figure 1-1
 Project Overview

Base Map: National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, Increment P Corp.

- Eleven communication station sites of less than ¼-acre each and one alternative communication station site;
- Permanent access roads for the Proposed Route, including 222.2 miles of new roads and 282.0 miles of existing roads requiring substantial modification, and for the Morgan Lake Alternative Routes including 12.3 miles of new roads and 16.5 miles of existing roads requiring substantial modification; and
- Thirty-four temporary multi-use areas and 263 pulling and tensioning sites, of which four will have light-duty fly yards within the pulling and tensioning sites.

The ROW width for the majority of the single-circuit 500-kV line will be up to 250 feet. The ROW width requested along the east edge of Naval Weapons System Training Facility (NWSTF) Boardman Bombing Range (NWSTF Boardman) will be 90 feet. The ROW width for the 1.1-mile relocation of existing 138-kV transmission line will be up to 100 feet. The ROW width for the 0.9-mile single-circuit 230-kV relocation portion will be up to 125 feet. The Project will require vehicular access during construction of the station, each communication station site, and each transmission structure, as well as temporary facilities including multi-use areas and pulling and tensioning sites. As described in the Project's Road Classification Guide and Access Control Plan (IPC 2016), access roads included in the Project are 1) new roads, 2) existing roads requiring substantial modification, and 3) existing roads that will not require substantial modification.

Impacts from Project construction include ground disturbance for the temporary use areas, the permanent roads (including new road construction as well as widening and improving existing roads), and the disturbance area at each structure within the transmission line ROW.

1.1.1 Transmission Line

The majority of the proposed transmission line circuits will be supported by 500-kV single-circuit steel lattice towers that range between 100 and 165 feet in height and spaced 1,200 to 1,800 feet apart. Each structure will require a 250- by 250-foot construction disturbance area (1.43 acres per structure) and will occupy an area 50 by 50 feet (0.06 acre) during operation. Table 1-1 describes all structure characteristics for the Proposed Route.

Table 1-1. Proposed Route Structure Characteristics

Structure Type	# of Structures	Height (ft)	Distance Between Structures (ft)	Construction Disturbance Area per Structure (ft)	Operational Disturbance Area per Structure (ft)
500-kV Single-Circuit 3-Pole Deadend (Birch Creek area)	3	75-90	NA	250 x 250 (1.4 acres)	90 x 10 (0.02 acre)
500-kV Single Circuit 3-Pole Deadend (NWSTF area)	3	115	NA	90 x 250 (0.5 acre)	90 x 10 (0.02 acre)
500-kV Single Circuit H-Frame (Birch Creek area)	6	65-100	450-900	250 x 250 (1.4 acre)	40 x 10 (0.001 acre)
500-kV Single Circuit H-Frame (NWSTF area)	70	75-105	350-950	90 x 250 (0.5 acre) on NWSTF <u>and</u> 150 x 250 (0.9 acre) off NWSTF	40 x 10 (0.001 acre)
500-kV Single-Circuit Lattice	1,076	109-200	1,200-1,800	250 x 250 (1.4 acres)	50 x 50 (0.06 acre)
230-kV Single-Circuit 3-Pole Deadend	4	61-66	NA	250 x 150 (0.9 acre)	130 x 40 (0.01 acre)
230-kV Single-Circuit H-Frame Structure	5	57-75	400-1,200	250 x 100 (0.6 acre)	25 x 5 (0.01 acre)
138-kV Single-Circuit 3-Pole Deadend	3	51.5	NA	250 x 150 (0.9 acre)	130 x 30 (0.09 acre)
138-kV Single-Circuit H-Frame	9	51-61	500-750	250 x 150 (0.9 acre)	16.5 x 5 (0.001 acre)

The 500-kV single-circuit lattice steel structures each require four foundations, one on each of the four corners of the lattice towers. The foundation style, diameter, and depth will be determined during final design and are dependent on structure loading conditions and the type of soil or rock present at each specific site. The preliminary design indicates the foundations for the single-circuit tangent lattice towers will be composed of steel-reinforced concrete drilled piers with a typical diameter of 4 feet and a depth of approximately 15 feet. For the 500-kV H-frame structures, each tangent structure will require two foundations, one for each pole that comprises the H-frame structure. Angle and dead-end structures will use a three-pole structure, each with its own foundation. They will be steel-reinforced drilled piers with a typical diameter of 6 to 8 feet and a depth of approximately 25 to 40 feet. The 138-kV H-frame structures will be direct-embedded wood poles. Tangent structures will be direct-embedded in a single drilled boring, typically 5 feet in diameter and 15 feet deep. Angle and dead-end structures will be on steel-reinforced drilled pier foundations with a typical diameter of 5 to 6 feet and a depth of

approximately 20 to 25 feet. For the 230-kV H-frame structures, each of the two poles for tangent structures will be direct-embedded. Each of the three poles that make up the angle and dead-end structures will be direct-embedded and guyed. Typical direct-embedded foundations sizes will be 5 feet in diameter and 12 feet deep.

Table 1-2 shows typical foundation diameters and depths for the proposed structure families.

Table 1-2. Foundation Excavation Dimensions

Structure Type	# of Holes per Structure	Depth (feet)	Diameter (feet)	Concrete (cubic yards)
500-kV Single-Circuit 3-Pole Deadend	3	30	9	212
500-kV Single-Circuit H-Frame	2	25	8	93
500-kV Single-Circuit Lattice, Heavy Deadend	4	30	6	126
500-kV Single-Circuit Lattice, Heavy Tangent	4	16	4	30
500-kV Single-Circuit Lattice, Light Tangent	4	16	4	30
500-kV Single-Circuit Lattice, Medium Deadend	4	22	6	93
500-kV Single-Circuit Lattice, Small Angle	4	16	6	68
500-kV Single-Circuit Y-Frame, Tangent	1	43	8	80
500-kV Single-Circuit H-Frame, Tangent	2	25	8	93
230-kV Single-Circuit 3-Pole Deadend, Guyed	3	12	4	NA
230-kV Single-Circuit H-Frame, Tangent	2	12	4	NA
138-kV Single-Circuit 3-Pole Deadend	3	9	4	NA
138-kV Single-Circuit H-Frame, Tangent	2	9	4	NA

NA – not applicable

The ROW width for the majority of the single-circuit 500-kV line will be 250 feet. The ROW width requested along the east edge of NWSTF Boardman will be 90 feet. The ROW width for the 1.1-mile relocation of existing 138-kV transmission line will be 100 feet. The ROW width for the 0.9-mile single-circuit 230-kV relocation portion will be 125 feet.

1.1.2 Access Roads

The Project will require vehicular access during construction of the station, each communication station site, and each transmission structure, as well as temporary facilities including multi-use areas and pulling and tensioning sites. As described in the Project's Road Classification Guide and Access Control Plan (IPC 2016), access roads included in the Project's design are:

- New roads; and
- Existing roads requiring substantial modification.

Existing roads that will be used for construction and operation of the undertaking, but will not require substantial modification are not included in the Project's area of potential effect (APE) under Section 106 of the NHPA and as defined in I.A of the PA. Table 1-3 provides a summary of the access road classifications.

Table 1-3. Summary of Access Road Classifications

Access Road Classification		Project Site Boundary	Construction Disturbance	Operations Disturbance	Road Prism or Profile Changes	Extent of Work
New Roads	Primitive	200 feet	16 feet	10 feet	Yes	Clearing of vegetation or obstructions. Create roads by direct vehicle travel.
	Bladed	200 feet	16–35 feet	14 feet	Yes	Clearing of vegetation or obstructions. Create roads by cutting/filling existing terrain.
Existing Roads - Substantial Modification	Substantial Modification, 21-70% Improved	100 feet	16 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
	Substantial Modification, 71-100% Improved	100 feet	16–30 feet	14 feet	Yes	Reconstruct portions of existing road to improve road function. Possible road prism widening, profile adjustments, horizontal curve adjustments, or material placement.
Existing Roads – No Substantial Modification	No Substantial Modification, 0-20% Improved	NA ¹	NA ¹	NA ¹	No	Repair of existing road to maintain original road function. No betterment of existing road function or design.

¹ Existing roads with no substantial modifications are not included in the APE and do not have an operation or construction disturbance width assigned to them.

1.2 Regulatory Context

The BLM is the lead agency for the Project and will determine if the undertaking and/or associated geotechnical investigations (treated as a separate undertaking by BLM) will have adverse effects on historic properties under Section 106 of the NHPA. For subsurface cultural investigations on federal public land, a Permit for Archaeological Investigations (also referred to as an Antiquities Permit or an Archaeological Resources Protection Act permit) is required.

As outlined in the Oregon Revised Statutes (ORS 390.235 and 358.905-961), a state archaeological permit is required for all subsurface field investigations conducted on non-federal public lands requiring ground disturbance, and all investigations of known archaeological sites on private lands, require a State of Oregon Archaeological Excavation Permit. Archaeological permits are also required for any surface collections or subsurface field investigation that has

the potential to disturb, destroy, or otherwise alter a site or sensitive area. Permits are not required for non-ground disturbing research activities.

Tetra Tech will obtain necessary permits for subsurface investigations prior to conducting fieldwork.

1.2.1 Programmatic Agreement

A PA for managing historic properties (cultural resources that are listed on or eligible for listing on the NRHP) that may be affected by the Project has been prepared by the BLM, acting as the designated lead federal agency and in consultation with the Section 106 Cultural Resources Working Group for the Project. The PA designates the BLM, U.S. Department of Agriculture Forest Service (USFS), U.S. Bureau of Reclamation, Bonneville Power Administration, U.S. Army Corps of Engineers, Advisory Council on Historic Preservation, Oregon State Historic Preservation Office (SHPO), Idaho SHPO, Washington Department of Archaeology and Historic Preservation, and the Confederated Tribes of the Umatilla Reservation (CTUIR) Tribal Historic Preservation Office as signatories to the PA. Invited signatories to the PA include the National Park Service and IPC. Concurring party signatories include Oregon Department of Energy, the Burns Paiute Tribe, the Fort McDermitt Paiute and Shoshone Tribe, the Oregon-California Trails Association, Oregon Historic Trails Advisory Council, U.S. Fish and Wildlife Service, and Lewis and Clark Heritage Trail Foundation Washington state chapter.

The PA defines the APE for the undertaking as well as supporting studies, such as the geotechnical investigations. The large scope of the Project necessitates a phased approach to cultural resources compliance efforts. The final determinations of Project effects to historic properties and the resolution of adverse effects will be outlined in a Historic Property Management Plan, required by Section VII of the PA.

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2.0 ENVIRONMENTAL SETTING

The APE encompasses a range of natural environments that have been extensively described in prior survey reports for the Project. Applicable and pertinent aspects are summarized here.

Throughout the pre-contact and historic periods, cultural adaptations and lifestyles were largely influenced by or dependent upon an area's environmental setting and the kinds of resources available within that setting. Within Oregon, the APE traverses the Columbia Plateau, Blue Mountains, Snake River Plain, and the Northern Basin and Range (Anderson et al. 1998:iv). Cultural adaptations in the region have responded to an environment that has changed over time. Following the last glacial maximum (24,000–20,000 years ago), archaeological evidence suggests humans entered the region and populations began to expand. At the same time, temperatures warmed during the Altithermal. This warming peaked around 8500 to 7500 years before present (BP), cooled through 3000 BP (Little Ice Age), and then warmed again to today's climate (Aikens et al. 2011:152; Chatters 1998:42–46; Mehringer 1986; Neusius and Gross 2007:63–67). The floral and faunal resources of the region responded to these fluctuations, and so did human populations.

2.1 Columbia Plateau

In Oregon, the Columbia Plateau stretches from The Dalles east to Milton-Freewater. It also extends from the Columbia River in the north, south to the Blue Mountains.

The Columbia Plateau ranges from an alluvial plain along the Columbia River, to basalt plateaus, to a transitional, dissected upland area between the plateaus and the Blue Mountains. The lower reaches of present-day Deschutes River, John Day River, Rock Creek, Willow Creek, Butter Creek, and Umatilla River cross and drain the region. Dune systems, a result of high "Gorge winds," are found along the plain south of Boardman and along the Columbia River north and east of Pendleton. South of the alluvial plain, the plateaus are characterized by a nearly level to rolling, treeless topography with Quaternary loess deposits underlain by Columbia Basalts. The dissected uplands south of the plateaus include a transition zone of hilly uplands at the foot of the forested mountains where the slopes are rolling to very steep (Figure 2-1) (Anderson et al. 1998; Bryce and Omernik 1997a; Franklin and Dyrness 1973; Thorson et al. 2003).

In the northern portion of the Columbia Plateau along the river, loess deposits can be upwards of 150 feet (46 meters) thick. Soils developed from the deposits are correspondingly complex. To the south atop the plateaus and dissected uplands, sediment and soil deposits are relatively thin with extensive alluvial deposits limited to the floodplains of streams and fans at the foot of the Blue Mountains. Aridisols dominate basin and lowland areas whereas Mollisols are found at higher elevations. Dry lake beds are numerous (Anderson et al. 1998; Franklin and Dyrness 1973).

Sagebrush steppe, a vegetative community composed of sagebrush (and other shrubs) mixed with short grasses, is characteristic of the Columbia Plateau (Chatters 1998). Wheat, alfalfa, and corn dominate the observed landscape of the APE and surrounding area today. Prior to the arrival of Euro-Americans, the grasslands and shrub-steppe plains supported a great variety of native terrestrial vertebrates, avian species, amphibians, reptiles, and fish.



Figure 2-1. Representative View of the Dissected Uplands of the Columbia Plateau

Between approximately 15,000 and 6,000 years ago, the Columbia Plateau experienced extreme seasonal climatic swings (Chatters 1998). Glaciers in Montana melted, swelling glacial Lake Missoula behind an immense ice dam on the Clark Fork River. Periodic breaches in the dam caused a series of flood events referred to as the Missoula Floods. These cataclysmic flood events inundated everything to the west as far as Portland and the Willamette Valley and scoured west-central Washington down to bedrock (Bishop 2003). Tephra from eruptions of both Mount St. Helens and Glacier Peak blanketed much of the Plateau between 11,700 and 11,200 years BP (Andrefsky 2004:25). After centuries of smaller eruptions, Mount Mazama, in central Oregon, collapsed in a cataclysmic eruption approximately 6780 BP. Ash deposits from Mount Mazama spread over large portions of the Plateau, affecting the entire biosphere and consequently human settlement patterns in much of Oregon (Connolly 1999:26).

2.2 Blue Mountains

The Blue Mountains are characterized by a complex of forested mountain ranges extending from the Redmond area of central Oregon east to Hells Canyon on the Snake River. To the north and south, the area is bounded by the Columbia Plateau and the northern Great Basin, respectively. Mountain ranges considered part of the Blue Mountains environmental region include the Strawberry Range, Greenhorn, Elkhorn, Aldrich, and Maury mountains in the Blue Mountains proper, the gentler Ochoco Mountains to the west, and the high and rugged Eagle Caps to the east (Anderson et al. 1998; Franklin and Dyrness 1973). Several major rivers have their headwaters in the Blue Mountains region, including the Walla Walla, Grande Ronde, Imnaha, Powder, Burnt, Malheur, Umatilla, and John Day rivers. These rivers drain to the Snake River, with the exception of the Walla Walla, Umatilla, and John Day rivers, which are direct tributaries of the Columbia River (Anderson et al. 1998; Franklin and Dyrness 1973).

The Blue Mountains include a wide variety of features, including areas with a high marine influence, a mesic forest, basins, foothills, and dissected mountains. Areas with a maritime influence from weather systems moving up the Columbia River Gorge are typically in the more

northerly portion of the Blue Mountains and include mixed forest/meadow/scabland. Topography in these areas is characterized by long ridges, often with relatively level summits, that fall away into steep, highly dissected canyons and narrow valleys. Loess and ash soils over a substrate of basalt. McKay Creek, Meacham Creek, the Umatilla River, and the Grande Ronde River, along with its tributaries, drain this part of the Blue Mountains. Interspersed among the mountains are open meadows (Bryce and Omernik 1997b; Thorson et al. 2003). Basins in the Blue Mountain region are characterized by flat to rolling alluvial valleys with floodplains, fluvial terraces, and scattered hills (Figure 2-2). These are generally limited to the Grande Ronde, Powder, Baker, and Wallowa valleys. Valleys in the area once supported expansive wetlands along primary rivers (Bryce and Omernik 1997b; Thorson et al. 2003). The eastern foothills of the Blue Mountains region consist of rolling uplands and scattered hills and buttes between Oregon's Blue and Wallowa mountains and the northwestern Snake River Plain (Bryce and Omernik 1997b; Thorson et al. 2003). The dissected mountains of the Blue Mountain region include the Wallowa and Seven Devils mountains near the Oregon/Idaho border (Figure 2-3). Perennial streams following fault lines have eroded deep canyons (Bryce and Omernik 1997b; Thorson et al. 2003).

Soils of the Blue Mountains can be grouped according to the natural surrounding vegetation comprising the upland grasslands, upland shrub–grasslands, meadows, forested areas, subalpine, and alpine areas (Anderson et al. 1998; Franklin and Dyrness 1973). Soil types and depths vary depending upon the subarea.

A combination of varied elevation and topography, geological substrate, and pronounced seasonality results in a floristically rich environment in the Blue Mountain region (Umatilla National Forest 1999). Changes in vegetative community composition accompany differences in elevation and slope aspect; north- and south-facing slopes generally support distinct suites of vegetative associations. The same dramatic variations in topography coupled with floristic diversity create a rich mosaic of habitats in the Blue Mountains the support a variety of ungulates, mammalian predators, avian species, amphibians, reptiles, and fish.



Figure 2-2. Representative View of the Blue Mountain Basins



Figure 2-3. Representative View of the Dissected Mountains in the Wallowa and Seven Devils Mountains

Pleistocene glaciers persisted until almost 12,000 years BP in some portions of the Blue Mountains (Bishop 2003:202). Climatic patterns over the terminal Pleistocene and Holocene are otherwise consistent with the Columbia Plain. Over time, most of the volcanic ash from the Mount St. Helens, Glacier Peak, and Mount Mazama eruptions that blanketed portions of the Blue Mountains have been lost through wind and water erosion. On north-facing slopes and in protected areas, ash deposits of varying depths are still evident (Franklin and Dyrness 1973:29; Jaehnig 1994:28).

2.3 Snake River Plain

The Snake River Plain includes much of the Snake River drainage in Oregon and the lower reaches of the Owyhee and Malheur rivers in extreme eastern Oregon (Hackett and Bonnicksen 1994). The plain forms a great arc across a small portion of southeastern Oregon and southern Idaho, bound on the north by the foothills of the Rocky Mountains and on the south by the Snake River (Link 2011). The principal drainages along the Oregon portion of the APE in the Snake River Plain are the Snake River, Owyhee River, and Malheur River. On the southern side of the Snake River, only a few perennial streams are present (McGrath et al. 2000).

The western Snake River Plain consists of a continental-rift structure or tectonic graben filled with fluvial and lacustrine (lake) sediments from two ancestral lake episodes from the overflow of Lake Idaho and then the Lake Bonneville floods (BLM 2012, Grayson 1993, Wood and Clemens 2002). The flooding resulted in extensive sedimentation and the deposition of basalt boulders throughout the western plain. The sediments are underlain by a combination of rhyolite overlain by basalt (Bonnicksen et al. 2004; Perkins and Nash 2002; Pierce and Morgan 1992).

A relatively long growing season coupled with an elaborate irrigation system allows cultivation of diverse crops including wheat, sugar beets, alfalfa, potatoes, and onions. Prior to conversion to

intensive agriculture, the native vegetation of the western Snake River Plain was sagebrush-grassland (Figure 2-4) (Chatters 1998:35). Prior to the arrival of Euro-Americans, the western Snake River Plain supported a great variety of native terrestrial vertebrates, including varied mammals, fish, avian species, amphibians, and reptiles.



Figure 2-4. Overview of Treasure Valley Vegetation, Aspect Looking East

During the glacial maximum of the terminal Pleistocene, glaciers were present both north of the western Snake River Plain in the Salmon River drainage and the Sawtooth and Bitterroot ranges and in the Albion Range south of the Snake River Plain. With widespread warming around 15,000 years ago, the glaciers began to melt, and constrictions in canyons produced dams and periodic floods on the Snake River. The deluge from Lake Idaho and Lake Bonneville floods and general glacial meltwater entered the Snake River Plain just north of Pocatello and flowed west across southern Idaho before turning back north into the Hells Canyon region (DeGrey et al. 2016; O'Connor and Costa 2004; USGS 2012). This event, which inundated the Snake River to depths of more than 400 feet (122 meters), eventually channeled water into the Columbia River and to the Pacific Ocean.

2.4 Northern Basin and Range

The Northern Basin and Range, part of the larger Great Basin, includes portions of Oregon, Idaho, Nevada, Utah, and California. In Idaho and Oregon, the region extends from Burns south to the Nevada border and from Christmas Valley east into southwestern Idaho (Eaton 1982). Landforms include dissected lava plains, rolling hills, alluvial fans, valleys, and scattered mountain ranges (Bryce et al. 1999). Fault block mountains, with gradual slopes on one side

and steep basalt cliffs and rims on the other, are characteristic of the region (Dott and Prothero 1994). Lithic materials in the region include basalt, rhyolite ash-flow tuffs, diatomaceous deposits, and sedimentary deposits.

The western portion of the Northern Basin and Range is internally drained; the eastern portion, including the APE, drains to the Snake River. The Owyhee and Malheur rivers are the principal watercourses; however, other smaller drainages are also present. The Northern Basin and Range in Oregon is extremely dry, the extreme southeastern corner of the state having desert-like conditions. Runoff from precipitation and mountain snowpack often flows into low flat playas where it forms seasonal shallow lakes and marshes. Most of these basins contained large deep lakes during the late Pleistocene (40,000–10,000 years ago). As these lakes receded through the dry Holocene, the remaining salt and mineral deposits formed alkali flats (Harper 1986).

The Northern Basin and Range region encompasses the rugged and spectacular Owyhee River Canyon, shrub-steppe plateaus, and the uplands of the Owyhee Mountains. Cheatgrass has replaced depleted bunchgrasses in overgrazed areas, while riparian cottonwood forests at the major river confluences have largely given way to channelization and intensive agriculture. In the western part of the region in the vicinity of the APE, the local geology typically includes basalt, pyroclastics, and alluvial sediments; however, the overall region also include andesites and rhyolite tuffs (Franklin and Dyrness 1973:34-35). Fluvial and eolian processes dominate soil formation in the Great Basin. Mollisols are common. Throughout the Northern Basin and Range, soils are typically rocky and thin, low in organic matter, and high in minerals. Some areas are stripped to bare rock by wind and water. Deeper soils have accumulated along river terraces (Anderson et al. 1998:94). Fossil-bearing sediments are present in some areas; bones of extinct fauna are occasionally found west and south of Vale, Oregon.

Given the low precipitation, generally poor soils, and extreme fluctuations in daily and annual temperatures characteristic of the Northern Basin and Range, the flora of the region is surprisingly diverse. Shrub-steppe communities dominate, but a variety of other associations, ranging from spiny alkaline-adapted shrubs to islands of coniferous forest, respond to the mosaic of elevation, precipitation, and soil composition. Habitats in the region include alkaline wetlands, natural marshes, shrublands, sagebrush steppe, riparian woodlands, aspen woodlands, and other woodland communities. Large mammal communities and avian species are varied in the region, though altered as the result of historic-era activities.

During the terminal Pleistocene, glaciers carved immense bowl-shaped gorges, woodlands occupied present-day treeless steppes, and pluvial lake basins were full. Conditions began to change in the Early Holocene, becoming more arid. Pleistocene megafauna that had been present disappeared, and plant and animal communities shifted in response to receding lakes and changes in rain seasonality. The final eruption of Mount Mazama affected the northern Great Basin as well as the Columbia Plateau. Portions of eastern Oregon were buried under ash and pumice. Eventually plants, animals, and humans returned to the area, but under a different climatic regime, one with longer winters and cooler summers. Unlike the northern portions of the APE, where climatic conditions have been relatively stable over the last 2,000 years, the northern Great Basin has continued to undergo geological and biological instability (Mehring 1986).

3.0 CULTURAL-HISTORICAL CONTEXT

As with the previous environmental discussions, the cultural and historical contexts of the Project have been described extensively in prior survey reports and are summarized here.

3.1 Pre-Contact Narrative

The cultural areas of the APE comprise a large geographic area where indigenous peoples shared broadly similar social, subsistence, and material cultures (Lohse and Sprague 1998). The Columbia Plateau culture area includes all of the area drained by the Columbia and Fraser rivers, with the exception of that portion of the Snake River that drains the northern Great Basin. From its western terminus near Boardman, Oregon, to the Baker/Malheur County line, the APE lies within the southern Columbia Plateau subregion (note, this area differs from and is larger than the Columbia Plateau environmental region discussed in the preceding chapter). The remainder of the route in southeastern Oregon (and in southwestern Idaho, beyond the scope of this report) traverses the northern extreme of the Great Basin cultural area.

For the purposes of cross-referencing chronologies, archaeological patterns, and cultural patterns between culture areas, the simplified and accepted chronologies proposed by Andrefsky (2004) for the Plateau and Jennings (1986) for the Great Basin are utilized here.

3.1.1 Columbia Plateau

Andrefsky (2004) provides a synthesis of several chronologies to achieve a simplified four-phase sequence for the Columbia Plateau, including the Paleoarchaic (pre-11,000 to 8000 BP), the Early Archaic (8000 to 5000 BP), the Middle Archaic (5000 to 2000 BP), and the Late Archaic (2000 to 500 BP). This temporally structured model allows for direct comparison between the Plateau and Jennings' chronology for the Great Basin (Jennings 1986:115) and is therefore used here.

3.1.1.1 Paleoarchaic Period

The Paleoarchaic period (referred to as Pre-Archaic period in the Great Basin), as defined by Andrefsky (2004), dates from prior to 11,000 to ca. 8000 BP and includes the earliest archaeological evidence of human occupation in the southern Columbia Plateau. Two traditions of artifacts characterize this initial time period on the Columbia Plateau: the fluted-point tradition (Clovis or Folsom) and the western stemmed-point tradition (Windust points). Both are thought to have been used for hunting of megafauna and other big game. Generally, the fluted-point tradition is thought to have occurred prior to the western stemmed-point tradition. Various anomalous dates have led researchers to question this, however (Andrefsky 2004:26–27). Paleoarchaic assemblages also commonly include bulky cobble tools, bifaces, scrapers, edge-ground cobbles, graters, burins, and bola stones. Bone and antler tools are also typical, including bone points, needles, awls, beads, antler flakers, and antler wedges. Groundstone or milling implements are present but rare, suggesting a highly mobile society (Aikens et al. 2011; Ames et al. 1998; Neusius and Gross 2007:244). Paleoarchaic sites in the Columbia Plateau region are found in many environmental settings. Although many are open air sites (Neusius and Gross 2007:242), occupations have also been identified along the margins of pluvial lakes, in rock shelters and caves, and a few have been found at high elevations (Aikens et al. 2011:155; Andrefsky 2004:28).

3.1.1.2 Archaic Period

Andrefsky (2004) divides the Archaic period in the Columbia Plateau into Early, Middle, and Late sub-periods. The overall period is characterized by substantial changes in subsistence, sedentism, and material culture. Hunting technology changed as the climate changed and altered the species during this period. Archaic people began manufacturing finely made lanceolate and leaf-shaped points, and eventually the atlatl would replace the spear as the weapon of choice, only to be replaced itself by the bow and arrow.

The Early Archaic sub-period of the Columbia Plateau dates from ca. 8000 to 5000 BP. Generally speaking, the Early Archaic can be further divided into early and late sub-periods, the latter coinciding with the eruption of Mount Mazama in approximately 6700 BP. Finely made lanceolate and leaf-shaped Cascade points signify the advent of the early Archaic sub-period. The addition of large, side-notched projectile points (Northern Side-Notched or Cold Springs Side-Notched) is noted in the later sub-period, after the Mazama ashfall (Andrefsky 2004; Aikens 1993:95; Nelson 1969; Leonhardy and Rice 1970). This pattern is seen throughout the Lower Snake River and Middle Columbia River areas. On the Middle Columbia, however, microblades are also added in the latter portion of the Early Archaic (Andrefsky 2004:28; Neusius and Gross 2007:245). A cobble tool complex, possibly related to salmon processing and/or plant food processing, is present throughout the sub-period (Andrefsky 2004:28–29; Aikens et al. 2011:168).

Early Archaic sites occur in settings similar to those of the Paleoarchaic. The size and configuration of the Cascade and side-notched projectile points of the Early Archaic indicate substantial reliance on hunting of mammalian prey. However, faunal assemblages suggest the exploitation of locally abundant resources, depending on a site's location, or the resources with greatest yield for effort (i.e., optimal foraging). Consumption of fish and roots does appear to increase over the period, as evidenced by occasional fishing tackle (Ames et al. 1998:103), pounding stones, and occasional manos (Andrefsky 2004:28) found among archaeological assemblages of this sub-period. The presence of non-local obsidian at Early Archaic sites suggests an increase in widespread mobility and/or development of trade routes (Salo 1985). Although evidence of permanent storage facilities is lacking for this time period, an increase in sedentism toward the end during the transition into the Middle Archaic has been suggested (Chatters 2004).

Semi-subterranean pithouses on the Columbia Plateau appeared around 5000 BP, marking the beginning of the Middle Archaic sub-period (ca. 5000 to 2000 BP). The use of such dwellings denotes a more sedentary or at least structured settlement pattern (Andrefsky 2004:30; Chatters 2004:67). During this time, projectile point morphology developed into large side-notch points with low notches along the blade margins, expanding stems, and short barbs. Two new styles of projectile points also emerged on the Plateau during this transition and resemble points most often used by hunters in the Great Basin (Leonhardy and Rice 1970; Lohse 1995:6). Other hallmark artifacts of the sub-period include small side and end scrapers, cobble scrapers, utilized cobble spalls, and pounding stones. Sinkers, net weights, hopper-mortar bases, and pestles are also present in the assemblages. The lithic technology is geared to a generalized flake tool industry of basalt, which Leonhardy and Rice (1970:14) characterize as crude and impoverished. Large and small game were hunted, mussel gathering was emphasized, and fishing for salmonids continued. The ubiquitous introduction of hopper mortars and pestles suggests a change from seed processing with flat manos to processing of roots, meat, fish, and other materials across the southern Columbia Plateau. Salmon and other resident fish in conjunction with mussels and other riverine resources gain importance relative to big game hunting. However, salmon appear to have been of primary importance as indicated by high

densities of salmon bone in site assemblages as well as isotopic analyses of human remains that identified more than half of protein in the individuals' diets was from marine resources (Chatters and Pokotylo 1998:76–77; Neusius and Gross 2007:249).

Following a brief hiatus around 3900 BP, sedentism appears have increased and the economic strategy of the region changed from forager to collector around 3500 BP. Evidence of these changes is based on the addition of storage features, an increase in density of pithouses at occupation sites, and an intensification of root exploitation (Andrefsky 2004:30). Trade likely contributed to and partially allowed for this sedentism, as shell artifacts and obsidian are more common during this time period, with a slight reduction during the late Middle Archaic (Neusius and Gross 2007:250). Although sedentary sites appear to have focused on low elevations, towards the end of the period it appears use of high elevations for limited collection occurred (Chatters and Pokotylo 1998:76).

The Late Archaic sub-period of the Columbia Plateau dates from ca. 2000 to 500 BP. Trends during this time period are essentially similar across the Columbia Plateau as populations increased significantly and occupations occurred along all major and minor river valleys, in upland areas, and in dry basin areas (Andrefsky 2004:32). Aikens et al. (2011:178) indicate the Late Archaic established a “Plateau Pattern” of prosperous and socially complex fishing-hunting-gathering-trading society described in ethnohistoric accounts. By this time, the large pithouse villages of the Middle Archaic were located throughout the region along all the large rivers and tributary streams and in upland areas. Large winter villages were typically located in deep canyon bottoms and relied on stored foods supplemented by local hunting and fishing. Facilities for long-term, repeat storage were necessary outside of the pithouses, in the form of talus pits, rockshelters, and caves (Ames et al. 1998:111; Endacott 1992). Populations would separate into smaller groups in the spring to collect seasonal resources (Andrefsky 2004:32). There is clear evidence for anadromous fish harvesting and processing during this time, evidenced by the presence of harpoons and net sinkers in the artifact assemblages (Ames et al. 1998).

The Late Archaic period is characterized by the appearance of small corner-notched and basal-notched points by about 2400 BP, signaling the advent of bow and arrow technology. Within about 1,400 years, this technology had come to almost completely replace other hunting technologies on the Columbia Plateau. The prevalence of this new technology may have been related to an increase in warfare, which would be supported by the previously described population density increase, settlement patterns with large village sites in deep canyons, and osteology analyses (Aikens 2011:178; Andrefsky 2004:33; Neusius and Gross 2007:252). Other typical artifacts of the Late Archaic sub-period include large and small basal-notched and corner-notched projectile point types (Snake River Corner-Notched, Columbia Valley Corner-Notched, and Wallula Rectangular Stemmed), small end scrapers, lanceolate and pentagon-shaped knives, cobble implements, hopper mortars, pestles, and net weights. Assemblages suggest that large and small game were hunted, including bison and mountain sheep (Leonhardy and Rice 1970).

3.1.1.3 Late Pre-Contact Period

The Late Pre-Contact Period (post-AD 1450) on the Columbia Plateau is characterized by a continuation of the “Plateau Pattern” described above. Diagnostic artifacts included variable forms of Columbia Valley Corner-Notched, and camas and other roots were intensively used. Fishing, particularly for salmon, and the use of nets was ubiquitous, as was the use of pits and caves for storage. The presence of basketry, fiber, and wood artifacts is also noted as are small projectile points that suggest a further increase in the use of the bow and arrow (Leonhardy and Rice 1970). Small-stemmed points, often described as “pin-stemmed,” are found along the

Columbia River and to the north in the Palouse country (Nelson 1969:217). Small side-notch points analogous to Desert Side-Notched points of the Great Basin (Thomas 1981:18) are also present in the southern Columbia Plateau. Small expedient flake tools are especially abundant. Carved stone bowls, rock art, bone tools, gaming pieces, and intricate basketry are also found (Stern 1998:399).

3.1.1.4 Protohistoric and Historic Periods

Ethnographic information on the Columbia Plateau has been summarized in a number of sources, including those by Ames et al. (1998), CTUIR (2015), Ruby and Brown (1972), Stern (1998), and Suphan (1974) among others. In the Columbia Plateau, the APE traverses the ethnographic homelands of several groups of Native Americans (Figure 3-1): the Western Columbia River Sahaptins; the Umatilla, Cayuse, and Walla Walla; and the Nez Perce.

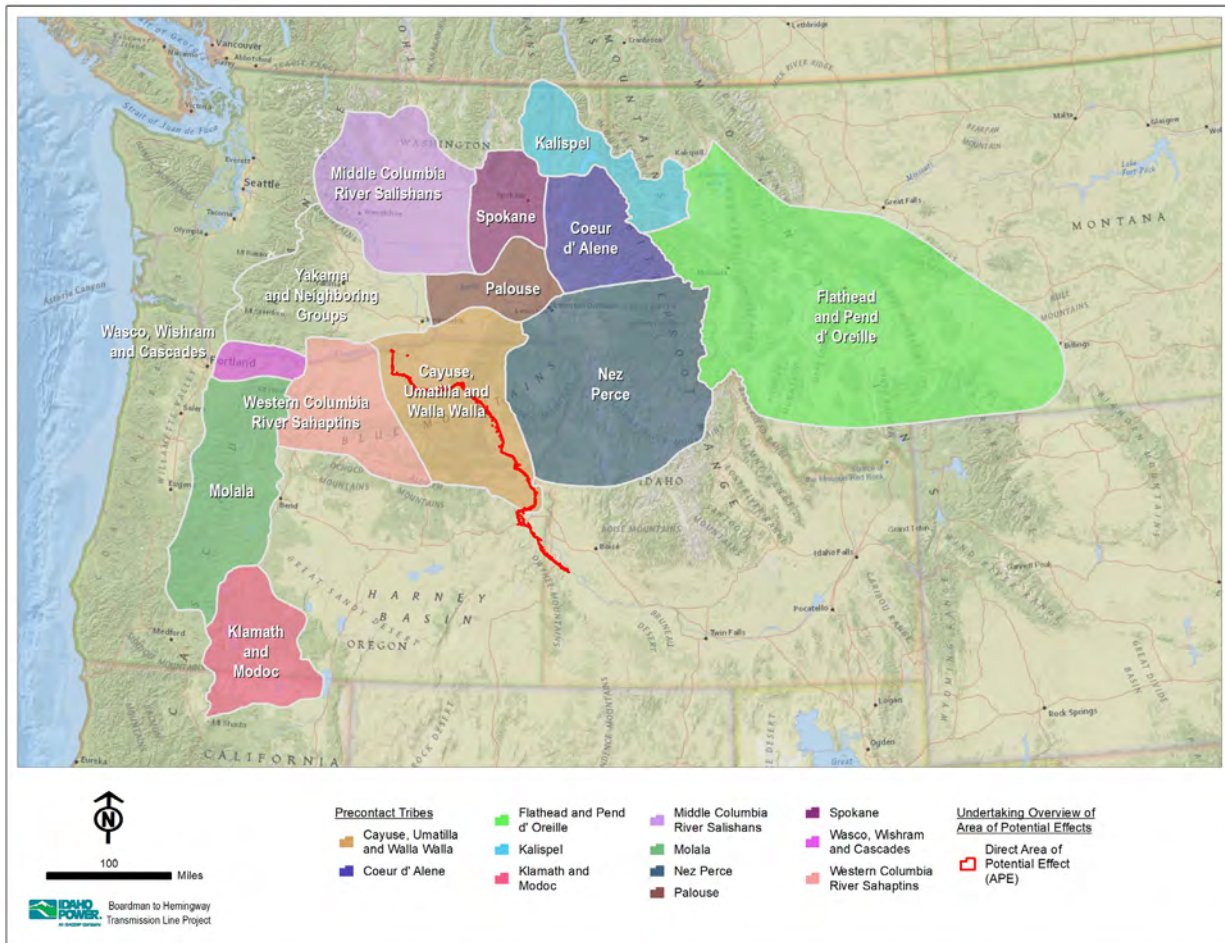


Figure 3-1. Diagrammatic Map of Tribal Territories of the Columbia Plateau (Based on Walker 1998a)

Several treaties between tribes and the U.S. government were signed in the middle to late 1800s as part of a purported U.S. effort to end hostilities between Native Americans and Euro-Americans. Additionally, the U.S. government saw the treaties as a way to develop commerce, pay reparations, and establish reservations. Implementation of such measures was not always forthcoming or fair, however. Each tribe had its own unique experience and results from these experiences.

Western Columbia River Sahaptins

The village communities along the Columbia River and its tributaries from near The Dalles, Oregon, to Alder Creek, Washington, composed the Western Columbia River Sahaptins (Hunn 1990; Hunn and French 1998:378–379). These groups spoke the Columbia River dialect group of the Sahaptin language, along with the Umatilla, who resided to the east. The Yakama occupied territory to the north beyond the Columbia River, while the Chinookan-speaking Wasco, Wishram, and Cascades resided to the west, though use of these areas overlapped as well (French and French 1998; Hunn 1990; Schuster 1998; Stern 1998).

Sahaptin villages consisted of politically autonomous groups. Village communities occurred along the Columbia River and its tributaries (Hunn and French 1998:378–379), though use of this area overlapped with neighboring groups (cf. Hunn 1990; French and French 1998; Schuster 1998; Stern 1998). Such overlap occurs at the western end of the APE, where Sahaptin and Umatilla territories overlap (Hunn and French 1998:Figure 1; Stern 1998:Figure 1). The Western Columbia River Sahaptins constructed several types of dwellings, including tule-mat-covered A-frame-type structures, longhouses, and circular semisubterranean houses, which were all utilized for winter housing. Summer housing consisted of a circular mat-covered tepee or a rectangular open-walled ramada, which doubled as living quarters and fish-drying shelters. Sweat lodges, constructed of willow branches and bark, were dome-shaped structures. Other reported structures included menstrual seclusion huts, food storage cellars, and lean-to structures used as charnel houses (Hunn and French 1998:384–386). Most Sahaptin villages occupied the shores of or islands in the Columbia River as well as its tributaries (Hunn and French 1998:378–380).

The seasonal subsistence and settlement systems depended on the topography and availability of resources within an area. The traditional economy was based on the seasonal round with winter villages and major summer and fall fisheries adjacent to major rivers at low elevations. People traveled to higher elevations for the spring root harvests (Hunn and French 1998:380). This ecological adaptation provided an abundant resource base until the disruption to traditional lifeways following the smallpox epidemics of the late 1700s and subsequent arrival of Euro-American settlers in the mid-1800s. As settlement by Euro-Americans increased, impacting traditional lifeways, the process of placing Native Americans onto reservations began in 1855 with the *Treaty with the Tribes of Middle Oregon*. Under the treaty, Chinookan and Sahaptin groups ceded approximately 10 million acres of land south of the Columbia River between the Cascade and Blue Mountain ranges. Largely removing the Upper Chinookan and Sahaptin peoples from the Columbia River corridor, the treaty was most advantageous to the government (Tonsfeldt and Claeysens 2004a).

Umatilla, Cayuse, and Walla Walla

The open shrub-steppe and grasslands in the far northwestern portion of the Columbia Plateau were occupied by the Umatilla and Cayuse. This area encompasses the majority of the APE. To the northeast, the Walla Walla occupied lands along the Touchet, Tucannon, Walla Walla, and Snake rivers in present-day Washington State. The Cayuse resided south along the Umatilla River tributaries and the foothills of the Blue Mountains and to the east of the Blues where their territory overlapped with that of the Nez Perce in the Grande Ronde, Snake, and Salmon River drainages (Walker 1998b). The Umatilla and Walla Walla spoke Sahaptin, the most common of the mid-Columbia languages. The Cayuse spoke a language within the Penutian phylum, but distinct from other Plateau groups. Kinkaide et al. (1998:61) noted that the Cayuse language was no longer spoken by the early 1830s, due in part to a precipitous decline in population, and extensive intermarriage with the Nez Perce and Umatilla. Bilingualism, with Nez Perce as the

common language, no doubt fostered cohesion among Southern Plateau tribes. The Chinook jargon was also used when trading and at winter camps on the Columbia (Hunn and French 1998:380).

Most descriptions of pre-contact occupation of the southern Plateau have been extrapolated from the “winter village” pattern observed by ethnographers (Ames et al. 1998:111; Anastasio 1985:137; Chatters 2004:67; Stern 1998:396), in which groups lived in often large villages in low elevations along the major rivers and confluences of tributary streams (Stern 1998:396). During much of the year, people moved throughout their homeland in response to seasonal availability of foods and other subsistence resources (CTUIR 2015). In spring and early summer, groups might converge on upland root grounds to gather and process this important subsistence resource. Co-utilization of resources by various “tribes” was common throughout the region, with no formal construct of resource or spatial “ownership” (Suphan 1974:74), although local bands might claim principal rights to prime fishing spots near their winter villages (Stern 1998:400). Situated at major river confluences, the Umatilla, Cayuse, and Walla Walla were ideally located to act as trade “middlemen” between people of the Plains and the tribes of the western valleys and Pacific coast.

As noted above for the Sahaptins, establishment of the Native American reservation system (in addition to the general incursion of American settlers) altered the ethnographic lifeways of the Umatilla, Cayuse, and Walla Walla as well. The process of establishing a reservation for these peoples was initiated in May 1855 when a Treaty Council was held near Walla Walla. Two reservations for all of the groups were initially proposed: Yakama and Nez Perce reservations. However, the Umatilla, Cayuse, and Walla Walla representatives stood their ground and demanded they remain in their homeland. Three treaties were signed in June 1855 as a result, establishing the UIR, the Yakama Indian Reservation, and the Nez Perce Indian Reservation (CTUIR 2015; Ruby and Brown 1972:189–204). The Cayuse, Walla Walla, and Umatillas ceded 6.4 million acres to the U.S., but reserved inherent rights to fish in usual and accustomed sites, and to hunt and gather traditional foods and medicines on unoccupied public lands within the ceded areas. Approximately 510,000 acres were reserved for the tribe to live on. The size of the UIR was reduced to just 172,000 discontinuous acres later in the 1800s as a result of federal legislation in the late 1800s. The majority of this is on the main UIR lands just east of Pendleton with 14,000 annexed acres in the McKay, Johnson, and McCoy Creek areas southeast of Pilot Rock (CTUIR 2015).

Nez Perce

Before incursions by Euro-Americans, the Nez Perce occupied a vast territory stretching from the Lochsa River in western Montana, to the Blue Mountains in eastern Oregon, and south to the Weiser River and headwaters of the south and middle forks of the Salmon River in central Idaho. This area includes a portion of the Columbia Plateau that extends from the northeastern corner of Oregon, into Idaho, and the Clearwater River Basin and the South and Middle Forks of the Salmon River Basin. The Nez Perce homeland intersects the APE in the vicinity of Elgin and the southern Wallawas. Ceded lands of the tribe are in eastern Baker and Wallowa counties (Nez Perce Tribe 2009). While people from the southern part of the Nez Perce homeland were closely tied to the Sahaptin-speaking groups along the Columbia River, the northern Nez Perce were more closely aligned with Columbia Plains lifeways, including their wholesale adoption of a mounted subsistence economy (Walker 1998b). However, in general, seasonal Nez Perce migrations, housing, food, storage, and basketry were similar to that of other southern Plateau groups.

The Nez Perce practiced a transhumant lifestyle based on the seasonal exploitation of a wide range of floral and faunal resources that required relatively frequent residential and logistic moves predicated on cyclic variations in rainfall and subsistence plant growth. Across much of the area, the largest single settlement was the winter village, typically sited in broad valleys near fishing streams or rivers. Villages were occupied by several related, extended families (Walker 1998c). The principal Nez Perce structure was the longhouse, lined with tule-mats and with several rows of central hearths (Spinden 1908:196). Long houses were used for ceremonial purposes and as winter housing by several families. Often, semi-subterranean houses were used to accommodate single men or women. During the spring and summer seasons, conical structures were built during hunting, fishing, and root digging excursions. By the 1800s, hide- or canvas-covered teepees became more popular. Conical subterranean sweathouses were common to all permanent Nez Perce settlements, as well as women's menstrual huts and the submerged hot bath (Chalfant and Ray 1974:21; Curtis 1911:42, Spinden 1908:195–196; Walker 1998c:427).

Subsistence activities employed various tools used for fishing, hunting, and resource processing. Fishing implements included hooks, lines, nets, harpoons, spears, traps, and weirs. Game hunting tools included bow and arrow, atlatls, spears, and traps. Gathering and processing tools included crutch-handled digging sticks, coiled basketry, flaked stone tools, and stone mortars and pestles. Ceramics were used rarely. Water was collected and carried within woven, pitch-lined, water baskets (Walker 1998c).

After early interactions with early European explorers and trappers, development of Euro-American homesteads, settlements, and mining within the territory drastically altered traditional Nez Perce lifeways. The wave of emigrants rushing to California after the discovery of gold in 1848, and the subsequent discovery of gold near Fort Coleville, at present-day Pierce, Idaho, in the 1860s, resulted in conflicts between Euro-Americans and the Nez Perce. Consequently, several treaties were signed in 1855 and 1863 to end hostilities, develop commerce, pay reparations, and establish reservations. Many Nez Perce refused to submit to reservation life and in 1877, an elderly Nez Perce couple was killed after accidentally wandering onto a settler's property. A group of Nez Perce warriors sought revenge for the murder of the couple and several people were killed. The U.S. military sent a force of soldiers and the Nez Perce War ensued. Between June 15 and October 5, 1877, Chief Joseph led bands of "non-treaty" Nez Perce in an attempt to escape into Canada while being pursued by the U.S. Army. After following regular routes used by the Nez Perce in their seasonal rounds, the group was forced to surrender near Bear Paw Mountain, Montana. The 1,200-mile route is now recognized as the Nez Perce (Nee-Me-Poo) National Historic Trail (NHT) (Aikens et al. 2011:405–406). It was not until after 1900 that federal lands reserved for the Nez Perce became widely occupied, marking another significant disruption in their traditional lifeways.

3.1.2 Northern Great Basin

The four-phase chronology presented by Jennings (1986) is the most commonly cited description of Great Basin cultural history. Jennings' approach exhibits considerable overlap with that proposed by Andrefsky for the Plateau.

3.1.2.1 Pre-Archaic Period

The Pre-Archaic Period (referred to as the Paleoarchaic Period in the Columbia Plateau) dates from 14,500 to 9500 BP, spanning the Late Pleistocene and Early Holocene. The period is typically associated with the hunting of now-extinct megafauna among other large game species. In addition to hunting game, prehistoric subsistence in the Snake River Plain also included seasonal gathering of numerous plant foods including seed plants, root or bulb plants,

berries and fruits, and the stems, leaves, and shoots of various plants (Torgeson 1982). Available plant foods varied depending on the elevation, soils, precipitation, and micro-environmental features of the pre-contact environment. This variation possibly impacted the seasonal mobility and settlement patterns of these early peoples. Fishing supplemented the stored food to get through the winter months (Plew 1980).

Pre-Archaic bands were highly mobile hunters and gatherers with a food economy based on the availability of big game that ranged across the landscape (Simms 2008:133). The archaeological evidence for the Pre-Archaic Period in the northern Great Basin is closely tied to the associated hunting tools utilized throughout the tradition, namely the Clovis point type and the Western Stemmed point complex. Near the end of the Pre-Archaic Period, at approximately 7500 BP, there is a shift in point technology from these very early large spear points toward notched or shouldered points intended for smaller projectiles. These points include the Northern Side-Notched, Elko, and Pinto series, all of which continue in use well into the Late Pre-Contact Period (Aikens et al. 2011:43–45).

The Western Pluvial Lake Tradition (ca. 13,000 to 8500 BP) also occurred during the Pre-Archaic (Fort Rock Period). The adaption focuses on lakeside settlement with distinctive Late Pleistocene and Early Holocene lithic technologies. Subsistence practices focused on marshland resources and waterfowl, but also included a variety of terrestrial mammals as well (Jenkins et al. 2004:6, 11). The adaptation is viewed as a bridge between the more highly mobile Paleoindian big game hunters of the Pre-Clovis/Clovis Periods in the Late Pleistocene and the Archaic Period focus on small game hunting and root and seed gathering (Pinson 2004:53). Stone tools typical of the tradition include Western Stemmed, Windust, lanceolate, and foliate projectile points, as well as crescents, large scrapers, bifaces, graters, choppers, cobblestone tools, manos, and bone awls.

In the Snake River Plain, the Pre-Archaic Period is subdivided based on changes in distinctive spear point technology and associated with direct or relative dating of sites. These sub-periods include the Pre-Clovis (prior to 12,000 BP), Clovis (12,000–11,000 BP), Folsom (11,000–10,600 BP), and Plano (10,600–7800 BP) periods (Plew 2008:23).

A Pre-Clovis sub-period of uncertain time depth (prior to 12,000 BP) has become accepted for the New World (Dillehay 1989, 2000; Adovasio and Page 2003; Yohe and Woods 2002). Although several sites in North and South America date to pre-Clovis, a comprehensive picture of cultures dating to this time period has yet to emerge.

The Clovis sub-period dates from 12,000 to 11,000 BP, when climatic conditions became generally drier and warmer. Clovis inhabitants of the area existed in small mobile bands, hunting mammoth, other now-extinct Pleistocene fauna, and many smaller species in riverine and lacustrine environments. Clovis toolkits are diverse, and they consistently exhibit high-quality lithic materials procured from distant sources. The archaeological hallmark of the Clovis period is the Clovis projectile point, a large, lanceolate-shaped projectile point with a bifacial basal flute (Justice 2002:67; Yohe and Woods 2002).

The subsequent Folsom sub-period dates from 11,000 to 10,600 BP. Climatic shifts that began in the Clovis sub-period continued during this time, contributing to the process of Pleistocene megafaunal extinctions that began during the Clovis sub-period (Yohe and Woods 2002). Folsom-age demographics were like those of the Clovis sub-period, with small bands of hunter-gatherers exploiting well-watered areas in an increasingly arid environment. Folsom sites are often associated with small-scale kills (up to 25 animals) of a now extinct form of bison, but an array of smaller mammal species were exploited as well. Folsom toolkits are highly diverse and display a range of both formal and expedient forms and, like Clovis, show a preference for high-

quality lithic materials from widely distributed sources. Folsom projectile points are similar in form to Clovis points, but smaller and with fluting that extends along nearly the entire length of the blade.

During the Plano sub-period, dating to between 10,600 and 7800 BP, the Snake River Plain evolved into a land of semi-arid to arid, shortgrass prairie with deciduous woodlands along principal streams. Bison continued to diminish in size, but increased in absolute numbers and roamed an expanded range as grasslands proliferated. Human occupants of the region responded to Plano environmental conditions by becoming highly specialized bison hunters, developing communal hunting techniques that, at times, resulted in the killing of 200 or more animals in a single event. The sub-period is characterized by a series of temporally and geographically overlapping projectile point traditions. While a good deal of morphological variability is apparent in Plano assemblages, points continued to be generally large and well made, often from high-quality non-local materials, suggesting a far-reaching use area. Lithic assemblages generally appear as an outgrowth of Folsom industries, but with even greater morphological and perhaps functional variability.

3.1.2.2 Archaic Period

The Archaic Period in the Great Basin dates from 9500 BP to historic contact and, as in the Columbia Plateau, is subdivided into Early, Middle, and Late Archaic sub-periods (Simms 2008:62–63). The Early Archaic (9500 to 4000 BP) is broadly associated with the Altithermal climatic event, an approximately 4,000-year-long period of relatively hot and arid conditions over the western U.S. (Barnosky et al. 1987; Davis et al. 1986; Dort 1968; Swanson 1972; Plew 2008:47). Conditions on the Snake River Plain became warmer and drier, resulting in changes in subsistence strategies. Portions of the area surrounding the Snake River corridor at the southern end of the APE experienced geographic and geological changes as continuous rock fall and mud slides in conjunction with subsequent displaced sediment loads resulted in an unstable living area until after the Altithermal event (Bently 1983). Like the Pre-Archaic occupants of the Snake River Plain, the Archaic inhabitants appear to have depended on large game as a principal resource (Butler 1986; Swanson 1972); however, stone tool technology continued to evolve toward stemmed and notched projectile point styles.

The Early Archaic in the Great Basin dates from 9500 BP to 4000 BP. It marks the transition from Plano to Archaic technology and represents substantial changes in subsistence and material culture (Plew 2008:48). Hunting technology during this time is characterized by the manufacture of lanceolate and large corner-notched projectile points developed for use on the *atlatl* dart. Early Archaic point styles are commonly referred to as Northern Side-Notched (Bitterroot) and stemmed-indent base Pinto series points. Although not specifically attributed to Oregon, the Western Idaho Archaic Burial Complex, dated to ca. 6000 to 4000 BP (Pavesic 1983, 2000), has been documented in the Snake River Plain in western Idaho and likely influenced behaviors in adjacent areas. The pattern includes internments separate from habitations along high sandy knolls overlooking streams, evidence of ritual treatment of the dead, and distinctive special use artifacts. Burial goods often include large bifaces, including the distinctive “Turkey Tail” style projectile point, obsidian preforms, and red ochre (Butler 1980; Harten 1980; Plew 2008:90,157).

The Middle Archaic sub-period dates from 4000 to 1250 BP in the Great Basin. Both open and sheltered sites are present in riverine, foothill, and upland settings during this time (Plew 2008:67), and certain localities appear to have been occupied repeatedly by small hunter-gatherer bands. Many Middle Archaic sites are overlain by substantial Late Archaic deposits, and, in some cases, Late Pre-Contact deposits. Large semi-subterranean houses were being built by ca. 4300 BP (Green 1982) and Butler (1978) has noted the appearance of earth ovens

during the early part of the Middle Archaic in the Snake River Plain. The hunting technology of the Middle Archaic is characterized by increased variability in projectile point styles that include large side-notched, Humboldt series concave-base points, Elko series points, Pinto series points, and Eastgate series points. Hunter-gatherer subsistence and settlement strategies continued throughout the later Middle Archaic (Gruhn 1961; Swanson et al. 1964; Swanson 1972), but by 3000 BP the archeological record shows a decrease in projectile point neck widths among artifact assemblages. This may suggest an earlier introduction of the bow and arrow than in other regions (Franzen 1981), or it may merely reflect the use of smaller dart shafts.

The Late Archaic sub-period in the Great Basin dates from 1250 BP to historic contact. The time is characterized by changes in material culture that include the proliferation of the bow and arrow and use of ceramics (Plew 2008:95). Small corner- and side-notched projectile points in the form of Desert Side-Notched and Rosegate points replaced the large side-notched and Humboldt concave-base points of the Middle Archaic period. Hunting was still the primary means of subsistence, but the strategies changed to incorporate buffalo jumps, game drives, and a heavier reliance on smaller game and fish in order to support the needs of increasing populations. The population of the Snake River Plain expanded during this time of economic diversity and several settlement-subsistence systems developed. Gould and Plew (1988) describe diversifying economic strategies that eventually resulted in some groups refining their subsistence practices and focusing on a single resource, such as salmon fishing. The archaeological evidence of fish caches and bison jumps for bulk food procurement, accompanied by the employment of diverse subsistence practices focusing on specific resources, suggests that people were becoming more sedentary during the Late Archaic. In addition to the changes in material culture and lithic technology, rock art in the form of petroglyphs and pictographs in a Shoshonean style appears along the Snake River, possibly marking hunting and shamanistic sites (Plew 2008:97).

3.1.2.3 *Late Pre-Contact Period*

The Late Pre-contact period can be considered represented by the end of Jennings' (1986) Late Archaic Period. It is attributed to the time period between 2000 and 650 BP in the northern Great Basin. The time period is characterized by the increased production of bow and arrow type projectile points, bulk food procurement, expansive material trade, and ceramic development. At least two distinctive sets of cultural manifestations have been identified for this time period: the Fremont and the Numic or Shoshonean. Although readily identified elsewhere in the Great Basin, there is no evidence of the Fremont pattern in Oregon. The "Numic Expansion" witnessed the movement of Western Shoshone and Southern Paiute groups into most of the Great Basin during the Late Pre-Contact Period. Numic peoples spread eastward from a homeland in the southwestern Great Basin, either from Death Valley (Lamb 1958) or Owens Valley (Bettinger and Baumhoff 1982) in modern-day California. While there is little doubt that this spread occurred, its nature and timing are debated and have archaeological implications for the Late Archaic and Pre-Contact periods.

The introduction of ceramics associated with historically known Shoshonean speakers and small notched projectile points, such as the Rose Spring, Eastgate, and Desert Side-Notched point types, mark the beginning of the Late Prehistoric period (Aikens et al. 2011:47). Hunter-gatherer settlements and subsistence strategies continued to be practiced, but an increased number of sites suggests that population density and sedentism continued to increase at this time (Franzen 1981:225). Lithic technology shifted from the production of dart-style points made from quarried materials to arrow-style points and other flake tools made from locally available raw material. Plant processing became more abundant and spread across a wider area.

3.1.2.4 *Protohistoric and Historic Periods*

As many as 48 separate ethnographic subgroups occupied the ancestral homelands across the Great Basin Province (Steward 1937, 1938). In the northern Great Basin, the APE traverses the traditional territories of at least three Native American groups. The area includes a portion of the aboriginal and ethnohistoric ranges of the Western Shoshone, Northern Shoshone/Bannock, and the Northern Paiute (Figure 3-2). Although the estimated geographic traditional boundary of the Western Shoshone is located just south of the APE, it is entirely possible that interaction occurred among the Western Shoshone and the Northern Paiute, Bannock, and Northern Shoshone. These three groups spoke several varieties of Central and Western Numic, a component of the Numic branch of the Uto-Aztecan family. The Central Numic embraces three languages: Panamint, Shoshone, and Comanche.

Shoshonean People

The timing of migration of the Shoshonean people eastward across the Great Basin from southern California is greatly debated and may have begun as early as 5000 BP with the displacement or incorporation of the Fremont several thousand years later (Grayson 1993). The earliest definite evidence of a historic Shoshone occupation in the region dates to the Early Historic period around AD 1805–1840 (Murphy and Murphy 1986). Since no evidence of the Fremont has been found beyond the northern fringes of the Snake River Plain, questions remain as to the culture history of the area prior to occupation by the Shoshone in historic times (Butler 1986:133). The advent of Shoshonean occupation denotes the full assignment of the Upper Snake and Salmon River region as a subarea of the Great Basin culture area. The apparent continuity of aboriginal settlement and subsistence patterns through the Holocene was affected by the introduction of the horse around AD 1750 (Steward 1938:201). Ethnohistoric studies indicate that, following the introduction of the horse, aboriginal groups residing in the Snake River Plain were highly mobile, ranging from the Great Basin, the Plateau, and onto the Great Plains. Although movement of residential groups varied annually, the reasons for such variability can only be inferred. Varying resource availability and historical factors are two potential causes.

Western Shoshone

The Western Shoshone ethnographic territory spans a vast area beginning near Death Valley, California in the south, covering much of eastern Nevada and northwestern Utah, and expanding as far north as the southern boundary of Idaho (Thomas et al. 1986:264). The northern boundary of the Western Shoshone territorial land is rather ambiguous and possibly extended north as far as the Snake and Salmon River drainages (Thomas et al. 1986:262). Shoshone was spoken by other Western Shoshone groups, including the Gosiute of northwestern Utah and the Northern Shoshone/Bannock of Idaho. The Western Shoshone people practiced seasonal exploitation of floral and faunal resources, often requiring frequent residential and logistical moves based on cyclical variations in rainfall and plant growth. The winter village was typically the larger of the seasonal camps and provided a source of group subsistence through storage while seasonal plants were unavailable. Villages were sited based on access to vital resources, commonly at the lower edge of piñon-juniper woodland, the mouths of canyons, and broad valleys near fishing streams (Grayson 1993:37; Steward 1938:232). Even the location of permanent villages was unpredictable from year-to-year based mainly on resource availability and productivity.



Figure 3-2. Diagrammatic Map of Tribal Territories of the Great Basin (Based on Walker 1998a)

Western Shoshone structures tended to be small in stature and expediently constructed since the camps were relocated often. Winter dwelling structures typically consisted of conical huts constructed of poles and bark while wickiups or brush constructed dwellings were utilized during the warmer seasons. Conical sweathouses and menstrual huts were common to Western Shoshone encampments.

The Shoshone people manufactured a variety of tools from the by-products of game and gathering of resources including sinew-backed bows, animal-skin quivers, willow and reed arrows, hunting nets, flaked stone tools, milling stones, and digging sticks. Basketry, seed beaters, and winnowing trays were used during the gathering and processing of plant foods. Similar to the Plateau region, tightly woven pitched-lined baskets were used for water collection and transport.

During the early 1800s, several trappers and explorers passed through the Western Shoshone territory. The subsequent development of Euro-American homesteads, settlements, and mining towns by the 1840s within the territory ultimately led to a collapse of the traditional Shoshone lifeways and, later, assimilation of the people. Government hostilities, loss of traditional territories to various laws, and forced relocation also contributed to a loss of traditional culture at the time. The constant influx of Euro-Americans brought on by the emigration to California in search for gold in 1848 and the discovery of the Comstock Lode in Nevada in 1859 resulted in conflicts between Euro-Americans and the Western Shoshone. To alleviate additional conflicts, agencies were established in the late 1840s to negotiate treaties to be signed by the Great Basin indigenous groups and the U.S. government. The earliest of these treaties, the Ruby Valley Treaty, was drafted in 1859, but was never ratified. Nevertheless, treaties, in general, arbitrarily divided traditional homelands and social networks, dividing many families.

On April 16, 1877, U.S. President Rutherford B. Hayes established the Duck Valley Reservation for the Western Shoshone by Executive Order (Shoshone Paiute Tribes 2012). The relocating of the Western Shoshone was an arduous task and, due to the forced loss of freedoms and lands, many people originally refused to submit to reservation life. Many tribal members did not want to leave their expansive homelands and camps and relocate to the reservation. In 1884, the government tried to relocate the Western Shoshone from Duck Valley to the Fort Hall Reservation in Idaho in order to open the fertile reservation lands to non-Native American homesteaders. The relocation was successfully resisted by the headmen of the bands (Shoshone Paiute Tribes 2012). It was not until after 1900 that federal lands reserved for the Western Shoshone became widely occupied by them. Bands of Western Shoshone hunted and gathered food on the reservation, but broken promises of food supply deliveries by the federal government led to some tribal members traveling outside the reservation boundaries to provide for their families. The Tribe eventually conformed to farming and ranching as an economic mainstay.

The Duck Valley Reservation was expanded by President Grover Cleveland on May 4, 1886, to allow for use by Northern Paiute and Bannock prisoners of war (POWs) released following the Bannock War of 1878. As a result of increasing hostilities between Native Americans and Euro-American settlers, the U.S. government ordered the Northern Paiutes and Bannocks of the region be rounded up and held as hostages at Fort Harney, regardless of an individual's peacefulness or hostility toward the Euro-American expansion. Over the winter of 1878-1879, over 500 Paiutes were forced to march along the "Paiute Trail of Tears" from Fort Harney and Fort Winnemucca to Fort Simcoe, Washington. The route of the trail likely followed well-established routes such as the Oregon Trail and the Dalles Military Road. The Shoshone and Paiute united at Duck Valley under the Indian Reorganization Act of 1934 and formed a tribal

government through a Constitution and Bylaws, which were adopted in 1936 (Shoshone Paiute Tribes 2012).

Northern Shoshone and Bannock

During the influx of Euro-American settlers in the nineteenth century, much of Idaho was home to the Northern Shoshone and Bannock Native Americans. The Northern Shoshone and Bannock occupied the area encompassing the Snake River Plain ranging from the Nevada border in the south to the Salmon River in the north and from the Wyoming border in the east to the Oregon border in the west (Murphy and Murphy 1986:287). Walker (1978:89) notes that their territory extended across most of southern Idaho into western Wyoming, Nevada, and Utah. Principal population areas included the upper Snake River valley in the general area surrounding Fort Hall; the Lemhi River valley; the Boise, Payette, and Weiser valleys; the Sawtooth Range; and the Bruneau River Valley (Murphy and Murphy 1986:288). Local regional subgroups were often identified by other Native American groups and by early settlers based on foods that were commonly eaten: the *Agaiddeka* (Salmon Eaters) along the Snake River; the *Tukudeka* (Sheepeaters) in the Sawtooth Mountains; the *Yahandeka* (Groundhog Eaters) along the Boise River; and the *Kammedeka* (Jackrabbit Eaters) along Bannock Creek and the Raft River. These classifications, however, do not refer to political divisions, and their use resulted in confusing designations given the high mobility and seasonal resource exploitation practiced by all of these groups (Murphy and Murphy 1986:287, 306).

The Bannock, who migrated from southeastern Oregon, lived among the Northern Shoshone, primarily on the Snake River Plain. The ethnographic territory of the Northern Shoshone, who shared a similar material culture and social organization with the Northern Paiute, extended farther south through most of Nevada, and north into northwestern Utah and eastern Idaho (Murphy and Murphy 1986:288). In southwestern Idaho, Northern Shoshone populations were centered on the Boise, Weiser, and Payette River drainages (Murphy and Murphy 1986:288).

The Shoshone groups along the lower Snake, Boise, Payette, and Weiser rivers in southwestern Idaho were heavily reliant on fishing and roots for subsistence. Winter camps were larger than among groups that lacked the horse and whose political organization was more developed, although neither approximated the scale of the Fort Hall Shoshone and Bannock (Murphy and Murphy 1986:288). Northern Shoshone people employed a variety of shelters over the course of the year, including small conical lodges, menstrual huts, and sweat lodges constructed of willow, sage, and/or grasses. Groups living farther to the east adopted the Plains hide tepee (Murphy and Murphy 1986:295).

A primary technological difference between the Northern Shoshone/Bannock and the Northern Paiute was the use of tempered clay pottery by the Shoshone. In southwestern Idaho, camas might be boiled in vessels created from local clays and ground rock tempers (Meatte 1990:19). Weaving was also an important craft: burden baskets, winnowing trays, bowls, hats, and footwear were made primarily from twined willow (*Salix* spp.). Water containers and boiling pots were created by applying pine pitch to the interior of the vessel (d'Azevedo 1986:196). Cattail (*Typhus* spp.) and tule were used to create mats. The fur of rabbits was woven into blankets, and the bark of sage and other shrub species were used to fashion sandals (Fowler and Dawson 1986:708).

The Northern Shoshone obtained horses in the late seventeenth and early eighteenth centuries (Murphy and Murphy 1986:300). The Shoshone-Bannock horse complex resembled the northern Plains type found throughout much of aboriginal Idaho. The horse affected almost all aspects of daily life among Columbia Plateau and Great Basin/Snake River groups: transportation, hunting and gathering, trade and inter-group relationships all changed. The use

of horses allowed for the expansion of hunting territories as far north as Canada and east into Montana and Wyoming. Horses were a highly visible indication of wealth for area (Anastasio 1985:129–131). Horses quickly replaced walking as a means of travel and replaced dogs as the primary mode of transportation of subsistence materials from the uplands to winter encampments (CTUIR 2015). Effects of the horse were not uniform among the subgroups, however, as Shoshone in the mountainous areas seem to have retained their pre-horse cultural patterns, while others dropped them quickly, an act that drastically modified their economic and political institutions (Walker 1978:89, 140). Horses also made the accelerated hunting of bison possible. Bison hunting resulted in more contact with Plains tribes and may have exacerbated hostilities between the regions. The wider sphere of interaction facilitated by horse travel also sped the transmission of disease (Stern 1998:412).

The Euro-American colonization of southern Idaho had an immense impact on the lifeways of the Northern Shoshone and Bannock. The horse, firearms, and the westward push of Euro-American settlers increased the tension across the Plains and adjoining areas, including the Great Basin, as mounted groups fought for hunting territories and horses (Murphy and Murphy 1986:303). By the early 1800s, Euro-American fur trappers and traders infiltrated the region, opening the flood gates of emigration to California and Oregon during the 1840s via the Oregon Trail. As immigrants continued to enter the Northern Shoshone and Bannock lands, pressure mounted and eventually led to skirmishes with the Euro-American settlers over land and available food resources.

As with the Western Shoshone, the U.S. government sought to create treaties with the Northern Shoshone and Bannock tribes beginning in the late 1840s. Similar to the Ruby Valley Treaty, the U.S. proposed a treaty in 1859 with the Northern Shoshone, Bannock, Northern Paiute, and Eastern Shoshone. This treaty too was never ratified. In 1863, ratified treaties were established at Fort Bridger, Wyoming, Box Elder, Utah, and Soda Springs, Idaho. Additional treaties followed with the Boise River Shoshone at Fort Boise and the Bruneau River Shoshone in 1864. The Fort Hall Reservation was established in 1867 and 1.8 million acres was allocated for the Boise and Bruneau River people. The Fort Bridger Treaty of 1868 incorporated the Fort Hall Shoshone and the Bannock on the same reserve. The Lemhi and Sheepeater groups were allocated lands near Lemhi Valley in 1875, but were relocated to Fort Hall in 1907. Over time, the Fort Hall Reservation was reduced in size from 1.8 million acres to 500,000 acres because of Euro-American encroachment and lands ceded to the U.S. government.

Northern Paiute

The Northern Paiute occupied much of the Great Basin, including the southwesternmost extent of Idaho and the southeastern corner of Oregon. At historic contact, Northern Paiute groups were spread over an area from the Owens Valley of California north to the Deschutes, John Day, and Malheur rivers in Oregon. East to west, they covered areas from the Reese River Valley of Nevada to the eastern front of the Sierra Nevada, Honey Lake, Eagle Lake, and the Warner Mountains. Their territory encompassed much of the Owyhee Uplands. The northern extent of Northern Paiute culture remains an amorphous construct that does not reflect long-standing traditions of travel, trade, intermarriage, and co-utilization of resources between Great Basin and Columbia Plateau peoples between the Blue Mountains (Plateau) and the Owyhee Uplands (Great Basin). The people known today as Northern Paiute are descendants of linguistically homogeneous but culturally distinct groups. The Northern Paiute are speakers of a Western Numic language, which is an offshoot of the Uto-Aztecan linguistic family (Fowler and Liljebled 1986; Miller 1966).

The Northern Paiute include a large number of subgroup names, many of which refer to a type of food eaten, as with the Western Shoshone and Bannock tribes. The people residing along the Malheur River above its confluence with the Snake were generally associated with the Wadatika ("Wada eaters") and may have wintered in the vicinity of Ontario, Oregon (Jenkins and Baxter 2010). The Koaagaitokas ("salmon-eaters") and bands of Northern Shoshone lived along the Weiser River (Ruby and Brown 1992:156). The different groups of Paiute were known to forage broadly. Some groups had access to richer or more specialized localities and were able to concentrate on procuring one or more resources for longer periods. Other groups followed a more mobile seasonal round (Fowler and Liljeblad 1986:437). According to Fowler and Liljeblad (1986:450), the principal social and political units within Northern Paiute society were the independent families (Fowler and Liljeblad 1986:450). Community structure of the Northern Paiute in the Great Basin differed somewhat from the Paiute on the Columbia Plateau, consisting of small clusters of individual families that separated into even smaller foraging groups for part of the year (Jenkins and Baxter 2010:17). While Paiute and Shoshone people employed a similar foraging strategy of movement between seasonal resources within the Northern Great Basin, traditional villages, like those on the Columbia River, were uncommon (Fowler and Liljeblad 1986:143).

Northern Paiute house types and construction varied according to available resources, sub-regional differences in form, and historical influences. Winter houses were typically conical or dome-shaped and constructed over a frame of bent willow poles. Twined or sewn mats of tule were used to cover the structure and, when not available, grass or pine needles were used. A hole was left in the top for smoke. A second hole was left on the side for the door, which was often facing east or away from prevailing winds, and was either skin-covered or made of lashed poles. People wintering in mountainous areas, often near piñon caches, built more substantial semi-subterranean houses. Summer homes commonly consisted of brush windbreaks and shades. Dance houses typically consisted of brush fences roofed over with branches. Smaller sweathouses were also employed. Camps typically contained the homes of no more than several related families; summer camps were often smaller than winter camps (Curtis 1926:70; Fowler and Liljeblad 1986:443).

Northern Paiute bands in eastern Oregon and along the Snake River Plain obtained the horse during the middle to late 1700s. They, along with the Northern Shoshone, traveled widely through the region and beyond. However, some bands of Northern Paiute did not become involved in the horse complex at this time (Fowler and Liljeblad 1986:455).

The opening of Oregon to settlement in the 1840s and discovery of gold in California in 1848 brought large numbers of emigrants, with those traveling on the California Trail passing through the heart of Northern Paiute territory. Not only did thousands of people pass through, but also large herds of livestock. These movements had a major impact on the subsistence resources of the Paiute and neighboring groups. Seed plants and large game were destroyed, water holes were fouled, and fuel wood was exhausted. Such destruction eventually led to violent conflicts. By the 1860s, skirmishes were occurring between the Northern Paiute and American troops, miners, and ranchers. Military campaigns waged from Fort Klamath to Fort Boise; however posts in Warner Valley and Harney Valley pacified most of the region by 1868 (Fowler and Liljeblad 1986:456–457).

Beginning in 1859, the federal government began setting aside reserved lands for the Northern Paiute. Pyramid Lake and Walker Lake reservations in Nevada were proposed at this time, but were not formally established until 1874. Duck Valley Reservation was expanded in 1886 (Miller Creek extension) to accept Northern Paiute and Bannock POWs released following the Bannock War of 1878. Other reservations and colonies established for the Northern Paiute

include Fort McDermitt, Fort Bidwell, Burns Colony, Yerington Reservation and Colony, Fallon Reservation and Colony, Lovelock Colony, and others. Well into the 1900s, colonies were established for groups of Western Shoshone and Northern Paiute (Clemmer and Stewart 1986:536). The Malheur Reservation was one of the few reservations created in Oregon. It was established near the southern end of the APE, north of Malheur Lake, by executive order in 1872. By 1875, more than 700 Paiute and Bannock Native Americans spent winters on the reservation. An agricultural school was established and some on the reservation were learning how to farm. Financial and administrative support from the federal government, however, was sorely lacking. Some Euro-Americans even built their homes within the reservation and used the reservation lands for their own purposes (Allen 2005). When the Bannock War of 1878 began, many Paiute and Bannock left the reservation to flee to safer areas or join the fight. At the end of the war, the military forcibly removed any remaining Native Americans from the Malheur Reservation and moved them to the Yakama Reservation at Fort Simcoe in Washington, a route later termed the "Paiute Trail of Tears." The relocated groups were allowed to leave Yakama Reservation by 1883, although the Malheur Reservation had been returned to public domain in 1882 and 1883 and although many wished to return to the area, settlers and cattlemen had taken it over. As a result, small groups resorted to moving to Warm Springs Reservation or to Nevada, California, or Idaho. However, some did return to the Harney Basin, settling near Burns and eventually becoming the Burns Paiute Tribe (Allen 2005; Stowell 2008).

3.2 Historic Narrative

Cultural resources identified in the Project's APE fall into several general historic-period themes: early interactions, emigration and trails, transportation, mining, timber and logging, and settlement.

3.2.1 Early Interaction

Early interactions between native peoples and Euro-American travelers were peaceful, if sometimes strained, compared to later relations. As described above, the influx of emigrants and the depletion of scarce available natural resources brought about strife between the Euro-Americans and the Native Americans. One of the earliest and best-known examples of conflict was an 1847 incident involving Euro-American settlers at the Whitman Mission, near present day Walla Walla, Washington, one of the first permanent Euro-American settlements in the region. As soon as word of the violence at the Whitman Mission reached the provisional territorial capital at Willamette Falls, Governor George Abernathy called for the creation of a volunteer militia to be sent to the area in response. The legislature quickly responded by authorizing the unit and appointing officers. This company, known as the Oregon Rifles, was quickly raised and dispatched to The Dalles under the command of Colonel Cornelius Gilliam, where they arrived in December 1847. As the party moved east from The Dalles along the route of the Oregon Trail, they encountered a group of armed Native Americans, and the Battle of Sand Hollow took place at a location about 8 miles east of Wells Springs on February 24, 1848. The exact location of the battle has not been unequivocally identified, but the general area is considered a Historic Property of Religious or Cultural Significance to Indian Tribes (HPRCSIT), a type of Traditional Cultural Property (TCP). The HPRCSIT/TCP boundary documented in SHPO records overlaps NWSTF Boardman and the undertaking. The battle, also referred to as the Battle of the Dry Plains, involved a column from the First Oregon Rifle Regiment led by Captain Lawrence Hall and members of the Umatilla, Cayuse, Palouse, and Walla Walla tribes led by Chiefs Five Crows and Gray Eagle. The 3-hour battle resulted in the deaths of seven warriors, including Chief Gray Eagle, and left four warriors including Chief Five Crows wounded. CTUIR indicates their oral histories record one casualty being buried on the battlefield, though the exact location is unknown. The casualties to the Oregon Volunteers were limited to four

wounded soldiers including a Lieutenant Colonel Walters. At the close of the one-day battle, the volunteers camped on the battleground near Butter Creek and the Native Americans withdrew. The following day, the expedition continued their march, and reached the Whitman Mission three days later (Mitchell 2003).

Five Cayuse were eventually tried, convicted, and hanged for the deaths at the Whitman Mission, which subsequently ignited the Cayuse War of 1848. Sporadic fighting continued into the 1850s as native peoples in the Columbia Plateau increasingly were displaced from their homes under constant pressure from settlers and speculators (Walker and Sprague 1998). In July 1856, a regiment of U.S. Army volunteers under the command of Colonel B.F. Shaw fought a running battle with “three hundred hostiles” up and down the Grande Ronde Valley. Forty Native Americans were killed and an unknown number wounded. Shaw then ordered the destruction of food and household possessions at the camp, including “about 150 horse-loads of camas, dried beef, tents, some flour, coffee, sugar, and a great quantity of tools and kitchen furniture.” Of the 200 horses captured, half were shot and the remainder confiscated (Gulick 1985:129). Other skirmishes occurred along the Owyhee River during the 1860s (Nelson and Onstad 1965:159).

3.2.2 Emigration and Trails

The first wave of American migration to Oregon came during the 1830s as Protestant missionaries moved west to convert the native populations (Hutchison and Jones 1993). Other explorers established other routes that were eventually incorporated into the well-known Oregon Trail. The following years saw increased emigration and numerous emigrant routes cross Oregon in all directions. Five prominent and historically significant trails are within proximity to or are crossed by the APE: the Benjamin Bonneville Route, the Nathaniel Wyeth Route, the Whitman Mission Route, and the Oregon NHT along with Meek’s and Goodale’s cutoffs. Resources identified by Project-related surveys have been limited to associations with the Oregon NHT and Meek’s Cutoff.

3.2.2.1 Oregon Trail

The principal route of westerly migration across Oregon was via the Oregon Trail. The Oregon Trail developed into a wagon road and was originally established from travel routes used by Native Americans. It is generally accepted that the trail was used by Euro-American emigrants from 1841 into the early 1900s, despite availability of rail service essentially along the route through Oregon beginning in 1884 (Bureau of Outdoor Recreation 1977:20, 22). Notably, however, the majority of trail use after establishment of the railroads was for regional and local use by freighters, stock drivers, and local residents. Many local travelers used it to access mining districts (see Section 3.2.4) and for re-settlement (Beckham 2012:E-42). Native Americans often guided the early emigrants as well as missionaries and fur trappers along the way and traded with them as well. The Oregon NHT traverses 547 miles of plains, deserts, mountains, and rivers in Oregon. The route made possible one of the largest and longest mass migrations in the U.S., strengthening the government’s claims on the Pacific Northwest (Oregon Historic Trails Fund 2012). The primary route discussed in this context was established by the study completed in support of the trail’s nomination as a NHT and is based on the most heavily used routes between 1841 and 1848 (Bureau of Outdoor Recreation 1977:22; NPS 1999). It is the most famous of the country’s early trails, eventually working its way into modern popular culture.

In many ways, the Oregon Trail is best envisioned as a general transportation corridor or route, rather than a specific linear feature on the landscape as it is often mapped. Where topographic conditions allowed, immigrants often spread out, utilizing a variety of dispersed routes,

particularly through more open and level areas. In some instances, groups diverged from the main trail to create alternative routes. This pattern of historic use resulted in a cultural resource that is represented by multiple routes and segments, often running parallel in some areas, and braided in others. Some of the best-preserved segments occur in areas where the topography restricted travel to a more narrowly defined route that resulted in the creation of deep ruts and swales that make the location of the trail more apparent. In addition to the remnants of the travel routes, the historic trail includes associated resources comprising camping areas, water sources, graves, and other features associated with use of the route by overland immigrants. All of these resources are a critical part of the historic trail. Preservation of the trail is highly variable, and dependent on topography, geology, and overall setting. In many places, modern development, including urban development, modern transportation routes, and extensive agricultural use, has overtaken and obliterated much of the evidence of the trail.

The APE follows much of the main trail route in Oregon. Where the trail is undisturbed, wagon ruts vary from shallow, elongated depressions to deep grooves or erosion-deepened gullies. In some locations, current roads and highways cover the route. NPS administers the Oregon NHT and has completed a Comprehensive Management Plan for the trail (NPS 1999). The plan identifies five segments along the APE that are deemed sensitive for intact Oregon Trail remnants (e.g., ruts or continued use as a road) (NPS 1999:Appendix G): Alkali Springs, Ladd Canyon, Blue Mountains, Emigrant Hill, and Boardman.

Shortly after the 1841 Bidwell-Bartleson party, Captain John C. Frémont explored the region during his 1843 expedition and published accounts that became the trail guides for subsequent emigrants along the Oregon Trail (Hutchison and Jones 1993). By the mid-1840s, the Oregon Trail gained greater popularity with emigrants making their way west. Emigrants headed for Oregon largely traveled west along the Snake River, while those heading to California went southwest at the “Raft River Parting of the Ways” or “Separation of the Trails,” located on the western bank of the Raft River east of present-day Burley, Idaho (Hutchison and Jones 1993). The Applegate Trail, a southern alternate that connected to the Oregon Trail in the east to the Willamette Valley in the west via the California Trail, was established to avoid the difficult terrain at Burnt River Canyon, the Blue Mountains, and the dangerous crossings of the Snake and Columbia rivers. Oregon’s own gold discoveries in the Blue Mountains and other areas in Idaho also resulted in increased use of the Oregon Trail. Several emigrants and wagon trains developed alternate routes in attempts to divert to new destinations or to avoid notoriously difficult terrain.

For those that continued west along the southern side of the Snake River and the main trail route crossed at Three Island Crossing and Thousand Springs (Stewart 1962; Lee Kreutzer, NPS, personal communication, 2015). The Oregon Trail, after passing the Raft River plain, ascended a steep hill and approached the Snake River near Burley, Idaho. This section of trail was considered incredibly difficult given the desert environment and lack of grass and water (Stewart 1962). The next major stop along the Snake River was Fort Boise. From there, the Oregon Trail headed northwest departing the Snake River at Farewell Bend. Emigrants would stop at this location to rest and increase their supplies through fishing, hunting, and trade with other emigrants and Native Americans. Trading centers, ferries, and stage stations, including Millers Station near the town of Huntington, were established to support the travelers (Valentine 2008:6). Many pioneer journals contain references to the welcome sight of the Baker Valley, near the mid-point of the APE, after their long and arduous trip through the heat and dust of the Snake River Plain and the narrow, rocky Burnt River Canyon. After traversing Baker Valley, emigrants descended the face of Craig Mountain to the southern entry to Ladd Canyon at the northern end of Baker Valley. Numerous journal entries expounded upon the beautiful vista of camas in bloom and stately cottonwood trees lining the Grande Ronde River (Evans 1991).

After struggling through the steep slopes and heavy timber of the Blue Mountains, immigrants made their way down one last steep stretch of the northern Blue Mountains foothills to the grasslands of the Columbia River plain. Travel across the Columbia Plateau region was relatively easy, although water and fuelwood were scarce. The Columbia Gorge posed the final, frightening obstacle along the original trail route, where many families chose to raft their wagons down the imposing Columbia River from The Dalles to the Portland basin.

Westward migration on the Oregon Trail was reaching its peak in the mid-nineteenth century, with Oregon's own gold rush occurring in the Blue Mountains in the early 1860s. The trail began to be increasingly used for transporting freight, eventually being labeled as the "Baker and Boise City Road" on the 1882 General Land Office (GLO) plats. Portions of the Oregon Trail continued to be used into the late 1890s, but the trail saw a decline once the transcontinental railroad was completed in 1869. Many well-traveled segments of the trail were converted to modern highways and railroad segments, including several segments of Interstate 84 in Idaho and Oregon and Interstate 80 in Nebraska. Numerous markers have been erected along the route at burial spots, emigrant camps, inscription spots, and in areas containing visible wagon ruts.

3.2.2.2 Meek Cutoff

Meek Cutoff was another alternate route of the Oregon Trail established in 1845. The route, one of the most infamous of the Oregon Trail alternative routes, headed directly west from the Oregon Trail's junction with the Malheur River. Stephen Meek, an experienced mountain man, led 750 to 1,000 emigrants, approximately 200 wagons, and thousands of head of livestock across the desert plain west of Vale, determined to find a more direct middle route towards the Cascades and into the Willamette Valley (Beckham 1991; Oregon Historic Trails Fund 2012). Meek used this alternate route to avoid potential attacks along the main trail, as well as the dangers of crossing the Blue Mountains. The route passes along a portion of the southern extent of the APE in Malheur County.

Based on emigrant Jesse Heritt's diary, the journey took 44 days to travel 370 miles with ox-team wagons on the following route:

...from the Snake river up Owyee river; thence to South fork of Malheur river; along the north side of Malheur Lake, near the later city of Burns; up Silvies river to the headwaters of Crooked river; past Prineville, thence near Madras, Gateway, Shaniko; down Buck hollow to a crossing of the Deschutes river north of Sherar's bridge; up Butler canyon and Tygh ridge, past Dufur to The Dalles (Bend Bulletin 1945).

Meek led the wagon train along the rocky banks of the Malheur River, through Harper Valley and the Malheur River Canyon, up and over steep rocky bluffs. The oxen-driven wagons and travel-weary emigrants experienced a difficult time along the unproven route. At times, several miles separated parties in the group causing some to fall several days behind. By the time Meek reached the north fork of the Malheur River near Beulah Reservoir and Castle Rock, the terrain had become so difficult that trailing emigrants noted the iron-stained marks from the wagon wheels and bloody oxen footprints on the rocks along the trail left by the leading party. (Beckham 1991; Oregon Historic Trails Fund 2012).

On the 10th day after separating from the main trail, grasses grew drier and water became scarcer, causing the followers to question Meek's decision to leave the main route. This was underscored when the wagons left Harney Valley, expecting to see Malheur Lake near modern-day Burns, to only find a marshy, stagnant pool. The emigrants had to search for miles for potable water. The lead wagon train camped along the northern lakeshore of Harney Lake, where the emigrants had their first direct experience with Paiutes since leaving the main Oregon

Trail route. With doubt in Meek increasing, the emigrants overruled their leader and crossed 50 miles of arid lands toward Silver Lake and then Wagontire Mountain (Oregon Trails Historic Fund 2012). While many of the emigrants felt that Meek had misled them and were desperate to head upriver along the Deschutes River toward The Dalles, others still desired a more direct route over the Cascades. At Lost Hollow, the wagon train re-organized, moving the camp 30 miles north to Crooked River near present-day G.I. Ranch where a fresh water source had been found. Some researchers believe that on the night of September 16, 1845, the wagon train temporarily split just south of the Maury Mountains (Clark and Tiller 1993:62). One group of 40 wagons and 200 emigrants followed Solomon Tetherow and Meek northwest toward the Deschutes River, while another group headed directly north toward the Columbia River, navigating by the North Star and the sun's shadows. Enduring a lack of water and limited rations of rancid beef, the northbound group began to experience bouts of "camp fever," which made the trip even more difficult. Meek and Tetherow's group covered more arduous terrain, but was aided by a member of the Warm Springs Tribe who directed them toward fresh water and guided them to the Deschutes River after scouts could not find a pass through the Cascades.

On September 26, the two groups arrived separately at Sagebrush Springs. Soon after, the reconvened wagon train began crossing the Deschutes River. It took two weeks to move all of the wagons, livestock, and families across the river with the assistance of local Native Americans. Meek and the remaining emigrants reached The Dalles by mid-October having lost at least 23 members to disease and hunger along the way. Many of the emigrants recuperated there and continued on to the Willamette Valley. Although Meek's effort to establish a viable western route failed, the Meek Cutoff would later serve as a conduit for permanent roads (Beckham 1991; Oregon Historic Trails Fund 2012).

3.2.3 Transportation

As Oregon became increasingly settled by immigrants, trails became roads and the need for more established routes of transportation became necessary. Given that federal funds were committed to the Civil War, the State began constructing military roads by granting private construction companies lands along the roads in lieu of payment. Many of the roads followed existing trails used by the local Native Americans (BLM 2013). New technologies, namely the railroad which provided faster, safer, and, usually, cheaper travel east and west, were also welcomed as new and better ways to travel and transport goods. Both roads and railroads served as transportation and communication routes across the state. Many crossed the APE and region in general.

3.2.3.1 Wagon and Military Roads

Early formal wagon roads in Oregon were typically developed through a program of State land grants intended to stimulate building private roads that could be used by the military; hence the term "military wagon road." Following completion of a road, the road company would request the governor to certify the route as a suitable road for travel. Once certified, up to three odd-numbered State-owned sections per mile of road and within 3 miles of the route could be transferred to the company, which was then free to sell or lease the lands. Therefore, it was in the best interest of the road companies to establish routes that passed through productive regions that were desirable to ranchers, farmers, and other settlers, such as along major streams and rivers (Beckham and Lentz 2000). Six prominent roads that passed through the region include the Steens Military Wagon Road, Dalles Military Road, the Oregon Central Military Wagon Road, the Willamette Valley and Cascade Mountain Wagon Road (also known as the Santiam Wagon Road), the Ontario to Burns Road, and the Indian Service Road (also known as the Pilot Rock Emigrant Road or Daly Wagon Road). Project surveys have identified

one segment of a modernized section of the Indian Service Road (today's Daly Road) as well as numerous other, less prominent roads.

The Indian Service Road, sometimes referred to as the Pilot Rock Emigrant Road or the Daly Wagon Road, was established through the Blue Mountains as an alternative route to the Oregon Trail. Establishing the road was a requirement of the 1855 U.S. treaty with the Cayuse, Walla Walla, and Umatillas to re-route emigrant traffic around the newly established reservation boundaries (today's UIR). It was not until 1861, after the treaty had been ratified and reservations established, that the Indian Service finally began to work towards creating the road. The route, generally, began at Birch Creek near Pilot Rock, up the western foothills of the Blue Mountains to the confluence of McCoy and Johnson creeks, along a ridgeline between McCoy and McIntire creeks that leads south toward Starkey Prairie, down McCoy Creek to Meadow Creek, and finally over a low hill to the Grande Ronde River at the head of the canyon between Starkey and Hilgard. This section through the Blue Mountains was constructed in 1861 at an approximate length of 46 miles, with a latter 39-mile section built in 1862 that continued through the Grande Ronde Valley, up Ladd Canyon, and finally to the Powder River Valley (Tucker 1946). The Indian Service Road and Pilot Rock Emigrant Road would later be regarded as the Daly Wagon Road (also referred to as the Daly Toll Road. The Daly Wagon Road varies in its naming: Dealy, Daley, Daily, and Daly. Unfortunately, emigrants and miners returning from the west continued to use the "Old Immigrant Trail"/Oregon Trail through the reservation boundaries. To make matters worse, no provisions were made for maintenance of the road, resulting in it quickly falling into disrepair and its failure to meet the 1855 treaty requirements (Miller 1996:138–139). Segments of this road route would later be incorporated into early Forest Service roads and remain for seasonal use.

3.2.3.2 Railroads

The history of railroad use in Oregon predates the completion of the transcontinental railroad in 1869 and is dominated by the Union-Pacific Railroad (UPRR) and its subsidiaries. During the Civil War, Oregon became aligned with the Union and a railroad connection from Oregon was proposed to help supply the Union (Meinig 1968). The discovery of gold in Idaho and Montana in the 1860s, along with the spread of agriculture in Oregon, created a need for adequate transportation to bring in supplies and to export local crops. The railroad-building era in northern Oregon began by 1868 and lasted for 30 years, with much help from the Native American population (Katherine Coddington, BLM, personal communication, 2015) and early Japanese populations.

A number of small rail projects had been completed earlier along the Columbia River by the 1850s and early 1860s. Proposed rail routes that would follow the Oregon Trail were surveyed by the government, UPRR, and others. During the early 1900s, several branch lines were constructed south from the Columbia River. Modern rail lines in eastern Oregon continue to be dominated by UPRR and its branch lines. Railroad segments identified by Project surveys have been limited to UPRR, Oregon Short Line (OSL), and Oregon Railway and Navigation Company (OR&N) lines.

Henry Villard, sent by German investors to oversee their investments in the Oregon and California Railroad Company, became the major force in railroading for the region. In 1879, he purchased the OSL and the Oregon Steamship Company, merging them to the OR&N. Also in 1879, the UPRR and Villard agreed to connect the rails of the OR&N with those of the UPRR transcontinental mainline. Between 1883 and 1884, an agreement was reached between the OR&N and the Northern Pacific Railroad regarding the completion of the Northern Pacific railway. The UPRR subsidiary company OSL was to complete its rail line west of the Snake River, and the OR&N was to build a line east, thus completing another east-west

transcontinental line. The OSL had been working on constructing a railroad through Idaho to Huntington, Oregon, and the OR&N built the line from Umatilla to Huntington over a period of several years, completing it in November 1884. The OR&N reached Pendleton, Oregon, on August 31, 1882, and Baker City, Oregon, in August 1884. The final spike connecting the OR&N with UPRR's OSL was driven at Huntington, Oregon, on November 25, 1884. The OSL and UPRR eventually acquired control of the OR&N in 1887, and UPRR had its through route to the Pacific Ocean. The OR&N lines were leased to UPRR's OSL from 1887 until UPRR purchased OR&N in 1889 (Deumling 1972; Dicken and Dicken 1979; Laubaugh 2012).

The OSL railroad company was incorporated on April 14, 1881, in the Territory of Wyoming and had strong ties with the UPRR. Construction on the new railway began on July 11, 1881, with a ceremony at Granger, Wyoming. The railway trended westward following the route of the Oregon Trail and by August 1882, had made its way through the territories of Utah, Idaho, and Oregon. By 1884, a connection was made with the OR&N near the Idaho-Oregon border, halting that line's continued eastward expansion. Ultimately, the OSL assumed control of the OR&N, thus giving the UPRR an outlet to the Pacific. In 1889, the UPRR consolidated the control of its interest in Utah and Idaho through the organization of the OSL and Utah Northern Railway (Robertson 1995). In 1893, UPRR was forced into bankruptcy along with its subsidiary railroad companies. The OSL emerged from the bankruptcy in 1897 as an independent company until it was again leased by the UPRR in 1899 (Robertson 1995:219). By 1903, the OSL operated on 1,516 miles of track and, by 1918, 2,348 miles of track (Robertson 1991:417).

3.2.4 Mining Activity

Numerous sites associated with mining have been identified by Project surveys, including mining claims, numerous prospecting pits, and more well-developed mining sites.

3.2.4.1 Gold Mining

While smaller and less valuable than the legendary strikes of the California Forty-Niners, the gold discoveries in Oregon during the 1860s were of important economic significance and drew thousands of immigrants to the area (Dodds 1977:74). Placer mining in northeastern Oregon region began in 1861, following Henry Griffin's discovery at Griffin's Gulch near Baker City. Prime placer deposits in Baker County were depleted quickly by the large influx of miners. By the 1880s, placer production had dropped, at which time lode mining began to take hold. Until then lode mining had been slow to develop because it required more money, miners, and equipment to operate. From the 1890s to 1921, lode mines were the primary source of Oregon's gold (Brooks and Ramp 1968). The use of mechanized dredges starting in the early 1900s revolutionized placer mining and brought it back into favor. By 1921, placer output was greater than lode production.

Settlement patterns were strongly influenced by mining. During the initial placer mining period, miners lived in the rough terrain surrounding placer deposits rather than fertile valleys and bottom lands. Once the placer gold deposits were depleted, miners would move on; thus, early placer mining localities did not sustain populations for an extended amount of time. In contrast, settlements associated with lode mining tended to last longer.

Even though it was against the law for Chinese to stake claims under the 1872 mining law, they leased or purchased and re-worked claims abandoned by Euro-American miners. The remains of "Chinese Walls," hand-stacked as workers progressed along the placers, are found in the local Baker County area (Wegars 1995).

Gold mining activity in Union County was primarily in the south at the Camp Carson and Medical Springs districts. Gold deposits were discovered in 1862 in the upper Grande Ronde River

watershed in the southwestern portion of the county. Malheur County included several mining districts as well as the mining settlements of Eldorado, Malheur City, and Amelia (formerly New Diggings), to the west of Mormon Basin. The lack of adequate water supplies in the region made mining at the local placers very difficult and, as a result, miners developed systems of ditches to carry water to the mines. Once the placer mines were depleted and the ditches were no longer used for mining purposes, farmers began planning agricultural uses for the water. Mining in Baker County was rich in both placer and lode deposits, giving it the unparalleled distinction of producing some 2 million ounces of gold (Oregon Gold 2012). Spurred on by the initial 1861 gold discovery in Griffin's Gulch, prospectors roamed the Powder and Burnt river areas in 1862, finding gold in many creeks and gulches (Gilluly et al. 1933:24; Hiatt 1893:33). Early diggings were established on Clarks Creek, Willow Creek, Salmon Creek, Marble Creek, McCord's Gulch, and Mormon Basin, among others (Hiatt 1893:33).

Gold mining districts where Project surveys have identified likely or definitively associated archaeological resources include the Medical Springs, Lower Burnt Valley, Virtue, and Mormon Basin districts.

In October 1942, War Production Board Limitation Order L-208 had a profound effect on the gold mining industry in eastern Oregon and everywhere else in the U.S. The board determined that mining gold was non-essential to support World War II efforts and that only strategic minerals should be mined during that time. Therefore, Order L-208 made it illegal to mine gold and to operate, purchase, or transport any gold mining equipment. The federal government confiscated any equipment in transit. The only mines that were allowed to keep operating were those that could prove they produced "strategic metals" such as iron, copper, chrome, nickel, cobalt, and tungsten. The federal government also sponsored scrap-drives for the war effort, resulting in the dismantling and removal of mining equipment, such as ore cars, rail, and other idle equipment. With many mines closed, the economic activity that focused on mining and its supporting infrastructure drastically declined (Sheedy 2007). Ancillary effects of the mining ban included the closure of service industries, transportation, and local businesses that served the mining communities. Although mining resumed in Oregon after the end of World War II, it never regained its former prominence (Brooks and Ramp 1968).

3.1.2.5 *Non-Auriferous Mining*

Although gold was the principal mineral mined in northeastern Oregon during the nineteenth and twentieth centuries, other non-auriferous mineral commodities were also prospected in the region, primarily within Baker County and a lesser amount in Malheur County. Most non-auriferous minerals were first quarried during the early twentieth century, with heightened activities noted in some areas during the World War II period and later. Along with the general non-auriferous mining activities in Baker and Malheur counties, several specific minerals were focused upon for mineral extraction: limestone, granite and tuff building stones, and diatomaceous earth.

In November 1923, the Sun Portland Cement Company built a cement plant at the town of Lime, near Huntington, Oregon, to serve western Idaho, eastern Oregon, and southwestern Washington (McCaslin 1965). The plant first operated as a stone quarry in the late 1880s, and stone was used to construct several of Baker City's major buildings (Oregon Genealogy 2012). In 1907, a lime kiln operated in the Lime area (Prescott 1937) and, in 1916, the Acme Cement Plaster Company built a plant at Lime to produce plaster. Because of overlapping stockholders, the "Sun" company and the "Oregon" Portland Cement Company merged in September 1926 to become the Oregon Portland Cement Company (McCaslin 1965). In the late 1920s and early 1930s, the Lime plant supplied cement for construction of Owyhee Dam in southeastern Oregon. By 1937, the facility included a plant in the quarry, an electric compressor, power drills,

power shovels, an aerial tramway, and shops (Prescott 1937). By the 1960s, the Lime facility was producing 1.2 million barrels a year. As the nearby limestone deposits were depleted, limestone was brought in from the Nelson area near Durkee. A new plant was built at Nelson in 1979 and the Western Lime Quarry facility at Lime was closed in 1980. The ruins of the limestone plant are still present today near the western end of Burnt River Canyon.

Early twentieth century mining in Baker County included the quarrying of granite and volcanic tuff building stone. Granite was mined on a commercial scale east of Haines, where several pits operated near Coyote Point (Gilluly 1937:115). The Pleasant Valley area produced volcanic tuff from the Ideal Quarry and the Oregon Lava Stone Company. Operations at the Pleasant Valley Tuff Quarry began during the early part of the twentieth century, but they were discontinued by about 1920. The quarry was re-opened by 1946 and operated by the Loyer Corporation of Portland, Oregon (Wagner 1946). Many of the larger buildings in Baker City were built with the volcanic tuff stone from these two quarries (Gilluly 1937:115).

The lacustrine environments of central and eastern Oregon have formed numerous occurrences of freshwater diatomite deposits (Geitgey 1989:126). The economic viability of diatomite deposits depends upon the physical and chemical properties of the deposit, the potential end uses, and the proximity of the deposit to goal markets and transportation (Dolley and Moyle 2003:1). The national industry was spurred by the invention of dynamite in 1867, which required diatomite as an absorbent and stabilizer. By the twentieth century, diatomite was also being used in building materials, polishing compounds, liquid filtration, filler material, paint, roofing, and paper. Development of the industry nationwide paralleled industrialization of the U.S. with a major shift in economic focus to the military during World War II. Production demand continued to increase after the war (Dolley and Moyle 2003:3-5). At least 15 deposits of diatomaceous earth had been identified throughout eastern Oregon by 1937 (Moore 1937), several of which are along the undertaking: Burns, Indian Creek, Clover Creek, Richland, Swayze Creek, Manning Creek, Brogan, Harper, and Otis Basin (Moore 1937:Plate 1). More recently, smaller deposits of diatomite have been identified in the Telocaset area of Union County but do not appear to have been mined (Wagner 1950). Most of these districts or localities have not been mined either due to poor quality, difficult access, or long distances to transportation corridors.

3.2.5 Timber and Logging

In 1849, the more wealthy farmers of the region began to use milled lumber for home construction, rather than living in log cabins, increasing the demand for a regional logging industry (Andrews and Kutara 2005:1, 7). Many of the early timber mills were constructed along streams for access to water power to run saws. However, most were small and could be relocated to new areas once timber was depleted. As demand increased, the roads system, particularly in the Blue Mountains also expanded. Many of the roads in the regional forests today are the result of the wagon trails those early settlers used to transport the timber (Tucker 1940:70).

The timber industry in Oregon did not begin in earnest until the mid-nineteenth century. Completion of the OSL through the Blue Mountains in 1884 invited land speculation for timber as well as the area's entry into the national lumber markets (Powell 2008). Investors, such as the Oregon Lumber Company, began purchasing large blocks of land in the 1880s (Robbins 2002a). The first commercial harvest in eastern Oregon began in 1890, using a network of temporary railroad tracks to bring timber to the mills. Steam engines, run on wood themselves, pulled fallen trees by long wire cables to a landing to be placed on the railroad cars (Engeman 2005). One of the notable logging railroads in the area was the Mount Emily Logging Railroad, which brought timber to a mill on the Grande Ronde River near La Grande. Remnants of the railroad have been recorded by Project surveys.

By 1900, after the closure of most mines in the region, timber production became one of the primary economic drivers in the region. The industry experienced a downturn and financial stresses during the Great Depression in the late 1920s and early 1930s as demand decreased. Then, with the onset of World War II in December 1941, foreign and domestic demand increased and continued to do so into the 1950s when the practice of second-growth timber harvests was begun. By the 1960s, more than one-fifth of the U.S. lumber supply originated from Oregon forests (Andrews and Kutara 2005:1).

3.2.6 Settlement

By the late 1880s, most early mining towns in eastern Oregon and southwestern Idaho were abandoned. The region was largely settled by emigrants from other parts of the West who sought their fortune in gold or land. Many who had made their way along the Oregon Trail had back-migrated eastward to the mines and open, productive spaces. Historic-era resources identified by Project surveys and associated with the regional settlement include homesteads, water conveyance systems, utility lines, as well as agricultural and ranching sites.

3.2.6.1 Homesteading

The Homestead Act of 1862 provided a 160-acre tract of land for \$1.25 an acre to any U.S. citizen, or intended citizen, who had never borne arms against the U.S. government. Before the land could be claimed, the claimant was required to have lived on the land for 5 years, improved the land by building a dwelling at least 12 feet by 14 feet in size, and began cultivating crops. After the 5-year period, the homesteader could file for a deed of title by submitting proof of residency and completion of the required improvements to a local land office. In March 1873, Congress passed the Timber Culture Act, which authorized the grant of an additional 160 acres to a homesteader who agreed to plant trees on 40 acres of the allotted land and cultivate them for 10 years (Gillon and Matson 2002). The Desert Land Act was passed by the U.S. Congress on March 3, 1877, offering 640-acre tracts of land to a married couple who would pay \$1.25 an acre and promise to develop and irrigate the land within 3 years. A single man would receive 320 acres for the same price. The conditions required that the applicant be a naturalized citizen, head of household, or male over the age of 21 who had never been an enemy or aided an enemy of the U.S. At the time the claim was placed, the claimant was required to pay 25 cents per acre, with the remaining balance due within 2 years. Unlike the Homestead Act, the Desert Land Act did not include a requirement to construct a residence, but it did stipulate that title could only be transferred after 3 years if irrigation development was completed within that time. In 1909, Congress passed the Enlarged Homestead Act, which raised the amount of land deeded to each homesteader from 160 acres to 320 acres (Gates 1968). The act also stipulated that only non-mineral, non-irrigable, and non-merchantable timber land could be acquired provided that at least one-eighth of the land be continuously cultivated for agricultural crops. Claimants were given 5 years to make all necessary improvements. In 1912, Congress decided that 5 years was too long for the residential and agricultural requirement, and passed the Three-Year Homestead Act (Meinig 1955). The Stock Raising Homestead Act was introduced in 1916 and provided settlers with 640 acres of public land for ranching purposes. Unlike the Homestead Act of 1862 or the Enlarged Homestead Act of 1909, these parcels of land were divided into surface and subsurface land rights, resulting in what later became known as split estates. This act allowed applicants ownership of surface resources for ranching and homesteading, but also allowed the federal government to retain the right to extract subsurface resources for the good of the country. The subsurface rights, also known as mineral rights, became the foundation of future oil and gas law in the U.S. (BLM 2006).

3.2.6.2 Irrigation

Farming became the way of life in arid eastern Oregon during the late 1800s, but the lack of adequate irrigation soon reduced agricultural productivity. Old mining ditches were put back to work to provide water for orchards, hayfields, row crops, and dairy cows (Braswell 1986). The opportunistic use of old mining ditches was eventually replaced by a more formal system of irrigation ditches. Although subsurface investigations of the irrigation systems themselves are not anticipated, such investigations may be necessary at associated archaeological deposits.

The Carey Act of 1894 allowed for private companies in the U.S. to construct irrigation systems in the western semi-arid states, and profit from the sales of water. It was intended to dispose of arid public land. The act, managed by the GLO, provided as much as 1 million acres of land for each western state, which was then regulated by each state. Each state determined who qualified as potential claimants and investors. In most states, claimants had to pay an entry fee, plus a small amount for the land, and meet several guidelines. It was not until 1901 that the act was accepted by the State of Oregon. The majority of projects completed under the Carey Act in Oregon were in central Oregon where most of the land was in the public domain and a plentiful water supply could be found in the east slope of the Cascades (Tonsfeldt and Claeysens 2004b). On June 20, 1950, the State of Oregon decreed that the Carey Act had provided ample time for interested water users to have staked water rights claims, and ended the eligibility period to receive irrigation water (Central Oregon Irrigation District 2012).

Congressional passage of the Newlands Reclamation Act in 1902 heightened expectations that federal monies would be available to develop irrigation projects in Oregon's arid desert region. Toward this end, the U.S. Reclamation Service (now U.S. Bureau of Reclamation [Reclamation]) conducted a series of surveys and investigations of the Malheur, Willow Creek, and Owyhee areas in eastern Oregon and the Umatilla area in the northeast (Robbins 2002b). Within the Umatilla area, the federal government quickly funded the Hermiston Irrigation Project, a large-scale development to divert water from the Umatilla River to agricultural fields in northern Umatilla County. Local interest in water development continued to grow and, in 1953, McNary Dam was completed on the Columbia River at Umatilla Rapids to serve both irrigation and navigation needs for this growing region. Other regional irrigation projects of which Project surveys have identified likely or definitively associated cultural resources include the Baker Irrigation Project, the Vale Irrigation Project Canal, and the Owyhee Project.

3.2.6.3 Electrification and Transmission Lines

In the early twentieth century, cities in the northwest were pumping drinking water to cities, using electricity obtained from the first municipal water company, McMinnville Water and Light, established in 1889. The use of rivers as a water source for drinking water and transporting goods became a philosophical sticking point to many who felt it was important to be available to the public, rather than monopolized by private industry. This philosophy became the foundation of the notion of public power: that electricity and power be public, not private, entities (Public Power Council 2020). Early advocates of public power were interested in forming municipal utilities and public utility districts as opposed to privately owned power companies, who often charged higher rates because of lack of competition (Public Power Council 2020).

In 1936, Oregon and Washington passed state laws, known as the Rural Electrification Act, allowing public utility districts to form in rural areas (Public Power Council 2020). The act allowed farmers to obtain electric power through a low-cost loan program. This led to a period of public utility formation. By 1942, 800 public utility district cooperatives were formed (Public Power Council 2020). While private utility companies continued to succeed in conjunction with public utility companies, the federal government became involved in the issue due to its interest

in developing the northwest region's power generation sources with legislation like the Reclamation Act of 1902 and the Bonneville Power Act of 1937. Both of these pieces of legislation spurred the growth of public works projects and use of electricity from federally funded dams (Public Power Council 2020).

While public utilities were forming, private utilities continued to succeed and grow in territories through mergers and acquisitions. During the early decades of the twentieth century, private utility companies merged and became owned by fewer and fewer people so that by the early 1920s, there were 4,000 private utility companies as compared to 3,000 publicly-owned ones (Public Power Council 2020).

As with irrigation systems, subsurface investigations of the utility lines themselves are not anticipated, such investigations may be necessary at associated archaeological deposits. Many abandoned segments of utility lines have been identified by Project surveys as well as historic-era lines that are still in-use in the same alignment, including some owned and operated by IPC.

3.2.6.4 *Agriculture and Ranching*

Ranching and agriculture have played a major role in the economic development of the Pacific Northwest and continue to do so today. The natural resources and topography of eastern Oregon in particular lend themselves to these productive industries. Agriculture and ranching originated in Spanish exploration and the area's missions with federal support and regulation beginning in the early twentieth century.

The ongoing improvements of irrigation canals and dam construction in the early 1900s precipitated further economic development and settlement. Soon after, native vegetation began being replaced by irrigated croplands of grains, sugar beets, potatoes, and alfalfa, which resulted in a disruption of the natural hydrologic system (Franzen 1981:228). Federal construction, canal, and dam projects through the CCC and Work Projects Administration during the Great Depression of the 1930s enabled the unemployed to find work and helped establish larger-scale irrigation in the agricultural regions of Idaho and Oregon. Many of the canals and headgates used for agriculture today were constructed during this time. During World War II, Japanese-American laborers from local internment camps as well as POWs were used for farm labor in the region.

Based partly on the mass development of agricultural lands during the early twentieth century and as a response to the environmental disturbances caused by overgrazing and deforestation, public lands in western Idaho and eastern Oregon were set aside. This resulted in land management by federal agencies such as the BLM and USFS (Franzen 1981:229). Though the economy has been affected by periodic droughts and depressions throughout the twentieth century, to date, western Idaho and southeastern Oregon retain their agricultural economy; sugar beet plants, potato processing plants, dairy farms, wood product processing plants, and feedlots continue to contribute to regional development.

The ranching industry provided several basic staples for historic European populations: beef, milk, fat, and cheese. Cattle and horses also provided the necessary power for plowing agricultural fields, pulling wagons and other machinery, and leather for clothing and other purposes. The numerous watercourses and prominent grasslands of eastern Oregon provided the necessary feed and water for the cattle, sheep, and horses. Ranchers and farmers also found domesticated horses necessary for conducting daily activities. In the nineteenth century numerous herds of cattle and sheep were driven north from California and west from the Great Plains into the Willamette Valley and east of the Cascades. By 1825, cattle had begun to play a role of increased importance in the early economy of the Pacific Northwest. By the mid-

nineteenth century, the day of the Cattle Baron had arrived in the Northwest. The practice of long distance cattle drives ended in the 1880s with the establishment of railroads, which allowed for shipping cattle by rail (Galbraith and Anderson 1971:7–9; Tucker 1940:57–58).

Cattle and sheep ranching expanded into and developed more fully in eastern Oregon during the 1850s and 1860s when former miners, merchants, and farmers moved to the area in search of pastures to graze sheep and cattle and land to grow wheat (Minto 1902; Kenny 1963). For the most part, ranchers sold their meat and milk locally to Euro-American settlements of Oregon and throughout the Pacific Northwest as populations expanded (Galbraith and Anderson 1971:8-10). However, this changed in the 1870s when they were forced to look beyond the Pacific Northwest to compensate for the overpopulated industry in the region. In addition to supplying areas to the east with basic goods, the cattle were also used to create base herds in the Rocky Mountains (Galbraith and Anderson 1971:8–9). Despite this early focus on cattle, by the 1880s, wool production in eastern Oregon increased dramatically with Umatilla, Grant, Cook, Morrow, and Wasco counties producing more than a million pounds in a year (Kenny 1963). Basque shepherders began to settle in eastern Oregon and Idaho in the late 1880s, comprising a large portion of the regional population prior to the Great Depression and dominating the area's sheep men (Etulian 1991). A notable feature of Basque shepherding includes harri mutilak, complex and often large stone cairns. These were often erected along ridges or other high points to demarcate range boundaries. They are also believed to have acted as guideposts for shepherders and sometimes to have been created out of sheer boredom while tending their flocks. The very largest sometimes originated as smaller Native American cairns. Other features of Basque rangeland include campsites, refuse scatters, and hearths (Williams 2012; Reid and James 2004:102; Zimring and Rathje 2012).

Open range ranching with an established headquarters was the accepted practice until the 1890s, when ranchers, after a series of severe winters, finally accepted that shelter and feed during the winter were necessary for a successful operation. Deteriorating range conditions as a result of overgrazing and increased interest in private landownership by homesteaders put an end to the practice of open range once and for all. Following the Homestead Act, land began to be fenced off and property lines delineated, preventing free movement of herds and established sheep and cattle drive routes (Galbraith and Anderson 1971:10–11; Tucker 1940:58).

Laws and regulations regarding ranching were enacted to quell the pervasive and complex disagreements between cattlemen and shepherders as they fought over increasingly limited lands, as well as to begin rehabilitation and conservation of rangelands. Following the Stock Raising Homestead Act, the Taylor Grazing Act was passed in 1934 as an additional effort to rehabilitate and develop rangelands. Administered by what is now the BLM, the Taylor Grazing Act regulated occupancy and use of grazing lands by preserving the land and its resources from destruction, providing orderly use of the lands, and authorizing environmental studies to better understand the necessities of rehabilitation (Galbraith and Anderson 1971:12).

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4.0 RESEARCH DESIGN

The Plan is designed to guide all subsurface investigations for the Project in Oregon, specifically archaeological resource boundary probing, HPA probing, and NRHP-eligibility testing, as stipulated in the PA. This effort is part of IPC's commitment to assist BLM and other land-managing and permitting agencies in applicable regulatory compliance, including Section 106 of the NHPA.

Tasks completed as part of subsurface investigations will include the following:

- Subsurface probing at HPAs to determine the presence or absence of subsurface deposits that would indicate a buried archaeological site;
- Subsurface probing at the locations of isolated finds (IFs) to determine the presence or absence of subsurface deposits that would indicate the IF is a representation of a buried archaeological site;
- Subsurface probing of archaeological site boundaries to assess the presence or absence of subsurface deposits extending beyond the boundaries determined by the extent of surface artifacts;
- Subsurface testing at the locations of archaeological sites to determine the site's eligibility for listing on the NRHP. Site testing will establish the site's vertical and horizontal boundaries, and general integrity and composition of the site;
- Complete and/or update state resource forms for all identified archaeological sites and update IF forms, as appropriate;
- Develop management recommendations for probed and tested archaeological resources; and
- Prepare a report of results and management recommendations for submission to the land-managing and permitting agencies and the SHPO.

4.1 Research Goals

The goals of the prior surveys for the Project were to identify all cultural resources within the survey area, evaluate their NRHP eligibility, and make management recommendations (as applicable for the Project proposed at the time or applicable study required by the PA). Additionally, the surveys sought to identify areas of increased probability for subsurface or buried archaeological resources (HPAs).

The research goals for the Plan are similar to the pedestrian survey goals completed to date, with an emphasis on identifying, characterizing, and evaluating any subsurface deposits that may be present as well as the significance of potential historic properties. Depending on the type of resources encountered, a wide range of research topics could be addressed by the resources identified by probes or whether the site is tested for NRHP eligibility.

4.2 Research Questions for Site Testing and NRHP Evaluation

To evaluate an archaeological site for NRHP eligibility, the site context must be understood. The shovel probing effort described in this Plan is designed to define the boundaries of archaeological sites and IFs. The shovel test units that will be excavated within sites are designed to evaluate the resource for NRHP eligibility. If features are discovered, additional test units may be excavated to gain more information. The testing and research at each site may address six broad themes: site context, cultural chronology, trade, cultural adaptation,

economics and subsistence patterns, and settlement patterns. Within each of the broad themes are more specific research questions that we will attempt to address. Additional themes and questions may be determined appropriate depending on the specific archaeological site being tested for NRHP eligibility. Any such variances will be identified and discussed in the excavation permit application (Oregon SHPO excavation permit or Archaeological Resources Protection Act permit, depending on land ownership) that includes the specific resource.

If there are additional NRHP-eligibility research questions that consulting parties would like to contribute, they may be incorporated as appropriate in resource-specific research designs for eligibility testing permit application.

4.2.1 Site Context

Does the site have integrity? (Design, location, materials, setting, feeling, workmanship, association)

- Is there evidence of disturbance?
- Is there a variety of artifact types present?
- Are diagnostic artifacts present?
- Are subsurface deposits present?
- What is the vertical extent of the cultural deposits?
- Does the site fit into an established cultural chronology? How many cultural components are present?
- If the site does not exhibit many of the seven aspects of integrity, is it significant for its association with a person/community or event in history?

What are the characteristics of the sediments?

- Are there stratigraphic layers?
- Are there buried soils?
- How deep are the sediments?
- What is the extent and nature of post-depositional processes and how have they affected the cultural deposits?
- What Paleoenvironmental data are available?

What was the function of the site?

- What type of artifacts are present?
- What type of activities are represented?
- How do these activities match up to what was expected based on the historic record?
- At historic sites is the refuse domestic or industrial?
- Are there features present? What is the function of the feature?
- Was the testing methodology sufficient to identify features?
- At precontact sites, are domestic artifacts present such as ground stone?
- What stage of lithic reduction is present? Do the lithic artifacts represent expedient lithic processing activities? Is there evidence of tool production?

- Is there archaeological evidence of prehistoric religious and/or ceremonial activities?
- What background research materials are available?
- Are there any ethnographic studies for the area?
- Have Traditional Use Studies been compiled?
- Do the local tribes have any information to share about the site?

4.2.2 Cultural Chronology

What is the period of use?

- Are there diagnostic artifacts present?
- Are there any temporal markers such as volcanic ash deposits present?
- Is there any obsidian present that can be used for Obsidian Hydration studies?
- Are there any organic materials present that can be dated with radiocarbon dating or accelerator mass spectrometry (AMS)?

4.2.3 Trade

Are there indications of trade with other tribes and bands?

- Is there any obsidian present? Where did it originate?
- Are exotic lithics present?
- Is coastal shell present?
- Is there more evidence of trade with the Coast or the Plains tribes?

What do the historic artifacts suggest about commodity flow and the global economy?

- Where are the ceramic and glass artifacts manufactured? By whom?
- How much did local manufacture contribute to the local use of material goods?
- What is the source of commercial goods?

4.2.4 Cultural Adaptation

Do the artifacts show evidence of environmental adaptation?

- Is there a change in tool size and shape overtime? Between sites?
- Does the tool assemblage represent trade, innovation, or migration?
- Does the site occupation coincide with changes overtime, such as changes in the environment?

What are the relationships between nearby sites and how do they change over time?

- Are there similarities/differences in the assemblages between sites?

4.2.5 Economic/Subsistence Patterns

At precontact sites, is there evidence of subsistence procurement/processing?

- Are ground stone tools present?
- Is there any faunal/floral material present?

- What does the analysis of the flora/faunal assemblage indicate?
- Is there evidence of food storage?
- How does this site fit into larger land-use or subsistence systems, such as seasonal subsistence rounds?
- Is there evidence for intensification of subsistence resource exploitation? Can resource intensification be linked with short- or long-term environmental change or population fluctuations?

At historic sites, is there evidence of subsistence based on the artifact assemblage?

- What type of food containers are present?
- Does the artifact assemblage represent a single family?

4.2.6 Settlement Patterns

What is the nature of land use and settlement represented?

- What is the seasonality of the site?
- Are there systemic, logistical, and or/ strategic relationships between local or regional sites?
- Are historic farmstead sites associated with the current landowners? Has land ownership or leases been passed down within families?

4.3 Subsurface Investigation Methods and Locations

Tetra Tech's subsurface investigation methods will adhere to SHPO's *Guidelines for Conducting Field Archaeology in Oregon* (2013). As described below, subsurface investigations will include shovel probes and test units. The methods used for each of these efforts are described below. All probe or test unit locations will be determined and plotted prior to fieldwork. If a planned location must be moved in the field (such as due to a large root or boulder or pavement), the new location will be mapped using a Global Positioning System (GPS) unit with sub-meter accuracy. All probes and/or units will be backfilled after being excavated, profiled, and mapped.

The necessity of subsurface investigations at archaeological resources will be determined on a case by case basis. This is particularly true where resources are identified on exposed bedrock or thin soils and for culturally sensitive archaeological resources, such as stacked rock features.

All artifacts recovered during subsurface investigations will be collected, analyzed, and curated (see Section 4.4). Any surface artifact locations in the field will be plotted via a sub-meter GPS unit, but will not be collected. Subsequent artifact analysis and curation of excavated artifacts will be conducted according to the SHPO guidelines, as described below.

4.3.1 Shovel Probing

Shovel probing will be conducted to determine the presence or absence of subsurface archaeological materials, define resource boundaries, and examine HPAs.

Shovel probes will consist of 30-centimeter (cm)-diameter holes excavated in arbitrary 10-cm levels. Although this methodology differs from the 2012 Archaeology Survey Plan for the Project (Tetra Tech 2012), it will be more consistent with SHPO's current guidelines for shovel probing. Each level will be described on a shovel probe form, including soils, disturbance, and any artifacts. Excavated materials will be screened through either 1/8-inch or ¼-inch mesh,

depending on the type of site (lithic scatter, historic refuse, etc.). Sites where small artifacts are expected will utilize the smaller screen size in order to obtain a representative sample of artifacts. Shovel probes will extend into the C-horizon or until two sterile levels (i.e., 20 cm) are encountered below any levels containing cultural materials and after extending a minimum of 50 cm in depth (unless bedrock or other obstructions prevent this). If cultural sediments are still present once the maximum depth is reached, an auger may be employed to investigate the vertical extent of the site.

4.3.1.1 Resource Boundary Probing

For archaeological sites and IFs, a minimum of eight shovel probes will be placed in the cardinal directions outside the site or IF boundary for boundary delineation. For sites, probes will be placed at 5- and 20-meter intervals. For IFs, probes will be placed at 1- and 5-meter intervals. Completion of two negative adjacent probes in each cardinal direction will be used to establish resource boundaries. Additional probes may be placed in other directions to better define a resource's boundary. If the boundaries of a resource to be boundary probed cross multiple parcels, the probes will be limited to the parcel crossed by the APE.

4.3.1.2 HPA Probing

For HPAs, a centerline will be established along which shovel probes will be placed at 20-meter intervals. Where an HPA is 40 meters or more wide, additional lines of shovel probes at 20-meter intervals will be excavated. Lines of probes will be spaced no more than 40 meters apart. Shovel probes will be excavated to a maximum depth of 50 cm. If cultural sediments are still present once the maximum depth is reached, an auger may be employed to investigate the vertical extent of the cultural deposit. If the environmental setting suggests deeply buried deposits, mechanical trenching with a backhoe may be employed.

All probes will be plotted using GIS prior to fieldwork but may be adjusted in the field based on professional judgment or due to surface obstructions. Adjusted probes will be mapped in the field. Probes of HPAs will be limited to the proposed disturbance footprint.

4.3.2 NRHP Eligibility Testing

For NRHP-eligibility testing within the boundaries of archaeological sites, 50-cm and 100-cm square units will be excavated with a trowel and/or shovel. Each level will be described on a unit form, including soils, disturbance, and any artifacts. Excavated materials will be screened through 1/8-inch mesh. Test units will extend into the C-horizon or until two sterile levels (i.e., 20 cm) are encountered below any levels containing cultural materials and after extending a minimum of 50 cm in depth (unless bedrock or other obstructions prevent this).

For site testing, as many as 11 test units will be excavated within the site, depending on its size and context (Table 4-1). The specific number of units will be determined on a site-by-site basis and detailed in the applicable permit application. The size of the site and the density of surface artifacts within the site boundary will be considered when determining the number of test units that should be excavated at each site. The placement of these units will be decided prior to the start of fieldwork based on professional judgment; however, these unit locations may need to be adjusted based on surface features at the site location. Excavations for eligibility testing will be limited to the tax assessor parcel crossed by the APE, similar to resource boundary probing described above.

Table 4-1. Number of Test Units Based on Site Size.

Site Area (m ²)	# of Test Units
1 to 2,499	1
2,500 to 4,999	2
5,000 to 9,999	3
10,000 to 19,999	4
20,000 to 29,999	5
30,000 to 44,999	6
45,000 to 59,999	7
60,000 to 74,999	8
75,000 to 89,999	9
90,000 to 104,999	10
105,000 to 120,000	11

4.3.3 Metal Detection Surveys

Within the Sand Hollow Battleground HPRCSIT, a metal detector will be used to identify subsurface artifacts associated with the battle such as munitions. Metal detection survey transects will occur at 3-meter intervals in a grid pattern (north-south and east-west) within areas where there will be physical impacts. Upon receiving a positive signal, the metal detector operator will place a pin flag at that location and continue surveying. Each target identified by the metal detector will be excavated to determine the presence of cultural resources. If sampling occurs, targets will be selected at random to be excavated at the discretion of the Archaeologist.

Targets will be excavated through a 10- to 30-cm-diameter probe using a bucket augur, shovel, or trowel. Materials will be excavated in 10-cm levels and screened through ¼-inch mesh. Once an artifact is identified and removed from the hole, the walls of the hole will be cleaned, and the hole checked with a pin pointer metal detector to locate the presence or absence of additional artifacts. The excavated artifact(s) will be recorded and photographed, and the location of each target collected with a GPS unit with submeter accuracy. All artifacts will be returned to the bottom of the probe in a bag with an identifying label.

A good quality very low frequency (VLF) metal detector will be used. The VLF detector will be able to identify targets to a depth of approximately 30 cm (1 foot) below ground surface. Efforts will be made to utilize a 10-inch coil detector with metal distinguishing features. Hand-held pin pointers will be used to isolate metal targets in each excavated probe.

4.4 Artifact Processing and Curation

Except on USFS-managed lands, Tetra Tech will collect any excavated archaeological materials discovered during subsurface investigations for analysis and curation. On USFS-managed lands, artifacts will be returned to the bottom of the excavation in a sealed bag and indication of provenience. Surface artifacts will not be collected for any excavation on any lands. Lab processing and curation of collected artifacts will occur at Tetra Tech's Portland and/or Boise office, with specific procedures depending on collection size, uniqueness, and artifact types. Tetra Tech will submit artifact samples for AMS testing and obsidian hydration testing in order to establish occupation date ranges for tested sites as well as range. Obsidian sourcing analyses will be completed through X-ray fluorescence and/or instrumental neutron activation analysis.

4.4.1 Artifact Analysis

All collected artifacts will be entered and maintained in an electronic database/spreadsheet. The spreadsheet will record field provenience data and artifact characteristic data.

Generally, the following data will be collected for pre-contact artifacts:

- Lithic flakes and tools will be measured in millimeters or centimeters and recorded based on reduction stage. The material type as well as the presence of cortex, flake scars, or bifacial thinning will be noted.
- Faunal remains will be analyzed to collect information related to dietary habits, food sources, and socioeconomics. Taxonomic class, element, portion, side, age, and presence and type of modification will be documented.
- Fire-modified rock will be counted and weighed by material type.
- If features are encountered, a sample of the soil may be retained for analysis, such as paleobotanical analysis.
- Volcanic ash samples may be collected for tephra analysis.
- Soil samples may be collected for macrobotanical and phytolith analysis.
- Artifacts may be collected for residue analysis.
- All photographed artifacts will include a scale.

The following data will be collected for historic artifacts:

- Manufacturing marks on ceramics, metal, and glass will be recorded so that artifact origin can be determined and information related to economics and commodity flow analyzed.
- Diagnostic marks left on glass during manufacture will be recorded to allow an estimation of age. Seams, scars, variations in glass thickness, glass color, patent dates, and company logos will all be documented.
- Faunal remains will be analyzed to collect information related to dietary habits, food sources, and socioeconomics. Taxonomic class, element, portion, side, age, and presence and type of modification will be documented.
- Ceramic analysis can be used to determine socioeconomic status, commodity flow, ethnicity, etc. Form, paste, glaze, decoration type, patterns, and maker's marks will all be documented.
- Diagnostic metal cans and nails will be measured in inches and temporally diagnostic features documented

Once all provenience and artifact data are collected and entered into a spreadsheet or Microsoft Access database, the data will be applied to the research questions stipulated in the research design above. The artifact data will be presented in an understandable format within the resulting survey report, as required by the PA, and described or listed in detail in an appendix (see Section 4.7).

4.4.2 Culling Strategy

Unidentifiable artifacts or materials that do not convey information pertinent to the research design, or that can be sufficiently recorded in the field, may be photographed and tallied, but not

collected. These materials will be recorded in the field and then placed at the base of the excavation unit and backfilled.

A general culling strategy would include removal of the following types of artifacts:

- Construction/Demolitions materials, including nails, brick, concrete, and asphalt;
- Unidentifiable metal artifacts and fragments;
- Non diagnostic cans, glass, and ceramics; and

If this culling strategy proves insufficient, the Principal Investigator or Field Director may modify the collection strategy, including collecting larger samples of artifacts for analysis. Significant changes to the strategy will be reviewed with BLM who will consult with the parties to the PA.

4.4.3 Curation

All archaeological materials (aside from human remains, funerary objects, sacred objects, and objects of cultural patrimony) collected from private land in the course of archaeological investigations are the property of the landowner unless they are explicitly donated to a suitable organization that will care for and manage the collection.

All archaeological material collected from federal or state lands is the property of the public entity entrusted to it. In compliance with Section XI of the PA, collected artifacts from federal or state lands will be curated at the University of Oregon Museum of Natural and Cultural History under a curation agreement. The collections will be prepared in accordance with the museum's Curation Guidelines, including cleaning, labeling, preparing a catalog, photographing of unique items, and packaging. All associated reports will be submitted with the collection. It is assumed that collected materials will not require consultation with a conservator or special/conservation treatments.

4.5 New and/or Updated Site Recordation Forms

Newly identified archaeological resources identified during subsurface probing as well as all previously recorded resources that are boundary probed or tested for NRHP eligibility will be documented to state standards on resource forms. All locational data will be recorded using sub-meter GPS receivers in Oregon State Plane Coordinates North American Datum 1983 or World Geodetic System 1984. Completed new and updated resource forms will be submitted to SHPO.

4.6 Reporting

Upon completion of subsurface investigations, Tetra Tech will prepare individual reports (i.e., Pre-Construction Class III) presenting the results, as required by PA Section III.H. The reports will include a summary of previous work for the undertaking and for the specific resources where investigations were conducted, pre-contact and historic contexts, field methods used, results of subsurface probing, and results of NRHP-eligibility testing. Reporting will conform to BLM and SHPO (2015) reporting guidelines and the PA.

4.7 Inadvertent Discovery Plan for Human Remains

The BLM in consultation with tribes, has prepared an Inadvertent Discovery Plan (Appendix A), specific to the Project, that establishes procedures for immediate work stoppage and site protection to be followed in the event that human remains are found. In addition, the BLM's Native American Graves Protection and Repatriation Act Plan of Action, once completed, will be adhered to in the event Native American human remains are uncovered on federal lands during subsurface investigations.

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Boardman to Hemingway Transmission Line Project Subsurface Investigations Strategy Plan

Errata Sheet – February 2023

The Boardman to Hemingway Transmission Line Project's (Project) Subsurface Investigations Strategy Plan (SISP) (Huntley et al. 2022) provides details regarding methods and requirements for cultural resource subsurface investigations in Oregon, such as shovel probing and testing for National Register of Historic Places (NRHP) eligibility. (No subsurface investigations are planned in Idaho.) The final SISP was accepted by the U.S. Bureau of Land Management (BLM) and distributed to consulting parties in August 2022. Subsequently, it was determined modifications to the methods for resource boundary and high probability area (HPA) probing were necessary, specifically regarding artifact collection. This errata sheet provides the modified methods and documents the associated changes to the SISP.

Huntley, Deborah, Erin King, Stephen R. Anderson, Mary Connell Jenna Farrell, and Lara Rooke

2022 *Boardman to Hemingway Transmission Line Project – Oregon Cultural Resources Subsurface Investigation Strategy Plan, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon.* Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company, Boise, Idaho, for submittal to U.S. Bureau of Land Management, Vale District Office. BLM Report # VD-22-02. OR SHPO Case #08-2232.

Detailed Listing of Changes in SISP (new text is underlined)

Page 4-4, Section 4.3, 3rd paragraph

Change: All artifacts will **not** be collected. Artifacts will only be collected during NRHP eligibility testing (except on USFS-managed lands) and on BLM-managed and State lands during shovel probing (for resource boundaries and HPAs).

Revised Text: ~~All~~ Artifacts recovered during subsurface investigations will only be collected, analyzed, and curated from select locations, depending on land manager and permit requirements (see Section 4.4). Any surface artifact locations in the field will be plotted via a sub-meter GPS unit, but will not be collected. Subsequent artifact analysis and curation of excavated artifacts will be conducted according to the SHPO guidelines, as described below.

Page 4-6, Section 4.4, 1st Paragraph

Change: All artifacts will **not** be collected. Artifacts will only be collected during NRHP eligibility testing (except on USFS-managed lands) and on BLM-managed and State lands during shovel probing (for resource boundaries and HPAs).

Revised Text: Except on USFS-managed lands, Tetra Tech will collect any excavated archaeological materials discovered during subsurface investigations related to NRHP eligibility testing for analysis and curation. During shovel probing of resource boundaries and HPAs, artifact collection will be limited to BLM-managed and State lands. At all other shovel probing locations, On USFS-managed lands, artifacts will be returned to the bottom of the excavation probe in a sealed bag and indication of provenience. No artifact collection will occur on USFS-managed lands. Alterations to these artifact collection requirements may be necessary based on landowner requests and/or land managing agency permit requirements. These alterations will be described in the associated reporting for those investigations. Surface artifacts will not be collected for any excavation on any lands. Lab processing and curation of collected artifacts will occur at Tetra Tech's Portland and/or Boise office, with specific procedures depending on collection size, uniqueness, and artifact types. Tetra Tech will submit artifact samples for AMS testing and obsidian hydration testing in order to establish occupation date ranges for tested sites as well as range. Obsidian sourcing analyses will be completed through X-ray fluorescence and/or instrumental neutron activation analysis.

APPENDIX F
TABLE OF PROJECT-RELATED CULTURAL RESOURCE REPORTS

**Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project
As of August 3, 2023**

- Class IIIs = Guided by ASP. Addresses *physical effects* to archaeological, built environment, and defined TCPs/HPRCSITs identified by consulting tribes within the *direct APE*.
- VAHPs = Guided by VAHP study plan. Addresses *visual and auditory effects* of aboveground resources (as defined in VAHP study plan) in *indirect APE* (encompasses direct APE).

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Survey Plans & Models							
Archaeological Survey Plan (ASP)	12/2012	Tetra Tech	II.E	Yes - 106	Survey plan for archaeological resources and studies within direct APE.	Final	Tetra Tech, Inc. (Tetra Tech) 2012 <i>Boardman to Hemingway Transmission Line Project, Archaeological Survey Plan. Boise, Idaho.</i> Submitted to Idaho Power Company, Boise, Idaho.
Visual Assessment of Historic Properties (VAHP) Study Plan	01/2013	URS/AECOM	II.E	Yes - 106	Survey plan for aboveground resources.	Final	Tetra Tech, Inc. (Tetra Tech) 2013 <i>Boardman to Hemingway Transmission Line Project, Final Visual Assessment of Historic Properties Study Plan.</i> Boise, Idaho. Submitted to Idaho Power Company, Boise, Idaho.
High Probability Area (HPA) Model	12/2016 Rev. 05/2021	Tetra Tech	II.E.6	Yes – EFSC (2016 ver.); 106 (2021 ver.)	12/2016 model modified based on Section 106 consultation.	Final	Cegielski, Wendy 2021 <i>Memo: Boardman to Hemingway Transmission Line Project – High Probability Area Suitability Model.</i> Tetra Tech, Inc., Golden, Colorado. Submitted to Mike Wanzonried and Renee Straub, BLM.
Subsurface Investigation Strategy Plan (SISP)	07/2021	Tetra Tech	II.E.6	Yes - 106	General plan for subsurface probing and NRHP eligibility testing to support permit applications. Limited to Oregon as no subsurface work is approved for Idaho.	Final	Huntley, Deborah, Erin King, Stephen R. Anderson, Mary Connell, Jenna Farrell, and Lara Rooke 2022 <i>Boardman to Hemingway Transmission Line Project, Oregon Cultural Resources Subsurface Investigation Strategy Plan, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon.</i> Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company, Boise, Idaho. For submittal to US Bureau of Land Management, Vale District Office. BLM Report #VD-22-02.
Survey Reports							
Systematic Ecoregion 15% Sample Survey Report - Oregon	11/2012	Tetra Tech	II.E.1	No	Original 15% sample report of physical effects in direct APE for Oregon. Sample based on ecoregions. Changed to random sample (see below). Never finalized. Abandoned for Random Sample reports.	N/A	Anderson, Stephen, Erin King, Amanda Herron, and Kathryn Boula 2012 <i>Boardman to Hemingway Transmission Line Project: Literature Review and Inventory Report of a 15 Percent Sample Survey, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon.</i> Tetra Tech, Inc., Lakewood, Colorado. Submitted to Idaho Power Company and BLM Oregon, Vale District Office.

Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project

As of August 3, 2023

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Systematic Ecoregion 15% Sample Survey Report - Idaho	05/2012	Tetra Tech	II.E.1	No	Original 15% sample report of physical effects in direct APE for Idaho. Sample based on ecoregions. Changed to random sample (see below). Never finalized. Abandoned for Random Sample reports.	N/A	Anderson, Stephen, Amanda Herron, and Ryan McElhoe 2012 <i>Cultural Resources Inventory Report of a 15 Percent Survey Sample for the Boardman to Hemingway Transmission Line Project, Owyhee County, Idaho</i> . Tetra Tech, Inc., Lakewood, Colorado. Submitted to Idaho Power Company.
Ethnographic Assessment	2012	Shoshone Paiute Tribes of the Duck Valley Indian Reservation	II.F, IV	N/A	Identifies traditional use areas and TCPs applicable to direct and indirect APEs. Addresses routes that have been dropped.	Final	Walker, Deward E. Jr. and Pamela Graves 2012 <i>Boardman to Hemingway Transmission Line (B2H) Potential Impact to Tribal Cultural Resources: Ethnographic Assessment</i> . Submitted to the Bureau of Land Management as requested by the Shoshone Paiute Tribes of the Duck Valley Indian Reservation. Held at the Shoshone Paiute Tribal Office, Duck Valley, Idaho.
Catherine Creek Wetland Mitigation Cultural Resource Survey Report	07/2013	Tetra Tech	N/A	TBC	Draft report completed in July 2013 for wetland mitigation site. Needs to be finalized and sent out for consultation prior to completion of USACOE 404 permit. Comments received from IPC 2/16/2021. Levee has been recorded as a historic aboveground resource in response (and due to time since original drafting of response – levee is now 50 yo). BLM emailed on 3/12/2021: “98% done with the CCMP review but will not be able to get it to you today. I have a few more notes to make and want to re-read the ones I wrote to make sure they're still accurate.” BLM comments not received as of 12/14/2022.	Draft	Anderson, Stephen, and Erin King 2013 <i>Cultural Resource Survey of the Catherine Creek Mitigation Project Site for the Boardman to Hemingway Transmission Line Project, Union County, Oregon</i> . DRAFT. Tetra Tech, Inc., Lakewood, Colorado. Submitted to Idaho Power Company and BLM Oregon, Vale District Office.
National Historic Trails Study (6280 Manual)	11/2014	Logan Simpson Design/BLM		Unknown	BLM Manual 6280 compliance. Focus on ONHT and associated areas and study trails. Used for NEPA. Worked with OCTA and OHTAC in development of study, but unknown if BLM did formal consultation under 106.	Final	Logan Simpson Design, Inc. 2014 <i>BLM Manual 6280 Inventory and Impacts Analysis for National Historic Trails and Study Trails for the Boardman to Hemingway 500-Kv Transmission Line Project</i> . Tempe, Arizona. Submitted to Bureau of Land Management, Vale District Office.
Random 15% Sample Survey Report - Idaho	02/2015	Tetra Tech	II.E.1	Yes – 106	15% random sample of survey data and assessment of physical effects within direct APE in Idaho. Used for NEPA.	Final	Anderson, Stephen, and Amanda Herron 2015 <i>Boardman to Hemingway Transmission Line Project: Literature Review and Inventory Report of a 15 Percent Random Sample Survey, Owyhee County, Idaho</i> . Tetra Tech, Inc., Golden, Colorado. Submitted to Idaho Power Company and BLM Idaho State Office.

Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project

As of August 3, 2023

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Traditional Use Study	05/2015	CTUIR	II.F, IV	N/A	Identifies traditional use areas and TCPs applicable to direct and indirect APEs. Addresses routes that have been dropped.	Final	Engum, Jennifer Karson 2014 <i>Traditional Use Study for the Boardman to Hemingway Transmission Line Project, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Confederated Tribes of the Umatilla Indian Reservation, Cultural Resources Protection Program, Pendleton, Oregon. Submitted to Bureau of Land Management.
Random 15% Sample Survey Report - Oregon	07/2015	Tetra Tech	II.E.1	Yes – 106	15% random sample of survey data and assessment of physical effects within direct APE in Oregon. Used for NEPA. Internal draft of addendum for Bombing Range Road East was drafted, but dropped from consideration in 7/2013 (addendum never finalized).	Final	Anderson, Stephen, Erin King, Tia Cody, and Nicholas Coppola 2015 <i>Boardman to Hemingway Transmission Line Project: Literature Review and Inventory Report of a 15 Percent Random Sample Survey Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Revised Final. Tetra Tech, Inc., Golden, Colorado. With assistance from AECOM, Portland, Oregon. Submitted to Idaho Power Company and BLM Oregon, Vale District Office.
Reconnaissance Level Survey of Historic Properties (RLS) - Oregon	12/2012-09/2015 Draft Reports from 12/2012 & 08/2013 & 10/2014 & Final Report 09/2015	URS/AECOM	II.E.2	Yes – 106 & EFSC	Initial screening of historic properties and other aboveground resources in indirect APE and with view of undertaking to determine which are carried forward to ILS (see below). Letter from SHPO 2/18/2014.	Final	Tetra Tech, Inc. (Tetra Tech) 2015 <i>Boardman to Hemingway Transmission Line Project, Reconnaissance Level Survey – Visual Assessment of Historic Properties</i> . Boise, Idaho. Prepared by URS, Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho.
Cultural Resources Technical Report (Oregon)	09/2018 (02/2019 Errata)	Tetra Tech	N/A	Yes – EFSC	Addresses physical impacts to archaeological and built environment resources in EFSC Site Boundary and direct analysis area in Oregon only. State process document; not for purposes of Section 106. Proposed and alternative routes included in EFSC ASC. Applicable results from archaeological surveys and RLS/ILS incorporated for built environment resources. Errata submitted 2/2019. Note: included original HPA model.	Final	Anderson, Stephen, Erin King, and Jenna Farrell 2018 <i>Boardman to Hemingway Transmission Line Project Cultural Resources Technical Report, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company and BLM Oregon, Vale District Office for submission to Oregon Energy Facility Siting Council.
Intensive Level Survey of Historic Properties (ILS) – Oregon (EFSC)	09/2018 (02/2019 Errata)	URS/AECOM	N/A	Yes – EFSC	Evaluation and assessment of visual and auditory effects to historic properties and other aboveground resources in EFSC Site Boundary and indirect analysis area and with view of undertaking. Guided by VAHP Study Plan. Errata completed 2/2019.	Final	AECOM, Inc. 2018 <i>Intensive Level Survey – Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project</i> . Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho.
Ethnographic Study	2018	Burns Paiute Tribe	II.F, IV	N/A	Identifies traditional use areas and TCPs applicable to direct and indirect APEs. Addresses routes that have been dropped.	Final	Teeman, Diane L., Cerinda Survant, and Charisse Soucie 2018 <i>The Importance of our Lands and the B2H Project</i> . Burns Paiute Tribe. Held at the Burns Paiute Tribal Office, Burns, Oregon.

Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project

As of August 3, 2023

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
NWSTF Boardman Survey Results	07/2019	Tetra Tech	N/A	Yes – 106 (Navy)	Assessed physical effects to resources on US Navy lands in direct APE (at the time). Revised Oregon Trail site form for Morrow County submitted to SHPO and Navy 08/2019.	Final	Anderson, Stephen, and Erin King 2019 <i>Boardman to Hemingway Transmission Line Project Cultural Resources Survey on NWSTF Boardman, Morrow County, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company for submission to US Department of Defense, Navy, Naval Air Station, Whidbey Island.
Phase 1 Geotech Report – Oregon	08/2021	Tetra Tech	II.E.4	Yes – 106	Geotech APE in Oregon. Applicable results from Archaeological surveys and RLS/ILS. Resources and HPAs with clear no effect or no adverse effect. Draft reviewed by consulting parties July 202, resulted in revision of HPA model.	Final	King, Erin, Stephen Anderson, Mary Connell, Brady Berger, and Jenna Farrell 2021 <i>Boardman to Hemingway Transmission Line Project Cultural Resources Survey for Phase 1 of Geotechnical Testing, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon, Vale District Office (BLM Report #VD-20-01). SHPO Project #08-2232.
Phase 1 Geotech Report – Idaho	10/2021	Tetra Tech	II.E.4	Yes – 106	Geotech APE in Idaho. Applicable results from Archaeological surveys and RLS/ILS. Resources and HPAs with clear no effect or no adverse effect. Draft reviewed by consulting parties July 202, resulted in revision of HPA model.	Final	Anderson, Stephen, Erin King, and Mary Connell 2021 <i>Boardman to Hemingway Transmission Line Project Cultural Resources Survey for Phase 1 of Geotechnical Testing, Owyhee County, Idaho</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Idaho, Owyhee District Office (BLM Report #VM-20-01).
Phase 1B Geotech Addendum Report – Oregon	07/2022	Tetra Tech	II.E.4	Yes - 106	Geotech APE for revisions (adjusted or added boreholes). Applicable results from Archaeological surveys and RLS/ILS. Resources and HPAs with clear no effect or no adverse effect. Draft reviewed by consulting parties: March – June 2022.	Final	King, Erin and Stephen Anderson 2022 <i>Boardman to Hemingway Transmission Line Project, Cultural Resources Survey for Geotechnical Testing Phase 1B Addendum, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon Vale District Office (BLM Report #VD-20-01).
Phase 1B Geotech Addendum Report – Idaho	07/2022	Tetra Tech	II.E.4	Yes - 106	Geotech revisions (adjusted or added boreholes). Applicable results from Archaeological surveys and RLS/ILS. Resources and HPAs with clear no effect or no adverse effect. Draft reviewed by consulting parties: March - April 2022.	Final	King, Erin and Stephen Anderson 2022 <i>Boardman to Hemingway Transmission Line Project, Cultural Resources Survey for Geotechnical Testing Phase 1B Addendum, Owyhee County, Idaho</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon Vale District Office (BLM Report #VM-20-01).

Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project

As of August 3, 2023

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Background Information for Oregon Survey Reports	07/2022	Tetra Tech	II.E	Yes – 106 (Multiple times in reports prior to July 2022)	General undertaking description, contexts, and Class I data for APE Oregon. Presented as final after review by consulting parties in multiple survey reports since 2012.	Final	King, Erin, Stephen R. Anderson, Jenna Farrell, and Mary Connell 2022 <i>Boardman to Hemingway Transmission Line Project – Background Information for Cultural Resource Surveys, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon Vale District Office (BLM Report #TBD).
VAHP – CTUIR	09/2022	URS/AECOM	II.E.2, III.H, IV	Yes - 106	Aboveground resources in indirect APE identified on Tribal lands. Visual and auditory effects assessed. Fieldwork coordinated with CTUIR. Report submitted to CTUIR. BLM forwarded the report to CTUIR for formal Section 106 consultation. Comments were received from CTUIR on April 20, 2022, and report revised to final.	Final	AECOM, Inc. 2022 <i>Reconnaissance Level and Intensive Level Survey Report for the Umatilla Indian Reservation: Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project</i> . Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho.
VAHP – Oregon	12/2022	URS/AECOM	II.E.2, III.H, IV	Yes – 106 (In Process)	Aboveground resources (as defined in VAHP study plan) with view in indirect APE in Oregon. Assesses auditory and visual effects. Field work completed 2018. Report is revised for Section 106 purposes and to reflect project modifications and field survey in the direct APE between 2017 and 2018. Preliminary draft forwarded to consulting parties – to be revised following request from Oregon SHPO, CTUIR, and BLM via emails and correspondence received by BLM between August 5, 2021 and November 1, 2021 to complete data check and to resubmit.	Draft	AECOM, Inc. 2022 <i>Intensive Level Survey – Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project – Oregon</i> . Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho. BLM Report #VD-21-01
VAHP – Idaho	12/2022	URS/AECOM	II.E.2, III.H, IV	Yes - 106	Aboveground resources (as defined in VAHP study plan) with view in indirect APE in Idaho. Assesses auditory and visual effects. Fieldwork October/November 2020. Received comments from BLM and consulting parties on June 2, 2021. Comments received from NPS, Idaho SHPO, and BLM on 2-15-2022.	Final	AECOM, Inc. 2022 <i>Intensive Level Survey – Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project - Idaho</i> . Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho. BLM Report #VM-21-14..
VAHP – Washington	12/2022	URS/AECOM	II.E.2, III.H, IV	Yes – 106 (In Process)	Aboveground resources (as defined in VAHP study plan) with view in indirect APE in Washington. Assesses auditory and visual effects. Fieldwork completed October 2020. BLM requested edits to report to include a DAHP inventory form for the Lewis and Clark NHT and railroad on Washington side.	Final	AECOM, Inc. 2022 <i>Intensive Level Survey – Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project – Washington</i> . Portland, Oregon. Submitted to Idaho Power Company, Boise, Idaho.

**Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project
As of August 3, 2023**

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Initial Class III Report – Oregon	02/2023	Tetra Tech	II.E.3, III.H, IV	Yes – 106	Physical effects to archaeological, built environment, and identified TCPs/HPRCSITs in direct APE in Oregon. Uses 30% design.	Draft	King, Erin, Stephen Anderson, Jenna Farrell, Lara Rooke, Sydni Kitchel, Lynn Peterson, Brady Berger, Jennifer Lemminger, Jessica DeMaso, Andrew Lambert, and Mary Connell 2023 <i>Boardman to Hemingway Transmission Line Project, Initial Class III Cultural Resources Survey, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon Vale District Office (BLM Report #VD-22-01).
Initial Class III Report – Idaho	02/2023	Tetra Tech	II.E.3, III.H, IV	Yes – 106	Physical effects to archaeological, built environment, and identified TCPs/HPRCSITs in direct APE in Idaho. Uses 30% design.	Final	Anderson, Stephen, Collette Chamberlain, Jen Lemminger, and Emily Milton 2023 <i>Boardman to Hemingway Transmission Line Project: Initial Class III Intensive Level Inventory, Owyhee County, Idaho</i> . Tetra Tech, Inc., Golden, Colorado. Prepared for Idaho Power Company (Contract #CM-3901) for submission to BLM Oregon Vale District Office (BLM Report #VM-22-01).
Pre-Construction Class III Report – Oregon	Draft Planned 04/2023	Tetra Tech	II.E.5, II.E.6, III.H, IV	TBC	Physical effects to archaeological, built environment, and identified TCPs/HPRCSITs in direct APE changes in Oregon after completion of Initial Class III. Uses 60% design.	Draft in process.	TBD
Pre-Construction Class III Report – Idaho	Draft Planned 04/2023	Tetra Tech	II.E.5, II.E.6, III.H, IV	TBC	Physical effects to archaeological, built environment, and identified TCPs/HPRCSITs in direct APE changes in Idaho after completion of Initial Class III. Uses 60% design.	Draft in process.	TBD
Phase 2 Geotech Report – Oregon	TBD	Tetra Tech	II.E.4	TBC	Geotech APE for revisions (adjusted or added boreholes) since Phase 1 and Phase 1B. Applicable results from Archaeological surveys and RLS/ILS.	N/A	N/A
Phase 2 Geotech Report – Idaho	TBD	Tetra Tech	II.E.4	TBC	Geotech APE for revisions (adjusted or added boreholes) since Phase 1 and Phase 1B. Applicable results from Archaeological surveys and RLS/ILS.	N/A	N/A
Class III Report Addendums	TBD	Tetra Tech	II.E.3, II.E.5, II.E.6, III.H, IV	Future – As Developed.	Addendums to be produced based on re-routes and as parcels become accessible after completion of Initial and Pre-Construction Class III reports.	N/A	N/A
VAHP Addendums	TBD	Tetra Tech	II.E.2, III.H, IV	Future – As Developed.	Addendums to be produced based on design changes with visual and/or auditory effects after completion of 2022 VAHPs.	N/A	N/A
Monitoring Report	TBD	Tetra Tech	VII(B) (Reporting on page 21 of PA)	TBC	Summary of work completed during monitoring of construction.	N/A	N/A

Cultural Resource Documents for the Boardman to Hemingway Transmission Line Project

As of August 3, 2023

Document	Date	Author	106 PA Section	Consulted Upon	Notes	Status	Reference
Final Class III Inventory Report (Summary Report)	TBD	Tetra Tech	V(K)	TBC	Summary of all surveys completed for Project as well as any changes in eligibilities and effects since last Class III inventory. To be completed no later than 3 years after construction.	N/A	N/A
Construction-Related Plans							
Historic Properties Management Plan (HPMP) - EFSC	09/2018	Tetra Tech & AECOM	N/A	Yes – EFSC	Oregon State process. Plan for protecting all resources subject to EFSC siting standards during construction, including monitoring plan. Errata submitted 2/2019. To be replaced with Project HPMP that applies to both EFSC and Section 106.	Final	Idaho Power Company 2018 <i>Boardman to Hemingway Transmission Line Project Historic Properties Management Plan for Oregon Department of Energy Compliance</i> . Errata, February 2019. Boise, Idaho. SHPO Case #08-2232.
Inadvertent Discovery Plan	07/2020	BLM	IX	Yes – 106	PA Attachment for Section IX.	Final	BLM 2020 B2H PA Attachment for Section IX, Inadvertent Discovery Plan.
Native American Graves Protection and Repatriation Act (NAGPRA) Plan of Action	07/2022	BLM	X	Yes – 106	Plan for the treatment of inadvertently discovered human remains, funerary objects, sacred objects, or objects of cultural patrimony for the project.	Final	BLM 2022 Native American Graves Protection and Repatriation Act Plan of Action.
Historic Properties Management Plan (HPMP)	03/2022	AECOM	VII	Yes – 106	Plan for NRHP-eligibility evaluations, boundary probing, data recovery, and protecting historic properties during construction. Includes subsurface strategy plan for eligibility evaluations, boundary probing, and data recovery, as well as monitoring plan. Resource-specific PSMMPs, Flag/Avoid PSMMP, and monitoring lists considered “living” appendices.	Draft	AECOM 2023 <i>Boardman to Hemingway Transmission Line Project Historic Properties Management Plan</i> . Portland, Oregon. Prepared for Idaho Power Company, Boise, ID, for submission to BLM Oregon Vale District Office.

APPENDIX G
TABLE OF MONITORING LOCATIONS

Table G-1. Resources and HPAs Requiring Monitoring within Direct APE (From Initial Class III Inventory [King, et al. 2023 and Anderson, et al. 2023])

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landownership (within Direct APE)	Management Recommendation
6B2H-MC-05	35BA01568	Baker	Archaeological Site	Pre-contact	Stacked Rock Feature	32.9	108	Structure Work Area 137/2	PV	Flag, avoid, and monitor.
4B2H-EK-28	35BA01571	Baker	Archaeological Site	Historic	Water Conveyance	7.5	24.6	Access Road BA-601	BLM, PV	Flag existing road edges within 30 meters of site and monitor.
Gold Ridge Mine; 6B2H-RP-02	35BA01576	Baker	Archaeological Site	Historic	Mining	0	0	Access Road BA-445	BLM	Fill placement on existing road. Flag, avoid, and monitor.
4B2H-EK-32	35BA01579	Baker	Archaeological Site	Multicomponent	Lithic/Tool Scatter, Ranching, and Water Conveyance	0	0	Access Roads BA-591, BA-592	PV	Fill placement on existing road. Flag, avoid, and monitor. (Testing needed before use of other project features.)
	35BA0158	Baker	Archaeological Site	Pre-contact	Lithic/Tool Scatter	3.9	12.8	Access Road BA-396	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-11	35BA01581	Baker	Archaeological Site	Historic	Refuse Scatter	11.5	37.7	Access Road BA-300	PV	If redesign of new access road infeasible, flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-DM-07	35BA01583	Baker	Archaeological Site	Historic	Homestead	0	0	Access Roads BA-336, BA-339, BA-348	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-SA-14	35BA01585	Baker	Archaeological Site	Pre-contact	Lithic Scatter	0	0	Access Road BA-548	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-SA-07	35BA01586; Shelton/Lovelace Homestead	Baker	Archaeological Site and Historic Site/Aboveground	Historic	Homestead	0	0	Access Roads BA-463, BA-465, BA-470	PV	Fill placement on new and existing roads. Flag, avoid, and monitor along existing access road. Monitor construction of new access road if redesign infeasible.
O-BK-BK-143	35BA0159	Baker	Archaeological Site - Not Updated	Pre-contact	Lithic/Tool Scatter	8.5	27.8	Access Road BA-396	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-08	35BA01611	Baker	Archaeological Site	Historic	Mining	5.4	17.7	Access Road BA-190	BLM, County	Flag (boundary only, no buffer), avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-SA-10	35BA01612	Baker	Archaeological Site	Historic	Mining	8.9	29.2	Access Road BA-487	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-SA-11	35BA01613	Baker	Archaeological Site	Historic	Structural Remains	0	0	Access Road BA-534	PV	Fill placement on existing road. Flag, avoid, and monitor.
6B2H-SA-15	35BA01614	Baker	Archaeological Site - Survey Marker	Historic	Mining	10	32.8	Access Road BA-228	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
Mud Spring Site	35ML00891	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Structure Work Area 249/3	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
S-390.5	35ML01516	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	0	0	Access Road MA-512	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
	35ML01619	Malheur	Archaeological Site	Multicomponent	Lithic Procurement and Water Conveyance	0.0 (3B2H-SA-29: 30; 7B2H-BB-08)	0.0 (3B2H-SA-29: 98; 7B2H-BB-08)	Structure Work Area 223/5; Access Road MA-576; Communication Station EIS-CS MA-02 ALT	BLM	Flag, avoid, and monitor (3B2H-SA-29 pre-contact component only). (Boundary probes completed prior to construction.)
B2H-BS-64	35ML01676	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Pulling and Tensioning 263/2-263/3	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
B2H-BS-63	35ML01677	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30.9	101.5	Structure Work Area 263/3	BLM	Flag, avoid, and monitor.
B2H-BS-62	35ML01679	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Structure Work Area 265/1	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-60	35ML01680	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	30	98.4	Structure Work Area 265/2	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-56	35ML01681	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	59.2	194.1	Access Road MA-471	BLM	Flag, avoid, and monitor.
B2H-BS-55	35ML01682	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0.6	2.1	Access Road MA-471	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-EE-42	35ML01686	Malheur	Archaeological Site	Historic	Refuse Scatter	5.6	18.2	Access Road MA-444	BLM	If redesign of new access road infeasible, flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-87	35ML01695	Malheur	Archaeological Site	Historic	Refuse Scatter	11.7	38.5	Access Road MA-275	BLM	Flag, avoid, and monitor.
B2H-BS-59	35ML02185	Malheur	Archaeological Site	Multicomponent	Lithic/Tool Scatter and Refuse Scatter	0	0	Access Road MA-506	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
2B2H-SA-33	35ML02186	Malheur	Archaeological Site - Survey Marker	Historic	Survey Marker	114.8	376.6	Structure Work Area 239/2	BLM	Flag, avoid, and monitor. Protected by non-NHPA laws
B2H-BS-75	35ML02187	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Structure Work Area 268/1	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-EE-41	35ML02188	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Structure Work Area 260/1	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-65	35ML02189	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	31	101.6	Structure Work Area 267/5	PV	Flag, avoid, and monitor.
B2H-SA-29	35ML02190	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	0	0	Access Road MA-221	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-SA-44	35ML02191	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road MA-471	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-EE-38	35ML02195	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road MA-440	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-66	35ML02196	Malheur	Archaeological Site	Historic	Structural Remains	53.3	174.8	Access Road MA-522	PV	Flag, avoid, and monitor.
4B2H-EK-39	35ML02199	Malheur	Archaeological Site	Historic	Refuse Scatter	35.5	116.4	Access Road MA-111	PV	Flag, avoid, and monitor.
B2H-BS-72	35ML02201	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30	98.4	Structure Work Area 268/3	BLM, PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-SA-39	35ML02203	Malheur	Archaeological Site	Historic	Water Conveyance	0	0	Access Road MA-522	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-53	35ML02206	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	24.2	79.5	Access Road MA-173	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-42	35ML02207	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road MA-156	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
2B2H-SA-08	35ML02210	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	109.4	358.9	Access Road MA-597	PV	Flag, avoid, and monitor.
B2H-BS-73	35ML02212	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	30.4	99.6	Access Road MA-526	PV	Flag, avoid, and monitor.
B2H-EE-39	35ML02213	Malheur	Archaeological Site	Historic	Refuse Scatter	30	98.4	Structure Work Area 237/3	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-51	35ML02214	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	0	0	Access Road MA-178	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-EE-37	35ML02273	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road MA-391	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
	35MW00227	Morrow	Archaeological Site - Not Updated	Historic	Road	41.2	135.1	Structure Work Area BR1-3/1	U.S. Navy	Flag (outside Bombing Range), avoid, and monitor.
5B2H-SA-01	35MW00322	Morrow	Archaeological Site	Historic	Trail Segment	57.2	187.8	Structure Work Area BR1-3/8	U.S. Navy	Flag, avoid, and monitor.
Wells Spring Segment (4B2H-EK-02)	35MW00322	Morrow	Archaeological Site	Historic	Trail Segment	39.3	128.8	Structure Work Area BR1-4/2	U.S. Navy	Flag, avoid, and monitor.
2S32E10/01	35UM00438	Umatilla	Archaeological Site - Not Updated	Pre-contact	Burial	6.9	22.8	Access Road UM-263	Road ROW	Flag (61 meters/200 feet buffer), avoid, and monitor. If redesign includes disturbance along East Birch Creek Road (Access Road UM-263), consult with CTUIR.
B2H-EE-23	35UM00476	Umatilla	Archaeological Site	Historic	Refuse Scatter	31	101.7	Access Road UM-059	PV	Flag, avoid, and monitor.
6B2H-MC-13	35UM00510	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	0	0	Access Road UM-139	PV	Fill placement on existing road. Flag, avoid, and monitor.
6B2H-MC-20	35UM00515	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	22.2	72.8	Access Road UM-127	PV	Flag, avoid, and monitor.
6B2H-MC-24	35UM00518	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	158.3	519.4	Access Road UM-241	PV	Flag, avoid, and monitor.
6B2H-MC-25	35UM00519	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	26.8	88.1	Pulling and Tensioning 67/1-67/2	PV	Flag, avoid, and monitor.
6B2H-TH-01	35UM00520	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	28.3	92.9	Access Road UM-204	PV	Flag, avoid, and monitor.
6B2H-MC-30	35UM00522	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	5.7	18.8	Access Road UM-236	PV	Flag, avoid, and monitor if redesign of new access road infeasible.
6B2H-MC-31	35UM00523	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	7	23.1	Access Road UM-236	PV	Flag, avoid, and monitor if redesign of new access road infeasible.
6B2H-RP-14	35UM00526	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature and Lithic Scatter	9.5	31.1	Access Road UM-113	PV	Flag, avoid, and monitor.
B2H-BS-40	35UM00603/Charles Henry Hudson Homestead	Umatilla	Archaeological Site and Historic Site/ Aboveground	Historic	Homestead	0	0	Access Roads UM-025, UM-323	PV	Fill placement on existing road. Flag, avoid, and monitor.
B2H-EE-21	35UM00605	Umatilla	Archaeological Site	Historic	Road	31.2	102.4	Structure Work Area 84/2	PV	Flag, avoid, and monitor.

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
	35UN00072	Union	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road UN-103	ST	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
	35UN00097	Union	Archaeological Site; Possible HPRCSIT	Multicomponent	Temporary Camp and Ranching	0	0	Access Roads UN-168, UN-195, UN-232, UN-253	PV	Fill placement on existing road. Flag, avoid, and monitor along existing access roads. (Mitigation required for any other Project features within site.)
02S3600E35 001 and 02S3600E35 004	35UN00280	Union	Archaeological Site - Not Updated	Pre-contact	Lithic Scatter	0	0	Access Road UN-091	USFS	Fill placement on existing road. Flag, avoid, and monitor. No cutting below in-place 2003 protective measures.
09/1708-N1	35UN00391	Union	Archaeological Site - Not Updated	Pre-contact	Lithic Scatter	2.7	8.8	Access Road UN-455	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
3S37E21-22	35UN00540	Union	Archaeological Site	Multicomponent	Homestead and Lithic Scatter	0	0	Access Road UN-242	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
3S37E8/9	35UN00543	Union	Archaeological Site - Not Updated	Pre-contact	Stacked Rock Feature	34.9	114.4	Structure Work Area ML-4/1	PV	Flag, avoid, and monitor.
B2H-BS-45	35UN00699	Union	Archaeological Site	Multicomponent	Lithic/Tool Scatter and Refuse Scatter	0	0	Access Road UN-103	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-31	Benson Reservoir	Baker	Historic Site/Aboveground	Historic	Water Conveyance	3.5	11.6	Structure Work Area 195/5	BLM, PV	Flag (boundary of Feature 4; 30 meters/98 feet for rest of site within direct APE), avoid, and monitor.
0503040048 SI, V-5368	TBD	Malheur	Archaeological Site	Pre-contact	Lithic Scatter	0	0	Access Road MA-098	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
126CSF-4	TBD	Morrow	Archaeological Site - Not Updated	Historic	Road	0	0	Access Road MO-089	U.S. Navy	Flag (intact portion of site only), avoid, and monitor.
126CSF-Resource 11	TBD	Morrow	Archaeological Site - Not Updated	Historic	Survey Marker	4.8	15.6	Access Road MO-098	PV	Flag, avoid, and monitor. Protected by non-NHPA laws
3B2H-SA-27	TBD	Malheur	Archaeological Site	Multicomponent	Lithic Scatter and Refuse Scatter	0	0	Access Road MA-188	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
3B2H-SA-28	TBD	Malheur	Archaeological Site	Pre-contact	Lithic Procurement	30	98.4	Structure Work Area 222/5	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
3B2H-SA-32	TBD	Malheur	Archaeological Site	Pre-contact	Lithic Procurement	29.2	95.9	Access Road MA-172	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
4B2H-EK-17	TBD	Baker	Archaeological Site	Historic	Water Conveyance	0	0	Access Road BA-615	PV	Flag existing road edges within 30 meters of site and monitor.
4B2H-EK-35	TBD	Malheur	Archaeological Site - Survey Marker	Historic	Survey Marker	5	16.5	Access Road MA-058	BLM	Flag, avoid, and monitor. Protected by non-NHPA laws

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
4B2H-EK-48	TBD	Malheur	Archaeological Site	Multicomponent	Lithic Procurement and Refuse Scatter	0	0	Access Roads MA-160, MA-161	BLM	Fill placement on existing road. Flag, avoid, and monitor along existing access roads. (Mitigation required for any other Project features within site.)
4B2H-EK-50	TBD	Malheur	Archaeological Site	Multicomponent	Lithic Scatter and Refuse Scatter	30	98.4	Structure Work Area 221/3	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-DV-01	TBD	Baker	Archaeological Site	Historic	Water Conveyance	363.5	1,192.70	Structure Work Area 171/4	BLM	Flag, avoid, and monitor.
6B2H-MC-06	TBD	Union	Archaeological Site	Pre-contact	Stacked Rock Feature and Lithic/Tool Scatter	30.9	101.4	Structure Work Area 125/3	PV	Flag, avoid, and monitor.
6B2H-MC-15	TBD	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	43.1	141.4	Access Road UM-267	PV	Flag, avoid, and monitor.
6B2H-MC-17	TBD	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	32.7	107.3	Structure Work Area 72/2	PV	Flag, avoid, and monitor.
6B2H-MC-21	TBD	Umatilla	Archaeological Site	Pre-contact	Stacked Rock Feature	54.4	178.6	Access Road UM-290	PV	Flag, avoid, and monitor.
6B2H-MC-27	TBD	Umatilla	Archaeological Site	Historic	Agriculture	8.1	26.5	Access Road UM-278	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-MC-28	TBD	Umatilla	Archaeological Site	Historic	Agriculture & Ranching	2.6	8.5	Access Road UM-275	PV	If redesign of new access road infeasible, flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-MC-29	TBD	Umatilla	Archaeological Site	Historic	Agriculture	36.8	120.7	Structure Work Area 61/2	PV	Flag, avoid, and monitor.
6B2H-RP-16	TBD	Umatilla	Archaeological Site	Historic	Agriculture	1.1	3.6	Access Road UM-279	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
6B2H-SA-13	TBD	Baker	Archaeological Site	Historic	Agriculture	14.6	48.1	Access Road BA-506	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
7B2H-BB-09	TBD	Umatilla	Archaeological Site	Undetermined	Stacked Rock Feature	32	104.9	Access Road UM-130	PV	Flag, avoid, and monitor.
7B2H-BB-11	TBD	Umatilla	Historic Site/Aboveground	Historic	Building	0	0	Access Roads (UM-121, UM-125, UM-126)	PV	Monitor
7B2H-BB-13	TBD	Morrow	Archaeological Site	Undetermined	Stacked Rock Feature	22	72.1	Access Road MO-417	PV	Flag, avoid, and monitor.
7B2H-DM-03	TBD	Owyhee	Archaeological Site	Precontact	Lithic scatter and rock shelter	26.9	88.2	Access Road OW-345	BLM	Flag, avoid, and monitor.
7B2H-DM-22	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	4.4	14.4	Access Road OW-338	BLM	Flag, avoid, and monitor if redesign of new access road infeasible.
7B2H-DM-26	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	33	108.2	Structure Work Area 283/5	BLM	Flag, avoid, and monitor.
7B2H-DM-27	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	33	108.2	Structure Work Area 282/4	BLM	Flag, avoid, and monitor.
8B2H-SA-05	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	34.1	111.8	Existing Access Road OW-303	BLM	Flag, avoid, and monitor.
8B2H-SA-06	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	5.1	16.7	Access Road OW-392	BLM	Flag, avoid, and monitor if redesign of new access road infeasible.
B2H-BS-46	TBD	Union	Archaeological Site	Pre-contact	Lithic/Tool Scatter	0	0	Access Road UN-103	PV	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
B2H-BS-54	TBD	Malheur	Archaeological Site	Historic	Refuse Scatter	50.8	166.7	Multi-use Area MUA MA-09	BLM	Flag, avoid, and monitor.
B2H-BS-58	TBD	Malheur	Archaeological Site	Multicomponent	Lithic/Tool Scatter and Refuse Scatter	28.5	93.6	Access Road MA-400	BLM	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-BS-74	TBD	Malheur	Archaeological Site	Pre-contact	Lithic/Tool Scatter	29.7	97.4	Access Road MA-526	PV	Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
B2H-EE-10	TBD	Owyhee	Archaeological Site	Precontact	Lithic scatter	33.1	108.5	Pulling and Tensioning Area 276/5	BLM	Flag, avoid, and monitor.
B2H-JF-14	TBD	Baker	Historic Site/Aboveground	Historic	Ranching	33.3	109.2	Structure Work Area 158/5	PV	Flag, avoid, and monitor.
B2H-SA-23	TBD	Owyhee	Archaeological Site	Unknown	Stacked rock feature	0.9	2.9	Existing Access Road OW-029	BLM	Fill placement on existing road. Flag, avoid, and monitor.
B2H-SA-24	TBD	Union	Archaeological Site	Undetermined	Stone Alignment	0	0	Access Road UN-386	PV	Fill placement on existing road. Flag, avoid, and monitor.
B2H-SA-42	TBD	Malheur	Archaeological Site	Pre-contact	Lithic Procurement	0	0	Access Road MA-468	BLM	Fill placement on existing road. Flag, avoid, and monitor. (Boundary probes completed prior to construction.)
	West Extension Irrigation Canal	Morrow	Historic Site/Aboveground	Historic	Water Conveyance	36.5	119.7	Multi-use Area MUA MO-01	Road ROW	Flag, avoid, and monitor.
4B2H-EK-43	Willow Creek Diversion Canal	Malheur	Historic Site/Aboveground	Historic	Utility Line and Water Conveyance	30.5	100.1	Access Roads MA-119, MA-134	PV	Flag, avoid, and monitor. No replacement of structural features for use of roads.
HPA_v1f 116		Union	HPA			61.68	202.362205	Structure Work Area 127/4	PV	Flag, avoid, and monitor.
HPA_v1f 131		Baker	HPA			24.64	80.839895	Access Road BA-174	PV	Flag, avoid, and monitor.
HPA_v1f 133		Baker	HPA			95.03	311.778215	Access Road BA-315	PV	Flag, avoid, and monitor.
HPA_v1f 145		Baker	HPA			9.49	31.1351706	Access Road BA-372	PV	Flag, avoid, and monitor.
HPA_v1f 152		Baker	HPA			14.98	49.1469816	Access Road BA-382	PV	Flag, avoid, and monitor.
HPA_v1f 154		Baker	HPA			30.34	99.5406824	Access Road BA-386	PV	Flag, avoid, and monitor.
HPA_v1f 156		Baker	HPA			50.69	166.305774	Access Road BA-408	PV	Flag, avoid, and monitor.
HPA_v1f 16		Umatilla	HPA			0.07	0.22965879	Access Road UM-048	PV	Flag, avoid, and monitor.
HPA_v1f 160		Baker	HPA			157.14	515.551181	Structure Work Area 177/1	PV	Flag, avoid, and monitor.
HPA_v1f 164		Baker	HPA			15.06	49.4094488	Access Road BA-506	PV	Flag, avoid, and monitor.
HPA_v1f 166		Baker	HPA			238.04	780.971129	Structure Work Area 186/2	PV	Flag, avoid, and monitor.
HPA_v1f 168		Baker	HPA			3.93	12.8937008	Access Road BA-534	Road ROW	Flag, avoid, and monitor.
HPA_v1f 169		Baker	HPA			9.41	30.8727034	MUA BA-05	PV, County	Flag, avoid, and monitor.
HPA_v1f 184		Malheur	HPA			108.92	357.349081	Structure Work Area 200/1	PV, BLM	Flag, avoid, and monitor.
HPA_v1f 188		Malheur	HPA			58.29	191.240157	Structure Work Area 202/4	BLM	Flag, avoid, and monitor.
HPA_v1f 190		Malheur	HPA			17.51	57.4475066	Access Road MA-073	BLM	Flag, avoid, and monitor.
HPA_v1f 191		Malheur	HPA			23.2	76.1154856	Access Road MA-073	PV	Flag, avoid, and monitor.
HPA_v1f 191		Malheur	HPA			23.2	76.1154856	Access Road MA-073	PV	Flag, avoid, and monitor.
HPA_v1f 192		Malheur	HPA			12.52	41.0761155	Access Road MA-568	PV	Flag, avoid, and monitor.
HPA_v1f 205		Malheur	HPA			1.43	4.69160105	Access Road MA-111	PV	Flag, avoid, and monitor.
HPA_v1f 206		Malheur	HPA			22.1	72.5065617	Structure Work Area 216/1	PV	Flag, avoid, and monitor.
HPA_v1f 208		Malheur	HPA			55.92	183.464567	Structure Work Area 219/4	BLM	Flag, avoid, and monitor.
HPA_v1f 213		Malheur	HPA			28.02	91.9291339	Access Road MA-175	BLM	Flag, avoid, and monitor.
HPA_v1f 218		Malheur	HPA			0.53	1.73884514	Access Road MA-578	PV	Flag, avoid, and monitor.
HPA_v1f 227		Malheur	HPA			108.88	357.217848	Structure Work Area 229/2	PV	Flag, avoid, and monitor.
HPA_v1f 23		Umatilla	HPA			105.04	344.619423	Structure Work Area 84/2	PV	Flag, avoid, and monitor.

Temporary Resource or HPA #	Trinomial or Other ID	County	Site Type	Time Period	General Resource Description	Distance to Disturbance (m)	Distance to Disturbance (ft)	Work Area	Landowner ship (within Direct APE)	Management Recommendation
HPA_v1f 237		Malheur	HPA			11.91	39.0748031	Structure Work Area 269/3	PV	Flag, avoid, and monitor.
HPA_v1f 238		Malheur	HPA			9.86	32.3490814	Pulling and Tensioning Site 270/1	PV	Flag, avoid, and monitor.
HPA_v1f 242		Owyhee	HPA			120.546894	395.495059	Structure Work Area 271/5	BLM	Flag, avoid, and monitor.
HPA_v1f 243		Owyhee	HPA			12.615231	41.3885531	Access Road OW-023	BLM	Flag, avoid, and monitor.
HPA_v1f 250		Owyhee	HPA			104.625961	343.261027	Structure Work Area 273/2	BLM	Flag, avoid, and monitor.
HPA_v1f 28		Umatilla	HPA			19.2	62.992126	Structure Work Area 85/4	PV	Flag, avoid, and monitor.
HPA_v1f 280		Owyhee	HPA			29.540678	96.9182349	Structure Work Area 281/4	BLM	Flag, avoid, and monitor.
HPA_v1f 281		Owyhee	HPA			17.568102	57.6381299	Access Road OW-389	BLM	Flag, avoid, and monitor.
HPA_v1f 282		Owyhee	HPA			20.580726	67.5220669	Structure Work Area 282/1	BLM	Flag, avoid, and monitor.
HPA_v1f 289		Owyhee	HPA			34.075065	111.794833	Access Road OW-366	BLM	Flag, avoid, and monitor.
HPA_v1f 300		Owyhee	HPA			108.961827	357.486309	Structure Work Area 288/3	BLM	Flag, avoid, and monitor.
HPA_v1f 307		Owyhee	HPA			15.457971	50.715128	Access Road OW-288	BLM	Flag, avoid, and monitor.
HPA_v1f 313		Baker	HPA			87.76	287.926509	Structure Work Area 166/4	PV	Flag, avoid, and monitor.
HPA_v1f 314		Baker	HPA			19.32	63.3858268	Access Road BA-303	PV	Flag, avoid, and monitor.
HPA_v1f 38		Union	HPA			50.82	166.732283	Access Road UN-018	PV	Flag, avoid, and monitor.
HPA_v1f 39		Union	HPA			6.6	21.6535433	Access Road UN-018	PV	Flag, avoid, and monitor.
HPA_v1f 41		Union	HPA			14.88	48.8188976	Access Road UN-005	PV	Flag, avoid, and monitor.
HPA_v1f 47		Umatilla	HPA			9.32	30.5774278	Access Road UM-074	PV	Flag, avoid, and monitor.
HPA_v1f 5		Umatilla	HPA			127	416.666667	Pulling and Tensioning Site 81/1	PV	Flag, avoid, and monitor.
HPA_v1f 52		Union	HPA			115.43	378.707349	Access Road UN-074	BLM	Flag, avoid, and monitor.
HPA_v1f 53		Union	HPA			24.72	81.1023622	Structure Work Area 96/4	BLM	Flag, avoid, and monitor.
HPA_v1f 54		Union	HPA			1.07	3.51049869	Access Road UN-073	BLM	Flag, avoid, and monitor.
HPA_v1f 71		Union	HPA			5.24	17.191601	Access Road UN-168	PV	Flag, avoid, and monitor.
HPA_v1f 72		Union	HPA			102.86	337.467192	Access Road UN-195	PV	Flag, avoid, and monitor.
HPA_v1f 99		Union	HPA			1.99	6.52887139	Access Road UN-482	PV	Flag, avoid, and monitor.

Table G-2. Project Features Where Monitoring within Direct APE Required (From Initial Class III Inventory [King et al. 2023 and Anderson et al. 2023])

Project Feature ID	Feature Type	County	Access Road Miles or Work Area Acres	Resource Conflicts with Limits of Disturbance	Resource/HPA Measures Required
125/3	Structure Work Area	Union	0.57	6B2H-MC-06, 6B2H-MC-ISO-14, HPA_v1f 107	Flag, avoid, and monitor at 6B2H-MC-06 and 6B2H-MC-ISO-14. (Shovel probe within disturbance footprint at HPA_v1f 107.)
127/4	Structure Work Area	Union	0.59	HPA_v1f 116	Flag, avoid, and monitor.
134/4	Structure Work Area	Baker	0.59	6B2H-MC-ISO-11	Flag, avoid, and monitor.
137/2	Structure Work Area	Baker	0.55	35BA01568	Flag, avoid, and monitor.
138/2	Structure Work Area	Baker	1.20	35BA01566	Flag, avoid, and monitor.
139/2	Structure Work Area	Baker	1.40	6B2H-MC-ISO-10	Flag, avoid, and monitor.
141/1	Structure Work Area	Baker	0.59	6B2H-MC-ISO-05, 6B2H-MC-ISO-06	Flag, avoid, and monitor.
141/2-141/3	Pulling and Tensioning	Baker	4.00	6B2H-MC-ISO-07	Flag, avoid, and monitor.
150/3-150/4	Pulling and Tensioning	Baker	2.40	4B2H-EK-ISO-01	Flag, avoid, and monitor.
158/5	Structure Work Area	Baker	0.58	B2H-JF-14	Flag, avoid, and monitor.
166/4	Structure Work Area	Baker	1.33	HPA_v1f 313	Flag, avoid, and monitor.
171/4	Structure Work Area	Baker	1.43	6B2H-DV-01, 35BA01387 (Durkee to Bridgeport Line)	Flag, avoid, and monitor.
177/1	Structure Work Area	Baker	0.59	6B2H-MC-ISO-03, HPA_v1f 160	Flag, avoid, and monitor at 6B2H-MC-ISO-03 and HPA_v1f 1600.
186/2	Structure Work Area	Baker	0.58	HPA_v1f 166	Flag, avoid, and monitor.
195/5	Structure Work Area	Baker	0.52	Benson Reservoir, HPA_v1f 179	Flag, avoid, and monitor at Benson Reservoir. (Shovel probe within disturbance footprint at HPA_v1f 179.)
196/5	Structure Work Area	Baker	0.59	35BA01565	Flag, avoid, and monitor.
200/1	Structure Work Area	Malheur	0.59	35ML01522, HPA_v1f 184	Flag, avoid, and monitor at HPA_v1f 184. (Survey required at 35ML01522 prior to construction.)
202/4	Structure Work Area	Malheur	1.43	HPA_v1f 188	Flag, avoid, and monitor.
216/1	Structure Work Area	Malheur	0.59	HPA_v1f 206	Flag, avoid, and monitor.
219/4	Structure Work Area	Malheur	1.25	4B2H-EK-ISO-09, HPA_v1f 208	Flag, avoid, and monitor disturbance within HPA_v1f 208. (Boundary probes at 4B2H-EK-ISO-09 prior to construction.)
221/3	Structure Work Area	Malheur	1.27	4B2H-EK-50	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
222/5	Structure Work Area	Malheur	1.20	3B2H-SA-28	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
223/5	Structure Work Area	Malheur	1.21	35ML01619 (Segment 3B2H-SA-29)	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
229/2	Structure Work Area	Malheur	0.59	HPA_v1f 227	Flag, avoid, and monitor.
237/3	Structure Work Area	Malheur	1.31	35ML02213	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
239/2	Structure Work Area	Malheur	1.43	35ML02186	Flag, avoid, and monitor.
249/3	Structure Work Area	Malheur	1.29	35ML00891	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
252/2	Structure Work Area	Malheur	1.43	B2H-BS-ISO-60	Flag, avoid, and monitor.
259/1	Structure Work Area	Malheur	1.43	B2H-EE-ISO-30	Flag, avoid, and monitor.
259/2	Structure Work Area	Malheur	1.43	B2H-EE-ISO-28	Flag, avoid, and monitor.
260/1	Structure Work Area	Malheur	1.21	35ML02188	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
262/1	Structure Work Area	Malheur	1.43	B2H-BS-ISO-44, B2H-BS-ISO-42, B2H-BS-ISO-43, B2H-BS-ISO-45	Flag, avoid, and monitor at B2H-BS-ISO-42, B2H-BS-ISO-43, and B2H-BS-ISO-45. (Boundary probes at B2H-BS-ISO-44 prior to construction.)
262/2	Structure Work Area	Malheur	1.43	B2H-BS-ISO-46	Flag, avoid, and monitor.
262/3	Structure Work Area	Malheur	1.37	B2H-BS-ISO-49, B2H-BS-ISO-48	Flag, avoid, and monitor at B2H-BS-ISO-48. (Boundary probes at B2H-BS-ISO-49 prior to construction.)
263/2-263/3	Pulling and Tensioning	Malheur	4.65	35ML01676	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
263/3	Structure Work Area	Malheur	1.42	35ML01677	Flag, avoid, and monitor.
263/4	Structure Work Area	Malheur	1.43	B2H-BS-ISO-64	Flag, avoid, and monitor.
264/4	Structure Work Area	Malheur	1.43	B2H-BS-ISO-62	Flag, avoid, and monitor.
265/1	Structure Work Area	Malheur	1.41	35ML01679	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
265/2	Structure Work Area	Malheur	1.33	35ML01680	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
266/5	Structure Work Area	Malheur	1.05	ISO-390.4	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
267/5	Structure Work Area	Malheur	0.59	35ML02189, B2H-SA-ISO-51	Flag, avoid, and monitor.
268/1	Structure Work Area	Malheur	0.55	35ML02187	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
268/3	Structure Work Area	Malheur	1.16	35ML02201	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
269/3	Structure Work Area	Malheur	0.59	HPA_v1f 237	Flag, avoid, and monitor.
269/4	Structure Work Area	Malheur	0.59	3B2H-SA-ISO-34	Flag, avoid, and monitor.

Project Feature ID	Feature Type	County	Access Road Miles or Work Area Acres	Resource Conflicts with Limits of Disturbance	Resource/HPA Measures Required
270/1	Pulling and Tensioning	Malheur	3.61	IPC Distribution Line and Abandoned Irrigation Canal (3B2H-SA-16), HPA_v1f 238	Flag, avoid, and monitor at HPA_v1f 238. (No further management at IPC Distribution Line and Abandoned Irrigation Canal [3B2H-SA-16].)
271/5	Structure Work Area	Owyhee	1.43	HPA_v1f 242	Flag, avoid, and monitor at HPA.
272/3	Structure Work Area	Owyhee	1.31	10OE10701, HPA_v1f 240	Flag, avoid, and monitor at 10OE10701. (Monitor within disturbance footprint at HPA_v1f 240.)
272/4	Structure Work Area	Owyhee	1.28	10OE10700, HPA_v1f 244	Flag, avoid, and monitor at 10OE10700. (Monitor within disturbance footprint at HPA_v1f 244.)
273/2	Structure Work Area	Owyhee	1.22	HPA_v1f 249, HPA_v1f 250	Flag, avoid, and monitor at HPA_v1f 250. (Monitor within disturbance footprint at HPA_v1f 249.)
274/1	Structure Work Area	Owyhee	1.44	10OE12569, HPA_v1f 251	Flag, avoid, and monitor at 10OE12569. (Monitor within disturbance footprint at HPA_v1f 251.)
275/4	Structure Work Area	Owyhee	1.43	10OE7671, HPA_v1f 262	Flag, avoid, and monitor at 10OE7671. (Monitor within disturbance footprint at HPA_v1f 262.)
276/1	Structure Work Area	Owyhee	1.31	10OE7670, HPA_v1f 262	Flag, avoid, and monitor at 10OE7670. (Monitor within disturbance footprint at HPA_v1f 262.)
276/5	Pulling and Tensioning	Owyhee	8.56	B2H-EE-10, HPA_v1f 262	Flag, avoid, and monitor at B2H-EE-10. (Monitor within disturbance footprint at HPA_v1f 262.)
281/4	Structure Work Area	Owyhee	1.43	HPA_v1f 280	Flag, avoid, and monitor at HPA.
282/1	Structure Work Area	Owyhee	1.34	HPA_v1f 282	Flag, avoid, and monitor at HPA.
282/4	Structure Work Area	Owyhee	1.38	7B2H-DM-27	Flag, avoid, and monitor.
283/5	Structure Work Area	Owyhee	1.37	7B2H-DM-26, 7B2H-DM-05	Flag, avoid, and monitor at 7B2H-DM-26. (No further management at 7B2H-DM-05.)
284/2-284/3	Pulling and Tensioning	Owyhee	3.75	10OE1209, 7B2H-DM-02, HPA_v1f 285	Flag, avoid, and monitor at 10OE12090. (Monitor within disturbance footprint at HPA_v1f 285; No further management at 7B2H-DM-02.)
285/2	Structure Work Area	Owyhee	1.15	10OE1454, 7B2H-DM-24, 7B2H-DM-25	Flag, avoid, and monitor at 10OE1454. (No further management at 7B2H-DM-24 and 7B2H-DM-25.)
288/3	Structure Work Area	Owyhee	1.43	HPA_v1f 300	Flag, avoid, and monitor at HPA.
61/2	Structure Work Area	Umatilla	0.59	6B2H-MC-29	Flag, avoid, and monitor.
65/2	Structure Work Area	Umatilla	0.59	6B2H-MC-ISO-18	Flag, avoid, and monitor.
67/1-67/2	Pulling and Tensioning	Umatilla	5.07	35UM00519	Flag, avoid, and monitor.
72/2	Structure Work Area	Umatilla	0.56	6B2H-MC-17	Flag, avoid, and monitor.
81/1	Pulling and Tensioning	Umatilla	4.09	HPA_v1f 5, HPA_v1f 6	Flag, avoid, and monitor at HPA_v1f 5. (Shovel probe within disturbance footprint at HPA_v1f 6.)
84/2	Structure Work Area	Umatilla	0.51	35UM00605, HPA_v1f 23	Flag, avoid, and monitor at 35UM00605 and HPA_v1f 23.
85/4	Structure Work Area	Umatilla	0.59	HPA_v1f 28	Flag, avoid, and monitor.
96/3	Structure Work Area	Union	1.43	HPA_v1f 53	Flag, avoid, and monitor.
96/4	Structure Work Area	Union	1.38	B2H-EK-ISO-01	Flag, avoid, and monitor.
BA-055	Access Road - New Road, Primitive	Baker	0.54	6B2H-MC-ISO-12; HPA_v1f 122	Flag, avoid, and monitor at 6B2H-MC-ISO-12. (Shovel probe within disturbance footprint at HPA_v1f 122.)
BA-103	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	1.73	35BA01567, HPA_v1f 125	Flag, avoid, and monitor at 35BA01567. (Boundary probes at 35BA01567 and shovel probes within disturbance footprint at HPA_v1f 125 prior to construction.)
BA-106	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	0.24	6B2H-MC-ISO-08, 6B2H-MC-ISO-09	Flag, avoid, and monitor at 6B2H-MC-ISO-09. (Boundary probes at 6B2H-MC-ISO-08 prior to construction.)
BA-174	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	0.26	HPA_v1f 131	Flag, avoid, and monitor.
BA-190	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	0.18	35BA01611	Flag resource boundary only (no buffer), avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-228	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	0.34	35BA01614	Flag, avoid, and monitor. (Boundary probes prior to construction.)
BA-284	Access Road - New Road, Primitive	Baker	0.03	4B2H-EK-ISO-03	Flag, avoid, and monitor.

Project Feature ID	Feature Type	County	Access Road Miles or Work Area Acres	Resource Conflicts with Limits of Disturbance	Resource/HPA Measures Required
BA-289	Access Road - New Road, Primitive	Baker	0.07	35BA01562	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-300	Access Road - New Road, Bladed	Baker	0.85	35BA01581	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-303	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	0.46	HPA_v1f 314	Flag, avoid, and monitor.
BA-311	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.22	B2H-JF-ISO-14	Flag, avoid, and monitor.
BA-315	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	0.28	HPA_v1f 133	Flag, avoid, and monitor.
BA-336	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.26	35BA01583	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-339	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	0.35	35BA01583	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-348	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.82	35BA01583, HPA_v1f 136, HPA_v1f 137, HPA_v1f 138	Fill placement through and flag, avoid, and monitor at 35BA01583. (Boundary probes at 35BA01583 and shovel probe within disturbance footprint at HPA_v1f 136, HPA_v1f 137, and HPA_v1f 138 prior to construction.)
BA-372	Access Road - New Road, Bladed	Baker	0.76	Oregon Trail - 35BA01364, HPA_v1f 145, HPA_v1f 147	Flag, avoid, and monitor at HPA_v1f 145. (Mitigation of Oregon Trail - 35BA01364 complete prior to construction; Shovel probes at HPA_v1f 147 prior to construction.)
BA-382	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.3	HPA_v1f 152, HPA_v1f 153	Flag, avoid, and monitor at HPA_v1f 152. (Shovel probe within disturbance footprint at HPA_v1f 153.)
BA-386	Access Road - New Road, Bladed	Baker	1.85	HPA_v1f 154; OR&N/OWR&N/UPRR (4B2H-EK-19)	Flag, avoid, and monitor at HPA_v1f 154. (No further management at OR&N/OWR&N/UPRR [4B2H-EK-19].)
BA-396	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	2.25	4B2H-EK-ISO-05, 35BA0084, 35BA01563, 35BA0159, 35BA0158, 4B2H-EK-13 (Dry Gulch Waterhole), 35BA01370 (Schuck Irrigation Ditch)	Flag, avoid, and monitor at 35BA0084, 35BA01563, 35BA0159, and 35BA0158. (Boundary probes at 4B2H-EK-ISO-05, 35BA0084, 35BA01563, 35BA0159, 35BA0158 prior to construction; No further management at 4B2H-EK-13/Dry Gulch Waterhole and 35BA01370/Schuck Irrigation Ditch; Project marker at 4B2H-EK-13/Dry Gulch Waterhole protected by non-NHPA laws.)
BA-404	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	1.19	4B2H-EK-ISO-04, 35BA0084, 35BA01370 (Schuck Irrigation Ditch)	Flag, avoid, and monitor at 35BA0084. (Boundary probes at 4B2H-EK-ISO-04 and 35BA0084 prior to construction; No further management at 35BA01370/Schuck Irrigation Ditch.)
BA-408	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	0.4	NRCS2011-T11S-R42E-S23/01, HPA_v1f 155, HPA_v1f 156	Flag, avoid, and monitor at NRCS2011-T11S-R42E-S23/01 and HPA_v1f 156. (Boundary probes at NRCS2011-T11S-R42E-S23/01 and shovel probes within disturbance footprint at HPA_v1f 155 prior to construction.)
BA-445	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	1.28	35BA01576 (Gold Ridge Mine)	Fill placement through and flag, avoid, and monitor at resource.

Project Feature ID	Feature Type	County	Access Road Miles or Work Area Acres	Resource Conflicts with Limits of Disturbance	Resource/HPA Measures Required
BA-463	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.12	Road to Rye Valley; 35BA01586/Shelton/Lovelace Homestead	Fill placement through and flag, avoid, and monitor at 35BA01586/Shelton/Lovelace Homestead. (No further management of Road to Rye Valley.)
BA-465	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.52	Road to Rye Valley; 35BA01586/Shelton/Lovelace Homestead	Fill placement through and flag, avoid, and monitor at 35BA01586/Shelton/Lovelace Homestead. (No further management of Road to Rye Valley.)
BA-470	Access Road - New Road, Bladed	Baker	0.77	Road to Rye Valley; 35BA01586/Shelton/Lovelace Homestead	Monitor construction at 35BA01586/Shelton/Lovelace Homestead. Fill placement through and flag, avoid, and monitor resource, once new road constructed. (No further management of Road to Rye Valley.)
BA-487	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	2.31	6B2H-SA-ISO-03, 35BA01612	Flag, avoid, and monitor at 35BA01612. (Boundary probes at 6B2H-SA-ISO-03 and 35BA01612 prior to construction.)
BA-506	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Baker	1.63	6B2H-SA-13, IS-453.0, 35BA01578, HPA_v1f 165, HPA_v1f 164	Flag, avoid, and monitor at 6B2H-SA-13, IS-453.0, and HPA_v1f 164. (Boundary probes at 6B2H-SA-13 and IS-453.0 and shovel probes within disturbance footprint at HPA_v1f 165 prior to construction; No further management at 35BA01578.)
BA-534	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	2.24	35BA01613, HPA_v1f 168, HPA_v1f 167	Fill placement through and flag, avoid, and monitor at 35BA01613. Flag, avoid, and monitor at HPA_v1f 168. (Shovel probes within disturbance footprint at HPA_v1f 167.)
BA-548	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.3	35BA01585	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
BA-591	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Baker	0.36	35BA01579, HPA_v1f 179, HPA_v1f 180, HPA_v1f 181	Fill placement through and flag, avoid, and monitor at 35BA01579. (Shovel probe within disturbance footprint at HPA_v1f 179, HPA_v1f 180, and HPA_v1f 181.)
BA-601	Access Road - New Road, Primitive	Baker	1.07	35BA01571, 7B2H-BB-ISO-04, 35BA01570, HPA_v1f 177	Flag, avoid, and monitor at 35BA01571 and 7B2H-BB-ISO-04. (Shovel probe within disturbance footprint at HPA_v1f 177; No further management at 35BA01570.)
BA-602	Access Road - New Road, Primitive	Baker	1.27	7B2H-DM-ISO-22, 35BA01564	Flag, avoid, and monitor at 7B2H-DM-ISO-22. (No further management 35BA01564.)
BA-615	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Baker	1.22	4B2H-EK-17, HPA_v1f 157	Flag, avoid, and monitor at 4B2H-EK-17. (Shovel probe within disturbance footprint at HPA_v1f 157.)
BR1-3/1	Structure Work Area	Morrow	0.54	Sisupa, Sand Hollow Battleground, 35MW00227	Flag, avoid, and monitor portion of 35MW00227 outside Bombing Range. (Consultation regarding Sisupa and Sand Hollow Battleground and metal detecting within Sand Hollow Battleground complete prior to construction.)
BR1-3/8	Structure Work Area	Morrow	0.59	Sisupa, Sand Hollow Battleground, 35MW00322 (Oregon Trail - Segment 5B2H-SA-01)	Flag, avoid, and monitor at 35MW00322 (Oregon Trail - Segment 5B2H-SA-01). (Consultation regarding Sisupa and Sand Hollow Battleground and metal detecting within Sand Hollow Battleground complete prior to construction.)
BR1-4/2	Structure Work Area	Morrow	0.41	Sisupa, Sand Hollow Battleground, 35MW00322 (Oregon Trail - Wells Spring Segment 4B2H-EK-02)	Flag, avoid, and monitor at 35MW00322 (Oregon Trail - Wells Spring Segment 4B2H-EK-02). (Consultation regarding Sisupa and Sand Hollow Battleground and metal detecting within Sand Hollow Battleground complete prior to construction.)
MA-018	Access Road - New Road, Primitive	Malheur	0.09	4B2H-EK-41	Flag, avoid, and monitor.
MA-058	Access Road - New Road, Primitive	Malheur	0.13	4B2H-EK-35	Flag, avoid, and monitor.

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MA-073	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	1.39	HPA_v1f 189, HPA_v1f 190, HPA_v1f 191	Flag, avoid, and monitor at HPA_v1f 190 and HPA_v1f 191. (Shovel probe within disturbance footprint at HPA_v1f 189.)
MA-098	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	1.77	0503040048SI/V-5368; HPA_v1f 195	Fill placement through and flag, avoid, and monitor at 0503040048SI/V-5368. (Boundary probes at 0503040048SI/V-5368 and shovel probe within disturbance footprint at HPA_v1f 195 prior to construction.)
MA-111	Access Road - New Road, Bladed	Malheur	1.87	35ML02199, Oregon Trail - Alkali Springs Segment, HPA_v1f 197, HPA_v1f 205	Flag, avoid, and monitor at 35ML02199 and HPA_v1f 205. (Shovel probe within disturbance footprint at HPA_v1f 197; No further management at Oregon Trail - Alkali Springs Segment.)
MA-119	Access Road - New Road, Primitive	Malheur	0.58	Willow Creek Diversion Canal	Flag, avoid, and monitor at resource. No replacement of structural features for use of roads.
MA-134	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.85	Willow Creek Diversion Canal	Flag, avoid, and monitor at resource. No replacement of structural features for use of roads.
MA-156	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.18	35ML02207	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-158	Access Road - New Road, Primitive	Malheur	0.56	3B2H-SA-ISO-17	Flag, avoid, and monitor.
MA-161	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.1	4B2H-EK-48	Fill placement through and flag, avoid, and monitor at resource.
MA-172	Access Road - New Road, Bladed	Malheur	0.47	3B2H-SA-32	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-173	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.66	35ML02206, HPA_v1f 209	Flag, avoid, and monitor at 35ML02206. (Boundary probe at 35ML02206 and shovel probe within disturbance footprint at HPA_v1f 209 prior to construction.)
MA-175	Access Road - New Road, Bladed	Malheur	0.33	HPA_v1f 212, HPA_v1f 213	Flag, avoid, and monitor at HPA_v1f 213. (Shovel probe within disturbance footprint at HPA_v1f 212.)
MA-178	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.32	35ML02214, HPA_v1f 209	Fill placement through and flag, avoid, and monitor at 35ML02214. (Boundary probes at 35ML02214 and shovel probe within disturbance footprint at HPA_v1f 209 prior to construction.)
MA-188	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.87	3B2H-SA-27, HPA_v1f 214	Fill placement through and flag, avoid, and monitor at 3B2H-SA-27. (Boundary probe at 3B2H-SA-27 and shovel probe within disturbance footprint at HPA_v1f 214 prior to construction.)
MA-221	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Malheur	4.91	B2H-SA-ISO-39, B2H-SA-ISO-40, B2H-SA-ISO-41, B2H-SA-ISO-43, 35ML02190, 35ML02197	Fill placement through and flag, avoid, and monitor at 35ML02190. (Boundary probes at B2H-SA-ISO-39, B2H-SA-ISO-40, B2H-SA-ISO-41, B2H-SA-ISO-43, and 35ML02190 prior to construction; No further management at 35ML02197.)
MA-255	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.41	B2H-BS-ISO-59	Flag, avoid, and monitor.
MA-274	Access Road - New Road, Bladed	Malheur	0.24	B2H-BS-ISO-53	Flag, avoid, and monitor.

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MA-275	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	1.56	35ML01695	Flag, avoid, and monitor.
MA-391	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	2.2	35ML02273	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-400	Access Road - New Road, Bladed	Malheur	0.08	B2H-BS-ISO-41, B2H-BS-58	Fill placement through and flag, avoid, and monitor at B2H-BS-58. (Boundary probes at B2H-BS-ISO-41 and B2H-BS-58 prior to construction.)
MA-440	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.09	35ML02195	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-444	Access Road - New Road, Primitive	Malheur	0.43	35ML01686	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-448	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Malheur	0.78	B2H-EE-ISO-27, B2H-EE-ISO-29	Flag, avoid, and monitor at B2H-EE-ISO-29. (Boundary probes at B2H-EE-ISO-27 prior to construction.)
MA-468	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Malheur	0.48	B2H-SA-42	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-471	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.73	B2H-SA-ISO-55, 35ML02191, 35ML01682, 35ML01681	Fill placement through and flag, avoid, and monitor at 35ML02191; Flag, avoid, and monitor at 35ML01682 and 35ML01681. (Boundary probes at B2H-SA-ISO-55, 35ML02191, and 35ML01682 prior to construction.)
MA-506	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.96	B2H-SA-ISO-50, 35ML02185, 35ML02274, 35ML02275	Fill placement through and flag, avoid, and monitor at 35ML02185. (Boundary probes at B2H-SA-ISO-50 and 35ML02185 prior to construction; No further management at 35ML02274 and 35ML02275.)
MA-512	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.1	35ML01516	Fill placement through and flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
MA-519	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.11	B2H-BS-ISO-69	Flag, avoid, and monitor.
MA-522	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	0.71	35ML02203, 35ML02196	Flag, avoid, and monitor at 35ML02203 and 35ML02196. (Boundary probes at 35ML02203 prior to construction.)
MA-523	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Malheur	1.01	B2H-BS-ISO-70	Flag, avoid, and monitor.
MA-526	Access Road - New Road, Bladed	Malheur	0.49	B2H-BS-ISO-74, B2H-BS-ISO-75, B2H-BS-74, 35ML02212	Flag, avoid, and monitor at B2H-BS-74 and 35ML02212. (Boundary probes at B2H-BS-ISO-74, B2H-BS-ISO-75, and B2H-BS-74 prior to construction.)
MA-568	Access Road - New Road, Primitive	Malheur	0.23	HPA_v1f 192	Flag, avoid, and monitor.

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MA-578	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Malheur	0.26	HPA_v1f 217, HPA_v1f 218	Flag, avoid, and monitor at HPA_v1f 218. (Shovel probe within disturbance footprint at HPA_v1f 217.)
MA-597	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Malheur	0.25	35ML02210, 35ML1675 (Vale to Juntura OSL/UPRR), HPA_v1f 228	Flag, avoid, and monitor at 35ML02210. (Shovel probe within disturbance footprint at HPA_v1f 228; No further management at 35ML1675 [Vale to Juntura OSL/UPRR].)
ML-12/3	Structure Work Area	Union	0.55	B2H-BS-ISO-36	Flag, avoid, and monitor.
ML-4/1	Structure Work Area	Union	0.57	35UN00543	Flag, avoid, and monitor.
MO-053	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Morrow	3.59	040109A	Flag, avoid, and monitor.
MO-089	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Morrow	0.27	126CSF-4, Sisupa	Flag, avoid, and monitor at intact portion of 126CSF-4 only. (Consultation regarding Sisupa complete prior to construction.)
MO-098	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Morrow	0.04	126CSF-Resource 11, Sisupa	Flag, avoid, and monitor at 126CSF-Resource 11. (Consultation regarding Sisupa complete prior to construction.)
MO-417	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Morrow	2.99	7B2H-BB-13	Flag, avoid, and monitor.
MUA BA-05	Multi-Use Area	Baker	13.58	HPA_v1f 169	Flag, avoid, and monitor.
MUA MA-09	Multi-Use Area	Malheur	10.49	B2H-BS-54, 35ML02152	Flag, avoid, and monitor at B2H-BS-54. (No further management 35ML02152.)
MUA MO-01	Multi-Use Area	Morrow	29.46	West Extension Irrigation Canal	Flag, avoid, and monitor.
OW-023	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	0.09	HPA_v1f 243, HPA_v1f 244	Flag, avoid, and monitor disturbance at HPA_v1f 243. (Monitor within disturbance footprint at HPA_v1f 244.)
OW-029	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	0.4	B2H-SA-23, 10OE12570, 10OE10706, B2H-SA-ISO-65, HPA_v1f 249, HPA_v1f 251	Fill placement through and flag, avoid, and monitor at B2H-SA-23. (Monitor within disturbance footprint at HPA_v1f 249 and HPA_v1f 251; No further management at 10OE12570, 10OE10706, and B2H-SA-ISO-65.)
OW-265	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	2.18	10OE1975, B2H-SA-03, B2H-SA-ISO-06, B2H-SA-ISO-07	Flag, avoid, and monitor at 10OE1975. (No further management at B2H-SA-03, B2H-SA-ISO-06, and B2H-SA-ISO-07.)
OW-288	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	0.89	B2H-BS-ISO-04, HPA_v1f 307	Flag, avoid, and monitor at HPA_v1f 307. (No further management at B2H-BS-ISO-04.)
OW-295	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Owyhee	0.6	10OE7699 (Sands Homestead), South Canal (Segment 73-18030), HPA_v1f 277	Fill placement through 10OE7699/Sands Homestead. (Monitor within disturbance footprint at HPA_v1f 277; No further management at South Canal Segment 73-18030.)
OW-299	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Owyhee	0.81	10OE11824, HPA_v1f 284	Fill placement through 10OE11824. (Monitor within disturbance footprint at HPA_v1f 284.)

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OW-303	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Owyhee	0.46	8B2H-SA-05, 8B2H-SA-01, HPA_v1f 297	Flag, avoid, and monitor at 8B2H-SA-05. (Monitor within disturbance footprint at HPA_v1f 297; No further management at 8B2H-SA-01.)
OW-310	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Owyhee	1.55	10OE9671 (Precision Bombing Range No.2), 10OE9457, 73-17989, HPA_v1f 279	Fill placement through and flag, avoid, and monitor at 10OE9671/Precision Bombing Range No.2. (Monitor within disturbance footprint at HPA_v1f 279; No further management at 10OE9457 and 73-17989.)
OW-338	Access Road - New Road, Primitive	Owyhee	0.5	7B2H-DM-22, HPA_v1f 299	Flag, avoid, and monitor at 7B2H-DM-22 (Monitor within disturbance footprint at HPA_v1f 299.)
OW-345	Access Road - New Road, Primitive	Owyhee	0.21	7B2H-DM-03	Flag, avoid, and monitor.
OW-366	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Owyhee	0.23	HPA_v1f 289, HPA_v1f 290	Flag, avoid, and monitor at HPA_v1f 289. (Monitor within disturbance footprint at HPA_v1f 290.)
OW-389	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	0.19	HPA_v1f 281	Flag, avoid, and monitor at HPA.
OW-392	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Owyhee	0.41	8B2H-SA-06, HPA_v1f 283	Flag, avoid, and monitor at 8B2H-SA-06 (Monitor within disturbance footprint at HPA_v1f 283.)
OW-431	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Owyhee	1.04	10OE1848	Fill placement through and flag, avoid, and monitor at resource.
UM-025	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Umatilla	0.96	35UM00603/Charles Henry Hudson Homestead	Fill placement through and flag, avoid, and monitor at resource.
UM-048	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Umatilla	0.7	HPA_v1f 15, HPA_v1f 16, HPA_v1f 17	Flag, avoid, and monitor at HPA_v1f 16. (Shovel probe within disturbance footprint at HPA_v1f 15 and HPA_v1f 17.)
UM-059	Access Road - New Road, Bladed	Umatilla	0.13	35UM00476	Flag, avoid, and monitor.
UM-074	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Umatilla	1.18	HPA_v1f 29, HPA_v1f 35, HPA_v1f 45, HPA_v1f 46, HPA_v1f 47	Flag, avoid, and monitor at HPA_v1f 47. (Shovel probe within disturbance footprint at HPA_v1f 29, HPA_v1f 35, HPA_v1f 45, and HPA_v1f 46.)
UM-113	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	0.65	6B2H-RP-ISO-11, 35UM00526	Flag, avoid, and monitor at 35UM00526. (Boundary probes at 6B2H-RP-ISO-11 prior to construction.)
UM-126	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	0.45	7B2H-BB-11	Monitor

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UM-127	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	1.38	6B2H-RP-ISO-10, 35UM00515	Flag, avoid, and monitor at 35UM00515. (Boundary probes at 6B2H-RP-ISO-10 prior to construction.)
UM-130	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	0.27	7B2H-BB-09	Flag, avoid, and monitor.
UM-139	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	1.37	6B2H-RP-ISO-05, 35UM00510	Fill placement through and flag, avoid, and monitor at 35UM00510. (Boundary probes at 6B2H-RP-ISO-05 prior to construction.)
UM-204	Access Road - New Road, Primitive	Umatilla	0.52	35UM00520	Flag, avoid, and monitor.
UM-236	Access Road - New Road, Primitive	Umatilla	0.19	35UM00522, 35UM00523	Flag, avoid, and monitor at resource.
UM-241	Access Road - New Road, Primitive	Umatilla	0.86	35UM00518	Flag, avoid, and monitor.
UM-263	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Umatilla	0.56	35UM00438	Flag, avoid, and monitor.
UM-267	Access Road - New Road, Bladed	Umatilla	0.2	6B2H-MC-15	Flag, avoid, and monitor.
UM-275	Access Road - New Road, Primitive	Umatilla	0.77	6B2H-MC-28	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
UM-278	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	0.93	6B2H-TH-ISO-01, 6B2H-MC-27	Flag, avoid, and monitor at 6B2H-MC-27. (Boundary probes at 6B2H-TH-ISO-01 and 6B2H-MC-27 prior to construction.)
UM-279	Access Road - Existing Road, Substantial Modification, 71-100% Improvements	Umatilla	0.58	6B2H-RP-16	Flag, avoid, and monitor at resource. (Boundary probes prior to construction.)
UM-290	Access Road - New Road, Primitive	Umatilla	0.1	6B2H-MC-21	Flag, avoid, and monitor.
UM-323	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Umatilla	0.3	35UM00603/Charles Henry Hudson Homestead	Fill placement through and flag, avoid, and monitor at resource.
UN-005	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	0.22	HPA_v1f 40, HPA_v1f 41	Flag, avoid, and monitor at HPA_v1f 41. (Shovel probe within disturbance footprint at HPA_v1f 40.)
UN-018	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Union	0.36	HPA_v1f 38, HPA_v1f 39	Flag, avoid, and monitor.
UN-073	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	0.54	HPA_v1f 50, HPA_v1f 54	Flag, avoid, and monitor at HPA_v1f 54. (Shovel probe within disturbance footprint at HPA_v1f 50.)

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UN-074	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	0.1	HPA_v1f 52	Flag, avoid, and monitor.
UN-091	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Union	0.28	35UN00280, HPA_v1f 56	Fill placement through and flag, avoid, and monitor at 35UN00280. (Shovel probe within disturbance footprint at HPA_v1f 56.)
UN-093	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Union	0.23	IS-541.1	Flag, avoid, and monitor.
UN-103	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	1.76	35UN00699, B2H-BS-46, 35UN00072, B2H-BS-43, 35UN00299 (Mt. Emily Logging Railroad), HPA_v1f 62, HPA_v1f 63, HPA_v1f 64, HPA_v1f 65	Fill placement through and flag, avoid, and monitor at 35UN00699, B2H-BS-46, and 35UN00072. (Boundary probes at 35UN00699, B2H-BS-46, and 35UN00072 and shovel probes within disturbance footprint at HPA_v1f 62, HPA_v1f 63, HPA_v1f 64, and HPA_v1f 65 prior to construction; No further management at B2H-BS-43 and 35UN00299 [Mt. Emily Logging Railroad].)
UN-168	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Union	0.67	35UN00097; HPA_v1f 71	Fill placement through and flag, avoid, and monitor at 35UN00097. Flag, avoid, and monitor disturbance at HPA_v1f 71.
UN-195	Access Road - New Road, Bladed	Union	0.23	35UN00097, HPA_v1f 72	Flag, avoid, and monitor at HPA_v1f 72. (Mitigation at 35UN00097 complete prior to construction.)
UN-232	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	2.48	35UN00097, HPA_v1f 68, HPA_v1f 69, HPA_v1f 70	Fill placement through and flag, avoid, and monitor at 35UN00097. (Shovel probe within disturbance footprint at HPA_v1f 68, HPA_v1f 69, and HPA_v1f 70.)
UN-242	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	2.26	35UN00540, HPA_v1f 75, HPA_v1f 77, HPA_v1f 79	Fill placement through and flag, avoid, and monitor at 35UN00540. (Boundary probes at 35UN00540 and shovel probe within disturbance footprint at HPA_v1f 75, HPA_v1f 77, and HPA_v1f 79 prior to construction.)
UN-253	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	0.64	35UN00097, HPA_v1f 74	Fill placement through and flag, avoid, and monitor at 35UN00097. (Shovel probe within disturbance footprint at HPA_v1f 74.)
UN-386	Access Road - Existing Road, Substantial Modification, 21-70% Improvements	Union	0.21	B2H-SA-24	Fill placement through and flag, avoid, and monitor at resource.
UN-455	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	0.48	35UN00391, HPA_v1f 94	Flag, avoid, and monitor at 35UN00391. (Boundary probe at 35UN00391 and shovel probe within disturbance footprint at HPA_v1f 94 prior to construction.)
UN-482	Access Road - New Road, Primitive	Union	0.21	HPA_v1f 99	Flag, avoid, and monitor.
UN-495	Access Road - Existing Road, No Substantial Modification, 0-20% Improvements	Union	1.26	09/1708-N39	Flag, avoid, and monitor.

APPENDIX H
DAILY MONITORING LOG

<div style="border: 1px solid black; padding: 2px;"> Report # _____ </div>	<h2 style="margin: 0;">Boardman to Hemingway Transmission Line Cultural Resource Monitor Daily Report</h2>	Date ____ / ____ / ____
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Cultural Resource Monitor: _____ Project Segment: _____ Location (GPS): _____ Construction Company: _____ Equipment Used/Operator Name: _____ Current Weather : _____ Ground Conditions: _____	Check all that apply: No Culture Resource findings: <input type="checkbox"/> Inadvertent Discovery: <input type="checkbox"/> Non-Compliance Issue: <input type="checkbox"/> Incident Reports: <input type="checkbox"/> (attached form as appropriate) Variances: <input type="checkbox"/> (attach to variance form) Other: <input type="checkbox"/> (Provide additional detail on back, if necessary)
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Areas Inspected

Location: _____	Time : _____	Activity : _____
Location: _____	Time : _____	Activity : _____
Location: _____	Time : _____	Activity : _____
Location: _____	Time : _____	Activity : _____
Location: _____	Time : _____	Activity : _____
Location: _____	Time : _____	Activity : _____

Item	Yes	No	N/A	Comments (if no then location)
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Monitors and Sensitive Resources

Monitoring near existing Archaeological site (exclusion area)? If yes, list site number and approximate distance from construction activity in comment section.				
All exclusion areas marked and avoided?				
Inadvertent discoveries of cultural resources? If yes, explain and document identified cultural material type and steps taken on continuation sheet.				
Impacts to existing cultural resource sensitive area(s)? If yes, Non-compliance, explain and document steps taken on continuation sheet.				
Tribal CRM present?				

Photographs

Filename:	Filename:
Direction:	Direction:
Description:	Description:
Filename:	Filename:
Direction:	Direction:
Description:	Description:

1 **Appendix A.1: Resource Inventory Tables with Management Recommendations**
2 **for Resources Potentially Protected under OAR 345-022-0090**

3
4 As part of the Final Order on ASC and RFA2, Attachment S-9, the Historic Properties
5 Management Plan (HPMP), Council included Appendix A.1: Resource Inventory Tables with
6 Management Recommendations for Resources Potentially Protected under OAR 345-022-0090
7 (Appendix A.1). This introduction to Appendix A.1 provides an outline of how the certificate
8 holder will update the Appendix A.1 Tables which inventory resources, impacts, avoidance,
9 minimization, and mitigation for impacts to resources protected or evaluated under OAR 345-
10 022-0090(a) through (c). Generalized mitigation is outlined in Appendix A.1 Tables and site-
11 specific and general mitigation are further designated in the Property-Specific Mitigation and
12 Monitoring Plan (PSMMPs), also included in the HPMP.

13
14 Site certificate condition GEN-HC-02 (provided below), requires updating and submitting a final
15 Historic Properties Management Plan (HPMP), which includes Appendix A.1: Resource
16 Inventory Tables with Management Recommendations for Resources Potentially Protected
17 under OAR 345-022-0090. Below is a description of how the certificate holder shall submit and
18 update the HPMP Appendix A.1 as part of pre-construction compliance with GEN-HC-02.

19 **Historic, Cultural, and Archaeological Resources Condition 2:** Prior to construction of a
20 phase or segment of the facility, subject to confidential material submission procedures,
21 and based on 1) new survey data from previously unsurveyed areas and 2) the final design
22 of the facility, the certificate holder shall submit to the Department, the State Historic
23 Preservation Office (SHPO), and applicable Tribal Governments, for review and Department
24 approval a final Section 106 Historic Properties Management Plan (HPMP) (with a cover
25 letter explaining changes from the Final Order on RFA2 Attachment S-9). The HPMP shall
26 include updated Appendix A.1 Inventory Tables with Management under OAR 345-022-0090
27 based on the outcomes of Section 106 Review. Final Property-Specific Mitigation and
28 Monitoring Plans (PSMMPs) shall be submitted as part of the Section 106 HPMP. The
29 Department may engage its consultant to assist in review of the HPMP. The certificate
30 holder shall conduct all construction activities in compliance with the final Department-
31 approved HPMP.

32 [GEN-HC-02; Final Order on ASC, AMD1, AMD2] [GEN-HC-02]

33
34 **Compliance with GEN-HC-02; Updating Appendix A.1**

35
36 **1. How to Update Appendix A.1 Based on Final Design of the Facility:**

- 37 **a. Indicate the final design, routes, and location of the facility and related or**
38 **supporting facilities. Indicate the route(s) as they are specific to EFSC approved**
39 **routes (e.g. ASC Approved Route in Morrow County, RFA1 True Blue Gulch**

1 Transmission Line Alternative in Baker County, RFA2 Baldy Alternative1 in Union
2 County, etc.)

3 —b. Remove resources that would not be impacted (direct or indirect) by selected
4 routes.

5
6 1-2. How to Update Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with
7 Avoided/No Impacts:

8 a. In redline, update Table HCA-2 based on eligibility and mitigation outcome from
9 Section 106. Applicable mitigation measures provided in:

- 10 • Table HCA-9 Potential Minimization and Mitigation Methods for Indirect
11 Impacts;
- 12 • Table HCA-10 Potential Minimization and Mitigation Methods for Indirect
13 and Direct Impacts to Aboveground Resource;
- 14 • Applicable PSMMP(s).

15 Notes: Table HCA-2 lists inventoried trail resources within the analysis area that are either not
16 likely eligible for NRHP-listing; certificate holder would avoid impacts; or would not experience
17 indirect (visual) or direct (permanent/ground disturbing) impacts. Table HCA-2 provides
18 representations about avoidance measures for impacts to Oregon Trail resources.

19
20 3. How to Update Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area
21 with Potential Indirect Impacts

22 a. In redline, update Table HCA-3 based on eligibility and mitigation outcome from Section
23 106. Applicable mitigation measures provided in:

- 24 • Table HCA-4b: Council-Approved Mitigation for NRHP-Eligible Oregon
25 Trail/NHT Segments
 - 26 ○ Notes: Council requires that mitigation include at least one
27 minimization measure (design modification) and one measure
28 resulting in restoration; preservation and maintenance; or
29 compensation (OAR 345-001-0010(33)(b) and; (c), (d) or (e)) directly
30 benefiting the affected area – which the Council defines as the county
31 within which the impacted resource is located. Mitigation established
32 through the federal Section 106 compliance review may be used to
33 satisfy the EFSC mitigation requirement for listed or likely NRHP-
34 eligible Oregon Trail/NHT trail segments if applicant can demonstrate
35 that it addresses both the design modifications and the restoration;
36 preservation and maintenance; or compensation mitigation within
37 affected area (county), as included in HPMP Table HCA-4b. If not
38 duplicated through the federal Section 106 process, certificate holder
39 shall establish the scope and scale of Table HCA-4b mitigation, prior
40 to construction, subject to Department review and approval, in

1 consultation with SHPO, Department consultants, or other entities
2 with expertise with historic trails.¹

- 3 • Table HCA-9 Potential Minimization and Mitigation Methods for Indirect
4 Impacts;
- 5 • Table HCA-10 Potential Minimization and Mitigation Methods for Indirect
6 and Direct Impacts to Aboveground Resources;
- 7 • Applicable PSMMP(s).

8
9 4. How to Update Table HCA-5: Exhibit S Historic Properties of Religious and Cultural
10 Significance to Indian Tribes

11
12 a. In redline, update Table HCA-5 based on outcome of Section 106 consultation.

13
14 Notes: Table HCA-5 only represents the HPRCSITs described in ASC Exhibit S and that are
15 available for public disclosure in the Final Order on ASC and associated application materials.²
16 Council relied on the April 19, 2019 CTUIR letter, indicating that its concerns were addressed
17 and will be mitigated by Idaho Power pursuant to a confidential mitigation agreement between
18 the CTUIR and Idaho Power; and that the EFSC standard has been met specific to HPRCSITs and
19 tribal resources that may otherwise be evaluated as part of the ASC under OAR 345-022-
20 0090(1)(a).

21
22 5. How to Update Table HCA-6: Potentially Impacted Resources under OAR 345-022-
23 0090(1)(a)

24
25 a. In redline, update Table HCA-6 from:

- 26 • Eligibility determinations from Section 106.
- 27 • Mitigation outcome from Section 106. Applicable mitigation measures
28 provided in:
 - 29 ○ Table HCA-8: Potential Minimization and Mitigation of Direct Impacts
30 to Resource Site Types Identified within the Direct Analysis Area;
 - 31 ○ Table HCA-9 Potential Minimization and Mitigation Methods for
32 Indirect Impacts;
 - 33 ○ Table HCA-10 Potential Minimization and Mitigation Methods for
34 Indirect and Direct Impacts to Aboveground Resources;
 - 35 ○ Applicable PSMMP(s).

36 Notes: Table HCA-6 includes resources that are or may be protected under OAR 345-022-
37 0090(1)(a) and/or OAR 345-022-0090(1)(b). If a resource is determined to be eligible or likely

¹ B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Page 504 of 10586.

² B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27, Page 508-510 of 10586.

1 eligible for listing on the NRHP, it will be reflected in both Table HCA-6 and Table HCA-7-1.
2 However, as provided below, the impact assessment and mitigation for the resource in Table
3 HCA-6 (OAR 345-022-0090(1)(a)) is sufficient for the same resource in Table HCA-7-1 (OAR 345-
4 022-0090(1)(b)), if protected under the standard.

5
6 b. If a resource is not eligible for listing on the NRHP (protected under OAR 345-022-
7 0090(1)(a)), it may qualify as an archaeological object or archaeological site as defined in
8 statute and covered under OAR 345-022-0090(1)(b) of the EFSC standard, and must be
9 evaluated in Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b),
10 described below.

11
12 6. How to Update Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

13
14 a. In redline, and consistent with the revisions made to Table HCA-6, update Table HCA-7-1
15 with resources that were determined to be *not eligible* from the Section 106 review.

16 i. Provide evaluation if resource should be protected under OAR 345-022-
17 0090(1)(b); is the resource considered an archaeological object as defined in ORS
18 358.905(1)(a)544, or an archaeological site, as defined in 358.905(1)(c).

19 ii. Provide an impact assessment and mitigation for impacts to resources
20 recommended as protected under OAR 345-022-0090(1)(b). Applicable
21 mitigation measures provided in:

- 22 • Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to
23 Resource Site Types Identified within the Direct Analysis Area;
- 24 • Table HCA-10 Potential Minimization and Mitigation Methods for Indirect
25 and Direct Impacts to Aboveground Resources;
 - 26 ○ Applicable PSMMP(s).

27
28 7. How to Update Table HCA-7-2: Inventoried Resources under OAR 345-022-0090(1)(c)

29
30 b. In redline, and consistent with the revisions made to Table HCA-6, update Table HCA-7-2
31 with resources that were determined to be *not eligible* from the Section 106 review.

32 i. Provide evaluation if resource should be protected under OAR 345-022-
33 0090(1)(c); is the resource located on state lands, considered an an
34 archaeological site, as defined in 358.905(1)(c).

35 ii. Provide an impact assessment and mitigation for impacts to resources
36 recommended as protected under OAR 345-022-0090(1)(c). Applicable
37 mitigation measures provided in:

- 38 • Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to
39 Resource Site Types Identified within the Direct Analysis Area;

40
41 **Potential Impacts to Historic, Cultural, and Archaeological Resources Under OAR 345-**
42 **022-0090(1)(a)**

1 ~~The resources discussed in the below section apply to protections under OAR 345-022-~~
2 ~~0090(1)(a). The Department Council points to the language of the EFSC standard, specifically,~~
3 ~~“...resources that have been listed on, or would likely be listed on...” the common term used by~~
4 ~~SHPO and throughout the profession, is eligible or likely eligible for listing on the NRHP.~~
5 ~~Therefore, the terms eligible or likely eligible meet the meaning of likely to be listed on the~~
6 ~~NRHP in the EFSC standard. Resources inventoried in the analysis area that would not~~
7 ~~experience a direct or indirect impact, are not evaluated. The applicant included~~
8 ~~recommendations of eligibility and supporting documentation in ASC Exhibit S, Errata, and~~
9 ~~materials submitted to SHPO and the Department for all identified resources.~~
10 ~~Applicant Certificate holder recommendations, in general, include recommendations of eligible~~
11 ~~for listing on the NRHP, and not eligible for listing, and unevaluated (presumed or treated as~~
12 ~~likely eligible for listing). For purposes of the Council’s review and approval, Council The~~
13 ~~Department, in consultation with SHPO and the applicant, determined that recommendations~~
14 ~~of “not eligible” will be treated as “unevaluated.” for purposes of the Council’s review. A~~
15 ~~resource designation of “unevaluated” means that it is treated as likely eligible for listing on the~~
16 ~~NRHP and the impact analysis and mitigation (if any) is evaluated based on that designation.~~
17 ~~Updated resource eligibility determinations and mitigation will be submitted to the Department~~
18 ~~pending the Section 106 review, subject to Historic, Cultural, and Archaeological Resources~~
19 ~~Condition 2, updating this Appendix A.1 as part of finalization of the HPMP; as designated in~~
20 ~~Section I of Appendix A.1.~~

21

22 Oregon Trail and National Historic Trails

23

24 ~~Historic trails within the analysis area, as listed in ORS 358.057, include the Oregon National~~
25 ~~Historic Trail (NHT), Lewis and Clark NHT, Meek Cutoff, Nathaniel Wyeth Route, and Upper~~
26 ~~Columbia Route. Congress declared the 2,170-mile long Oregon Trail a National Historic Trail in~~
27 ~~1978. The facility analysis area would cross the Oregon NHT 17 times along the route.³ Separate~~
28 ~~from the NHT, the site boundary crosses 12 segments of the Oregon Trail. Of these total Oregon~~
29 ~~Trail resources, 9 NRHP-eligible segments would be crossed by the facility and, for some~~
30 ~~segments, would be impacted by other views of the facility within the geographic area visible~~
31 ~~from the resource (viewshed) (see Table HCA-3 below)~~

32

33 ~~Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts, includes~~
34 ~~information from ASC Exhibit S; Table S-2, SHPO comment letters, and ASC Errata information,~~
35 ~~Request for Amendment 1 (RFA1), and Request for Amendment 2 (RFA2). Table HCA-2~~
36 ~~identifies 29 trail resources within the analysis area (includes site boundary/direct and visual~~
37 ~~impact areas). Table HCA-2 specifies the trail segment, general resource description, existing~~
38 ~~and proposed NRHP recommendations, and descriptions of the closest project component that~~
39 ~~was evaluated for impacts. The far-right column in Table HCA-2 provides additional descriptions~~
40 ~~and specifics about how the applicant certificate holder would avoid and minimize direct and~~

³ ~~B2HAPPDoc3-36 ASC 19_ Exhibit S_Cultural_ASC_Public 2018-09-28. Section 3.4.1.1.~~

1 indirect impacts to each segment. Resources identified in Table HCA-2 are assumed to be likely
2 eligible therefore are protected under the EFSC standard OAR 345-022-0090(1)(a)), however
3 impacts to these resources are not expected or are avoided entirely, consequently there are
4 not any impacts to protected resources for Council to evaluate for avoidance, minimization or
5 mitigation.

6
7 The final resource eligibility determinations and any mitigation for impacts will be verified or
8 established in the Section 106 compliance review and this information will be provided by
9 updating this Appendix A.1 as part of in the final HPMP; as designated in Section 1 of Appendix
10 A.1 and will be, submitted to the Department prior to construction of a phase or segment of the
11 facility.

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Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
35MW00224 (Well Spring, Oregon Trail Site)	N/A	Morrow	Archaeological Site - Homestead & Trail	Listed (Criterion A - Draft MPDF)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	Yes	No further management
35MW00227	N/A	Morrow	Archaeological Site - Road	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area Approved ASC Route: Structure work area; Pulling & tension site; Existing road needing 21-70% modification West of Bombing Range Road	DOD	Yes	Avoid. Subsurface probing needed. If the Section 106 determination is eligible, applicant will avoid Site # 35MW227 as follows: Approved ASC Route: For the structure work area and pulling & tension site, applicant will relocate or reduce the size of those areas to avoid Site # 35MW227; for the existing road, all improvements will be made within the existing road prism thereby avoiding any new impacts; applicant will flag any portion of the boundary of Site # 35MW227 that occurs within 100 feet of construction activity. West of Bombing Range Road Alternatives 1 & 2: No avoidance measures are necessary as there

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
						Alternatives 1 & 2: No impacts			are no direct impacts proposed for these alternatives.
35MW00230 (Emigrant Cemetery)	B2H-MO-004	Morrow	Archaeological Site - Cemetery	Listed (Criterion A - nomination and Draft MPDF)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	Yes	No further management
Oregon Trail - Unnamed Segment (Lindsey Feedlot Lane)	B2H-MO-008	Morrow	Historic Site/ Aboveground - Trail	Not Eligible	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	Yes	No further management
TBD	Segment 3B2H-SA-03	Morrow	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of	Visual Assessment analysis area	PV	Yes	Avoid. Archival research and documentation; Testing needed.

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
					Bombing Range Road Alternative 2				
TBD	Segment 3B2H-SA-04	Morrow	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	Yes	Avoid. Archival research and documentation; Testing needed.
Oregon Trail - Unnamed Segment (Sand Hollow)	Segment 3B2H-SA-05	Morrow	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	Yes	No further management
Oregon Trail - Well Spring Segment	B2H-MO-007 (4B2H-VIZ EK-01)	Morrow	Archaeological Site - Trail	Listed (Criterion A) (Boundary Increase - Draft MPDF)	Approved ASC Route, West of Bombing Range Road Alternative 1,	Visual Assessment analysis area	DOD	Yes	No further management

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
					West of Bombing Range Road Alternative 2				
Oregon Trail – Well Spring Segment	3B2H-CH-01	Morrow	Archaeological Site - Trail	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	Yes	No further management
TBD	Segment 4B2H-EK-02	Morrow	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Direct Analysis Area; Visual Assessment analysis area Approved ASC Route: Within 250 feet of structure work area West of Bombing Range Road Alternatives 1 & 2: No impacts	DOD	Yes	Avoid. Archival research and documentation; Testing needed. IPC will avoid Site # 4B2H-EK-02 as follows: Approved ASC Route: IPC will locate the structure work area to avoid Site # 4B2H-EK-02; IPC will flag any portion of the boundary of Site # 4B2H-EK-02 that occurs within 100 feet of construction activity. West of Bombing Range Road Alternatives 1 & 2: No avoidance measures are necessary as there are no

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
									direct impacts proposed for these alternatives
TBD	Segment 4B2H-EK-03	Morrow	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Visual Assessment analysis area	PV	Yes	Avoid. Archival research and documentation; Testing needed.
TBD	Segment 5B2H-SA-01	Morrow	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Direct Analysis Area; Visual Assessment analysis area Approved ASC Route: Structure work area West of Bombing Range Road Alternatives 1 & 2: No impacts	DOD	Yes	Avoid. Archival research and documentation; Testing needed. IPC will avoid Site # 5B2H-SA-01 as follows: Approved ASC Route: IPC will relocate or reduce the size of the structure work area to avoid Site # 5B2H-SA-01; IPC will flag any portion of the boundary of Site # 5B2H-SA-01 that occurs within 100 feet of construction activity. West of Bombing Range Road Alternatives 1 & 2: No avoidance measures are necessary as there are no

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
									direct impacts proposed for these alternatives
35UM00365 (Meacham Pioneer Memorial Cemetery Site)	N/A	Umatilla	Archaeological Site - Cemetery	Not Eligible	Approved ASC Route	Visual Assessment analysis area	ODOT	Yes	No further management
35UM00472	N/A	Umatilla	Archaeological Site - Burial	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	Yes	No further management
35UN00435 (Oregon Trail/Ladd Canyon)	N/A	Union	Archaeological Site - Trail	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	Yes	No further management (not in viewshed)
35UN00517 (Oregon Trail)	N/A	Union	Archaeological Site - Trail	Eligible, Contributing	Approved ASC Route	Visual Assessment analysis area	PV, USFS	Yes	No further management
35UN0074	N/A	Union	Archaeological Site - Lithic Scatter, Homestead, Grave, Campground, & Trail	Not in accessible survey area. Previous recommendation: Eligible.	Approved ASC Route, Morgan Lake Alternative	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area Multi Use Area UN- 02	PV, ODOT	Yes	Avoid. Survey location when access granted. IPC will either: Relocate MUA UN-02 out of Site # 35UN74 entirely; Or Survey the relevant portions of Site # 35UN74 to verify the boundaries of the trail, campground, lithic scatter, homestead, and grave features;

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
						Existing road needing 21-70% modification			relocate or reduce the size of MUA UN-02 to avoid the verified boundaries of those features; and, if avoidance is not possible, provide compensatory mitigation as described in the HPMP; graves will be treated as specified in the HPMP; IPC will flag any portion of the boundary of Site # 35UN74 that occurs within 100 feet of construction activity.
Oregon Trail - Whiskey Creek Segment (O-BK-UN-1)	B2H-UN-005	Union	Archaeological Site - Trail	Eligible	Approved ASC Route, Morgan Lake Alternative	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area Approved ASC Route: Existing road needing 21-70% modification; New road, bladed Morgan Lake Alternative: No impact	BLM, PV	Yes	No further management. If the Section 106 determination is eligible, applicant will avoid Site # B2H-UN-005 as follows: Approved ASC Route: For the new road, applicant will relocate or reduce the size of the new road to avoid Site # B2HUN-005; for the existing road, all improvements will be made within the existing road prism thereby avoiding any new impacts; applicant will flag any portion of the boundary of Site # B2H-UN-005 that occurs within 100 feet of construction activity. Morgan Lake Alternative: No avoidance measures are necessary as there

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
									are no direct impacts proposed for this alternative.
TBD (Oregon Trail, California Gulch/Blue Mountain Segment)	B2H-UN-001	Union	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV, USFS	Yes	No further management
35BA01366 (Oregon Trail)	Segment 3B2H-CH-06	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	PV	Yes	No further management
Oregon Trail ACEC - Swayze Creek Segment	B2H-BA-291	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV	Yes	No further management
Signature Rock	B2H-BA-286	Baker	Historic Site/ Aboveground - Historic Rock Markings	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	Yes	No further management.
TBD (Oregon Trail, Powell Creek Segment)	B2H-BA-337	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV	Yes	No further management

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
TBD (Oregon Trail, White Swan)	B2H-BA-281	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV	Yes	No further management (not in viewshed)
35ML00747 (Oregon Trail, Tub Mountain Segment)	B2H-MA-010	Malheur	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV, STL	Yes	No further management (not in viewshed)
0503040048 SI	Segment 0503040048 S I	Malheur	Archaeological Site - Trail Segment	Not Eligible / Not contributing	Approved ASC Route	Visual Assessment analysis area	BLM	Yes	No further management
Meek Cutoff / Meek Study Route Hambleton Line	B2H-MA-003	Malheur	Archaeological Site - Trail	Likely Eligible/ Unevaluated (segment)	Approved ASC Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BR, FWS, PV, STL, STL, STP, USDA, USFS	Yes	No further management
The Dalles Military Road	B2H-MA-007	Malheur	Archaeological Site - Road	Unevaluated No historic or archaeological evidence identified during survey. Identified through historic map review.	Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	Yes	No further management

Table HCA-2: Oregon Trail/NHT Inventory in Analysis Area with Avoided/No Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)/ <u>Mitigation detailed in Applicable PSMMP</u>
The Dalles Military Road	B2H-MA-007	Malheur	Archaeological Site - Road	Unevaluated No historic or archaeological evidence identified during survey. Identified through historic map review.	Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	Yes	No further management

1 *Oregon Trail Resources: Potential Indirect Impacts*

2
3 Table HCA-3: *Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts*, below
4 lists the inventoried NRHP or ~~or~~ likely-NRHP eligible trails resources that, based on the
5 ~~applicants'~~ VAHP ILS, that could experience adverse indirect impacts from facility visibility for
6 Oregon Trail/NHT trail segments that are NRHP-listed or eligible. Table HCA-3 also includes
7 ~~applicant~~ representations to avoid direct impacts to Oregon Trail resources. These measures
8 include reducing or relocating facility components and/or activities, avoiding construction
9 activities within 100 feet of the identified resource characteristics, flagging resource
10 boundaries, and staying within existing areas of disturbance. Table HCA-3, *Oregon Trail/NHT*
11 *Inventory in Analysis Area with Potential Indirect Impacts*, also represents the Oregon Trail as
12 one linear resource and also provides a discussion of the individual trail segments.

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14 Table HCA-3 includes resource identification numbers, general resource description, facility
15 location and components associated with the impact, and the expected visual impact from the
16 facility. The far-right column includes a compilation of mitigation information. ~~The mitigation~~
17 ~~proposals are discussed further in the below section detailing the recommended site certificate~~
18 ~~condition for the submission, review and approval of the final Historic Properties Management~~
19 ~~Plan (HPMP).~~

20
21 The final resource eligibility determinations and appropriate mitigation measures for the
22 Oregon Trail as a linear resource will be verified or established in the Section 106 compliance
23 review and this information will be provided by updating this Appendix A.1 as part of in the
24 final HPMP; as designated in Section 1 of Appendix A.1. Also submitted to the Department for
25 its review and approval, in consultation with its consultant and SHPO, ~~via the HPMP will be~~
26 ~~mitigation measures for eligible segments of the Oregon Trail, if not already addressed in~~
27 ~~Section 106, as discussed further below.~~

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41 **Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with**
42 **Potential Indirect Impacts**

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
<i>Linear Resource</i>									
Oregon Trail/ Oregon NHT	N/A	Morrow, Umatilla, Union, Baker, Malheur	Archaeological Site - Trail	Listed (Criterion A)	Approved ASC Route, Morgan Lake Alternative, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2; RFA1 Access Road Changes in Umatilla, Union, and Baker Counties; RFA2 ASC Approved Route in Baker County	Avoidance measures for Direct Analysis Area (Construction Footprint); Visual Assessment analysis area; RFA1 New Road, Primitive; RFA2 -Multi-Use Area; Existing Road, Substantial Modification, 21-70% Improvements	BLM, BOR, DOD, FWS, ODOT, PV, STL, STL, STP, USDA, USFS; PV	No - Potential visual impact. Avoidance measures to prevent direct impacts; RFA1 No significant physical and visual/auditory impact. No intact NHT segments at road change locations; RFA2 No - potential physical impact	Note - Oregon Trail presented in this row as one linear resource, see other rows in table for evaluation of individual segments. Avoid Direct Impacts. Archival research and documentation; Testing needed.-Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment--- <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification RFA1 If avoidance not possible, testing/segment eligibility evaluation/consultation needed. No evidence of trail at access road, MUA BA-05, or MUA MA-11. MUA-BA-05 is located on the old Lime Cement Plant, which was demolished 10-years

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
									<p><u>ago. This area has been surveyed for cultural resources. There is no evidence of the Oregon Trail at this location.</u></p> <p><u>The cement plant demolition was less than 75 years ago, OSHPO doesn't consider it archaeological yet. The historic buildings and structures that were previously recorded are gone. MUA-MA-11 was surveyed for cultural resources in 2023. No resources were identified.</u></p>
<i>By Segment</i>									
Sand Hollow Battleground	SL-MO-001, SL-MO-005	Morrow	HPRCSIT/TCP/Trail	Eligible (Criteria A and B)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Approved ASC Route; RFA1 Access Road Changes in Morrow and Umatilla Counties; <u>RFA2 Bombing</u>	Avoidance measures for Direct Analysis Area (Construction Footprint); Visual Assessment analysis area; RFA1 New Road, Bladed, Primitive; <u>RFA2-Structure Work Area; Existing</u>	BLM, DOD, PV	No - Potential visual impact; RFA1 No – potential significant physical and visual/auditory impacts <u>RFA2 - No – potential physical impact</u>	Note-Sand Hollow Battleground is considered both a TCP/HPRCSIT and an Oregon Trail-related resource. See also discussion in Tribal Resources Section. Public Archaeology Funding, Public Interpretation Funding, Consultation.-- Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment---• Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
					<u>Range SE; Bombing Range SE Alternative; Proposed Route</u>	<u>Road, Substantial Modification, 21-70% Improvements; New Road, Bladed</u>			<p>exist</p> <ul style="list-style-type: none"> • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification <p>RFA1 If avoidance not possible, testing (metal detecting)/ continued consultation needed.</p> <p><u>RFA2 To be determined in consultation with Parties to the Section 106 PA.</u></p>
TBD	Segment 6B2H-RP-09	Union	Archaeological Site - Cairn(s) & Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	<p>Avoidance measures for Direct Analysis Area (Construction Footprint); Visual Assessment analysis area</p> <p>Approved ASC Route: Structure work area; Within 250 feet of existing road needing 21-70% improvement</p>	PV	No - Potential visual impact	<p>Avoid Direct Impacts.</p> <p>Approved ASC Route: For the structure work area and pulling & tension site, IPC will relocate or reduce the size of those areas to avoid Site # 6B2H-RP-09; for the existing road, IPC will flag any portion of the boundary of Site # 6B2H-RP-09 that occurs within 100 feet of construction activity.</p> <p>Morgan Lake Alternative: No avoidance measures are necessary as there are no direct impacts proposed for this alternative.</p> <p>Archival research and documentation; Testing needed.---Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment---• Recording—including</p>

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
						Morgan Lake Alternative: No impact			<p>HABS/HAER/HALS</p> <ul style="list-style-type: none"> • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification
Goodale's/ Sparta Trail	B2H-BA-327	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV	No - Potential visual impact	<p>Design Modification, Public Interpretation Funding, and/or Print/Media Publication---</p> <p>Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment---</p> <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
TBD	Segment 3B2H-CH-05	Baker	Archaeological Site - Trail Segment & Utility Line	Trail Segment: Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C); Utility Line: Not Eligible	Approved ASC Route	Avoidance measures for Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	No-Potential visual impact	<p>S-6: Trail Segment: Avoid Direct Impacts. IPC will either: Relocate the road out of Site # 3B2H-CH-05 entirely; Or, Relocate the new road to avoid Site # 3B2H-CH-05 where possible; and, if avoidance is not possible, provide compensatory mitigation as described in the HPMP; IPC will flag any portion of the boundary of Site # 3B2H-CH-05 that occurs within 100 feet of construction activity.</p> <p>Archival research, documentation, and testing needed; Utility Poles: No Further Management; S- 10: Design Modification, Public Interpretation Funding, and/or Print/Media Publication---Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment---</p> <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
TBD (Oregon Trail, Straw Ranch 1 & 2 Segments)	B2H-BA-285	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area BLM Straw Ranch ACEC within 125 feet of New Road, Primitive	BLM, PV	No - Potential visual impact	Design Modification, Public Interpretation Funding, and/or Print/Media Publication. IPC will locate the new road to avoid the ACEC boundaries; IPC will flag any portion of the boundary of Site # B2H-BA-285 that occurs within 100 feet of construction activity.--- <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
TBD (Oregon Trail, Virtue Flat, Flat Segment and Flagstaff Hill))	B2H-BA-282	Baker	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Avoidance measures for Direct Analysis Area (Construction Footprint); Visual Assessment analysis area Structure work area; Existing road needing 71-100% modification	BLM, PV	No - Potential visual impact	Design Modification, Public Interpretation Funding, and/or Print/Media Publication. For the structure work area and pulling & tension site, IPC will relocate or reduce the size of those areas to avoid Site # B2H-BA-282; for the existing road, all improvements will be made within the existing road prism thereby avoiding any new impacts; IPC will flag any portion of the boundary of Site # B2H-BA-282 that occurs within 100 feet of construction activity---Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment--- • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification
Oregon Trail ACEC - Alkali Springs Segment	B2H-MA-041	Malheur	Historic Site/ Aboveground - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM	No - Potential visual impact	Design Modification, Public Interpretation Funding, and/or Print/Media Publication The commemorative sign at the site has

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
									provided sufficient interpretation of the area and the trail within it. Therefore, the recorded segment is recommended as a non-contributing element of the Oregon NHT and is not eligible under NRHP Criteria A, B, C, or D, and no further management consideration of the resource is recommended.
TBD	Segment 4B2H-EK-41	Malheur	Archaeological Site - Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Avoidance measures for Direct Analysis Area; Visual Assessment analysis area BLM Within 125 feet of New Road, Primitive and structure work area	PV	No - Potential visual impact	Avoid Direct Impacts. IPC will locate the new road and structure work area to avoid Site # 4B2H-EK-41; IPC will flag any portion of the boundary of Site # 4B2H-EK-41 that occurs within 100 feet of construction activity. Archival research and documentation; Testing needed.---Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment--- <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification

Table HCA-3: NRHP-Eligible Oregon Trail/NHT Inventory in Analysis Area with Potential Indirect Impacts

Assigned Trinomial or Other ID	Pedestrian Survey or Visual Assessment Temporary Resource #	County	Resource Type and Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land Ownership	Avoided Impact	Attachment S-9 Avoidance Measure or/and Management Recommendations (HPMP)
TBD (Oregon Trail, Birch Creek Segment)	B2H-MA-042	Malheur	Archaeological Site - Trail	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	BLM, PV	No - Potential visual impact	Design Modification, Public Interpretation Funding, and/or Print/Media Publication--- Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.), rehabilitation of off-site trail segment--- <ul style="list-style-type: none"> • Recording—including HABS/HAER/HALS • Additional literature or archival review (e.g. historic maps, local papers) • Remote sensing • Purchase of conservation easement or other land protection where trail traces exist • Historic trails restoration within and outside Project area • Public signage, publication/print/media, and/or interpretive plans • Design Modification

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2 *Evaluation of Mitigation for Indirect Impacts per NRHP-Eligible Oregon Trail/NHT*
3 *Segment*

4 As presented in Table HCA-3: *NRHP Eligible Oregon Trail/NHT Inventory in Analysis Area with*
5 *Potential Indirect Impacts*, Oregon Trail/NHT segment locations where the facility would cross,
6 or be substantially visible from, would result in adverse visual impacts to the resource and rely
7 on the definition of mitigation (OAR 345-010-0010(~~2233~~)).

8 Based on the extent of potential adverse visual impacts to the NRHP-eligible Oregon Trail/NHT
9 resources and within the 5-mile resource viewshed of the resource identified in Table HCA-3, at
10 least one minimization measure (design modification) and one measure resulting in restoration;
11 preservation and maintenance; or compensation (OAR 345-001-0010(~~2233~~)(b) and; (c), (d) or
12 (e)) directly benefiting the affected area – which the ~~Department recommends~~Council finds to
13 be defined as the county within which the impacted resource is located. To impose this
14 requirement, the ~~Department recommends~~ Council requires that Attachment S-9 the HPMP
15 include Table HCA-4b as presented below.

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17 **Table HCA-4b: ~~Department Recommended~~Council-Approved Mitigation for NRHP-**
18 ***Eligible Oregon Trail/NHT Segments***

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Table HCA-4b: ~~Department Recommended~~Council-Approved Mitigation
for NRHP-Eligible Oregon Trail/NHT Segments

Mitigation
The HPMP, <u>including but not limited to PSMMPs</u> , shall establish the following mitigation for each impacted NHRP-Eligible Oregon Trail/NHT Segment:
At least one of the following (OAR 345-001-0010(2233)(b)):
Design modification
And, at least one of the following (OAR 345-001-0010(2233)(c)-(e)), with a demonstrated direct benefit to affected area (county of resource site), in order of priority:
Purchase of conservation easement or other land protection where trail traces exist
Historic trails restoration within and outside the facility area
Land acquisition
Public signage, publication/print/media, and/or interpretive plans
Trail segment management plans
Additional literature or archival review (e.g. historic maps, local papers);
Remote sensing
National Register nomination
Recording—including HABS/HAER/HALS
Funding for public interpretation, archeological resource, or other program benefiting Oregon Trail resources
Acronyms: HABS – Historic American Building Survey; HAER – Historic American Engineering Record; HALS –Historic American Landscape Survey
Notes:

Table HCA-4b: ~~Department Recommended~~Council-Approved Mitigation for NRHP-Eligible Oregon Trail/NHT Segments

Mitigation	
1.	Required mitigation established through the federal Section 106 compliance review may be used to satisfy the EFSC mitigation requirement for listed or likely NRHP-eligible Oregon Trail/NHT trail segments if <u>applicant-certificate holder</u> can demonstrate that it addresses both the design modifications and the restoration; preservation and maintenance; or compensation mitigation within affected area (county), as included in this table [Table HCA-4b of <u>Appendix A.1 of the HPMP</u>]. If not duplicated through the federal Section 106 process, the <u>applicant certificate holder</u> shall establish the scope and scale of Table HCA-4b mitigation, prior to construction, subject to Department review and approval, as part of the EFSC-specific -HPMP, as outlined in recommended -Historic, Cultural and Archeological Resources Condition 2. <u>Source B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27. Page 503 of 10586.</u>

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~~Applicability of Visual Impact Mitigation for Protected Resources with Shared Viewsheds~~

~~Many NRHP-eligible Oregon Trail/NHT segments identified in Table HCA-3 are also protected under, or located within resources protected under, the Council's Protected Areas, Recreation, Scenic and Land Use standards. To minimize unnecessary duplication in mitigation and appropriately apply mitigation for the same or similar visual impact, mitigation proposed by the applicant, if not already represented by the applicant, be further modified (Table HCA 4b); would also reduce facility visual impacts to protected resources within the 5-mile viewshed of NRHP-Eligible Oregon Trail/NHT segments listed in Table HCA-3.~~

~~The certificate holder is also required to employ design modifications—and, within the same affected area, restore; preserve or maintain; or compensate for the visual impact using an entity or project that would directly benefit the same county, based on the mitigation presented in Table HCA-4b above, which is the same mitigation items discussed in HPMP Section VII. The Department notes that if the mitigation resulting from the Section 106 compliance review meets the requirements included in Table HCA 4b, in each affected county, then that would satisfy this requirement and may be updated in the HPMP.~~

~~Evaluation of Mitigation for Indirect Impacts per NRHP-Eligible Oregon Trail/NHT as a Linear Resource (Cumulative Impacts)~~

~~Final resource eligibility determinations will be verified or established in the Section 106 compliance review and this information would be provided in the final HPMP, submitted to the Department for its review and approval, in consultation with its consultant and SHPO. The Department Council notes that its the Department review and approval would include resources evaluated under OAR 345-022-0090(1)(a) and (b), discussed later in this section; appropriate mitigation measures for those resources. The information contained in Table HCA-3, includes how the sensitive Oregon Trail resources would be avoided, reduced, and/or mitigated consistent with the requirements of Section 6.2.2 of the HPMP and includes the site-specific measures contained in Table 6-3 from the HPMP and the framework outlined in Table 6-4 of the HPMP. This compiled information has been included in the HPMP.~~

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Tribal Resources

Under OAR 345-001-0010(52) any tribe identified by the Legislative Commission on Indian Services (LCIS) that may be affected by the facility is identified as a reviewing agency in the EFSC review process. The following Tribes were identified by LCIS as being potentially affected by the facility:

- Confederated Tribes of the Umatilla Indian Reservation
- Confederated Tribes of the Warm Springs Indian Reservation of Oregon
- Burns Paiute Tribe

Table HCA-5 below provides information from ASC Exhibit S that the applicant provided on for three historic properties of religious and cultural significance to Indian tribes (HPRCSITs). ~~Table HCA-5; and~~ only represents the HPRCSITs described by the applicant in ASC Exhibit S and that are available for public disclosure in this order and associated application materials.

Table HCA-5: Exhibit S Historic Properties of Religious and Cultural Significance to Indian Tribes

Table HCA-5: Exhibit S Historic Properties of Religious and Cultural Significance to Indian Tribes

Assigned Trinomial or Other ID	Visual Assessment Temporary Resource #	County	Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Impact Avoided?/ Project Effect	Management Recommendation
Nisxt	SL-MO-003	Morrow	TCP/HPRCSIT	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	No - Potential visual impact	Consultation with Confederated Tribes of the Yakama Nation
Sisupa	SL-MO-004	Morrow	TCP/HPRCSIT	Eligible (Criteria A and D)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2; RFA1 Access Road Changes in Morrow County; RFA2 Bombing Range SE, Bombing Range SE Alternative	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area; RFA1 New Road, Bladed, Primitive; RFA2 Structure Work Area; Existing Road, Substantial Modification, 21-70% Improvements; New Road, Bladed	DOD, PV	No - Potential visual impact; RFA1 No – potential significant physical and visual/auditory impacts; RFA2 -No = potential physical impact	Public Archaeology Funding, Consultation. RFA1 If avoidance not possible, continued consultation needed. RFA2 To be determined in consultation with Parties to the Section 106 PA.

Table HCA-5: Exhibit S Historic Properties of Religious and Cultural Significance to Indian Tribes

Assigned Trinomial or Other ID	Visual Assessment Temporary Resource #	County	Generalized Resource Description	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Impact Avoided?/ Project Effect	Management Recommendation
Sand Hollow Battleground	SL-MO-001, SL-MO-005	Morrow	TCP/HPRCSIT	Eligible (Criteria A and B)	Approved ASC Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2; <u>Bombing Range SE; Bombing Range SE Alternative; Proposed Route</u>	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area; <u>RFA2 Structure Work Area; Existing Road, Substantial Modification, 21-70% Improvements; New Road, Bladed</u>	BLM, DOD, PV	No - Potential visual impact <u>RFA2 - No = potential physical impact</u>	Public Archaeology Funding, Public Interpretation Funding, Consultation. <u>To be determined in consultation with Parties to the Section 106 PA.</u>

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Other Resources Potentially Impacted under OAR 345-022-0090(1)(a)

Table HCA-6, *Potentially Impacted Resources under OAR 345-022-0090(1)(a)*, below represents all the resources inventoried in the site boundary/direct analysis area, and within the visual impact area/Area of Potential Effect (APE) that may experience a direct or indirect impact. ~~Table HCA-6 is generated from the information provided in ASC Exhibit S, Table S-2, and the Exhibit S and HPMP Errata.~~ Table HCA-6 includes resources that may potentially be protected under OAR 345-022-0090(1)(a) and OAR 345-022-0090(1)(b) of the ESFC standard. If a resource is ~~not~~ not eligible or likely eligible for listing on the NRHP, it would be protected under OAR 345-022-0090(1)(a), if it is not eligible for listing on the NRHP, it may qualify as an archaeological object or archaeological site as defined in statute and ~~covered-protected~~ covered-protected under OAR 345-022-0090(1)(b). Table HCA-6 does not include resources that the ~~applicant proposes certificate holder recommends -would only~~ applicant proposes certificate holder recommends be potentially protected under sub (b) of the standard; ~~those resources are listed in Table HCA-7-1.~~ resources are listed in Table HCA-7-1. Table HCA-6 also excludes Oregon Trail/NHT and historic properties of religious and cultural significance to Indian tribes (HPRCSITs); ~~which are provided in Tables HCA-2 and HCA-3. The table provides the resource identification, generalized description, the project component that may create the impact, whether there is a potential direct or indirect impact, and some management notes represented for additional activities and avoidance measures.~~ which are provided in Tables HCA-2 and HCA-3. The table provides the resource identification, generalized description, the project component that may create the impact, whether there is a potential direct or indirect impact, and some management notes represented for additional activities and avoidance measures. To align the EFSC process with the federal Section 106 compliance review, many resources that ~~the applicant are~~ the applicant are recommended as “not eligible” have been changed and evaluated ~~in this order~~ in this order as “unevaluated/likely eligible”, therefore protected under OAR 345-022-0090(1)(a). The final resource eligibility designations, avoidance, and mitigation measures resulting from the Section 106 compliance review identified in Table HCA-6 shall be provided to the Department in the final HPMP, as designated in Section 1 of Appendix A.1.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
Segment 4B2H-EK-26/ OWR&N Roundhouse and OWR&N/OSL Joint Railyard	Baker	Railroad Segment & Structure/ Historic Archaeological Site	Unevaluated (Criterion D); Not Eligible (Criteria A, B, and C)	Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-SA-12	Baker	Homestead / Historic Archaeological Site	Unevaluated (Criteria A, B, and D); Not Eligible (Criterion C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-SA-16	Baker	Ranching / Historic Archaeological Site	Unevaluated (Criteria A, B, and D); Not Eligible (Criterion C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
0503050334SI	Baker	Cairn(s)/ Undetermined Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
14S44E14-2	Baker	Cairn(s), Lithic Scatter, & Rock Alignment(s)/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35BA00372	Baker	Rock Alignment(s)/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35BA00388	Baker	Rock Alignment(s)/ Undetermined Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35BA01423	Baker	Cairn(s) & Hunting Blind/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential cumulative visual impact
4B2H-EK-08	Baker	Mining / Historic Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/ indirect impact. Avoid direct impact until eligibility determined. Research Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
4B2H-EK-10	Baker	Lithic/Tool Scatter/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Research Needed.
4B2H-EK-32	Baker	Lithic/Tool Scatter, Ranching, Water Conveyance/Multicomponent Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-02	Baker	Cairn(s) / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-MC-05	Baker	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
N/A	Baker	Lithic/Tool Scatter / Pre- Contact Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
4B2H-EK-30	Baker	Water Conveyance / Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route; RFA1 Durbin Quarry (ODOT) Alternativ e	Direct Analysis Area (Constructio n Footprint); RFA1 New Road, Bladed	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined; RFA1 impact avoided, no further management
6B2H-RP-02	Baker	Mining / Historic Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
6B2H-SA-07	Baker	Homestead / Historic Archaeological Site	Eligible (Criterion C); Unevaluated (Criteria A, B, and D)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
B2H-DM-07	Baker	Homestead / Historic Archaeological Site	Eligible (Criterion A), Unevaluated (Criterion D); Not	Approved ASC Route	Direct Analysis Area (Constructio	PV	a) Historic Property; b) Archaeological	Potential direct/indirect impact. Avoid direct impact until

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment QR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
			Eligible (Criteria B and C)		n Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements		site on private land	eligibility determined. Testing Needed. RFA2 Physical impact not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
Benson Reservoir	Baker	Water Conveyance / Historic Site Aboveground	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Approved ASC Route	Direct Analysis Area; Visual Assessment analysis area	BLM, PV	a) Historic Property	Potential visual impact. Avoid Direct Impacts
7B2H-DM-ISO-22	Baker	Precontact: Isolated Find - Debitage	Unevaluated	Durbin Quarry (ODOT) Alternative	Direct Analysis Area, Route Centerline, New Road, Bladed	BLM	a) Potential Historic Property	Flag/Avoid. Impacts avoided with mitigation. Shovel probe to confirm isolated nature. IPC will flag any portion of boundary of IF 7B2H-DM-ISO-22 that occurs within 100 feet of construction activity.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
7B2H-BB-ISO-04	Baker	Precontact: Isolated Find - Debitage	Unevaluated	Durbin Quarry (ODOT) Alternativ e	Direct Analysis Area, Route Centerline, New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological object on private lands	Flag/Avoid. Impacts avoided with mitigation. Shovel probe to confirm isolated nature. IPC will flag any portion of boundary of IF 7B2H-BB-ISO-04 that occurs within 100 feet of construction activity.
8B2H-DM-23	Baker	Multi- component: Precontact: Lithic/Tool Scatter; Historic mine	Unevaluated	True Blue Gulch Alternativ e	Direct Analysis Area (Constructio n Footprint), Existing Road, Substantial Modification 71-100% improvement s, New Road, Bladed	BLM	a) Potential Historic Property	Potential significant physical impact for new road. No significant physical impact for existing road with mitigation. If avoidance not possible, testing/ eligibility evaluation needed for new road. Gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
8B2H-DM-24	Baker	Precontact: Lithic/Tool Scatter	Unevaluated	True Blue Gulch Alternativ e	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-25	Baker	Precontact: Lithic/Tool Scatter	Unevaluated	True Blue Gulch Alternativ e	Direct Analysis Area (Constructio n Footprint), Existing Road, Substantial Modification 71-100% improvement s	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-26	Baker	Precontact: Lithic scatter	Unevaluated	True Blue Gulch Alternativ e	Direct Analysis Area (Constructio n Footprint), Existing	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment <u>QR</u> Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					Road, Substantial Modification 71-100% improvements			through site to protect resource from physical impacts of existing road use.
8B2H-DM-27	Baker	Precontact: Lithic/Tool Scatter	Unevaluated	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-20	Baker	Precontact: Lithic/Tool Scatter	Unevaluated	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification , 71-100% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
35BA1585 (6B2H-SA-14)	Baker	Precontact: Lithic Scatter	Unevaluated	RFA1 Access Road Changes in Baker County	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
4B2H-EK-17	Baker	Historic Water Conveyance	Unevaluated	RFA1 Access Road Changes in Baker County	Direct Analysis Area, Existing Road, No Improvements Permitted	PV	a) Potential Historic Property	Impact avoided. No features of site in existing road. No improvements of existing road permitted within 30 meters of site.
NRCS2011-T11S-R42E-S23/01	Baker	Precontact: Isolated Find: Debitage	Unevaluated	RFA1 Access Road Changes in Baker County	Direct Analysis Area, New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological object on private lands	Impacts avoided with mitigation. Shovel probe to confirm isolated nature. IPC will flag any portion of boundary of IF NRCS2011-T11S-R42E-S23/01 that occurs within 100 feet of construction activity.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
4B2H-EK-07	Baker	Historic: Water Conveyance (Smith Ditch)	Unevaluated/ <u>Eligible</u>	RFA1 Access Road Changes in Baker County; <u>RFA2 Existing Road, Substantial Modification, 21-70% Improvements</u>	RFA1 Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property	Physical and visual/auditory impacts not significant. Use of existing canal access road will not physically alter ditch. No further management. <u>RFA2 physical impact not significant with mitigation. No further management</u>
35BA01571/ 4B2H-EK-28	Baker	Historic Water Conveyance	Not Eligible	Durbin Quarry (ODOT) Alternative	RFA1 New Road, Bladed	BLM, PV	a) Potential Historic Property; b) Archaeological site on private lands	Impact avoided. No further management
<u>Schuck Irrigation Ditch/ 35BA01370</u>	<u>Baker</u>	<u>Historic Water Conveyance</u>	<u>Eligible</u>	<u>Approved ASC Route</u>	<u>Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>BLM</u>	<u>a) Historic Property</u>	<u>Physical impact not significant with mitigation. No evidence of ditch at road crossings. Flag/avoid/monitor.</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
Corral Ditch/ 4B2H-EK-06	Baker	Historic Water Conveyance	Eligible	Hwy 203 Crossing	RFA2 Pulling and Tensioning	PV	a) Historic Property; b) Archaeological site on private lands	Potential physical impact. To be determined in consultation with Parties to the Section 106 PA.
35BA01613/ 6B2H-SA-11	Baker	Historic Structural Remains	Unevaluated	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint), RFA2 Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
8B2H-DM-18	Baker	Historic Agriculture	To be determined/unevaluated. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area; RFA2 Existing Road, Substantial Modification, 71-100% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA. RFA2 physical impact not significant with

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
								mitigation. Fill placement on existing road. Flag/avoid/monitor
N/A	Malheur	Rockshelter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential visual impact
35ML01549	Malheur	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35ML01550	Malheur	Rock Alignment(s)/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35ML01552	Malheur	Rock Alignment(s)/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35ML01553	Malheur	Cairn(s)/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
35ML01959	Malheur	Cairn(s) / Pre-Contact	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
		Archaeological Site						
35ML01960	Malheur	Cairn(s) / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Potential cumulative visual impact
B2H-EE-37	Malheur	Lithic/Tool Scatter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
B2H-EE-38	Malheur	Lithic/Tool Scatter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
B2H-SA-29	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint); <u>RFA2 Existing Road, Substantial</u>	BLM	a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed. <u>RFA2 physical impact not</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>Modification, 21-70% Improvements</u>			<u>significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.</u>
B2H-SA-42	Malheur	Quarry / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
B2H-SA-44	Malheur	Lithic/Tool Scatter / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
N/A	Malheur	Quarry, Refuse Scatter, & Water Conveyance /Multicomponent Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
3B2H-SA-27	Malheur	Lithic Scatter & Refuse Scatter /Multicomponent Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
4B2H-EK-48	Malheur	Quarry & Refuse Scatter / Multicomponent Archaeological Site/ Pre-Contact Lithic Procurement Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible; RFA2 Eligible	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery. RFA2 physical impact not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
4B2H-EK-50	Malheur	Lithic Scatter & Refuse Scatter /Multicomponent Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible; RFA2 Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery. RFA2 physical impact not

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>Modification</u> <u>,21-70%</u> <u>Improvements</u>			<u>significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.</u>
35ML1522	Malheur	Open Camp / Pre-Contact Archaeological Site	Unevaluated/Likely Eligible (from Table S-2: Not in accessible survey area.)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
VM-11-01	Malheur	Groundstone / Pre-Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not identified.)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
2B2H-SA ISO-14	Malheur	Refuse / Historic IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Double Mountain Alternativ e	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
3B2H-SA ISO-35	Malheur	Debitage / Pre- Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
6B2H-SA ISO-01	Malheur	Debitage / Pre- Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
B2H-EE-ISO- 23	Malheur	Debitage / Pre- Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
B2H-SA-ISO- 39	Malheur	Debitage / Pre- Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio	BLM	None - Archaeological object not eligible for	Potential direct/indirect impact. Avoid direct impact until

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					n Footprint)		NRHP. Federal land.	eligibility determined. Testing Needed (IF).
B2H-SA-ISO-52	Malheur	Debitage / Pre-Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
B2H-SA-ISO-54	Malheur	Debitage / Pre-Contact IF/ Archaeological Object	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed (IF).
35ML02152/ 6B2H-SA-01	Malheur	Mining / Historic Archaeological Site & Refuse Scatter	Unevaluated/Likely Eligible (from Table S-2:Not Eligible); RFA2 To be determined. Potentially eligible for purposes of RFA 2.	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area	BLM	None - Archaeological site not eligible for NRHP. Federal land; RFA2 a) Potential Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. RFA2 potential physical impact. To be determined in consultation with Parties to the Section 106 PA.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-SA-02	Malheur	Refuse Scatter / Historic Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
B2H-SA-31	Malheur	Refuse Scatter / Historic Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
Kingman Lateral	Malheur	Water Conveyance /Historic Site/Abovegroun d	No historic or archaeological evidence identified during survey. Identified through historic map review.	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM, BLM, BLM, BR, BR, BR, BR, PV	None - Identified through historic map review. No physical evidence.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
Ontario to Burns Freight Road	Malheur	Road / Historic Archaeological Site	No historic or archaeological evidence identified during survey. Identified through historic map review.	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM, PV	None - Identified through historic map review. No physical evidence.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
3B2H-SA-26	Malheur	Lithic/Tool Scatter / Pre- Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment QR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
								determined. Data Recovery.
3B2H-SA-28	Malheur	Quarry / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
3B2H-SA-30	Malheur	Quarry / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
3B2H-SA-31	Malheur	Quarry / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
4B2H-EK-42	Malheur	Lithic/Tool Scatter / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction	BLM	a) Historic Property	Data Recovery. Potential direct/indirect impact. Avoid direct impact until

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					n Footprint)			eligibility determined.
4B2H-EK-49	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
4B2H-EK-51	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
4B2H-EK-52	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
4B2H-EK-53	Malheur	Lithic Scatter / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-SA-04	Malheur	Quarry / Pre-Contact Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.
35ML00552 (Ali-Alk Stacked Stone Rings)	Malheur	Stone rings / Pre-Contact Archaeological Site	Eligible	Approved ASC Route	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	Potential visual impact
N/A	Malheur/ Owyhee	Quarry / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
8B2H-AB-01.2	Malheur	Historic: South Canal Segment	Unevaluated (No status listed)	RFA1 Access Road Changes in Malheur County	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Potential Historic Property	No significant impact. No further management.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
8B2H-JS-05	Malheur	Historic: Canal	Unevaluated (No Status listed)	RFA1 Access Road Changes in Malheur County	Direct Analysis Area, Existing Road, Substantial Modification , 21-70% Improvements	PV	a) Potential Historic Property	No significant impact. No further management.
8B2H-DM-51	Malheur	Multicomponent: Lithic Scatter and Refuse Scatter	Unevaluated	RFA1 Access Road Changes in Malheur County	Direct Analysis Area (Constructio n Footprint), New Road, Bladed	BLM, PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential physical impact. If avoidance not possible, testing/ eligibility evaluation needed.
8B2H-ND-04	Malheur	Precontact: Lithic Scatter	Unevaluated	RFA1 Access Road Changes in Malheur County	Direct Analysis Area (Constructio n Footprint), New Road, Bladed	BLM	a) Potential Historic Property	Potential physical impact. If avoidance not possible, testing/ eligibility evaluation needed.
35ML1678 (B2H-BS-77)	Malheur	Precontact: Lithic/Tool Scatter	Eligible	RFA1 Access Road Changes in	Direct Analysis Area (Constructio n Footprint)	BLM	a) Potential Historic Property	Potential physical impact. If avoidance not possible, testing/eligibility evaluation needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
				Malheur County				
35ML2203 (B2H-SA-39)	Malheur	Historic: Water Conveyance	Eligible	RFA1 Access Road Changes in Malheur County	Direct Analysis Area, Existing Road, No Improvements Permitted	PV	a) Potential Historic Property; b) Archaeological site on private lands	Impact avoided. No improvements of existing road permitted within 30 meters of site.
35ML1674 (B2H-SA-33)	Malheur	Historic: Water Conveyance (Vines Ditch)	Eligible	RFA1 Access Road Changes in Malheur County	Existing Road, Substantial Modification , 71-100% Improvements	BLM, PV	a) Potential Historic Property; b) Archaeological site on private lands	physical impact not significant with mitigation. Visual/ auditory impacts not significant. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
4B2H-EK-47	Malheur	Historic: Water Conveyance (Vale Oregon Main Canal Segment)	Unevaluated	RFA1 Access Road Changes in Malheur County	New Road, Primitive	PV	a) Potential Historic Property	Impact avoided, no further management.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
35ML1675 (B2H-SA-32)	Malheur	Historic: Railroad	Eligible	RFA1 Access Road Changes in Malheur County	Existing Road, Substantial Modification , 21-70% Improvements	PV	a) Potential Historic Property; b) Archaeological site on private lands	physical impact not significant with mitigation. Visual/ auditory impacts not significant. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
7B2H-BB-04	Malheur	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
7B2H-BB-07	Malheur	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area, New Road, Bladed	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
7B2H-BB-ISO-03	Malheur	Pre-Contact Debitage	Unevaluated	Cottonwood Creek Alternative	Direct Analysis Area, New Road, Bladed	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
7B2H-BB-ISO-05	Malheur	Pre-Contact Biface	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area, Structure Work Area	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-17	Malheur	Historic Mining	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
8B2H-JS-ISO-11	Malheur	Pre-Contact Biface(s) & Debitage	To be determined. Potentially eligible for purposes of RFA2.	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-03	Malheur	Historic Survey Marker	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-04	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
9B2H-DM-05	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-DM-06	Malheur	Historic Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	BLM	a) Potential Historic Property	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
Kingman Lateral Canal/ 8B2H-AB-01.1	Malheur	Historic Water Conveyance	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Route	Direct Analysis Area, Existing Road, Substantial Modification, 21-70%	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>Improvements</u>			<u>Parties to the Section 106 PA.</u>
<u>Kingman Lateral Canal/ 8B2H-AB-01.3</u>	<u>Malheur</u>	<u>Historic Water Conveyance</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification ,71-100% Improvements; Existing Road, Substantial Modification ,21-70% Improvements</u>	<u>BLM</u>	<u>a) Potential Historic Property</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>South Canal/ 9B2H-DM-02</u>	<u>Malheur</u>	<u>Historic Water Conveyance</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification ,21-70%</u>	<u>BLM, PV</u>	<u>a) Potential Historic Property</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>Improvements</u>			
<u>8B2H-DM-ISO-10</u>	<u>Malheur</u>	<u>Pre-Contact Debitage</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Cottonwood Creek Alternative</u>	<u>Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological object on private lands</u>	<u>Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-ISO-17</u>	<u>Malheur</u>	<u>Pre-Contact Debitage</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Approved ASC Proposed Route</u>	<u>Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological object on private lands</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-16</u>	<u>Malheur</u>	<u>Pre-Contact Lithic Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Cottonwood Creek Alternative</u>	<u>Direct Analysis Area (Construction Footprint), Existing</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment QR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>Road, Substantial Modification, 21-70% Improvements</u>			<u>Parties to the Section 106 PA.</u>
N/A	Morrow	Midden / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	Potential visual impact
N/A	Morrow	Shell Midden & Temporary Camp/Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	Potential visual impact
35MW00011	Morrow	Midden /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	Potential visual impact
35MW00248	Morrow	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential visual impact

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR Assigned Trinomial</u>	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
126CSF-Resource 11	Morrow	Survey Marker / Historic Archaeologic al Site	Unevaluated/Likely Eligible (from Table S-2:Not identified.)	West of Bombing Range Road Alternativ e 1	Direct Analysis Area (Constructio n Footprint)	PV	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
126CSF-Resource 4	Morrow	Road / Historic Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not identified.)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	DOD	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
4-2-IF	Morrow	Refuse / Historic IF/Archaeologic al Object	Unevaluated/Likely Eligible (from Table S-2:Not identified.)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological object on private land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
CFR 1064 (Vey Ranch)	Morrow	Ranch / Historic Site/ Aboveground	Eligible (Criterion A)	Approved ASC Route	Visual Assessment analysis area	PV	a) Historic Property	Potential visual impact. NRHP nomination and/or public interpretation/fund i ng
UPRR	Morrow, Umatilla, Union, Baker, Malheur	Railroad / Archaeological Site & Historic Site/ Aboveground	Multiple Segments, varying eligibility recommendations)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
8B2H-ZH-02	Morrow	Undetermined Stacked Rock Feature	To be determined. Potentially eligible for purposes of RFA2.	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-ZH-03	Morrow	Historic Stacked Rock Feature	To be determined. Potentially eligible for purposes of RFA2.	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
SL-UM-010 (Lookout T2S, R34E, S 18)/ Historic Lookout Tower	Umatilla	Forestry / Historic Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	BIA	a) Potential Historic Property	Potential visual impact
6B2H-MC-13	Umatilla	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-MC-14	Umatilla	Refuse Scatter & Structure/ Historic Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-15	Umatilla	Cairn(s) /Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-MC-18	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-19	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-MC-23	Umatilla	Hunting Blind / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-30	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-31	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-TH-01	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-TH-04	Umatilla	Cairn(s) / Pre- Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Constructio	PV	a) Potential Historic Property; b) Archaeological	Potential direct/indirect impact. Avoid direct impact until

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					n Footprint)		site on private land	eligibility determined. Testing Needed.
N/A	Umatilla	Cabin / Multicomponent Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	CTUIR	a) Potential Historic Property	Potential visual impact
UP-106	Umatilla	Cabin /Historic Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	CTUIR	a) Potential Historic Property	Potential visual impact
N/A	Umatilla	Cairn(s) /Pre-Contact Archaeological Site	Eligible (Criteria TBD)	Approved ASC Route	Visual Assessment analysis area	BIA	a) Historic Property	Potential visual impact
Range Unit 12 Site 2	Umatilla	Cairn(s) / Pre-Contact Archaeological Site	Eligible (Criteria TBD)	Approved ASC Route	Visual Assessment analysis area	BIA	a) Historic Property	Potential visual impact
UP-102	Umatilla	Structure(s) Historic Site/ Aboveground	Eligible (Criteria TBD)	Approved ASC Route	Visual Assessment analysis area	BIA	a) Historic Property	Potential visual impact
B2H-UM-006 /Daly Wagon Road	Umatilla	Wagon Road / Historic Site/ Aboveground	Eligible (Criteria A and C)	Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis	BIA, BLM, BLM, BLM, BLM, PV	a) Historic Property	Potential visual impact. Public Interpretation, Funding, Print/Media Publication; <u>RFA2-physical impact not significant with mitigation, To be</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					area; RFA2 Existing Road, Substantial Modification, 71-100% Improvements			determined in consultation with Parties to the Section 106 PA.
Charley Henry Hudson Homestead (35UM00603 / B2H-BS-40)	Umatilla	Historic Homestead	Eligible	Sevenmile Creek Alternative	Existing Road, Substantial Modification, 21-70% Improvements	PV	a) Historic Property; b) Archaeological site on private lands	Physical impact not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor.
7B2H-BB-09	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, New Road, Primitive	BLM	a) Potential Historic Property	Direct impact avoided. Flag/Avoid/Monitor
6B2H-MC-17	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Flag/Avoid/Monitor
6B2H-MC-21	Umatilla	Pre-Contact Stacked Rock Feature	Unevaluated	Sevenmile Creek Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Flag/Avoid/Monitor

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
9B2H-AL-01	Umatilla	Historic Agriculture	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint); RFA2 New Road, Bladed	PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-AL-02	Umatilla	Historic Agriculture	To be determined. Potentially eligible for purposes of RFA2.	Approved ASC Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
35UN00459	Union	Rock Cairn / Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential cumulative visual impact
35UN00493	Union	Rock Alignment Undetermined Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential cumulative visual impact

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-MC-07 / Clover Creek Valley Homestead	Union	Homestead /Historic/Aboveground	Unevaluated	Approved ASC Route	Visual Assessment analysis area	PV	a) Potential Historic Property	Potential visual impact. Additional Research; Design Modification; Public Interpretation Funding, and/or Print/Media Publication
N/A	Union	Lithic/Tool Scatter, Homestead, & Refuse Scatter/ Multicomponent Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-06	Union	Cairn(s) & Lithic/Tool Scatter/ Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-RP-08	Union	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
6B2H-RP-10	Union	Cairn(s) / Historic Archaeological Site	Unevaluated	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.
B2H-SA-24	Union	Rock Alignment /Undetermined Archaeological Site; Undetermined Stone Alignment	Unevaluated	Morgan Lake Alternative; Baldy Alternative	Direct Analysis Area (Construction Footprint); RFA2 Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Consultation Needed.
35UN0097	Union	Temporary Camp & Ranching / Multicomponent Archaeological Site	Pre-Contact Component: Eligible (Criterion D). Historic Component: Not Eligible	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Data Recovery.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
N/A	Union	Lithic Scatter / Pre-Contact Archaeological Site	Unevaluated/Likely Eligible (from Table S-2: Not in accessible survey area.)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
ISO-001	Union	Logging / Historic IF/ Archaeologic al Object	Unevaluated/Likely Eligible (from Table S-2: Not in accessible survey area.)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	PV	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological object on private land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
35UN0280	Union	Lithic Scatter / Pre-Contact Archaeological Site	Unevaluated/Likely Eligible (from Table S-2:Not identified.)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	USFS	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
B2H-BS-102	Union	Utility Line / Historic Site	Unevaluated/Likely Eligible (from Table S-2:Not Eligible)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint)	USFS	None - Archaeological site not eligible for NRHP. Federal land.	Potential direct/indirect impact. Avoid direct impact until eligibility determined.
Segment 6B2H-RP-09	Union	Cairn(s) & Trail Segment / Historic Archaeological Site	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Direct Analysis Area (Constructio n Footprint); Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
35UN0052 (Stockhoff Basalt Quarry Site)	Union	Cairn(s), Quarry, & Homestead /Multicomponent Archaeological Site	Eligible (Criterion D)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Historic Property; b) Archaeological site on private land	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-10	Union	Hunting Blind	Unevaluated	Morgan Lake alternative	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	6B2H-MC-10 is 5.14 meters south of the direct analysis southern boundary. Additional Research; Design Modification; Public Interpretation Funding, and/or Print/Media Publication
B2H-BS-ISO-29	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Rock Creek Alternative 2	Direct Analysis Area, Structure Work Area	BLM	a) Potential Historic Property	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-ISO-06	Union	Pre-Contact Debitage	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Constructio	PV	a) Potential Historic Property; b) Archaeological	Potential direct impact. Mitigation, if necessary, to be determined in

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
					<u>n Footprint), New Road, Bladed</u>		<u>object on private lands</u>	<u>consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-ISO-07</u>	<u>Union</u>	<u>Pre-Contact Debitage</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area (Construction Footprint), Structure Work Area</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological object on private lands</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-ND-ISO-03</u>	<u>Union</u>	<u>Pre-Contact Debitage</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Approved ASC Proposed Route</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological object on private lands</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-28</u>	<u>Union</u>	<u>Pre-Contact Lithic Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Approved ASC Proposed Route</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-40</u>	<u>Union</u>	<u>Historic Refuse Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, New Road, Bladed</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
								<u>Parties to the Section 106 PA.</u>
<u>8B2H-DM-41</u>	<u>Union</u>	<u>Pre-Contact Lithic Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-42</u>	<u>Union</u>	<u>Pre-Contact Lithic Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-43</u>	<u>Union</u>	<u>Pre-Contact Lithic Scatter & Historic Refuse Scatter</u>	<u>To be determined. Potentially eligible for purposes of RFA2.</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Structure Work Area</u>	<u>PV</u>	<u>a) Potential Historic Property; b) Archaeological site on private lands</u>	<u>Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownership	Applicable EFSC Standard	Project Impacts and Management Comments
8B2H-JS-06	Union	Historic Mining	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-07	Union	Pre-Contact Lithic Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area (Construction Footprint), Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Potential direct impact. Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-08	Union	Pre-Contact Lithic Scatter & Historic Buildings & Refuse Scatter	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, New Road, Primitive	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-JS-09	Union	Historic Structures	To be determined. Potentially eligible for purposes of RFA2.	Baldy Alternative	Direct Analysis Area, Structure Work Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Direct impact avoided. Additional protective measures, if necessary, to be determined in consultation with

Table HCA-6: Potentially Impacted Resources under OAR 345-022-0090(1)(a)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Generalized Resource Description/ Resource Type	NRHP Recommendation	Project Route(s)	Project Component	Land ownershi p	Applicable EFSC Standard	Project Impacts and Management Comments
								Parties to the Section 106 PA.

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1
2 **Potential Impacts to Historic, Cultural, and Archaeological Resources Under OAR 345-**
3 **022-0090(1)(b)**
4

5 Under OAR 345-022-0090(1)(b), for a facility located on private land, the Council must find that
6 the construction and operation of the facility, taking into account mitigation, are not likely to
7 result in significant adverse impacts to archaeological objects, as defined in ORS 358.905(1)(a)⁴,
8 or archaeological sites, as defined in 358.905(1)(c).⁵ ORS 358.905(1)(a) states ““Archaeological
9 object” means an object that: (A) Is at least 75 years old; (B) Is part of the physical record of an
10 indigenous or other culture found in the state or waters of the state; and (C) Is material remains
11 of past human life or activity that are of archaeological significance including, but not limited to,
12 monuments, symbols, tools, facilities, technological by-products and dietary by-products.”
13 ORS 358.905(1)(c) states “(A) “Archaeological site” means a geographic locality in Oregon,
14 including but not limited to submerged and submersible lands and the bed of the sea within the
15 state’s jurisdiction, that contains archaeological objects and the contextual associations of the
16 archaeological objects with: (i) Each other; or (ii) Biotic or geological remains or deposits. (B)
17 Examples of archaeological sites described in subparagraph (A) of this paragraph include but
18 are not limited to shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters,
19 homesteads and townsites. The applicant explains that to maintain consistency with studies
20 completed for the ASC Exhibit S for Council’s evaluation and for the federal regulatory
21 compliance, it To align with the federal Section 106 review, certificate holder and Council
22 assumed historic archaeological objects and sites must have been constructed or created 50
23 years ago or more, compared to 75 years as identified in 358.905(1)(a), are considered.⁶ These
24 resources located on private land are evaluated against the criteria identified in ORS
25 358.905(1)(a) and ORS 358.905(1)(c).
26

27 ~~If the lead federal agency disagrees with the not eligible determination, the resource would be~~
28 ~~considered eligible for listing on the NRHP and therefore protected under OAR 345-022-~~
29 ~~0090(1)(a). Table HCA-7-1, *Inventoried Resources under OAR 345-022-0090(1)(b)*, includes~~
30 ~~resources from the Final Order on ASC that the applicant recommends as Council determined to~~
31 ~~be not eligible for listing on the NRHP, but that may be and were evaluated and protected under~~
32 ~~OAR 345-022-0090(1)(b). Table HCA-7-1 also includes resources from RFA1 and RFA2 that are~~

⁴ORS 358.905(1)(a) states ““Archaeological object” means an object that: (A) Is at least 75 years old; (B) Is part of the physical record of an indigenous or other culture found in the state or waters of the state; and (C) Is material remains of past human life or activity that are of archaeological significance including, but not limited to, monuments, symbols, tools, facilities, technological by-products and dietary by-products.”

⁵ORS 358.905(1)(c) states “(A) “Archaeological site” means a geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with: (i) Each other; or (ii) Biotic or geological remains or deposits. (B) Examples of archaeological sites described in subparagraph (A) of this paragraph include but are not limited to shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters, homesteads and townsites.”

⁶B2HAPPDoc3-36 ASC 19_ Exhibit S_Cultural_ASC_Public 2018-09-28. Section 3.4.2.

1 listed in both Table HCA-6 and HCA-7-1 because they may qualify for protection and evaluation
2 under OAR 345-022-0090(1)(a) and (b). ~~The m~~ Measures for impact avoidance, minimization and
3 mitigation for these resources would extend to any resources not covered under OAR 345-022-
4 0090(1)(a) but protected under OAR 345-022-0090(1)(b). As noted in Table HCA-8 of Appendix
5 A.1, if a resource is protected under OAR 345-022-0090(1)(a) and (b), qualifying mitigation for
6 impacts under OAR 345-022-0090(1)(b), is the recordation and reporting that occurred as part
7 of the Section 106 review. ~~These resources located on private land were evaluated against the~~
8 ~~criteria identified in ORS 358.905(1)(a) and ORS 358.905(1)(c).~~

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10 ~~The applicant proposed archaeological sites 6B2H-MC-03 and 6B2H-SA-06 may qualify as an~~
11 ~~“archaeological site” under ORS 358.905(1)(c) because they may contain archaeological objects~~
12 ~~and the contextual associations of the archaeological objects with each other. The Department~~
13 ~~notes that these sites may be evaluated in the federal Section 106 review and determined~~
14 ~~eligible for listing on the NRHP, and therefore also protected under OAR 345-022-0090(1)(a). If~~
15 ~~the lead federal agency concurs with the applicant’s recommendation that these sites are not~~
16 ~~eligible, they may otherwise be protected under OAR 345-022-0090(1)(b). The sites shall be~~
17 ~~avoided pending SHPO concurrence with this designation based on final design and any other~~
18 ~~necessary measures to determine the sites significance. This information shall be provided to~~
19 ~~the Department in the final HPMP.~~

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38 **Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)**

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
35BA1351 / B2H-JF-13	Baker	Archaeological Site	Historic /Ranching: Vegetated wooden corral - concentration of manufactured metal and wood parts, metal truck/ tractor cab – manual pump to well head replaced with electric pump- appears to still be in use for cattle.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-RP ISO-01	Baker	IF/ Archaeological Object	Pre-Contact /Utilized Flake(s): Isolated Find consists of single piece of pre-contact debitage, a secondary obsidian flak	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
6B2H-RP ISO-02	Baker	IF/ Archaeological Object	Pre-Contact /Debitage: Isolated Find consists of three pieces of pre-contact debitage, all tertiary chert flakes	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
6B2H-RP ISO-03	Baker	IF/ Archaeological Object	Pre-Contact /Debitage: Isolated Find consists of a pre-contact obsidian bifacial thinning flake. The flake appears medially fractured.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
6B2H-SA ISO-05	Baker	IF/ Archaeological Object	Historic/ Refuse: Isolated Find includes aqua glass insulator fragment, sanitary can (meat type), and several brown, glazed ceramic sherds.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
6B2H-SA ISO-06	Baker	IF/ Archaeological Object	Pre-Contact /Debitage: Isolated Find consists of a single piece of pre-contactdebitage, an obsidian tertiary flake	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
3B2H-CH-03	Baker	Archaeological Site	Historic/Mining: historic mining area with three prospect pits and one tailings pile.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-MC-03	Baker	Archaeological Site	Historic/Mining: mine shaft (10 feet deep, oil cans and	Approved ASC Route	Direct Analysis Area	Potentially, Final Order on ASC	Avoid. May be directly impacted	Avoid, SHPO determination, See HPMP.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			lumber present), two prospecting pits (metal/glass present), small concrete pad, wagon remnants, and concentration of rocks		(Construction Footprint)		pending determination and mitigation	
6B2H-RP-05	Baker	Archaeological Site	Historic/Ranching: corral (appears to be in use), windmill (collapsed), and refuse scatter of concrete blocks	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-SA-06	Baker	Archaeological Site	Historic/Farmstead: standing and collapsed buildings, two refuse concentrations, a hay storage/feed structure, two caches of farming equipment, and an auto body.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, Final Order on ASC	Avoid. May be directly impacted pending determination and mitigation	Avoid, SHPO determination, See HPMP.
Segment 4B2H-EK-26/ OWR&N Roundhouse and OWR&N/OSL Joint Railyard	Baker	Railroad Segment & Structure/ Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
6B2H-SA-12	Baker	Homestead / Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-SA-16	Baker	Ranching / Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
35BA01423	Baker	Cairn(s) & Hunting Blind/ Pre-Contact Archaeological Site		Approved ASC Route	Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential cumulative visual impact	
4B2H-EK-08	Baker	Mining / Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Research Needed.
4B2H-EK-10	Baker	Lithic/Tool Scatter/ Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Research Needed.
4B2H-EK-32	Baker	Lithic/Tool Scatter, Ranching, Water Conveyance/ Multicomponent		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
		nt Archaeological Site						
6B2H-MC-02	Baker	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/ indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-MC-05	Baker	Cairn(s) /Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/ indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-SA-07	Baker	Homestead / Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/ indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
35BA01570/ 4B2H-EK-27	Baker	Historic Road		Durbin Quarry (ODOT) Alternative	New Road, Bladed	Potentially	Impact	No further management
7B2H-BB-ISO-04	Baker	Precontact: Isolated Find – Debitage		Durbin Quarry (ODOT) Alternative	Direct Analysis Area, Route Centerline, New Road, Bladed	Potentially	Flag/Avoid. Impacts avoided with mitigation.	Shovel probe to confirm isolated nature. IPC will flag any portion of boundary of IF 7B2H-BB-ISO-04 that occurs within 100 feet of

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
								construction activity.
8B2H-DM-24	Baker	Archaeological Site	Precontact: Lithic/Tool Scatter	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-25	Baker	Archaeological Site	Precontact: Lithic/Tool Scatter	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-26	Baker	Archaeological Site	Precontact: Lithic scatter	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
8B2H-DM-27	Baker	Archaeological Site	Precontact: Lithic/Tool Scatter	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-20	Baker	Archaeological Site	Precontact: Lithic/Tool Scatter	True Blue Gulch Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification 71-100% improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
35BA1585 (6B2H-SA-14)	Baker	Archaeological Site	Precontact: Lithic Scatter	RFA1 Access Road Changes in Baker County	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
NRCS2011-T11S-R42E-S23/01	Baker	Potential Archaeological Object	Precontact: Isolated Find: Debitage	RFA1 Access Road Changes in	Direct Analysis Area, New Road, Bladed	Potentially, pending Section 106 eligibility	Impacts avoided with mitigation.	Shovel probe to confirm isolated nature. IPC will flag any portion of

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
				Baker County		determinations under sub a		boundary of IF NRCS2011-T11S-R42E-S23/01 that occurs within 100 feet of construction activity.
Corral Ditch/ 4B2H-EK-06	Baker	Historic Water Conveyance	Eligible	Hwy 203 Crossing	RFA2 Pulling and Tensioning	Potentially, pending Section 106 eligibility determinations under sub a	Potential physical impact.	To be determined in consultation with Parties to the Section 106 PA.
B2H-DM-07	Baker	Homestead / Historic Archaeological Site	Eligible (Criterion A), Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed. RFA2 Physical impact not significant with mitigation. Fill placement on existing road. Flag/avoid/monitor
35BA01560/ 3B2H-CH-04	Baker	Archaeological Site	Historic Structural Remains including a cracked cement foundation, remnants of a cement cellar with	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial	Yes; protected under b) Archaeological site on private lands	May be impacted. Direct impact not significant.	Not Eligible (A-D)/No further management. Existing Road (Substantial Modification, 21-

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			<u>timber segments, and a concentration of bricks.</u>		<u>Modification, 21-70% Improvements</u>			<u>70% Improvements) passes through eastern boundary of site. With not eligible determination and Section 106 recordation, impact is less than significant.</u>
<u>35BA01613/ 6B2H-SA-11</u>	<u>Baker</u>	<u>Archaeological Site</u>	<u>Historic Structural Remains</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact not significant with mitigation.</u>	<u>Fill placement on existing road. Flag/avoid/monitor .</u>
<u>8B2H-DM-18</u>	<u>Baker</u>	<u>Archaeological Site</u>	<u>Historic Agriculture</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area; RFA2 Existing Road, Substantial Modification, 71-100% Improvements</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u> <u>RFA2 physical impact not</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
								<u>significant with mitigation. Fill placement on existing road. Flag/avoid/monitor</u>
<u>B2H-DM-ISO-06</u>	<u>Baker</u>	<u>Historic Refuse</u>	<u>One shard of cobalt bottle glass. Several unidentifiable crushed cans are also present. XX fill out?</u>	<u>Approved ASC Route</u>	<u>RFA2 Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>Not protected under b) Archaeological site on private lands</u>	<u>May be impacted, if protected, impact less than significant with mitigation</u>	<u>Not Eligible (A-D)/No further management. Existing Road (Substantial Modification, 21-70% Improvements) passes through isolate. Potential impact, pending NRHP eligibility findings. With not eligible determination and Section 106 recordation, impact is less than significant</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
B2H-DM-ISO-07	Baker	Historic Refuse	Historic refuse, including 18 shards of milk glass and 17 shards of amber bottle glass. The shards appear to be from just two vessels/bottles and have therefore been recorded as an IF.	Approved ASC Route	RFA2 Existing Road, Substantial Modification, 21-70% Improvements	Not protected under b) Archaeological site on private lands	May be impacted, if protected, impact less than significant with mitigation	Not Eligible (A-D)/No further management. Existing Road (Substantial Modification, 21-70% Improvements) passes through isolate. Potential impact, pending NRHP eligibility findings. With not eligible determination and Section 106 recordation, impact is less than significant
B2H-SA-30	Malheur	Archaeological Site	Historic/Refuse Scatter: varied historic refuse scatter of cans, glass bottles and shards, crockery, miscellaneous items, and farm machinery.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
35ML1674 (B2H-SA-33)	Malheur	Historic: Water		RFA1 Access Road Changes in	Existing Road, Substantial Modification, 71-	Potentially, pending Section 106 eligibility	physical impact not significant	Visual/ auditory impacts not significant. If

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
		Conveyance (Vines Ditch)		Malheur County	100% Improvements	determinations under sub a	with mitigation.	avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.
8B2H-DM-51	Malheur	Archaeological Site	Multicomponent: Lithic Scatter and Refuse Scatter	RFA1 Access Road Changes in Malheur County	Direct Analysis Area (Construction Footprint), New Road, Bladed	Potentially, pending Section 106 eligibility determinations under sub a	Potential physical impact.	If avoidance not possible, testing/ eligibility evaluation needed.
35ML2203 (B2H-SA-39)	Malheur	Archaeological Site	Historic: Water Conveyance	RFA1 Access Road Changes in Malheur County	Direct Analysis Area, Existing Road, No Improvements Permitted	Potentially, pending Section 106 eligibility determinations under sub a	Impact avoided.	No improvements of existing road permitted within 30 meters of site.
35ML1675 (B2H-SA-32)	Malheur	Historic: Railroad		RFA1 Access Road Changes in Malheur County	Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	physical impact not significant with mitigation.	Visual/ auditory impacts not significant. If avoidance not possible, gravel will be placed over existing road through site to protect resource from physical impacts of existing road use.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
8B2H-DM-16	Malheur	Archaeological Site	Pre-Contact Lithic Scatter	Cottonwood Creek Alternative	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-ISO-10	Malheur	IF/Potential Archaeological Object	Pre-Contact Debitage	Cottonwood Creek Alternative	Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Direct impact avoided.	Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-DM-ISO-17	Malheur	IF/Potential Archaeological Object,	Pre-Contact Debitage	Approved ASC Route	Direct Analysis Area (Construction Footprint), Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
UPRR	Morrow, Umatilla, Union, Baker, Malheur	Railroad / Archaeological Site & Historic Site/ Aboveground	Multiple Segments, varying eligibility recommendations)	Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Potential direct/indirect impact. Avoid direct impact until eligibility

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
								determined. Testing Needed.
35MW00248	Morrow	Cairn(s) /Pre-Contact Archaeological Site	Unevaluated	Approved ASC Route	Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential visual impact	
8B2H-ZH-02	Morrow	Archaeological Site	Undetermined Stacked Rock Feature	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
8B2H-ZH-03	Morrow	Archaeological Site	Historic Stacked Rock Feature	Ayers Canyon Alternative	Direct Analysis Area (Construction Footprint), New Road, Bladed	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
6B2H-RP ISO-10	Umatilla	IF/ Archaeological Object	Historic/Refuse: Isolated Find consists of single piece of historic refuse: an aqua glass insulator fragment.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
6B2H-RP ISO-11	Umatilla	IF/ Archaeological Object	Historic/Refuse: Isolated Find consists of several	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			clear glass bottle fragments.					
B2H-BS-ISO-25	Umatilla	IF/ Archaeological Object	Pre-Contact /Utilized Flake(s): Isolated Find consists of utilized basalt secondary flake with 10 percent cortex on the dorsal surface.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.
6B2H-MC-16	Umatilla	Archaeological Site	Historic/Utility Line: Consists of five single utility poles (telephone), some with rock jacks	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-MC-26	Umatilla	Archaeological Site	Historic/Agriculture: Consists of 20 historic agricultural field clearing rock piles and a potential basalt quarry. Former agricultural field. Sanitary cans and lumber scatter.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-RP ISO-08	Umatilla	IF/ Archaeological Object	Historic/Agriculture: Isolated Find consists of a small agricultural cache of farming equipment. The cache includes	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	Shovel probe to confirm isolated nature.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			three nearly identical metal dicers with grain drills.					
6B2H-TH-05	Umatilla	Archaeological Site	Historic/Agriculture: consists of eight rock piles from historic agricultural field-clearing	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-TH-08	Umatilla	Archaeological Site	Historic/Agriculture: consists of dilapidated shed, a wooden cart, a harrower, and remnants of a wagon/cart. Misc metal scraps and few pieces of milled lumber scattered across the site.	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
6B2H-TH-09	Umatilla	Archaeological Site	Historic/Agriculture & Other: agricultural locus and a stone concentration of indeterminate age. Agricultural equipment includes hitch with drawbar and wooden tractor trailer. Refuse is	Approved ASC Route	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			also present, including barbed wire and ammo.					
6B2H-MC-13	Umatilla	Cairn(s) /Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-MC-14	Umatilla	Refuse Scatter & Structure/ Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Potential direct/indirect impact. Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-15	Umatilla	Cairn(s) /Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-MC-18	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-19	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
6B2H-MC-23	Umatilla	Hunting Blind / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-30	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-31	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-TH-01	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-TH-04	Umatilla	Cairn(s) / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
<u>6B2H-MC-17</u>	<u>Umatilla</u>	<u>Archaeological Site</u>	<u>Pre-Contact Stacked Rock Feature</u>	<u>Sevenmile Creek Alternative</u>	<u>Direct Analysis Area, Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Flag/Avoid/Monitor.</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
6B2H-MC-21	Umatilla	Archaeological Site	Pre-Contact Stacked Rock Feature	Sevenmile Creek Alternative	Direct Analysis Area, Structure Work Area	Potentially, pending Section 106 eligibility determinations under sub a	Direct impact avoided.	Flag/Avoid/Monitor.
9B2H-AL-01	Umatilla	Archaeological Site	Historic Agriculture	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 New Road, Bladed	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
9B2H-AL-02	Umatilla	Archaeological Site	Historic Agriculture	Approved ASC Route	Direct Analysis Area (Construction Footprint); RFA2 New Road, Bladed	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct impact.	Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.
Charley Henry Hudson Homestead (35UM00603 / B2H-BS-40)	Umatilla	Historic Homestead		Sevenmile Creek Alternative	Existing Road, Substantial Modification, 21-70% Improvements	Potentially, pending Section 106 eligibility determinations under sub a	Physical impact not significant with mitigation.	Fill placement on existing road. Flag/avoid/monitor
02S3600E07002	Union	Historic	Archaeological site not eligible for NRHP. Federal land.	RFA1 Access Road Changes in Union County	Existing Road, Substantial Modification, 71-100% Improvements	Potentially	Physical impact not significant.	No further management
6B2H-MC-09	Union	Archaeological Site	Historic/Road: consists of two abandoned road segments and	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
			associated refuse. The roads are separated by tributary. Refuse includes porcelain with blue print, whiteware, miscellaneous glass and metal, and agricultural machinery parts.					
6B2H-MC-11	Union	Archaeological Site	Historic/Mining: Consists of a historic prospecting pit, with small tailing pile nearby.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
B2H-BS-49	Union	Archaeological Site	Historic/Ranching: Consists of a historic wooden corral. The corral is rectangular in shape and constructed of natural timbers and milled lumber.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	No, Final Order on ASC	May be directly impacted	No further management.
35UN00459	Union	Rock Cairn / Pre-Contact Archaeological Site		Approved ASC Route	Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential cumulative visual impact	

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
35UN00493	Union	Rock Alignment Undetermined Archaeological Site		Approved ASC Route	Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential cumulative visual impact	
N/A	Union	Lithic/Tool Scatter, Homestead, & Refuse Scatter/ Multicomponent Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-06	Union	Cairn(s) & Lithic/Tool Scatter/ Pre- Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-RP-08	Union	Cairn(s) /Pre- Contact Archaeological Site		Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
6B2H-RP-10	Union	Cairn(s) / Historic Archaeological Site		Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
B2H-SA-24	Union	Rock Alignment /Undetermined Archaeological Site; Undetermined Stone Alignment		Morgan Lake Alternative; Baldy Alternative	Direct Analysis Area (Construction Footprint); RFA2 Structure Work Area	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Consultation Needed.
35UN0097	Union	Temporary Camp & Ranching / Multicomponent Archaeological Site		Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Data Recovery.
N/A	Union	Lithic Scatter / Pre-Contact Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological site on private land
ISO-001	Union	Logging / Historic IF/		Approved ASC Route	Direct Analysis Area	Potentially, pending Section 106 eligibility	Potential direct/indirect impact.	Avoid direct impact until eligibility determined.

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
		Archaeological Object			(Construction Footprint)	determinations under sub a		Testing Needed. Requires additional survey to determine if subject to a) Historic Property and/or b) Archaeological object on private land.
Segment 6B2H-RP-09	Union	Cairn(s) & Trail Segment / Historic Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
35UN0052 (Stockhoff Basalt Quarry Site)	Union	Cairn(s), Quarry, & Homestead /Multicomponent Archaeological Site		Approved ASC Route	Direct Analysis Area (Construction Footprint)	Potentially, pending Section 106 eligibility determinations under sub a	Potential direct/indirect impact.	Avoid direct impact until eligibility determined. Testing Needed.
6B2H-MC-10	Union	Hunting Blind		Morgan Lake alternative	Visual Assessment analysis area	Potentially, pending Section 106 eligibility determinations under sub a	6B2H-MC-10 is 5.14 meters south of the direct analysis	Additional Research; Design Modification; Public Interpretation Funding, and/or

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
							southern boundary.	Print/Media Publication
<u>B2H-SA-24</u>	<u>Union</u>	<u>Rock Alignment /Undetermined Archaeological Site; Undetermined Stone Alignment</u>		<u>Morgan Lake Alternative; Baldy Alternative</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct/indirect impact.</u>	<u>Avoid direct impact until eligibility determined. Consultation Needed.</u>
<u>8B2H-DM-28</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct impact.</u>	<u>Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-40</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Historic Refuse Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, New Road, Bladed</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-41</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Existing Road, Substantial Modification, 21-</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
					<u>70% Improvements</u>			<u>Parties to the Section 106 PA.</u>
<u>8B2H-DM-42</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Existing Road, Substantial Modification, 21-70% Improvements</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-DM-43</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter & Historic Refuse Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-06</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Historic Mining</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-07</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area (Construction Footprint),</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct impact.</u>	<u>Mitigation, if necessary, to be determined in consultation with</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
					<u>Structure Work Area</u>			<u>Parties to the Section 106 PA.</u>
<u>8B2H-JS-08</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Pre-Contact Lithic Scatter & Historic Buildings & Refuse Scatter</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, New Road, Primitive</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-09</u>	<u>Union</u>	<u>Archaeological Site</u>	<u>Historic Structures</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area, Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Direct impact avoided.</u>	<u>Additional protective measures, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-ISO-06</u>	<u>Union</u>	<u>IF/Potential Archaeological Object</u>	<u>Pre-Contact Debitage</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area (Construction Footprint), New Road, Bladed</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct impact.</u>	<u>Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>
<u>8B2H-JS-ISO-07</u>	<u>Union</u>	<u>IF/Potential Archaeological Object</u>	<u>Pre-Contact Debitage</u>	<u>Baldy Alternative</u>	<u>Direct Analysis Area (Construction Footprint), Structure Work Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct impact.</u>	<u>Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>

Table HCA-7-1: Inventoried Resources under OAR 345-022-0090(1)(b)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Resource Type	Generalized Resource Description	Project Route(s)	Project Component	Protected Under OAR 345-022-0090(1)(b)	Potential Impact	Management Recommendation
<u>8B2H-ND-ISO-03</u>	<u>Union</u>	<u>IF/Potential Archaeological Object</u>	<u>Pre-Contact Debitage</u>	<u>Approved ASC Route</u>	<u>Direct Analysis Area (Construction Footprint); RFA2 Multi-Use Area</u>	<u>Potentially, pending Section 106 eligibility determinations under sub a</u>	<u>Potential direct impact.</u>	<u>Mitigation, if necessary, to be determined in consultation with Parties to the Section 106 PA.</u>

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Potential Impacts to and Mitigation for Historic, Cultural, and Archaeological Resources Under OAR 345-022-0090(1)(c)

OAR 345-022-0090(1)(c), the Council’s Historic, Cultural and Archaeological Resources standard addresses and protects archaeological sites on public lands under OAR 345-022-0090(1)(c) as defined in ORS 358.905(1)(c). Where ORS 358.905(1)(c) states, “(A) “Archaeological site” means a geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with: (i) Each other; or (ii) Biotic or geological remains or deposits. (B) Examples of archaeological sites described in subparagraph (A) of this paragraph include but are not limited to shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters, homesteads and townsites.

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Table HCA-7-2: Inventoried Resources under OAR 345-022-0090(1)(c)

Table HCA-7-2: Inventoried Resources under OAR 345-022-0090(1)(c)

Temporary Resource #: Ped. Survey/Visual Assessment OR Assigned Trinomial	County	Generalized Resource Description/ Resource Type	Project Route(s)	Project Component	Land Ownership	Protected Under OAR 345-022-0090(1)(c)	Potential Impact	Management Recommendation
<u>35BA01521</u>	<u>Baker</u>	<u>Historic Refuse Scatter & Road: Historic refuse scatter 5 bottles, 30 cans, 20 metal, wood, several road cuts.</u>	<u>Hwy 203 Crossing</u>	<u>Structure Work Area</u>	<u>State</u>	<u>Potentially c) Archaeological site on state lands site contains archaeological objects and the contextual associations of the archaeological objects may be with each other. May have archaeological significance</u>	<u>Impact avoided, impact less than significant with mitigation</u>	<u>Avoided. To be determined in consultation with Parties to the Section 106 PA. With not eligible determination and Section 106 recordation, any impact would be less than significant. SHPO determined not eligible 8/15/2016, area surveyed Pre-Con Class III.</u>
<u>35ML01619/7B2H-BB-08</u>	<u>Malheur</u>	<u>Historic Water Conveyance & Refuse Scatter. Segment 7B2H-BB-08 includes a historic, abandoned canal segment and a historic refuse</u>	<u>Says not eligible</u>	<u>Cottonwood Creek Alternative</u>	<u>Existing Road, Substantial Modification, 71-100% Improvements</u>	<u>BLM land ownership. Not protected under c) Archaeological site on public land because the material remains are from past human life or activity but they are not of</u>	<u>Not protected or impact less than significant with mitigation</u>	<u>Not eligible (A-D)/No further management (for specific segment). Existing Road (Substantial Modification, 71-100% Improvements) crosses canal. With not eligible determination and Section</u>

Table HCA-7-2: Inventoried Resources under OAR 345-022-0090(1)(c)

Temporary Resource #: Ped. Survey/Visual Assessment <u>OR</u> Assigned Trinomial	County	Generalized Resource Description/ Resource Type	Project Route(s)	Project Component	Land Ownership	Protected Under OAR 345-022-0090(1)(c)	Potential Impact	Management Recommendation
		<u>concentration, limited to nine heavily damaged, metal explosive containers</u>				<u>archaeological significance</u>		<u>106 recordation, impact is less than significant. Prior to B2H reporting, canal was determined by SHPO to be not eligible through a separate project.</u>

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Mitigation for Historic, Cultural, and Archaeological Resources: Historic Properties Management Plan (HPMP)

Table HCA-8 through Table HCA-10 outline avoidance measures to avoid and minimize direct and indirect impacts to ~~Oregon Trail/NHT~~ resources protected under the Council’s standard, resource evaluation, impact minimization, and mitigation measures.

Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to Resource Site Types Identified within the Direct Analysis Area

Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to Resource Site Types Identified within the Direct Analysis Area*

Site Type	Potential Minimization/Mitigation Measure
Pre-Contact Sites	
Lithic Scatter, Lithic/Tool Scatter, Quarry, Temporary Camp	Data recovery (controlled excavation), or in-place preservation/protection (capping with clean fill). Off-Site: publish research-focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.). <u>And/or as designated in PSSMPs.</u>
Multicomponent Sites	
Lithic Scatter/Tool & Refuse Scatter, Ranching Complex, Water Conveyance, Possible Rock Art, Utility Line, Quarry & Refuse Scatter, Temporary Camp	Data recovery (controlled excavation), or in-place preservation/protection (capping with clean fill). Off-Site: publish research-focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.). <u>And/or as designated in PSSMPs.</u>
Historic-Era Sites	
Agriculture, Bridge, Homestead, Ranching, Logging Railroad, Mining, Railroad and Utility Line, Refuse Scatter, Road, Structure, Survey Marker, Trail Segment, Water Conveyance	Update recordation (if necessary), data recovery (if applicable). Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.). <u>And/or as designated in PSSMPs.</u>
Undetermined Sites	

Table HCA-8: Potential Minimization and Mitigation of Direct Impacts to Resource Site Types Identified within the Direct Analysis Area*

Site Type	Potential Minimization/Mitigation Measure
Rock Circle	Update recordation (if necessary, data recovery (if applicable). Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.). <u>And/or as designated in PSSMPs.</u>
<u>Resources protected under OAR 345-022-0090(1)(b) and (c)</u>	
<u>Archaeological objects under ORS 358.905(1)(a) and archaeological sites under 358.905(1)(c)</u>	<u>Data recovery (controlled excavation), or in-place preservation/protection (capping with clean fill). Section 106 recordation/documentation. And/or as designated in PSSMPs.</u>
* Applies to OAR 345-022-0090(1) (a) through (c) Source: B2HAPPDoc3-36 ASC 19_Exhibit S_Cultural_ASC_Public 2018-09-28. Attachment S-9. Table 6-2; <u>B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27. Page 535-536 of 10586.</u>	

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Table HCA-9 Potential Minimization and Mitigation Methods for Indirect Impacts

Table HCA-9 Potential Minimization and Mitigation Methods for Indirect Impacts*

Resource Category	Example Resource Types	Potential Management Methods for Indirect Impacts
Trails (NHT, stage trails, freight roads, etc.)	<ul style="list-style-type: none"> Trail remnants/ segments Associated trail sites or features (stations, burials, inscriptions) 	<ul style="list-style-type: none"> Recording—including HABS/HAER/HALS** Additional literature or archival review (e.g. historic maps, local papers) Remote sensing Purchase of conservation easement or other land protection where trail traces exist Historic trails restoration within and outside Project area Public signage, publication/print/media, and/or interpretive plans Design Modification <u>And/or as designated in PSSMPs.</u>

Table HCA-9 Potential Minimization and Mitigation Methods for Indirect Impacts*

Resource Category	Example Resource Types	Potential Management Methods for Indirect Impacts
Historic Buildings and Structures	<ul style="list-style-type: none"> • Farm and ranch sites/homesteads • Historic districts • Utility lines • Water conveyance systems • Mining sites • Bridges, etc. 	<ul style="list-style-type: none"> • Photo documentation and scale drawings • National Register Nomination (if owner consents) • HABS/HAER/HALS documentation • Additional archival and literature review • Restoration of historic building or structure • Relocation of historic building or structure • <u>Public interpretation (with owner permission)</u> • <u>And/or as designated in PSSMPs.</u>
Historic Property of Religious or Cultural Significance to Indian Tribes (TCPs; limited to those subject to EFSC standards)	<ul style="list-style-type: none"> • Ceremonial areas • Vision quest sites • Hunting and gathering areas 	<ul style="list-style-type: none"> • Additional literature/archival review • Ethnographic documentation • Oral histories • Public archaeology funding • <u>As recommended by impacted tribes</u> • <u>And/or as designated in PSSMPs.</u>
<p>* Applies to OAR 345-022-0090(1) (a) ** HABS – Historic American Building Survey; HAER – Historic American Engineering Record; HALS – Historic American Landscape Survey Source: B2HAPPDoc3-36 ASC 19_ Exhibit S_ Cultural_ ASC_ Public 2018-09-28. Attachment S-9. Table 6-3; B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27. Page 536-537 of 10586.</p>		

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Table HCA-10 Potential Minimization and Mitigation Methods for Indirect and Direct Impacts to Aboveground Resources

Table HCA-10 Potential Minimization and Mitigation Methods for Indirect and Direct Impacts to Aboveground Resources*

Built Environment Resource Type	Potential Minimization/ Mitigation (Indirect and Direct impacts)
Trails (Oregon NHT, Lewis and Clark NHT, stage trails, freight roads, etc.)	Recordation in HABS/HAER/HALS**; metal detector surveys, additional historical research, information pamphlets, trail segment management plans; conservation easements; land acquisition; National Register nomination; <u>and/or as designated in PSSMPs.</u>
Historic Buildings (Store, bank, Cabins, Homestead, etc.)	Recordation in HABS/HAER/HALS; restoration of historic building; relocation of historic building; oral histories; public interpretation; print publication; video media publication; National Register nomination; <u>and/or as designated in PSSMPs.</u>

Table HCA-10 Potential Minimization and Mitigation Methods for Indirect and Direct Impacts to Aboveground Resources*

Built Environment Resource Type	Potential Minimization/ Mitigation (Indirect and Direct impacts)
Historic Structures (Railroad, mining, resources, bridge, utility lines, water conveyance, etc.)	Recordation in HABS/HAER/HALS; restoration of historic structure; relocation of historic structure; oral histories; public interpretation; print/media publication; National Register nomination; <u>and/or as designated in PSSMPs.</u>
Historic Districts (residential, commercial, industrial, agricultural)	Historic district design guidelines for utilities, repair and maintenance guidelines, print publication, video media publication (website/podcast/video); National Register nomination; <u>and/or as designated in PSSMPs.</u>
Archaeological resources with above ground features (Cemeteries, cairns, rock alignments, house pits, hunting blinds, middens, camp, quarry, rock art, rock shelter	Ethnographic documentation; resource management plan; recordation in HABS/HAER/HALS (if appropriate); partnership and funding for public archaeology projects; print publication, video media publication (website/podcast/video); <u>and/or as designated in PSSMPs.</u>
Traditional Cultural Properties (Ceremonial areas, vision quest, or gathering areas, etc.)	Ethnographic documentation; resource management plan; recordation; oral histories, etc.; <u>and/or as designated in PSSMPs.</u>
<p>* Applies to OAR 345-022-0090(1) (a) through (c) ** HABS – Historic American Building Survey; HAER – Historic American Engineering Record; HALS – Historic American Landscape Survey Source: B2HAPPDoc3-36 ASC 19_Exhibit S_Cultural_ASC_Public 2018-09-28. Attachment S-9. Table 6-4; <u>B2HAPPDoc31 Final Order on ASC and Attachment 2022-09-27. Page 537-538 of 10586.</u></p>	

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Attachment W-1: Updated Retirement Cost Estimate with Assumptions

Table 1: Facility Decommissioning Tasks and Cost Estimate

Unit Costs in Q1 2024

Task or Component	Quantity	Unit Cost (\$/1)	Unit	Estimate (\$)	NOTES
General Costs					
Permits - Utilities/Temp Deconstruct	1	\$ 49,183.12	Lump Sum3	\$49,183.12	tab1
Mobilization/Demobilization	1	\$ 5,889,975.50	Lump Sum3	\$5,889,975.50	tab2
Engineering	1300	\$ 120.00	Hour	\$156,000.00	
Overhead	1	\$ 1,739,946.00	Lump Sum3	\$1,739,946.00	tab 3
Hazardous Materials	4	\$ 15,000.00	EA	\$60,000.00	tab4
Protection/Signage/Equipment	1	\$ 173,320.00	Lump Sum3	\$173,320.00	tab5
				Subtotal =	\$8,068,424.62
Facility Components					
500 kV Transmission Line Removal					
500 kV Conductor Electrical Line	275	\$ 76,743.60	MILES	\$21,104,490.00	tab6
Steel Lattice Tower	1138	\$ 53,650.00	EA	\$61,053,700.00	tab7
Tubular steel H-Frame Tower	141	\$ 21,460.00	EA	\$3,025,860.00	tab8
Insulator Strings	Included in lattice wrecking and disposal costs				
Remove Foundations To Subgrade	14200	\$ 300.36	Hours	\$4,265,112.00	tab10
Load, Haul, Dispose	1	\$ 6,431,729.00	Lump Sum3	\$6,431,729.00	tab11
Re-grade tower pads	640	\$ 5,585.00	Acres	\$3,571,607.50	tab12
				Subtotal =	\$99,452,498.50
230/138 kV Transmission Line Removal					
230/138kV Conductor Electrical Line	1	\$ 118,030.00	Lump Sum3	\$118,030.00	tab15
Monopole and structures	Included in electrical line costs				
Remove Foundations To Subgrade	None				
Load, Haul, Dispose	Included in electrical line costs				
Restore/Re-seed Site	Included in electrical line costs				
				Subtotal =	\$118,030.00
Midline Capacitor station					
Fence Removal	1	\$ 50,000.00	Each	\$50,000.00	tab 16
Cap bank Removal	3	\$ 31,714.04	Each	\$95,142.12	tab 16
Remove Control Building	1	\$ 18,693.00	Each	\$18,693.00	tab 16
Switch Removal	2	\$ 15,901.08	Each	\$31,802.16	tab 16
Dead-End Structure Removal	2	\$ 569,974.40	Each	\$1,139,948.80	tab 16
UG Utility & Ground Removal	0	\$ -	Day	\$0.00	N/A Adjacent to NP Substation
Restore/Re-seed Site	Seeding is captured in the road removal and site restoration				
				Subtotal =	\$1,335,586.08
Longhorn Station Removal and Disposal					
Fence Removal	1	\$ 50,000.00	Day	\$50,000.00	
Cap bank Removal	3	\$ 29,010.80	Each	\$87,032.40	*NA as part of overall station owned by BPA
Remove Control Building	1	\$ 18,693.00	Day	\$18,693.00	
Reactor Removal	7	\$ 12,505.40	Cubic Yd.	\$87,537.80	
Switch Removal	3	\$ 19,505.40	Lump Sum3	\$58,516.20	
Dead-End Structure Removal	3	\$ 54,934.40	Each	\$164,803.20	
UG Utility & Ground Removal	0	\$ -	Day	\$0.00	N/A Adjacent to BPA owned Longhorn
Restore/Re-seed Site	Seeding is captured in the road removal and site restoration				
				Subtotal =	\$466,582.60
Communication Station Removal					
Fence Removal	10	\$ 5,925.00	Each	\$59,250.00	tab40
Control Building Removal	10	\$ 105,930.00	Each	\$1,059,300.00	tab41
Remove Foundations To Subgrade	10	\$ 8,100.00	Each	\$81,000.00	tab42
Electrical Removal	1	\$ 186,374.40	Lump Sum3	\$186,374.40	tab43
Restore/Re-seed Site	Seeding is captured in the road removal and site restoration				
				Subtotal =	\$1,385,924.40
Road Removal and Site Restoration/Revegetation					
Access road restoration	1	\$ 8,920,264.00	Lump Sum3	\$8,920,264.00	tab44
Decompact & Remove Gravel From Roads	68,000.00	\$ 18.26	Ton	\$1,241,680.00	70% of tonnage from current project quantity
Reconstruct temporary Multi-Use Areas	7.00	\$ 430,811.00	Each	\$3,015,677.00	
Reconstruct pads >20 cross slope	305.00	\$ 6,668.09	Acres	\$2,033,767.45	
Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction	1	\$ 9,921,540.25	Lump Sum3	\$9,921,540.25	tab45
				Subtotal =	\$25,132,928.70
				B2H Max Potential Decommissioning Cost (Cost) Subtotal =	\$135,959,974.90
Council Applied Contingencies					
Department Administration and Project Management (4% Of Cost)	4		Percent	\$5,438,399.00	
Future Development Contingency (20% Of Cost)	20		Percent	\$27,191,994.98	
				Contingency Subtotal =	\$32,630,393.98
				Subtotal of Cost and Applicant Contingencies (QXXXXX Dollars) - Rounded to nearest \$1	\$168,590,368.88
Performance Bond	1		Percent	\$1,685,903.69	
				Total Site Restoration Cost with Department Adjusted Contingencies (QXXX Dollars) Rounded to nearest \$1	\$170,276,273
Notes: 1. All unit costs are in Q12024 Dollars. 2. To allow continued use of the land for agricultural or other purposes deemed appropriate at the time of decommissioning purposes, all subsurface features may need to be removed to a minimum of 3 feet below ground surface or as agreed with the landowner. 3. Tasks associated with a Lump Sum unit cost may be calculated using a fraction (in decimal form) of the actual quantities constructed. 4. Estimates are real cost from our contractor QISG and include contractor profit and insurance.					

Tab 1

Permits - Utilities/Temp Deconstruct

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
PERMITS						
1.DEMOLITION	EA	0	\$0.00	\$0	All permits included in line item cost below	
2.STREET USE	EA	0	\$0.00	\$0	All permits included in line item cost below	
3.UTILITIES	EA	1	\$25,000.00	\$25,000	Pipe line, Rail, crossing and disturbance during decommissioning.	Allocation estimate - \$25K
4.EPA ASBESTOS NOTICE	EA	0	\$0.00	\$0	N/A	
5.PERMITS (Temporary de-construct))	LS	1	\$24,183.12	\$24,183	Miscellaneous permits	Estimated cost to obtain necessary permits.
Task Subtotal				\$49,183		

Tab 2

Mobilization/Demobilization

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
MOBILIZATION & DEMOBILIZATION						
1.LABOR	LS	1	\$2,721,384.75	\$2,721,385		Estimate provided by general contractor
2.EQUIPMENT	LS	1	\$3,168,590.75	\$3,168,591		Estimate provided by general contractor
Task Subtotal				\$5,889,976		

Tab 3

Overhead

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
PROJECT OVERHEAD						
1.SUPERVISION	WK	78	\$2,475.00	\$193,050	Owner's on-site supervision and inspection during decommissioning.	Assumes weekly burdened rate of \$2475
2.FOREMAN	WK	78	\$2,200.00	\$171,600	Site Engineering	Assumes weekly burdened rate of \$2200
3.GUARD SERVICE (site security)	WK	234	\$4,624.00	\$1,082,016	Third party guard service for equipment and materials at project salvage yards.	Assumes 3 guarded sites for 78 weeks. Night and weekend service at \$4624/wk.
4.CLERICAL	WK	78	\$2,130.00	\$166,140	Office staff assistant. One per Owner supervisor.	Assumes 3 clerical (\$710/wk) for 78 week duration
5.JOBSITE OFFICE	WK	78	\$1,054.00	\$82,212	Jobsite office to house temporary demolition services personnel.	Assumes rental cost of \$1054/Week.3 trailers for 78 mo duration with hook ups.
6.TEMP. UTILITIES	WK	234	\$192.00	\$44,928	Jobsite temporary utilities during decommissioning.	Jobsite temporary utilities during decommissioning. Assumes cost of \$192/wk for each of 3 project areas for 78 week duration.
7.SPECIAL INSURANCE	LS	0	\$0.00	\$0	Included in Contractor Overheads	
8.SUBSISTENCE	WK	0	\$0.00	\$0	Included in burdened labor costs	
Task Subtotal				\$1,739,946		

Hazardous Materials

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
HAZARDOUS MATERIALS / SPILL MITIGATION						
1. ASBESTOS ABATEMENT	EA	0	\$0.00	\$0	No hazardous materials expected	
2. Spill Mitigation EA	EA	4	\$15,000.00	\$60,000	Minor spills with petroleum products	Not expected but anticipate \$15,000 / per incident
Task Subtotal				\$60,000		

Protection/Signage/Equipment

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
PROTECTION						
1.SIGNS	LS	1	\$25,000.00	\$25,000	Nominal Amount for Signage	
2.FENCES	LS	3	\$30,720.00	\$92,160	Chain link fencing around material storage/salvage yards.	Assumes \$30.72 K in fencing per storage yard for 3 yards based on Crew and materials
3.PEDESTRIAN WALKWAY	LF	0	\$0.00	\$0	N/A	
4.SCAFFOLDING	SF	0	\$0.00	\$0	N/A	
5.SHORING	SF	0	\$0.00	\$0	N/A	
6.FLAGGING	LS	1	\$56,160.00	\$56,160	Nominal Amount for Traffic Control	Assumes crew of 2x1 day per week \$720/day. Guard structures included in conductor removal.
7.TOOLS AND CONSUMABLES	LS	0	\$0.00	\$0	Included in burdened labor costs	
Task Subtotal				\$173,320		

Tab 6

500 kV Conductor Electrical Line

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
ELECTRICAL WRECKING						
Transmission Conductor - 500 kV	MI	275	\$76,743.60	\$21,104,490	Removal, loading and hauling of 31519 ACSR Conductor, Dampers, OHGW and OPGW. Includes guard structures. Unit is circuit-mile.	Estimates 16 person crew to remove one mile in 6 days. Loaded crew rate is \$1279/hour.
Task Subtotal				\$21,104,490		

Steel Lattice Tower

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
STEEL WRECKING (All steel wrecking assumes material is knocked down and put into stockpile for sorting.)						
1.500-KV LATTICE TOWERS	EA	1138	\$53,650.00	\$61,053,700	Removal of hardware and disassembly of 500 KV lattice towers.	Assumes 9 man crew to remove 1 tower in 5 days. Loaded crew rate is \$1073/hour including equipment.
2.LABOR	EA	0	\$0.00	\$0	Included above	
3.EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$61,053,700		

Tubular steel H-Frame Tower

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
STEEL WRECKING (All steel wrecking assumes material is knocked down and put into stockpile for sorting.)						
1.500-KV H-FRAME STRUCTURES	EA	141	\$21,460.00	\$3,025,860	Removal of hardware and disassembly of 500 Kv H-Frames	Assumes 9 man crew to remove 1 h-frame in 2 days. Loaded crew rate is \$1073/hour including equipment.
2.SORT/CLEAN/HAUL	EA	0	\$0.00	\$0	Included in "Load, Haul, Dispose"	
3.LABOR	EA	0	\$0.00	\$0	Included above	
4.EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$3,025,860		

Remove Foundations To Subgrade

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
CONCRETE WRECKING						
REINFORCED CONCRETE						
(Imported from Tab 3)						
1. TRANSMISSION LATTICE STRUCTURE FOUNDATIONS	CY	11380	\$300.36	\$3,418,097	NOT ALL LATTICE TOWERS ARE ON CONCRETE FOUNDATIONS. Foundation removal 10 cy per 500 kV structure (4' diameter, 5' of removed length per leg, 4 legs - 2' above ground, 3' below ground in Exclusive Farm Use zoned land; 1' below ground in all other zones), includes haul and disposal.	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour. Assumes 25% of the lattice towers are on pier foundations.
2. TRANSMISSION H-FRAME STRUCTURE FOUNDATIONS	CY	2820	\$300.36	\$847,015	Assuming 20 cy per Tubular Steel Pole Structures removal	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Task Total		14200		\$4,265,112		

Load, Haul, Dispose

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
LOAD & HAUL						
1.LOAD & HAUL - STRUCTURAL STEEL	LD	1279	\$5,000.00	\$6,395,000	Loading and hauling of tower steel and H-Frames to laydown/salvage yard.	Assumes 5 man crew to load/haul one structure per day. Loaded crew rate is \$500/hour.
2.INSULATOR STRINGS	EA	3498	\$10.50	\$36,729	Removal Included in tower removal costs	Retrive and load-anticipate landfill disposal at ~\$60/ton
3.DISPOSAL - DEBRIS	LD	0	\$0.00	\$0	N/A	Assume steel will be salvaged w/o disposal fee.
4.LOAD & HAUL CONC.	LD	0	\$0.00	\$0	Included in Concrete Wrecking	
5.DISPOSAL - CONCRETE	LD	0	\$0.00	\$0	Included in Concrete Wrecking	
6.SCRAP STEEL	LD	0	\$0.00	\$0	N/A	
Task Subtotal				\$6,431,729		

Permits - Utilities/Temp Deconstruct

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
SITE GRADING						
Comments Methods/Assumptions						
TOWER PADS	AC	640	\$5,585	\$3,571,608		1920 structures at 150'x150' (0.5 acres) each
Task Subtotal				\$3,571,608		

Existing Line Relocation - Section Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
1. 230kV tubular structures	EA	11	\$5,365.00	\$59,015	Hardware removal and disassembly of approximately 1 mile 230 kV structures. Includes 7 tangent, 3 Deadends, 1 Running angle, and conductor.	Assumes 9 man crew to remove 2 structures and associated wire in 1 days. Loaded crew rate is \$1073/hour including equipment.
2. 138 kV tubular structures	EA	11	\$5,365.00	\$59,015	Hardware removal and disassembly of 1 mile of 138 kV structures. Includes 7 tangent, 3 Deadends, 1 Running angle, and conductor. (There are the same quantity and types of structures as in the 230kV line.)	Assumes 9 man crew to remove 2 structures and associated wire in 1 days. Loaded crew rate is \$1073/hour including equipment.
3.LABOR	EA	0	\$0.00	\$0	Included above	
4.EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$118,030		

Midline Station Removals

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
Fence Removal						
Communication Station Fence & Gate removal	EA	1	\$50,000.00	\$50,000	Removal of existing facility fencing and gates.	Assumes removal of fencing perimeter of approximately 2080 ft and 580' of equipment fence -- TOTAL YARD
Task Subtotal				\$50,000		

Capbank Removal						
Cap Bank foundations	CY	39	\$300.36	\$11,714	Assumes 2ft thick pad and approx 30 cy per	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour. -- PER CAP BANK
Capbank Load, Haul, Dispose	EA	1	\$20,000.00	\$20,000	This equipment would be salvaged	Estimate for labor including salvage rate -- PER CAP BANK
Sort/Clean/Haul	EA	0	\$0.00	\$0	Included in "Capbank Load, Haul, Dispose"	
LABOR	EA	0	\$0.00	\$0	Included above	
EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$31,714		-- PER CAP BANK

Switch Removal						
Switch foundations	CY	3	\$300.36	\$901	Assuming 15 cy per switch	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour. -- PER Switch
Switch Load, Haul, Dispose	EA	1	\$15,000.00	\$15,000	Lower Salvage value than reactor/cap	Estimate for labor including salvage rate -- PER Switch
Sort/Clean/Haul	EA	0	\$0.00	\$0	Included in "Switch Load, Haul, Dispose"	
LABOR	EA	0	\$0.00	\$0	Included above	
EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$15,901		-- PER Switch

Dead-End/Bus Structure - Removal						
Dead-End Steel	EA	2	\$21,460.00	\$42,920	Removal of hardware and disassembly of 500 Kv H-Frames and 2 drilled pier foundations per Dead-End	Assumes 9 man crew to remove 1 h-frame in 2 days. Loaded crew rate is \$1073/hour including equipment
Strain Bus Structure	EA	1	\$21,460.00	\$21,460	Structure and drilled pier foundation	
500kV Bus Supports	EA	23	\$21,460.00	\$493,580	Structure and drilled pier foundations	Single phase 500kV bus supports
Sort/Clean/Haul	EA	2	\$0.00	\$0	Included in "Load, Haul, Dispose"	
LABOR	EA	2	\$0.00	\$0	Included above	
EQUIPMENT	EA	2	\$0.00	\$0	Included above	
Dead-End H-FRAME STRUCTURE FOUNDATIONS	CY	40	\$300.36	\$12,014	Assuming 20 cy per Tubular Steel Pole Structures removal	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Task Subtotal				\$569,974		Total

Control Building Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
BUILDING WRECKING (Assumes container construction for ease of construction (factory built) and removal)						
Communication Control Building	EA	1	\$10,593.00	\$10,593	Removal of control building at Midline station. Includes removal of equipment inside building, hauling and disposal.	Assumes 4-person crew will remove salvageable equipment from building in three days. Building remove, load and haul - 3 days. Loaded crew daily rate is \$3531 including equipment.
Task Subtotal				\$10,593		

CONCRETE WRECKING [Imported from Tab 3]						
REINFORCED CONCRETE						
1.SLAB ON GRADE	EA	1	\$8,100.00	\$8,100	Midline station is on a 4 pads, similar size building to comm site	Assumes 6 person crew. Loaded crew rate is \$540/hour includes equipment. Estimate 1 1/2 day per site (15 hrs)
Task Total				\$8,100		

Control Building Total: \$18,693

Longhorn Station Removals

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
Fence Removal						
Communication Station Fence & Gate removal	EA	1	\$50,000.00	\$50,000	Removal of existing facility fencing and gates.	Assumes removal of fencing perimeter of approximately 2080 ft
Task Subtotal				\$50,000		<-- TOTAL YARD

Capbank Removal						
Cap Bank foundations	CY	30	\$300.36	\$9,011	Assumes 2ft thick pad and approx 30 cy per	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Capbank Load, Haul, Dispose	EA	1	\$20,000.00	\$20,000	This equipment would be salvaged	Estimate for labor including salvage rate
SORT/CLEAN/HAUL	EA	0	\$0.00	\$0	Included in "Capbank Load, Haul, Dispose"	
LABOR	EA	0	\$0.00	\$0	Included above	
EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$29,011		<-- PER CAP BANK

Reactor Removal						
Reactor foundations	CY	15	\$300.36	\$4,505	Assumes 2ft thick pad and approx 15 cy per	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Reactor Load, Haul, Dispose	EA	1	\$8,000.00	\$8,000	This equipment would be salvaged	Estimate for labor including salvage rate
SORT/CLEAN/HAUL	EA	0	\$0.00	\$0	Included in "Reactor Load, Haul, Dispose"	
LABOR	EA	0	\$0.00	\$0	Included above	
EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$12,505		<-- PER Reactor

Switch Removal						
Switch foundations	CY	15	\$300.36	\$4,505	Assuming 15 cy per switch	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Switch Load, Haul, Dispose	EA	1	\$15,000.00	\$15,000	Lower Salvage value than reactor/cap	Estimate for labor including salvage rate
SORT/CLEAN/HAUL	EA	0	\$0.00	\$0	Included in "Switch Load, Haul, Dispose"	
LABOR	EA	0	\$0.00	\$0	Included above	
EQUIPMENT	EA	0	\$0.00	\$0	Included above	
Task Subtotal				\$19,505		<-- PER Switch

Dead-End - Removal						
Dead-End Steel	EA	2	\$21,460.00	\$42,920	Removal of hardware and disassembly of 500 Kv H-Frames	Assumes 9 man crew to remove 1 h-frame in 2 days. Loaded crew rate is \$1073/hour including equipment
SORT/CLEAN/HAUL	EA	2	\$0.00	\$0	Included in "Load, Haul, Dispose"	
LABOR	EA	2	\$0.00	\$0	Included above	
EQUIPMENT	EA	2	\$0.00	\$0	Included above	
Dead-End H-FRAME STRUCTURE FOUNDATIONS	CY	40	\$300.36	\$12,014	Assuming 20 cy per Tubular Steel Pole Structures removal	Assumes 6 person crew can remove 18 cy/day. Loaded crew rate is \$540.64/hour.
Task Subtotal				\$54,934		Total

Control Building Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
BUILDING WRECKING (Assumes container construction for ease of construction (factory built) and removal)						
Communication Control Building	EA	1	\$10,593.00	\$10,593	Removal of control building at Midline station. Includes removal of equipment inside building, hauling and disposal.	Assumes 4-person crew will remove salvageable equipment from building in three days. Building remove, load and haul - 3 days. Loaded crew daily rate is \$3531 including equipment.
Task Subtotal				\$10,593		

CONCRETE WRECKING						
REINFORCED CONCRETE						
1.SLAB ON GRADE	EA	1	\$8,100.00	\$8,100	Midline station is on a 4 pads, similar size building to comm site	Assumes 6 person crew. Loaded crew rate is \$540/hour includes equipment. Estimate 1 1/2 day per site (15 hrs)
Task Total				\$8,100		

Control Building Total: \$18,693

Fence Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
Communication Station Fence & Gate removal	EA	10	\$5,925.00	\$59,250	Removal of existing facility fencing and gates.	Assumes removal of fencing around 7 communication stations. Approximately \$5,925 Each
Task Subtotal				\$59,250		

Control Building Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
BUILDING WRECKING (Assumes container construction for ease of construction (factory built) and removal)						
Communication Control Building	EA	10	\$10,593.00	\$105,930	Removal of control building at communication stations. Includes removal of equipment inside building, hauling and disposal.	Assumes 4-person crew will remove salvageable equipment from building in three days. Building remove, load and haul - 3 days. Loaded crew daily rate is \$3531 including equipment.
Task Subtotal				\$105,930		

Remove Foundations To Subgrade

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
CONCRETE WRECKING						[Imported from Tab 3]
REINFORCED CONCRETE						
1.SLAB ON GRADE	EA	10	\$8,100.00	\$81,000	Each communication station will have 4 slabs (building & Propane) for removal. Includes removal, haul and disposal.	Assumes 6 person crew. Loaded crew rate is \$540/hour includes equipment. Estimate 1 1/2 day per site (15 hrs)
Task Total				\$81,000		

Electical Removal

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
A. UTILITY DISCONNECTS						
1.POWER	EA	13	\$5,391.00	\$70,083	Disconnect costs from local utility.	Assumes \$5391 disconnect cost from local distribution utility for each communication stations and 3 storage / staging areas.
B. UNDERGROUND UTILITY REMOVAL						
1.ELECTRICAL DUCT BANK	EA	10	\$4,579.14	\$45,791	Remove and backfill underground ducts at communicaton sites.	Assumes 50' of ug duct at 7 comm stations person crew will complete 1 day on site
C. ELECTRICAL WRECKING						
10.Communication Stations	Ea	10	\$7,050.00	\$70,500	Removal of Propane and restoration (fill and grade) of the sites	Control building remove under section 4.
Task Subtotal				\$186,374		

Access road restoration

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
SITE GRADING						
1A. ACCESS ROAD RESTORATION - PRIMITIVE ROADS AND TOWER PADS	MI	250	\$32,052.75	\$8,013,188	Includes recontouring and ~140,000 CY of backfill import	Assumed 50% of import would be from available onsite native material and 50% would be borrow pit material purchased at \$3/CY; assumed 30% of current project design quantities for drainage crossings would have to be removed
1B. ACCESS ROAD RESTORATION - BUILT UP ALL-WEATHER ROADS.	MI	470	\$1,930	\$907,077		Included in 1A Removal included in "Decompact & Remove Gravel From Roads" section
Task Subtotal				\$8,920,264		

Re-Seed With Native Vegetation - Roads & Areas Disturbed By Construction

Task Description	Unit	Quantity	Unit Cost	Total	Comments	Methods/Assumptions
C. SITE GRADING						
Comments Methods/Assumptions						
3.SEEDING	AC	2000	\$2,745.77	\$5,491,540		Covers all re-seeding
6.EROSION CONTROL	MI	295	\$15,016.95	\$4,430,000		BMPs needed during demo work and during final restoration
Task Subtotal				\$9,921,540		