Exhibit S
Historic, Cultural, and Archaeological Resources

Boardman to Hemingway Transmission Line Project

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Application for Site Certificate

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ACRONYMS AND ABBREVIATIONS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effect
ASP	Archaeological Survey Plan
B2H	Boardman to Hemingway Transmission Line Project
BLM	Bureau of Land Management
BPA	Bonneville Power Administration
BOR	Bureau of Reclamation
CIS	Commission on Indian Services
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
DOD/USACE	Department of Defense/United States Army Corps of Engineers
EFSC or Council	Energy Facility Siting Council
EMF	electromagnetic field
FWS	U.S. Fish and Wildlife Service
GIS	geographic information system
HPMP	Historic Properties Management Plan
HPRCSIT	Historic Properties of Religious and Cultural Significance to Indian Tribes
IDP	Inadvertent Discovery Plan
IF	isolated find
ILS	intensive-level survey
IPC	Idaho Power Company
kV	kilovolt
m	meter
MPDF	Multiple Property Documentation Form
NEPA	National Environmental Policy Act of 1969
NHT	National Historic Trail
NHPA	National Historic Preservation Act
NOI	Notice of Intent to File an Application for Site Certificate
NPS	National Park Service
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rules
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statute
PA	Programmatic Agreement
Project	Boardman to Hemingway Transmission Line Project
RLS	reconnaissance-level survey
Second Amended Project Order	Second Amended Project Order, Regarding Statutes, Administrative Rules, and Other Requirements Applicable to the Proposed BOARDMAN TO HEMINGWAY TRANSMISSION LINE (July 26, 2018)
SHPO	State Historic Preservation Office
TCP	traditional cultural property
THPO	Tribal Historic Preservation Officer
U.S.C.	United States Code
USFS	United States Forest Service

USGS	U.S. Geological Survey
VAHP	Visual Assessment of Historic Properties Study Plan

Exhibit S
Historic, Cultural, and Archaeological Resources

1.0 INTRODUCTION

Exhibit S provides information on the historic, cultural, and archaeological resources that may potentially be impacted by the Boardman to Hemingway Transmission Line Project (B2H or Project).[1] The information in Exhibit S demonstrates that the Project will comply with the Oregon Energy Facility Siting Council's (EFSC or Council) Historic, Cultural, and Archaeological Resources Standard, Oregon Administrative Rule (OAR) 345-022-0090, by showing that the construction and operation of the Project, taking into account mitigation, are not likely to result in significant adverse impacts to: historic, cultural, or archaeological resources that are listed or eligible for listing on the National Register of Historic Places (NRHP); archaeological objects, or archaeological sites.

Information concerning the location of archaeological sites or objects are exempt from public disclosure under Oregon Revised Statute (ORS) 192.501(11).[2] Therefore, such information, including archaeological survey reports, is provided confidentially to the Oregon Department of Energy (ODOE).

1.1 Definitions

The following definitions apply in this Exhibit:

- Aboveground resource: A type of cultural resource with aboveground elements that has the potential to be directly or indirectly affected by the Project which includes cairns, rock alignments, shelters, and other buildings, structures, districts, objects, and sites potentially eligible for listing on the NRHP under Criterion A, B, C, or D.
- Analysis area: The overall area examined for impacts by the Project in Exhibit S. Includes subset analysis areas of the direct analysis area and the Visual Assessment analysis area.
- Archaeological site: A type of cultural resource consisting of a concentration of a minimum of 10 artifacts within the ground or in ruins or a feature (Oregon State Historic Preservation Office [SHPO] 2013a). 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 each other or biotic or geological remains or deposits (ORS 358.905(1)(c)).

[1] This Exhibit includes data regarding cultural resources identified within the analysis area, as well as a high level summary of field survey data collected to date. The State Historic Preservation Office (SHPO) is yet to concur with findings of field surveys. Therefore, IPC's analysis of potential significant adverse impacts to cultural resources is not considered final for SHPO purposes, but this Exhibit is considered complete for ODOE purposes. IPC will submit more complete field survey data in support of its Application for Site Certificate in a manner and on a schedule agreeable to ODOE.

[2] OAR 345-021-0010(s) provides that "information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or ORS 192.501(11)," and that the applicant "shall submit such information separately, clearly marked as 'confidential,' and shall request that the Department and the Council keep the information confidential to the extent permitted by law."

- Archaeological object: A type of cultural resource consisting of fewer than 10 artifacts. Also referred to as an isolated find (Oregon SHPO 2013a). It is part of the physical record of an indigenous or other culture found in the state or waters of the state and consists of material remains of past human life or activity that are of archaeological significance (ORS 358.905(1)(a)).
- Burial: Any natural or prepared physical location whether originally below, on, or above the surface of the earth, into which, as a part of a death rite or death ceremony of a culture, human remains were deposited (ORS 358.905(1)(e)).
- Construction footprint: The area within the Project Site Boundary that will be directly impacted by the Project through ground disturbance during construction.
- Cultural resource: Any place where material evidence exists about the human past. Generally, 50 years or older. Physical features, both natural and human made, associated with human activity. These would include sites, structures, and objects representing events in history, architecture, or human development. Cultural resources are unique and non-renewable resources (Thomas 1998).
- Cultural site boundary: The extent of a cultural resource as identified by field surveys. Typically defined as the extent of cultural materials (surface and subsurface).
- Direct analysis area: The portion of the analysis area examined for direct impacts by the Project. Equivalent to the Project Site Boundary.
- Funerary objects: Any artifacts or objects that, as part of a death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later (ORS 358.905(1)(f)).
- Historic Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT): A type of cultural resource whose significance is derived from the role it plays in an Indian Tribe's historically rooted beliefs, customs, and practices and that may be located on ancestral, aboriginal, or ceded lands of the Tribe. Also referred to as a sacred site. See also Section 101(d)(6)(A) of the NHPA and Advisory Council on Historic Preservation (ACHP) (2008).
- Historic property: A type of cultural resource consisting of any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the NRHP, including artifacts, records, and remains related to and located within such a property or resource.
- Historic site: A type of cultural resource inclusive of historic buildings, structures, sites, districts, and objects that would be included in the SHPO's online Historic Sites Database.
- Human remains: The physical remains of a human body, including, but not limited to, bones, teeth, hair, ashes or mummified or otherwise preserved soft tissues of an individual (ORS 358.905(1)(g)).
- Indian tribe: Any tribe of Indians recognized by the Secretary of the Interior or listed in the Klamath Termination Act, 25 United States Code [U.S.C.] 3564 et seq., or listed in the Western Oregon Indian Termination Act, 25 U.S.C. 3691 et seq., if the traditional cultural area of the tribe includes Oregon lands (ORS 97.740(4) [incorporated by reference in ORS 358.905(1)(d)]).
- Object of cultural patrimony: An object having ongoing historical, traditional or cultural importance central to the native Indian group or culture itself, rather than property owned by an individual native Indian, and which, therefore, cannot be alienated, appropriated,

or conveyed by an individual regardless of whether or not the individual is a member of the Indian tribe. The object shall have been considered inalienable by the native Indian group at the time the object was separated from such group. The term does not include unassociated arrowheads, baskets, or stone tools or portions of arrowheads, baskets, or stone tools (ORS 358.905(1)(h)(A); ORS 358.905(1)(h)(B)).

- Operation footprint: The area within the Project Site Boundary that will be directly impacted by the Project during its lifetime of operation.
- Professional Archaeologist: A person who has extensive formal training and experience in systematic, scientific archaeology (ORS 97.740(6)).
- Project Site Boundary: The perimeter of the site of the proposed energy facility and encompassing all of its related or supporting facilities, all temporary laydown and staging areas, and all corridors and micrositing corridors proposed by the applicant (OAR 345-001-0010(55)).
- Sacred object: An archaeological object or other object that: (A) is demonstrably revered by any ethnic group, religious group or Indian tribe as holy; (B) is used in connection with the religious or spiritual service or worship of a deity or spirit power; or (C) was or is needed by traditional native Indian religious leaders for the practice of traditional native Indian religion (ORS 358.905(1)(k)).
- Study Area (2-mile, 5-mile): The area examined during pre-survey cultural resource-related research efforts, including the records search and literature review. A 2-mile buffer and a 5-mile buffer on the Proposed Route and alternative routes established two subsets of the Study Area for the pedestrian cultural resources survey and the Visual Assessment of Historic Properties Study Plan (VAHP), respectively.
- Traditional Cultural Property (TCP): A type of historic property that is eligible for inclusion on the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1998).
- Visual Assessment analysis area: The portion of the analysis area examined for indirect impacts by the Project. The area assessed for indirect effects that extends 5 miles or to the visual horizon, whichever is closer, on either side of the centerline of the Proposed Route and alternative routes.

2.0 APPLICABLE STATUES, RULES, AND SECOND AMENDED PROJECT ORDER PROVISIONS

2.1 EFSC Administrative Rules

2.1.1 Site Certificate Application Requirements

OAR 345-021-0010(1)(s) provides Idaho Power Company (IPC) must include information in Exhibit S or confidential submissions of the following information regarding historic, cultural, and archaeological resources:

> *(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places.*
>
> *(B) For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.*

(C) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.

(D) The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:

(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B) and (C).

(ii) The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.

(iii) A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction.

(E) The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility.

2.1.2 General Standards for Siting Facilities

Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090(1)[3] provides IPC must demonstrate that the construction and operation of the Project, 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;

(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).

2.2 Second Amended Project Order Provisions

The Second Amended Project Order includes the following discussion:

The application shall include the survey methodology, survey areas, and the results of all surveys conducted for historic, cultural, and archaeological resources, as well as an analysis of any significant adverse impacts anticipated and proposed mitigation measures. The applicant should work closely with the State Historic Preservation Office (SHPO) to understand the report formatting and submission requirements, and to receive guidance on any survey protocols. The application shall include map(s) showing important historic trails located within the Historic, Cultural, and Archaeological Resources analysis area, including the segments of the Oregon Trail that are listed or eligible for listing on the National Register of Historic Places (NRHP), and discuss

[3] Subsections (2) and (3) of the Historic, Cultural, and Archaeological Resources Standard apply to power generation facilities and special criteria facilities, respectively. Since the Project does not include a power generation or special criteria facility, subsections (2) and (3) of OAR 345-022-0090 do not apply to the Project.

measures to avoid or mitigate for impacts to historic trails. SHPO has advised that the proposed transmission line crosses many land forms that are generally perceived to have a high probability for possessing archaeological sites and buried human remains.

As discussed previously, the applicant has proposed a "phased survey" approach for data collection during the site certificate review process. The Department understands that the entirety of the site boundary for the proposed facility may not have yet been surveyed for cultural resources due to limited site access. On April 24, 2018 the Department issued a memo titled; "Energy Facility Siting Council Decisions for Linear Facilities with Restricted Access within a Site Boundary: Boardman to Hemingway Transmission Line". This memo outlines how the Department will review applications and make recommendations to Council for historic, cultural and archaeological resources that have been evaluated in the pASC and ASC. Once IPC gains access to previously restricted areas, IPC shall include that information via a site certificate amendment process. Exhibit S shall include as much information as possible about the field surveys conducted to date for cultural resources on state, private, and federal lands, and the schedule for future surveys.

The application may include in Exhibit S (or as attachments to Exhibit S), the description of state and federal workgroups, membership, purpose, and copies of any work plans that workgroups have developed governing survey methodologies.

Exhibit S shall include analysis of how the evidence provided supports a finding by the Council that the proposed facility meets the Council's Historic, Cultural, and Archaeological Resources standard. It is recommended that the applicant provide proposed site certificate conditions for the Council's consideration related to requirements for the applicant to complete all unfinished surveys within the facility's site boundary prior to construction. It is recommended any proposed site certificate conditions also address submittal requirements for reporting future survey results, obtaining EFSC approval of cultural resource survey documents, and the applicant's proposed approach to document approval of final results by agencies and the Council prior to commencing construction activities.

(Second Amended Project Order, Section III(s)).

The NOI listed the following tribes as "being expected to have an interest in the Project's Proposed Corridor": Burns-Paiute Tribe, Shoshone-Paiute Tribes of Duck Valley Indian Reservation, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Confederated Tribes of Warm Springs Reservation, Nez Perce Tribe, Confederated Tribes of the Colville Reservation, Fort McDermitt Shoshone-Paiute Tribes, Shoshone-Bannock Tribes of Fort Hall Indian Reservation, and the Klamath Tribes.

In June 2012, the applicant contacted the Legislative Commission on Indian Services (LCIS) regarding tribes, tribal lands, and tribal resources potentially affected by the B2H facility. In its response, the LCIS identified three federally recognized tribal governments in Oregon that shall be consulted regarding the proposed facility: Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Confederated Tribes of the Warm Springs, and Burns Paiute Tribe. In addition, the LCIS recommended the applicant contact out-of-state tribal governments, as the traditional territory of these tribes extends into Oregon near the proposed facility. These tribes are the Confederated Tribes of the Yakama Nation, the Nez Perce Tribe, and the Colville Confederated Tribes. The response from the LCIS shall be included as an attachment to Exhibit S.

> *The affected tribes, as identified by the LCIS, provide technical review and recommendations in reference to the Council's Historic, Cultural and Archaeological Resources Standard (OAR 345-022-0090). The application shall include evidence of consultation with affected tribes regarding archaeological and cultural sites and materials that may be found on the proposed facility site.*
>
> *The Department understands that the proposed facility will require approval from federal agencies, and that federal agencies are engaging in formal government-to-government consultation with affected Indian tribes under the requirements of the National Historic Preservation Act (NHPA). To the extent it aids in establishing compliance with the applicant's obligations under the EFSC review process, the applicant may rely on the evidence resulting from the tribal consultations required by the NHPA. A Programmatic Agreement (PA) to govern compliance with the NHPA has been finalized and executed. The PA does not govern compliance with the EFSC Historic, Cultural, and Archaeological Resources standard, though work conducted in support of the PA could be used to support a Council finding of compliance with the Historic, Cultural, and Archaeological Resources standard.*
>
> *The CTUIR provided detailed written comments on the NOI regarding impacts to First Food resources, habitat fragmentation, introduction of weed species, effects to historic properties, insufficient noise and visual analysis in the NOI. The CTUIR also noted the potential for cumulative impacts, cultural resource impacts, and impacts to the Umatilla Indian Reservation. The CTUIR also provided several rounds of comments on the amended preliminary application for site certificate (ApASC) in October, 2017 and ongoing throughout the completeness review of the ApASC. On May 3, 2018 ODOE, the CTUIR, IPC, and SHPO held a meeting at the Nixyáawii Governance Center on the CTUIR reservation. The purpose of the meeting was to discuss concerns of the CTUIR and completeness issues that the CTUIR identified during the reviewing agency comment period of the B2H ApASC. After the meeting, IPC coordinated directly with the CTUIR to address their concerns in the applicable sections of the application. To the extent these issues are matters within Council jurisdiction, the issues shall be addressed in the appropriate application exhibit. Any permits or easements required by the CTUIR or other tribal governments are outside of the Council jurisdiction and are the responsibility of the applicant.*

(Second Amended Project Order, Section V).

2.3 Applicable Oregon Revised Statutes

The following Oregon Revised Statutes pertaining to cultural resources are applicable to the Project.

2.3.1 Indian Graves and Protected Objects

ORS 97.745 provides protection for Indian graves and protected objects, including cairns, burials, human remains, funerary objects, sacred objects, and objects of cultural patrimony of any native Indian. It describes acts prohibited in relation to the above resources, the applicability of the statute, and the notification procedures for when suspected Indian human remains are discovered. The statute states:

> *(1) Except as provided in ORS 97.750, no person shall willfully remove, mutilate, deface, injure or destroy any cairn, burial, human remains, funerary object, sacred object or object of cultural patrimony of any native Indian. Persons disturbing native Indian cairns*

or burials through inadvertence, including by construction, mining, logging or agricultural activity, shall at their own expense reinter the human remains or funerary object under the supervision of the appropriate Indian tribe.

(2) Except as authorized by the appropriate Indian tribe, no person shall:

(a) Possess any native Indian artifacts, human remains or funerary object having been taken from a native Indian cairn or burial in a manner other than that authorized under ORS 97.750.

(b) Publicly display or exhibit any native Indian human remains, funerary object, sacred object or object of cultural patrimony.

(c) Sell any native Indian artifacts, human remains or funerary object having been taken from a native Indian cairn or burial or sell any sacred object or object of cultural patrimony.

(3) This section does not apply to:

(a) The possession or sale of native Indian artifacts discovered in or taken from locations other than native Indian cairns or burials; or

(b) Actions taken in the performance of official law enforcement duties.

(4) Any discovered human remains suspected to be native Indian shall be reported to the state police, the State Historic Preservation Officer, the appropriate Indian tribe and the Commission on Indian Services.

2.3.2 Archaeological Objects and Sites

ORS 358.920 identifies prohibited acts on public and private lands in Oregon, relative to archaeological resources. It states that disturbances to archaeological sites or objects on public or private lands must be completed under a permit issued under ORS 390.235 and provides direction for disposition of those archaeological materials and any human remains and associated funerary objects. The section is not applicable to the disturbance of Native American cairns, which is covered by the provisions of ORS 97.740 to 97.760. The statute states:

(1)(a) A person may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390.235.

(b) Collection of an arrowhead from the surface of public or private land is permitted if collection can be accomplished without the use of any tool.

(c) It is prima facie evidence of a violation of this section if:

(A) A person possesses the objects described in paragraph (a) of this subsection;

(B) A person possesses any tool that could be used to remove such objects from the ground; and

(C) A person does not possess a permit required under ORS 390.235.

(2) A person may not sell, purchase, trade, barter or exchange or offer to sell, purchase, trade, barter or exchange any archaeological object that has been removed from an

archaeological site on public land or obtained from private land within the State of Oregon without the written permission of the landowner.

(3)(a) A person may not sell, trade, barter or exchange or offer to sell, trade, barter or exchange any archaeological object unless the person furnishes the purchaser a certificate of origin to accompany the object that is being sold or offered. The certificate shall include:

(A) For objects obtained from public land:

(i) A statement that the object was originally acquired before October 15, 1983.

(ii) The location from which the object was obtained and a brief cumulative description of how the object had come into the possession of the current owner in accordance with the provisions of ORS 358.905 to 358.961 and 390.235.

(iii) A statement that the object is not human remains, a funerary object, sacred object or object of cultural patrimony.

(B) For objects obtained from private land:

(i) A statement that the object is not human remains, a funerary object, sacred object or object of cultural patrimony.

(ii) A copy of the written permission of the landowner to acquire the object.

(b) As used in this subsection, "certificate of origin" means a signed and notarized statement that meets the requirements of paragraph (a) of this subsection.

(4)(a) If the archaeological object was acquired after October 15, 1983, from public lands, any object not described in paragraph (b) of this subsection is under the stewardship of the state and shall be delivered to the Oregon State Museum of Anthropology. The museum shall work with the appropriate Indian tribe and other interested parties to develop appropriate curatorial facilities for artifacts and other material records, photographs and documents relating to the cultural or historic properties in this state. Generally, artifacts shall be curated as close to the community of their origin as their proper care allows. If it is not feasible to curate artifacts within this state, the museum may after consultation with the appropriate Indian tribe or tribes enter into agreements with organizations outside this state to provide curatorial services; and

(b) If the object is human remains, a funerary object, a sacred object or an object of cultural patrimony, it shall be dealt with according to ORS 97.740, 97.745 and 97.750.

(5) A person may not excavate an archaeological site on privately owned property unless that person has the property owner's written permission.

(6) If human remains are encountered during excavations of an archaeological site on privately owned property, the person shall stop all excavations and report the find to the landowner, the state police, the State Historic Preservation Officer and the Commission on Indian Services. All funerary objects relating to the burial shall be delivered as required by ORS 358.940.

(7) This section does not apply to a person who disturbs an Indian cairn or burial. Any person who disturbs an Indian cairn or burial for any reason shall comply with the provisions of ORS 97.740 to 97.760.

(8) Violation of the provisions of this section is a Class B misdemeanor.

2.3.3 Archaeological Sites and Historical Material

ORS 390.235 sets forth the permit requirements and rules for excavation or removal of archaeological or historical materials as follows:

(1)(a) A person may not excavate or alter an archaeological site on public lands, make an exploratory excavation on public lands to determine the presence of an archaeological site or remove from public lands any material of an archaeological, historical, prehistorical or anthropological nature without first obtaining a permit issued by the State Parks and Recreation Department.

(b) If a person who obtains a permit under this section intends to curate or arrange for alternate curation of an archaeological object that is uncovered during an archaeological investigation, the person must submit evidence to the State Historic Preservation Officer that the Oregon State Museum of Anthropology and the appropriate Indian tribe have approved the applicant's curatorial facilities.

(c) No permit shall be effective without the approval of the state agency or local governing body charged with management of the public land on which the excavation is to be made, and without the approval of the appropriate Indian tribe.

(d) The State Parks and Recreation Director, with the advice of the Oregon Indian tribes and Executive Officer of the Commission on Indian Services, shall adopt rules governing the issuance of permits.

(e) Disputes under paragraphs (b) and (c) of this subsection shall be resolved in accordance with ORS 390.240.

(f) Before issuing a permit, the State Parks and Recreation Director shall consult with:

(A) The landowning or land managing agency; and

(B) If the archaeological site in question is associated with a prehistoric or historic native Indian culture:

(i) The Commission on Indian Services; and

(ii) The most appropriate Indian tribe.

(2) The State Parks and Recreation Department may issue a permit under subsection (1) of this section under the following circumstances:

(a) To a person conducting an excavation, examination or gathering of such material for the benefit of a recognized scientific or educational institution with a view to promoting the knowledge of archaeology or anthropology;

(b) To a qualified archaeologist to salvage such material from unavoidable destruction; or

(c) To a qualified archaeologist sponsored by a recognized institution of higher learning, private firm or an Indian tribe as defined in ORS 97.740.

(3) Any archaeological materials, with the exception of Indian human remains, funerary objects, sacred objects and objects of cultural patrimony, recovered by a person granted a permit under subsection (2) of this section shall be under the stewardship of the State of Oregon to be curated by the Oregon State Museum of Anthropology unless:

(a) The Oregon State Museum of Anthropology with the approval from the appropriate Indian tribe approves the alternate curatorial facilities selected by the permittee;

(b) The materials are made available for nondestructive research by scholars; and

(c)(A) The material is retained by a recognized scientific, educational or Indian tribal institution for whose benefit a permit was issued under subsection (2)(a) of this section;

(B) The governing board of a public university listed in ORS 352.002, with the concurrence of the appropriate Indian tribe, grants approval for material to be curated by an educational facility other than the institution that collected the material pursuant to a permit issued under subsection (2)(a) of this section; or

(C) The sponsoring institution or firm under subsection (2)(c) of this section furnishes the Oregon State Museum of Anthropology with a complete catalog of the material within six months after the material is collected.

(4) The Oregon State Museum of Anthropology shall have the authority to transfer permanent possessory rights in subject material to an appropriate Indian tribe.

(5) Except for sites containing human remains, funerary objects and objects of cultural patrimony as defined in ORS 358.905, or objects associated with a prehistoric Indian tribal culture, the permit required by subsection (1) of this section or by ORS 358.920 shall not be required for forestry operations on private lands for which notice has been filed with the State Forester under ORS 527.670.

(6) As used in this section:

(a) "Private firm" means any legal entity that:

(A) Has as a member of its staff a qualified archaeologist; or

(B) Contracts with a qualified archaeologist who acts as a consultant to the entity and provides the entity with archaeological expertise.

(b) "Qualified archaeologist" means a person who has the following qualifications:

(A) A post-graduate degree in archaeology, anthropology, history, classics or other germane discipline with a specialization in archaeology, or a documented equivalency of such a degree;

(B) Twelve weeks of supervised experience in basic archaeological field research, including both survey and excavation and four weeks of laboratory analysis or curating; and

(C) Has designed and executed an archaeological study, as evidenced by a Master of Arts or Master of Science thesis, or report equivalent in scope and quality, dealing with archaeological field research.

(7) Violation of the provisions of subsection (1)(a) of this section is a Class B misdemeanor.

2.4 Additional Regulatory Context

As described in detail in Exhibit C, a substantial portion of the Project is located on private lands (69 percent or 186 miles); however, the Project also crosses stretches of land managed by the Bureau of Land Management (BLM), the Bureau of Reclamation (BOR), the Department of Defense/United States Army Corps of Engineers (DOD/USACE), the State of Oregon, and the United States Forest Service (USFS) (24 percent or 65.4 miles across BLM-managed land, 0.2 percent or 0.5-mile across BOR-managed lands, 4 percent or 10.5 miles across DOD/USACE-managed lands, 3 percent or 7.1 miles on National Forest System lands, and 0.4 percent or 1.1 miles across State lands [Exhibit C, Table C-1]). The BLM is the lead federal agency responsible for completing the National Environmental Policy Act (NEPA) environmental analysis, which addresses, among other things, cultural, historic, and archaeological impacts of the Project and compliance with Section 106 of the National Historic Preservation Act (NHPA). The BLM's Environmental Impact Statement (EIS) (BLM 2016) was completed in November 2016. The EIS also includes the results of the BLM's government-to-government tribal consultations and consultations with other parties with interest in the Project's cultural resources impacts. Although compliance with Section 106 of the NHPA does not equate to compliance with the EFSC standards, studies conducted in support of Section 106 compliance are utilized to support compliance with EFSC standards.

2.4.1 Section 106 Cultural Resources Working Group and Consulting Parties

ODOE is a participant in the BLM's Cultural Resources Working Group for the Project. Convened by the BLM to facilitate agency compliance with Section 106, the cultural resources working group comprises representatives of the Oregon State Office and Vale District Office of the BLM and its contractor; USFS; Bonneville Power Administration (BPA); the ACHP; Oregon and Idaho SHPOs; ODOE; CTUIR; CTUIR Tribal Historic Preservation Officer (THPO); Shoshone Paiute Tribe; Shoshone Bannock Tribe; Malheur, Baker, Union, Umatilla, and Morrow Counties; Oregon Commission on Historic Trails; Oregon-California Trails Association; Stop Idaho Power; and IPC. In addition to the working group, 32 consulting parties have been identified for the Project, including federal, state, and local agencies; IPC; tribes; historic preservation groups; and, public community groups and individuals with an interest in the Project. These are listed below:

- BLM
- USACE
- U.S. Department of the Navy, Naval Weapons Training Facility Boardman
- USFS, Regional Office
- U.S. National Park Service (NPS), Ice Age Floods National Geologic Trail
- BPA
- BOR
- U.S. Fish and Wildlife Service (FWS), Umatilla National Wildlife Refuge
- USFS, Wallowa-Whitman National Forest
- NPS National Lewis and Clark Trail Offices

- NPS, Pacific Northwest Region
- Idaho SHPO
- Washington SHPO
- Burns Paiute Tribe
- Shoshone-Bannock Tribes of Fort Hall
- Baker County
- Union County
- National Trust for Historic Preservation
- Oregon Historic Trails Advisory Council
- IPC
- Halt Idaho Power
- ACHP
- Oregon SHPO
- ODOE[4]
- CTUIR
- CTUIR THPO
- Shoshone-Paiute Tribes of the Duck Valley Indian Reservation
- Morrow County
- Lewis and Clark Trail Heritage Foundation
- Oregon-California Trails Association
- City of Baker City
- Private Individual
- Poison Creek Neighborhood Group

To date, the Cultural Resources Working Group has provided an open forum for identifying and resolving issues related to cultural resources. Through in-person meetings and conference calls, the cultural resources working group defined the size and boundaries of the area of potential effect for the Project under Section 106 (used in this exhibit to assist in determining the analysis area); reviewed, commented upon, and/or approved cultural resources and visual assessment study plans; and prepared a PA. The study plans are provided here as Attachments S-1 (Archaeological Survey Plan [ASP]) and S-2 (VAHP). The PA is provided as Attachment S-5.

2.4.2 Programmatic Agreement

A PA for managing historic properties that may be affected by the Project was prepared by BLM, acting as the designated lead federal agency and in consultation with the Section 106 Cultural Resources Working Group. The intent and applicability of the PA is for compliance with the NHPA and Section 106; however, studies and consultations completed under the direction of the PA may support the EFSC permitting process. The PA is included as Attachment S-5. Signatories to the PA include BLM, USFS, BPA, USACE, BOR, Oregon SHPO, Idaho SHPO, Washington Department of Archaeology and Historic Preservation (SHPO), CTUIR THPO, and ACHP. Invited signatories to the PA include NPS and IPC. Concurring parties that signed the PA include ODOE, Burns Paiute Tribe, Fort McDermitt Paiute and Shoshone Tribe, the Oregon-California Trails Association, Oregon Historic Trails Advisory Council, FWS, and the Lewis and Clark Heritage Trail Foundation. The following were invited concurring parties that did not sign the final PA: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, CTUIR, Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, Nez Perce Tribe, Confederated Tribes of the Colville Reservation, the Confederated Tribes of Warm Springs Indian Reservation, and the Confederated Tribes of the Yakama Nation. The final PA was signed by all required parties in late 2016/early 2017.

The PA allows for identification of cultural resources as well as NRHP eligibility evaluation and effect determinations on the Proposed Route and all alternative routes. The PA allows for the final determinations of Project effects to historic properties (including NRHP-listed, -eligible, and unevaluated resources) and the resolution of adverse effects to be outlined in an HPMP. Although

[4] ODOE's involvement in the Section 106 Cultural Resources Working Group was intended to facilitate the use of the federal Section 106 for compliance with ODOE's state regulatory requirements.

the HPMP required by the PA will be submitted by BLM for review by all PA parties, it is anticipated to be specific to compliance with Section 106 of the NHPA. In order to comply with the EFSC permitting process, an ODOE-specific HPMP for private and state lands has been drafted and is included as Attachment S-9. Approaches to identification and effect determinations are similar between the two HPMPs; however, the ODOE-specific HPMP also addresses archaeological resources and objects on private lands, regardless of NRHP-eligibility status.

2.4.3 Tribal Coordination and Consultation

Communications between tribes, IPC, and/or the BLM regarding the Project have occurred many times since 2008. Although IPC has had contact with tribes, the company has relied primarily on the BLM's government-to-government consultations under Section 106 to identify issues of concern and for review of NEPA-related documents, including survey plans and results. The below discussions document the correspondence and meetings conducted for the Project. Results of those efforts are described further in Section 3. Copies of IPC's tribal correspondence are provided as Attachment S-3. Also included in Attachment S-3 is the BLM's tribal consultation log and tribal government EIS comment letters from the BLM's EIS Appendices A and K.

2.4.3.1 IPC Tribal Coordination Efforts

IPC contacted the Oregon CIS in April 2012 with a request to identify all tribes potentially affected by the construction and operation of the facility. CIS responded via email in June 2012. The Commission identified the CTUIR, the Confederated Tribes of Warm Springs, and the Burns Paiute Tribe. These tribes have been invited to participate in the activities of the Cultural Resources Working Group. In addition, the Commission recommended coordination with additional tribes located outside of the state of Oregon, but whose traditional territories extend into the Project region, including the Yakama Indian Nation, the Nez Perce Tribe, and the Confederated Tribes of the Colville Indian Reservation.

IPC subsequently sent letters to the Burns Paiute Tribal Council, CTUIR, Confederated Tribes of the Colville Reservation, Confederated Tribes of the Warm Springs Reservation, Fort McDermitt Shoshone-Paiute Tribes, Klamath Tribes, Nez Perce Tribe, and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation. These letters introduced the project's ODOE EFSC permitting process and requested consultation under that process.

The CTUIR submitted a letter to ODOE in September 2010 with IPC copied. The letter was in response to IPC's Notice of Intent to Apply for a Site Certificate. CTUIR's letter outlined general concerns regarding the Project, as described in the Notice of Intent. Specifically, the Tribes expressed concern for First Food resources, treaty rights, habitat fragmentation,, disruption of wildlife migration habits, connectivity, weed management, revegetation, use of herbicides, management of the Project in forested areas, and use of the Project area by Tribal members. The CTUIR also stated that they believe the Project is likely to adversely affect historic properties, including those of religious and cultural significance to the CTUIR. Known resources likely to be impacted include the Oregon Trail, tribal trails, named places, villages, camps, traditional hunting, fishing, medicine, gathering, and digging areas, as well as archaeological sites. The tribes also offered to work with IPC and the BLM/USFS on the study design for resources protected by treaty and statute. The CTUIR recommended completion of a traditional use study in consultation with affected tribes to identify historic properties of religious and cultural significance. (Note, such studies have been completed through the Section 106 government-to-government consultations conducted by the BLM. See below.) Additional studies analyzing impacts on big game, bats, avian species, and other wildlife species were recommended. The CTUIR provided input regarding transmission line corridor routes as well as

applicable statutes, administrative rules, local government ordinances, and tribal codes that may apply to the Project. Concerns regarding the phased approach of Project studies were also expressed.

The confidential traditional use study completed by CTUIR in 2014 through the Section 106 process (see below) was provided to IPC on May 3, 2018, during an in-person meeting between ODOE, SHPO, CTUIR, and IPC regarding the EFSC site certificate process. The study (Engum 2014a, 2014b) has been incorporated, as appropriate, into this exhibit. Additional formal and informal phone conversations have occurred between CTUIR and IPC since the May 3, 2018, meeting to further IPC's coordination efforts.

2.4.3.2 Section 106 Government-to-Government Consultations

As stated in the EIS, the BLM formally initiated government-to-government consultation with eight tribal governments in August 2008, including the Burns Paiute Tribe, Confederated Tribes of the Colville Reservation, CTUIR, Confederated Tribes of the Warm Springs Indian Reservation of Oregon, Fort McDermitt Paiute and Shoshone Tribe, Nez Perce Tribe (including the Joseph Band of the Nez Perce), Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, and Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. Letters were sent to these governments who had previously expressed connection to lands associated with the Project area to inform them of the Project and to inquire about their interest in continuing government-to-government consultation.

Subsequently, on May 4, 2011, a revised scoping report was mailed by the BLM to the aforementioned eight tribal governments, the Columbia River Inter-Tribal Fish Commission, the Northwest Indian Fisheries Commission, and the following tribal governments: Yakama Nation; Affiliated Tribes of Northwest Indians; Confederated Tribes of Grand Ronde; Klamath Tribe; Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians; Coquille Indian Tribe; Puyallup Tribe; Cow Creek Band of Umpqua Indians; Kalispel Tribe; Fort Bidwell Indian Community; Confederated Tribes of Siletz Indians; Spokane Tribe; and Samish Indian Nation.

Consultations under Section 106 has generally involved formal letters and submission of material via U.S. Postal Service certified mail, with follow-up telephone contact. The venue for government-to-government consultation for the B2H Project has followed the established form of contact preferred by each tribe. Attachment S-3 provides a record of BLM's government-to-government consultation activities for the B2H Project as found in Appendix A of the Project's EIS.

3.0 ANALYSIS

Analyses for the Project have been completed or are in the process of being completed through several different studies and documents listed below. Those that have been completed are included as attachments to this Exhibit. Some of the studies are sensitive in nature and are included under separate confidential cover. These are not considered part of the public record because they contain confidential material regarding the extent and nature of protected cultural and historic resources. The studies or documents include:

- PA;
- ASP (survey plan for pedestrian cultural resources);
- VAHP (survey plan for aboveground resources);
- Cultural Resources Technical Report ("Technical Report") – *Confidential*;
- High Probability Areas Assessment – *Confidential* (for archaeological resources);

- Enhanced Archaeological Survey (testing of high probability areas, resource boundary probing, and NRHP-eligibility testing) – *Confidential* (for archaeological resources);
- Reconnaissance Level Survey – Visual Assessment of Historic Properties (RLS) – *Confidential* (for aboveground resources);
- Intensive Level Survey – Visual Assessment of Historic Properties (ILS) – *Confidential* (for aboveground resources);
- Historic Property Management Plan (HPMP) and Inadvertent Discovery Plan (IDP); and
- National Historic Trails (NHT) Study.

With the exception of the NHT Study, all documents are applicable to the entirety of the Project, regardless of land ownership. The NHT Study focuses on NHTs on federal lands within 5 miles of the Project centerline. Other trails on all lands within 5 miles of the Project centerline are addressed by the Cultural Resources Technical Report, RLS, and ILS.

3.1 Analysis Area

The analysis area for Exhibit S includes all areas within the Project Site Boundary as well as the area that extends 5 miles or to the visual horizon, whichever is closer, on either side of the centerline of the Proposed Route and alternative routes. The former (Project Site Boundary) is referred to here as the direct analysis area. The latter, combined with the direct analysis area, is referred to here as the Visual Assessment analysis area. It should be noted that the direct analysis area (which corresponds to the Project Site Boundary presented in Exhibit C) is larger than and encompasses the proposed construction footprint. The construction footprint is the only portion of the analysis area that is anticipated to experience direct impacts. The analysis area is depicted in Figures S-1 through S-5. The construction footprint within the analysis area is depicted in confidential Attachment S-11 (along with resource locations).

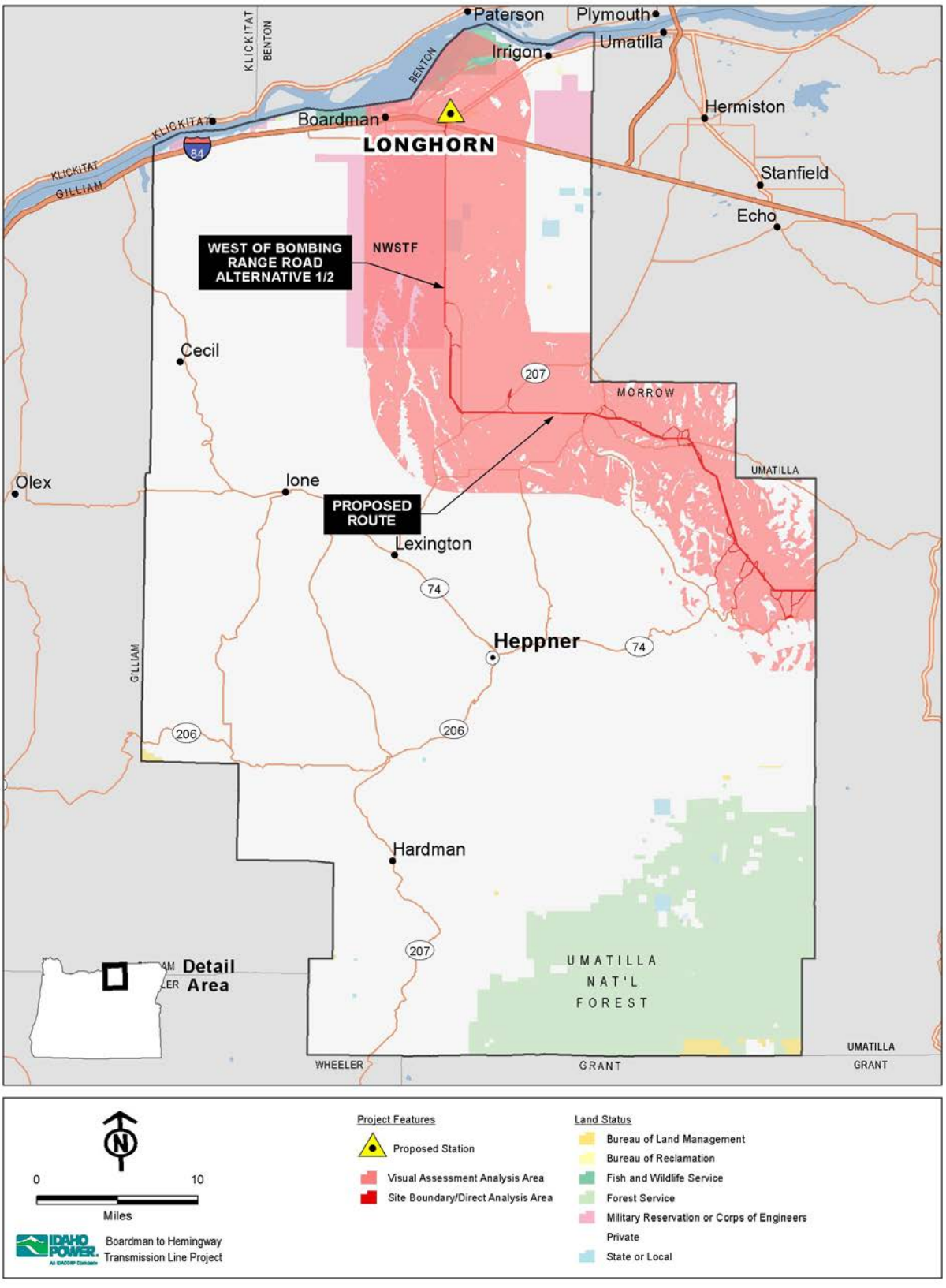

Figure S-1. Exhibit S Analysis Area, Morrow County

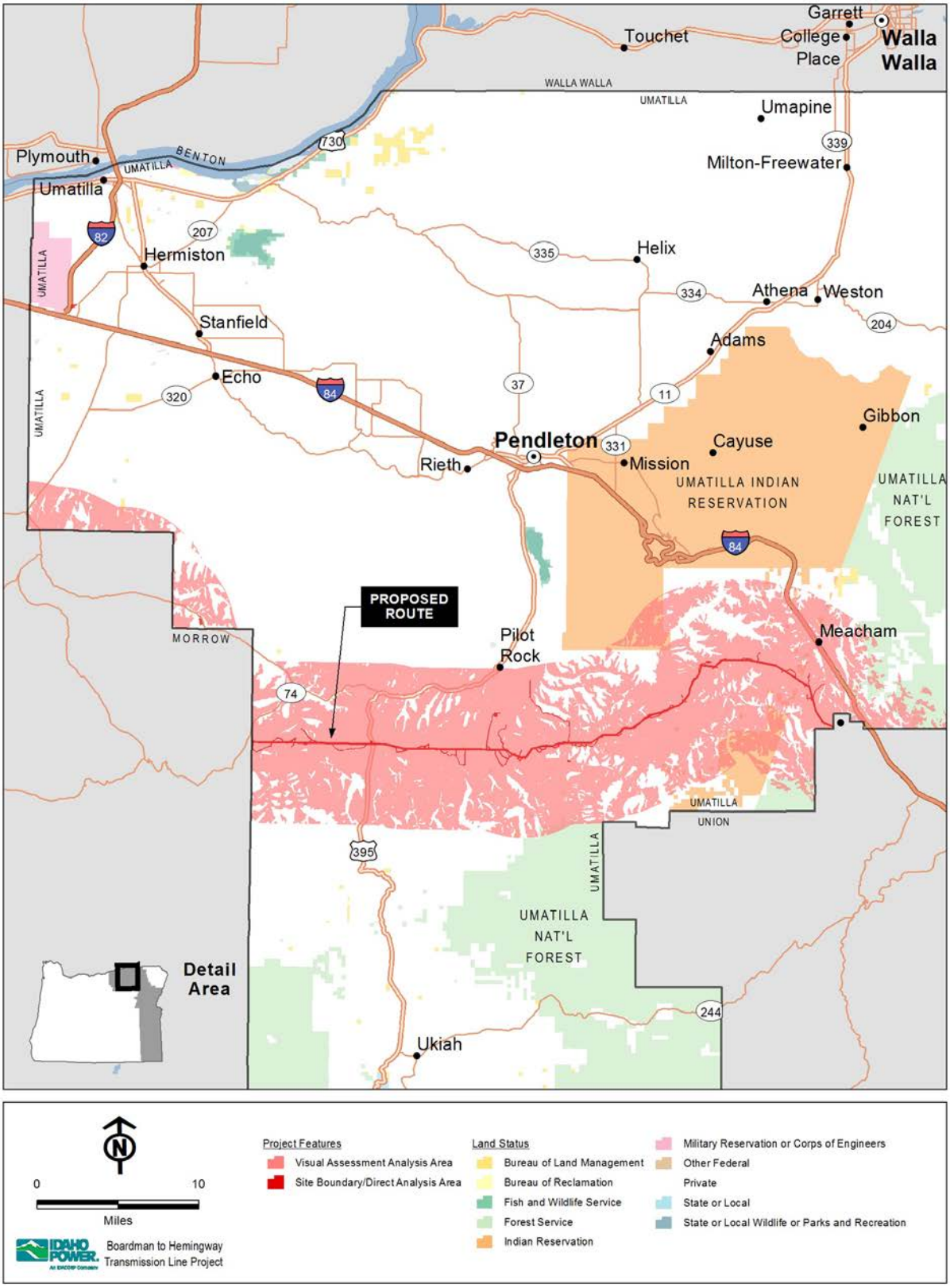

Figure S-2. Exhibit S Analysis Area, Umatilla County

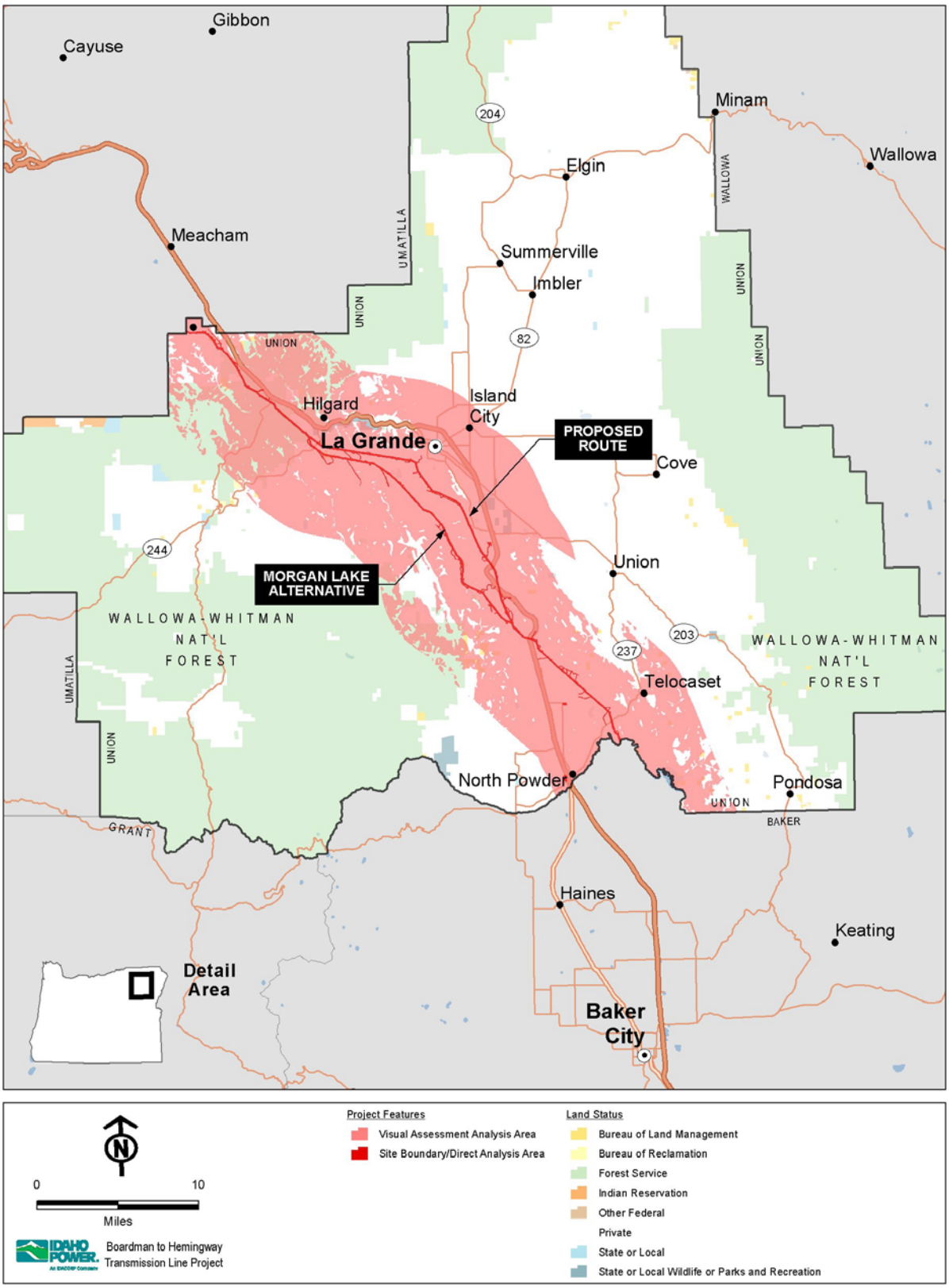

Figure S-3. Exhibit S Analysis Area, Union County

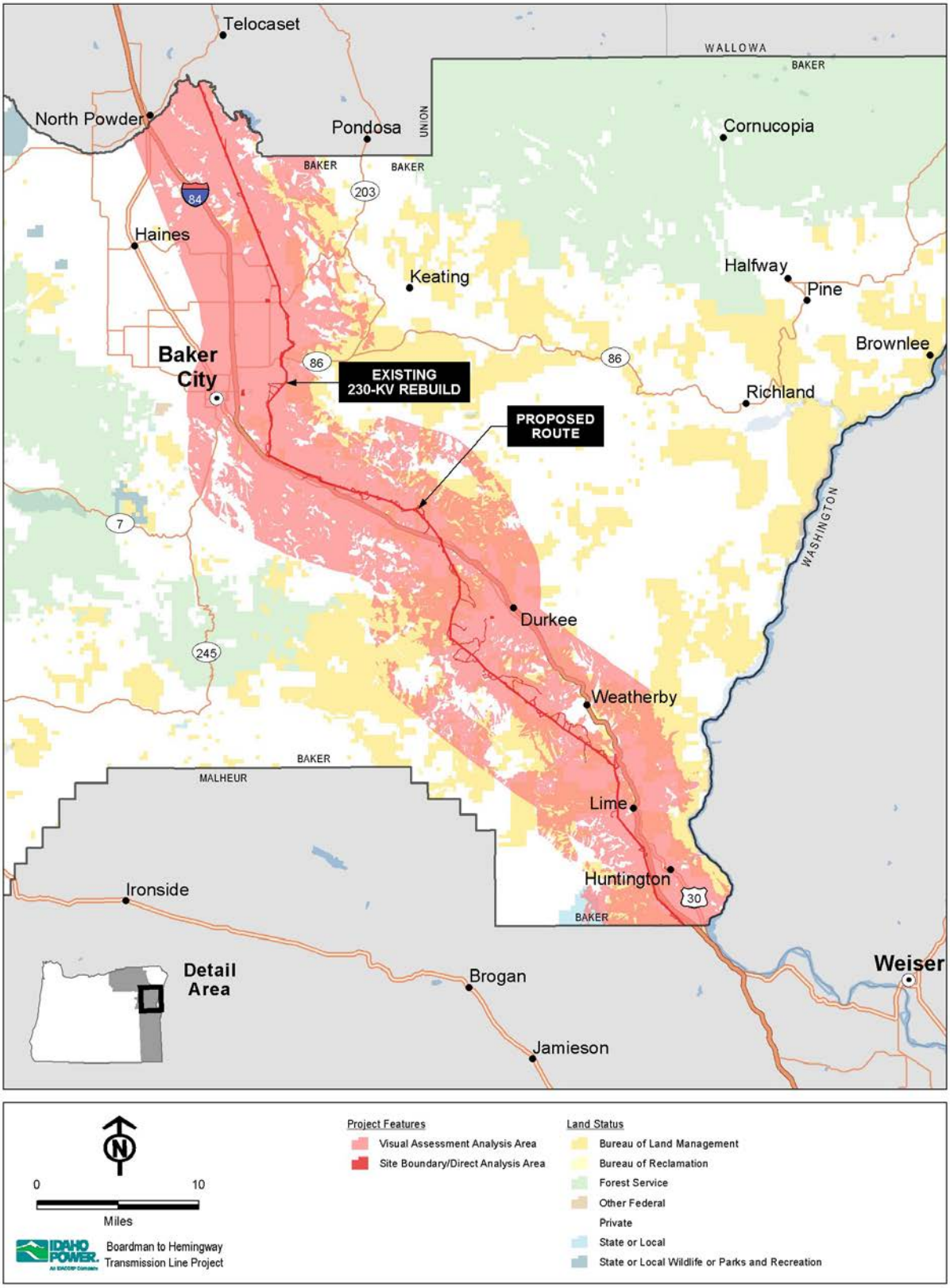

Figure S-4. Exhibit S Analysis Area, Baker County

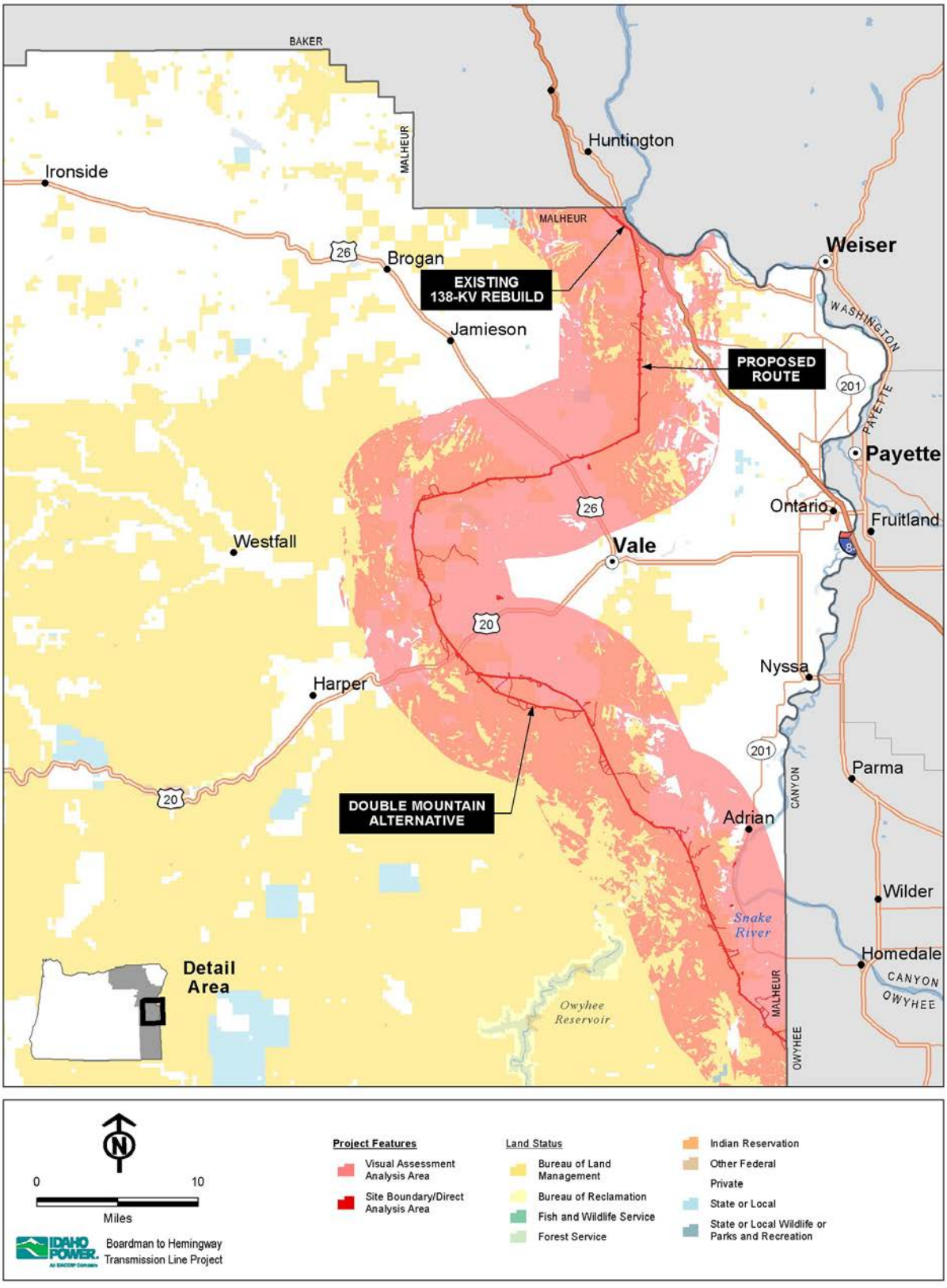

Figure S-5. Exhibit S Analysis Area, Malheur County

The direct analysis area encompasses the construction footprint of the following facilities in Oregon:

- The Proposed Route, consisting of 270.8 miles of new 500-kilovolt (kV) electric transmission line, removal of 12 miles of existing 69-kV transmission line, rebuild of 0.9 mile of a 230-kV transmission line, and rebuild of 1.1 miles of an existing 138-kV transmission line;
- Four alternatives that each could replace a portion of the Proposed Route, including the West of Bombing Range Road Alternative 1 (3.7 miles), West of Bombing Range Road Alternative 2 (3.7 miles), Morgan Lake Alternative (18.5 miles), and Double Mountain Alternative (7.4 miles);
- One proposed 20-acre station (Longhorn Station);
- Ten communication station sites of less than ¼-acre each and two alternative communication station sites;
- Permanent access roads for the Proposed Route, including 206.3 miles of new roads and 223.2 miles of existing roads requiring substantial modification, and for the Alternative Routes including 30.2 miles of new roads and 22.7 miles of existing roads requiring substantial modification; and
- Thirty temporary multi-use areas and 299 pulling and tensioning sites of which four will have light-duty fly yards within the pulling and tensioning sites.

The Project features are fully described in Exhibit B and the Site Boundary for each Project feature is described in Exhibit C, Table C-24. The location of the Project features and the Site Boundary is outlined in Exhibit C.

The Visual Assessment analysis area was determined through a Geographic Information System viewshed analysis of the above project features. Areas within 5 miles or to the visual horizon, whichever is closer, on either side of the centerline of the Proposed Route and alternative routes were included in the Visual Assessment analysis area as well as the direct analysis area.

3.2 Cultural Resources Inventory Methodology

OAR 345-021-0010(1)(s)(D)(i): A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B) and (C).

The effort to complete IPC's cultural resources inventory is guided by four main goals aimed at ensuring compliance with the EFSC standards. These goals include (1) identification of historic, cultural, and archaeological resources within the analysis area; (2) interpretation of those identified resources within a regional context; (3) evaluation of identified resources for protection under the EFSC standard; and (4) assessment of potential Project impacts on protected resources. A description of the discovery measures, such as surveys, inventories, and limited subsurface testing work that IPC is undertaking for the purpose of locating, identifying, and assessing the significance of resources listed in paragraphs (A), (B), and (C) of OAR 345-021-0010(1)(s), is described in detail in the sections below. Studies that have and will be conducted are summarized in Table S-1. Those studies that have been completed are included as attachments to this Exhibit. While this Exhibit relies on surveys and studies completed in

compliance with the Section 106 process, the analyses here extract information pertinent to the EFSC process and present data here using EFSC process terminology (for instance, *analysis area* is used instead of *area of potential effect*).

Table S-1. Cultural Resource Studies Completed or To Be Completed

Study	Description	Completed/ To Be Completed
Archaeological Survey Plan (ASP)	Survey plan for archaeological studies.	Completed (2012)
Cultural Resources Technical Report (Technical Report)	Report of cultural resources identified in pedestrian survey area (i.e., Proposed and alternative routes, roads, and attendant facilities with buffers defined by the Programmatic Agreement [PA]). Preliminary report completed 2017. Will be amended with results of the Enhanced Archaeological Survey after the site certificate, prior to construction. To avoid unnecessary ground disturbance of archaeological resources, the enhanced archaeological survey will be conducted within the selected route only.	Completed (2017) / Amendment after site certificate, prior to construction
High Probability Areas Assessment	Identifies areas of high sediment deposition or poor ground surface visibility with increased likelihood of subsurface archaeological resources. High Probability Areas will be systematically probed subsurface during the Enhanced Archaeological Survey.	Completed (2017) Subject to change based on CTUIR and SHPO input.
Enhanced Archaeological Survey	Report of subsurface probing in high probability areas, archaeological site boundary probing, isolated find probing, and National Register of Historic Places (NRHP) eligibility testing. Anticipated to be presented as amendment to Technical Report. To avoid unnecessary ground disturbance of archaeological resources, the enhanced archaeological survey will be conducted within the selected route only.	After site certificate, prior to construction
Visual Assessment of Historic Properties Study Plan (VAHP)	Survey plan for aboveground/built environment sites.	Completed (2013)
Reconnaissance Level Survey – Visual Assessment of Historic Properties (RLS)	Report of previously recorded built environment sites (buildings, structures, and trails) as well as traditional cultural properties and archaeological sites with above-ground features (such as cairns, trails, and intact water conveyance features) within the Visual Assessment analysis area.	Completed (2015) (Additional RLS work required on CTUIR tribal lands, anticipated in September-November 2018.)

Study	Description	Completed/ To Be Completed
Intensive Level Survey – Visual Assessment of Historic Properties (ILS)	Report providing detailed analysis of those resources from the RLS that have sufficient integrity, for which an NRHP criterion might apply, and have the potential to be affected by the Project. Preliminary Report completed in 2017. Will be amended when RLS and ILS of CTUIR tribal lands are completed.	Completed (2017) (Additional ILS work required on CTUIR tribal lands, anticipated in September-November 2018.)
National Historic Trails Study (NHT Study)	Report of federally designated NHT resources on federal lands in Visual Assessment analysis.	Completed (2014). (Additional information on non-NHT trails presented in ILS Report).

The cultural resources studies were initiated by a record search and literature review to identify previous cultural resource surveys and previously recorded cultural resources within the analysis area. Following completion of the background research, the ASP and VAHP were prepared to guide the field surveys and documentation of cultural resources.[5] The ASP and VAHP are provided as Attachments S-1 and S-2, respectively. Field surveys are being completed in a phased approach. A cultural resources pedestrian survey has been conducted in compliance with the ASP within the direct analysis area. Results of the survey are documented in the Cultural Resources Technical Report (confidential Attachment S-6). The RLS and ILS were completed, except for a portion located on CTUIR tribal lands, in compliance with the VAHP and focused on the Visual Assessment analysis area. Results of these surveys are documented in the RLS and ILS reports, confidential Attachments S-7 and S-10, respectively. RLS and ILS work on CTUIR tribal lands will be conducted pending access to the applicable parcels. Some of these parcels may not be accessible as not all owners have consented to the right-of-entry request. Additional resources may be identified and evaluated during that RLS and ILS work.

Continued survey efforts will focus on high probability areas, confirming archaeological site boundaries, confirming archaeological isolated finds, NRHP-eligibility testing, and 100 percent inventory of any Project modifications or alterations identified subsequent to the completed surveys. Future survey efforts will also focus on 100 percent inventory of project areas where landowner access was not granted during the completed surveys. These efforts will be conducted for the selected route only, in order to avoid unnecessary disturbance to cultural resources. For those resources that cannot be avoided by Project activities, a resource-specific management plan will be developed, consistent with the HPMP required by IPC's site certificate conditions below (Section 4) and outlined in Attachment S-9.

The following discussions detail the methodologies used for the various cultural resource studies completed and to be completed for the Project.

[5] Both the ASP and VAHP describe IPC's discovery and analysis methods in support of BLM's NHPA and NEPA processes, as well as the EFSC process. As a result, the plans may use terminology and/or references to study areas driven by the federal agency reviews. For Exhibit S, however, IPC has distilled relevant survey results to provide ODOE and EFSC with only the information required to demonstrate that the Project will meet EFSC standards.

3.2.1 Records Search and Literature Review

Record searches were conducted multiple times between January 2011 and December 2016. The purpose of the record searches was to establish a basis for the type and frequency of archaeological and historic sites to be encountered during the course of the Project surveys. Research was conducted at the Oregon SHPO, CTUIR THPO, USFS, and BLM offices to identify previous cultural resource surveys and previously recorded cultural resources within the analysis area. Oregon SHPO databases consulted include Oregon Archaeological Records Remote Access and Oregon Historic Sites Database. The Idaho Historic Sites Inventory and the Washington Information System for Architectural and Archaeological Records Data were also consulted for portions of the Project and records search area outside of Oregon. (Results applicable to Oregon only are presented here, however.) Additional information was provided by IPC, BPA, and FWS. These databases/sources provided information pertaining to previously conducted cultural resource surveys and previously recorded cultural resources within the analysis area. The searches gathered information on previously recorded cultural resources, NRHP-eligible or -listed properties, historic cemeteries, historic trails, and previously surveyed areas. Data were collected for both archaeological and historic sites and included site location, age, type, ownership, NRHP status, and a brief description of site attributes. Additional sources of information included the Oregon Historic Trails website (http://www.oregonhistorictrailsfund.org), U.S. Geological Survey (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. These sources provided information pertaining to potential resources and a context within which to understand the resources identified during the field surveys. The collected data form the foundation for the field studies.

The record searches focused on two unique study areas: a 2-mile study area and 5-mile study area. The 2-mile study area focused on collecting information pertaining to archaeological and aboveground resources, as well as any traditional cultural properties, within 2 miles of the Proposed Route and alternative routes centerline (4-mile-wide corridor). This study area was utilized for the cultural resources pedestrian field survey and is documented in the Cultural Resources Technical Report (confidential Attachment S-6). The 5-mile study area focused on collecting information pertaining to above ground resources and cultural resources that had the potential to be TCPs and/or HPRCSITs between the 2-mile study area and up to 5 miles from the Proposed Route and alternative routes centerline (10-mile-wide corridor). The Visual Assessment utilized this study area as well as applicable results from the 2-mile study area. The 5-mile study area is documented in the RLS and ILS (confidential Attachments S-7 and S-10, respectively) with the exception that these studies do not include complete RLS and ILS information for resources located on CTUIR tribal lands, pending completion of those studies once access can be obtained to the required parcels. In addition, the Visual Analysis incorporated resources with aboveground components (such as cairns, in-use historic water conveyance features, in-use historic roads, trails, standing buildings or structures, mining shafts or adits, etc.) identified by the cultural resources pedestrian survey.

3.2.2 Field Surveys

Cultural resources field surveys conducted for the Project have been completed consistent with applicable survey protocol plans. These include a cultural resources pedestrian survey of the direct analysis area and surveys in support of the VAHP within the Visual Assessment analysis area. An Enhanced Archaeological Survey has not been completed, but will be completed following issuance of the site certificate and prior to construction. This future survey will address archaeologically sensitive areas, parcels that were not accessible during the pedestrian survey, and impacted, unavoidable resources in the final design of the Project. The ASP outlines

archaeological field methodology, including archaeological survey methods and resource recordation procedures. The ASP was developed in cooperation with the BLM and the Section 106 Cultural Resources Work Group, of which ODOE is a party; a copy of the plan is included here as Attachment S-1. IPC also prepared a VAHP in consultation with the Section 106 Cultural Resources Working Group. The VAHP guided the Visual Assessment of aboveground resources potentially affected by the construction and operation of the facility, is provided as Attachment S-2.

3.2.2.1 Cultural Resources Pedestrian Survey

Upon completion of the literature review, a cultural resources pedestrian survey was initiated within the intent to identify cultural resources within the direct analysis area. The archaeological survey is being conducted in two phases. Phase 1 has been completed, and consisted of an intensive pedestrian inventory of the entire direct analysis area to which IPC has right of entry. Any additional surveys required to complete an inventory of 100 percent of the selected route, as well as any necessary subsurface inventory or evaluation efforts, will be conducted during Phase 2. Phase 2 is anticipated to occur after the site certificate has been issued, but prior to construction. All survey efforts are and will be carried out according to the methods and standards required by the Oregon SHPO *Guidelines for Conducting Field Archaeology in Oregon* (Oregon SHPO 2007). One exception is a more conservative definition of a historic archaeological site. The SHPO's guidelines define a historic archaeological site as a site that has been abandoned for at least 75 years. For the purposes of this Project and to maintain consistency with studies completed for federal regulatory compliance, a historic archaeological site must have been constructed or created 50 years ago or more. On state and private lands, statutes and regulations may apply, including but not limited to ORS 97.740-760 (Indian Graves and Protected Objects), ORS 358.905-955 (Archaeological Objects and Sites), and ORS 390.235. All inventory methods on federal land follow those prescribed by the federal land-managing agency's protocols (primarily BLM and USFS). Individuals conducting archaeological field investigations meet professional qualifications as defined in ORS 390.235(6)(b) as well as *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines,* "Professional Qualifications Standards" (48 [190] Federal Register 44738-44739 [9-29-83, Part IV]). These qualifications are required by the Oregon SHPO under ORS 390.235(6)(b) for individuals or groups conducting research as a result of federal or state permits and licenses in the State of Oregon. Prior to any future subsurface inventory or evaluation efforts that require Archaeological Resources Protection Act permits or State of Oregon permit, BLM and SHPO are required to consult with participating tribes.

Per Oregon SHPO guidelines, the direct analysis area was examined with intensive surface inventory methods using pedestrian transect intervals of 65 feet (20 meters [m]) or less. The survey area for the Proposed Route and alternatives covers 250 feet (75 m) on either side of the centerline. The survey corridor for new access roads or unsurfaced roads requiring reconstruction or widening is 100 feet (30 m) on either side of the centerline. The survey convention for ancillary features, such as laydown areas and the communication facilities, includes a buffer of 150 feet (45 m) around the footprint of the proposed activity. Survey is not required for existing roads that occur outside of the Project Site Boundary. This survey area is outlined in the ASP (Attachment S-1) and required by the PA (Attachment S-5). In some instances, the survey area along roads is larger than the direct analysis area. [6] As a result, some resources presented in the survey report (Attachment S-6) are not included in the direct

[6] For some roads, the survey area is larger than the Site Boundary. This occurs along existing roads requiring moderate improvements (Site Boundary = 50-foot buffer; Survey Area = 100-foot buffer), and existing roads requiring extensive improvements (Site Boundary = 50-foot buffer; Survey Area = 100-foot buffer).

analysis area and are not presented in this exhibit. These resources are noted in the survey report (Attachment S-6).

Survey standards include identification of areas of archaeological sensitivity; identification of visible cultural resources or other indicators of the presence or absence of cultural resources; identification and documentation of the extent of prior significant ground disturbance; identification of potential archaeological issues requiring consideration during Project planning; and the determination, when possible, of cultural resources that meet established criteria of eligibility for the NRHP. Project components, including the Proposed Route, access roads requiring improvement or new construction, laydown areas, communication facilities, and other related transmission infrastructure, are subject to inventory. Exceptions are areas that have been subjected to extensive disturbance (e.g., paved roads and highways, parking lots, and lawns), areas deemed hazardous (e.g., loose talus slopes, slippery bedrock exposures, deep streams), or excessively steep (35°+) slopes.

A Cultural Resources Technical Report documenting the pedestrian survey has been prepared and is included as confidential Attachment S-6, filed with ODOE as a separate, confidential document, in accordance with ORS 192.501(11). This report summarizes the results of the literature review (within 2 miles of Proposed Route and alternative routes centerline), provides an environmental and cultural context of the Project, documents the results of the pedestrian survey, provides NRHP eligibility recommendations for identified cultural resources when possible, identifies areas of archaeological sensitivity or increased potential for buried archaeological resources, and provides management recommendations for identified cultural resources and necessary future work to avoid significant impacts on cultural resources.

3.2.2.2 Visual Assessment of Aboveground Resources

As noted in the VAHP, the visual assessment of aboveground resources is focused on historic properties and is conducted in phases. These phases include both the RLS (Phase 1) and ILS (Phase 2). The studies focus on delineating the Visual Assessment analysis area (referred to as the indirect Area of Potential Effect in confidential attachments S-7 and S-10), existing historic resource data, survey objectives, field investigation methods, RLS and ILS results (as appropriate), recommendations, and references.

The RLS was designed to provide an inventory of buildings, structures, districts, objects, and trails within the Visual Assessment analysis area by systematically documenting intact resources by location, theme, and chronological period. The survey focused on properties over 45 years old, including houses, barns and farms, churches, public buildings, schools, commercial structures, industrial structures, cemeteries, landscapes, historic linear features such as trails, rail lines and roads, as well as archaeological sites with aboveground features such as stone cairns. Background research was conducted before, during, and after fieldwork and included examination of individual properties and the Visual Assessment analysis area. Examples of sources used in the survey work include the Oregon SHPO Historic Sites Database, historic USGS quadrangle maps and aerial photographs, Sanborn maps, Metsker maps, plat maps, tax records, county histories, historical societies, preservation groups, local government agencies, local citizens, local libraries, and museums. An RLS interim report was completed in December 2012 and was revised in coordination with the Cultural Resources Working Group in August 2013, October 2014, and then finalized in September 2015. It should be noted that the 2015 report includes incomplete information about resources on CTUIR tribal lands. Additional RLS information pertaining to CTUIR tribal lands will be provided once the field study is completed for those areas. The RLS report (Attachment S-7) focuses on information collected during fieldwork, such as architectural characteristics, a resource's approximate construction date, and any applicable NRHP criteria. The report makes recommendations on

historic properties that should be eliminated from further study because they are not eligible for the NRHP, fail to meet NRHP criteria, lack integrity, and/or the Project has no potential to affect. The RLS also provides a catalog of properties used to identify individual or concentrations of aboveground cultural resources that are worthy of further study.

The ILS analyzes those properties from the RLS that have sufficient integrity, for which an NRHP criterion might apply, and that have the potential to be affected by the Project. The history of each property was documented and then comparatively analyzed against the historic context of the Visual Assessment analysis area. This provides a framework for determining whether the resource meets any of the NRHP Criteria of Evaluation. Fieldwork for the ILS was conducted between October 2014 and October 2016 for those areas for which access had been approved. Right of access had not been obtained to some CTUIR tribal lands at that time, and those parcels will be examined at a later date The ILS report (Attachment S-10) includes the background information compiled for the inventory plan, a revised historic context, recommendations concerning resource eligibility for the NRHP, as well as recommendations for avoidance, effect minimization, and mitigation measures to reduce impacts to below significant adverse levels consistent with the EFSC Standard for Historic, Cultural and Archaeological Resources (OAR 345-022-0900). The ILS also addresses aboveground resources in Project areas that have been re-routed since completion of the RLS in 2015. The ILS has incomplete information pertaining to resources on CTUIR tribal lands. Additional ILS information pertaining to CTUIR tribal lands will be provided once the field study is completed for those areas.

3.2.2.3 Traditional Cultural Properties and Historic Properties of Religious and Cultural Significance to Indian Tribes

Identification of TCPs and HPRCSITs have relied primarily on the BLM's government-to-government consultations under Section 106 and ethnographic studies completed by tribes, including CTUIR's traditional use study (Engum 2014a, 2014b), as described above. The results of these consultation efforts are summarized in Section 3.3.3. Additional information regarding these resources and other areas of concern has been provided to IPC by CTUIR for use in the VAHP studies. Other information was retained from public sources such as the B2H EIS (BLM 2017). This information is presented in Section 3.3.3.

3.2.2.4 Enhanced Archaeological Survey

Since certain environmental conditions and modern disturbances may obscure surface evidence of past human activities, enhanced survey measures, including subsurface shovel probes, will be included where necessary in the second phase of the cultural resources pedestrian survey effort. Prior to excavation of any shovel probes, a probing plan detailing the approach to subsurface survey will be submitted to state and federal agencies for consultation and approval, and all appropriate federal and state permits will be obtained. Excavation or removal (collection) of archaeological resources from any federally managed land (e.g., BLM, USFS, or other federal agencies) necessitates an Archaeological Resource Protection Act permit from the federal land manager. Subsurface probing on non-federal public lands, inclusive of any state, county, or municipal lands, will be conducted under a State of Oregon Archaeological Excavation Permit per ORS 390.235(1)(a) and OAR 736-051-0080 to -0090. Subsurface probing is planned to occur prior to ground-disturbing construction activity and within the selected route only.

Oregon State guidelines allow for shovel probing to assist in: (1) the identification of cultural resources during surface survey (site discovery probes); and (2) as a method of subsurface reconnaissance to test for the presence/absence of cultural remains and cultural site boundary definition (site boundary probes). Identifying cultural site boundaries during survey is important because a site's location relative to the Project is critical to assessing Project effects and developing

appropriate mitigation measures. When cultural site boundaries cannot be defined based on surface evidence alone, subsurface probing has the potential to provide crucial data to guide Project design and resource management decisions. Both site discovery probes and cultural site boundary probes may be employed as necessary to assist with resource identification and assessment.

Much of the surveyed direct analysis area was found to have acceptable ground surface visibility (30 percent or greater) to confidently identify surface expressions of archaeological resources. In areas of poor ground surface visibility (less than 30 percent) or areas with increased potential for subsurface archaeological deposits due to sedimentation, shovel probing will be conducted. Twenty-seven of these "high probability areas" where site discovery probes will be conducted have been identified along the Proposed Route, two have been identified along the Double Mountain Alternative, and four have been identified along the Morgan Lake Alternative (see confidential Attachment S-4). These areas were identified regardless of land ownership, and include BLM, USFS, and private lands. No such areas were identified along the West of Bombing Range Road Alternative 1 or Alternative 2. The high probability areas are subject to change based on CTUIR and SHPO input received during review.

To avoid unnecessary disturbance of archaeological resources, archaeological site boundary probing and NRHP-eligibility testing will be conducted at archaeological resources within the selected route only and prior to ground-disturbing construction activity.

3.3 Cultural Resources Inventory Results

OAR 345-021-0010(1)(s)(D)(ii): The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.

This section addresses the results of the studies described above and completed for the Project. Work completed to date includes (1) the compilation of the background research data, as outlined in Section 3.2.1; (2) the preparation of an ASP and VAHP, as discussed in Section 3.2.2; (3) progress on the Phase 1 pedestrian cultural resources survey, discussed in Section 3.2.2.1; and (4) completion of the Phase 1 RLS and Phase 2 ILS for aboveground resources, discussed in Section 3.2.2.2. The results of the cultural resources pedestrian survey and the ILS are described below, followed by specific analyses of historic properties and archaeological sites and objects required by OAR 345-021-0010(1)(s), OAR 345-021-0010(1)(s)(B), and OAR 345-021-0010(1)(s)(C). Table S-2 lists resources in the analysis area known at the time Exhibit S was prepared, including their resource type, NRHP eligibility recommendations, whether the resource is in the direct analysis area (including the construction footprint) or the Visual Assessment analysis area, and which Project component is associated with the resource. Additional information regarding resources that CTUIR recently shared with IPC has been included in Attachment S-12; however, additional HPRCSITs may be identified through IPC's continued consultations with tribes. Four linear resources with multiple segments were identified in the analysis area by the surveys conducted for the Project: South Canal (2 segments), Vale Oregon Main Canal (4 segments), Oregon Trail/Oregon NHT (36 segments or otherwise associated sites), and UPRR (4 segments). Only segments within the analysis area of this Exhibit are listed below. As agreed upon by SHPO in a May 2, 2018, email, resources listed under the category of Oregon Trail/Oregon NHT are based on the Oregon Trail National Historic Trail Multiple Property District NRHP nomination. One segment of the South Canal, 2 segments of the Vale Oregon Main Canal, 11 segments of the Oregon Trail/Oregon NHT, and 4 segments of the UPRR are crossed by the direct analysis area. Any additional segments that are outside of the analysis area (identified through surveys for Project routes no longer under consideration) are described in Attachments S-6 and S-10. It should be noted that the impact analyses below consider these linear resources as singular resources, rather than as individual segments.

Table S-2. Cultural Resources in the Analysis Area[1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
126CSF-Resource 11	N/A	N/A	S-6	Morrow	Archaeological Site	Historic	Survey Marker	Not identified.	Avoid. Subsurface probing needed.	West of Bombing Range Road Alternative 1	Direct Analysis Area (Construction 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.	No - Will be directly impacted.
126CSF-Resource 4	N/A	N/A	S-6	Morrow	Archaeological Site	Historic	Road	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	DOD	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
35MW00001	N/A	N/A	S-10	Morrow	Archaeological Site	Pre-Contact	Midden	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	No - Potential visual impact
35MW00002	N/A	N/A	S-10	Morrow	Archaeological Site	Pre-Contact	Shell Midden & Temporary Camp	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	No - Potential visual impact
35MW00011	N/A	N/A	S-10	Morrow	Archaeological Site	Pre-Contact	Midden	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	FWS	a) Potential Historic Property	No - Potential visual impact
35MW00207 (Carty Homestead)	N/A	N/A	S-10	Morrow	Archaeological Site	Historic	Homestead site	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	DOD	None - Archaeological site not eligible for NRHP. Federal land.	Yes
35MW00222	N/A	N/A	S-10	Morrow	Historic Site/Above-ground	Historic	Railroad	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None – Historic site not eligible for NRHP	Yes
35MW00245	N/A	N/A	S-10	Morrow	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	DOD	a) Potential Historic Property	Yes
35MW00248	N/A	N/A	S-10	Morrow	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
4-2-IF	N/A	N/A	S-6	Morrow	IF/Archaeological Object	Historic	Refuse	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area (Construction 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.	No - Will be directly impacted.
71863 Wilson Ln	N/A	B2H-MO-046	S-10	Morrow	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
CFR 1064 (Vey Ranch)	N/A	N/A	S-10	Morrow	Historic Site/ Aboveground	Historic	Ranch	Eligible (Criterion A)	NRHP nomination and/or public interpretation/funding	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	No - Potential visual impact
CFR 1093 (Thomson Myers Farm)	N/A	N/A	S-10	Morrow	Historic Site/ Aboveground	Historic	Farm	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
N/A	5B2H-SA-ISO-01	N/A	S-6	Morrow	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	DOD	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	6B2H-MC-ISO-17	N/A	S-6	Morrow	IF/ Archaeological Object	Historic	Agriculture	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
Nisxt	N/A	SL-MO-003	S-10	Morrow	HPRCSIT	HPRCSIT	TCP	Unevaluated	Consultation with Confederated Tribes of the Yakama Nation	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property	No - Potential visual impact
Oregon Railroad and Navigation Company Railroad	N/A	B2H-MO-051	S-10	Morrow	Historic Site/ Aboveground	Historic	Railroad	Not Eligible	ILS; No further management	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BR, COE, COE, FWS, PV	None - Historic site not eligible for NRHP.	Yes
Sand Hollow Battleground[2]	N/A	SL-MO-001, SL-MO-005	S-6, S-10	Morrow	HPRCSIT	HPRCSIT	TCP	Eligible (Criteria A and B)	Public Archaeology Funding, Public Interpretation Funding, Consultation.	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, DOD, PV	a) Potential Historic Property	No - Potential visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
Sisupa	N/A	SL-MO-004	S-6, S-10	Morrow	HPRCSIT	HPRCSIT	TCP	Eligible (Criteria A and D)	Public Archaeology Funding, Consultation.	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	DOD, PV	a) Historic Property	No - Potential visual impact
TBD	6B2H-MC-33	N/A	S-6	Morrow	Archaeological Site	Historic	Utility Line	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-MC-35	N/A	S-6	Morrow	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
Utility Line	N/A	B2H-MO-052	S-10	Morrow	Historic Site/ Aboveground	Historic	Utility Line	Not Eligible	No further management	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BR, COE, COE, FWS, PV	None - Historic site not eligible for NRHP.	Yes
West Extension Irrigation Canal (126CSF-12)	3B2H-SA-01	B2H-MO-047	S-6, S-10	Morrow	Historic Site/ Aboveground	Historic	Water Conveyance	S-6: Eligible/Contributing Element (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B); S-10: Eligible (Criterion A)	Avoid. Archival research and documentation. Testing needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BLM, PV	a) Historic Property	Yes
35UM0438	N/A	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Burial(s)	Not identified. Site form indicates remains recovered. Assume no archaeological materials remain.	Avoid. Monitor ground disturbance.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land. (Site recovered.)	Yes
35UM0476	B2H-EE-23	N/A	S-6	Umatilla	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
CFR 1098 (Gilliland Farm)	N/A	N/A	S-10	Umatilla	Historic Site/ Aboveground	Historic	Farm	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
Daly Wagon Road	N/A	B2H-UM-006	S-10	Umatilla	Historic Site/ Aboveground	Historic	Wagon Road	Eligible (Criteria A and C)	Public Interpretation, Funding, Print/Media Publication	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BIA, BLM, BLM, BLM, BLM, PV	a) Historic Property	No - Potential visual impact
Historic Lookout Tower	N/A	SL-UM-010 (Lookout T2S, R34E, S 18)	S-10	Umatilla	Archaeological Site	Historic	Forestry	Unevaluated	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	BIA	a) Potential Historic Property	No - Potential visual impact
N/A	3B2H-SA-ISO-01	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	3B2H-SA-ISO-02	N/A	S-6	Umatilla	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-RP-ISO-10	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-11	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	B2H-BS-ISO-104	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Agriculture	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-23	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-24	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-25	N/A	S-6	Umatilla	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
Range Unit 12 Site 1	N/A	N/A	S-10	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Eligible (Criteria TBD)	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	BIA	a) Historic Property	No - Potential visual impact
Range Unit 12 Site 2	N/A	N/A	S-10	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Eligible (Criteria TBD)	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	BIA	a) Historic Property	No - Potential visual impact
TBD	6B2H-MC-12	N/A	S-6	Umatilla	Archaeological Site	Historic	Ranching	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-MC-13	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-14	N/A	S-6	Umatilla	Archaeological Site	Historic	Refuse Scatter & Structure	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-15	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-16	N/A	S-6	Umatilla	Archaeological Site	Historic	Utility Line	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-18	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-19	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-20	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-MC-22	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-MC-23	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Hunting Blind	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-24	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-MC-25	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-MC-26	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-27	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-MC-28	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture, Ranching	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-MC-29	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	6B2H-MC-30	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-31	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-ISO-18	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Agriculture	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
TBD	6B2H-RP-11	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s) & Hunting Blind	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-RP-12	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s) & Hunting Blind	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-RP-14	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s) & Lithic Scatter	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-RP-16	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-RP-ISO-08	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Agriculture	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
TBD	6B2H-TH-01	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.

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TBD	6B2H-TH-02	N/A	S-6	Umatilla	Archaeological Site	Pre-Contact	Cairn(s) & Hunting Blind	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-TH-03	6B2H-TH-03	S-6, S-10	Umatilla	Historic Site/ Aboveground	Historic	Survey Marker	Not Eligible. Protected.	Avoid. Protected by non-NHPA laws.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD	6B2H-TH-04	N/A	S-6	Umatilla	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-TH-05	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-TH-08	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-TH-09	N/A	S-6	Umatilla	Archaeological Site	Historic	Agriculture & Other	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-TH-ISO-01	N/A	S-6	Umatilla	IF/ Archaeological Object	Historic	Agriculture	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
TBD	B2H-BS-40	N/A	S-6	Umatilla	Archaeological Site	Historic	Homestead	Unevaluated	Avoid. Research needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	B2H-BS-41	N/A	S-6	Umatilla	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-EE-21	N/A	S-6	Umatilla	Archaeological Site	Historic	Road	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
UP-102	N/A	N/A	S-10	Umatilla	Historic Site/ Aboveground	Historic	Structure(s)	Eligible (Criteria TBD)	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	BIA	a) Historic Property	No - Potential visual impact
UP-103 (Buckhorn Cabin)	N/A	N/A	S-10	Umatilla	Archaeological Site	Multicomponent	Cabin	Unevaluated	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	CTUIR	a) Potential Historic Property	No - Potential visual impact
UP-106	N/A	N/A	S-10	Umatilla	Archaeological Site	Historic	Cabin	Unevaluated	Consultation with CTUIR	Proposed Route	Visual Assessment analysis area	CTUIR	a) Potential Historic Property	No - Potential visual impact
01S37000E00001 (Logging Railways)	N/A	N/A	S-10	Union	Archaeological Site	Historic	Logging/Railroad	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV, USFS	a) Potential Historic Property	Yes

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02S3600E13001 (Rugg Cabin)	N/A	SL-UN-003 (Rugg Cabin)	S-10	Union	Archaeological Site	Historic	Structure	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	USFS	a) Potential Historic Property	Yes
02S3600E15001	N/A	N/A	S-10	Union	Archaeological Site	Historic	Structure	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands.	Yes
02S3600E23001	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Alignment	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
02S3600E23002	N/A	N/A	S-10	Union	Archaeological Site	Historic	Cabin, Rock Wall	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	USFS, PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
02S3600E28002	N/A	N/A	S-10	Union	Archaeological Site	Historic	Log Cabin	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	USFS	a) Potential Historic Property	Yes
10201 E 3rd St	N/A	B2H-UN-212	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10201 White Birch Ln	N/A	B2H-UN-227	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10604 S McAlister Rd	N/A	B2H-UN-221	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10608 S McAlister Rd	N/A	B2H-UN-222	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10701 Island Ave	N/A	B2H-UN-213	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10702 Island Ave	N/A	B2H-UN-214	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10702 S McAlister Rd	N/A	B2H-UN-223	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10703 Island Ave	N/A	B2H-UN-215	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10712 S McAlister Rd	N/A	B2H-UN-224	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes

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10714 S McAlister Rd	N/A	B2H-UN-225	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
10805 Island Ave	N/A	B2H-UN-216	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
11001 Island Ave	N/A	B2H-UN-217	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
11102 Island Ave	N/A	B2H-UN-218	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
11102 Island Ave	N/A	B2H-UN-219	S-10	Union	Historic Site/ Aboveground	Historic	Building	Eligible (no further evaluation)	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
11106 Island Ave	N/A	B2H-UN-220	S-10	Union	Historic Site/ Aboveground	Historic	Building	Eligible (no further evaluation)	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
35UN00065	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	House Pits	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	USFS	a) Potential Historic Property	Yes
35UN00066	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	House Pits	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00252	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	USFS	a) Potential Historic Property	Yes
35UN00304	N/A	N/A	S-10	Union	Archaeological Site	Multicomponent	Cairn(s) & Lithic Scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00307	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Hunting Blind	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00308	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Unknown	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00309	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Shelter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes

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35UN00310	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00311	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00312	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00313	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00314	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Hunting Blind	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00315	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00316	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00317	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00318	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00319	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00351	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Curved Rock Alignment	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes

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35UN00356	N/A	N/A	S-10	Union	Archaeological Site	Historic	Rock Alignment(s)	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00361	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry	Unevaluated (Remove from study no above ground features)	No further management (Remove from study no above ground features	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00375	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Alignment	Unevaluated	No further management (not in viewshed)	Proposed	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00388	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Lithic Scatter & Rock Alignment(s)	Unevaluated	Tribal Consultation (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00393	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Lithic Scatter & Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00395	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock cairns, rock alignment	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00396	N/A	N/A	S-10	Union	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00400	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry, lithic scatter	Unevaluated	No further management (no above ground features	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00410	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00418	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00420	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry, lithic scatter	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes

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35UN00428	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry, lithic scatter	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00432	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Lithic Scatter & Quarry	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00443	N/A	N/A	S-10	Union	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00450	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Stacked Rock Feature	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00459	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Cairn	Unevaluated	Consultation	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands.	No - Potential cumulative visual impact
35UN00473	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry, lithic scatter	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands.	Yes
35UN00474	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Cairn(s) & Lithic Scatter	Unevaluated (Remove from study no above ground features)	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	STL	a) Potential Historic Property; c) Archaeological site on state lands.	Yes
35UN00482	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry, lithic scatter	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands.	Yes
35UN00493	N/A	N/A	S-10	Union	Archaeological Site	Undetermined	Rock Alignment	Unevaluated	Consultation	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential cumulative visual impact
Clover Creek Valley Homestead	6B2H-MC-07	6B2H-MC-07	S-10	Union	Historic Site/ Aboveground	Historic	Homestead	Unevaluated	Additional Research; Design Modification; Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property	No – potential visual impact

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35UN00495	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Quarry	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00499	N/A	N/A	S-10	Union	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN0052 (Stockhoff Basalt Quarry Site)	N/A	N/A	S-6	Union	Archaeological Site	Multicomponent	Cairn(s), Quarry, & Homestead	Eligible (Criterion D)	Avoid. Consultation and testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
35UN00582 (02S3600E20009)	N/A	N/A	S-10	Union	Archaeological Site	Historic	Refuse Scatter & Structure	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	USFS	a) Potential Historic Property	Yes
35UN00624	N/A	N/A	S-10	Union	Archaeological Site	Undetermined	Burial	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN0097	N/A	N/A	S-6	Union	Archaeological Site	Multicomponent	Temporary Camp & Ranching	Pre-Contact Component: Eligible (Criterion D). Historic Component: Not Eligible	Pre-Contact Component: Avoid. Data recovery. Historic Component: No further management.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Historic Property, b) Archaeological site on private land	No - Will be directly impacted.
35UN0280	N/A	N/A	S-6	Union	Archaeological Site	Pre-Contact	Lithic Scatter	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	USFS	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
35UN0295	N/A	N/A	S-6	Union	Archaeological Site	Pre-Contact	Lithic Scatter	Not in accessible survey area.	Avoid. Survey location when access granted.	Proposed Route	Direct Analysis Area (Construction 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.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35UN0299 (03S3400E00002; Mount Emily Logging Railroad)	B2H-BS-48	B2H-UN-004	S-6, S-10	Union	Archaeological Site	Historic	Logging/Railroad	S-6: Segment B2H-BS-48: Eligible (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C); Segment Dickson (2013): Eligible (Criterion A); Unevaluated (Criteria C and D); Not Eligible (Criterion B); S-10: Eligible (Criterion A)	Avoid. Archival research and documentation. Testing needed.	Morgan Lake Alternative	Direct Analysis Area; Visual Assessment analysis area	PV, STL, USFS	a) Historic Property; b) Archaeological site on private lands; c) Archaeological site on state lands	Yes
35UN0326	N/A	N/A	S-6	Union	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
35UN0332	N/A	N/A	S-6	Union	Archaeological Site	Multicomponent	Lithic/Tool Scatter, Homestead, & Refuse Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
35UN0481	N/A	N/A	S-6	Union	Archaeological Site	Historic	Rock Alignment(s)	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	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.	Yes
35UN0483	N/A	N/A	S-6	Union	Archaeological Site	Pre-Contact	Lithic Scatter	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	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.	Yes

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35UN0543	N/A	N/A	S-6	Union	Archaeological Site	Historic	Cairn(s)	Not identified.	Avoid. Subsurface probing needed.	Morgan Lake Alternative	Direct Analysis Area	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.	Yes
CFR 1003 (Gekeler Farm)	N/A	N/A	S-10	Union	Historic Site/ Aboveground	Historic	Farm	Eligible (Criterion A)	No further management	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area	PV	a) Historic Property	Yes
CFR 1100 (Counsell Farm)	N/A	N/A	S-10	Union	Historic Site/ Aboveground	Historic	Farm	Not Eligible	No further management	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
CFR 1166 (Smutz Farm)	N/A	N/A	S-10	Union	Historic Site/ Aboveground	Historic	Farm	Eligible	No further management (not in viewshed)	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
CFR 1169 (Muilenburg Farm)	N/A	N/A	S-10	Union	Historic Site/ Aboveground	Historic	Farm	Eligible (Criterion A)	No further management	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area	PV	a) Historic Property	Yes
Charles Brandt Blacksmith Shop	N/A	B2H-UN-178	S-10	Union	Historic Site/ Aboveground	Historic	Building	Eligible (no further evaluation)	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
D-180-IA-3	N/A	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Tool	Not identified.	Avoid. Subsurface probing needed.	Morgan Lake Alternative, Proposed Route	Direct Analysis Area	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.	Yes
IS-541.1	N/A	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Biface	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	USFS	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes

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IS-545.2	N/A	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Biface	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	USFS	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes
ISO-001	N/A	N/A	S-6	Union	IF/ Archaeological Object	Historic	Logging	Not in accessible survey area.	Avoid. Survey location when access granted.	Proposed Route	Direct Analysis Area (Construction 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.	No - Will be directly impacted.
McCallister Rd and 1st	N/A	B2H-UN-226	S-10	Union	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management (demolished)	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
N/A	6B2H-MC-ISO-13	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-14	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Biface(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-28	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Biface(s) & Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Morgan Lake Alternative	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-33	N/A	S-6	Union	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Morgan Lake Alternative	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-36	N/A	S-6	Union	IF/ Archaeological Object	Pre-Contact	Other	Not Eligible	Shovel probe to confirm isolated nature.	Morgan Lake Alternative	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-EK-ISO-01	N/A	S-6	Union	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	USFS	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-SA-ISO-36	N/A	S-6	Union	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	USFS	None - Archaeological object not eligible for NRHP. Federal land.	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
North Powder Ditch	N/A	B2H-UN-179	S-10	Union	Historic Site/ Aboveground	Historic	Ditch	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD	6B2H-MC-06	N/A	S-6	Union	Archaeological Site	Pre-Contact	Cairn(s) & Lithic/Tool Scatter	Unevaluated	Avoid. Testing and consultation needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-09	N/A	S-6	Union	Archaeological Site	Historic	Road	Not Eligible	No further management.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-11	N/A	S-6	Union	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-RP-08	N/A	S-6	Union	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-RP-10	N/A	S-6	Union	Archaeological Site	Historic	Cairn(s)	Unevaluated	Avoid. Archival research and consultation.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	B2H-BS-102	N/A	S-6	Union	Archaeological Site	Historic	Utility Line	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	USFS	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD	B2H-BS-49	N/A	S-6	Union	Archaeological Site	Historic	Ranching	Not Eligible	No further management.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	BLM, PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	B2H-BS-50	N/A	S-6	Union	Archaeological Site	Historic	Road	Not Eligible	No further management.	Morgan Lake Alternative	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-BS-51	N/A	S-6	Union	Archaeological Site	Historic	Road	Not Eligible	No further management.	Morgan Lake Alternative	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-SA-24	N/A	S-6	Union	Archaeological Site	Undetermined	Rock Alignment	Unevaluated	Avoid. Research and consultation needed.	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
0503050143SI	N/A	N/A	S-10	Baker	Historic Site/ Aboveground	Historic	Meeker Oregon Trail Monument	Listed on NRHP	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Historic Property	Yes

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0503050144SI (Kiwanis Oregon Trail Monument)	N/A	N/A	S-10	Baker	Historic Site/ Aboveground	Historic	Monument	Non-contributing object (MPDF); Eligible (Criterion C)	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Historic Property	Yes
0503050240SI	N/A	N/A	S-10	Baker	Archaeological Site	Historic	Homestead	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
0503050330SI	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
0503050331SI	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
0503050334SI	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
0503050352SI	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
0503050489SI	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn and lithic scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
14S44E14-2	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Cairn(s), Lithic Scatter, & Rock Alignment(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35BA00078	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Seven rock alignments	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00084	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Quarry/Workshop	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	Yes
35BA00088	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Quarry/Workshop	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00089	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Quarry/Workshop	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes

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35BA00090	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock Alignment	Unevaluated	No further management (insufficient location data)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00118	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Small rock shelter and lithic scatter	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00304	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	The Quartz Site	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
35BA00372	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35BA00374	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00381	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Rock cairn	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00382	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Cairn(s) & Lithic Scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
35BA00386	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn, lithic scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00388	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Rock Alignment(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35BA00544 (0503050138SI)	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA0084	N/A	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Not Eligible	Assumed collected. No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
35BA00863	N/A	N/A	S-10	Baker	Archaeological Site	Historic	Structural remains	Unevaluated	No further management (not in viewshed)	Proposed	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA00889	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Pritchard Rock Blind	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private lands.	Yes

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35BA00913	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35BA01224	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Midden, lithic scatter	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	ST	a) Potential Historic Property; c) Archaeological site on state lands.	Yes
35BA01229	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	2 rock shelters and lithic scatter	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01242	N/A	N/A	S-10	Baker	Archaeological Site	Undetermined	Cairn(s)	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01377	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn and lithic scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01423	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Cairn(s) & Hunting Blind	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential cumulative visual impact
35BA01507	N/A	N/A	S-10	Baker	Archaeological Site	Historic	Three rock pile graves with metal crosses	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01508	N/A	N/A	S-10	Baker	Archaeological Site	Historic	Clay pit graves. Three graves defined by rock piles	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01517	N/A	N/A	S-10	Baker	Archaeological Site	Historic	Single stacked rock feature/guy wires/pole	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA01518	N/A	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Single stacked rock feature	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35BA0158	N/A	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
35BA0159	N/A	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic Scatter	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes

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35BA1351	B2H-JF-13	N/A	S-6	Baker	Archaeological Site	Historic	Ranching	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
35BA1370 (Schuck Irrigation Ditch)	N/A	SL-BA-009	S-6, S-10	Baker	Archaeological Site	Historic	Water Conveyance	S-6: Eligible (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B); S-10: Eligible (A and C)	Avoid. Archival research and documentation. Testing needed. Some segments not in viewshed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35BA1387 (Durkee to Bridgeport Line)	N/A	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Utility Line	Not Eligible	No further management.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
A-166-4 (Dixie Cellar)	N/A	B2H-BA-301	S-6, S-10	Baker	Archaeological Site	Historic	Structure(s)	S-6: Not evaluated. Along existing project road not requiring substantial improvements or survey. No impact anticipated.; S-10: Not Eligible	No further management as long as the Project is not altered to require ground disturbance at the resource location. No view of Project	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	b) Archaeological site on private lands.	Yes
Banks Ditch	4B2H-EK-18	N/A	S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criterion A)	Avoid.	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
Benson Reservoir	4B2H-EK-31	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, PV	a) Historic Property	No - Potential visual impact
Chambeam Ditch	4B2H-EK-15	N/A	S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criterion A)	Avoid.	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
Combs Creek Cabin	N/A	B2H-BA-332	S-10	Baker	Historic Site/ Aboveground	Historic	Cabin	Unevaluated	No further management – remove from study (insufficient location data)[5]	N/A	N/A	Unknown	a) Potential Historic Property	Yes
Corral Ditch	4B2H-EK-06	N/A	S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criterion A)	Avoid.	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes

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Dixie Post Office/Griffiths and Langles Family House	N/A	B2H-BA-302	S-10	Baker	Historic Site/ Aboveground	Historic	Building	Not Eligible	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
Dry Gulch Waterhole	4B2H-EK-13	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Site: Not Eligible; BLM Project Marker: Protected	Site: No further management; BLM Project Marker: Avoid. Protected by non-NHPA laws.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM	None - Historic site not eligible for NRHP.	Yes
Durkee School	N/A	B2H-BA-288	S-10	Baker	Historic Site/ Aboveground	Historic	Building	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
Homestead/Ranching Complex	N/A	B2H-BA-298	S-10	Baker	Historic Site/ Aboveground	Historic	Homestead/Ranch	Eligible	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
IS-447.0	N/A	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	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.	Yes
ISO-453.0	N/A	N/A	S-6	Baker	IF/ Archaeological Object	Historic	Agriculture & Refuse	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	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.	Yes
N/A	3B2H-CH-ISO-06	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	4B2H-EK-ISO-01	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	4B2H-EK-ISO-03	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes

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N/A	4B2H-EK-ISO-05	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage & Tool(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	4B2H-EK-ISO-06	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	6B2H-MC-ISO-03	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Biface(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-04	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-05	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-06	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-07	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-09	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Biface(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-10	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-11	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-MC-ISO-12	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-RP-ISO-01	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-02	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.

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N/A	6B2H-RP-ISO-03	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-04	N/A	S-6	Baker	IF/ Archaeological Object	Historic	Other	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-RP-ISO-06	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-SA-ISO-03	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	6B2H-SA-ISO-05	N/A	S-6	Baker	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-SA-ISO-06	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-SA-ISO-07	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-JF-ISO-13	N/A	S-6	Baker	IF/ Archaeological Object	Multicomponent	Debitage, Preform(s), & Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-JF-ISO-14	N/A	S-6	Baker	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	N/A	SL-BA-008	S-10	Baker	Archaeological Site	Historic	Unnamed grave	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
Oregon Commercial Company Building	N/A	B2H-BA-324	S-10	Baker	Historic Site/ Aboveground	Historic	Store	Listed	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
Plano Road School House	N/A	B2H-BA-290	S-10	Baker	Historic Site/ Aboveground	Historic	Building	Eligible (Criteria A and C)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
Rattlesnake Springs Landmark	N/A	B2H-BA-296	S-10	Baker	Historic Site/ Aboveground	Historic	Monument	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	STL	a) Potential Historic Property	Yes
Sacred Heart Catholic Church	N/A	B2H-BA-289	S-10	Baker	Historic Site/ Aboveground	Historic	Building	Eligible (Criteria A and C; Criterion Consideration A)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes

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Smith Ditch	4B2H-EK-07	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Historic Property	Yes
TBD	3B2H-CH-03	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	3B2H-CH-09	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Stone cairn, lithic and tool scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	STL	a) Potential Historic Property; c) Archaeological site on state land.	Yes
TBD	3B2H-DM-15	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
TBD	3B2H-SA-14	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
TBD	4B2H-EK-08	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Unevaluated	Avoid. Research needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-10	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-11	N/A	S-6	Baker	Archaeological Site	Historic	Refuse Scatter	Unevaluated (Criterion D); Not Eligible (Criteria A, B, and C)	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	4B2H-EK-14	N/A	S-6	Baker	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	4B2H-EK-27	N/A	S-6	Baker	Archaeological Site	Historic	Road	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM, PV	b) Archaeological site on private land.	Yes
TBD	4B2H-EK-28	N/A	S-6	Baker	Archaeological Site	Historic	Water Conveyance	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM, PV	b) Archaeological site on private land.	Yes

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TBD	4B2H-EK-29	N/A	S-6	Baker	Archaeological Site	Historic	Road	Eligible (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Testing, archival research, and documentation.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
TBD	4B2H-EK-30	N/A	S-6	Baker	Archaeological Site	Historic	Water Conveyance	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD	4B2H-EK-32	N/A	S-6	Baker	Archaeological Site	Multicomponent	Lithic/Tool Scatter, Ranching, Water Conveyance	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-38	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	6B2H-DV-01	N/A	S-6	Baker	Archaeological Site	Historic	Water Conveyance	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	6B2H-MC-02	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-03	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-05	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Avoid. Consultation.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-RP-05	N/A	S-6	Baker	Archaeological Site	Historic	Ranching	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-SA-06	N/A	S-6	Baker	Archaeological Site	Historic	Farmstead	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.

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TBD	6B2H-SA-07	N/A	S-6	Baker	Archaeological Site	Historic	Homestead	Eligible (Criterion C); Unevaluated (Criteria A, B, and D)	Avoid. Additional documentation, archival research, and testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
TBD	6B2H-SA-10	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-SA-12	N/A	S-6	Baker	Archaeological Site	Historic	Homestead	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-SA-14	N/A	S-6	Baker	Archaeological Site	Pre-Contact	Lithic Scatter	Unevaluated	Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-SA-15	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	6B2H-SA-16	N/A	S-6	Baker	Archaeological Site	Historic	Ranching	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-SA-17	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-DM-07	N/A	S-6	Baker	Archaeological Site	Historic	Homestead	Eligible (Criterion A), Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research, documentation. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
TBD	B2H-JF-04	N/A	S-10	Baker	Archaeological Site	Pre-Contact	Rock cairn and lithic scatter	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
TBD	B2H-JF-14	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Ranching	Not Eligible	No further management.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD	N/A	B2H-BA-284	S-10	Baker	Historic Site/ Aboveground	Historic	Homestead	Eligible (Criteria A and C)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes
TBD	N/A	SL-BA-010	S-10	Baker	Archaeological Site	Historic	Wagon Trail	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
TBD (Baker City Historic District)	N/A	B2H-BA-178	S-10	Baker	Historic Site/ Aboveground	Historic	Building(s)/Historic District	Listed on NRHP (No Criteria on Nomination)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property	Yes

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TBD (Gold Ridge Mine)	6B2H-RP-02	N/A	S-6	Baker	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD (Huntington Survey District)	N/A	B2H-BA-336	S-10	Baker	Historic Site/ Aboveground	Historic	Building(s)/Historic District	Not Eligible (Component Listed on NRHP - Oregon Commercial Company Building - See Attachment S-10 Resource #B2H-BA-324)	No further management	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD (Road to Rye Valley)	6B2H-SA-08	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Road	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, BLM, PV	None - Historic site not eligible for NRHP.	Yes
TBD (Virtue Flat Mining Area)	N/A	B2H-BA-283	S-10	Baker	Historic Site/ Aboveground	Historic	Mining	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	BLM, BLM, BLM, BLM, PV, PV, PV	a) Historic Property	Yes
0503040050SI	N/A	N/A	S-10	Malheur	Archaeological Site	Historic	Trail	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
0503040216SI	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rock alignment, lithic scatter	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35ML00086	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Holtz Pictographs	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35ML00213	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Quarry	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35ML00214	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Quarry	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes

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35ML00550 (Ali-Alk Rockshelter)	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rockshelter	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential visual impact
35ML00552 (Ali-Alk Stacked Stone Rings)	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Stone rings	Eligible	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land.	No - Potential visual impact
35ML00747 (Little Tub Spring & Quarry)	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D)	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BLM	a) Historic Property	Yes
35ML00959	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rabbitbrush Site	Unevaluated	No further management (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area	BOR, PV	a) Potential Historic Property; b) Archaeological site on private land	Yes
35ML01459	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rockshelter	Unevaluated	No further management (not in viewshed)	Proposed	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35ML01548	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	No further management (resource not relocated during field survey)	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
35ML01549	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01550	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01552	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Rock Alignment(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01553	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01959	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01960	N/A	N/A	S-10	Malheur	Archaeological Site	Pre-Contact	Cairn(s)	Unevaluated	Consultation with Tribes	Proposed Route	Visual Assessment analysis area	BLM	a) Potential Historic Property	No - Potential cumulative visual impact

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35ML0475 (0503040078SI)	N/A	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Not identified. Assume misplotted in SHPO database. May now be recorded as 35ML1685 (B2H-EE-45) or 35ML1684 (B2H-EE-46). 35ML1684 is nearest, however the locational description of 35ML0475 best matches 35ML1685. The relationship of these sites to 35ML0475 is unclear at this time.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	BLM	Unknown - Not identified during pedestrian survey. Believed to be mis-plotted. Requires additional survey to determine if subject to a) Historic Property.	Yes
35ML0891 (0503040139SI; Mud Spring Site)	N/A	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
35ML1516	N/A	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes
35ML1522	N/A	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Open Camp	Not in accessible survey area.	Avoid. Survey location when access granted.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35ML1619 (Abandoned Canal)	N/A	N/A	S-6	Malheur	Archaeological Site	Multicomponent	Quarry, Refuse Scatter, & Water Conveyance	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Pre-Contact Component: Avoid. Data recovery. Historic Component: No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
35ML1674 (Vines Ditch)	B2H-SA-33	N/A	S-6, S-10	Malheur	Historic Site/Aboveground	Historic	Water Conveyance	S-6: Eligible, Contributing (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B); S-10: Eligible, Contributing	Avoid. Archival research and documentation. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, PV	a) Potential Historic Property	Yes
35ML1676	B2H-BS-64	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
35ML1677	B2H-BS-63	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
35ML1679	B2H-BS-62	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
35ML1680	B2H-BS-60	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
35ML1681	B2H-BS-56	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
35ML1682	B2H-BS-55	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Temporary Camp	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
35ML1684	B2H-EE-46	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
35ML1686	B2H-EE-42	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes

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35ML1695	B2H-BS-87	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
Geothermal Site 5132	N/A	N/A	S-6	Malheur	N/A	Undetermined	Unknown	Not identified. After reviewing survey report in SHPO database, this is presumed to have been mistakenly mapped as an archaeological resource. The "site" is actually just a geothermal boring site with no cultural resources identified.	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Not a cultural resource.	Yes
IS-439.0	N/A	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not in accessible survey area.	Avoid. Survey location when access granted.	Proposed Route	Direct Analysis Area	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.	Yes
ISO-390.4	N/A	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes
Kingman Lateral	N/A	N/A	S-6	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	No historic or archaeological evidence identified during survey. Identified through historic map review.	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, BLM, BLM, BR, BR, BR, BR, PV	None - Identified through historic map review. No physical evidence.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
N/A	2B2H-CH-ISO-36	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	2B2H-CH-ISO-37	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s), Debitage, & Tested Cobble(s)	Not Eligible	Shovel probe to confirm isolated nature.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	2B2H-SA-ISO-14	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Double Mountain Alternative	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	2B2H-SA-ISO-16	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	2B2H-SA-ISO-17	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	3B2H-CH-ISO-34	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	3B2H-CH-ISO-36	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	3B2H-SA-ISO-17	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	3B2H-SA-ISO-33	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	3B2H-SA-ISO-34	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes

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N/A	3B2H-SA-ISO-35	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	3B2H-SA-ISO-36	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	4B2H-EK-ISO-07	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage & Tool(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	4B2H-EK-ISO-08	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Biface(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	4B2H-EK-ISO-09	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	4B2H-EK-ISO-10	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	6B2H-MC-ISO-16	N/A	S-6	Malheur	IF/ Archaeological Object	Multicomponent	Debitage, Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	6B2H-SA-ISO-01	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	B2H-BS-ISO-41	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-42	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes

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N/A	B2H-BS-ISO-43	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-44	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-45	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-46	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage & Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-48	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-49	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-50	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-53	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-55	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes

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N/A	B2H-BS-ISO-56	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Biface(s) & Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-57	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-58	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Biface(s) & Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-59	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-60	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-62	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-63	N/A	S-6	Malheur	IF/ Archaeological Object	Multicomponent	Debitage & Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-64	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-65	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes

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N/A	B2H-BS-ISO-66	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s) & Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-67	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-68	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s), Debitage, & Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-69	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage & Tested Cobble(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-70	N/A	S-6	Malheur	IF/ Archaeological Object	Multicomponent	Debitage, Tested Cobble(s), & Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-BS-ISO-74	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-BS-ISO-75	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-DM-ISO-02	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage & Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-17	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-18	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-22	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes

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N/A	B2H-EE-ISO-23	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	B2H-EE-ISO-24	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Projectile Point(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-25	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-26	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-27	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-28	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-29	N/A	S-6	Malheur	IF/ Archaeological Object	Historic	Refuse	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-30	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-EE-ISO-31	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s), Debitage, & Utilized Flake(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes

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N/A	B2H-SA-ISO-39	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	B2H-SA-ISO-51	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s)	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	PV	b) Archaeological object on private land.	Yes
N/A	B2H-SA-ISO-52	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	B2H-SA-ISO-54	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological object not eligible for NRHP. Federal land.	No - Will be directly impacted.
N/A	B2H-SA-ISO-55	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Core(s) & Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	B2H-SA-ISO-59	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not Eligible	Shovel probe to confirm isolated nature.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological object not eligible for NRHP. Federal land.	Yes
N/A	NA	B2H-MA-043	S-10	Malheur	Historic Site/ Aboveground	Historic	Ditch	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
NHS-IF-2	N/A	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Debitage	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	Yes
North Canal	N/A	N/A	S-6	Malheur	Archaeological Site	Historic	Water Conveyance	No historic or archaeological evidence identified during survey. Identified through historic map review.	No further management.	Proposed Route	Direct Analysis Area	BLM, BR, PV	None - Identified through historic map review. No physical evidence.	Yes

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Ontario to Burns Freight Road	N/A	N/A	S-6	Malheur	Archaeological Site	Historic	Road	No historic or archaeological evidence identified during survey. Identified through historic map review.	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, PV	None - Identified through historic map review. No physical evidence.	No - Will be directly impacted.
TBD	2B2H-CH-11	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	2B2H-SA-08	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	PV	a) Historic Property; b) Archaeological site on private lands	Yes
TBD	2B2H-SA-16	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Not Eligible	No further management.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	2B2H-SA-17	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Not Eligible	No further management.	Double Mountain Alternative	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	2B2H-SA-33	N/A	S-6	Malheur	Historic Site/ Aboveground	Historic	Survey Marker	Not Eligible. Protected.	Avoid. Protected by non-NHPA laws.	Double Mountain Alternative, Proposed Route	Direct Analysis Area	BLM	None - Historic site not eligible for NRHP.	Yes
TBD	3B2H-SA-16	B2H-MA-047	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Utility Line & Water Conveyance	Utility Line: Eligible (Criteria A and C), Unevaluated (Criterion D); Not Eligible (Criterion B); Ditch/Lateral: Unevaluated	Avoid. Archival research and documentation. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, PV	a) Historic Property	Yes
TBD	3B2H-SA-26	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.

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TBD	3B2H-SA-27	N/A	S-6	Malheur	Archaeological Site	Multicomponent	Lithic Scatter & Refuse Scatter	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Pre-Contact Component: Avoid. Data recovery. Historic Component: No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-28	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-30	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-31	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-32	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area	BLM	a) Historic Property	Yes
TBD	4B2H-EK-35	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Survey Marker	Not Eligible. Protected.	Avoid. Protected by non-NHPA laws.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM	None - Historic site not eligible for NRHP.	Yes
TBD	4B2H-EK-39	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	4B2H-EK-42	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-44	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes

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TBD	4B2H-EK-48	N/A	S-6	Malheur	Archaeological Site	Multicomponent	Quarry & Refuse Scatter	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Pre-Contact Component: Avoid. Data recovery. Historic Component: No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-49	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-50	N/A	S-6	Malheur	Archaeological Site	Multicomponent	Lithic Scatter & Refuse Scatter	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Pre-Contact Component: Avoid. Data recovery; Historic Component: No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-51	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-52	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-53	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.
TBD	6B2H-SA-01	N/A	S-6	Malheur	Archaeological Site	Historic	Mining	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD	6B2H-SA-02	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD	6B2H-SA-04	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Eligible (Criterion D); Not Eligible (Criteria A – C)	Avoid. Data recovery.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Historic Property	No - Will be directly impacted.

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TBD	B2H-BS-58	N/A	S-6	Malheur	Archaeological Site	Multicomponent	Lithic/Tool Scatter & Refuse Scatter	Pre-Contact Component: Unevaluated; Historic Component: Not Eligible	Pre-Contact Component: Avoid. Testing needed; Historic Component: No Further Management.	Proposed Route	Direct Analysis Area	BLM	a) Potential Historic Property	Yes
TBD	B2H-BS-65	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	B2H-BS-66	N/A	S-6	Malheur	Archaeological Site	Historic	Structure	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-BS-71	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Not Eligible	No further management	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	B2H-BS-72	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	BLM, BR, PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	B2H-BS-73	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	B2H-BS-74	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area	PV	a) Potential Historic Property; b) Archaeological site on private lands	Yes
TBD	B2H-BS-75	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	PV	b) Archaeological site on private land.	Yes
TBD	B2H-EE-37	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-EE-38	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-EE-39	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes

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TBD	B2H-EE-41	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	B2H-SA-29	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-SA-30	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, BR, PV	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	B2H-SA-31	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	None - Archaeological site not eligible for NRHP. Federal land.	No - Will be directly impacted.
TBD	B2H-SA-37	B2H-SA-37	S-6, S-10	Malheur	Archaeological Site	Historic	Water Conveyance	Unevaluated	Avoid. Research needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM	a) Potential Historic Property	Yes
TBD	B2H-SA-38	N/A	S-6	Malheur	Archaeological Site	Historic	Refuse Scatter	Not Eligible	No further management.	Proposed Route	Direct Analysis Area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
TBD	B2H-SA-42	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Quarry	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-SA-44	N/A	S-6	Malheur	Archaeological Site	Pre-Contact	Lithic/Tool Scatter	Unevaluated	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	a) Potential Historic Property	No - Will be directly impacted.
TBD	N/A	B2H-MA-008	S-10	Malheur	Historic Site/ Aboveground	Historic	Structure	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD (Warm Springs Pump Canal)	4B2H-EK-43	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Unevaluated	Avoid. Research needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Potential Historic Property	Yes

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VM-11-01	N/A	N/A	S-6	Malheur	IF/ Archaeological Object	Pre-Contact	Groundstone	Not identified.	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
10OE1846	N/A	N/A	S-6	Malheur/Owyhee	Archaeological Site	Pre-Contact	Quarry	Unevaluated	Avoid. Testing needed. (Site is managed by Idaho SHPO).	Proposed Route	Direct Analysis Area (Construction Footprint)	BLM, PV	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
SOUTH CANAL[3]														
TBD	South Canal	N/A	S-6, S-10	Malheur, Owyhee	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criteria A, B, and C); Unevaluated (Criterion D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BR, PV	a) Historic Property	Yes
TBD	Segment B2H-SA-10	N/A	S-6, S-10	Owyhee	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible, Contributing (Criteria A, B, and C); Not Eligible (Criterion D); Survey Marker: Protected	Avoid. Archival research and documentation	Proposed Route	Viewshed Assessment Analysis Area	PV, Idaho STL	a) Historic Property	Yes
N/A	Segment 3B2H-SA-48	B2H-MA-044	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Att. S-6: Eligible, Contributing (Criteria A, B, and C); Not Eligible (Criterion D); Att. S-10: Eligible (Criterion C)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BR, PV	a) Historic Property	Yes
VALE OREGON MAIN CANAL[3]														
TBD	Vale Oregon Main Canal	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible (Criteria A and C); Not Eligible (Criteria B); Unevaluated (Criterion D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, BOR, PV	a) Historic Property	Yes
N/A	Segment 3B2H-SA-25	N/A	S-6; S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible, Contributing (Criteria A and C); Not Eligible (Criteria B and D)	Avoid. Archival research and documentation.	Proposed Route	Visual Assessment analysis area	BOR	a) Historic Property	Yes

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N/A	Segment 3B2H-SA-46	B2H-MA-001	S-6; S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Att. S-6: Eligible, Contributing (Criteria A and C); Not Eligible (Criteria B and D); Att. S-10: Eligible (Criteria A and C)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BOR	a) Historic Property	Yes
N/A	Segment 4B2H-EK-46	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Eligible, Contributing (Criteria A and C); Not Eligible (Criteria B and D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BOR, PV	a) Historic Property	Yes
N/A	Segment 4B2H-EK-47	N/A	S-6, S-10	Malheur	Historic Site/ Aboveground	Historic	Water Conveyance	Not Eligible, Non-Contributing	No further management	Proposed Route	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
OREGON TRAIL/OREGON NHT[3,4]														
Oregon Trail/Oregon NHT	N/A	N/A	S-6, S-10	Morrow, Umatilla, Union, Baker, Malheur	Archaeological Site	Historic	Trail	Listed (Criterion A)	Avoid. Archival research and documentation; Testing needed.	Proposed Route, Morgan Lake Alternative, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, BOR, DOD, FWS, ODOT, PV, STL, STL, STP, USDA, USFS	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
35MW00224 (Well Spring, Oregon Trail Site)	N/A	N/A	S-10	Morrow	Archaeological Site	Historic	Homestead & Trail	Listed (Criterion A - Draft MPDF)	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	a) Historic Property	Yes
35MW00227	N/A	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Road	Not Eligible	Avoid. Subsurface probing needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	DOD	None - Archaeological site not eligible for NRHP. Federal land.	Yes
35MW00230 (Emigrant Cemetery)	N/A	B2H-MO-004	S-10	Morrow	Archaeological Site	Historic	Cemetery	Listed (Criterion A - nomination and Draft MPDF)	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	a) Historic Property	Yes

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Oregon Trail - Unnamed Segment (Lindsey Feedlot Lane)	N/A	B2H-MO-008	S-10	Morrow	Historic Site/ Aboveground	Historic	Trail	Not Eligible	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	None - Historic site not eligible for NRHP.	Yes
TBD	Segment 3B2H-SA-03	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private lands	Yes
TBD	Segment 3B2H-SA-04	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private lands	Yes
Oregon Trail - Unnamed Segment (Sand Hollow)	Segment 3B2H-SA-05	N/A	S-10	Morrow	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	Yes
Oregon Trail - Well Spring Segment	N/A	B2H-MO-007 (4B2H-VIZ-EK-01)	S-10	Morrow	Archaeological Site	Historic	Trail	Listed (Criterion A) (Boundary Increase - Draft MPDF)	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	a) Historic Property	Yes
Oregon Trail – Well Spring Segment	3B2H-CH-01	N/A	S-10	Morrow	Archaeological Site	Historic	Trail	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	No further management	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Visual Assessment analysis area	DOD	a) Historic Property	Yes
TBD	Segment 4B2H-EK-02	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	DOD	a) Historic Property	Yes

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TBD	Segment 4B2H-EK-03	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private lands	Yes
TBD	Segment 5B2H-SA-01	N/A	S-6, S-10	Morrow	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	DOD	a) Historic Property	Yes
35UM00365 (Meacham Pioneer Memorial Cemetery Site)	N/A	N/A	S-10	Umatilla	Archaeological Site	Historic	Cemetery	Not Eligible	No further management	Proposed Route	Visual Assessment analysis area	ODOT	c) Archaeological site on State land.	Yes
35UM00472	N/A	N/A	S-10	Umatilla	Archaeological Site	Historic	Burial	Unevaluated	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00435 (Oregon Trail/Ladd Canyon)	N/A	N/A	S-10	Union	Archaeological Site	Historic	Trail	Unevaluated	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land.	Yes
35UN00517 (Oregon Trail)	N/A	N/A	S-10	Union	Archaeological Site	Historic	Trail	Eligible, Contributing	No further management	Proposed Route	Visual Assessment analysis area	PV, USFS	a) Historic Property; b) Archaeological site on private land	Yes
35UN0074	N/A	N/A	S-6, S-10	Union	Archaeological Site	Multicomponent	Lithic Scatter, Homestead, Grave, Campground, & Trail	Not in accessible survey area. Previous recommendation: Eligible.	Avoid. Survey location when access granted.	Proposed Route, Morgan Lake Alternative	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV, ODOT	a) Potential Historic Property; b) Archaeological site on private land; c) Archaeological site on state land.	Yes
Oregon Trail - Whiskey Creek Segment (O-BK-UN-1)	NA	B2H-UN-005	S-10	Union	Archaeological Site	Historic	Trail	Not Eligible	No further management	Proposed Route, Morgan Lake Alternative	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, PV	b) Archaeological site on private land	Yes
TBD	Segment 6B2H-RP-09	N/A	S-6, S-10	Union	Archaeological Site	Historic	Cairn(s) & Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD (Oregon Trail, California Gulch/Blue Mountain Segment)	N/A	B2H-UN-001	S-10	Union	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	BLM, PV, USFS	a) Historic Property; b) Archaeological site on private land	Yes
35BA01366 (Oregon Trail)	Segment 3B2H-CH-06	N/A	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	Yes
Goodale's/Sparta Trail	N/A	B2H-BA-327	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	No - Potential visual impact
Oregon Trail ACEC - Swayze Creek Segment	N/A	B2H-BA-291	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	Yes
Signature Rock	N/A	B2H-BA-286	S-10	Baker	Historic Site/ Aboveground	Historic	Historic rock markings	Unevaluated	No further management.[6]	Proposed Route	Visual Assessment analysis area	BLM	a) Potential historic property.	Yes
TBD	Segment 3B2H-CH-05	N/A	S-6, S-10	Baker	Archaeological Site	Historic	Trail Segment & Utility Line	Trail Segment: Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C); Utility Line: Not Eligible	S-6: Trail Segment: Avoid. Archival research, documentation, and testing needed; Utility Poles: No Further Management.; S-10: Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted; Potential visual impact
TBD (Oregon Trail, Powell Creek Segment)	N/A	B2H-BA-337	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	Yes
TBD (Oregon Trail, Straw Ranch 1 & 2 Segments)	N/A	B2H-BA-285	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	No - Potential visual impact
TBD (Oregon Trail, Virtue Flat)	N/A	B2H-BA-282	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	No - Potential visual impact
TBD (Oregon Trail, White Swan)	N/A	B2H-BA-281	S-10	Baker	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35ML00747 (Oregon Trail, Tub Mountain Segment)	N/A	B2H-MA-010	S-10	Malheur	Archaeological Site	Historic	Trail	Eligible (Criterion A)	No further management (not in viewshed)	Proposed Route	Visual Assessment analysis area	BLM, PV, STL	a) Historic Property; b) Archaeological site on private land	Yes
0503040048SI	Segment 0503040048SI	N/A	S-6, S-10	Malheur	Archaeological Site	Historic	Trail Segment	Not Eligible/Not contributing	No further management	Proposed Route	Visual Assessment analysis area	BLM	None - Archaeological site not eligible for NRHP. Federal land.	Yes
Meek Cutoff / Meek Study Route Hambleton Line	N/A	B2H-MA-003	S-6, S-10	Malheur	Archaeological Site	Historic	Trail	S-6: No historic or archaeological evidence identified during survey. Identified through review of OCTA study.; S-10: Unevaluated(segment)	No further management.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	BLM, BR, FWS, PV, STL, STL, STP, USDA, USFS	None - Identified through historic map review. No physical evidence.	Yes
Oregon Trail ACEC - Alkali Springs Segment	N/A	B2H-MA-041	S-10	Malheur	Historic Site/Aboveground	Historic	Trail	Eligible (Criterion A)	Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Visual Assessment analysis area	BLM	a) Historic Property	No - Potential visual impact
TBD	Segment 4B2H-EK-41	N/A	S-6, S-10	Malheur	Archaeological Site	Historic	Trail Segment	Eligible, Contributing (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Avoid. Archival research and documentation; Testing needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	No - Potential visual impact
TBD (Oregon Trail, Birch Creek Segment)	N/A	B2H-MA-042	S-10	Malheur	Archaeological Site	Historic	Trail	Eligible (Criterion A)	Design Modification, Public Interpretation Funding, and/or Print/Media Publication	Proposed Route	Visual Assessment analysis area	BLM, PV	a) Historic Property; b) Archaeological site on private land	No - Potential visual impact
The Dalles Military Road	N/A	B2H-MA-007	S-6, S-10	Malheur	Archaeological Site	Historic	Road	Unevaluated No historic or archaeological evidence identified during survey. Identified through historic map review.	No further management	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	None - Identified through historic map review. No physical evidence.	Yes

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Exhibit S Attachment	County	Resource Type	Pre-Contact/ Historic	Generalized Resource Description	NRHP Recommendation	Management Recommendation	Project Route(s)	Project Component	Land-ownership	Applicable EFSC Standard	Impact Avoided?/ Project Effect
UPRR[3]														
UPRR	N/A	N/A	S-6, S-10	Morrow, Umatilla, Union, Baker, Malheur	Archaeological Site & Historic Site/ Aboveground	Historic	Railroad	Multiple Segments, varying eligibility recommendations)	Avoid. Archival research and documentation. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint)	PV	a) Potential Historic Property; b) Archaeological site on private land.	No - Will be directly impacted.
OWR&N/UPRR Coyote Cut-Off	Segment 4B2H-EK-04	N/A	S-6, S-10	Morrow	Historic Site/ Aboveground	Historic	Railroad Segment & Utility Line	Eligible (Criterion A); Not Eligible (Criteria B, C, and D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	a) Historic Property	Yes
OR&N/OWR&N/ UPRR	Segment 4B2H-EK-19	N/A	S-6, S-10	Baker	Historic Site/ Aboveground	Historic	Railroad Segment & Utility Line	Eligible, Contributing (Criterion A); Not Eligible (Criteria B, C, and D)	Avoid. Archival research and documentation.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	a) Historic Property	Yes
OWR&N Roundhouse and OWR&N/OSL Joint Railyard	Segment 4B2H-EK-26	N/A	S-6, S-10	Baker	Archaeological Site	Historic	Railroad Segment & Structure	Unevaluated (Criterion D); Not Eligible (Criteria A, B, and C)	Avoid. Testing needed.	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area	PV	a) Potential Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
35ML1675 (Vale to Juntura OSL/UPRR)	Segment B2H-SA-32	B2H-MA-002	S-6, S-10	Malheur	Archaeological Site & Historic Site/ Aboveground	Historic	Railroad Segment	Eligible (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B)	Avoid. Archival research and documentation. Testing needed.	Proposed Route	Direct Analysis Area; Visual Assessment analysis area	PV	a) Historic Property; b) Archaeological site on private land	Yes

[1] Additional HPRCSITs may be identified through IPC's continued consultations with tribes.
[2] Sand Hollow Battleground is considered both a TCP/HPRCSIT and an Oregon Trail-related resource.
[3] The South Canal, Vale Oregon Main Canal, Oregon Trail/Oregon NHT, and UPRR are linear resources with multiple segments or components that have been identified by surveys inside the overall analysis area. Survey reports (Attachments S-6, S-7, and S-10) may include additional segments recorded outside of the analysis area of Exhibit S. For the purposes of analysis in Exhibit S, each of these four resources is examined cumulatively based on the unique qualities and effects to the individual segments or components listed.
[4] The Oregon Trail-related resources listed are based upon the Oregon Trail National Historic Trail Multiple Property District NRHP nomination. It should be noted that Sand Hollow Battleground is also considered an Oregon Trail-related resource. (See footnote 2 above.)
[5] Resource removed from study. Insufficient locational information provided. Sources only provide a reference to Baker County with no additional site data provided. Not mapped due to imprecise locational data.
[6] Removed from study - insufficient location information as only Township 9, Range 42 is provided by Baker County. Not mapped due to imprecise locational data.

BLM – Bureau of Land Management; BOR – Bureau of Reclamation; COE – U.S. Army Corps of Engineers; CTUIR – Confederated Tribes of the Umatilla Indian Reservation; DOD – Department of Defense; FWS – U.S. Fish and Wildlife Service; HPRCSIT – Historic Properties of Religious and Cultural Significance to Indian Tribes; Idaho STL – Idaho State Land; IF – isolated find; NHT – National Historic Trail; ODOT – Oregon Department of Transportation; PV – private; STL – State Land; STP – State Park; TCP – Traditional Cultural Property; USDA – U.S. Department of Agriculture; USFS – U.S. Forest Service

3.3.1 Cultural Resources Pedestrian Survey

The entire direct analysis area has been inventoried with the exception of areas to which access has been denied, or with development precluding ground surface visibility (e.g., paved roads and highways, parking lots, and lawns), areas deemed hazardous (e.g., loose talus slopes, slippery bedrock exposures, deep streams, and electrical substations), or excessively steep (35°+) slopes. The latter areas (hazardous and steep areas) were examined visually from a safe distance, however, particularly for resources such as rock art, rock shelters, cairns, and any other apparent cultural resources or feature. Areas of denied access will be subject to complete pedestrian survey after receipt of the site certificate, prior to facility construction. Areas surveyed during the pedestrian survey are depicted on Figures S-6 through S-10 as well as in Attachment S-6. A more detailed map of parcels where acess was denied is presented in Exhibit B, Attachment B-7b.

Six pedestrian survey sessions of accessible private and public lands were conducted between the spring of 2011 and the summer of 2016. The first survey session occurred between May and August 2011, the second session between October and November 2011, the third session between May 2012 and August 2012, the fourth session between June and July 2013, the fifth session between April and May 2014, and the sixth session between June and September 2016. The pedestrian surveys covered approximately 198.2 linear miles (72.7 percent) of the Proposed Route in Oregon, 482.2 miles (71.9 percent) of the associated access roads, and 2,558.1 acres (70.1 percent) of the attendant facilities (Longhorn Station, communication stations, multi-use areas, and pulling and tensioning sites). The surveys also covered approximately 7.4 linear miles (100 percent) of the currently proposed Double Mountain Alternative, 20.9 miles (94.6 percent) of the associated access roads, and 108.2 acres (99.5 percent) of the attendant facilities. For the Morgan Lake Alternative, the surveys covered approximately 15.9 linear miles (85.8 percent) of the route, 53.2 miles (85.5 percent) of the associated roads, and 262.5 acres (85.7 percent) of the related and supporting facilities. Approximately 3.7 linear miles (100 percent) of the West of Bombing Range Road 1 Alternative, 3.5 miles (80 percent) of the associated roads, and 26.7 acres (99 percent) of the related and supporting facilities have been surveyed. Approximately 3.7 linear miles (100 percent) of the West of Bombing Range Road 2 Alternative, 4.7 miles (84.5 percent) of the associated roads, and 18.86 acres (98.6 percent) of the related and supporting facilities have also been surveyed. Areas that have been surveyed and areas that have not yet been surveyed are depicted, by county, in Figures S-6 through S-10 as well as in Attachment S-6 and Exhibit B, Attachment B-7b. Table S-3 includes the status of the pedestrian survey by Project segment. The cultural resource pedestrian survey is complete for the direct analysis area, where access was obtained (69.2 percent of the Proposed Route, 85.9 percent of the Morgan Lake Alternative, and 100 percent of the Double Mountain and both West of Bombing Range Road alternatives).

Table S-3. Summary of Cultural Resources Pedestrian Survey

County	Total Miles	Surveyed Miles	Percent Complete
Proposed Route			
Proposed Route, Morrow County	47.46	23.16	48.8%
Proposed Route, Umatilla County	40.88	23.63	57.8%
Proposed Route, Union County	39.89	26.50	66.4%
Proposed Route, Baker County	69.22	57.94	83.7%
Proposed Route, Malheur County	75.16	67.04	89.2%
Alternative Routes			
Double Mountain Alternative	7.40	7.40	100%
Morgan Lake Alternative	18.47	15.87	85.9%
West of Bombing Range Road Alternative 1	3.73	3.73	100%
West of Bombing Range Road Alternative 2	3.73	3.73	100%

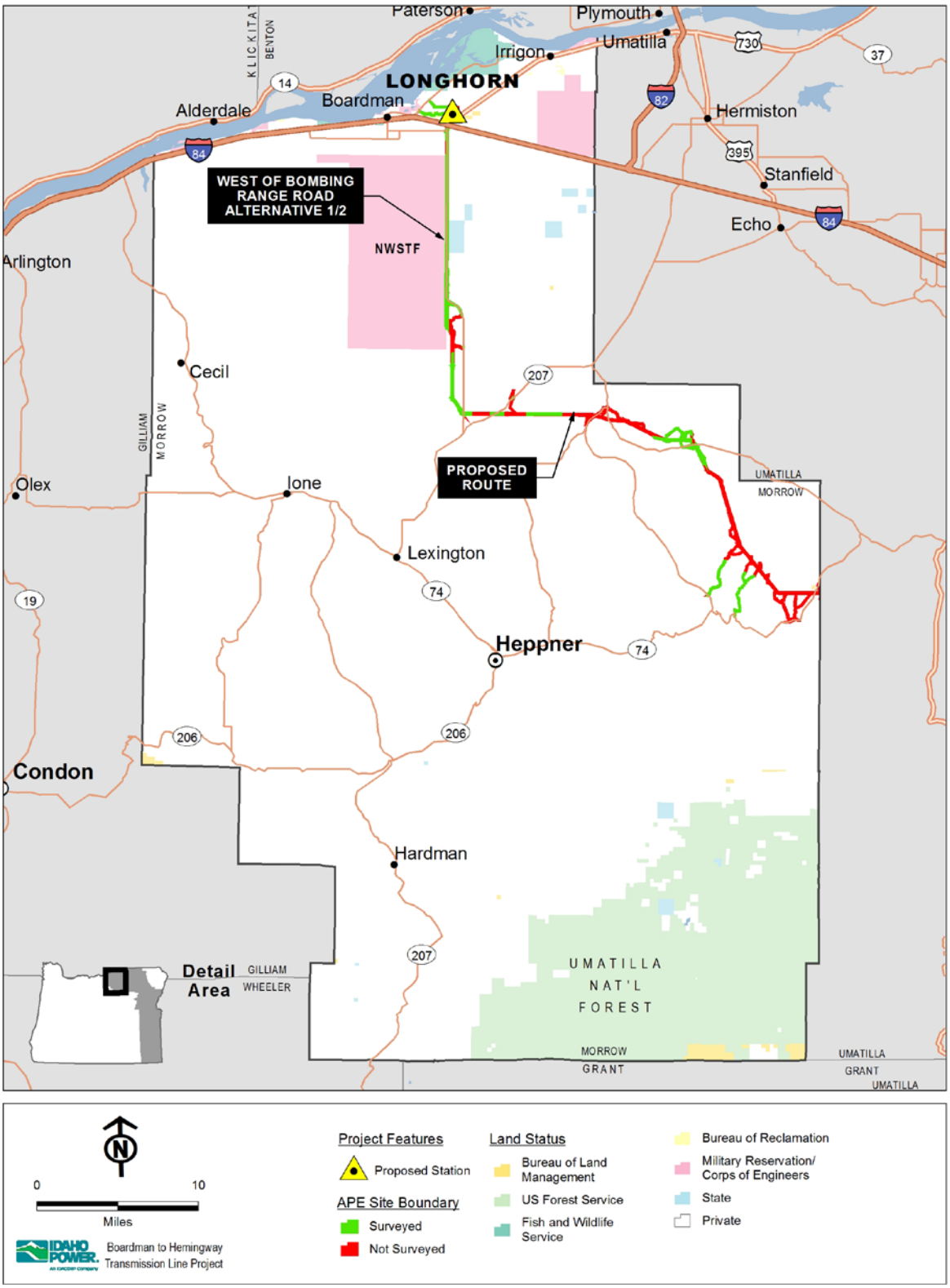

Figure S-6. Pedestrian Survey Coverage of the Direct Analysis Area, Morrow County

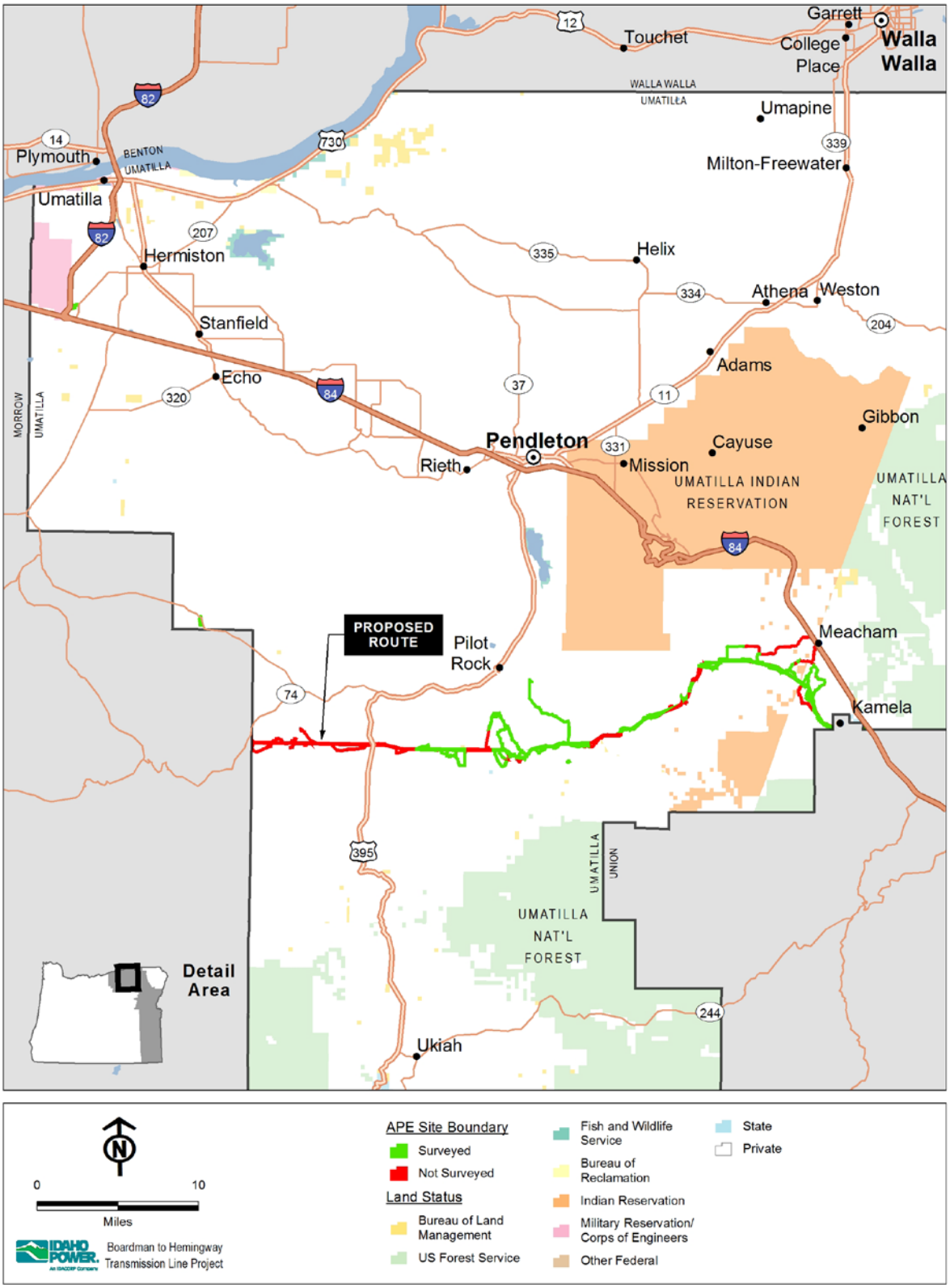

Figure S-7. Pedestrian Survey Coverage of the Direct Analysis Area, Umatilla County

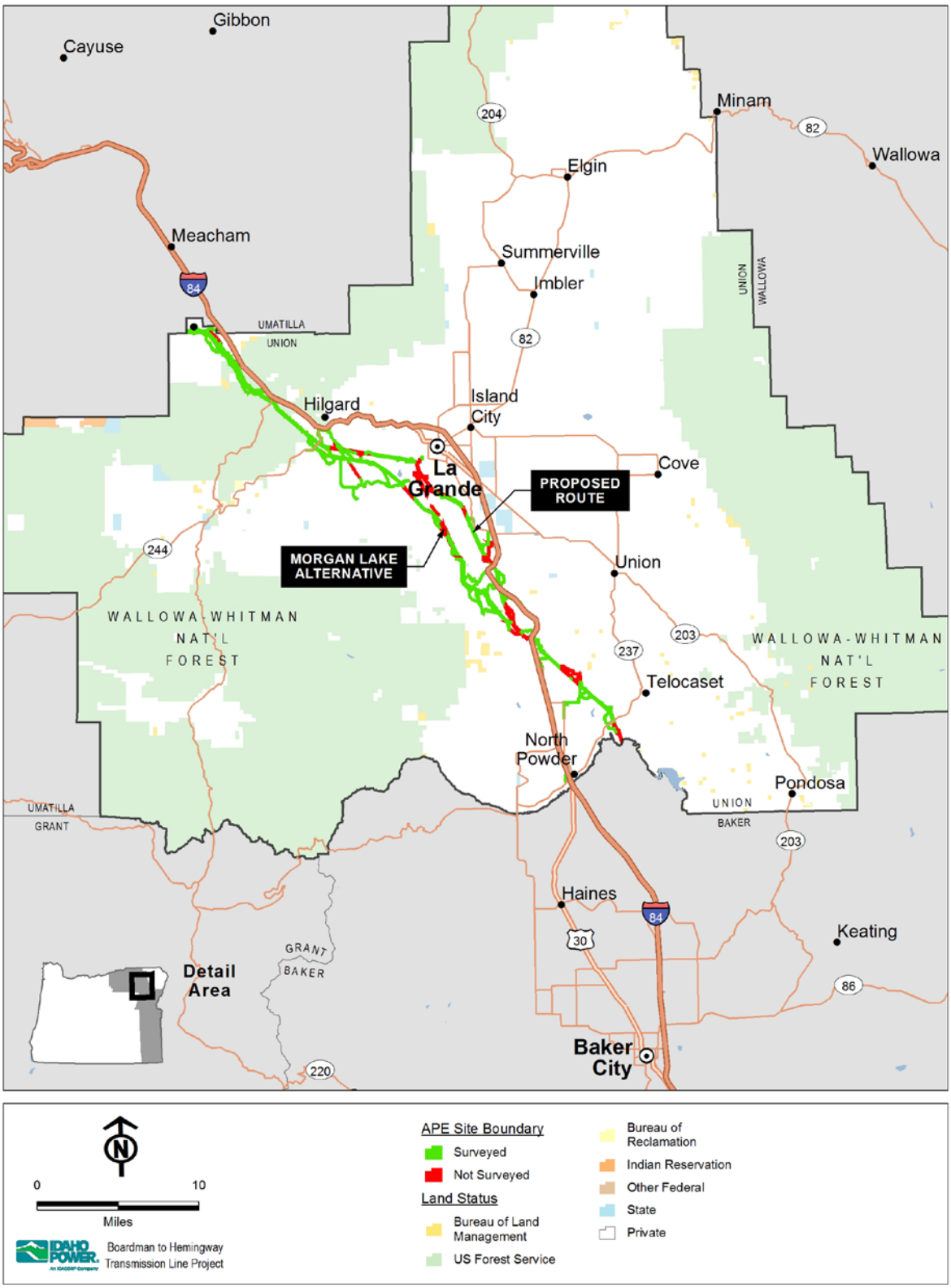

Figure S-8. Pedestrian Survey Coverage of the Direct Analysis Area, Union County

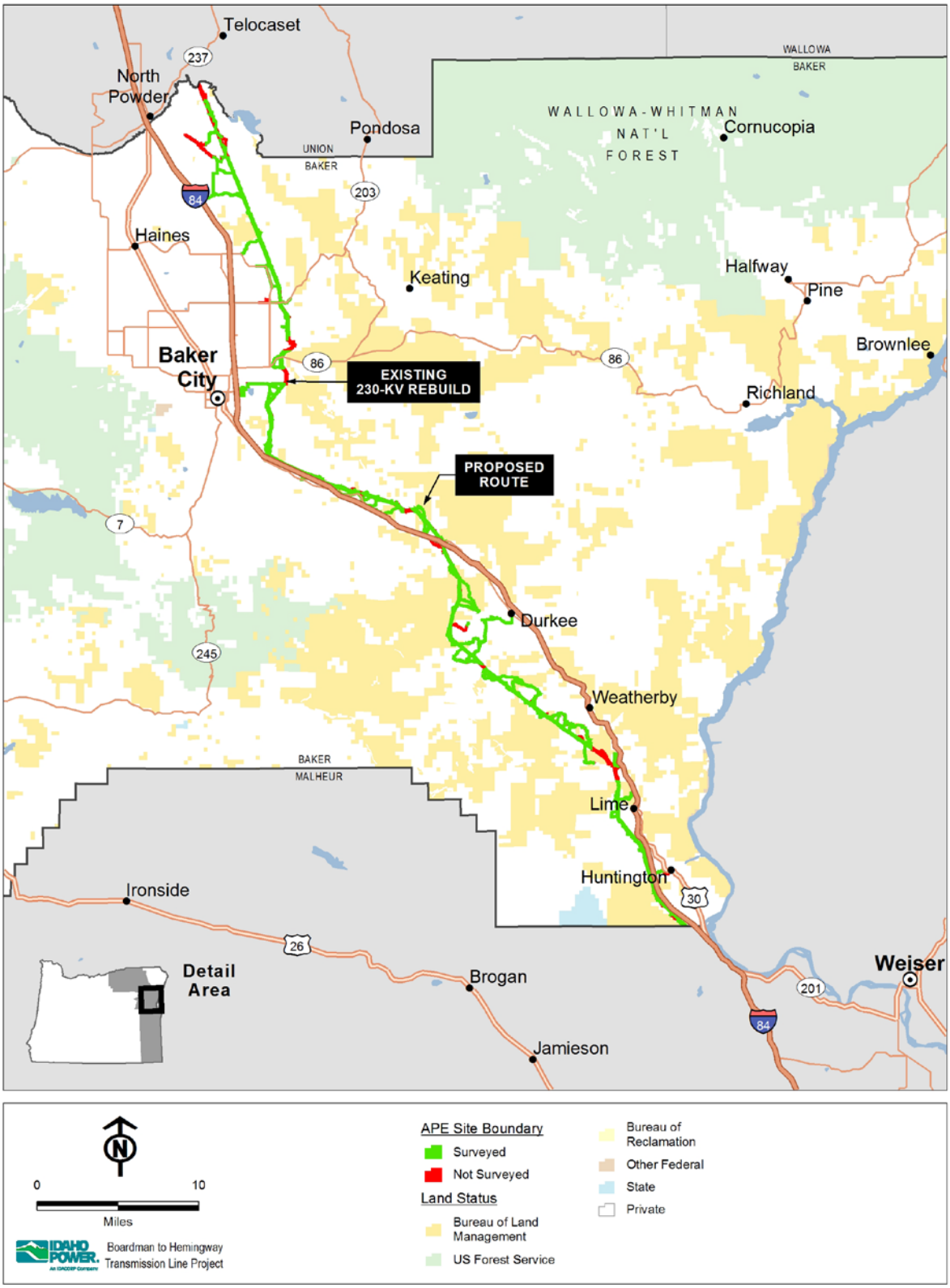

Figure S-9. Pedestrian Survey Coverage of the Direct Analysis Area, Baker County

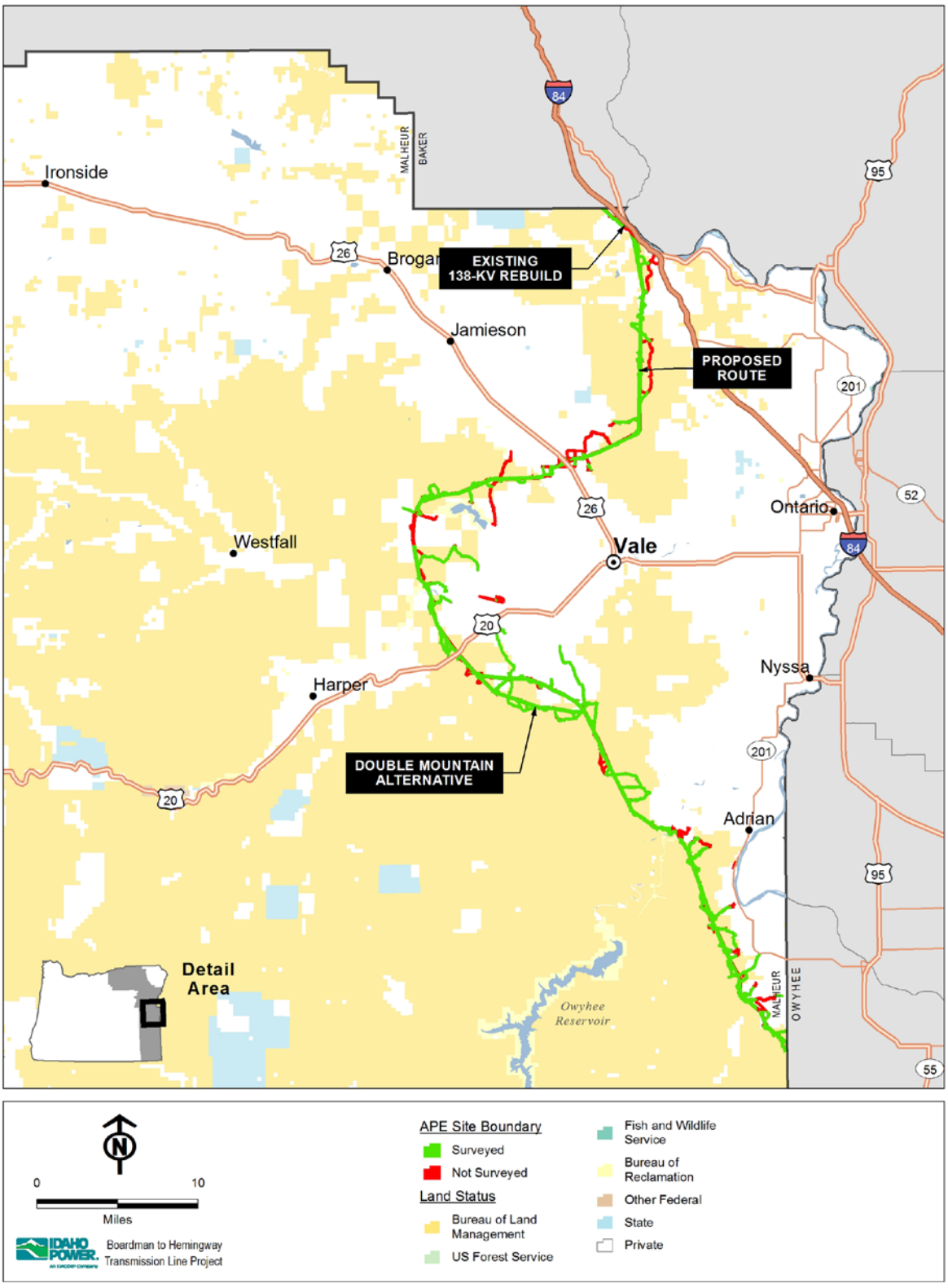

Figure S-10. Pedestrian Survey Coverage of the Direct Analysis Area, Malheur County

For the Proposed Route and all alternatives, the transmission line corridor survey areas were 500 feet wide (250 feet on either side of centerline of right-of-way), while the road corridors were 200 feet wide (100 feet either side of road centerline), consistent with the ASP and PA. This translates to a total of 29,770.98 acres surveyed between May 2011 and September 2016. As noted previously in Section 3.2.2.1, the survey area along some roads is wider than the direct analysis area. As a result, some resources presented in Attachment S-6 are not in the direct analysis area. Unsurveyed portions of the direct analysis area were inaccessible due to landowner restrictions at the time of survey or health and safety concerns.

A total of 294 cultural resources are identified in Attachment S-6 as within the direct analysis area (see Table S-2). (Note, this number addresses the four linear resources with multiple segments identified by surveys as single resources. For instance, although two segments of the Vale Oregon Main Canal were identified, this number considers the canal as one single resource.) These include newly recorded resources, updated previously recorded resources, and previously recorded resources that were not identified during the pedestrian survey for varying reasons (see below). Of the 294 resources, 109 are within the construction footprint. It should be noted that not all of these resources are subject to EFSC standards (see Section 3.4).

3.3.2 Visual Assessment of Historic Properties

The Visual Assessment analysis area addresses visual, audible, and atmospheric impacts on historic properties with aboveground components. Aboveground components and resources include historic built environment resources (i.e., buildings), historic trails and monuments, pre-contact cairns/rock features, and pre-contact rock art. The Visual Assessment analysis area in the RLS (referred to in that document as the APE) consists of 5 miles or to the visual horizon, whichever is closer, on either side of the centerline of the Proposed Route and alternatives. This area was reduced to focus on areas where a resource could be visually affected by the Project, based upon a GIS bare-earth viewshed analysis.

The RLS fieldwork identified 764 built environment resources in the Visual Assessment analysis area (this includes multiple crossings of historic trails and pre-contact resources, such as quarries and cairns). This does not include the RLS data for CTUIR tribal lands that will be performed in an upcoming field study in September-November 2018. The RLS results are detailed in confidential Attachment S-7.

The RLS recommended that built-environment resources, unevaluated resources, NRHP-eligible resources, NRHP-listed resources, and Goal 5 resources with the potential to have indirect visual effects from the Project be assessed in the ILS to confirm whether they are NRHP-eligible and, if so, whether they would be potentially affected.

The potential for effects to resources was estimated during fieldwork based on maps of the Site Boundary/direct analysis area and observations of existing conditions that included considerations such as topography and vegetation. For those unevaluated and eligible resources that were not been formally determined eligible, additional research and fieldwork was conducted to verify eligibility. For those historic properties that were either listed in the NRHP or have been formally determined eligible for the NRHP, Project effects were assessed utilizing the methods outlined in the VAHP (Attachment S-2). This visibility analysis included utilizing Project simulations as a means for assessing Project effects to historic properties. For archaeological sites with aboveground features, an additional level of screening analysis and research was performed prior to assessing the Project effects to these resources. Many of the archaeological sites with aboveground features remain unevaluated as they consist of features that lack diagnostic components to verify dating and/or cultural affiliation. In these instances, an

effects analysis was performed to provide an estimate of Project effects. For these resources, IPC is consulting tribes to ensure that these resources are appropriately considered.

Some property owners denied entry to or through private parcels during the VAHP fieldwork. For those resources where no access was achieved, other methods were used to assess the integrity and potential impacts to the extent possible. This included selecting another point on a public right-of-way in close proximity to the original property as well as using aerial photography and mapping to analyze topography, vegetation, and the built environment to describe the historic setting, feeling, or association of the resource and to estimate the potential for Project effects. The historic resource forms and VAHP forms in Exhibit S-10 disclose which resources could not be accessed and thus estimates for impacts were performed.

The ILS study included 231 resources in the Visual Assessment analysis area. These resources included NRHP-listed resources as well as historic resources that were recommended for additional study or NRHP evaluation, or were unevaluated resources, archaeological sites with aboveground features, or were newly identified following an updated literature search and data gap analysis to cover portions of the analysis area that were not previously identified.This does not include the ILS data for CTUIR tribal lands that will be collected in an upcoming field study in September-November 2018.

Of the 229 resources, 101 were eliminated from the study either because they 1) were determined to not be in the viewshed,2) could not be located during the field study or had insufficient locational information, 3) were found to not be eligible for listing in the NRHP, or 4) were found to not retain aboveground features or elements that would be affected by the Project. The 129 resources advanced for Project effects analysis were eligible for the NRHP, listed on the NRHP, or unevaluated.

3.3.2.1 Oregon Trail-ILS

This section provides an overview of resources associated with the Oregon Trail that summarizes identification and evaluation efforts during the ILS and an analysis of potential Project impacts. The resources discussed in this section are included in Section 3.4 below, but are presented in summary form here to provide a unified discussion for the resource, as requested by SHPO for this Exhibit.

The evaluation of segments, sites, and side trails associated with the Oregon Trail was performed consistent with the currently proposed Multiple Property Documentation Form (MPDF) for the Oregon Trail, Oregon 1840-1880 as well as *Guidance for Recording and Evaluating Linear Cultural Resources* (Oregon SHPO 2013b). The MPDF has been approved by the Oregon State Advisory Commission on Historic Preservation but has yet to be approved by the Keeper of the National Register. The draft MPDF provides a framework for evaluating the various property types associated with the Oregon Trail in the State of Oregon that could be buildings, structures, objects, or sites as well as districts. The MPDF also considers the Oregon Trail a single linear historic district (in its totality) that contains contributing and non-contributing resources located within its historic boundaries. The Oregon Trail is also considered to be significant at the national level and has been designated as an NHT (see Attachment S-8). Commemorative Oregon Trail resources, such as historical markers or monuments, are not included in the MPDF and so are not considered in this section.

The MPDF discusses several Property Types associated with the Oregon Trail and specifically discusses the associated resources that fall under this typology. The following is a list of MPDF Property Types and associated resources located within the Visual Assessment analysis area: river crossings, fords, and ferries; intersecting routes; Indian agencies/reservations; Euro-

American towns; springs; mountain ascents and descents; valleys; landmarks; battle sites; and important camping sites.

Consistent with the *Guidance for Recording and Evaluating Linear Cultural Resources* (Oregon SHPO 2013b), the Oregon Trail analysis consisted of a literature review, survey and field recordation through the RLS and ILS (Attachments S-7 and S-10, respectively), photographs and maps, evaluation, integrity assessment, and Project impacts assessment. Table S-4 lists the trail-related resources in the analysis area and were assessed during fieldwork.

Table S-4. List of Oregon Trail-Related Resources in Analysis Area

ID Number (Archaeology ID)[1]	Resource Name	Eligibility Recommendation[2]	Associated Project Component	Status
N/A	Oregon Trail NHT	EC	Proposed Route/ West of Bombing Range Road Alternatives 1 & 2/ Morgan Lake Alternative/ Existing 138-kV Rebuild/ Double Mountain Alternative/ Existing 230-kV Rebuild	See Attachments S-6 and S-10.
B2H-MO-004 (35MW00230)	Emigrant Cemetery	EC (contributing resource to Well Springs Segment – pending NRHP revision)	Proposed Route/ West of Bombing Range Road Alternatives 1 & 2	Impact Analysis
35MW00224	Well Springs, Oregon Trail Site	EC (contributing resource to Well Springs Segment – pending NRHP revision)	Proposed Route/ West of Bombing Range Road Alternatives 1 & 2	Impact Analysis
35MW00227	Historic Road	NC	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2 (Site Boundary)	No Further work

ID Number (Archaeology ID)[1]	Resource Name	Eligibility Recommendation[2]	Associated Project Component	Status
B2H-MO-007	Oregon Trail (Well Springs Segment)	NRHP-Listed (revised boundary pending)	Proposed Route/West of Bombing Range Road Alternatives 1 & 2	Impact Analysis
3B2H-CH-01	Oregon Trail (Well Springs Segment)	EC	Proposed Route/West of Bombing Range Road Alternatives 1 & 2	See Attachments 6 and 10.
B2H-MO-008	Oregon Trail: Unnamed Segment (Lindsay Feedlot Lane)	NC (Lindsay Feedlot Lane)	Proposed Route/West of Bombing Range Road Alternatives 1 & 2	No Further Work
3B2H-SA-05	Oregon Trail Segment (Sand Hollow)	EC	Proposed Route/ West of Bombing Range Road Alternatives 1 & 2	See Attachments 6 and 10
SL-MO-001; SL-MO-005	Sand Hollow Battle Ground – (Associated Report #26196)	Previously determined eligible (resource is also a historic property with religious and cultural significance)	Proposed Route/West of Bombing Range Road Alternative 1/2	Consultation Required
3B2H-SA-03	Oregon Trail Segment (Unnamed)	EC	Proposed Route/West of Bombing Range Road Alternative 1 & 2	See Attachments 6 and 10
3B2H-SA-04	Oregon Trail Segment (Unnamed)	EC	Proposed Route/West of Bombing Range Road Alternative 1 & 2	See Attachments 6 and 10.
4B2H-EK-02	Oregon Trail Segment (Unnamed)	EC	Proposed Route (Site Boundary)	See Attachments 6 and 10.

ID Number (Archaeology ID)[1]	Resource Name	Eligibility Recommendation[2]	Associated Project Component	Status
4B2H-EK-03	Oregon Trail Segment (Unnamed)	EC	Proposed Route/West of Bombing Range Road Alternative 1 & 2	See Attachments S-6 and S-10
5B2H-SA-01	Oregon Trail Segment (Unnamed)	EC	Proposed Route (Site Boundary)	See Attachments S-6 and S-10
B2H-UN-001	Oregon Trail (California Gulch/Blue Mountain Segment)	EC	Proposed Route	Impact Analysis
35UN00074	Lithic Scatter, Homestead, Grave, Campground, & Trail	EC	Proposed Route, Morgan Lake Alternative	Impact Analysis
35UN00517	Oregon Trail	EC	Proposed Route	Impact Analysis
6B2H-RP-09	Oregon Trail	EC	Proposed Route (Site Boundary)	See Attachments S-6 and S-10
B2H-UN-005 (O-BK-UN-1)	Oregon Trail: Whiskey Creek Segment	NC (non-contributing segment)	Proposed Route/Morgan Lake Alternative	No Further Work
35UN00435	Oregon Trail (in Ladd Canyon)	UN	No View of Project	No Further Work
35UM00365	Meacham Pioneer Memorial Cemetery Site	NC	No View of Project	No Further Work
35UM00472	Grave Associated with Oregon Trail	UN	Proposed Route	Impact Analysis
B2H-BA-281	Oregon Trail White Swan	EC	Proposed Route	Impact Analysis
B2H-BA-282	Oregon Trail Virtue Flat Segment and Flagstaff Hill	EC (NRHP listing pending)	Proposed Route/ Existing 230-kV Rebuild	Impact Analysis

ID Number (Archaeology ID)[1]	Resource Name	Eligibility Recommendation[2]	Associated Project Component	Status
N/A	Signature Rock	UN	Proposed Route	No further work. Insufficient location information as only Township 9, Range 42 is provided by Baker County. Not mapped due to imprecise location.
3B2H-CH-05	Oregon Trail	EC	Proposed Route	See Attachments S-6 and S-10
B2H-BA-285	Oregon Trail (Straw Ranch: Segments 1 and 2)	EC	Proposed Route	Impact Analysis
B2H-BA-291	Oregon Trail Swayze Creek (near Plano Road and including Sisely Creek Segment)	EC	Proposed Route	Impact Analysis
35BA01366 (3B2H-CH-06)	Oregon Trail Segment	EC	Proposed Route	Impact Analysis
B2H-BA-327	Goodale's/Sparta Trail	EC (area assessed overlaps with B2H-BA-282)	Proposed Route/ Existing 230-kV Rebuild	Impact Analysis
B2H-BA-337	Oregon Trail Powell Creek Segment (Chimney Creek)	EC	Proposed Route	Impact Analysis
4B2H-EK-41	Oregon Trail Segment (Unnamed)	EC	Proposed Route	See Attachments S-6 and S-10
0503040048SI	Oregon Trail	UN	Proposed Route	See Attachments S-6 and S-10
B2H-MA-003	Meek Cutoff	NC (non-contributing segment)	Proposed Route/ Double Mountain Alternative	No Further Work

ID Number (Archaeology ID)[1]	Resource Name	Eligibility Recommendation[2]	Associated Project Component	Status
B2H-MA-010	Oregon Trail ACEC -- Tub Mountain	EC	Proposed Route/Existing 138-kV Rebuild	Impact Analysis
B2H-MA-041	Oregon Trail: Alkali Springs Segment	EC	Proposed Route	Impact Analysis
B2H-MA-042	Oregon Trail Birch Creek Segment	EC	Proposed Route/Existing 138-kV Rebuild	Impact Analysis
B2H-MA-007	The Dalles Military Road	NC	Proposed Route (Construction Footprint)	Not identified during field survey; No Further Work

[1] Some Oregon Trail Area of Critical Environmental Concern (ACEC) segments are listed in the OHSD by different names than in the BLM's Oregon National Historic Trail Management Plan (1989). This table lists the BLM name first with the OHSD name in parentheses.
[2] NRHP eligibility evaluations: EC=Eligible/Contributing, ES=Eligible/Significant, NC=Not Eligible, UN=Unevaluated

In addition to considering the potential for site-specific impacts, an analysis that considers the potential cumulative impacts to Oregon Trail Resources was prepared. Utilizing various Oregon Trail GIS data sets from the NPS, Oregon SHPO, and BLM, data were collected on a cumulative basis to provide a general indication of potential cumulative visual impacts from within the Visual Assessment analysis area based on a bare earth digital elevation model. There are some notable limitations in using this data. First, the bare earth model is based only on the topographic screening a viewer would experience in the absence of intervening vegetation, buildings/structures, and/or hazy atmospheric conditions. For approximately 29 miles between Emigrant Springs State Heritage Area and La Grande, Oregon, for instance, most views of the Project would be obscured by tall evergreen tree vegetation and rolling topography. Additionally, the model does not gauge the number of towers that would be visible or the extent of tower heights that would be visible from the length of the Oregon Trail.

The data were compiled to illustrate the potential for cumulative indirect impacts but is not truly reflective of the magnitude of impacts. Impacts to individual Oregon Trail-related resources vary by individual site due to a number of variables including distance, intervening topography, vegetation, atmospheric conditions, and the built environment. In addition, in many instances, the physical setting and/or landscape surrounding the Oregon Trail has been diminished through the introduction or roads, an interstate highway, pipeline rights-of-way, electrical distribution and transmission lines, fencelines, and other forms of development. Depending upon the extent of alterations to the existing setting, Project-related impacts are reduced if they occur in previously altered physical settings. An additional consideration is the historical integrity of the Oregon Trail and its related resources as its presence on the landscape has been diminished over time, thus creating a discontiguous historic district with contributing and non-contributing segments and sites.

As an overview of the cumulative impacts analysis, of the 177.97 miles of the Congressionally Designated Route of the Oregon NHT, 43.89 miles would have a potential view that is within

0.5 mile of the Site Boundary. For "Contributing Trail Segments" or segments of the Oregon Trail that have been previously identified by surveys or listed on the NRHP, approximately 89.35 miles of these segments lies within the Visual Assessment analysis area and about 27.43 of those miles would have a potential view of the Project.

While the cumulative effect data provide a general indication of the magnitude for indirect impacts on the Oregon Trail, the site-specific analysis performed during the ILS is more precise in its assessment of impacts and informs Project planning in an effort to avoid, reduce, or mitigate impacts. Due to the generalized nature of the cumulative impacts data, IPC proposes site-specific mitigation measures as notedin Tables S-15 and S-16, and also in Attachment S-10.

3.3.3 Traditional Cultural Properties and Historic Properties of Religious and Cultural Significance to Indian Tribes

Many HPRCSITs and other cultural resources that could potentially be HPRCSITs were identified by the records search, literature review, and tribal ethnographic studies, as well correspondence with the tribes, as being crossed by the direct analysis area. Two formally evaluated HPRCSITs crossed by the direct analysis area are Sand Hollow Battleground and Sisupa (Engum 2014a, 2014b). Sand Hollow Battleground is the site of the largest battle of the Cayuse War, involving the First Oregon Rifle Regiment and the Umatilla, Cayuse, Palouse, and Walla Walla tribes and holds other aspects of significant to the CTUIR that are unrelated to the battle that occurred there (Engum 2014a, 2014b; Minthorn 2006; Mitchell 2003). Sisupa is the site of a campsite between the Columbia River and Ione (Engum 2014a, 2014b; Hunn et al. 2015). These two resources were determined eligible for the NRHP by the U.S. Department of Defense (DOD 2015) and are historic properties subject to the EFSC standards.

A third site identified in the records search which has been formally evaluated as a TCP is Nisxt, located on the Columbia River east of the Port of Morrow. This site was identified in a Traditional Use Study completed by the Yakama Nation under contract to the U.S. Army Corps of Engineers (Meninick et al. 2014). The site is identified as a permanent winter village named for the greasewood found there. The U.S. Army Corps of Engineers determined that one component of the site is NRHP eligible. The site is located within the Visual Assessment analysis area.

The remaining properties are discussed below. All HPRCSITs identified by consultations and the traditional use study completed by CTUIR are treated as eligible for listing on the NRHP.

3.3.3.1 Results of Tribal Coordination and Consultations

The BLM's consultation efforts have identified the following issues of concern to Native Americans:

- NEPA process and how cultural resources will be addressed;
- Level of planning and participation involved in the B2H Project and the role of Native American tribes;
- Tribal consultation process;
- The PA;
- NAGPRA Plan of Action documents;
- Completion of ethnographic studies;
- Effects on traditional foods and treaty rights, where applicable;

- Cultural resources site visits and historic properties of religious and cultural significance to Indian tribes/TCP inventories;
- Direct and indirect effects on cultural resources that may be relevant to Native American tribes, including historic properties of religious and cultural significance to Indian tribes, cultural landscapes (e.g., mountains, ridges, springs, rivers, rock formations and rockshelters), and human burial sites;
- Effects on places/areas of Native American concern. Key resources include Sand Hollow, Pilot Rock, Farewell Bend, Graveyard Point, McKay Creek, Birch Creek, Striped Mountain, and Butter Creek;
- Effects on the Oregon NHT (path of the Forced March of 1879);
- Forced March of 1879;
- Tribal involvement in monitoring;
- Cumulative effects of the B2H Project;
- Mitigation;
- Colocation;
- Confidentiality;
- Communication protocols;
- Human remains and repatriation;
- Impacts on greater sage-grouse and other wildlife;
- Public health and safety issues; and
- Increased access to sites and the potential for increased looting and damage.

Some Native American tribes have expressed concerns that construction, operation, and maintenance activities will negatively affect plant and animal populations important to Native American tribes and result in restricted access to sacred sites/areas. In addition, Native American tribes are concerned that these activities will impair ceremonial use of sacred sites/areas by tribal members through the following:

- Alteration of the broader site context; spiritual abandonment of sacred sites;
- Disruption of the visual qualities of the landscape;
- Physical desecration of sites, objects, and cultural material;
- Distraction of ceremonial participants;
- Electrical Interference (electromagnetic field [EMF]) with the spiritual environment;
- Loss of ceremonial objects, cultural materials, and medicines (plant life);
- Increased accessibility to the area by others; and
- Eventual site abandonment by spiritual practitioners.

The Burns Paiute Tribe has expressed interest in the B2H Project and the desire to review studies conducted on their ancestral lands. The Burns Paiute Tribe would like to participate in field visits.

The CTUIR provided comments both through the NEPA scoping process and through formal government-to-government consultation under Section 106 of the NHPA. The BLM's consultation with the CTUIR has occurred through face-to-face and conference-call meetings. Through consultation, the CTUIR provide comments on work products (such as the PA and

associated plans, Draft EIS, draft Final EIS). The CTUIR expressed interest in the B2H Project and the desire to review studies conducted on their ancestral lands. The CTUIR expressed concern regarding the level employed to identify historic properties (this was specific to the sample survey utilized for the EIS analysis). In addition, the proximity of the B2H Project to many locations, including Sand Hollow, Sisupa, McKay Creek, Pilot Rock, and Butter Creek, is a concern for the tribes.

Government-to-government consultation is taking place between the BLM and the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation through third-party-facilitated ad hoc Wings and Roots meetings, held at the BLM Boise District Office or BLM Idaho State Office. The Shoshone-Paiute Tribes of the Duck Valley Indian Reservation provide their concerns about the B2H Project and comments on work products (such as the PA and associated plans, Draft EIS, draft Final EIS) directly to the BLM at these meetings. Although the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation have participated in consultation on the development of the PA, they have indicated that their concerns about the B2H Project are much broader than the topics under the scope of NHPA consultation. The Tribes expressed interest in the B2H Project and the desire to review studies conducted on their ancestral lands. They expressed concern about the limited definition of "historic properties" under Section 106 of the NHPA and developed a separate Memorandum of Understanding agreement document with the BLM Idaho State Office (signed in 2015) to address their concerns about B2H Project effects on those cultural resources considered important to them. Although the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation have indicated a specific interest in the area from the Oregon-Idaho state border to Malheur City (historic town site), Malheur County, Oregon and additional concerns in the Durkee and Huntington areas in Oregon, their interest is not limited to these areas. The Tribe is concerned with the entirety of their ancestral homeland. The Shoshone-Paiute Tribes of the Duck Valley Indian Reservation have expressed concern regarding colocation, monitoring, and mitigation. The Tribes also expressed concern about being able to tell the story of the Forced March of 1879 alongside the history of the Oregon NHT. Potential effects on segments of the Oregon NHT that were associated with the Forced March of 1879 are a paramount concern for the Tribes. The Forced March of 1879 is considered to be a spiritually significant event to these tribes, and potential B2H Project impacts on the route of the forced march continue to be evaluated through government-to-government consultation. The Tribes also expressed concern regarding the effects of EMF on cultural resource sites, fish, wildlife, and vegetation. In addition, the proximity of the B2H Project to Graveyard Point is a concern for the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation.

The Fort McDermitt Paiute and Shoshone Tribes also expressed interest in the B2H Project and the desire to review studies conducted on their ancestral lands. In addition, they voiced concerns about the limited definition of "historic properties" under Section 106 of the NHPA. The Tribes participated in the 2015 Memorandum of Understanding described above in discussion of the Shoshone-Paiute Tribes of the Duck Valley Indian Reservation concerns.

Overall, issues raised by Native American tribes related to potentially significant effects on cultural resources including potential direct and indirect effects on archaeological and historic cultural resources, and historic properties of religious and cultural significance to Indian tribes. Cultural resources considered of particular significance include trade sites, habitation sites (e.g., caves, rockshelters, and villages), natural features (e.g., mountains, springs, buttes, rock formations, and ridges), rock image sites, rock features (e.g., cairns and rock alignments), historic trails, battle sites, human burial sites, sites associated with ceremonies and legends, and sites associated with hunting, fishing, gathering, or other rights reserved by treaty. Some of these resources have the potential to become historic properties of religious and cultural significance to Indian tribes through consultation with Native American tribal governments.

Specifically, Native American tribes have expressed concern about the B2H Project proximity to Pilot Rock, Sand Hollow Battleground 1848, Butter Creek, Farewell Bend, Graveyard Point, Striped Mountain, and the McKay Creek area. Additional concerns include the Oregon NHT, sites considered sacred to Native American tribes associated with the Forced March of 1879, and traditional foods and plant-gathering areas. (Traditional foods are discussed in Sections 3.2.3, 3.2.4, and 3.2.13 of the Project's EIS [BLM 2017].) There is the potential for sites of tribal significance (rock features) in the Huntington and Durkee areas. Tribal input indicates that these features could represent cultural landscapes in Oregon. The previously mentioned cultural resources do not represent a complete list of sites or areas important to Native American tribes. Ongoing coordination and consultation by the BLM with Native American tribal governments, or any consultations conducted by SHPO under the EFSC process, may identify additional resources of tribal concern.

The presence and/or introduction of EMF in the B2H Project area have been reported, through government-to-government consultation, to be of concern to Native American tribes. (The potential impacts of EMF as a result of the Project are discussed in Section 3.2.18 of the Project's EIS as well as in Exhibit AA of this application.) These tribes have expressed concern that areas in which EMF are present would be rendered unsuitable for cultural and religious practices. Potential impacts of EMF will be discussed in government-to-government consultation between the BLM and the appropriate Native American sovereign tribal governments, as requested by the BLM.

Ethnographic studies funded by IPC have been undertaken by CTUIR, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, and the Burns Paiute Tribe to assist with the identification of HPRCSITs and other cultural resources of concern to the tribes. The CTUIR's traditional use study (Engum 2014a, 2014b) is the only one of these three confidential studies that has been provided to IPC. It also includes a sample inventory for the presence of traditional foods and traditional plant resources considered culturally significant to Native American tribes. In the past, IPC has requested copies of the other two ethnographic studies produced for the Project but was told by the BLM that the tribes did not want this information released to IPC. IPC will continue to work with these tribes in an effort to obtain access to this information.

CTUIR Traditional Use Study

The CTUIR's traditional use study (Engum 2014a, 2014b) and subsequent communications identified HPRCSITs in, or near, the NEPA study corridor that could be affected by the B2H Project. This includes cultural landscapes, fishing locations, gathering areas, travel routes, legendary sites, spiritual/ceremonial sites, hunting areas, villages, camp locations, rock image sites, burial sites, battlefields, early reservation-era sites, horse grazing and roundup areas, rock features, medicinal hot springs, and archaeological sites associated with these activities. As stated in the Project's EIS, these resources are considered NRHP-eligible by BLM in the Section 106 process.

The CTUIR has indicated that integrity of feeling, setting, and association is important to all of these traditional sites, and that as the transmission line passes through the sites' viewsheds, those aspects of integrity may be adversely impacted. Minimization of such impacts may occur through micrositing or colocation. If micrositing or colocation is not sufficient to mitigate adverse effects, off site mitigation may also be an option.

The NEPA study corridor, includes alternatives that are no longer under consideration and not included in the analysis area of this exhibit. IPC, with CTUIR's assistance, reviewed the traditional use study and other traditional use studies by CTUIR along the analysis area to determine which HPRCSITs and place names remained in the analysis area.

Engum (2014a) also provided an inventory of First Foods in the Project area, plants that were traditionally utilized by the CTUIR. The study states that 54 food plants from 49 genera were identified by the ethnobotanical survey, but does not provide a specific list of species. The ethnobotanical survey also identified four habitat types of importance to the tribes, including forest-grassland, forest riparian, shrub-grassland, and shrub riparian. Engum (2014a) indicates that the Project bisects areas where plant food harvesting is an ongoing cultural activity for CTUIR members. A list of plant and animal species, as well as general natural resource categories identified in the study are provided in confidential Attachment S-12. This list was developed through examination of the discussions of place names and oral histories in the traditional use study. Although First Foods are not a category of cultural resources subject to the EFSC standards, IPC will coordinate with CTUIR to minimize the Project's effects to these natural resources that are also considered cultural resources by tribes. IPC understands that some of these locations where resources are hunted and gathered may also be cultural resource sites that are potentially eligible for the NRHP, and could be subject to the EFSC standards.

3.4 EFSC Standards Criteria

The following sections discuss the EFSC standards criteria as outlined in Section 2.1 above. The analyses are based on the resources included in Table S-2 above. A total of 313 resources are subject to one or more EFSC standard criteria. These are described in the discussions below. In addition to the resources subject to EFSC standard criteria, there are 22 archaeological resources that were not identified during surveys and require additional work to determine if any EFSC standards criteria apply. These are summarized by Project alternatives in Table S-5 and listed in Table S-6. (Note, some resources are located within multiple counties and multiple Project routes.) Resources that could not be properly evaluated based on survey results or may have traditional significance are treated as NRHP-eligible for the purposes of this analysis. The remaining 119 resources in the analysis area are not subject to any EFSC standard criteria.

As discussed in Section 3.3 and presented in Table S-2, four linear resources with multiple segments were identified in the analysis area: the South Canal (2 segments), Vale Oregon Main Canal (4 segments), Oregon Trail/Oregon NHT (36 segments and associated sites), and UPRR (4 segments). In Sections 3.4. and 3.5, these resources are discussed as singular resources, not as the individual segments presented in Section 3.3. As a result, there are seemingly fewer resources in Sections 3.4 and 3.5 than in Section 3.3 (beyond those that do not meet the EFSC criteria); however, all resources included in Section 3.3 are included in Sections 3.4 and 3.5.

Table S-5. Resources in the Analysis Area That May be Subject to EFSC Standards Criteria by Route Segment[1]

Route Segments	Direct Analysis Area		Direct Analysis Area (Construction Footprint)		Visual Assessment Analysis Area	
	Sites	Objects	Sites	Objects	Sites	Objects
Proposed Route[2]						
Proposed Route, Morrow County	0	0	1	1	0	0
Proposed Route, Umatilla County	0	0	0	0	0	0
Proposed Route, Union County	2	3	2	1	0	0
Proposed Route, Baker County	1	2	0	0	0	0
Proposed Route, Malheur County	2	3	1	1	0	0
Total	**5**	**8**	**4**	**3**	**0**	**0**
Alternative Routes						
Double Mountain Alternative	0	0	0	0	0	0
Morgan Lake Alternative[2]	1	1	0	0	0	0
West of Bombing Range Road Alternative 1	0	0	1	0	0	0
West of Bombing Range Road Alternative 2	0	0	0	0	0	0

[1] This table lists all cultural resources in the analysis area, as determined by background research and field surveys, for which it is unclear if any EFSC standards criteria apply, pending additional work.
[2] One archaeological object is in the direct analysis area of the Proposed Route and Morgan Lake Alternative. resources are within multiple routes. It is therefore presented multiple times in this table in the appropriate rows and column.

Table S-6. Resources in the Analysis Area That May be Subject to EFSC Standards Criteria[1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Potential EFSC Standard Applicability
126CSF-Resource 11	N/A	N/A	Archaeological Site	West of Bombing Range Road Alternative 1	Direct Analysis Area (Construction Footprint)	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.
126CSF-Resource 4	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
35BA0159	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
35ML0475 (0503040078SI)	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Believed to be mis-plotted. Requires additional survey to determine if subject to a) Historic Property.
35ML1516	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
35ML1522	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Potential EFSC Standard Applicability
35UN0280	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
35UN0295	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	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.
35UN0481	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area	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.
35UN0483	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area	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.
35UN0543	N/A	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area	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.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Potential EFSC Standard Applicability
4-2-IF	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	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.
D-180-IA-3	N/A	N/A	IF/ Archaeological Object	Morgan Lake Alternative, Proposed Route	Direct Analysis Area	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.
IS-439.0	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	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.
IS-447.0	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	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.
IS-541.1	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Potential EFSC Standard Applicability
IS-545.2	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
ISO-001	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	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.
ISO-390.4	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
ISO-453.0	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	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.
NHS-IF-2	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.
VM-11-01	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.

[1] This table lists all cultural resources in the analysis area, as determined by background research and field surveys, for which it is unclear if an EFSC standard criteria applies, pending additional work. More detailed information pertaining to the listed resources may be obtained from Table S-2 and Attachment S-6.

3.4.1 Historic Properties

OAR 345-021-0010(1)(s): …The applicant shall include information in Exhibit S or in confidential submissions providing evidence to support a finding by the Council as required by OAR 345-022-0090, including: (A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places.

This section identifies cultural resources within the analysis area that have been listed, or have been determined or recommended eligible for listing, on the NRHP. Resources that have not been evaluated for NRHP eligibility (i.e., unevaluated) are also included as potentially NRHP-eligible resources. Consistent with federal NRHP regulations and for ease of reference, the term "historic properties" is used here. The section is based on the survey results described above in Section 3.3 and presented in confidential Attachments S-6, S-10, and S-12. Based on the results of background research and field surveys, 228 cultural resources in the analysis area are either NRHP-listed, NRHP-eligible, or are unevaluated and considered potentially NRHP-eligible. These are subject to EFSC Standard A. This includes 191 archaeological sites, 33 historic sites, 1 archaeological/historic site, and 2 HPRCSITs. Additional cultural resources with significance to the tribes have been identified by the CTUIR during coordination with IPC, some of which may be HPRCSITs (Attachment S-12). Historic properties in the analysis area and subject to EFSC standard (a) are summarized by Project alternatives in Table S-7 and listed in Table S-8. (Note, some resources are located within multiple counties and multiple Project routes.)

Table S-7. Historic Properties in the Analysis Area by Route Segment[1]

Route Segments	Direct Analysis Area	Direct Analysis Area (Construction Footprint)	Visual Assessment Analysis Area
Proposed Route[2,3]			
Proposed Route, Morrow County	2	4	11
Proposed Route, Umatilla County	9	14	8
Proposed Route, Union County	0	5	53
Proposed Route, Baker County	7	12	53
Proposed Route, Malheur County	17	26	17
Total	**35**	**61**	**142**
Alternative Routes			
Double Mountain Alternative	0	0	0
Morgan Lake Alternative[3,4]	1	5	3
West of Bombing Range Road Alternative 1[4,5]	0	2	2
West of Bombing Range Road Alternative 2[4,5]	0	2	2

[1] This table lists all NRHP-listed, NRHP-eligible, and NRHP-unevaluated cultural resources in the analysis area, as determined by background research and field surveys, and subject to EFSC standard (a). Additional unevaluated resources identified by the CTUIR are included in Attachment S-12. Some unevaluated sites may be determined eligible for listing as site evaluations are conducted.

[2] Some resources are within multiple parts of the analysis area for the Proposed Route. This includes 2 resources in the direct analysis area and the Visual Assessment analysis area; four resources that are in the direct analysis area (construction footprint) and the Visual Assessment analysis area. Additionally, both the UPRR and Oregon Trail/Oregon NHT are within the direct analysis area (construction footprint) in all five counties crossed by the Proposed Route. These resources are therefore presented multiple

Route Segments	Direct Analysis Area	Direct Analysis Area (Construction Footprint)	Visual Assessment Analysis Area

times in this table in the appropriate rows and columns.

[3] Some resources are within multiple routes. This includes 2 resources in the Visual Assessment analysis area of the Proposed Route and Morgan Lake Alternative; 1 resource in the direct analysis area (construction footprint) of the Proposed Route, Morgan Lake Alternative, and West of Bombing Range Road alternatives 1 and 2; and 2 resources in the direct analysis area (construction footprint) and Visual Assessment analysis area of the Proposed Route and West of Bombing Range Road alternatives 1 and 2. These resources are therefore presented multiple times in this table in the appropriate rows and columns.

[4] One resource is in the direct analysis area and the Visual Assessment analysis area of the Morgan Lake Alternative. It is therefore presented multiple times in this table in the appropriate row and columns.

[5] Some resources are within multiple parts of the analysis area for the West of Bombing Range Roads Alternatives 1 and 2. This includes 2 resources in the direct analysis area (construction footprint) & Visual Assessment analysis area.

Table S-8. Historic Properties and Potential Historic Properties in the Analysis Area [1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
01S37000E00001 (Logging Railways)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
02S3600E13001 (Rugg Cabin)	N/A	SL-UN-003 (Rugg Cabin)	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
02S3600E15001	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
02S3600E23001	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
02S3600E23002	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
02S3600E28002	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503040216SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503050143SI	N/A	N/A	Historic Site/ Aboveground	Listed on NRHP	Proposed Route	Visual Assessment analysis area
0503050144SI (Kiwanis Oregon Trail Monument)	N/A	N/A	Historic Site/Aboveground	Non-contributing object (MPDF); Eligible (Criterion C)	Proposed Route	Visual Assessment analysis area
0503050240SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503050330SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503050331SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503050334SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
0503050352SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
0503050489SI	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
10OE1846	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
11102 Island Ave	N/A	B2H-UN-219	Historic Site/Aboveground	Eligible (no further evaluation)	Proposed Route	Visual Assessment analysis area
11106 Island Ave	N/A	B2H-UN-220	Historic Site/Aboveground	Eligible (no further evaluation)	Proposed Route	Visual Assessment analysis area
14S44E14-2	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00078	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00084	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
35BA00088	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00089	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00090	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00118	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00304	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00372	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35BA00374	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00381	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00382	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00386	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00388	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00544 (0503050138SI)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00863	N/A	N/A	Archaeological Site	Unevaluated	Proposed	Visual Assessment analysis area
35BA00889	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA00913	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01224	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01229	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01242	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01377	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01423	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01507	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35BA01508	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01517	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA01518	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35BA0158	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
35BA1370 (Schuck Irrigation Ditch)	N/A	SL-BA-009	Archaeological Site	S-6: Eligible (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B) S-10: Eligible (A and C)	Proposed Route	Direct Analysis Area; Visual Assessment analysis area
35ML00086	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML00213	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML00214	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML00550 (Ali-Alk Rockshelter)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML00552 (Ali-Alk Stacked Stone Rings)	N/A	N/A	Archaeological Site	Eligible	Proposed Route	Visual Assessment analysis area
35ML00747 (Little Tub Spring & Quarry)	N/A	N/A	Archaeological Site	Eligible (Criterion D)	Proposed Route	Visual Assessment analysis area
35ML00959	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35ML01459	N/A	N/A	Archaeological Site	Unevaluated	Proposed	Visual Assessment analysis area
35ML01548	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01549	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01550	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01552	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01553	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01959	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML01960	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35ML0891 (0503040139SI; Mud Spring Site)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
35ML1619 (Abandoned Canal)	N/A	N/A	Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Proposed Route	Direct Analysis Area (Construction Footprint)

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35ML1674 (Vines Ditch)	B2H-SA-33	N/A	Historic Site/Aboveground	S-6: Eligible, Contributing (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B) S-10: Eligible, Contributing	Proposed Route	Direct Analysis Area (Construction Footprint)
35ML1676	B2H-BS-64	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
35ML1677	B2H-BS-63	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
35ML1679	B2H-BS-62	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
35ML1680	B2H-BS-60	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
35ML1681	B2H-BS-56	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
35ML1682	B2H-BS-55	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
35ML1684	B2H-EE-46	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
35MW00001	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35MW00002	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35MW00011	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35MW00245	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35MW00248	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00065	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00066	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00252	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00304	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00307	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00308	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00309	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00310	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00311	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00312	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00313	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00314	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00315	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00316	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35UN00317	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00318	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00319	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00351	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00356	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00361	N/A	N/A	Archaeological Site	Unevaluated (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area
35UN00375	N/A	N/A	Archaeological Site	Unevaluated	Proposed	Visual Assessment analysis area
35UN00388	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00393	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00395	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00396	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00400	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00410	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00418	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35UN00420	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00428	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00432	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00443	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00450	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00459	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00473	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00474	N/A	N/A	Archaeological Site	Unevaluated (Remove from study no above ground features)	Proposed Route	Visual Assessment analysis area
35UN00482	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00493	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
Clover Creek Valley Homestead	6B2H-MC-07	6B2H-MC-07	Historic Site/ Aboveground	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00495	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00499	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
35UN0052 (Stockhoff Basalt Quarry Site)	N/A	N/A	Archaeological Site	Eligible (Criterion D)	Proposed Route	Direct Analysis Area (Construction Footprint)
35UN00582 (02S3600E20009)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN00624	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
35UN0097	N/A	N/A	Archaeological Site	Pre-Contact Component: Eligible (Criterion D). Historic Component: Not Eligible	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
35UN0299 (03S3400E00002; Mount Emily Logging Railroad)	B2H-BS-48	B2H-UN-004	Archaeological Site	S-6: Segment B2H-BS-48: Eligible (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C); Segment Dickson (2013): Eligible (Criterion A); Unevaluated (Criteria C and D); Not Eligible (Criterion B) S-10: Eligible (Criterion A)	Morgan Lake Alternative	Direct Analysis Area; Visual Assessment analysis area
35UN0332	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
Banks Ditch	4B2H-EK-18	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
Benson Reservoir	4B2H-EK-31	N/A	Historic Site/Aboveground	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Proposed Route	Direct Analysis Area
CFR 1003 (Gekeler Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area
CFR 1064 (Vey Ranch)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1093 (Thomson Myers Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1098 (Gilliland Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
CFR 1169 (Muilenburg Farm)	N/A	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route, Morgan Lake Alternative	Visual Assessment analysis area
Chambeam Ditch	4B2H-EK-15	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
Charles Brandt Blacksmith Shop	N/A	B2H-UN-178	Historic Site/Aboveground	Eligible (no further evaluation)	Proposed Route	Visual Assessment analysis area
Combs Creek Cabin	N/A	B2H-BA-332	Historic Site/Aboveground	Unevaluated	N/A	N/A[2]
Corral Ditch	4B2H-EK-06	N/A	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area
Daly Wagon Road	N/A	B2H-UM-006	Historic Site/Aboveground	Eligible (Criteria A and C)	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area
Durkee School	N/A	B2H-BA-288	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
Historic Lookout Tower	N/A	SL-UM-010 (Lookout T2S, R34E, S 18)	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
Homestead/Ranching Complex	N/A	B2H-BA-298	Historic Site/Aboveground	Eligible	Proposed Route	Visual Assessment analysis area
N/A	N/A	SL-BA-008	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
Nisxt	N/A	SL-MO-003	HPRCSIT	Unevaluated	Proposed Route	Visual Assessment analysis area
Oregon Commercial Company Building	N/A	B2H-BA-324	Historic Site/Aboveground	Listed	Proposed Route	Visual Assessment analysis area
Oregon Trail/Oregon NHT	N/A	N/A	Archaeological Site	Listed (Criterion A)	Proposed Route, Morgan Lake Alternative, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Direct Analysis Area (Construction Footprint)
Plano Road School House	N/A	B2H-BA-290	Historic Site/Aboveground	Eligible (Criteria A and C)	Proposed Route	Visual Assessment analysis area
Range Unit 12 Site 1	N/A	N/A	Archaeological Site	Eligible (Criteria TBD)	Proposed Route	Visual Assessment analysis area
Range Unit 12 Site 2	N/A	N/A	Archaeological Site	Eligible (Criteria TBD)	Proposed Route	Visual Assessment analysis area
Rattlesnake Springs Landmark	N/A	B2H-BA-296	Historic Site/Aboveground	Unevaluated	Proposed Route	Visual Assessment analysis area
Sacred Heart Catholic Church	N/A	B2H-BA-289	Historic Site/Aboveground	Eligible (Criteria A and C; Criterion Consideration A)	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
Sand Hollow Battleground	N/A	SL-MO-001, SL-MO-005	HPRCSIT	Eligible (Criteria A and B)	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area
Sisupa	N/A	SL-MO-004	HPRCSIT	Eligible (Criteria A and D)	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area
Smith Ditch	4B2H-EK-07	N/A	Historic Site/Aboveground	Eligible (Criteria A and B); Not Eligible (Criteria C and D)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	2B2H-SA-08	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
TBD	3B2H-CH-09	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
TBD	3B2H-DM-15	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
TBD	3B2H-SA-14	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	3B2H-SA-16	B2H-MA-047	Historic Site/Aboveground	Utility Line: Eligible (Criteria A and C), Unevaluated (Criterion D); Not Eligible (Criterion B); Ditch/Lateral: Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	3B2H-SA-26	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-SA-27	N/A	Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-SA-28	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-SA-30	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-SA-31	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-SA-32	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-08	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-10	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-11	N/A	Archaeological Site	Unevaluated (Criterion D); Not Eligible (Criteria A, B, and C)	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	4B2H-EK-29	N/A	Archaeological Site	Eligible (Criterion A); Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-32	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-38	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-42	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-48	N/A	Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-49	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-50	N/A	Archaeological Site	Pre-Contact Component: Eligible (Criterion D), Not Eligible (Criteria A – C); Historic Component: Not Eligible	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-51	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	4B2H-EK-52	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-53	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-02	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-05	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-06	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-13	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-14	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-15	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-18	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-19	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-20	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-22	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	6B2H-MC-23	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-24	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-25	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-30	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-31	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-35	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-08	N/A	Archaeological Site	Unevaluated	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-RP-10	N/A	Archaeological Site	Unevaluated	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-RP-11	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-12	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-14	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-SA-04	N/A	Archaeological Site	Eligible (Criterion D); Not Eligible (Criteria A – C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-07	N/A	Archaeological Site	Eligible (Criterion C); Unevaluated (Criteria A, B, and D)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-14	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	6B2H-TH-01	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-02	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	6B2H-TH-04	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-BS-40	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-BS-58	N/A	Archaeological Site	Pre-Contact Component: Unevaluated; Historic Component: Not Eligible	Proposed Route	Direct Analysis Area
TBD	B2H-BS-65	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-BS-72	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-BS-73	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-BS-74	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-DM-07	N/A	Archaeological Site	Eligible (Criterion A), Unevaluated (Criterion D); Not Eligible (Criteria B and C)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-EE-37	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-EE-38	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-JF-04	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD	B2H-SA-24	N/A	Archaeological Site	Unevaluated	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	B2H-SA-29	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-SA-37	B2H-SA-37	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area
TBD	B2H-SA-42	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-SA-44	N/A	Archaeological Site	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	N/A	B2H-BA-284	Historic Site/Aboveground	Eligible (Criteria A and C)	Proposed Route	Visual Assessment analysis area
TBD	N/A	SL-BA-010	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
TBD	South Canal	N/A	Historic Site/Aboveground	Eligible (Criteria A, B, and C); Unevaluated (Criterion D)	Proposed Route	Direct Analysis Area
TBD	Vale Oregon Main Canal	N/A	Historic Site/Aboveground	Eligible (Criteria A and C); Not Eligible (Criteria B); Unevaluated (Criterion D)	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD (Baker City Historic District)	N/A	B2H-BA-178	Historic Site/Aboveground	Listed on NRHP (No Criteria on Nomination)	Proposed Route	Visual Assessment analysis area
TBD (Virtue Flat Mining Area)	N/A	B2H-BA-283	Historic Site/Aboveground	Eligible (Criterion A)	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	NRHP Recommendation	Project Route(s)	Project Component
TBD (Warm Springs Pump Canal)	4B2H-EK-43	N/A	Historic Site/Aboveground	Unevaluated	Proposed Route	Direct Analysis Area (Construction Footprint)
UP-102	N/A	N/A	Historic Site/Aboveground	Eligible (Criteria TBD)	Proposed Route	Visual Assessment analysis area
UP-103 (Buckhorn Cabin)	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
UP-106	N/A	N/A	Archaeological Site	Unevaluated	Proposed Route	Visual Assessment analysis area
UPRR	N/A	N/A	Archaeological Site & Historic Site/Aboveground	Multiple Segments, varying eligibility recommendations)	Proposed Route	Direct Analysis Area (Construction Footprint)
West Extension Irrigation Canal (126CSF-12)	3B2H-SA-01	B2H-MO-047	Historic Site/Aboveground	S-6: Eligible/Contributing Element (Criteria A and C); Unevaluated (Criterion D); Not Eligible (Criterion B) S-10: Eligible (Criterion A)	Proposed Route	Direct Analysis Area; Visual Assessment analysis area

[1] This table lists all NRHP-listed, NRHP-eligible, and NRHP-unevaluated cultural resources in the analysis area, as determined by background research and field surveys, and subject to EFSC standard (a). Additional unevaluated resources identified by the CTUIR are included in Attachment S-12. Some of unevaluated sites may be determined eligible for listing as site evaluations are conducted. More detailed information pertaining to the listed resources may be obtained from Table S-2 and Attachments S-6 and S-10.

[2] This resource does not have any specific location information other than a reference to Baker County. It therefore could not be confirmed to be within the visual assessment analysis area, and was not mapped or considered further.

3.4.1.1 National Historic Trails

The Project will cross areas that include state and national historic trails. Historic trails of concern, as listed in ORS 358.057, include the Oregon NHT, Lewis and Clark NHT, Meek Cutoff, Nathaniel Wyeth Route, and Upper Columbia Route. These trails are depicted in Figure S-11. The Oregon NHT is the only NHT within the direct analysis area and is crossed 17 times by the direct analysis area Project in four counties. Separate from the NHT, the direct analysis area crosses a total of 12 segments of the Oregon Trail identified by Project surveys documented in confidential Attachments S-6 and S-10. Seven of these crossings are within the construction footprint. A total of 24 segments of the Oregon Trail documented by Project surveys are within the Visual Assessment analysis area. Three of the Oregon Trail segments documented by Project surveys are NRHP-listed: 35MW00224 (Well Spring, Oregon Trail Site), 35MW00227, 35MW00230 (Emigrant Cemetery), and Oregon Trail - Well Spring Segment. All three sites are within the Visual Assessment analysis area. No NRHP-listed segments of the Oregon Trail are within the direct analysis area.

Thorough documentation and evaluation of these and other historic roads and trails has been included in archaeological and historic studies, including the Cultural Resources Technical Report (confidential Attachment S-6), the RLS (confidential Attachment S-7), the ILS (confidential Attachment S-10), and the NHT study (Attachment S-8). Trails are a significant focus of planning and mitigation efforts.

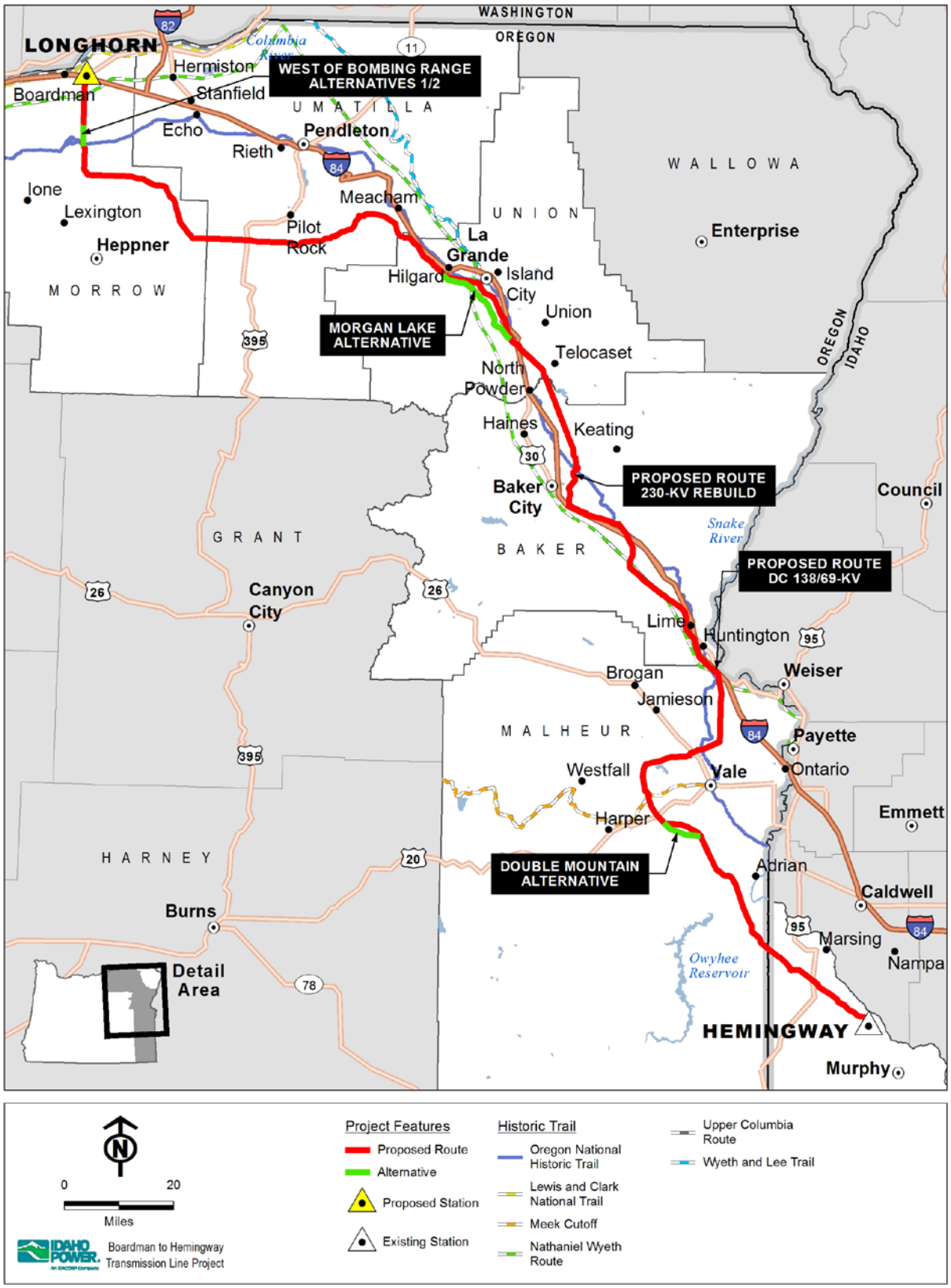

Figure S-11. Historic Trails of Concern

3.4.2 Archaeological Sites and Objects on Private Lands

OAR 345-021-0010(1)(s)(B): For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.

The following section discusses the archaeological resources that have been identified through background research and field surveys on private within the analysis area. As noted previously, although ORS 358.905(1)(a) and ORS 358.905(1)(c) require archaeological resources to be at least 75 years old, this Project considers archaeological resources of at least 50 years old, consistent with the federal regulations for the Project and the ASP. Archaeological sites and objects discussed here are located private lands and include historic properties, unevaluated properties, and sites found to be not significant or not eligible for inclusion in the NRHP.Record searches and the Project's cultural resources surveys (Attachments S-6 and S-10) indicate that of the archaeological sites and objects identified in the analysis area, 185 of the resources are located on private land. Private land was determined with use of the BLM's "BLM OR Management Ownership Dissolve Polygon" layer, published on October 14, 2015. These spatial data provide information related to surface jurisdiction of lands located in the states of Oregon and Washington. "Private land" was determined by using the property status values of "Private Individual or Company," "Private Non-Industrial Owner," and "Private Urban Lands" within the BLM OR Management Ownership Polygon layer. Archaeological resources on private lands within the analysis area and subject to EFSC standard (b) are summarized below by Project alternatives in Table S-9 and listed in Table S-10. (Note, some resources are located within multiple counties and multiple Project routes.)

Table S-9. Archaeological Resources on Private Land in the Analysis Area by Route Segment [1]

Route Segments	Direct Analysis Area		Direct Analysis Area (Construction Footprint)		Visual Assessment Analysis Area	
	Sites	**Objects**	**Sites**	**Objects**	**Sites**	**Objects**
Proposed Route[2,3]						
Proposed Route, Morrow County	2	1	2	0	1	0
Proposed Route, Umatilla County	17	7	17	4	0	0
Proposed Route, Union County	1	2	5	0	41	0
Proposed Route, Baker County	9	18	17	5	9	0
Proposed Route, Malheur County	8	8	4	0	4	0
Total	**37**	**36**	**45**	**9**	**55**	**0**
Alternative Routes						
Double Mountain Alternative	0	0	0	0	0	0
Morgan Lake Alternative[3,4]	3	2	8	0	1	0
West of Bombing Range Road Alternative 1[3]	0	0	1	0	0	0
West of Bombing Range Road Alternative 2[3]	0	0	1	0	0	0

[1] This table lists all archaeological sites and objects identified on private lands within the analysis area, as determined during completion of background research and field surveys, and subject to EFSC standard (b). Private Land was determined with use of the Bureau of Land Management "BLM OR Management Ownership Dissolve Polygon" layer, published on 10-14-2015. This spatial data provides information related to surface

jurisdiction of lands located in the states of Oregon and Washington. "Private land" was determined by using the property status values of "Private Individual or Company," "Private Non-Industrial Owner," and "Private Urban Lands" within the BLM OR Management Ownership Polygon layer.

[2] Some resources are within multiple parts of the analysis area for the Proposed Route. This includes 2 resources in the direct analysis area and the Visual Assessment analysis area. Additionally, both the UPRR and Oregon Trail/Oregon NHT are within the direct analysis area (construction footprint) in all five counties crossed by the Proposed Route. These resources are therefore presented multiple times in this table in the appropriate rows and columns.

[3] The Oregon Trail/Oregon NHT passes within the direct analysis area (construction footprint) of the Proposed Route and the Morgan Lake, West of Bombing Range 1, and West of Bombing Range 2 alternatives. It is therefore presented multiple times in this table in the appropriate rows and column.

[4] One resource is in the direct analysis area and the Visual Assessment analysis area of the Morgan Lake Alternative. This resource is therefore presented multiple times in this table in the appropriate row and columns.

Table S-10. Archaeological Resources on Private Land in the Analysis Area [1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
02S3600E15001	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
02S3600E23001	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
02S3600E23002	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
10OE1846	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
35BA00304	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35BA00382	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35BA00889	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35BA00913	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35BA01423	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35BA1351	B2H-JF-13	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
35BA1370 (Schuck Irrigation Ditch)	N/A	SL-BA-009	Archaeological Site	Proposed Route	Direct Analysis Area; Visual Assessment analysis area
35ML00086	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35ML00550 (Ali-Alk Rockshelter)	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35ML00552 (Ali-Alk Stacked Stone Rings)	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35ML00959	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35MW00248	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UM0438	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
35UM0476	B2H-EE-23	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
35UN00066	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00304	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00307	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00308	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
35UN00309	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00310	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00311	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00312	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00313	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00314	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00315	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00316	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00317	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00318	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00319	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00351	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00356	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00361	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00375	N/A	N/A	Archaeological Site	Proposed	Visual Assessment analysis area
35UN00388	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00393	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00395	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00396	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00400	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00410	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00418	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00420	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00428	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00432	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00443	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00450	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00459	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00473	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
35UN00482	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00493	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00495	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN00499	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN0052 (Stockhoff Basalt Quarry Site)	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
35UN00624	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
35UN0097	N/A	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
35UN0299 (03S3400E00002; Mount Emily Logging Railroad)	B2H-BS-48	B2H-UN-004	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area; Visual Assessment analysis area
35UN0326	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
35UN0332	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
A-166-4 (Dixie Cellar)	N/A	B2H-BA-301	Archaeological Site	Proposed Route	Direct Analysis Area; Visual Assessment analysis area
N/A	3B2H-CH-ISO-06	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	3B2H-SA-ISO-01	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	3B2H-SA-ISO-02	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	3B2H-SA-ISO-33	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	3B2H-SA-ISO-34	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	4B2H-EK-ISO-01	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	4B2H-EK-ISO-03	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	4B2H-EK-ISO-08	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-03	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-04	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
N/A	6B2H-MC-ISO-05	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-06	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-07	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-09	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-10	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-11	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-12	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-13	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-14	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-MC-ISO-17	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-RP-ISO-01	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-RP-ISO-02	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-RP-ISO-03	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-RP-ISO-04	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-RP-ISO-06	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-RP-ISO-10	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-RP-ISO-11	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-SA-ISO-03	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	6B2H-SA-ISO-05	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-SA-ISO-06	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	6B2H-SA-ISO-07	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-104	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-23	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-24	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
N/A	B2H-BS-ISO-25	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
N/A	B2H-BS-ISO-33	N/A	IF/Archaeological Object	Morgan Lake Alternative	Direct Analysis Area
N/A	B2H-BS-ISO-36	N/A	IF/Archaeological Object	Morgan Lake Alternative	Direct Analysis Area
N/A	B2H-BS-ISO-67	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-68	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-69	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-BS-ISO-70	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-JF-ISO-13	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-JF-ISO-14	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
N/A	B2H-SA-ISO-51	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
Oregon Trail/Oregon NHT	N/A	N/A	Archaeological Site	Proposed Route, Morgan Lake Alternative, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Direct Analysis Area (Construction Footprint)
TBD	2B2H-SA-08	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	3B2H-CH-03	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	3B2H-DM-15	N/A	Archaeological Site	Proposed Route	Visual Assessment analysis area
TBD	4B2H-EK-08	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-10	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-11	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-27	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-28	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	4B2H-EK-32	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	4B2H-EK-38	N/A	Archaeological Site	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
TBD	4B2H-EK-39	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-02	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-03	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-06	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-09	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-11	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-12	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-13	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-14	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-15	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-16	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-18	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-19	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-20	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-22	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-23	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-24	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-25	N/A	Archaeological Site	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
TBD	6B2H-MC-26	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-27	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-28	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-30	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-31	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-MC-33	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-35	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-MC-ISO-18	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-RP-08	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-RP-10	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	6B2H-RP-11	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-12	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-14	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-16	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-RP-ISO-08	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-06	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-07	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-10	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-SA-12	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-14	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
TBD	6B2H-SA-15	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-SA-16	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-SA-17	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-TH-01	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-02	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	6B2H-TH-04	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-08	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-09	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	6B2H-TH-ISO-01	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area
TBD	B2H-BS-40	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-41	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-49	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	B2H-BS-50	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area
TBD	B2H-BS-51	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area
TBD	B2H-BS-65	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-66	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-72	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-73	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-74	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-BS-75	N/A	Archaeological Site	Proposed Route	Direct Analysis Area
TBD	B2H-DM-07	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	B2H-EE-21	N/A	Archaeological Site	Proposed Route	Direct Analysis Area

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component
TBD	B2H-SA-24	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)
TBD	B2H-SA-30	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)
TBD	N/A	SL-BA-010	Archaeological Site	Proposed Route	Visual Assessment analysis area
UPRR	N/A	N/A	Archaeological Site & Historic Site/ Aboveground	Proposed Route	Direct Analysis Area (Construction Footprint)

[1] This table lists all archaeological resources on private lands within the analysis area, as determined by background research and field surveys, and subject to EFSC standard (b). More detailed information pertaining to the listed resources may be obtained from Table S-2 and Attachments S-6 and S-10.

3.4.3 Archaeological Sites on Public Lands

OAR 345-021-0010(1)(s)(C): For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.

The following section discusses the archaeological sites that have been identified through background research and field surveys on public lands within the direct analysis area. As noted previously, although ORS 358.905(1)(a) and ORS 358.905(1)(c) require archaeological resources to be at least 75 years old, this Project considers archaeological resources of at least 50 years old, consistent with the federal regulations for the Project and the ASP. "Public lands" in this context is defined in ORS 358.905(1)(j) as any lands owned by the State of Oregon, a city, county, district or municipal or public corporation in Oregon. Archaeological sites discussed here are located on state lands and include historic properties, unevaluated properties, and sites found to be not significant or not eligible for inclusion in the NRHP. Record searches and the Project's cultural resources surveys (Attachments S-6 and S-10) indicate that of the archaeological sites in the direct analysis area, 4 are located on public land. Public land was determined with use of the BLM OR Management Ownership Polygon geographic information system (GIS) layer published on October 14, 2015. This layer provides information related to surface jurisdiction, and category of lands located in the states of Oregon and Washington. "Public land" was determined by using the federal status value of "PD - Public Domain" within the BLM OR Management Ownership Polygon layer. Archaeological sites on public lands within the analysis area and subject to EFSC standard (c) are summarized below by Project alternatives in Table S-11 and listed in Table S-12. (Note, some resources are located within multiple counties and multiple Project routes.)

Table S-11. Archaeological Sites on Public Land in the Analysis Area by Route Segment[1]

Route Segments	Direct Analysis Area	Direct Analysis Area (Construction Footprint)	Visual Assessment Analysis Area
Proposed Route			
Proposed Route, Morrow County	0	0	0
Proposed Route, Umatilla County	0	0	0
Proposed Route, Union County	0	0	1
Proposed Route, Baker County	0	0	2
Proposed Route, Malheur County	0	0	0
Total	**0**	**0**	**3**
Alternative Routes			
Double Mountain Alternative	0	0	0
Morgan Lake Alternative[2]	1	0	1
West of Bombing Range Road Alternative 1	0	0	0
West of Bombing Range Road Alternative 2	0	0	0

[1] This table lists all archaeological sites identified on public lands within the analysis area, as determined during completion of background research and field surveys, and subject to EFSC standard (c). Public Land was determined with use of the Bureau of Land Management "BLM OR Management Ownership Polygon" geographic information system (GIS) layer published on 10-14-2015. This layer provides information related to surface jurisdiction, and category of lands located in the states of Oregon and Washington. "Public land" was determined by using the federal status value of "PD - Public Domain" within the BLM OR Management Ownership Polygon layer.
[2] There is a single resource within the Morgan Lake Alternative. It is within both the direct analysis area and the Visual Assessment analysis area. It is therefore presented multiple times in this table in the appropriate row and columns.

Table S-12. Archaeological Sites on Public Land in the Analysis Area[1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Project Route(s)	Project Component
35BA01224	N/A	N/A	Proposed Route	Visual Assessment Analysis Area
35UN00474	N/A	N/A	Proposed Route	Visual Assessment Analysis Area
35UN0299 (03S3400E00002; Mount Emily Logging Railroad)	B2H-BS-48	B2H-UN-004	Morgan Lake Alternative	Direct Analysis Area; Visual Assessment Analysis Area
TBD	3B2H-CH-09	N/A	Proposed Route	Visual Assessment Analysis Area

[1] This table lists all archaeological sites on public lands within the analysis area, as determined by background research and field surveys, and subject to EFSC standard (c). More detailed information pertaining to the listed resources may be obtained from Table S-2 and Attachments S-6 and S-10.

3.5 Significant Potential Impacts

OAR 345-021-0010(1)(s)(D): The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following: . . . .

This section addresses the significant potential impacts, if any, of the construction and operation of the Project on the cultural resources described in paragraphs (A), (B), and (C) of OAR 345-021-0010(1)(s). Significant impacts may occur as a result of direct or indirect (i.e., visual, auditory) disturbance to resources subject to the EFSC standards. NRHP-eligibility determinations of resources and acceptance of archaeological resources identified thus far are pending review and concurrence by SHPO/THPO (as applicable). Impact analyses presented here are based on information obtained through the studies completed thus far and included as attachments to this report. A total of 111 cultural resources subject to or potentially subject to the EFSC standards will be directly or indirectly impacted by the Project. These are summarized by Project Route in Table S-13 and listed in Table S-14. (Note, some resources are located within multiple counties and multiple Project routes.) Impacts are further discussed in the sections that follow.

Table S-13. Impacted Resources Subject to or Potentially Subject to EFSC Standards in the Analysis Area by Route Segment [1]

Route Segments	Direct Impact	Indirect Impact
Proposed Route[2,3,4]		
Proposed Route, Morrow County	4	8
Proposed Route, Umatilla County	21	7
Proposed Route, Union County	8	2
Proposed Route, Baker County	22	6
Proposed Route, Malheur County	25	8
Total	**80**	**31**

Route Segments	Direct Impact	Indirect Impact
Alternative Routes		
Double Mountain Alternative	0	0
Morgan Lake Alternative[3]	8	0
West of Bombing Range Road Alternative 1[3,4]	2	2
West of Bombing Range Road Alternative 2[3,4]	1	2

[1] This table lists all cultural resources that will be impacted by the Project within the analysis area, as determined during completion of background research and field surveys, and subject to or potentially subject to at least one EFSC standard.
[2] Some resources are within multiple parts of the analysis area for the Proposed Route. This includes both the UPRR and Oregon Trail/Oregon NHT, which are in all five counties crossed by the Proposed Route and will be directly impacted. These resources are therefore presented multiple times in this table in the appropriate rows and column.
[3] The Oregon Trail/Oregon NHT will be directly impacted by the Proposed Route and the Morgan Lake, West of Bombing Range 1, and West of Bombing Range 2 alternatives. It is therefore presented multiple times in this table in the appropriate rows and column.
[4] Two HPRCSITs will be indirectly impacted by the Proposed Route and the West of Bombing Range Road alternatives 1 and 2. These resources are therefore presented multiple times in this table in the appropriate rows and column.

Table S-14. Impacted Resources Subject to or Potentially Subject to EFSC Standards in the Analysis Area[1]

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
0503050334SI	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
10OE1846	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
126CSF-Resource 11	N/A	N/A	Archaeological Site	West of Bombing Range Road Alternative 1	Direct Analysis Area (Construction Footprint)	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.	No - Will be directly impacted.
126CSF-Resource 4	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
14S44E14-2	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35BA00372	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35BA00388	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35BA01423	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential cumulative visual impact
35BA1351	B2H-JF-13	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
35ML00550 (Ali-Alk Rockshelter)	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential visual impact
35ML00552 (Ali-Alk Stacked Stone Rings)	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Historic Property; b) Archaeological site on private land.	No - Potential visual impact
35ML01549	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01550	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35ML01552	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01553	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01959	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35ML01960	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35ML1522	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
35ML1619 (Abandoned Canal)	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
35MW00001	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
35MW00002	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
35MW00011	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35MW00248	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential visual impact
35UN00459	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property; b) Archaeological site on private lands.	No - Potential cumulative visual impact
Clover Creek Valley Homestead	6B2H-MC-07	6B2H-MC-07	Historic Site/ Aboveground	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential cumulative visual impact
35UN00493	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property; b) Archaeological site on private land.	No - Potential cumulative visual impact
35UN0052 (Stockhoff Basalt Quarry Site)	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
35UN0097	N/A	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	a) Historic Property, b) Archaeological site on private land	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
35UN0280	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.
35UN0295	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	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.	No - Will be directly impacted.
35UN0332	N/A	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
4-2-IF	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	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.	No - Will be directly impacted.
Benson Reservoir	4B2H-EK-31	N/A	Historic Site/ Aboveground	Proposed Route	Direct Analysis Area	a) Historic Property	No - Potential visual impact
CFR 1064 (Vey Ranch)	N/A	N/A	Historic Site/ Aboveground	Proposed Route	Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact
Daly Wagon Road	N/A	B2H-UM-006	Historic Site/ Aboveground	Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact
Historic Lookout Tower	N/A	SL-UM-010 (Lookout T2S, R34E, S 18)	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
ISO-001	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	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.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-01	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-02	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-03	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-10	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-RP-ISO-11	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
N/A	6B2H-SA-ISO-05	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	6B2H-SA-ISO-06	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
N/A	B2H-BS-ISO-25	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
Nisxt	N/A	SL-MO-003	HPRCSIT	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
Oregon Trail/Oregon NHT	N/A	N/A	Archaeological Site	Proposed Route, Morgan Lake Alternative, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2	Direct Analysis Area (Construction Footprint)	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
Range Unit 12 Site 1	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact
Range Unit 12 Site 2	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
Sand Hollow Battleground	N/A	SL-MO-001, SL-MO-005	HPRCSIT	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
Sisupa	N/A	SL-MO-004	HPRCSIT	Proposed Route, West of Bombing Range Road Alternative 1, West of Bombing Range Road Alternative 2, Proposed Route	Direct Analysis Area (Construction Footprint); Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact
TBD	3B2H-CH-03	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	3B2H-SA-26	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-27	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-28	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	3B2H-SA-30	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	3B2H-SA-31	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-08	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-10	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-32	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	4B2H-EK-42	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-48	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	4B2H-EK-49	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-50	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-51	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-52	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	4B2H-EK-53	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	6B2H-MC-02	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-03	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-MC-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-06	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-09	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-11	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-13	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-14	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-15	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-MC-16	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-18	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-19	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-23	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-26	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-MC-30	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-MC-31	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-RP-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-RP-08	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-RP-10	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-RP-ISO-08	N/A	IF/Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological object on private land.	No - Will be directly impacted.
TBD	6B2H-SA-04	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property	No - Will be directly impacted.
TBD	6B2H-SA-06	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-SA-07	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-SA-12	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-SA-14	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-SA-16	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-TH-01	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-TH-04	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	6B2H-TH-05	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	6B2H-TH-08	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	6B2H-TH-09	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	B2H-BS-49	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	B2H-DM-07	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Historic Property; b) Archaeological site on private land	No - Will be directly impacted.
TBD	B2H-EE-37	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-EE-38	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-SA-24	N/A	Archaeological Site	Morgan Lake Alternative	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private lands	No - Will be directly impacted.
TBD	B2H-SA-29	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
TBD	B2H-SA-30	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	b) Archaeological site on private land.	No - Will be directly impacted.
TBD	B2H-SA-42	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property	No - Will be directly impacted.
TBD	B2H-SA-44	N/A	Archaeological Site	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property	No - Will be directly impacted.
UP-102	N/A	N/A	Historic Site/Aboveground	Proposed Route	Visual Assessment Analysis Area	a) Historic Property	No - Potential visual impact
UP-103 (Buckhorn Cabin)	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
UP-106	N/A	N/A	Archaeological Site	Proposed Route	Visual Assessment Analysis Area	a) Potential Historic Property	No - Potential visual impact
UPRR	N/A	N/A	Archaeological Site & Historic Site/ Aboveground	Proposed Route	Direct Analysis Area (Construction Footprint)	a) Potential Historic Property; b) Archaeological site on private land.	No - Will be directly impacted.

Assigned Trinomial or Other ID	Cultural Resources Pedestrian Survey Temporary Resource #	Visual Assessment Temporary Resource #	Resource Type	Project Route(s)	Project Component	Applicable EFSC Standard	Impact Avoided?/ Project Effect
VM-11-01	N/A	N/A	IF/ Archaeological Object	Proposed Route	Direct Analysis Area (Construction Footprint)	Unknown - Not identified during pedestrian survey. Requires additional survey to determine if subject to a) Historic Property.	No - Will be directly impacted.

[1] This table lists all impacted cultural resources within the analysis area, as determined by background research and field surveys, that are subject to or potentially subject to one or more EFSC standard criteria. More detailed information pertaining to the listed resources may be obtained from Table S-2 and Attachments S-6 and S-10.

3.5.1 Direct Impacts to Cultural Resources

Direct impacts may occur as a result of direct disturbance of historic properties, archaeological sites on private or state lands, or archaeological objects on private lands within the direct analysis area. These resources are within the construction footprint of the Project. Given the non-renewable nature of cultural resources, these impacts would be permanent. While IPC has made efforts to avoid identified cultural resources subject to the EFSC standards, avoidance has not been achievable in all cases. Resources subject to the EFSC standards that could not be avoided by the construction footprint will be mitigated to reduce the level of impact. Recommended resource-specific mitigation measures or additional treatments are outlined in Table S-2 as well as in Attachments S-6 and S-10. However, implemented resource-specific measures will be identified in the final HPMP (see Section 3.6), which will be developed in consultation with the affected tribes and SHPO.

The CTUIR has stated that while effects to archaeological resources associated with Sisupa and Sand Hollow Battleground (NRHP-eligible HPRCSITs) may be avoided or minimized through micrositing, these two sites contain additional resources and/or characteristics (in unspecified locations) whose integrity of feeling, association, and setting would be affected by the Project. The CTUIR has indicated that typical avoidance measures would not completely avoid impacts and that any direct impact to them, including construction within the boundaries of HPRCSITs, is considered adverse. IPC will continue coordination with the CTUIR and CTUIR THPO regarding the HPRCSITs within the analysis area to determine appropriate mitigation.

Additional resources may exist within the direct analysis area in areas that were inaccessible at the time of field surveys. Only the Double Mountain and both West of Bombing Range Road alternatives have been 100 percent surveyed. Further, there is always potential for unidentified archaeological resources to exist, even in areas surveyed for cultural resources, particularly in the areas identified as having a high probability for buried archaeological resources (see Attachment S-4). Additional permanent direct impacts may also occur as a result of ground disturbance of unidentified archaeological resources within surveyed portions of the analysis area.These direct impacts will be mitigated through IPC's proposed measures to prevent destruction of cultural resources, the HPMP and IDP (see Section 3.6), and site certificate conditions (see Section 4.0). Table S-15 summarizes the type, timing, duration, and mitigation measures related to the Project's potential permanent direct impacts to cultural resources.

Table S-15. Type, Timing, Duration, and Mitigation Measures Related to Permanent Direct Impacts to Cultural Resources

Type of Disturbance	Type of Impact	Timing of Impact	Duration of Impact	Mitigation Measures
Ground disturbance of known cultural resources subject to EFSC standard criteria within the analysis area.	Permanent direct	Construction, Operation	Permanent	IPC will take prudent and feasible measures to avoid identified cultural resources during the micrositing process (see Section 3.6). Avoidance areas will be marked and monitored during construction, as detailed in the PA, HPMP, and site certificate conditions (see Sections 3.6 and 4.0). Where avoidance is infeasible, resource-specific treatment measures will be developed, per the PA and HPMP (see Sections 3.6 and 4.0).
Ground disturbance to unidentified cultural resources subject to EFSC standard criteria in inaccessible and unsurveyed portions of the analysis area.	Permanent direct	Construction, Operation	Permanent	IPC will complete pedestrian survey of inaccessible parcels after receipt of the site certificate, but prior to initiation of construction (see Sections 3.7 and 4.0).
Ground disturbance to unidentified cultural resources subject to EFSC standard criteria in surveyed portions of the analysis area.	Permanent direct	Construction, Operation	Permanent	As part of the Enhanced Archaeological Survey, IPC will conduct shovel probing at the locations of previously recorded resources mapped within the footprint of the final design and not identified during survey to confirm their presence or absence. Additionally, IPC will implement the final HPMP with IDP (see Section 4.0). Both will occur after receipt of the site certificate, but prior to initiation of construction.

Type of Disturbance	Type of Impact	Timing of Impact	Duration of Impact	Mitigation Measures
Ground disturbance to unidentified cultural resources subject to EFSC standard criteria in high probability areas of the analysis area.	Permanent direct	Construction, Operation	Permanent	As part of the Enhanced Archaeological Survey, IPC will conduct shovel probing at high probability areas after receipt of the site certificate, but prior to initiation of construction (see Sections 3.7 and 4.0).
Disturbance of known TCPs/HPRCSITs.	Permanent direct	Construction, Operation	Permanent	IPC will continue coordination with the CTUIR and CTUIR THPO regarding the HPRCSITs within the analysis area to determine appropriate mitigation. This will be conducted in coordination with BLM's government-to-government consultations under federal regulations and ODOE/SHPO's consultations as part of the EFSC process. Results will be implemented in the Construction POD.

CTUIR = Confederated Tribes of the Umatilla Indian Reservation; EFSC = Energy Facility Siting Council; HPMP = Historic Property Management Plan; HPRCSIT = Historic Properties of Religious and Cultural Significance to Indian Tribes; IDP = Inadvertent Discovery Plan; IPC = Idaho Power Company; NRHP = National Register of Historic Places; ODOE = Oregon Department of Energy; PA =Programmatic Agreement; POD = Plan of Development; SHPO = State Historic Preservation Office; TCP = traditional cultural property

3.5.2 Indirect Impacts to Cultural Resources

Indirect impacts may occur as a result of new construction within the viewshed of cultural resources subject to the EFSC standards that have aboveground components or cultural resources subject to the EFSC standards where the surrounding viewshed plays an integral role in expressing the resource's significance or in its use. This includes resources such as trails, buildings, and cairns, as well as TCPs/HPRCSITs. Impacts will only occur for those resources where the viewshed, setting, and landscape contributes to the significance or quality of use of the resource. As with direct impacts to cultural resources, IPC has also made efforts to avoid indirect impacts to identified cultural resources subject to the EFSC standards. However, avoidance has not been achievable in all cases. Resources subject to the EFSC standards that could not be avoided and where an indirect impact will be significant will be mitigated to reduce the level of impact. Additional resources may exist within inaccessible areas of the analysis area. IPC will take prudent and feasible measures to avoid construction within the viewshed of identified cultural resources subject to the EFSC standards criteria during the micrositing process (see Section 3.6.2).

New construction of the proposed transmission line within view of cultural resources subject to the EFSC standards criteria as well as the identified HPRCSITs will be considered indirect impacts if the surrounding view and setting contribute to the significance of those resources.

These will be considered permanent impacts given the anticipated lifetime of the Project. Additional indirect impacts may also occur as a result of new construction within view of unidentified resources subject to the EFSC standards criteria in inaccessible portions of the analysis area. At a minimum, the CTUIR has stated that the Tribe considers the Project to constitute an adverse impact to the HPRCSITs within the analysis area. IPC will continue coordination with the CTUIR and CTUIR THPO regarding the HPRCSITs within the analysis area to determine the nature of the resources and appropriate mitigation.

These indirect impacts will be mitigated through IPC's proposed measures to prevent destruction of cultural resources (see Section 3.6) and site certificate conditions (see Section 4.0).

Table S-16 summarizes the type, timing, duration, and mitigation measures related to the Project's potential temporary indirect impacts to historic, cultural, and archaeological resources.

Table S-16. Type, Timing, Duration, and Mitigation Measures Related to Permanent Indirect Impacts to Historic, Cultural, and Archaeological Resources

Type of Disturbance	Type of Impact	Timing of Impact	Duration of Impact	Mitigation Measures
New construction within viewshed of cultural resources in the analysis area and subject to the EFSC standards criteria whose surrounding setting contributes to their significance.	Permanent indirect.	Construction, Operation	Permanent	IPC will take prudent and feasible measures to avoid construction within the viewshed of identified cultural resources subject to the EFSC standards criteria during the micrositing process (see Section 3.6.2). Where avoidance is infeasible, resource-specific treatment measures will be developed, per the PA and HPMP (see Sections 3.6 and 4.0).
New construction within viewshed of TCPs/HPRCSITs.	Permanent indirect.	Construction, Operation	Permanent	IPC will continue coordination with the CTUIR and CTUIR THPO regarding the HPRCSITs within the analysis area to determine the nature of the resources and appropriate mitigation. This will be conducted in coordination with BLM's government-to-government consultations under federal regulations, ODOE/SHPO's consultations as part of the EFSC process. Results will be implemented in the Construction POD.

BLM = Bureau of Land Management; CTUIR = Confederated Tribes of the Umatilla Indian Reservation; EFSC = Energy Facility Siting Council; HPMP = Historic Property Management Plan; HPRCSIT = Historic Properties of Religious and Cultural Significance to Indian Tribes; IPC = Idaho Power Company; NRHP = National Register of Historic Places; ODOE = Oregon Department of Energy; PA =Programmatic Agreement; POD = Plan of Development; SHPO = State Historic Preservation Office; TCP = traditional cultural property

3.6 Measures Designed to Prevent Destruction of Cultural Resources

OAR 345-021-0010(1)(s)(D)(iii): A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction.

This section provides a list of measures to prevent destruction of the resources identified during surveys, inventories, and subsurface testing or discovered during construction. Measures for avoidance, minimization, and mitigation of impacts have also been incorporated into IPC's proposed site certificate conditions (see Section 4.0).

3.6.1 Avoidance Measures

Avoidance of cultural resources is the preferred method of reducing impacts. While cultural resources may remain within the analysis area, they may be avoided by the Project's construction footprint. A minimum buffer of 100 feet around NRHP-listed and -eligible resources, archaeological sites, and, on private land, archaeological objects is recommended. Prudent and feasible measures will be taken to avoid or reduce adverse impacts on archaeological sites or objects as well as NRHP-eligible and -listed resources. Such measures will be developed in consultation with the appropriate agencies and tribes and may include avoidance through the use of relocation of structures through the design process, realignment of the route, relocation of temporary workspace, or changes in the construction and/or operational design. Avoidance areas will be flagged prior to construction activities. Flagging will be removed once construction is completed in an area. Avoidance areas for resources such as HPRCSITs and First Foods, if necessary, will be determined through IPC's continued consultation efforts with affected tribes.

3.6.2 Historic Property Management Plan

Mitigation of direct and indirect impacts on resources, as described in Section 3.5, is addressed in the HPMP drafted for regulatory compliance with EFSC's standards (Attachment S-9). A separate HPMP will be drafted by the BLM for federal regulatory compliance and in consultation with parties to the PA, including ODOE. An effort has been made to make the EFSC version HPMP provided here as Attachment S-9 similar in content to the BLM's anticipated HPMP, based on the HPMP framework provided in the BLM's EIS (see Appendix A of Attachment S-9). Final versions of each HPMP will provide resource-specific mitigation measures for impacted resources based on the Project's final design. IPC is continuing consultations with the CTUIR to continue to revise and "fine-tune" the generalized Project HPMP provided in Attachment S-9.

3.6.3 Inadvertent Discovery Plan

Project construction activities, as well as natural and human-caused erosion, vandalism, and looting, could expose and damage previously unidentified cultural resources within the Project Route or expose characteristics in unevaluated archaeological sites that were previously unknown and undocumented.

As part of the HPMP described above, IPC has established procedures to be followed by IPC personnel and their contractors in the event that previously unreported and unanticipated cultural resources, human remains, or funerary objects are found during Project construction in accordance with Oregon State law. As with the HPMP, a separate IDP has been drafted by the BLM in consultation with the parties to the PA, including ODOE, and included in the PA as Section X. The IDP provided here in Attachment S-9 is based on the IDP in the PA. These procedures will serve as the primary guidance tool for IPC and its contractors to comply with federal and state laws and regulations in the event of an inadvertent discovery. The IDP is incorporated in the HPMP (see Attachment S-9) and specifies what steps will be taken if a

previously unidentified cultural resource is discovered during construction, including stopping construction in the vicinity of the find, notification of the appropriate land management agency, identification of a Professional Archaeologist to conduct an evaluation of the find, and the development of an approved data recovery program or other mitigation measures. If human remains are discovered, construction will be halted and the IDP followed, including notification of the appropriate County Coroner. IPC is continuing consultations with the CTUIR to continue to revise and "fine-tune" the generalized Project HPMP and the IDP provided in Attachment S-9.

3.6.4 Monitoring Program

OAR 345-021-0010(1)(s)(E): The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility.

Discussion of an archaeological monitoring program and other mitigation measures is included in the HPMP described above (Attachment S-9). IPC is continuing consultations with the CTUIR to continue to revise and "fine-tune" the generalized Project HPMP provided in Attachment S-9.

3.7 Future Work

The information in Exhibit S is based on the results of comprehensive background research and field surveys completed to date. Following issuance of the site certificate and prior to ground-disturbing construction activity, IPC will perform cultural resources pedestrian surveys on any parcels in the direct analysis area not yet surveyed at the time of issuance of the site certificate or where a change in Project location or design requires additional survey. In some cases, IPC may not obtain access rights until after issuance of the site certificate. The enhanced archaeological survey will also be completed following the issuance of the site certificate and prior to construction. The enhanced archaeological survey will be conducted within the selected route only and includes subsurface probing in high potential areas, cultural resource boundary probing, and subsurface testing, additional consultation, and/or research for NRHP evaluation of unevaluated resources. All such surveys, as well as any mitigation measures, will be conducted in compliance with applicable conditions to the site certificate, and follow the PA, EFSC standards, and Oregon SHPO's *Guidelines for Conducting Field Archaeology in Oregon* (2013) and *State of Oregon Guidelines for Reporting on Archaeological Investigations* (2015). The planned path forward to complete these activities is shown in Table S-17.

Table S-17. Path Forward to Fulfill Requirements for Historic and Cultural Resources Identification, Evaluation, and Impact Assessment

Description of Task	Compliance Strategy for Surveyed Parcels (approximately 89% of lands within Project Site Boundary)	Compliance Strategy for Inaccessible Parcels (approximately 11% of lands within Project Site Boundary)	Documentation
Identification of Cultural Resources	Survey of accessible parcels completed between 2011 and 2016. Additional surveys of inaccessible parcels and subsurface probing of high potential areas will occur prior to ground-disturbing construction activities. This is anticipated to occur in Spring 2021.	IPC will complete cultural resources pedestrian survey of inaccessible parcels after receipt of site certificate, but prior to initiation of construction. This is anticipated to occur in Spring 2021. Identification measures may include sub-surface probing in areas where surface visibility is poor and possibility of encountering resources is high.	Cultural resources technical report (confidential Attachment S-6), RLS (confidential Attachment S-7), ILS (confidential Attachment S-10), and Resource Location Maps (confidential Attachment S-11).
Visual Assessment of Historic Properties	RLS completed in 2012; ILS completed in 2017.	RLS completed in 2012; ILS completed in 2017; RLS and ILS for CTUIR tribal lands to be completed September-November 2018	RLS (confidential Attachment S-7) and ILS (confidential Attachment S-10)
Evaluation of Historic and Cultural Resources	IPC has provided preliminary NRHP-eligibility recommendations for resources identified in the Project Site Boundary. To avoid unnecessary ground disturbance of archaeological resources, subsurface testing and evaluation of potentially affected unevaluated resources will be conducted within the selected route only, after receipt of the site certificate and prior to ground-disturbing construction activities. This is anticipated to occur in Spring 2021.	Evaluation of potentially affected resources on inaccessible parcels will be completed after receipt of site certificate, but prior to initiation of construction. This is anticipated to occur in Spring 2021. Evaluation may include site testing, additional research, and/or Native American consultations.	Cultural resources technical report (confidential Attachment S-6), RLS (confidential Attachment S-7), and ILS (confidential Attachment S-10).

Description of Task	Compliance Strategy for Surveyed Parcels (approximately 89% of lands within Project Site Boundary)	Compliance Strategy for Inaccessible Parcels (approximately 11% of lands within Project Site Boundary)	Documentation
Analysis of Potential Impacts to Historic and Cultural Resources	For surveyed parcels, IPC has analyzed potential impacts to cultural resources identified in the 2017 Cultural Resources Technical Report, the RLS, and ILS submitted for SHPO review and concurrence. Final impact analyses for archaeological resources are pending the enhanced archaeological survey and NRHP-eligibility testing of identified unevaluated resources that will occur within the selected route only and after receipt of the site certificate, but prior to ground-disturbing construction activities. This is anticipated to occur in Spring 2021.	Analysis of potential impacts to affected cultural resources and high potential areas on inaccessible parcels will be completed after evaluation of such resources, following receipt of the site certificate, but prior to initiation of construction. This is anticipated to occur in Spring 2021. The ILS has addressed unevaluated resources from the RLS. Final impact analyses for archaeological resources are pending the enhanced archaeological survey and NRHP-eligibility testing that will occur within the selected route only and after receipt of the site certificate, but prior to ground-disturbing construction activities. This is anticipated to occur in Spring 2021. Final impact analyses for TCPs and HPRCSITs will occur through IPC and EFSC consultations with affected tribes.	Cultural resources technical report (confidential Attachment S-6), Amended Cultural Resources Technical Report (incorporating boundary and NRHP-eligibility testing; prior to ground-disturbing construction activities), Enhanced Archaeological Survey (prior to ground-disturbing construction activities), RLS (confidential Attachment S-7), and ILS (confidential Attachment S-10).

Description of Task	Compliance Strategy for Surveyed Parcels (approximately 89% of lands within Project Site Boundary)	Compliance Strategy for Inaccessible Parcels (approximately 11% of lands within Project Site Boundary)	Documentation
Mitigation of Impacts to Historic and Cultural Resources	IPC has prepared a draft EFSC-specific HPMP, documenting proposed mitigation, monitoring, and IDP, which discusses both surveyed and inaccessible parcels within the Project Site Boundary (regardless of land ownership). The final HPMP will be submitted to SHPO, the CTUIR THPO and agencies for review and concurrence, in consultation with Indian tribes, as appropriate.	IPC's final HPMP with IDP, documenting proposed site-specific and general mitigation, monitoring, and discovery procedures. The HPMP will be implemented during the first and second quarters of 2022.	EFSC HPMP (with IDP) (Attachment S-9)

4.0 IDAHO POWER'S PROPOSED SITE CERTIFICATE CONDITIONS

IPC proposes the following site certificate conditions to ensure compliance with the relevant EFSC standards which are relevant to the analysis of cultural resources (see Section 2.1):

Prior to Construction

Historic, Cultural, and Archaeological Resources Condition 1: *Prior to construction, the certificate holder shall conduct cultural resources pedestrian surveys on any parcels not surveyed at the time of issuance of the site certificate or where a change in Project location or design requires additional surveys.*

Historic, Cultural, and Archaeological Resources Condition 2: *Prior to construction, the certificate holder shall finalize, and submit to the department for its approval, a final Historic Properties Management Plan. The final Historic Properties Management Plan shall include the following, unless otherwise approved by the department:*
a. The areas that were surveyed for historic, cultural, and archaeological resources;
b. The location of all facility components and related and supporting facilities;
c. The areas that will be permanently and temporarily disturbed during construction;
d. The protective measures described in the draft Historic Properties Management Plan in ASC Exhibit S, Attachment S-9;
e. The State Historic Preservation Officer's National-Register-of-Historic-Places-eligibility determinations and archaeological resources findings; and
f. The results of the cultural resources pedestrian surveys referenced in Historic, Cultural, and Archaeological Resources Condition 1.

Prior to Construction at Any Particular Location

Historic, Cultural, and Archaeological Resources Condition 3: *Prior to construction at a particular location, the certificate holder shall, where applicable, conduct enhanced archaeological surveys comprised of subsurface probing in high probability areas, resource boundary subsurface probing, and subsurface testing, consultations, and/or research for National Register of Historic Places evaluation of unevaluated resources, consistent with the Historic Properties Management Plan, which will be developed in consultation with relevant consulting parties.*

Historic, Cultural, and Archaeological Resources Condition 4: *Prior to construction at a particular location, the certificate holder shall submit to the department for its approval a supplement to the final Historic Properties Management Plan referenced in Historic, Cultural, and Archaeological Resources Condition 2 that includes the following, unless otherwise approved by the department:*
a. The results of the enhanced archaeological surveys referenced in Historic, Cultural, and Archaeological Resources Condition 3; and
b. Any actions the certificate holder will take to avoid, minimize, or mitigate impacts to historic, cultural, or archeological resources in the relevant area.

During Construction

Historic, Cultural, and Archaeological Resources Condition 5: *During construction, the certificate holder shall conduct all work in compliance with the final Historic Properties Management Plan referenced in Historic, Cultural, and Archaeological Resources Condition 2 and any Historic Properties Management Plan supplements referenced in Historic, Cultural, and Archaeological Resources Condition 4.*

Within One Year After Construction Is Completed

Historic, Cultural, and Archaeological Resources Condition 6: *Within one year after construction is completed, the certificate holder shall finalize, and submit to the department for its approval, a final Cultural Resources Technical Report. The final Cultural Resources Technical Report shall include the following, unless otherwise approved by the department:*
a. Relevant information in the draft Cultural Resources Technical Report in ASC Exhibit S, Attachment S-6;
b. The results of the cultural and historical pedestrian surveys referenced in Historic, Cultural, and Archaeological Resources Condition 1;
c. The results of the enhanced archaeological surveys referenced in Historic, Cultural, and Archaeological Resources Condition 3;
d. The results of all cultural resource monitoring required by the Historic Properties Management Plan referenced in Historic, Cultural, and Archaeological Resources Condition 2 and any Historic Properties Management Plan supplements referenced in Historic, Cultural, and Archaeological Resources Condition 4; and
e. The results of all cultural resources testing or data recovery conducted as a result of unanticipated discoveries as required by the Historic Properties Management Plan referenced in Historic, Cultural, and Archaeological Resources Condition 2 and any Historic Properties Management Plan supplements referenced in Historic, Cultural, and Archaeological Resources Condition 4.

Historic, Cultural, and Archaeological Resources Condition 7: *Within one year after construction is completed, the certificate holder shall finalize, and submit to the department for its approval, a final Intensive Level Survey. The relevant information in the draft Intensive Level Survey in ASC Exhibit S, Attachment PS-10, shall be included as part of the final Intensive Level Survey, unless otherwise approved by the department.*

5.0 CONCLUSIONS

Exhibit S includes the application information provided for in OAR 345-021-0010(1)(s). Further, the evidence set forth in Exhibit S establishes that the construction and operation of the Project, taking into account mitigation, including the HPMP and future resource-specific treatment plans, are not likely to result in significant adverse impacts to cultural resources that have been listed on, or would likely be listed on the NRHP; archaeological sites; or archaeological objects on private land, consistent with the Historic: Cultural and Archaeological Resources standard.

6.0 COMPLIANCE CROSS-REFERENCES

Table S-18 identifies the location within the application for site certificate of the information responsive to the application submittal requirements in OAR 345-021-0010(1)(s); the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090; and the relevant Second Amended Project Order provisions.

Table S-18. Compliance Requirements and Relevant Cross-References

Requirement	Location
OAR 345-021-0010(1)(s)	
Exhibit S. Information about historic, cultural and archaeological resources. Information concerning the location of archaeological sites or objects may be exempt from public disclosure under ORS 192.502(4) or ORS 192.501(11). The applicant shall submit such information separately, clearly marked as "confidential," and shall request that the Department and the Council keep the information confidential to the extent permitted by law. The applicant shall include information in Exhibit S or in confidential submissions providing evidence to support a finding by the Council as required by OAR 345-022-0090, including:	
(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the NRHP	Exhibit S, Section 3.4.1
(B) For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area	Exhibit S, Section 3.4.2.1
(C) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area	Exhibit S, Section 3.4.2.2
(D) The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:	Exhibit S, Section 3.5

Requirement	Location
(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B) and (C).	Exhibit S, Sections 3.2, 3.3, and 3.6
(ii) The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.	Exhibit S, Section 3.3
(iii) A list of measures to prevent destruction of the significant resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction	Exhibit S, Sections 3.6 and 3.7
(E) The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility	Exhibit S, Section 3.6.4
OAR 345-022-0090	
(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 NRHP;	Exhibit S, Section 3.4.1 and Section 3.5
(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	Exhibit S, Section 3.4.2.1 and Section 3.5
(c) For a facility on public land, archaeological sites, as defined in ORS 358.905(1)(c).	Exhibit S, Section 3.4.2.2 and Section 3.5
(2) The Council may issue a site certificate for a facility that would produce power from wind, solar or geothermal energy without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	Not applicable, see Section 2.1.2 footnote 3
(3) The Council may issue a site certificate for a special criteria facility under OAR 345-015-0310 without making the findings described in section (1). However, the Council may apply the requirements of section (1) to impose conditions on a site certificate issued for such a facility.	Not applicable, see Section 2.1.2 footnote 3

Requirement	Location
Second Amended Project Order Provisions	
The application shall include the survey methodology, survey areas, and the results of all surveys conducted for historic, cultural, and archaeological resources, as well as an analysis of any significant adverse impacts anticipated and proposed mitigation measures. The applicant should work closely with the State Historic Preservation Office (SHPO) to understand the report formatting and submission requirements, and to receive guidance on any survey protocols. The application shall include map(s) showing important historic trails located within the Historic, Cultural, and Archaeological Resources analysis area, including the segments of the Oregon Trail that are listed or eligible for listing on the National Register of Historic Places (NRHP), and discuss measures to avoid or mitigate for impacts to historic trails. SHPO has advised that the proposed transmission line crosses many land forms that are generally perceived to have a high probability for possessing archaeological sites and buried human remains.	Exhibit S, Section 3.2.2, Section 3.3, Section 3.5, Section 3.6, Figure S-11, Attachment S-8 (NHT Study), and Attachment S-9 (ILS [confidential])
As discussed previously, the applicant has proposed a "phased survey" approach for data collection during the site certificate review process. The Department understands that the entirety of the site boundary for the proposed facility may not have yet been surveyed for cultural resources due to limited site access. On April 24, 2018 the Department issued a memo titled; "Energy Facility Siting Council Decisions for Linear Facilities with Restricted Access within a Site Boundary: Boardman to Hemingway Transmission Line". This memo outlines how the Department will review applications and make recommendations to Council for historic, cultural and archaeological resources that have been evaluated in the pASC and ASC. Once IPC gains access to previously restricted areas, IPC shall include that information via a site certificate amendment process. Exhibit S shall include as much information as possible about the field surveys conducted to date for cultural resources on state, private, and federal lands, and the schedule for future surveys.	Section 3.2, Section 3.3, Section 3.7, Figure S-6 through Figure S-10, Tables S-1 through S-17, Attachment S-1 (ASP), Attachment S-2 (VAHP), Attachment S-5 (PA), Attachment S-6 (Cultural Resources Technical Report [confidential]), Attachment S-7 (RLS [confidential]), Attachment S-10 (ILS [confidential]), Attachment S-11 (Resource Location Maps [confidential]), and Attachment S-12 (CTUIR Traditional Use Study [confidential])
The application may include in Exhibit S (or as attachments to Exhibit S), the description of state and federal workgroups, membership, purpose, and copies of any work plans that workgroups have developed governing survey methodologies.	See above.

Requirement	Location
Exhibit S shall include analysis of how the evidence provided supports a finding by the Council that the proposed facility meets the Council's Historic, Cultural, and Archaeological Resources standard. It is recommended that the applicant provide proposed site certificate conditions for the Council's consideration related to requirements for the applicant to complete all unfinished surveys within the facility's site boundary prior to construction. It is recommended any proposed site certificate conditions also address submittal requirements for reporting future survey results, obtaining EFSC approval of cultural resource survey documents, and the applicant's proposed approach to document approval of final results by agencies and the Council prior to commencing construction activities.	Exhibit S, Section 3.5, Section 3.6, Section 3.7, and Section 4.0; Exhibit BB, Attachment BB-4 (List of IPC's Proposed Site Certificate Conditions)
The NOI listed the following tribes as "being expected to have an interest in the Project's Proposed Corridor": Burns-Paiute Tribe, Shoshone-Paiute Tribes of Duck Valley Indian Reservation, Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Confederated Tribes of Warm Springs Reservation, Nez Perce Tribe, Confederated Tribes of the Colville Reservation, Fort McDermitt Shoshone-Paiute Tribes, Shoshone-Bannock Tribes of Fort Hall Indian Reservation, and the Klamath Tribes.	Exhibit S, Section 2.4.3, Section 3.2.2.3, Section 3.3.3, and Attachment S-3 (Native American Coordination and Consultation)
In June 2012, the applicant contacted the Legislative Commission on Indian Services (LCIS) regarding tribes, tribal lands, and tribal resources potentially affected by the B2H facility. In its response, the LCIS identified three federally recognized tribal governments in Oregon that shall be consulted regarding the proposed facility: Confederated Tribes of the Umatilla Indian Reservation (CTUIR), Confederated Tribes of the Warm Springs, and Burns Paiute Tribe. In addition, the LCIS recommended the applicant contact out-of-state tribal governments, as the traditional territory of these tribes extends into Oregon near the proposed facility. These tribes are the Confederated Tribes of the Yakama Nation, the Nez Perce Tribe, and the Colville Confederated Tribes. The response from the LCIS shall be included as an attachment to Exhibit S.	Exhibit S, Section 2.4.3, Section 3.2.2.3, Section 3.3.3, and Attachment S-3 (Native American Coordination and Consultation)
The affected tribes, as identified by the LCIS, provide technical review and recommendations in reference to the Council's Historic, Cultural and Archaeological Resources Standard (OAR 345-022-0090). The application shall include evidence of consultation with affected tribes regarding archaeological and cultural sites and materials that may be found on the proposed facility site.	Exhibit S, Section 2.4.3, Section 3.2.2.3, Section 3.3.3 and Attachment S-3 (Native American Coordination and Consultation)

Requirement	Location
The Department understands that the proposed facility will require approval from federal agencies, and that federal agencies are engaging in formal government-to-government consultation with affected Indian tribes under the requirements of the National Historic Preservation Act (NHPA). To the extent it aids in establishing compliance with the applicant's obligations under the EFSC review process, the applicant may rely on the evidence resulting from the tribal consultations required by the NHPA. A Programmatic Agreement (PA) to govern compliance with the NHPA has been finalized and executed. The PA does not govern compliance with the EFSC Historic, Cultural, and Archaeological Resources standard, though work conducted in support of the PA could be used to support a Council finding of compliance with the Historic, Cultural, and Archaeological Resources standard.	Exhibit S, Section 2.4.2, Section 2.4.3, Section 3.2.2.3, and Section 3.3.3, Attachment S-3 (Native American Coordination and Consultation), and Attachment S-5 (PA)
The CTUIR provided detailed written comments on the NOI regarding impacts to First Food resources, habitat fragmentation, introduction of weed species, effects to historic properties, insufficient noise and visual analysis in the NOI. The CTUIR also noted the potential for cumulative impacts, cultural resource impacts, and impacts to the Umatilla Indian Reservation. The CTUIR also provided several rounds of comments on the amended preliminary application for site certificate (ApASC) in October, 2017 and ongoing throughout the completeness review of the ApASC. On May 3, 2018 ODOE, the CTUIR, IPC, and SHPO held a meeting at the Nixyáawii Governance Center on the CTUIR reservation. The purpose of the meeting was to discuss concerns of the CTUIR and completeness issues that the CTUIR identified during the reviewing agency comment period of the B2H ApASC. After the meeting, IPC coordinated directly with the CTUIR to address their concerns in the applicable sections of the application. To the extent these issues are matters within Council jurisdiction, the issues shall be addressed in the appropriate application exhibit. Any permits or easements required by the CTUIR or other tribal governments are outside of the Council jurisdiction and are the responsibility of the applicant.	Exhibit S, Section 3.3, Section 3.4, Section 3.5, Attachment S-6 (Cultural Resources Technical Report [confidential]), Attachment S-7 (RLS [confidential]), Attachment S-10 (ILS [confidential]), and Attachment S-11 (Resource Location Maps [confidential]); Exhibit BB

7.0 RESPONSE TO NOTICE OF INTENT AND SCOPING MEETING COMMENTS

ODOE received over 450 comments based on the NOI and the related scoping meetings. ODOE summarized those comments in the First Amended Project Order (December 2014) and then removed the summaries from the Second Amended Project Order "to reduce the risk of misinterpreting the intention of the individual comment." Although ODOE eliminated the requirement that IPC address the comment summaries, IPC nonetheless voluntarily addresses those summaries here in Table S-19, identifying the location within the ASC of the information responsive to the comments summarized in the First Amended Project Order.

Table S-19. Responses to Comment Summaries

Comment Summaries	Location
Numerous commenters expressed concern about visual and other impacts on national and Oregon historic trails in general, and to the National Oregon Historic Trail Interpretive Center in Baker County in particular. Exhibit S should discuss potential impacts and proposed mitigation measures for the project's potential effects on historic trails.	Exhibit S, Section 3.3.2.1, Section 3.4.1, Figure S-11, Attachment S-7 (RLS [confidential]), Attachment S-8 (NHT Study), and Attachment S-10 (ILS [confidential])
Exhibit S should include discussion of the results of cultural resource surveys, potential impacts during construction and operations, proposed mitigation measures, and cultural resource protection plans for cultural resources under Council jurisdiction (Note that the actual survey reports should be submitted as confidential material under separate cover).	Exhibit S, Section 3.3, Section 3.4, Section 3.5, Section 3.6, Section 3.7, Attachment S-4 (High Potential Areas [confidential]), Attachment S-6 (Cultural Resources Technical Report [confidential]), Attachment S-7 (RLS [confidential]), Attachment S-8 (NHT Study), Attachment S-9 (Draft HPMP with IDP), Attachment S-10 (ILS [confidential]), and Attachment S-11 (Resource Location Maps [confidential])

Comment Summaries	Location
The CTUIR commented that the project should avoid resources of cultural and religious significance to CTUIR, including tribal trails, CTUIR-named places, villages, camps, traditional hunting areas, gathering and digging areas, and archaeological sites. Exhibit S should include discussion of the potential impacts to resources of concern to the CTUIR and other tribes identified by the Commission on Indian Services. To the extent that protection of those resources is under Council jurisdiction, Exhibit S should also include proposed mitigation and protection measures.	Exhibit S, Section 3.3.3, Section 3.5, Section 3.6, Attachment S-4 (High Potential Areas [confidential]), Attachment S-6 (Cultural Resources Technical Report [confidential]), Attachment S-7 (RLS [confidential]), Attachment S-9 (Draft HPMP with IDP), Attachment S-10 (ILS [confidential]), and Attachment S-11 (Resource Location Maps [confidential])

8.0 REFERENCES

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ATTACHMENT S-1
ARCHAEOLOGICAL SURVEY PLAN

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Archaeological Survey Plan

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December 2012

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1.0 PURPOSE AND GOAL

Idaho Power Company (IPC) is proposing to construct, operate, and maintain approximately 300 miles of 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway Transmission Line Project (Project; IPC 2011). Figure 1 shows the proposed and alternative routes. The Project is complex, located in both Idaho and Oregon and involving multiple federal and state agencies, and the cultural resource work will occur in phases. For these reasons, a Programmatic Agreement (PA) regarding the Section 106 National Historic Preservation Act (NHPA) process will be developed pursuant to 36 Code of Federal Regulations (CFR) 800.4(b)(2) and 36 CFR 800.14(b). The PA for this project is an agreement between the Bureau of Land Management (BLM), United States Department of Agriculture Forest Service (USFS), Idaho and Oregon State Historic Preservation Officers (SHPOs), Confederated Tribes of the Umatilla Reservation Tribal Historic Preservation Officer (CTUIR THPO), Advisory Council on Historic Preservation (ACHP), and other parties, such as Oregon Department of Energy (ODOE), Tribes, and IPC, as appropriate. The PA outlines the general process for completion of all phases of the Section 106 process, i.e., how the lead government agency will define the Areas of Potential Effect (APE), how historic resources will be identified and evaluated, how effects will be assessed, and how effects to historic properties will be resolved. The PA will be in place prior to the BLM's Record of Decision (ROD), but was not completed prior to the start of archaeological field work. IPC acknowledges that additional fieldwork may be necessary if work completed prior to signing the PA is not consistent with the terms of the PA.

This Archaeological Survey Plan (Plan) describes the processes for the file search and literature review and Class II and Class III pedestrian archaeological inventories, which will complete the identification efforts required by Section 106 of the NHPA and provide information for the ODOE Energy Facility Siting Council (EFSC), subject to laws requiring confidentiality. Within the parameters of laws requiring confidentiality, information collected through application of this plan will be used in support of IPC's Application for Site Certificate to EFSC and will be provided to the BLM to assist with the preparation of a National Environmental Policy Act (NEPA) document for the Project. This Plan is not intended to address the entire cultural resources identification process; rather it is intended only to describe IPC's plan to conduct archaeological inventories and outlines the methods and protocols for file searches and literature reviews and the conduct of Class II and Class III archaeological inventories. Evaluations of visual impacts to historic structures, trails, and other aboveground resources will also occur for the Project. The methodology for those studies is presented in a separate Visual Assessment of Historic Properties Study Plan (VAHP; Tetra Tech 2012). Ethnographic studies are in progress; these studies will be conducted to identify both properties of religious and cultural significance and Traditional Cultural Properties.

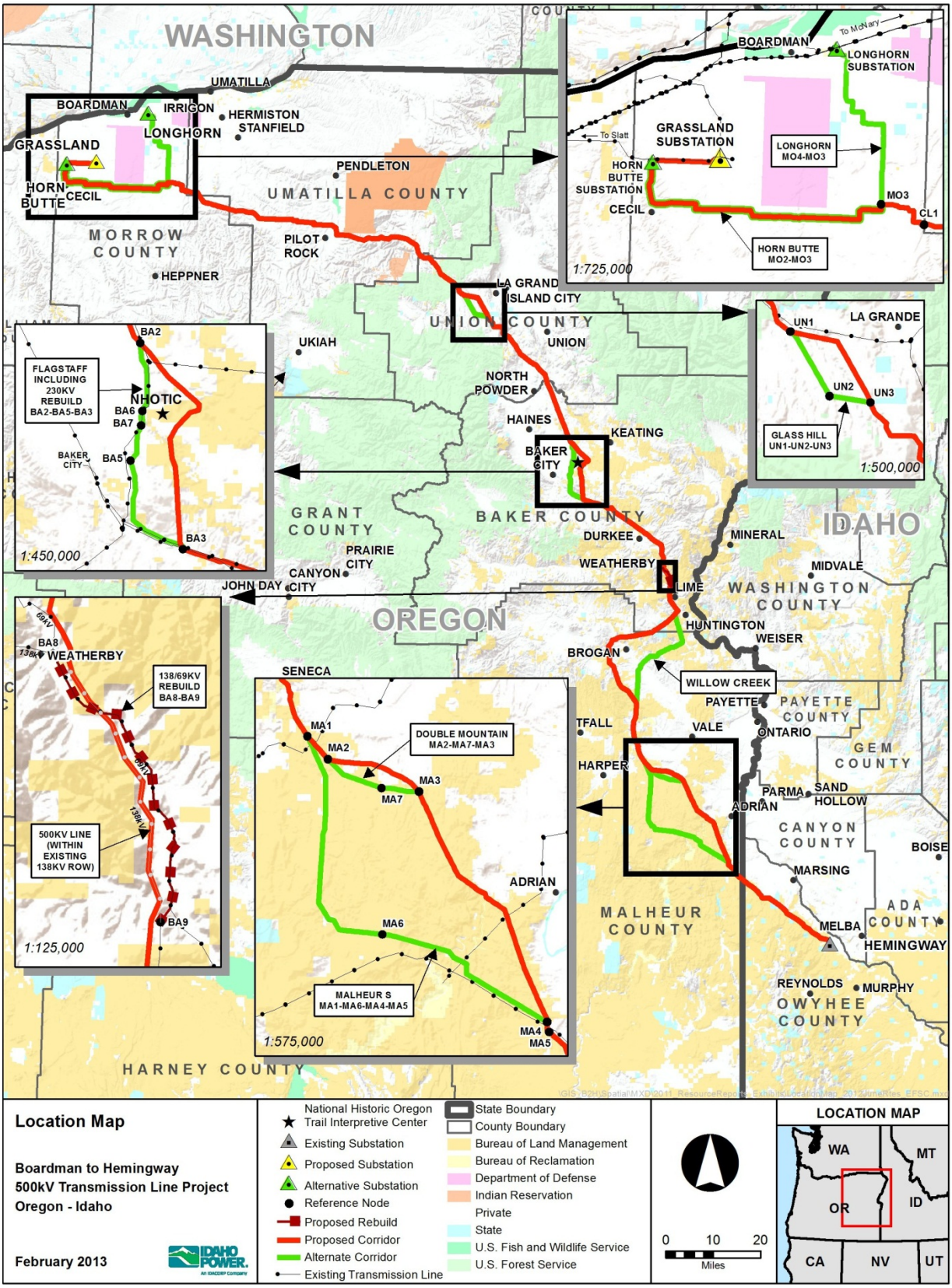

Figure 1. Proposed and Alternative Routes for NEPA Analysis

2.0 TECHNICAL STUDIES

This section outlines the scope of field investigations and the site National Register of Historic Places (NRHP) eligibility evaluation methodology for the Project archaeological inventory. Field investigations will focus on three inter-related tasks: surface survey, subsurface testing, and resource recordation. To meet Project needs, these tasks will be conducted in two stages. The initial survey will consist of a 100 percent (BLM Class III) inventory of the proposed route segments and all currently identified Project facilities, including access roads and ancillary facilities, as well as a 15 percent (BLM Class II) survey of alternative routes (see Figure 1). The findings of the inventory will be compiled into a formal report and submitted to consulting parties for review as well as presented in the Draft Environmental Impact Statement (EIS). Additional surveys will focus on completion of 100 percent inventory of any modifications to route access roads, laydown areas, or other Project surface modifications identified subsequent to the initial survey. Subsurface probing to assist in resource identification, boundary determination, or NRHP eligibility may be conducted as part of the survey effort, as determined by the agencies and consulting parties. In addition, in the event that an alternative corridor is selected as an element of the preferred route, all portions of this corridor segment not previously surveyed as part of the 15 percent sample will be subject to a complete 100 percent inventory. The inventory will be completed prior to initiation of construction activities, and findings will be presented in the Final EIS. All technical studies will comply with Section 106 of the NHPA, as well as follow applicable Idaho and Oregon SHPO standards.

2.1 File Search and Literature Review

Archaeological records searches and literature reviews were conducted for both the Oregon and Idaho portions of the Project. In Oregon, Tetra Tech initially conducted a file search and literature review at the Oregon SHPO for an area extending one mile on either side of the centerline of the proposed route and all alternatives; at the Idaho SHPO, a file search and literature review of an area 0.5 mile on either side of the centerline was conducted. This study area was later expanded through additional records searches to 2 miles on either side of the center line of the proposed route and alternatives in both Oregon and Idaho. Supplemental file searches at appropriate agency offices were also conducted to ensure that updated information from inventories and previously recorded cultural resources were considered prior to completion of field work. These offices included the Baker and Vale District Offices of the BLM, the Wallowa-Whitman National Forest, and the CTUIR THPO.

In addition to agency records, the file searches and literature reviews included examination of archaeological and historical literature of the region; General Land Office (GLO) plats and survey notes; a variety of modern and historic maps, including Oregon Trail maps provided by the National Historic Oregon Trail Interpretive Center in Baker City, Oregon; aerial photographs; and abandoned mine data from the BLM. Records were collected on all available resources, inclusive of archaeological sites and historic features and structures. Additional inventory and review of historic resources are addressed in the VAHP (Tetra Tech 2012). Examination of the data from the file searches and literature reviews indicates that 111 previously recorded sites are present within the study area. Previously recorded precontact sites are dominated by lithic scatters, but also include quarry sites, camps, cairns, and rock alignments. Historic sites include several segments of the Oregon Trail, other historic trails, stage stops, structures, and railroad grades.

An additional 143 potential historic sites were identified within the 2-mile study area from the examination of GLO plats, historic maps, etc. These locations are dominated by mining sites, but also include canals and ditches, cemeteries, trails, and wagon roads.

2.2 Archaeological Inventory Methods

As discussed above, the cultural resources inventory will be conducted in two phases. Phase 1 will consist of an intensive pedestrian inventory (BLM Class III) of the proposed corridor segments and all currently identified Project facilities, as well as a sample (BLM Class II) survey of alternative corridors. Any additional survey required to complete a 100 percent inventory of the selected route, as well as any necessary subsurface inventory or evaluation efforts, will be conducted during Phase 2. Methods to be employed during these phases are presented below. All inventory and recordation efforts, regardless of land ownership, will be conducted under the direct supervision of archaeologists who meet the Secretary of the Interior's Standards and Guidelines and appropriate state requirements.

2.2.1 Intensive Field Survey

The intensive Class III survey will focus on the Project's direct APE, identified as areas on the centerline of the right-of-way as well as proposed ancillary facilities such as substations, access roads, laydown areas, fly yards, and pulling and tensioning sites as identified in IPC's Plan of Development (POD; IPC 2011). The APE is applicable to the entire Project, regardless of land ownership. The APE is for direct project impacts to archaeological sites and other cultural resources, and may change with modifications to the Project or revisions to the APE by the consulting parties.

The APE identified for the initial Class III pedestrian inventory includes the following:

- 250 feet each side of the centerline of the Proposed Route. This area is twice the width of the final right-of-way grant that is being requested for the Project, and provides sufficient margin to allow realignment of the line as necessary.
- 50 feet on either side of the centerline of existing access and service roads. This width will allow for any minor alignment changes needed and provide adequate clearance for any new disturbance associated with road repair.
- 100 feet on either side of the centerline of new access and service roads. This width will allow margin for changes to the horizontal and vertical alignment of the road and for any cut and fill requirements.
- 200 feet beyond the boundary of the planned areas of disturbance of ancillary Project features such as staging areas, fly yards, and pulling and tensioning sites.
- 250 feet beyond the boundary of pulling/tensioning sites and borehole locations that fall outside the right-of-way.

The survey will be conducted using pedestrian transect intervals of 20 meters or less. Control will be maintained through the use of 1:24,000 scale maps and Global Positioning System units with sub-meter accuracy with the Project centerline or ancillary facility footprint programmed into the unit.

An intensive BLM Class III level inventory will be conducted of the entire survey area, as defined above. Areas with very steep slopes (in excess of 25 percent) may be excluded; however, if the file search and literature review indicate a potential for certain types of sites typically found on steep slopes (such as mines, talus pits, etc.) to occur in the area, these slopes will be examined. The examination of steep slopes will take into account the safety of the crew, and transect intervals may be increased. Areas not surveyed, or surveyed at a reduced level, will be clearly identified in the report, with the rationale behind their exclusion or reduced survey effort spelled out.

2.2.2 Sample Field Surveys

For purposes of providing a comparative analysis of the proposed and alternative routes, an archaeological inventory of a 15 percent random sample will be conducted of all route alternatives subject to study in the Draft EIS. Combined with the results of the records search, literature review, and ethnographic study, application of this approach is designed to aid in characterizing the probable density, diversity, and distribution of cultural resources along the alternative routes, particularly in areas where no previous inventories have been conducted. This information is being collected for use in the EIS analysis. Within the sample survey units, methods used are identical to those applied in a Class III intensive survey, and all pedestrian survey and site recording and reporting for a Class II survey will meet Class III standards. An intensive cultural resource inventory will be completed along the preferred route after selection and before initiation of construction. Data collected during the sample inventory will be provided to the BLM in the form of a technical report prepared in compliance with laws requiring confidentiality and will contribute to but will not replace complete inventory of the selected route.

The sampling plan developed for the Project employs random selection of sampling units. Inventory will be conducted using 1-mile-long by 500-foot-wide survey blocks. The 1-mile length is used as an arbitrary measure, while the 500-foot width corresponds to the width of the comprehensive inventory being conducted along the proposed Project corridor. Following this procedure, all completed sample units will directly contribute to completion of the comprehensive inventory, once a final route is selected.

Individual survey units will be selected based on the following sampling strategy. First, for each alternative route, 1-mile-long parcels will be designated with a unique survey unit number (e.g., sampling units along a 50-mile-long segment will be designated 1-50). A table of random numbers will then be used to select specific units for inventory within a route segment. Sufficient numbers of units will be selected to account for inventory of 15 percent of each route segment. To ensure adequate representation of each route segment, units will be selected regardless of land ownership and will likely include a mix of private, state, and federally managed lands. It is anticipated that access constraints will affect the ability to complete survey of units selected on private lands. To account for this and to ensure completion of a 15 percent sample, additional units will be selected at random and held in reserve for use in case of denied access or other access issues. Following these procedures, it is anticipated that sufficient information will be collected to allow for assessment and comparison of cultural resources by proposed and alternative route segment.

For alternatives that are being analyzed in the Draft EIS, revised maps showing sample locations will be prepared and submitted for agency review. A complete 100 percent survey of the preferred route will be completed in accordance with this inventory plan.

2.2.3 Subsurface Probing

Subsurface probing will be conducted for sites for which SHPO and THPO consultation has indicated that Phase 2 efforts are necessary to determine NRHP eligibility under Criterion D. Subsurface survey methods (e.g., shovel probes) will be employed to assist with the discovery of buried deposits, definition of archaeological site boundaries, and determinations of site eligibility, as stipulated in the PA. Site identification shovel probes may be particularly useful in forested areas containing dense undergrowth and accumulations of surface litter and duff/humus, especially within zones where there is probability for the presence of cultural materials or features. Shovel probes may also prove useful for locating sites in zones of active sediment accumulation, where recent sediment deposition (i.e., fluvial, alluvial, colluvial, or aeolian) has concealed earlier cultural deposits. Shovel probes will measure 50 by 50

centimeters square and will be used to assist in 1) the identification of cultural resources during surface survey (site discovery probes) and 2) site boundary definition (site boundary probes). Identifying site boundaries during a survey is important because a site's location relative to the proposed project is critical to assessing Project effects and developing appropriate mitigation measures. When site boundaries cannot be defined based on surface evidence alone, such as in densely wooded montane areas, subsurface probing has the potential to provide crucial data to guide Project design and resource management decisions. As specified in the PA, neither collection of artifacts nor disturbance of ground will occur during initial Class II and Class III intensive-level pedestrian cultural resources surveys. Upon issuance of the ROD, areas identified as possessing a high potential for buried cultural resources located within the direct APE will be subjected to subsurface probing to determine the presence or absence of cultural resources, where ground-disturbing activities will occur. All identification surveys will follow the methodology presented in this Archaeological Survey Plan. Indian tribes and consulting parties to this agreement will be consulted prior to commencement of any ground-disturbing or collection activity and appropriate federal and state permits will be obtained.

During initial survey efforts, Tetra Tech crews will track the location of areas of high site potential and low surface visibility where subsurface probing may be determined appropriate during a subsequent phase of archaeological investigations. These areas of high site potential will be clearly indicated on tables and maps in the resulting survey reports and will be subject to consultation with Native American tribes. High probability areas will be determined by taking into account relevant environmental variables such as slope, distance to water, locations near stream confluences, vegetation, and potential tool stone sources, as well as areas with tribal place names, which often have correlations with archaeological sites. Low surface visibility is defined as thick vegetative cover or other material preventing adequate examination of the ground surface. Maps indicating high site potential will be considered confidential and subject to laws regarding confidentiality of cultural resources.

Prior to excavation of any shovel probes, a probing plan detailing the approach to subsurface survey will be submitted to state and federal agencies for consultation and approval, and all appropriate federal and state permits will be obtained. Excavation or removal (collection) of archaeological resources from any federally managed land (e.g., BLM, USFS, or other federal agencies) necessitates an ARPA permit from the federal land manager. In Idaho, State excavation permits are required within a known site on state land in accordance with Idaho Code 67-4120; no permits are required on private lands. In Oregon, state law (Oregon Revised Statutes [ORS] 358.905-955, 390.235, Oregon Administrative Rules 051-360-080 to 090) requires that all field investigations conducted on non-federal public lands requiring ground disturbance, and all investigations of known sites on private lands, require a State of Oregon Archaeological Excavation Permit (Oregon SHPO 2007:34). Archaeological permits are 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.

2.2.4 Discoveries of Human Remains

If human remains are discovered during any phase of the Project, work will cease within 200 feet of the location of the discovery and the remains will be protected. If the find is on federally administered lands in either state, the appropriate agency field official will be notified in accordance with the agency obligations under the Native American Graves Protection and Repatriation Act and other laws.

For discoveries on non-federal lands, the applicable law enforcement agency or other entity will be contacted in accordance with appropriate state statutes. In Idaho, Tetra Tech will comply

with Idaho Code §27 501–504 and notify the Idaho State Historical Society and the BLM cultural resources lead who will commence notification of the appropriate tribes, which consist of the Shoshone-Bannock Tribes of the Fort Hall Reservation, Shoshone Paiute Tribes of the Duck Valley Indian Reservation, the Confederated Tribes of the Umatilla Indian Reservation, and the Burns Paiute Tribe.

In Oregon, Tetra Tech will comply with ORS 97.745(4) and will notify the Oregon State Police, the Oregon SHPO, the Commission on Indian Services (CIS), and the BLM cultural resources lead. The BLM cultural resources lead will then commence notification of the appropriate tribes, which may consist of the Shoshone Paiute Tribes of the Duck Valley Indian Reservation, the Confederated Tribes of the Umatilla Indian Reservation, the Burns Paiute Tribe, and other tribes. In the event that human remains are encountered during work on the Project, these remains will be considered to be of Native American descent, until subsequent analysis suggests otherwise.

2.3 Site Documentation and Reporting

The results of the file search, literature review, and Class II and Class III inventories will be incorporated into technical reports that will be submitted to BLM to assist in NHPA and NEPA compliance. Separate stand-alone technical reports will be provided for each state; a separate report will be prepared for the USFS documenting inventory on USFS-managed lands. Reports will be prepared in accordance with BLM and USFS permit requirements and applicable SHPO guidelines for each state.

Reports will include full documentation of all archaeological and cultural sites and resources identified during inventory efforts, recorded per appropriate state requirements as described below, but within the parameters of and subject to laws requiring confidentiality:

- **Oregon.** All archaeological resources encountered will be recorded on Oregon Archaeological Site Forms or Oregon State Cultural Resource Isolate Forms (http://www.oregon.gov/OPRD/HCD/ARCH/docs/Online_Site_Form_Manual_ Dec2009.pdf). Field surveys will be conducted and results reported in accordance with the *Guidelines for Conducting Field Archaeology in Oregon* (http://www.oregon.gov/OPRD/HCD/ARCH/ docs/draft_field_guidelines.pdf) and State of Oregon Archaeological Reporting Guidelines (http://www.oregon.gov/OPRD/HCD/ARCH/docs/State_of_Oregon_Archaeological_ Survey_and_Reporting_Standards.pdf) issued by the Oregon SHPO. Definitions of sites and isolates will be those provided in the *Guidelines for Conducting Field Archaeology in Oregon* unless permit stipulations require otherwise. For aboveground historic resources, data will be entered into the Oregon SHPO Historic database.
- **Idaho.** All archaeological resources encountered will be recorded on Archaeological Survey of Idaho Site Inventory Forms. Treatment of historic buildings, structures, and facilities, as discussed in a separate inventory plan addressing aboveground resources, will be recorded on Idaho Historic Sites Inventory Forms (both forms available at http://history.idaho.gov/shpo.html). Field inventories will be conducted and results will be reported in accordance with *Guidelines for Documenting Archaeological and Historical Inventories* (http://www.history.idaho.gov/sites/default/files/uploads/ SurveyGuidelines.4.5.2012.pdf).

If survey is conducted on tribal lands of the Confederated Tribes of the Umatilla Indian Reservation, additional forms required by, and provided by, the THPO will also be completed.

3.0 DEFINITIONS

Area of Potential Effects (APE) means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (see 36 CFR 800.16[d]). The APE includes all lands regardless of ownership in the survey area, as well as any associated area of potential impact associated with ancillary facilities. The effects may be direct, indirect, or cumulative.

Class I Inventory (Record Search and Literature Review) is a compilation of all reasonably available cultural resources data and literature and a management-focused, interpretive narrative overview and synthesis of the data. Existing cultural resource data are obtained from published and unpublished documents, BLM cultural resource inventory records, institutional site files, state and national registers, and other information sources.

Class II Inventory (Probabilistic Field Survey) is a sample survey designed to aid in characterizing the probable density, diversity, and distribution of cultural resources in an area. Within sample units, methods used are the same as those applied in Class III intensive survey. While Class II surveys are generally not appropriate for determining specific effects of a proposed land use, they are useful when comparing alternative locations for proposed undertakings (per BLM Manual 8110).

Class III Inventory (Intensive Field Inventory), also referred to as survey, is a professionally conducted, thorough pedestrian inventory of an entire target area (except for any subareas exempted), intended to locate and record all cultural resources. It describes the distribution of properties in an area; determines the number, location, and condition of properties; determines the types of properties actually present within the area; permits classification of individual properties; and records the physical extent of specific properties. It is conducted in accordance with standards in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 *Federal Register* 44716, September 29, 1983) per BLM Manual 8110.

Consultation refers to the general process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process. The Secretary's “Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act” provides further guidance on consultation (36 CFR 800.16 [f]). See also the ACHP (2008) *Consultations with Indian Tribes in the Section 106 Review Process: A Handbook*.

Cultural Resources include archaeological, historical, or architectural sites, structures, or places that may exhibit human activity or occupation, or may be sites of religious or cultural significance to tribes. Cultural resources include, but are not limited to, archaeological sites, cultural landscapes, natural resources and landforms, grave sites, buildings, and structures. The term “cultural resources” encompasses properties of traditional religious significance that may or may not be eligible for listing in the NRHP but are of critical significance for tribes. The current plan is designed primarily to address the identification of archaeological resources.

Effect means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP (36 CFR 800.16[i]).

Historic property refers to a district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes

properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the National Register criteria (36 CFR 800.16[1][1]).

Programmatic Agreement (PA) refers to a legally binding document that memorializes the terms and conditions agreed upon to fulfill the lead federal agency's compliance with Section 106 of the National Historic Preservation Act, in accordance with 36 CFR 800.14(b) and 36 CFR 800.16(t). Programmatic Agreements are undertaken as alternatives to Section 106 procedures, and are often used when effects on historic properties are similar and repetitive; are multi-state or regional in scope; when effects cannot be fully determined prior to approval of an undertaking; or when non-federal parties are delegated major decision making responsibilities.

Proposed Route is the route proposed by IPC in the November 2011 POD. This route is subject to change with new data, but will not be inventoried until the POD is officially changed.

State Historic Preservation Officer (SHPO) means the official appointed or designated pursuant to Section 101(b)(1) of the NHPA to administer the State historic preservation program or a representative designated to act for the State historic preservation officer (36 CFR 800.16[v]).

Study Area is the area subject to a complete record search and literature review for the purpose of compiling information on previously recorded cultural resources and previous cultural resource surveys. The study area measures 2 miles on either side of the centerline, for a total study area corridor width of 4 miles.

Survey Area is the area that will be examined on foot by archaeologists to determine the presence or absence of archaeological resources. For purposes of the current document, this term is synonymous with the APE.

Traditional Cultural Properties (TCPs) are a class of National Register-eligible properties that possess association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. (See *National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties*).

Tribal Historic Preservation Officer refers to the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for the purposes of Section 106 compliance on tribal lands in accordance with section 101(d)(2) of the NHPA and 36 CFR 800.2.

Undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval (36 CFR 800.16[y]).

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ATTACHMENT S-2
VISUAL ASSESSMENT OF HISTORIC PROPERTIES STUDY PLAN

ATTACHMENT S-2
VISUAL ASSESSMENT OF HISTORIC PROPERTIES STUDY PLAN



Final Visual Assessment of Historic Properties Study Plan

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Appendix A Visual Assessment of Historic Properties Form

ABBREVIATIONS AND ACRONYMS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
ASC	Application for Site Certificate
BLM	Bureau of Land Management
BPA	Bonneville Power Administration
CFR	Code of Federal Regulations
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
EFSC	Energy Facility Siting Council
EIS	Environmental Impact Statement
GIS	geographic information system
GLO	General Land Office
GPS	global positioning system
IHSI	Idaho Historic Sites Inventory
ILS	Intensive Level Survey
IPC	Idaho Power Company
KOP	key observation point
kV	kilovolt
MET	Mapping Emigrant Trails
NEPA	*National Environmental Policy Act of 1969*
NHPA	*National Historic Preservation Act of 1966*
NHT	national historic trail
NPS	National Park Service
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rules
OCTA	Oregon–California Trails Association
ODOE	Oregon Department of Energy
OHSD	Oregon Historic Sites Database
PA	Programmatic Agreement
Project	Boardman to Hemingway Transmission Line Project
RLS	Reconnaissance Level Survey
ROW	right-of-way
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
USC	United States Code
USFS	United States Forest Service
VAHP	Visual Assessment of Historic Properties
VCR	visual contrast rating

1.0 INTRODUCTION

1.1 Project Summary

Idaho Power Company (IPC) proposes to construct, operate, and maintain the Boardman to Hemingway Transmission Line Project (Project), a 305 mile-long, single-circuit 500-kilovolt (kV) overhead electric transmission line and related facilities. The Project will begin at the proposed Grassland Substation near Boardman, Oregon, and terminate at the existing Hemingway Substation near Melba, Idaho (Figure 1-1). In addition, 5.3 miles of 138-kV and 69-kV transmission lines will be relocated and/or rebuilt. IPC's proposed Project provides additional capacity connecting the Pacific Northwest and Intermountain regions of southwestern Idaho to alleviate existing transmission constraints and ensure sufficient capacity to meet present and forecasted load requirements. The proposed Project route crosses federal, state, and private lands.

IPC has applied to the United States Bureau of Land Management (BLM) for a right-of-way (ROW) grant and to the United States Forest Service (USFS) for a special-use permit for the use of public lands along portions of the Project. These entities are or will be conducting an independent environmental review of the proposed Project as part of their respective evaluations of the IPC applications for Project permits. The BLM and USFS will be preparing a joint Environmental Impact Statement (EIS) under the National Environmental Policy Act of 1969 (NEPA) to document the environmental review of the Project. In addition, the Bonneville Power Administration (BPA) will be providing some of the funding for the Project. The Project is also subject to Section 106 of the National Historic Preservation Act (NHPA) (16 United States Code [USC] 470) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800).

IPC will submit an Application for Site Certificate (ASC) for the Project to the Oregon Department of Energy (ODOE) through the state's Energy Facility Siting Council (EFSC). To receive a Site Certificate, the Project must satisfy the regulatory requirements contained in the Oregon Administrative Rules (OAR) 345-021-0010(s) [Contents of An Application, Exhibit S] and OAR 345-022-0090 [General Standards for Siting Facilities: Historic, Cultural and Archaeological].

IPC and its environmental consultant, Tetra Tech, are assisting the BLM and USFS and the cooperating federal and state agencies and tribes in meeting NEPA, NHPA, and EFSC requirements. Tetra Tech, on behalf of IPC, retained URS Corporation to conduct a Visual Effects on Historic Properties study according to the methods and standards required by Section 106 of the NHPA, the BLM, the BPA, the USFS, the Oregon and Idaho State Historic Preservation Offices (SHPOs), as well the Tribal Historic Preservation Officer (THPO) of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Tetra Tech may elect to engage other firms as necessary to complete this work.

The federal government, the State of Oregon, and other affected government agencies all require the proposed Project be adequately analyzed to determine environmental effects associated with the Project's implementation, including effects to historic properties and their visual settings.

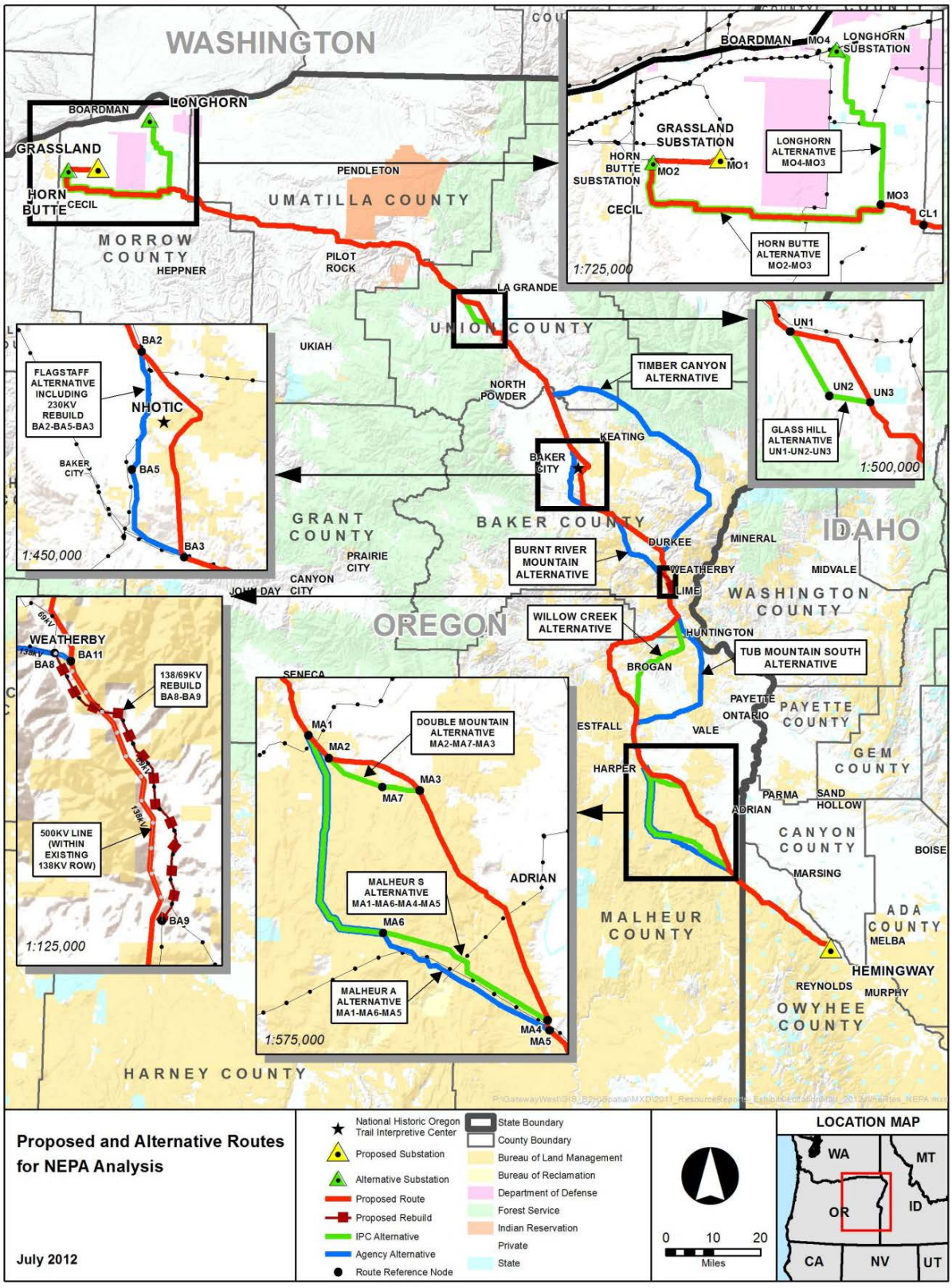

Figure 1-1. Proposed and Alternative Routes

The Project, including road construction (i.e., new roads in addition to widening and improving existing roads), staging areas, substations, and the installation of large overhead transmission towers and conductors, may directly or indirectly affect built environment historic properties (e.g., ranches, homesteads, or mines). The Project may also directly or indirectly affect National Historic Trails (NHT), NHT variants from the original trail, other historic trails, and associated resources (e.g., stage stations and/or grave sites). Many of the routes manifest the westward emigration that dominated the mid-nineteenth century, while other historic routes document the evolution of trails and variants to other forms of transportation, including wagon and automobile roads, from the late nineteenth through mid-twentieth centuries. While some historic trails have been recognized as a part of the National Historic Trail program by the National Park Service (NPS), other historic trails affected by the Project may also be classified as historic properties under the NRHP criteria. Trail segments that lack integrity will be considered non-contributing elements to the trail, and will not be subject to further study.

The Project may also directly or indirectly affect prehistoric sites eligible under criteria other than D only, as well as Traditional Cultural Properties (TCP) and properties of religious and cultural significance to tribes. Eligibility, effect, and treatment of these types of properties will be addressed through consultation between the BLM and the appropriate tribe or interested party.

1.2 Study Purpose

The purpose of this Visual Assessment of Historic Properties (VAHP) Study Plan is to outline the methods proposed to:

1) conduct a reconnaissance and intensive level inventory of the Area of Potential Effects (APE) of above ground resources inclusive of the proposed route and alternatives being evaluated for NEPA and EFSC;

2) identify NHTs, NHT variants from the original trail, other historic trails[1] and associated resources (e.g., stage stations and/or graves sites), other historic transportation related sites and features, TCPs, properties of religious and cultural significance to tribes, historic structures, canals and ditches, home- and ranchsteads, and historic structures;

3) evaluate the historic resources by applying the National Register of Historic Places Criteria for Evaluation;

4) conduct a visual assessment of historic properties, in addition to historic trails, identified during the historic resources inventory, and analyze potential Project effects.

The preliminary results of the study will be distributed to the BLM, BPA, USFS, tribes, and other consulting parties for consultation on eligibility and effect. The final results of this study will be documented as a report submitted to the BLM and USFS to assist in the preparation of the NEPA EIS and Section 106 of the NHPA compliance documents. The report will also be filed as a part of Exhibit S of the ASC to satisfy the regulatory requirements of the ODOE. Recommendations from this study will contribute to the development of the Historic Properties Management Plan (HPMP). This Plan is being developed pursuant to the Section 106 Programmatic Agreement (PA) for the Project which will include measures to avoid, minimize, or resolve adverse effects to historic properties identified and evaluated in the VAHP study.

[1] "Other historic trails" may include trails that are designated at the state level and that are administered by the Oregon Historic Trails Advisory Council (OHTAC).

The VAHP study is part of a series of studies to consider the Project's impacts to various types of historic properties and/or visual resources that may also have cultural values, recreational values, and archaeological and historical significance. The study, therefore, is designed to be coordinated with, and complementary to these other studies including:

- Literature Review
- Visual Resources Assessment Study
- Archaeological Survey Plan
- Ethnographic Studies

It should be noted that this study does not identify or evaluate archaeological sites, but will identify those previously recorded sites (either by this project or during previous investigations) that have the potential to be visually affected by the Project and that are eligible under National Register criteria other than or in addition to Criterion D. These resources include, but are not limited to rock cairns, petroglyphs, stone circles, and other historic properties of religious and cultural significance. Due to the sensitive nature of these sites, it is anticipated that the BLM and USFS will undertake tribal consultation to identify and evaluate these resources, and assess potential impacts to these resources.

2.0 REGULATORY BACKGROUND

2.1 State Requirements

It is anticipated that IPC will submit an ASC for the Project to the Oregon Department of Energy (ODOE) through the state's EFSC. To receive a Site Certificate, the Project must satisfy the regulatory requirements contained in OAR 345-021-0010(s) [Contents of An Application, Exhibit S] and OAR 345-022-0090 [General Standards for Siting Facilities: Historic, Cultural and Archaeological]. EFSC relies on the Oregon SHPO as the state reviewing agency to assist EFSC with determining whether standards under OAR 345-022-0090 are met. The Project could affect historic, cultural and archaeological resources within the Project area; therefore, the Project's EIS and the EFSC ASC must include an assessment of the potential impacts.

It is also anticipated that the state and federal regulatory processes will be coordinated between the applicable federal and state agencies. The BLM and USFS are developing a PA with the Oregon and Idaho SHPOs, CTUIR THPO, BPA, the Advisory Council on Historic Preservation (ACHP) in addition to other consulting parties to allow the Project to move forward under the NEPA and NHPA processes. ODOE–EFSC is also an invited signatory to this agreement.

2.2 Federal Requirements

The BLM is the designated lead federal agency for the Project under NEPA and for compliance with Section 106 of the NHPA and will coordinate the preparation of an EIS for the Project. Tetra Tech will prepare a VAHP report for the BLM that will analyze the potential for the project to impact historic properties and NHTs and to provide supporting documentation to comply with NEPA, Section 106 of the NHPA, and Oregon EFSC.

The Section 106 process stipulates that the responsible lead federal agency, in this case the BLM, establishes the undertaking (permitting of the Project), identifies consulting parties, identifies historic properties, and assesses Project effects on those historic properties. Section 106 requires the BLM to consider the effect the Project might have on historic properties before approving the Project and granting a ROW or special-use permit. Historic properties are defined at 36 CFR 800.16(l)(1) as "any prehistoric or historic district, site, building, structure, or object

included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior." The BLM develops appropriate measures to resolve adverse effects to those historic properties in consultation with the Oregon and Idaho SHPOs, CTUIR THPO, the ACHP, the BPA, the USFS, American Indian tribes, IPC, and other consulting parties. When completed, the NHPA process will provide mitigation measures applicable to the route and associated facilities, such as access roads and staging areas. A PA is currently in preparation. Once the PA is signed by the applicable signatory parties, the Section 106 process, with the stipulated consultation requirements, resource identification efforts, and any mitigation measures contained or anticipated in the agreement, would be implemented.

In accordance with the National Trails System Act of 1968 (Public Law 90-543, as amended 2009), the BLM and NPS have developed management plans to identify and protect the NHTs and associated sites and resources (BLM 1986a; NPS 1998). It is the responsibility of the BLM to protect and interpret trail resources under its jurisdiction (BLM 1986a). Implementing these responsibilities includes, but is not limited to, regular monitoring of the resource, keeping the NPS informed, defining boundaries, erecting and maintaining trail markers, providing and maintaining facilities, issuing and enforcing regulations, maintaining the scenic/historic integrity, avoiding the destruction of segments, and mitigating unavoidable effects (BLM 1986a).

2.2.1 Criteria for Evaluating Historic Properties

In order to be eligible for or listed in the NRHP, a resource must maintain integrity and be judged significant under one or more of the four National Register Criteria. More specifically, and as noted in 36 CFR 60.4, the resource must

1) possess integrity of location, design, setting, materials, workmanship, feeling, and association: and
2) possess at least one of the following National Register Criteria which includes:
    A) an association with events that have made a significant contribution to the broad patterns of our history; or
    B) an association with the lives of persons significant in our past; or
    C) embodying the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
    D) that have yielded or may be likely to yield, information important in history or prehistory.

Additional criteria considerations may also apply in special instances to properties that have been moved, religious properties, cemeteries, individual graves or birthplaces, reconstructed or commemorative properties, and properties that have achieved significance within the past 50 years. Due to the Project's extended construction timeframes all previously recorded resources that are 50 years old, or will have achieved 50 years of age at the time of the completion of the construction, will be assessed for their eligibility to the NRHP.

All resources may be eligible under any one or more of these criteria. For example, a historic building that has sufficient integrity to convey its historic associations may be eligible under Criterion B for its association with a significant person and Criterion C as an excellent example of a particular style of architecture. Guidelines for applying the criteria are provided in *How to Apply the National Register Criteria for Evaluation, Bulletin 15* (NPS 1997a) and *Guidelines for Evaluating and Registering Archeological Properties*, *National Register Bulletin 36* (NPS 2000).

During implementation of the VAHP study, archaeological resources, commonly determined eligible solely under Criterion D for their data potential, will not be evaluated.

2.2.2 Assessing Project Effects

For those properties that are determined as eligible, federal agencies are required to apply the "criteria of adverse effect" to determine whether the project will affect historic properties (36 CFR 800.5). Adverse effects are found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects that are caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5(1)).

This Project differs from some other types of projects as it introduces conspicuous features (e.g. transmission line towers) on the landscape that can indirectly affect certain elements of a historic property's integrity such as setting, feeling, and association. This study plan provides the methodology by which these indirect effects to historic properties will be analyzed.

3.0 HISTORIC CONTEXT

This chapter provides a brief overview to an approach for developing the applicable historic contexts for the Project APEs. A historic context typically consists of prevailing historic themes and chronological periods of development within a given geographic area to assist in understanding cultural resources within the APEs (see section 4.1) of the Proposed Project and Alternatives. When the VAHP Study is prepared, the historic context will use the identified historic resources in addition to published ethnographic data, historic documents, previously recorded oral histories, and secondary sources to develop a more complete history of the resources within the Project APEs.

In order to assess the significance of a historic property and formally evaluate it for listing in the NRHP, a historic context must first be established to demonstrate how a particular resource relates to a local or regional history. The historic context will focus on American Indian and European American land use within the vicinity of the Project APEs. Although the majority of built environment resources are likely to date to the twentieth century, a few mid to late-nineteenth century resources, such as farms and ranches, the Oregon Trail, and the route of the forced march of the Shoshone-Paiute Tribes to Fort Simcoe, do exist within the APEs. The historic context reaches farther back than the dates of anticipated resources to provide information on trends and themes that influenced development patterns found today. It should be noted that this research, for the purposes of the study plan, will be organized by geographic area and then topically subdivided into chronological period and then historical theme consistent with the NPS approach to historic contexts (NPS 1997a; NPS 1997b).

3.1 Anticipated Historic Properties

3.1.1 Historic Period Themes, Ethnohistoric Occupation, and Associated Resource Types

From the period of early historic contact through the 1960s, the landscape in the vicinity of the Project has been shaped by a number of broad historic themes. These themes include, but are not limited to; American Indian land use, early historic contact between American Indian tribes and Euro-American settlers, the fur trade, tribal and Euro-American relations, trails and

transportation, community growth and town building, rural electrification, railroads and highways, mining, agriculture and timber, homesteading, ranching, and irrigation.

In addition to these broad historic themes, the Project crosses an area that is layered with a number of cultural and ethnic patterns of occupation. The Project, for instance, crosses the aboriginal and ethnohistoric ranges of the Northern Paiute, Bannock, Nez Perce, Cayuse, Umatilla, Shoshone, and Walla Walla people. Also, the Project occurs in an area that retains important cultural associations with Basque, Chinese, and Latino settlers and workers. All of these groups, in addition to Euro-American settlers, have shaped the historic landscape and will be discussed in the historic context.

Resources constructed during the nineteenth and twentieth centuries and associated with the aforementioned themes are listed in Table 3-1. This table is *not inclusive* of all resources that may be encountered during the survey but provide preliminary indication of resource types in the Project APEs.

Table 3-1. Historic Themes and Anticipated Resource Types

Theme	Resource Category	Resource Type
Agriculture: Ranching, Farming, and Forest Management	Homesteads and Ranches, (Agricultural Uses)	Barns, granaries, poultry houses, root cellars, cool houses, stock sheds, water towers, smokehouses, chicken coops, irrigation networks and canals, historic rock alignments/sheep fences, cisterns, wells, corrals, dendroglyphs, cairns, stock driveways, and line shacks.
	Homesteads and Ranches (Domestic Uses)	Residences (Rural Gothic, Queen Anne, Colonial Revival, Bungalow, English Cottage, Craftsman, vernacular), migrant houses and camps, sheepherder cabins
	Forest Management	Ranger's Station/Cabins, Warehouses, Recreational Cabins, bunkhouses, Civilian Conservation Corps (CCC) era resources, fire lookouts, and communication sites
Trails and Transportation	Road Networks	culverts, bridges, viaducts, retaining walls, road cuts, right-of-ways, CCC-era buildings and features, road projects, and diversion canals,.
	Trail Networks	Trails, stagecoach stations
	Railroads	Culverts, bridges, viaducts, embankments, railbeds, stations, and construction camps
	Aviation	Airports--runways, taxiways, hangars, control towers, warm up pads. Airways—beacons, radio ranges
Industry and Commerce	Mining	Adits, ditches, open pits, headframes, tailings, assay, generator house, power plant, rock cairns, tailings, mills, and camps
	Manufacturing	Concrete plant, hydroelectric plant, electrical transmission/distribution lines
	Commercial hubs	Stores, warehouses, hotels, stables, gas stations
	Timber	Sawmills, water impoundments, log flumes, camps, and springboard stumps

Theme	Resource Category	Resource Type
Ethnohistoric Resources	Assorted	TCPs, cambium peeled trees, Basque/Greek sheepherder cabins and camps, dendroglyphs, tribal allotment homesteads, Chinese sites, work camps
Theme	**Resource Category**	**Resource Type**
Settlement and Community	Cities, towns and crossroads communities	Houses, residential subdivision, grid plan town, schools, courthouse, jail, churches, office buildings
Prehistoric Resources	Assorted	Petroglyphs, rock circles, cairns, prehistoric trails

3.1.2 Multi-Component Resources with Important Visual Contexts

It is anticipated that some historic properties that have been previously recorded as archaeological resources may maintain characteristics that also make them eligible under National Register Criteria A, B, and/or C. With many of these properties containing multiple occupations or uses through time, historic contexts will play a critical role in identifying and assessing the importance of each component.

It is also anticipated that these resources may have visual settings that contribute to their overall significance. Resources such as rock cairns, rock circles, and petroglyphs, for instance, often occur in areas where their physical context or setting is an important character-defining feature. The historic (or prehistoric) context surrounding these resources, however, is often known only to Tribes with associations to the area. Tribal consultation by the BLM and other federal agencies for this project will play a role in developing a better understanding of the contexts (physical, cultural, and historical) behind these resources. Ethnographic and traditional use studies conducted by/for the applicable tribes would also assist in developing the context for these resources.

4.0 METHODS

4.1 Area of Potential Effects and Project Setting

In consultation with the other agencies and consulting parties and through the PA, the BLM has established an APE for indirect visual effects as five miles or to the visual horizon, whichever is closer, on either side of the centerline of the proposed alignment and alternative routes. In rare instances, the indirect visual effects APE may extend beyond the file-mile convention to encompass properties that have visually sensitive resources. For the purposes of this Project, indirect effects include, but are not limited to, effects that change the characteristics that make the property eligible for inclusion in the National Register, as well as the introduction of visual, atmospheric, or audible elements that alter any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the property's integrity. This study is, however, specifically directed towards visual effects. Other indirect effects outside of visual will be analyzed through the Project's Draft Environmental Impact Statement or evaluated through Section 106 consultation. Those aspects of integrity that are most likely to be indirectly affected by visual effects include setting, feeling, and association. The Project's potential to contribute to cumulative effects will also be analyzed consistent with 36 CFR 800.5(1). In several areas, for instance, the Project will be placed immediately beside existing transmission lines and may affect historic properties in a cumulative manner. The instances in which this occurs are listed in Table 4-1.

Table 4-1. Existing Transmission Line Corridors Within the APEs

Route/Alternative Name	Approximate MP Range	County	Existing Transmission Line Voltage
Proposed Route	0-6.5	Morrow County	500kV
Proposed Route	96.4-98.9	Union County	230kV
Proposed Route	103.0-111.6	Union County	230kV
Proposed Route	124.0-125.8	Union County	230kV
Proposed Route	128.0-150.0	Union County/Baker County	230kV
Flagstaff Alternative (and 230kV Rebuild)	0-5.0	Baker County	230kV
Flagstaff Alternative	7.5-11.0	Baker County	230kV
Flagstaff Alternative	11.0-14.4	Baker County	138kV
Proposed Route	162.2-164.9	Baker County	69kV/138kV Corridor
Proposed Route	164.9-167.5	Baker County	138kV
Proposed Route	170.0-173.7	Baker County	138kV
Proposed Route and DC Rebuild	187.0-191.1	Baker County	69kV/138kV Corridor
Proposed Route	191.1-197.0	Baker County	138kV
Malheur A Alternative	20.0-33.2	Malheur County	500kV
Malheur S Alternative	25.9-33.6	Malheur County	500kV
Proposed Route	271.6-280.0	Malheur County/Owyhee County	500kV
Proposed Route	283.0-299.7	Owyhee County	500kV

The APE for indirect effects includes approximately 3,400 square miles located in Umatilla, Union, Baker, Morrow, and Malheur Counties of Oregon and Owyhee County in Idaho. The APE consists of terrain with varying degrees of visibility, vegetation density, and accessibility and contains large parcels of private, state, tribal, and federal land. Some of the Proposed Corridor is collocated with existing transmission lines and near the major transportation corridor of Interstate 84. It will also cross near the National Historic Oregon Trail Interpretive Center. The APE is relatively undeveloped and there are few population centers. Communities within or near the indirect APE include Adrian, Boardman, Pilot Rock, La Grande, North Powder, Baker City, Vale, Willowcreek, Brogan, and Ontario, Oregon as well as Marsing, Idaho. While none of the Project's proposed or alternative routes go through the Umatilla Indian Reservation (UIR), the Project's indirect APE will include portions of the UIR. In addition to being consulted on resources of importance to the tribe off the reservation, the CTUIR THPO will be consulted on any resources identified on the Reservation that have the potential to be indirectly affected by the Project. A permit will be secured from the tribe to access to the Reservation.

Geographic Information System (GIS) "bare earth" modeling will be used to assess areas that will not be visually affected by Project elements. This modeling consists of establishing Project heights and using ground elevation data to determine whether an area would have views of the Project or whether intervening landforms would block views. This analysis will be completed as part of the visual resources analysis prepared for the overall Project. These areas will be mapped and used during the field survey to verify that resources situated within these zones would not be visually affected by the Project.

Other mapping overlays will be used from the Visual Resources Assessment to identify areas that have been previously inventoried for visual/aesthetic qualities. Particular attention will be

paid to places that included visible cultural resources (historic barns, hay derricks, fence lines, canals, etc.) that complement the scenic quality of that particular area. These mapping overlays will assist field crews to better anticipate and assess the integrity of a resource's setting and ensure consistency between the visual and historic property studies.

4.2 Pre-Field Research Methods

A literature review was conducted for this Project to identify potential historic properties within the Project direct APE. Consistent with BLM Manual 8110 (BLM 2004) and 36 CFR 800.4(2), a literature review consists of a reasonable compilation of existing information assembled from a review of previously recorded historic resources and any associated studies. For this Project, information was retrieved from the Oregon Historic Sites Database (OHSD), Oregon SHPO archaeological records, Idaho Historic Sites Inventory (IHSI), Archaeological Survey of Idaho (ASI), BLM and USFS site files (including the Oregon Heritage Information Management System), CTUIR site database, and available historical and ethnographic literature. The study area for the literature review was two miles wide on either side of the centerline of the proposed and alternative routes. This APE was established to aid route-siting efforts, to accommodate shifts in the proposed route, and to cover areas where access roads, substations, and other construction or operation facilities may occur outside the 500-foot-wide intensive survey corridor (direct effect APE).

Due to the scale of the Project and the relatively rural setting for much of the corridor, the identification efforts for the indirect visual APE, which is out to five miles on either side of the Project centerline, will consist of a reconnaissance level survey (RLS) (known in Oregon as a selective RLS) and an intensive level survey (ILS) of resources that:

- have been previously identified through historic resource investigations and that appear in the OHSD, IHSI, or ASI;
- are listed on the NRHP;
- are participants in the Oregon and Idaho Century Farms and Ranches Program;
- appear in State and local registers and landmarks lists;
- are considered by the county as a Statewide Planning Goal 5 Resource (Oregon only);
- have been identified by federal or state agencies;
- have been identified by consulting parties, tribes, local historical societies or private individuals as potentially important historical resources that warrant identification and evaluation;
- are on General Land Office (GLO) plat maps or Ogle and Metsker maps dating to before 1965; and
- Current published and unpublished literature, emigrant diaries, journals, letters, newspaper accounts, Army topographical engineer maps describing trails, older USGS topographic maps and folios, published trail descriptions, chronologies, cultural and historical contexts, ethnographic reports, and information provided by the BLM, USFS, local counties, and National Park Service (NPS) National Trails Office (e.g., historic survey records, maps, etc.).

Research on NHTs and associated resources, such as camps sites, glyphs, and graves, will begin with a review of GLO maps to identify additional trails and establish a record of the historic route of each trail (BLM 2011a). The site records for each resource will also be reviewed to determine the extent of the resource, recording history, and current NRHP status. A summary

of this information, spatially organized west to east, will be included in the overview sections for each trail resource in the Project APEs.

A variety of digital data sources will be used to spatially assemble the network of trails within the Project APEs. These data sources include NPS and BLM shapefiles, as well as digitized trail information from the Idaho Chapter of the Oregon-California Trails Association (OCTA) (Eichhorst 2010) and the Northwest Chapter of OCTA, in addition to trail resources identified in *Emigrant Trails of Southern Idaho* (Hutchison and Jones 1993), and from *Powerful Rockey: The Blue Mountains and the Oregon Trail* (Evans 1991). The Oregon Historic Trails Advisory Council (OHTAC) would also be consulted to identify potential historic trail locations in Oregon. Collectively, these data sources will be used to produce a list of legal locations (township, range, and quarter-quarter section) for each trail resource, inclusive of primary routes, alternates, and cut-offs. The pre-field research combined with the digital data effort will assist with cross referencing historic accounts, mapping, and documentary evidence of historic trail(s) locations.

4.3 Standards for Conducting Fieldwork

The field methods to be employed for the VAHP will be consistent with the Secretary of the Interior's *Standards for Archaeology and Historic Preservation* (NPS 1983, as amended) in addition to the *Oregon SHPO Guidelines for Historic Resource Surveys in Oregon* (OPRD2011), *How to Apply the National Register Criteria for Evaluation* (NPS 1997a), *How to Complete the National Register Registration Form* (NPS 1997b), *Guidelines for Evaluating and Documenting Rural Historic Landscapes (NPS 1999)*, *Guidelines for Local Surveys: A Basis for Preservation Planning* (NPS 1985), and other applicable state and federal standards, guidelines, and white papers that may be consulted as field efforts proceed. These documents may include, but not be limited to *Guidelines for Historic Resources Surveys in Oregon* (OPRD 2011) and Idaho's *Architectural and Historic Sites Survey and Inventory* or *Guidelines for Documenting Archaeological and Historical Inventories*, as appropriate (ISHPO 2011). The level of effort for fieldwork to identify historic properties will be consistent with 36 CFR 800.4(b)(1) as well as "Meeting the "Reasonable and Good Faith" Identification Standard in Section 106 Review" (ACHP 2011). In addition to taking into account the previously discussed background research and consultation, the field survey methodology also considers the magnitude and nature of the Project and the nature and extent of potential Project effects on historic properties. An architectural historian and/or an archaeologist (as appropriate) that meets the Secretary of Interior's Standards and Guidelines (36 CFR 61) will supervise each crew (each crew will have two staff members) that conducts the field survey. Field staff will have an established familiarity with the OHSD as well as the IHSI, methodologies explained in the most recent survey guidance published by the Oregon and Idaho SHPOs, as well as the methods explained in this Study Plan. Field crew members will have experience in history, architectural history, archaeology, and/or the role of landscape in the significance of historic resources. Having multi-disciplinary field teams will be particularly beneficial when assessing the integrity of a multi-component resource's setting and how setting contributes to the significance of that resource.

4.4 Field Survey Methods

4.4.1 Reconnaissance Level Survey (RLS)

A RLS is designed to be a "first look" at a broad group of historic resources and records basic information. Fieldwork for the RLS will be conducted by teams of two field crew members, who will drive publicly accessible rights-of-way and record resources in a systematic manner. For those resources inventoried in the APEs, specific information will be collected, at least two or

more photographs taken, and each resource noted on a field map with latitude, longitude, and UTM coordinates recorded. The information collected in the field will include the address, historic name, original use (when readily evident), preliminary eligibility recommendations, construction date, materials, style, plan type, and number of contributing and non-contributing resources, and any additional location information, as well as comments that make note of any loss of historic integrity. Data collected in the field will be entered into the appropriate OHSD, IHSI, or ASI forms. While there are some differences in the types of data needed to complete respective data entry into the OHSD, IHSI, or ASI forms, field crews will ensure that the appropriate information is collected in the field and entered into the appropriate database. The data collected and entered into the database will be consistent with the respective state's requirements for conducting built environment and archaeological surveys.

For a resource identified during the RLS that retains integrity (including integrity of the setting), is 45 years old or older[2], may be eligible under any of the NRHP criteria for evaluation, and that has the potential to be indirectly affected by the Project, the resource[3] will be subject to additional analysis so that NRHP eligibility can be ascertained during the ILS. Prior to the finalization of the RLS, the preliminary results of the survey will be shared with the BLM, BPA, USFS, appropriate SHPOs/THPO, and consulting parties as an interim summary report so that the relative effectiveness of the methodologies can be gauged and adjusted.

4.4.2 Intensive Level Survey (ILS)

The ILS is a detailed look at each individual resource, and records in-depth information collected from a physical examination of the resource and includes research about the resource's property and ownership history. It identifies the resource's potential eligibility for the NRHP, either individually or as a contributing resource to a historic or archaeological district. Field crews conducting the ILS will record information about each resource that is consistent with the survey guidelines of Oregon and Idaho. This will include sufficient photographs to record the characteristics that potentially make the resource eligible for the NRHP. A site plan that records the physical layout of the property and its relationship to the Project also will be prepared.

To complement this more intensive field recordation, additional research will be undertaken to better understand the resource's history. This will include SHPO/USFS/BLM files, historic maps (such as GLO, Metsker's, and Sanborn Fire Insurance maps), newspapers, and other applicable resources such as census records, genealogical records, biographical encyclopedias, city directories, oral histories, family histories, or tribal consultation. The ILS also will contain a list of literature cited that will include any primary and secondary sources consulted for the specific history of the resource as well as the resource's historic context. After taking into account the overall integrity and historical significance of the resource, a final recommendation concerning a resource's eligibility for the NRHP will be made. This information will be entered into the OHSD or onto IHSI.

Once the ILS is completed, an interim summary report with recommendations concerning the eligibility of resources for the NRHP will be forwarded to the BLM, SHPOs/THPO, and consulting parties for review. The SHPOs/THPO would then review the findings and either

[2] The 45 year criterion was chosen to take into account the effects that could be present during the full Project construction period.

[3] It should be noted that the RLS and ILS will be coordinated with the archaeological investigations to ensure that multi-component resources (see Section 3.1.2) are correctly identified and evaluated.

concur or not concur with the BLM's determinations of eligibility. Resources determined to be eligible for the NRHP would then be subject to an assessment of Project effects. If an adverse effect to a specific property is found, then mitigation or other treatment will completed under the terms of the Project Programmatic Agreement and associated Historic Properties Management Plan.

4.4.3 National Historic Trails and Associated Resources Survey

Historic trail segments within the APEs of the proposed route and alternatives will be identified and recorded during the RLS and ILS for the Project. A table will be created for each resource that includes the crossing location, a photo of the trail, the trail condition including the integrity of the setting, and the NRHP status. Each field crew will be equipped with a Trimble© GeoXH global positioning system (GPS) unit. These GPS units will be loaded with digital maps, allowing field crews to navigate to the proposed route and alternative centerlines and record the trail segment.

When potential trail locations and/or actual trails have been identified, the crew will define the class of trail consistent with the standards and examine the condition of the trail consistent with the OCTA classification and examine the setting and condition of the trail (see Table 4-3 Trail Classification Categories), and document the trail and any associated features or artifacts. These classification strategies will be dovetailed with an assessment of the trail's physical integrity, as well as the integrity of its setting, that will utilize the applicable National Register guidance as well as guidance published in recent BLM and NPS historic trails management plans (Management and Use Plan Update/Final Environmental Impact Statement Oregon National Historic Trail/Mormon Pioneer National Historic Trail, NPS 1999; BLM 2011b). Digital photographs will be taken of each trail, and photos facing each cardinal direction will be taken to document the current setting condition. Photos looking at and from along the path of the trail will be taken so that a proper assessment of the trail's setting can be conducted. Existing Oregon survey forms and Idaho ASI forms will be used to record historic trails. Addendum sheets may be used to include additional mapping and other trail data as needed.

The 5-part MET classification of trail categories for overland emigrant trails and roads is designed to assess the condition of trails at the time of mapping. These five categories are OCTA's standard classification for all emigrant trail mapping (OCTA 2002) and will be used to guide judgments concerning the historical integrity of historic trails. Trail condition and integrity will be classified and assessed using the terminology and classification system as defined in the OCTA publication Mapping Emigrant Trails (MET) (OCTA 2002). The system will be used for the NHTs and other historic trails. The terms and classifications are provided in Table 4-2 (Trail Terminology) and Table 4-3 (Trail Classification Categories). These classifications are one aspect of evaluation for NRHP eligibility and can aid in determining the level of integrity of trail segments, but do not replace NRHP significance assessments.

Table 4-2. Trail Terminology

Term	Description
Trace	A general term for any original trail segment.
Swale	A depression, but of deeper dimensions and with sloping sides.
Depression	A shallow dip in the surface, often very faint and difficult to see.
Rut	A deep depression without a center mound and with steep sides.
Erosion feature	A trace of any sort that has been deepened and altered by subsequent wind and/or water action; sides are often irregular.
Track	A visible trace caused by the compacting of surface or discoloration due to salt evaporation on alkali flats; little or no depression. Often seen as streaks across an alkali flat.

Term	Description
Two-track	Parallel wheel tracks separated by a center mound. Typically an unimproved ranch road currently used by motorized vehicles. Usually a Class 2 trail.
Scarring	An irregularly wide flat surface devoid of vegetation that no longer shows any wagon depressions or swales. Often seen trailing through sagebrush flats in an uneven pattern.
Improved road or secondary road	Bladed, graded, crowned, graveled, oiled, or blacktop roads usually having side berms, curbs, or gutters.

Source: OCTA 2002.

Table 4-3. Trail Classification Categories

Term	Type	Description
Class 1	Unaltered Original Trail	The trail route remains representative of its original condition, not having been used by motor vehicles or altered by road improvements. There is clear physical evidence of the original trail in the form of depressions, ruts, swales, or tracks, some of which may be eroded and/or visible only intermittently.
Class 2	Used Original Trail	The trail route retains its original character although it has been used by motor vehicles. The road has not been bladed, graded, crowned, or otherwise improved and typically remains as a two-track road traversing the original wagon trail. In some forested areas, the trail may have been used for logging but still retains its original character.
Class 3	Verified Original Trail	The trail route is accurately located and verified from written, cartographic, artifact, wagon ruts, evidence of wheel impact such as grooves, polish or rust on rocks, and/or topographic evidence, but due to subsequent weathering, erosion, or development (e.g., paved roads, agricultural use, logging, etc.), physical remains of the trail will be non-existent or insignificant. Typically, this would include trails that once traversed through forests or meadows, across excessively hard surfaces or bedrock, over alkali flats, through soft or sandy soils, alongside streams or rivers, on ridge, or through ravines.
Class 4	Impacted Original Trail	The trail route is located and verified accurately, but the trail has permanently lost its original physical and environmental integrity due to the impact of development. Most often, this impact takes the form of light-duty or secondary roads overlaying the trail (bladed, graded, crowned, graveled, oiled, or blacktop roads). In other cases, residential, industrial, pipeline, agricultural, or recreational development have altered or destroyed the trail remains and its natural environment, though the trail location is still known.
Class 5	Approximate Original Trail	The trail route is no longer verifiable or accurately located. In some cases, there is not enough historical or topographic evidence by which to accurately locate the trail. In many cases, it has been destroyed entirely by highway, urban, agricultural, industrial, or utility corridor development. In other cases, it has been submerged under reservoirs or raised lakes. Thus only the approximate route is known.

Source: OCTA 2002.

4.5 Analysis of Indirect Visual Effects to Historic Properties and Trails

The ultimate goal of this analysis will be to identify those indirect visual Project effects, in particular the indirect visual effects, that diminish the integrity and thus the characteristics that make the historic property eligible for the NRHP. While the Project may have indirect visual effects upon historic properties within the APEs, this analysis will help determine whether these effects are adverse. The Visual Assessment of Historic Properties (VAHP) analysis will be

conducted in the field after resources have been determined eligible for the National Register. To provide recommendations on Project visual effects to the BLM, the visual effects analysis will utilize the VAHP Form (Appendix A) which consists of four different parts. This includes:

1) types of indirect visual effects on historic property;
2) integrity of historic property;
3) viewshed and setting; and
4) distance, contrast, obstruction, and fragmentation.

These four components of the analysis will include information observed during fieldwork in addition to GIS viewshed modeling. The modeling will help understand the geographic extent of Project visibility from the historic property. Project visual simulations will also be used to estimate the placement of Project elements and its impact upon the setting.

4.5.1 Viewshed and Setting

For the purposes of this study, a *viewshed* is defined as the geographic area visible from a historic property that includes the spatial extent of potential views of the Project within the APEs. Individualized viewshed analyses will be conducted for those historic properties with views of the Project. The viewshed will estimate the extent of the Project's visibility through fieldwork and/or GIS modeling

The viewshed will be determined first by reviewing a GIS viewshed model that illustrates the geographic extent of Project visibility. For the purposes of this analysis, input parameters will include:

- Maximum tower heights are estimated for 500-kV towers to be 195 feet tall, 138/69-kV rebuild towers to be 100 feet tall, and 138-kV relocation towers to be 100 feet tall.
- Digital Elevation Modeling that illustrates the role topography plays in Project visibility.

If, after a review of the model, it is determined that the historic property would not be visually affected by the Project (i.e., would have no views of the Project), then a "no effect" (36 CFR 800.4(d)(1)) recommendation will be made for the specific historic property, and no additional information will be collected. Field visits to each historic property will confirm the veracity of the GIS model. For those historic properties with views of the Project, the VAHP form will be used to document the estimated extent of Project visibility from key contributing elements of the historic property.

The bare earth model viewshed will define the geographic area considered in the analysis of setting. This analysis will identify and map significant features of the landscape tied to the historic setting of the historic property, such as historic circulation patterns, land divisions, land uses, presence or absence of buildings and structures, current vegetation composition and patterns, and topography. This analysis will provide descriptive data on the settings of historic properties.

4.5.2 Integrity of Historic Properties and Trails

Due to the nature of the Project's indirect visual effects, only three of the seven aspects of integrity will be evaluated for each historic property during the visual assessment. These aspects include:

- setting – the physical environment of a historic property;

- feeling – a property's expression of the aesthetic or historic sense of a particular period of time; and
- association – the direct link between an important historic event or person and a historic property (NPS 1997a).

The constituent parts of the *setting* include aspects such as surrounding vegetation, topography, the presence of other forms of land use and manmade buildings, structures, or features. Field crews will record and attempt to ascertain whether these features within the larger setting were present during the property's period of significance and thus evaluate whether they collectively contribute to a Property's integrity of *feeling*. Field crews will record whether the historic property retains its integrity of *association* by assessing whether it is sufficiently intact to convey its links to important historic events or people (NPS 1997a).

For those properties whose integrity of setting, feeling, and association have already been significantly compromised or where those aspects of integrity do not contribute to the resource's significance, no additional information will be collected beyond the RLS stage and a "no effect" recommendation will be made consistent with 36 CFR 800.4(d)(1). It should also be noted that the integrity of historic trails will also be assessed using the MET classification categories noted in Table 4-3.

Additional consultation between the BLM and tribes or other interested parties will occur for the assessment of integrity of properties of religious and cultural significance or Traditional Cultural Properties.

4.5.3 Indirect Effect Criteria: Distance, Contrast, Obstruction, and Fragmentation

For the purposes of this visual assessment, there will be four indicators used to inform the effects assessment for historic properties. They include distance, contrast, obstruction, and fragmentation (BLM 1984, 1986b), and will be addressed on the VAHP form. *Distance* plays an important role in analyzing indirect visual effects upon the landscape that surround historic properties. Typically, as distance between the Project and the property increases, the perception of visual contrast of the Project with the surrounding landscape decreases. At greater distances, for example, atmospheric haze often makes colors become paler and reduces the strength of lines (BLM 1986b) (See also Figure 4-1). For the purpose of this analysis distance will be measured from visible Project elements to the historic property, and classified into the following distance zones: foreground (less than 2 miles), middleground (between 2 and 5 miles) and background (more than 5 miles) (See Table 4-4).

Table 4-4. VRM Distance Zones

Distance Zone	Distance Parameter
Foreground	Less than 2 miles
Middleground	Between 2 and 5 miles
Background	More than 5 miles

Distance plays an important role in determining Project visibility and thus the extent of Project contrast. C*ontrast* is linked to the degree to which the Project "stands out" amidst the landscape in which it exists either through line, form, color, reflectivity, texture, scale, or space. For transmission lines, for instance, a strong contrast can often occur when a transmission structure is "skylined"; where the transmission structure is easily recognized as rising above the surrounding topography and observable against the sky. Likewise, a strong contrast can also

result from clearing a linear swath through forested areas. A weak contrast would occur for Project features that are in the middle to background zones and set against a landscape of low hills that inhibit skylining and that obscure Project components. Observations made in the field will be guided by the following matrix in order to best characterize the Project's potential to contrast in a landscape that is visible from a historic property (See Table 4-5).

Table 4-5. Degree of Contrast

Degree of Contrast	Criteria
None	The Project element contrast is not visible or perceived.
Weak	The Project element contrast can be seen but does not attract attention.
Moderate	The Project element contrast begins to attract attention and begins to dominate the characteristic landscape.
Strong	The Project element contrast demands attention, will not be overlooked, and is dominant in the landscape.

While distance and contrast play a role in understanding the degree to which a Project affects a particular historic property, they do not entirely describe how the Project may affect the physical inter-relationships of the historic property with other historic properties in the surrounding landscape. For instance, the Project may obstruct the sightlines between the historic property and prominent natural or manmade features that are integral to the property's significance. *Obstruction*, therefore, is another important component of effect and will assist in identifying specific instances where the Project has the potential to interfere with landscape inter-relationships. Levels of obstruction will be estimated in the field by noting "obstruction", "partial obstruction", or "no obstruction" (See Table 4-6). In some instances simulations will be used to estimate the level of obstruction in addition to contrast, in order to give the Project engineers the opportunity to develop more sensitive Project siting options.

Table 4-6. Level of Obstruction

Level of Obstruction	Criteria
None	A visible Project element does not visually obstruct a landscape component and thus does not diminish the integrity of a historic property's setting, association, and/or feeling.
Partial Obstruction	The Project element partially obscures a landscape component that contributes to the property's overall significance and thus may diminish the integrity of a historic property's setting, association, and/or feeling.
Obstruction	The Project element noticeably obscures a landscape component that contributes to the property's overall significance and clearly diminishes the integrity of a historic property's setting, association, and/or feeling.

Field observations and simulations may also provide indications of how the Project interacts with open spaces present within a particular viewshed. Project components, for instance, may result in the *fragmentation* of open spaces that are character-defining features within a particular historic landscape by introducing new vertical or horizontal elements or by clearing linear strips of vegetation through forested areas. Fragmentation of open space will be gauged as "fragmentation of open space," "moderate fragmentation," and "little to no fragmentation" depending upon the Project's routing and interaction with open spaces.

Table 4-7. Level of Fragmentation

Degree of Contrast	Criteria
Little to no fragmentation	The Project element contrast is at most minimally visible from the historic property and does not subdivide open spaces that contribute to the integrity of a historic property.
Moderate fragmentation	The Project element is visible from the historic property and contributes to the fragmentation of open space, but the division is not complete due to intervening land forms and a moderate Project contrast with the surrounding landscape.
Fragmentation of Open Space	The Project element is plainly visible from the historic property and clearly fragments open space that is a character defining feature of the historic landscape that surrounds the historic property.

4.6 Level of Effects to Historic Properties and Trails

Although it is anticipated that the overall Project effect will have an adverse effect on historic properties, the purpose of this plan is to assess the visual effects to individual properties. This will be done to aid in the development of mitigation strategies and the HPMP. When taken together, the visual assessment of a historic property's setting, association, and feeling, the property's role in the larger landscape, and the propensity for the Project to diminish the characteristics that make that property eligible for the NRHP provides a rough basis for effect recommendations. So assuming that the resource retains its historic integrity, when Project features are in the background distance zone, exhibit little contrast to their surroundings, do not obstruct landscape inter-relationships and/or fragment open spaces, then a "no adverse effect" (36 CFR 800.5(b)) finding would be appropriate for the individual property. Whereas, a potential "adverse effect" (36 CFR 800.5(d)(2)) would occur for a property when the Project is in the foreground distance zone, presents a high contrast, obstructs views to important landscape elements, or fragments open space that contribute to a property's historic integrity.

Due to the complex interplay of a particular property's integrity and significance in addition to the range in effects that a property may be exposed to, the Project team will make every effort to identify similar situations to ensure consistency in the effect recommendations. To facilitate a qualitative approach and consistency, recommendations of no adverse effect and adverse effect will be based upon the information (including photographs) collected in the VAHP field form (Appendix A) in addition to the selective use of viewshed modeling and simulations particularly when a property may be adversely affected by a Project element.

Table 4-8. Level of Fragmentation

	Distance	Degree of Project Contrast	Level of Obstruction	Level of Fragmentation
Level of Integrity (Setting)				
High	Background	None or Weak	None	Little to None
	Middleground	Moderate or Strong	Partial or Full Obstruction	Moderate or Full Fragmentation

	Foreground	Moderate or Strong	Partial or Full Obstruction	Moderate or Full Fragmentation
Medium	Background	None, Weak, or Moderate	None, Partial Obstruction	Little to None, Moderate
	Middleground	Weak	Partial Obstruction	Moderate
	Foreground	Strong, Moderate	Obstruction	Fragmentation
Low	Background	None	None	Little to None
	Middleground	Weak, Moderate	Partial Obstruction	Moderate
	Foreground	Strong	Obstruction	Fragmentation

Shaded cells: Indicates that the level of Project impacts, when combined with other factors in the table, would diminish the integrity of the historic property's setting and thus adversely affect the characteristics that make the property eligible for the NRHP.

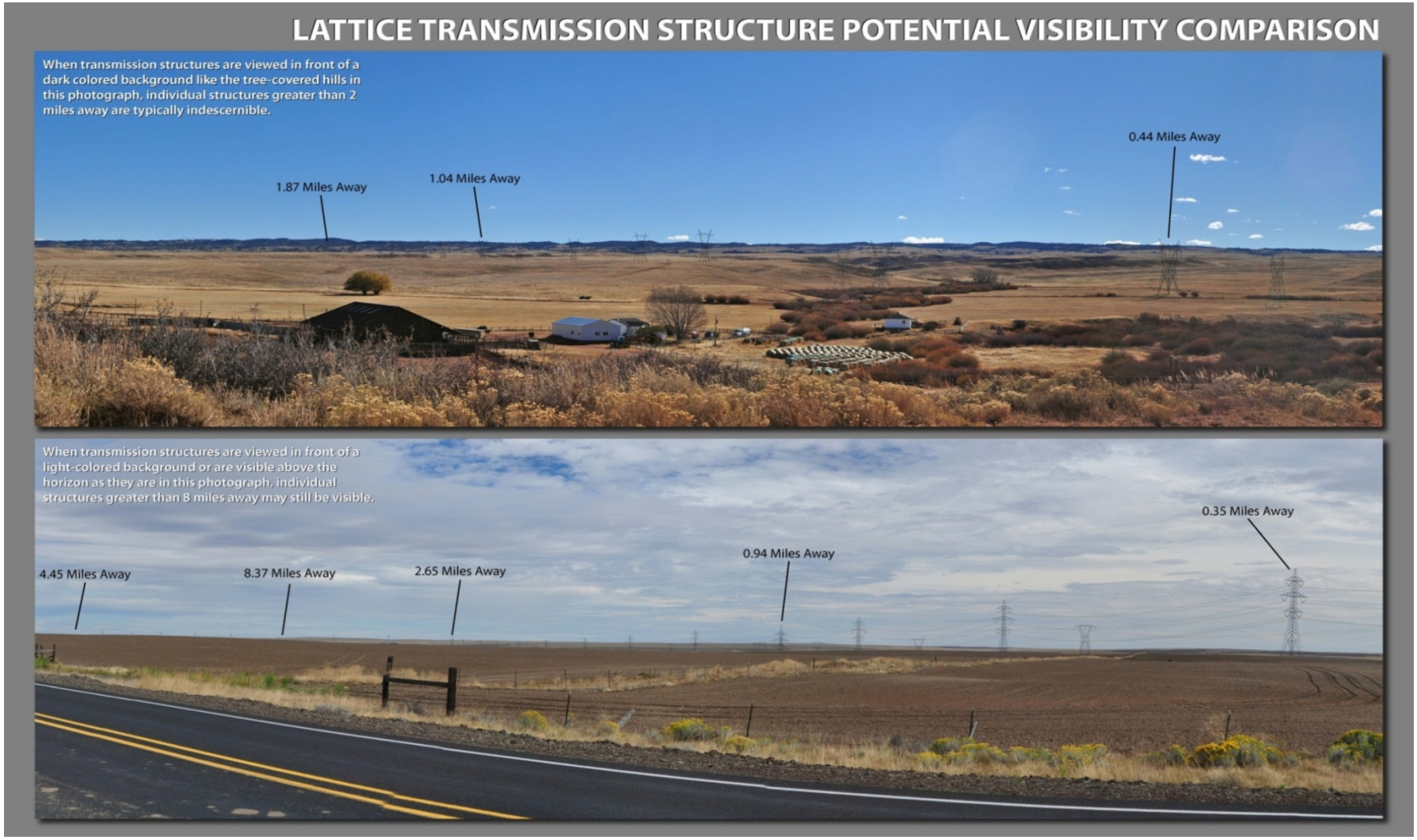

Figure 4-1. Lattice Transmission-Structure Potential-Visibility Comparison

5.0 DOCUMENTATION

5.1 Schedule

Over the course of this study, the components of this study will be reported through interim summaries (one each for the RLS and ILS) and a draft and final report. Table 5-1 provides the reporting and consultation phases.

Table 5-1. Project Reports and Consultation Phases

Phase	Report
1	Completion of RLS Interim Summary
1a	BLM/USFS review of RLS Interim Summary
1b	IPC/TT address comments
2	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on RLS Interim Summary
3	Completion of ILS Interim Summary and Effect Assessment
3a	BLM/USFS review of RLS Interim Summary
3b	IPC/TT address comments
4	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on ILS Interim Summary and Effect Assessment
5	Draft VAHP Report
5a	Completion of ILS Interim Summary and Effect Assessment
5b	BLM/USFS review of RLS Interim Summary
6	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on Draft VAHP Report
7	Final VAHP Report

5.2 Description of Study Deliverables

As noted in Table 5-1, each Interim Summary and the Draft VAHP Report will be made available by the BLM and USFS for an initial review and comment. After the initial comments are addressed, the revised draft will be distributed to the BPA, Tribes, SHPOs/THPO, and the consulting parties. At the conclusion of each review and comment period, the BLM and USFS will take into account the views of these parties and provide direction on subsequent study to be conducted.

The RLS Interim Summary will include summary data on the number of resources that were identified through the literature review and background research, the number of resources that were re-located and/or identified during the field investigation, and which resources will be carried forward for study into the ILS and effect analysis. The RLS Interim Summary will include location information, whether the resource potentially meets the NRHP Criteria for Evaluation, level of integrity, age, and a photograph. The intent of the summary is to provide the BLM, BPA, USFS, Tribes, SHPOs/THPO, and the consulting parties with information, including NRHP eligibility recommendations, about the resources encountered in the field and to obtain direction on moving forward with the next phase of study.

The ILS Interim Summary and Initial Effect Assessment will include brief paragraphs on the history of each resource that was studied at the intensive level in addition to the resource's level of integrity, and a recommendation of potential Project effects. Photographs and a map of each resource and its relationship to the Project will be provided. Representative viewshed mapping and Project simulations may also be included to illustrate the extent and nature of effects to historic properties during fieldwork. The intent of the summary is to provide the BLM, BPA,

USFS, Tribes, SHPOs/THPO, and the consulting parties with preliminary information about the integrity of resources and the potential extent of Project effects. The BLM and USFS will review the documents and distribute to other agencies, tribes, and consulting parties in accordance with the PA to determine the eligibility of resources for the NRHP and the effects upon historic properties.

Once the BLM and USFS have taken into account the views of the BPA, Tribes, SHPOs/THPO and consulting parties, a Draft VAHP Report will be prepared. The Report will include the full results of the RLS and ILS Interim Summaries and the Effect Assessment for compliance with Section 106 of the NHPA and to also satisfy the requirements of Oregon's EFSC. The Draft Report will at a minimum include the following:

- Literature review, Background Research, and Historic Context
- Regulatory Background
- Methods of Identification and Evaluation of Historic Properties and Effect Analysis
- RLS Results
- ILS Results and NRHP Eligibility Recommendations
- Visual Effect Assessment and Effect Recommendations
- Recommendations for Avoidance, Effect Minimization, and/or Resolution of Adverse Effects
- An appendix that includes VAHP field forms for all applicable properties

The completed Draft VAHP Report will be reviewed by the BLM and USFS prior to submission to the BPA, respective Tribes, SHPOs/THPO and consulting parties. Once the BLM and USFS has reviewed and approved the report, it will be submitted to the respective SHPOs/THPO for concurrence and to the Tribes and consulting parties for comment in accordance with the PA.

6.0 REFERENCES

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APPENDIX A
VISUAL ASSESSMENT OF HISTORIC PROPERTIES FORM

VISUAL ASSESSMENT OF HISTORIC PROPERTIES FORM
Boardman to Hemingway Project

Property Name and #: _____

Property Eligibility (NR Criteria A, B, C, or D): _____ Period(s) of Significance: _____

Date of Form: _____ Recorder: _____ Distance to Project: _____

TYPES OF EFFECT

View of Project? **Y / N** (if no, then no additional information is necessary: "No Historic Properties Affected")

Trans. Tower (# & type): ☐_____ Access road: ☐ Veg. clearing: ☐ Substation: ☐ Laydown/Staging: ☐

VIEWSHED & LANDSCAPE CONTEXT

Breadth of Viewshed from Historic Property Affected: **90° 180° 270° 360°**

Is property part of larger cultural landscape? Y/N

If "yes", then does the property contribute to the significance of that landscape or is the landscape part of the property's overall setting?

_____

_____

_____

In box to right sketch breadth of viewshed from historic property towards Project (note background and intervening topography, historic circulation patterns, land divisions, land uses, buildings and structures, and prevailing vegetation type and patterns, & prominent open spaces; include North arrow).

EXISTING INTEGRITY OF HISTORIC PROPERTY / TRAIL

Aspect of Historic Integrity	Existing Retention or Loss of Integrity
Setting – physical environment of a historic property	
Feeling – a property's expression of the aesthetic or historic sense of a particular period of time	
Association – the direct link between an important historic event or person and a historic property	

DRAFT

INDIRECT EFFECT CRITERIA: DISTANCE, CONTRAST, OBSTRUCTION, AND FRAGMENTATION

Distance to Project: **Foreground (< 2 mi.) _____ Middleground (2-5 mi.) _____ Background (> 5 mi.) _____**

Expected Degree of Project Contrast: **None Weak Moderate Strong**

Describe Project features and how they will contrast with landscape (line, form, color, texture, scale, or space):

Level of Obstruction: (Obstruction of views of important landscape components): **None Partial Obstruction Obstruction**

Describe Project features and how they obstruct landscape components that contribute to the property's integrity/significance:

Level of Fragmentation (Open Space): **Little to No Fragmentation Moderate Fragmentation Fragmentation of Open Space**

Describe how open space is/is not fragmented by Project elements:

Photograph

Include representative view of Project as seen from historic property. Include direction of view. If necessary, provide additional photos and/or simulations on addenda sheets.

Direction of view:

Date of photo:

Description:

LEVEL OF EFFECT

Effect Recommendation	Y/N
Adverse Effect 36 CFR 800.5(d)(2)	
No Adverse Effect 36 CFR 800.5(b)	

Adverse Effect An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

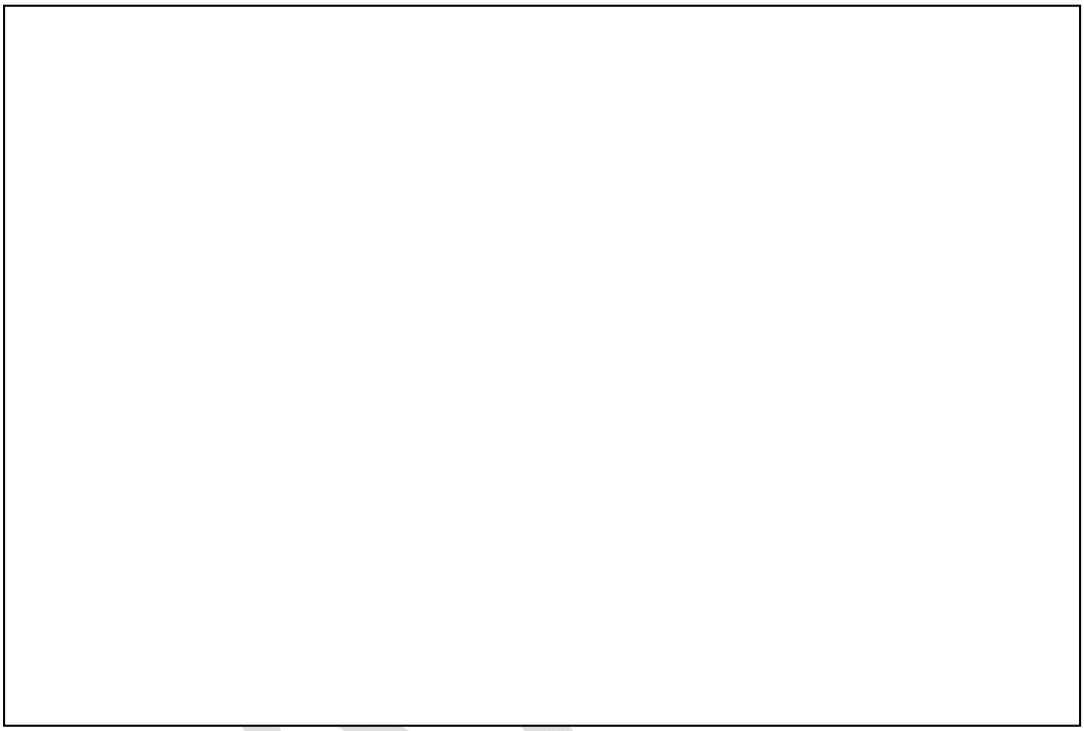
No Adverse Effect: The undertaking's effects do not meet the criteria of adverse effect (as found in 36 CFR 800.5(a)(1) or the undertaking is modified or conditions are imposed so that adverse effects are avoided.

Addenda Photograph Sheet

Direction of view:

Date of photo:

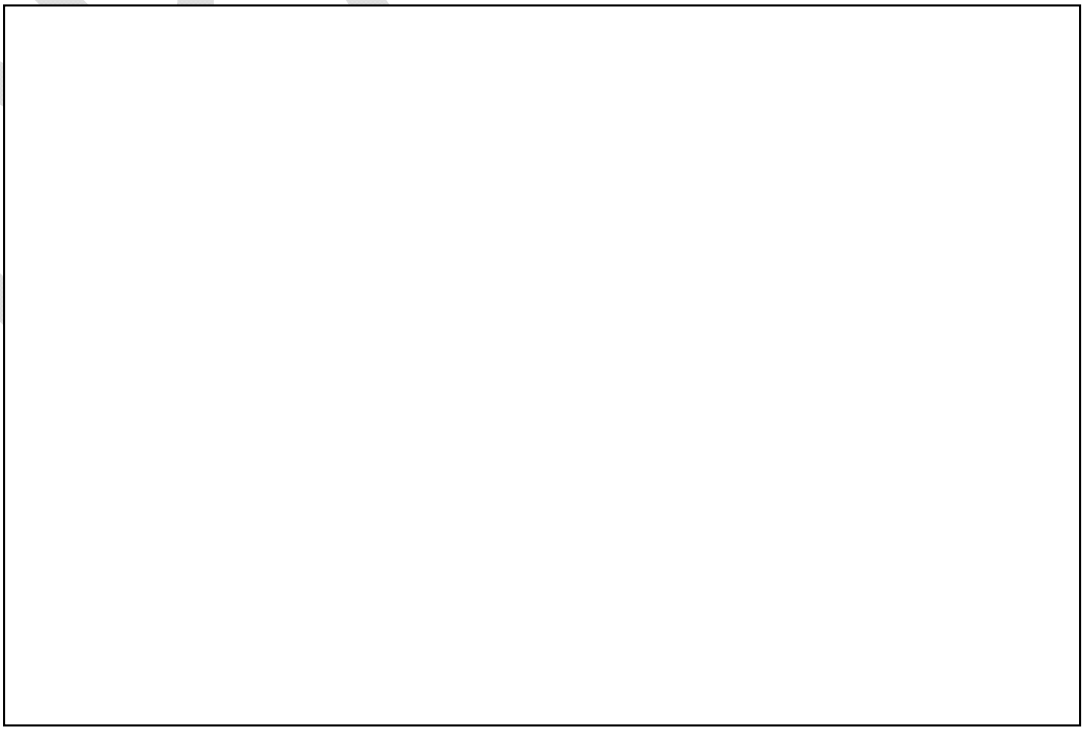
Description:



Direction of view:

Date of photo:

Description:



DRAFT

VISUAL ASSESSMENT OF HISTORIC PROPERTIES FORM
Boardman to Hemingway Project

Property Name and #: *Oregon Commercial Company Building, 40-50 Washington Street, Huntington, OR*

Property Eligibility (NR Criteria A, B, C, or D): *NR Listed (Criteria A&C)* Period(s) of Significance: *1891-1928*

Date of Form: *9-20-2012* Recorder: *Kirk Ranzetta* Distance to Project: *1.4 miles*

TYPES OF EFFECT

View of Project? **Y / N** (if no, then no additional information is necessary: "No Historic Properties Affected")

Trans. Tower (# & type): ☒ **Y** *7lattice towers* **Access road:** ☐ **Veg. clearing:** ☐ **Substation:** ☐ **Laydown/Staging:** ☐

VIEWSHED & LANDSCAPE CONTEXT

Breadth of Viewshed from Historic Property Affected: **45°**

Is property part of larger cultural landscape? N

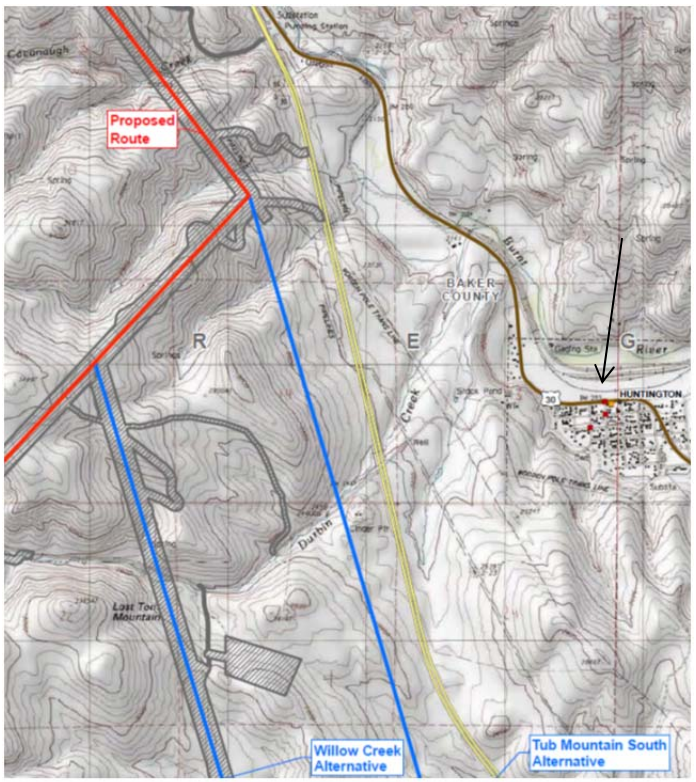
If "yes", then does the property contribute to the significance of that landscape or is the landscape part of the property's overall setting?

_____

_____

_____

In box to right sketch breadth of viewshed from historic property towards Project (note background and intervening topography, historic circulation patterns, land divisions, land uses, buildings and structures, and prevailing vegetation type and patterns, & prominent open spaces; include North arrow).



EXISTING INTEGRITY OF HISTORIC PROPERTY/TRAIL

Aspect of Historic Integrity	Existing Retention or Loss of Integrity
Setting – physical environment of a historic property	*The setting surrounding the Oregon Commercial Co. Building in Huntington consists of empty lots to the east and west, an alley way to the south, and a large railyard and series of foothills to the north (facing the primary elevation). Much of the commercial corridor in Huntington has been significantly modified over time with many neighboring buildings demolished. No fewer than two existing transmission lines, I-84, and three communication towers are situated on the slopes of the ridge to the east of the building and would appear in front of Project & Alternatives.*
Feeling – a property's expression of the aesthetic or historic sense of a particular period of time	*While the feeling of the property evokes the period in which it was built, the integrity of the commercial core of Huntington has been severely diminished by demolitions of neighboring buildings that effectively isolates the building.*
Association – the direct link between an important historic event or person and a historic property	*The building retains its integrity of association as it continues to be associated with the commercial development of Huntington.*

INDIRECT EFFECT CRITERIA: DISTANCE, CONTRAST, OBSTRUCTION, AND FRAGMENTATION

Distance to Project: **Foreground (< 2 mi.) ____X_____ Middleground (2-5 mi.) _____ Background (> 5 mi.) _____**

Expected Degree of Project Contrast: None **Weak** Moderate Strong
Describe Project features and how they will contrast with landscape (line, form, color, texture, scale, or space):

Transmission towers may be partially skylighted (approx. up to 20% of overall tower height) on the ridge to the northwest of the building and will introduce vertical manmade elements into the landscape. Two sets of transmission structures are currently present along or near the same ridgeline and include strong vertical components (3 cellular towers and two existing transmission lines). These structures would appear in front of the Proposed Route, Tub Mountain South Alternative, and Willow Creek Alternative. The project would present a contrast to the surrounding landscape but at a low level due to its partial and intermittent visibility. Existing street trees and buildings would reduce the prominence and visibility of the Project from the building.

Level of Obstruction: (Obstruction of views of important landscape components): **None** Partial Obstruction Obstruction
Describe Project features and how they obstruct landscape components that contribute to the property's integrity/significance:

The project would not obstruct landscape components that contribute to the property's integrity/significance.

Level of Fragmentation (Open Space): **Little to No Fragmentation** Moderate Fragmentation Fragmentation of Open Space
Describe how open space is/is not fragmented by Project elements:

No Fragmentation of open space would occur in the area between the building and the ridgeline where the project would occur.

Photograph

Include representative view of Project as seen from historic property. Include direction of view. If necessary, provide additional photos and/or simulations on addenda sheets.

Direction of view:
Looking West

Date of photo:
9-20-2012

Description:

View of Project area from Washington Street. Note Orientation of building towards railyard and limited visibility of ridge.



LEVEL OF EFFECT

Effect Recommendation	Y/N
Adverse Effect 36 CFR 800.5(d)(2)	**N**
No Adverse Effect 36 CFR 800.5(b)	**Y**

Adverse Effect An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

No Adverse Effect: The undertaking's effects do not meet the criteria of adverse effect (as found in 36 CFR 800.5(a)(1) or the undertaking is modified or conditions are imposed so that adverse effects are avoided.

Addenda Photograph Sheet

Direction of view: *Looking south*

Date of photo: *9-20-2012*

Description: *View of building building looking south. Project is situated behind hills that appear in the background. Note vacant lot to the east (left).*



Direction of view:

Date of photo:

Description:

DRAFT

ATTACHMENT S-3
CORRESPONDENCE WITH COMMISSION ON INDIAN SERVICES

April 4, 2012

Ms. Karen Quigley
Executive Director
Legislative Commission on Indian Services
167 State Capitol
Salem OR 97310

RE: Boardman to Hemingway Transmission Line Project
Application for Site Certificate, Exhibit S

Dear Ms. Quigley,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 305 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway Transmission Line project (B2H). The route currently being considered for B2H originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon. The purpose of the B2H project is to provide additional capacity and alleviate existing transmission constraints in order to meet both existing and forecasted load requirements as required by federal and state laws. IPC has selected the B2H project as a critical component of an overall resource portfolio that best balances cost, risk and environmental concern.

IPC is currently in the process of preparing an Application for Site Certificate (ASC) for the B2H project, which will be submitted to the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC). The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility.

As a part of the ASC for the B2H project, IPC would like to request a project specific list from the Legislative Commission on Indian Services (Commission), which identifies each appropriate tribe to consult with regarding the proposed facility's possible effects on Indian historic and cultural resources. IPC will include the response from the Commission and any resulting documentation with the identified tribes, as an attachment to Exhibit S (Historic, Cultural and Archaeological Resources), as evidence of consultation with Native American tribes, pursuant to Division 21 of Chapter 345 of the Oregon Administrative Rules.

IPC recognizes that this is a significant project for the region, and is committed to working closely with the Commission and with Native American tribes. IPC requests that the

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

Commission provide a written response to this letter at your earliest convenience, and provide a list of tribes with whom IPC should consult.

If you have questions about the B2H project or this request, please feel free to contact me at tadams@idahopower.com or (208) 388-2740.

Sincerely,



Todd Adams
B2H Project Manager
Idaho Power Company

Cc: Z Funkhouser, IPC
M Bracke, IPC
D Dockter, IPC

From: Quigley Karen M [karen.m.quigley@state.or.us]
Sent: Monday, June 11, 2012 11:51 AM
To: Funkhouser, Zach
Cc: OLIVER Sue
Subject: RE: Boardman to Hemingway Transmission Line Project

Hello Zach,

Sorry for the delay--I hope you got my message that I was out of state last week on vacation. Via this e-mail, please accept the following list of federally recognized tribal governments in Oregon that should be consulted for the B-2-H project for inclusion with your NOI:
Confederated Tribes of Umatilla
Confederated Tribes Of Warm Springs
Burns Paiute Tribe
As I did for the previous project you attached to this e-mail that I wrote in 2009, I suggest there may be some out-of-state tribal governments that may have information about a particular aspect of the project in addition to the federally recognized tribal governments in Oregon I have listed above: For example, The Yakama Indian Nation around the Boardman area as well as the Nez Perce of Lapwai and the Nez Perce and the Colville for the area that covers their traditional area in NE Oregon.
I know that you and your colleagues are working with at least one federal agency as part of this project. They may have additional suggestions.

Thank you,
Karen

From: Funkhouser, Zach [mailto:ZFunkhouser@idahopower.com]
Sent: Tuesday, June 05, 2012 1:04 PM
To: Quigley Karen M; OLIVER Sue
Subject: Boardman to Hemingway Transmission Line Project

Greetings Karen,

OAR 345-020-0011(1)(p) states that our NOI must include evidence of consultation with the State Commission on Indian services to identify each appropriate tribe to consult with regarding the proposed facilities possible effects on Indian historic and cultural resources. Attached is a current map of the B2H transmission line proposed route and alternatives. Please provide a list of Oregon tribes that are expected to have an interest in the B2H project's proposed or alternatives corridors, similar to the attached list provided for the Summit Ridge project. An e-mail notification or hard copy letter would be acceptable for our files.

Thank you and please feel free to contact me regarding this request.

Zach Funkhouser
Environmental Affairs
Idaho Power Company
(208) 388-5375
zfunkhouser@idahopower.com

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An IDACORP Company

Anna DeBoard
General Manager
Burns Paiute Tribal Council
100 Pasigo Street
Burns OR 97720

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Anna DeBoard,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Burns Paiute Tribal Council as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Burns Paiute Tribal Council.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Burns Paiute Tribal Council to address any issues or concerns about the proposal. If the Burns Paiute Tribal Council would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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An IDACORP Company

Brooklyn Babtiste
Executive Chairman
Nez Perce Tribe
P.O. Box 305
Lapwai ID 83540

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Brooklyn Babtiste,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Nez Perce Tribe as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Nez Perce Tribe.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Nez Perce Tribe to address any issues or concerns about the proposal. If the Nez Perce Tribe would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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An IDACORP Company

Michael O. Finley
Business Council Chairman
Confederated Tribes of the Colville Reservation
P.O. Box 150
Nespelem WA 99155

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Michael O. Finley,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Confederated Tribes of the Colville Reservation as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Confederated Tribes of the Colville Reservation.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Confederated Tribes of the Colville Reservation to address any issues or concerns about the proposal. If the Confederated Tribes of the Colville Reservation would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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Billy Bell
Tribal Chairman
Fort McDermitt Shoshone-Paiute Tribes
P.O. Box 457
McDermitt NV 89421

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Billy Bell,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Fort McDermitt Shoshone-Paiute Tribes as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Fort McDermitt Shoshone-Paiute Tribes.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Fort McDermitt Shoshone-Paiute Tribes to address any issues or concerns about the proposal. If the Fort McDermitt Shoshone-Paiute Tribes would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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Nathen Small
Business Council Chairman
Shoshone-Bannock Tribes of the Fort Hall Indian Reservation
P.O. Box 306
Fort Hall ID 83203

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Nathen Small,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation to address any issues or concerns about the proposal. If the Shoshone-Bannock Tribes of the Fort Hall Indian Reservation would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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Gary Frost
Tribal Council Chairman
The Klamath Tribes
P.O. Box 436
Chiloquin OR 97624

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Gary Frost,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the The Klamath Tribes as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the The Klamath Tribes.

IPC recognizes that B2H is a significant project, and is committed to working closely with the The Klamath Tribes to address any issues or concerns about the proposal. If the The Klamath Tribes would like to meet to discuss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

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August 23, 2011

Les Minthorn, Interim Board of Trustees Chairman
Confederated Tribes of the Umatilla Indian Reservation
Nixyaawii Governance Center
46411 Timine Way
Pendleton OR 97801

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Mr. Minthorn,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway Project (B2H). The route currently being considered for the B2H Project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H Project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the summer of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

1221 W. Idaho St. (83702)
P.O. Box 70
Boise, ID 83707

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. IPC is contacting the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) at this time because the Oregon State Commission on Indian Services identified CTUIR as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the CTUIR.

Idaho Power Company and the CTUIR have a history of communication regarding the B2H transmission line project. In November 2008, project managers from IPC met with Audie Huber, CTUIR Intergovernmental Affairs Manager and other staff members to discuss the B2H project. The CTUIR was also active members of the Community Advisory Process (CAP) in 2009 and 2010, which was a multi-year, public outreach and transmission line siting process, developed and administered by IPC. We wish to follow up those initial collaboration efforts with a specific invitation to CTUIR to meet directly with IPC for an additional opportunity to further discuss the B2H Project.

IPC recognizes that B2H is a significant project, and is committed to working closely with CTUIR to address any issues or concerns about the proposal. If the CTUIR would like to meet with IPC staff and leadership to further discuss the project, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com.

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Leader
Idaho Power Company

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Anna DeBoard General Manager
Burns Paiute Tribal Council
100 Pasigo Street
Burns OR 97720

Subject: Idaho Power Company's Boardman to Hemingway Transmission Line Project

Dear Anna DeBoard,

In order to meet the electricity and transmission needs of its customers and the region, Idaho Power Company (IPC) is proposing to construct, operate and maintain approximately 300 miles of single-circuit 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway project (B2H). The route currently being considered for the B2H project originates near Melba, Idaho, crosses through Owyhee County, Idaho, and then enters Oregon where it crosses Malheur, Baker, Union, Umatilla, and Morrow counties and terminates near Boardman, Oregon.

At this time, IPC is working to obtain the necessary federal, state, and local permits to allow it to construct, build, and operate the B2H line. As part of authorizing a right-of-way for the transmission line to cross federal lands, the Bureau of Land Management (BLM) is preparing an Environmental Impact Statement (EIS) under the requirements of the National Environmental Policy Act (NEPA). The EIS will serve as the basis for BLM and the United States Forest Service to make a decision regarding the issuance of right-of-way permits. The BLM has recently completed scoping for the project, and will develop NEPA alternatives and begin preparation of the draft EIS during the summer of 2011. A copy of the scoping report is located at: http://www.boardmantohemingway.com/documents.aspx. The BLM is currently consulting with tribes as part of the NEPA process, in order to fulfill their government to government obligation under federal law.

For energy projects within the state of Oregon, the Oregon Department of Energy-Energy Facility Siting Council (ODOE-EFSC) administers a permitting and project decision-making process that consolidates state and local agency regulations. The B2H project will undergo a thorough review in order to meet ODOE-EFSC's Energy Facility Siting Standards. When complete, and if approved, ODOE-EFSC will issue a Site Certificate which authorizes the construction, operation and maintenance of the facility. ODOE-EFSC is expected to issue a Project Order during the spring of 2011 and IPC anticipates submitting an Application for Site Certificate during the spring of 2012. For more information on the current status of the federal

and state permitting processes or other aspects of the project, please review the enclosed B2H Newswire newsletter (Winter 2011) or visit the project website at www.boardmantohemingway.com.

As part of the ODOE-EFSC permitting process, a project proponent is asked to consult directly with interested tribes, and offer opportunities for tribes to provide technical review and recommendations for the project. The Oregon State Commission on Indian Services identified the Burns Paiute Tribal Council as "likely to have an interest" in the B2H project. This request for consultation is pursuant to ODOE-EFSC requirements and is not intended to substitute for the government-to-government consultation, being conducted by the BLM pursuant to its trust responsibilities with the Burns Paiute Tribal Council.

IPC recognizes that B2H is a significant project, and is committed to working closely with the Burns Paiute Tribal Council to address any issues or concerns about the proposal. If the Burns Paiute Tribal Council would like to meet to discuAnna DeBoard General Manager
Burns Paiute Tribal Council
100 Pasigo Street
Burns OR 97720ss the B2H project directly, please contact me at (208) 388-2034 or at kgeorgeson@idahopower.com .

Sincerely,

Keith Georgeson

Keith Georgeson
B2H Project Manager
Idaho Power Company

7009 0820 0001 2301 8919

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Sent To: Nathen Small
Street, Apt. No.; or PO Box No.: PO Box 306
City, State, ZIP+4: Fort Hall ID 83203

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Sent To: Garry Frost
Street, Apt. No.; or PO Box No.: PO Box 436
City, State, ZIP+4: Chiloquin OR 97624

PS Form 3800, August 2006 See Reverse for Instructions

Confederated Tribes *of the*
Umatilla Indian Reservation
Department of Natural Resources
Administration

46411 Timíne Way
Pendleton, OR 97801

www.ctuir.org ericquaempts@ctuir.org
Phone 541-276-3165 Fax: 541-276-3095

September 27, 2010

Sue Oliver
Energy Facility Siting Officer
Oregon Department of Energy
395 East Highland Avenue
Hermiston, Oregon 97838

Submitted electronically to: Sue.Oliver@state.or.us

Dear Ms. Oliver:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources (DNR) has reviewed Idaho Power's *Notice of Intent to Apply for a Site Certificate for the Boardman to Hemingway Transmission Line* (Notice of Intent). The Oregon Department of Energy has asked the CTUIR to provide comments on specific issues as a reviewing agency. This letter addresses those issues, but also outlines several additional concerns of the CTUIR. These comments are offered based on our government to government relationship with the State of Oregon and we hope to work with the Oregon Energy Facility Siting Council (EFSC) in consultation throughout the facility siting process.

Responses to Comments Requested by the Oregon Department of Energy:

a. Contact person assigned to coordinate DNR's comments on the NOI:

Eric Quaempts, Director
Department of Natural Resources
46411 Timíne Way
Pendleton, Oregon 97801
(541) 276-3447

b. Comments on aspects of the facility that are within DNR's particular responsibility or area of expertise.

The CTUIR DNR is concerned about the impacts this proposed project will have on First Food resources. The First Foods (water, salmon, deer, cous, and huckleberry) are ritualistically served at the Longhouse, the center of the CTUIR community culture. The serving ritual represents an intimate, ecologically and culturally informed view of the landscape upon which the CTUIR depends. Each First Food represents a grouping of similar species, with salmon representing a variety of aquatic life forms (e.g. steelhead, lamprey, freshwater mussels, and various resident fish), deer (big game), cous (plant bulbs), and the huckleberry representing fruiting plants. The CTUIR DNR's mission is to ensure that the First Foods are protected, restored, and enhanced for the perpetual cultural and economic benefit of the CTUIR. Essentially, the CTUIR DNR seeks to ensure that, at a minimum, the First Foods will be present at every community meal, with a long-

term goal of restoring species within each food grouping to provide a serving table rich in native species.

In entering into the Treaty of 1855, the CTUIR ceded to the United States 6.3 million acres, but reserved the perpetual right to hunt, gather and graze livestock on all unclaimed lands within its aboriginal territory. Each of the First Foods, and the right to harvest them, are explicitly protected in the Treaty of 1855. As portions of the CTUIR's aboriginal homeland passed into private ownership, the CTUIR's access to these resources diminished. Therefore, it is crucial for the Tribes to cooperatively manage the remaining federal land to maximize the health of the First Foods. A healthy culture is not possible without a healthy ecosystem providing the First Foods. As tribal members can hunt, gather and graze livestock on unclaimed lands, it is important that there be sufficient habitat on federal lands and that habitat be protected from development. The impacts to the treaty-reserved resources from power line construction, operation and maintenance must be analyzed, such as the impact of high-voltage lines on the wintering habitats of big game and whether construction access will open previously closed areas to resource damage by the public.

The CTUIR DNR is concerned about this project's potential to cause habitat fragmentation, disruption of wildlife migration habits, and connectivity. In addition, we are concerned about the introduction of weed species from habitat disturbance and the construction of many miles of new roads. We would like information on the long-term plan to manage weed impacts. We would also like to know what will be planted in forested areas from which all trees will be removed, how such areas will be managed and whether herbicides will be used.

Permitting this project is an undertaking within the meaning of the National Historic Preservation Act and the CTUIR DNR believes this undertaking is likely to adversely affect historic properties, including those of religious and cultural significance to the CTUIR. Known resources likely to be impacted include the Oregon Trail, tribal trails, named places, villages, camps, traditional hunting, fishing, medicine, gathering, and digging areas, as well as archaeological sites.

c. Recommendations regarding the size and location of analysis areas

As noted in the cover letter to the NOI, it is a preliminary document so it is premature to define analysis areas for various resources. The CTUIR DNR, however, looks forward to working with Idaho Power and BLM/FS on the study design for resources protected by treaty and statute. See our comments below on the phased approach for additional comments regarding analysis areas for viewshed impacts.

d. List of necessary studies

A traditional use study should be conducted in consultation with affected tribes to identify historic properties of religious and cultural significance. Additionally, studies analyzing the proposed project's impacts on big game and other wildlife species will be necessary. Unless existing data document how wildlife respond to transmission lines, such studies need to be conducted before the

potential wildlife impacts of this line can be understood. Wildlife impact studies should identify the corridors through which wildlife travel in the area of the transmission line and analyze the implications of the line on habitat fragmentation and connectivity. Page B-7 of the Notice of Intent indicates, "In accordance with Idaho Power's Avian Protection Plan, avian-safe design will be implemented as practical and feasible to reduce risk of bird collision and electrocution in high avian risk areas." Are there plans to identify high avian risk areas? Also, we would like to ensure that studies of migratory bat corridors be undertaken. Bats have historically been under analyzed and as such many impacts permitted without the necessary information.

e. Relative merits of the preferred and alternate transmission line corridors

Idaho Power identifies constraints to constructing the line and provides avoidance priorities for each. However, there is no explanation of how these avoidance priorities for specific categories, such as public lands and cemeteries were determined. Without that information, it is difficult to determine whether or not we agree with Idaho Power's findings.

The CTUIR DNR strongly questions the alternative in Malheur County designed to avoid irrigated farmland near the Snake River. That alternative lengthens the transmission line by diverting onto BLM land, which will disproportionately impact treaty-reserved resources.

The centerline of the proposed route crosses the Umatilla Indian Reservation, across parcel 6300 in Township 1 South, Range 35 East, WM, at approximately milepost 93. This land is owned and under the jurisdiction of the CTUIR, held in trust by the Bureau of Indian Affairs for the CTUIR. If the state issues a site certificate, the CTUIR DNR expects that these lands will be specifically excluded from the certificate.

f. List of statutes, administrative rules and local government ordinances administered by the CTUIR that might apply to construction or operation of the proposed facility and a description of any information needed for determining compliance.

First and foremost, the Treaty of 1855 between the CTUIR and the United States must be considered in establishing the line. The CTUIR secured perpetual rights under the Treaty that are linked to much of the lands affected by this project. Among other rights secured by the Treaty, the CTUIR retains the rights to hunt, fish, gather, and graze livestock on lands that will be affected by the proposed line. The reservation of these rights includes a corresponding right to the resources associated with those rights (i.e. fish, big game, traditional plants, etc.). In analyzing the impacts of the line EFSC must consider the potential impacts to these treaty-reserved rights and resources.

Additionally, there are a number of federal and state laws addressing cultural resources which must be considered as part of this process, including but not limited to:

- The Native American Graves Protection and Repatriation Act, 25 USC 3000 et seq, for portions of the line on federal and Indian lands.

- The Archaeological Resources Protection Act, 16 USC 470aa et seq, for portions on federal and Indian lands.
- The National Historic Preservation Act, 16 USC 470 et seq, for the area of potential effect.
- Oregon Indian Graves and Protected Objects law, ORS 97.740 et seq, for the portions not on federal or Indian lands.
- Oregon Archaeological Objects and Sites, ORS 358.905 et seq, for portions not on federal or Indian lands.

g. List of Permits:

In the event the line crosses the Umatilla Indian Reservation, Idaho Power will need permission from the CTUIR Board of Trustees, the Bureau of Indian Affairs and the Tribal Planning Office which administers our Land Development Code. There may be more permits depending upon the resources impacted, but that will need to be addressed with the appropriate zoning/regulatory authority.

h. Road building standards applicable within jurisdiction.

Similar to above, section (g), road standard construction on reservation would be determined by the Tribal Planning Office.

i. Comments on the phased study approach.

The CTUIR DNR does not understand how the phased approach will work with the NEPA process. The draft environmental impact statement (DEIS) will be prepared based on input from Phase 1. But the purpose of the DEIS is to identify the alternatives' impacts so that a decision can be made determining which is the best alternative. For many resources, the only activities during Phase 1 are reviewing existing data. For some categories of potential impacts, there may be no existing data regarding the specific proposed area or its alternatives. Similarly, it seems that the Oregon Department of Energy will not have enough information to determine whether the proposed project meets your requirements.

Appendix J-1 of the Notice of Intent provides more detail on the phased approach. The Noise Analysis Area is insufficient. Rather than identifying noise sensitive areas about which it knows, Idaho Power should create a map of the entire proposed line and alternative routes indicating where different levels of noise will be audible, from the loudest to no audible sound. The studies of historic properties of religious and cultural significance to Indian tribes will likely identify noise sensitive areas. A noise level map would streamline the process whereby affected tribes determine the level of auditory impact to these sites.

Similarly, maps showing the areas from which the project will be visible should be developed. Rather than using arbitrary distances, the map should extend to where the project will no longer be visible, whether because of topography or distance. It is also not appropriate to judge when an object on the horizon is and is not intrusive; different people and different cultures will have

differing ideas about intrusiveness. The visual analysis needs to be sure to include consideration not just of the towers, but of any lights that will be associated with the structures. In addition, within forested areas, large swaths of trees will be removed. These areas will likely be visible from longer distances than the towers themselves. Of particular note, there should be an analysis of the viewshed impacts of the line through the Blue Mountains immediately south of the Umatilla Indian Reservation. This area is relatively pristine, with no existing power lines. The CTUIR DNR believes placement of a 500kV line through this area will have a significant, negative effect on the viewshed. Further, this area is part of the original Umatilla Indian Reservation established by the Treaty of 1855. The CTUIR has established a policy to purchase back lands which were on the original reservation to bring these lands back into trust for the tribe. The CTUIR therefore has a significant interest in analysis of the long term impacts of the location of the line here.

Idaho Power limits its cumulative impacts analysis to "projects that have applied for a permit from local, state, or federal authorities and which are publicly known." The DNR does not believe this is an adequate interpretation of the phrase "reasonably foreseeable." Wind projects have historically developed in close proximity to existing transmission lines. The two things that wind proponents look for are wind and an ability to transmit the power it could generate. Idaho Power must look at wind resources along the proposed route and address developments that this proposed line, simply by its presence, will allow to be developed. The BLM has several wind evaluation projects which are pre-permit but post analysis at the conceptual level. The fact that these projects will become viable once transmission becomes available should be considered in whether they are "reasonably foreseeable." In addition, EFSC will need to consider cumulative impacts to the Oregon Trail and other historic properties which have been crossed by previous transmission lines, roads, and pipelines.

The phased approach to cultural resource analysis does not include an analysis area. Clarification of what area will be analyzed for cultural resource impacts needs to be developed. The phased approach also refers to established key observation points. What are these points and how will they be used? A survey of only 15% of the proposed transmission line is not acceptable. Under Phase 2 of the Phased Study Plan, it says "Listed Sites or Sites Eligible for Listing on the National Register of Historic Places," But no information is included about what analysis will be undertaken regarding such places. The CTUIR DNR suggests that in Phase 1, all cultural resources are identified through literature review, on the ground study, and traditional use studies. In Phase 2, these cultural resources should be evaluated to determine whether they are eligible for inclusion in the National Register of Historic Places. A plan to avoid, minimize, or mitigate effects to historic properties will be developed, to inform the agencies in their decision on which alternative to select in the NEPA process and on whether issuing a site certificate is consistent with their regulations. In Phase 3, the avoidance, minimization, and mitigation measures will be implemented.

The analysis of Social and Economic Resources focuses on counties. Please ensure that the Umatilla Indian Reservation, as a sovereign governmental unit, is included in consideration of the proposed project's impacts. It will be necessary to look at data beyond the census to determine how tribal members utilize the area to be impacted; without that information, it will not be clear whether there are trust resource issues and environmental justice issues.

j. List of tribal codes that the tribe recommends to the Council for review:

In the event the line crosses the Umatilla Indian Reservation, applicable tribal laws would be the Land Development Code, Tribal Employment Rights Office Code, Taxation Code, Water Code, Environmental Health Code as well as other regulatory rulemakings depending upon the activity. Copies of these codes are available on-line.[1] Other regulatory requirements may be in place depending upon the exact nature of the activity associated with siting, construction as well as operations and maintenance.

k. Errors in the Document

Exhibit E addresses the permits necessary for the proposed project. Both the BLM and the Forest Service issue permits for cultural resource work on the lands they manage. The exhibit indicates that those permits are issued pursuant to the National Historic Preservation Act. In the case of both agencies, the permits are issued under the Archaeological Resources Protection Act.

Table J-1 indicates the gray wolf was removed from the list of Endangered Species in Eastern Oregon and Idaho. That information is out of date; the gray wolf has been returned to the Endangered Species list throughout the Northern Rocky Mountain Region.

Conclusion

The CTUIR appreciates EFSC's invitation to provide comments on Idaho Power's Notice of Intent as a reviewing agency. The CTUIR fully expects to remain informed and involved throughout the siting process. Please feel free to contact me or Audie Huber, DNR Intergovernmental Affairs Manager at 541-276-3165 with any questions regarding these comments.

Respectfully,

Eric J. Quaempts, Director
Department of Natural Resources

cc: Ted Davis, BLM
Donald N. Gonzalez, BLM
Steve Ellis, USFS
Kevin Martin, USFS
CTUIR: CRC, Bruce Zimmerman, Audie Huber

[1] http://www.umatilla.nsn.us/laws.html

Appendix A
GOVERNMENT-TO-GOVERNMENT TRIBAL CONSULTATION

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
Burns Paiute Tribe			
August 21, 2008	To: Wanda Johnson From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
May 4, 2011	To: Diane Teeman, Theresa Peck From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
June 8, 2011	From: Diane Pritchard (BLM Vale)	Phone call	Called general contact number—explained the B2H Project and that the BLM had not received a response from Burns-Paiute, although the B2H Project ran through an area of tribal interest; submitted BLM B2H contact information and map of proposed route via email and letter requesting formal consultation
June 23, 2011	To: Ms. Deboard From: Donald Gonzalez (BLM Vale)	Letter	Initiate government-to-government consultation
July 13, 2011	To: Ms. Deboard From: Donald Gonzalez (BLM Vale)	Letter	Welcomes participation as consulting party in Section 106 process
July 13, 2011	To: Diane Teeman From: Donald Gonzalez (BLM Vale)	Letter	Welcomes participation as consulting party in Section 106 process
February 3, 2012	To: Diane Teeman From: Donald Gonzalez (BLM Vale)	Letter	Request for initiation of government-to-government consultation
March 3, 2012	To: Anna DeBoard From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Reports 3–13 with Resource Report 5 attached
March 29, 2012	To: Anna DeBoard From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Reports 3–4, 6, 8, 10–13 with Resource Report 6 attached
March 29, 2012	To: Anna DeBoard From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Reports 3–4, 6–8, 10–13 with Resource Report 7 attached
March 30, 2012	To: Anna DeBoard From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Reports 3–4, 6–8, 10–13 with Resource Report 7 attached

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
April 26, 2012	To: Anna DeBoard From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Reports 3–13 with Resource Report 9 attached
August 30, 2012	To: Ms. Soucie From: Donald Gonzalez (BLM Vale)	Letter	Final draft Programmatic Agreement
March 1, 2013	To: Theresa Peck From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Report 2
July 11, 2013	To: Agnes Castronuevo From: Donald Gonzalez (BLM Vale)	Letter	Oregon and Idaho Class I and II reports
September 17, 2013	To: Charlotte Roderique From: Donald Gonzalez (BLM Vale)	Letter	B2H Project Programmatic Agreement consulting party review
October 21, 2013	To: Renee Straub (BLM Vale) From: Stephanie O'Brien	Email	Submit tribal comments on the Programmatic Agreement and Inadvertent Discovery Plan
October 23, 2013	To: Agnes Castronuevo From: Donald Gonzalez (BLM Vale)	Letter (electronic delivery)	November 12, 2013 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submittal of trails map set
November 12, 2013	Attendee: Stephanie O'Brien	In-person meeting	BLM Manual 6280 trails meeting: review Manual 6280, discuss the BLM approach to ensure compliance, will be done in NEPA, Manual 6280 in the context of NEPA and Section 106, National Historic Trails and trails under study, collect feedback
December 13, 2013	To: Agnes Castronuevo and Stephanie O'Brien From: Jennifer Theisen (BLM Vale)	Email	For review and consultation: submit site eligibility table
December 24, 2013	To: Agnes Castronuevo From: Donald Gonzalez (BLM Vale) Cc: Charlotte Roderique	Letter	Request review of the Visual Assessment of Historic Properties
January 13 and January 16, 2014	Between: Stephanie O'Brien and Jennifer Theisen (BLM Vale)	Telephone calls	Tribes' inquiry of a possible ethnographic study
February 28, 2014	To: Charlotte Roderique and Agnes Castronuevo From: Donald Gonzalez (BLM Vale)	Letter	Inform the tribal government that the visual APE extends into Washington
April 23, 2014	Between: Stephanie O'Brien and Jennifer Theisen (BLM Vale)	Email	Follow-up on tribes' inquiry of a possible ethnographic study
October 24, 2014	From: Jennifer Theisen To: Diane Teeman	Phone call and emails	B2H Project updates

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
November 11, 2014	To: Charlotte Roderique and Diane Teeman From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action
December 18, 2014	To: Charlotte Roderique From: Donald N. Gonzalez	Letter	Inform the tribal government of Draft EIS availability and LUP Amendments for review
January 16, 2015	Between: Diane Teeman, Renee Straub, and Jennifer Theisen	Emails	Proposed meeting, NAGPRA Plan of Action letter to the tribe, and Draft EIS DVD sent to the tribe
January 30, 2015	Attendees: Burns Paiute Tribe and BLM, with Diane Teeman, Lonnie Teeman, Renee Straub, Naomi Wilson, and Jennifer Theisen	In-person meeting	Tribal and treaty history, aboriginal territory, Forced March of 1879, B2H Project alternative routes, Programmatic Agreement, NAGPRA Plan of Action, and tribal monitoring
July 1, 2015	From: Renee Straub To: Diane Teeman	Email	Workshop invitation to cooperating agencies/interdisciplinary team in-person meeting on August 27, 2015
July 6, 2015	From: Renee Straub To: Diane Teeman	Email	Discuss tribal monitors and field work
July 14, 2015	From: Jennifer Theisen To: Diane Teeman	Email with attachment	Request tribal government Review of NAGPRA Plan of Action and B2H Project update
July 29, 2015	Attendee: Diane Teeman	Conference call	Phone conference with the tribes and consulting parties working towards a final Programmatic Agreement
August 7, 2015	From: Renee Straub To: Diane Teeman	Email	B2H Project Programmatic Agreement update
August 20–24, 2015	From: Diane Teeman To: Jennifer Theisen	Emails	NAGPRA Plan of Action review need more time, follow-up on request for tribal history/ethnographic study, and upcoming B2H Project meeting on August 27, 2015
August 27, 2015	Attendee: Diane Teeman	Cooperating agencies/interdisciplinary team in-person meeting	Draft EIS comments, EIS analysis methodologies, and presentation of alternative routes and route variations
August 27, 2015	From: Diane Teeman To: Jennifer Theisen	Email	BLM received comments from the tribe on the NAGPRA Plan of Action
August 28, 2015	From: Diane Teeman To: Jennifer Theisen	Email	Follow-up information on request for tribal history/ethnographic study

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 8, 2015	To: Charlotte Roderique From: Donald N. Gonzalez	Letter	BLM submits to the tribe the Class I, Class II, and RLS reports for their records
October 28, 2015	To: Diane Teeman From: Jennifer Theisen	Email	Revisions to the Draft EIS cultural analysis
November 4, 2015	From: Jennifer Theisen To: Diane Teeman	Email	BLM requests a meeting with the tribal government and review of study map
December 10, 2015	Attendee: Diane Teeman	Cooperating Agencies//Interdisciplinary Team in-person meeting	Preliminary results of impact assessments, alternative route screening and comparison, and resource breakout sessions
January 15, 2016	Between: Diane Teeman and Jennifer Theisen	Phone call	B2H Project update, NAGPRA Plan of Action, and Class I, Class II, and RLS Report distribution
March 22, 2016	To: Diane Teeman From: Renee Straub	Email	For information, the BLM notify the tribal government of press release announcing Preliminary Agency Preferred Alternative
Confederated Tribes of the Colville Reservation			
August 21, 2008	To: Harvey Moses From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping Notification
August 2010	From: Diane Pritchard (BLM Vale)	Letter	Second Scoping CD and letter
May 4, 2011	To: Michael Finley, Joseph Pakootas, and Camille Pleasants From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
June 8, 2011	To: Guy Moura (History and Archaeology Program) From: Diane Pritchard (BLM Vale)	Email with attachments	Sent contact information for the B2H Project and also Vale District and an overview map of proposed route (Figure 1-1)
June 12, 2011	To: Diane Pritchard (BLM Vale) From: Guy Moura	Email	Received the route outline and Colville Reservation may have interests in the area; will follow lead of other tribes with interests in the area; requested any final drafts or completed cultural resource documents pertinent to the B2H Project for their review; do not require early drafts or generalized environmental documents; if comments are not received in comment period presumed
July 13, 2011	To: Mr. Finley From: Donald Gonzalez (BLM Vale)	Letter	Consulting party Section 106

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
August 30, 2012	To: Mr. Finley From: Donald Gonzalez (BLM Vale)	Letter	Final draft Programmatic Agreement
September 12, 2012	To: Donald Gonzalez (BLM Vale) From: Guy Moura (History and Archaeology Program)	Letter	Tribal comments on draft Visual Assessment of Historic Properties Study Plan and Archaeological Survey Plan
September 21, 2012	Between: Renee Straub (BLM Vale) and Guy Moura	Email	The tribes would not like to be included in the Programmatic Agreement
July 18, 2013	To: Guy Moura From: Donald Gonzalez (BLM Vale)	Letter	Oregon and Idaho Class I and II reports
September 17, 2013	To: Guy Moura From: Donald Gonzalez (BLM Vale)	Letter	B2H Project Programmatic Agreement consulting party review
October 23, 2013	To: Guy Moura From: Donald Gonzalez (BLM Vale)	Letter (electronic delivery)	November 12, 2013 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submittal of trails map set
December 13, 2013	To: Guy Moura From: Jennifer Theisen	Email	For review and consultation: submit site eligibility table
December 13, 2013	To: Jennifer Theisen, et al. From: Guy Moura	Email	Site eligibility table comment: the tribes are uniformly in agreement with the evaluations of the BLM/USFS
December 24, 2013	To: Guy Moura From: Donald Gonzalez Cc: John Sirois	Letter	Request review of RLS for the Visual Assessment of Historic Properties
February 28, 2014	From: Donald Gonzalez To: John Sirois and Guy Moura	Letter	Inform the tribes that the visual APE extends into Washington
July 21, 2008	From: Mitch Thomas (BLM Vale) To: Audie Huber	Phone call	Meeting coordination for proposed energy projects in the BLM Vale District
August 21, 2008	To: Antone Minthorn From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
October 1, 2008	To: Lucas Lucero From: Jim Nickerson	Email	Map Bureau of Indian Affairs and Department of the Interior parcels
October 2, 2008	To: David Henderson (BLM Vale) From: Eric Quaempts	Letter	Tribes' Department of Natural Resources has initiated consultation with the BLM on the B2H Project
October 20, 2008	To: Tom Stoops (ODOE) From: Eric Quaemps	Letter	Tribes request to be involved in the siting process

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 31, 2008	To: Project leaders From: Nancy Lull (BLM Vale)	Email	Documentation of October 30, 2008 meeting
May 1, 2009	To: Eric Quaempts From: David Henderson (BLM Vale)	Letter	Scoping report, maps, and B2H Project newsletter updates
October 8, 2009	To: Project leaders and cultural team From: Ted Davis (BLM Baker City)	Email	Coordinate letter to tribes concerning Programmatic Agreement, BLM Baker City RMP revisions, coordination for October 20, 2008 meeting with tribes
Confederated Tribes of the Umatilla Indian Reservation			
October 23, 2009	To: Eric Quaempts From: David Henderson (BLM Vale)	Letter (electronic delivery)	Request for tribal government review of documents, including Programmatic Agreement
January 14, 2010	To: Audie Huber From: Todd Kuck (BLM Baker City)	Cover letter	Submittal per request of B2H Phased Study Plan and Cultural Programmatic Agreement
July 12, 2010	To: Elwood Patawa From: Donald Gonzalez (BLM Vale) and Steven Ellis (Wallowa-Whitman National Forest)	Letter	Right-of-way routing updates
September 27, 2010	To: Sue Oliver (ODOE) From: Eric Quaempts	Letter	Notice of Intent comments to apply for site certificate
September 27, 2010	To: Donald Gonzalez (BLM Vale) From: Eric Quaempts	Letter	Notice of Intent comments to prepare B2H Project EIS
November 8, 2010	Attendees: BLM, USFS, and tribal representatives	In-person meeting	B2H Project background, timeline, and tribes' concerns
November 18, 2010	Attendees: Tribes, USFS, and BLM	Meeting minutes	B2H Project background
November 18–19, 2010	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Ethnographic Study
December 16, 2010	To: Carey Miller From: Donald Gonzalez (BLM Vale)	Letter	Request for tribal government review of Programmatic Agreement
January 12, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Clarification of review period for Programmatic Agreement
January 13, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Cultural Programmatic Agreement for review
February 2, 2011	Between: Audie Huber and Renee Straub	Email	Request for GIS data

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
February 3, 2011	To: Diane Pritchard (BLM Vale) From: Catherine Dickson	Letter and email	Tribal comments on Programmatic Agreement
February 22, 2011	To: Audie Huber From: Renee Straub	Email	Review draft of revised Scoping Report
March 7, 2011	To: Audie Huber From: John Rademacher (BLM)	Letter	Request for tribal government comments on January 2011 draft of Biological Survey Work Plan
March 21, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Tribal concerns over inadequate tribal involvement and consultation
April 4, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Direction for consultation protocol
April 6, 2011	Attendees: BLM, USFS, and tribal representative	In-person meeting	EIS alternative development, schedule, definition of reservation boundaries, cultural concerns and working group, and the Ethnographic Study
April 8, 2011	Between: Audie Huber and Renee Straub	Email	Meeting agenda from April 6, 2011 and consultation defined
April 11, 2011	From: the Tribes	Document	Defined “consultation” for the tribes
April 15, 2011	From: Renee Straub To: Audie Huber	Email	Scoping Report comments
April 19, 2011	From: Donald Gonzalez (BLM Vale) To: Eric Quaempts	Letter	BLM response letter to September 27, 2010 consultation and tribes comment on Scoping Report
May 4, 2011	From: Donald Gonzalez (BLM Vale) To: Eric Quaempts, Carey Miller, Audie Huber, and Leo Stewart	Letter	Submit revised Scoping Report
May 12, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Tribes concerned with not being on the invite list for a scope-of-work conference call
May 12, 2011	Between: BLM Cultural Team, Idaho Power Company, consultants, and the Tribes	Email	Meeting minutes, reminder from tribes to invite the tribes to all meetings, and review times
May 23, 2011	Between: BLM Cultural Team, Idaho Power Company, consultants, and the Tribes	Email	B2H Project Programmatic Agreement development and comments from the tribes on the Archaeological Inventory Protocol, emphasizing survey requirements
June 20, 2011	From: the Tribes	Electronic comments in document	Tribal comments on Cultural Resources Survey Plan

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
June 22, 2011	Between: Catherine Dickson and Diane Pritchard (BLM Vale)	Email	Workgroup conference call reminder, Cultural Resource Survey Plan submitted to the tribes and the tribes request an overview meeting
June 27, 2011	From: Catherine Dickson To: BLM Cultural Team	Email	Tribal comments on Plan of Action
July 13, 2011	From: BLM To: Audie Huber and Carey Miller	Letter	BLM welcomes tribal participation and notice of upcoming Section 106 meeting
July 25, 2011	Attendees: BLM, USFS, ACHP, State and THPO, consultants, and Oregon Historic Trails Advisory Council	Conference call	B2H Project Programmatic Agreement, B2H Project update, cultural survey, and upcoming Section 106 meeting
August 18, 2011	From: Erik Harvey (USFS) To: Kurt Wiedenmann	Email	Email chain of discussion with the tribes concerning USFS permits that have been issued
September 1, 2011	Between: Kurt Wiedenmann and Catherine Dickson	Email	USFS and their issued permits
November 28, 2011	Between: Audie Huber and Renee Straub	Email	Rapid Response Transmission Team call
December 7, 2011	Between: Audie Huber and Renee Straub	Email	Rapid Response Transmission Team participant packet
January 9, 2012	To: Les Minthorn From: Donald Gonzalez (BLM Vale)	Letter	APE, including direct, indirect, and cumulative effects
February 7, 2012	Between: Audie Huber, Catherine Dickson, and Holly Orr (BLM Washington)	Email	Attempts to coordinate a meeting
February 8, 2012	To: Diane Pritchard (BLM Vale) From: Catherine Dickson	Email	APE, including direct, indirect, and cumulative effects
February 8, 2012	To: Donald Gonzalez (BLM Vale) From: Carey Miller	Letter	Tribal request of APE map and update on the viewshed analysis
February 9, 2012	To: Donald Gonzalez (BLM Vale) From: Carey Miller	Email	APE comments
February 24, 2012	Between: Audie Huber and Renee Straub	Email	Review of Resource Reports
March 3–7, 2012	Between: Audie Huber and Renee Straub	Email	Resource Reports 8, 10, 11, 12, and 13 sent for review

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
March 20, 2012	Between: Audie Huber and Renee Straub	Email	Extension request on Resource Reports
March 26, 2012	From: Holly Orr (BLM Washington)	Meeting minutes	Tribal Resource Report Tracking Sheet, APE, Ethnographic Study, revised Scope and Fee, Section 106 and mitigation actions, and tribal comments on Programmatic Agreement
March 29, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of available resource reports
April 9, 2012	To: Renee Straub (BLM Vale) From: Eric Quaempts per Audie Huber	Letter (electronic delivery)	Preliminary review of Resource Report 3, Socioeconomics
April 9, 2012	To: Catherine Dickson From: Holly Orr (BLM Washington)	Email	Description of the tribes' involvement with the Programmatic Agreement and Logan Simpson Design consultant Kathryn Leonard's role
April 9, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Notification to tribes that resource report tracking sheet has been highlighted and updated
April 19, 2012	To: Catherine Dickson From: Shane Baker	Email	Archaeological sites near tribal land
April 26, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal government review and consultation of Resource Report 9
May 9, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Draft meeting agenda for May 14, 2012
May 10, 2012	Between: Catherine Dickson and Renee Straub (BLM Vale)	Email	Meeting agenda for May 14, 2012 and tribal recommendation to invite BPA
May 14, 2012	Attendees: BLM, USFS, consultants, and tribal representatives	In-person meeting	B2H Project update, resource reports, BLM staff helping with the B2H Project, and tribal concerns over rock cairns
May 17, 2012	To: Shane Baker From: Catherine Dickson	Email	Tribes comment on sites found near the reservation boundary
May 17, 2012	Between: the Tribes and BLM	Memo	Tribal comments on Resource Report 3, Socioeconomics
May 18, 2012	Between: Catherine Dickson and Renee Straub (BLM Vale)	Email	Draft Visual Bare Earth Analysis

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
May 23, 2012	Attendees: Tribal involvement in the Project Programmatic Agreement work group	Conference call	Tribal involvement, signatory, APE, cultural resource definition, tribes' edits
May 24, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	POD Amendment
June 1, 2012	Between: Catherine Dickson and Shane Baker	Email	Continued tribal comments on sites found near the reservation boundary, specifically concerning cairns from a drift fence
June 4, 2012	To: Eric Quaempts From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments on the resource reports
June 5, 2012	To: Shane Baker From: Catherine Dickson	Email	Continued tribal comments on sites found near the reservation boundary, specifically concerning cairns from a drift fence
June 7, 2012	To: Eric Quaempts From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments on Resource Report 3, Socioeconomics
July 12, 2012	Between: Catherine Dickson and Kathryn Leonard	Email	Communication established and meeting planned
July 15, 2012	Between: Renee Straub (BLM Vale) and Audie Huber	Email	Current list of cooperating agencies sent to the tribes
July 30, 2012	From: the Tribes	Electronic comments in document	Tribal comments on Programmatic Agreement
August 6, 2012	Between: Catherine Dickson, Audie Huber, and Renee Straub (BLM Vale)	Email	Attempts to coordinate a meeting
On or about August 9, 2012	Comments on Draft Project Programmatic Agreement	Dated Word document	Receive comments on draft Programmatic Agreement
August 10, 2012	To: Idaho Power Company and Tetra Tech From: Mike Kelly	Memo	Archaeological Sampling Strategy and justification of sampling protocol
August 15, 2012	Between: BLM and the Tribes	Letter	Draft consultation letter with revised Programmatic Agreement, based on previous tribal comments from February 3, 2011
August 20, 2012	Attendees: BLM, USFS, BPA, consultants, and URS	Conference call	Final Archaeological Survey Plan, Visual Assessment of Historic Properties Study Plan, Programmatic Agreement, Resource Reports, B2H Project updates, and Ethnographic Study

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
August 20, 2012	From: Tribes and consultants	Electronic comments in document	Tribal and Logan Simpson Design's comments on B2H Archaeological Survey Plan (July 2012 version)
August 23, 2012	Between: Catherine Dickson and Renee Straub (BLM Vale)	Email	Tribal comments on Archaeological Survey Plan expressing concerns with Tetra Tech's sampling strategy
September 13, 2012	To: Catherine Dickson From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments on Programmatic Agreement and Archaeological Survey Plan
September 17, 2012	Attendees: BLM, BPA, URS, USFS, consultants, and tribal representatives	In-person meeting	B2H Project Programmatic Agreement, Visual Assessment of Historic Properties, Ethnographic Study, and B2H Project update
September 27, 2012	To: Carey Miller From: Donald Gonzalez (BLM Vale)	Letter	Final Programmatic Agreement draft, Visual Assessment of Historic Properties, and Archaeological Survey Plan
October 5, 2012	To: Catherine Dickson From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments on the Archaeological Survey Plan on August 23, 2012
October 10, 2012	To: Cultural Team From: Jackie Queen	Email	EIS tradition cultural properties study field visit and culturally significant sand dunes
October 11, 2012	To: Renee Straub (BLM Vale) From: Catherine Dickson	Email with attachments	Tribal comments on Visual Assessment of Historic Properties
October 15, 2012	To: Catherine Dickson From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments and edits on the Archaeological Survey Plan on August 23, 2012
October 15, 2012	To: Renee Straub (BLM Vale) From: Catherine Dickson	Email	Comments July 30, 2012 draft Programmatic Agreement
October 16, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Request for tribal comments on Draft EIS Chapter 3, Sections 3.17 (Noise) and 3.18 (Electrical Environment)
October 16, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Request for tribal comments on Draft EIS Chapters 1 and 2
October 16, 2012	To: Catherine Dickson From: Kathryn Leonard	Email	Response to tribal comments on Programmatic Agreement on May 23, 2012
October 24, 2012	To: Renee Straub (BLM Vale) From: Carey Miller	Email	Tribal comments on Programmatic Agreement
November 27, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Request for tribal comments on Draft EIS Chapter 3, Sections 3.2 (Geology) and 3.11 (Recreation)

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
November 27, 2012	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email	Request for tribal comments on Draft EIS Chapter 3, Sections 3.15 (Transportation) and 3.16 (Air Quality and Climate Change)
November 30, 2012	To: Shawn Steinmetz From: Donald Gonzalez (BLM Vale)	Letter	Right-of-entry for ethnographic contract
December 3, 2012	To: Audie Huber From: Renee Straub (BLM Vale)	Memo	Response to tribal comments on scope
January 3, 2013	To: BLM Cultural Team, Idaho Power Company, and consultants From: Catherine Dickson	Email	Funding for tribal Cultural Resources Protection Program is not sufficient enough for the tribes to actively participate in Programmatic Agreement discussion
January 9, 2013	Between: Catherine Dickson and Jennifer Theisen	Email	Tribal comments on Programmatic Agreement and discussion over how to address tribal edits and comments without the tribes actively participating in the Programmatic Agreement conference calls
January 23, 2013	Government-to-Government consultation with CTUIR	In-person meeting and conference call	B2H Project management update, cultural documents update, and tribal reviews
February 26, 2013	Between: Catherine Dickson and Jennifer Theisen	Email	Tribal comments on the BLM draft response to tribal edits on the Visual Assessment of Historic Properties on January 28, 2013
February 27, 2013	Government-to-Government consultation with CTUIR	Conference call	B2H Project management update and cultural documents update
March 1, 2013	To: Audie Huber and the Tribes From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation on Resource Report 2
March 11, 2013	To: Catherine Dickson From: Donald Gonzalez (BLM Vale)	Letter	Archaeological Survey Plan, thank you for commenting
March 15, 2013 (Email string beginning February 14, 2013)	Between: Jennifer Theisen (BLM Vale) and Catherine Dickson	Emails, some with attachments	Assessing indirect effects
March 21, 2013	Between: SHPO, BLM, and the Tribes	Email	Tribal recommendations on how artifacts from the private landowners should be received and tribal comments on language for disposition of collections from private lands
March 27, 2013	From: the Tribes	Document	2012–2013 Treaty Hunting Seasons and Regulations
April 1, 2013	Between: Renee Straub (BLM Vale) and Kurt Perkins	Email	Comments from Kurt on the Resource Report 2
April 15, 2013	To: the Tribes From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation on Resource Report 1, Visual Resources Data Report

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
April 16, 2013	Government-to-Government consultation with CTUIR	Conference call	B2H Project management update, cultural documents update, Traditional Use Study, tribal reviews, NEPA vs. NHPA, and summer field visits
May 21, 2013	Attendees: Bambi Rodriquez, Renee Straub (BLM Vale), and Jennifer Theisen (BLM Vale)	Conference call	Discussion of the Confederated tribes of the Umatilla Traditional Use contract with the BLM
May 29, 2013	To: Carey Miller From: Jennifer Theisen (BLM Vale)	Phone call	Meeting reschedule, NAGPRA, Plan of Action, the tribes' Class I report, comments on Archaeological Survey Plan
May 30, 2013	To: Renee Straub (BLM Vale) From: Audie Huber	Email	Tribal comments on Resource Report 1, Visual Resources Data Report
May 31, 2013	To: Audie Huber From: Renee Straub (BLM Vale)	Memo	Response to tribal comments on Scoping on September 27, 2010
June 26, 2013	Attendees: Shawn Steinmetz, Renee Straub (BLM Vale), and Jennifer Theisen (BLM Vale)	Meeting at Tribal Headquarters	Traditional Use Study Contract meeting
June 26, 2013	To: Audie Huber From: Don Gonzalez	Letter	BLM and ODOE MOU
June 27, 2013	Government-to-Government consultation with CTUIR	Conference call	B2H Project management update and cultural documents update
July 2, 2013	To: Carey Miller From: Don Gonzalez	Letter	Oregon Class I and II reports
July 24, 2013	Government-to-Government consultation with CTUIR	Conference call	B2H Project management update, cultural documents update, and historic trails study
July 31, 2013	Between: Jennifer Theisen (BLM Vale) and Catherine Dickson	Email	Tribal review and addressed comments on Resource Report 2
August 9, 2013	To: Audie Huber From: Don Gonzalez	Letter	Cultural Resource Data Sharing MOU
August 12, 2013	To: Jennifer Theisen From: Carey Miller	Email	Tribal comments on Class I and II reports
August 28, 2013	Government-to-Government consultation with CTUIR	Conference call	B2H Project management update, cultural documents, and procedures update
September 17, 2013	To: Audie Huber From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 21, 2013	To: BLM Vale and consulting parties From: Catherine Dickson	Email	Submit tribal comments on the Programmatic Agreement and Inadvertent Discovery Plan and requests a description of when B2H Project documents will be completed in relation to each other
October 23, 2013	To: Carey Miller and Catherine Dickson From: Donald Gonzalez	Letter (electronic delivery)	November 12, 2014 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submittal of trails map set
October 24, 2013	To: Renee Straub, Jennifer Theisen, and Shane Baker From: Catherine Dickson	Email	Concern with rock features reported by private land owners; Jennifer called landowners and followed up with Idaho Power Company; however the site, to date, has not been verified
October 28, 2013	To: Bambi Rodriquez From: Jennifer Theisen	Email	Communications on the Traditional Use Study Report
November 12, 2013	Attendees: Carey Miller and Catherine Dickson	In-person meeting	BLM Manual 6280 trails meeting: review Manual 6280; discuss the BLM approach to ensure compliance with NEPA, Manual 6280 in the context of NEPA and Section 106, and national historic trails and trails under study; and collect feedback
December 3, 2013	To: Jennifer Theisen From: Carey Miller	Email	Tribes emailed BLM comments on the revised tribes' Literature Review Report
December 4, 2013	To: Carey Miller From: Jennifer Theisen	Email	Acknowledge receipt of comments; request a meeting
December 5 and 9, 2013	To: Jennifer Theisen From: Teara Farrow Ferman	Letter	Communications on the Traditional Use Study Report
December 9–10, 2013	Between: Carey Miller and Jennifer Theisen	Emails	Tribes' Literature Review Report; tribal review, comments, and missing information
December 13, 2013	To: Carey Miller and Catherine Dickson From: Jennifer Theisen	Email	For review and consultation: submit site eligibility table to tribes
December 24, 2013	To: Carey Miller From: Donald Gonzalez Cc: Catherine Dickson and Audie Huber	Letter	Request review of RLS for the Visual Assessment of Historic Properties

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
January 9, 2014	Attendees: Carey Miller and Catherine Dickson, BLM, USFS, Idaho Power Company, and BPA	Conference call	Meeting topics: updates, Administrative Draft EIS, tribes' Literature Review Report revisions, site eligibility recommendations, Programmatic Agreement, isolate testing, RLS review, and NAGPRA Plan of Action
January 9, 2014	To: Jennifer Theisen, et al. From: Catherine Dickson	Email	Submit comments to the BLM on site eligibility table
January 16, 2014	Attendees: Carey Miller, Catherine Dickson, and Jennifer Theisen	Conference call	Go over 2013 comments on the Programmatic Agreement
February 7, 2014	To: Teara Farrow Ferman From: Jennifer Theisen	Email	Submit BLM comments to the tribal ethnographic team on the Traditional Use Study Draft Report
February 11, 2014	To: Renee Straub, et al. From: Catherine Dickson	Email	Submit comments to the BLM on RLS
February 20, 2014	To: Jennifer Theisen, et al. From: Catherine Dickson	Email	Submittal of tribal comments on Programmatic Agreement to the BLM
February 28, 2014	To: Audie Huber and Carey Miller From: Donald Gonzalez	Letter	Inform the tribes that the visual APE extends into Washington
March 2, 2014	To: Catherine Dickson, Carey Miller, and Audie Huber From: Jennifer Theisen	Email	Update email: site eligibility, Programmatic Agreement, tribes' Literature Review Report, RLS, subsurface investigations
March 6, 2014	To: BLM and all consulting parties From: Catherine Dickson	Email	Cancel March 11, 2014 phone conference; repeated request of list of activities and documents discussed in the Programmatic Agreement and when they will be completed in relation to each other
March 13, 2014	To: Teara Farrow Ferman, et al. From: Jennifer Theisen	Email	Communications on the Traditional Use Study Report
March 25, 2014	To: Jennifer Theisen From: Jennifer Karson Engum	Email	Communications on the Traditional Use Study Report
May 23, 2014	To: Jennifer Theisen From: Teara Farrow Ferman	Email followed by mailed hard copy	BLM received final Traditional Use Study from tribes
June 10, 2014	To: Carey Miller From: Jennifer Theisen	Email	BLM resubmitted revised literature review to tribes
June 26, 2014	To: Jennifer Theisen From: Carey Miller	Email	THPO's comments on the Programmatic Agreement and the Inadvertent Discovery Plan

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
July 30, 2014	Attendees: Tribes, THPO, Cultural Resources Protection Program, and BLM	In-person meeting	Meeting with tribal staff to discuss Programmatic Agreement, subsurface testing strategy, RLS, NAGPRA Plan of Action, and Traditional Use Study
August 25, 2014	To: Audie Huber From: Renee Straub		Request tribal review of Administrative Draft EIS
September 4, 2014	From: Audie Huber To: Renee Straub	Email	BLM receive comments on the Administrative Draft EIS
September 11, 2014	To: Carey Miller and Catherine Dickson From: Jennifer Theisen	Email	BLM submitted Inadvertent Discovery Plan changes to tribal staff for review
September 11, 2014	From: Jennifer Theisen To: Carey Miller and Catherine Dickson	Email	BLM submit Inadvertent Discovery Plan changes to tribal staff for review
October 2, 2014	From: Jennifer Theisen To: Carey Miller and Catherine Dickson	Email	Inadvertent Discovery Plan review, field work, and meeting planning
October 7, 2014	From: Jennifer Theisen To: Jon Meyer and Guy Moura	Phone call followed by email	Programmatic Agreement signatory confirmation; email Programmatic Agreement and attachments for review
October 14, 2014	From: Catherine Dickson To: Jennifer Theisen	Email	Submit minor comments on the Inadvertent Discovery Plan; J. Theisen made changes then emailed document back to C. Dickson and C. Miller
October 22, 2014	From: Catherine Dickson To: Jennifer Theisen	Email	BLM receive report that CTUIR prepared
October 24, 2014	From: Jennifer Theisen To: Carey Miller and Catherine Dickson	Email	Clarify RLS review
October 30, 2014	Attendees: CTUIR, BLM, USFS, and BPA	Conference call	B2H Project and document update, subsurface testing strategy and NAGPRA Plan of Action
November 4, 2014	From: Renee Straub To: Audie Huber, Catherine Dickson, and Carey Miller	Email	Request review and participation in drafting the NAGPRA Plan of Action

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
November 11, 2014	To: Jim Boyd and Guy Moura From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action
November 13–14, 2014	Between: Carey Miller, Catherine Dickson, and Jennifer Theisen	Emails	January meeting planning, RLS field survey, high probability areas - table and GIS
November 24, 2014	To: Renee Straub From: Audie Huber	Email	A. Huber submitted comments on the NAGPRA Plan of Action outline
December 15–16, 2014	Between: Carey Miller and Jennifer Theisen	Emails	January meetings, plan, and agendas
December 18, 2014	To: Jim Boyd From: Donald N. Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review
December 18, 2014	To: Gary Burke From: Donald N. Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review
January 6, 2015	Attendees: CTUIR, BLM, USFS, Reclamation, and BPA	In-person meeting	B2H Project updates, introduce Jenny Haung (Archaeologist with Reclamation), review of public meetings, updates on technical reports, rock features (cairns), high probability areas, Inadvertent Discovery Plan, and NAGPRA Plan of Action
January 6, 2015	Attendees: CTUIR Cultural Resource Committee, BLM, and USFS	In-person meeting	Draft EIS presentation, Plan Amendments, resource impacts, agency consultation, tower height, Sage-Grouse, and mitigation
January 16, 2015	From: Renee Straub To: Audie Huber, Catherine Dickson, and Carey Miller	Email	Inform the tribes of B2H Project change in NEPA third party contractor to EPG
February 25, 2015	Attendees: CTUIR, BLM, BPA, and USFS	Conference call	B2H Project updates and progress, milestones and next steps, announce change in contractor, CTUIR cultural literature review, updates on inventory reports, NAGPRA Plan of Action, and upcoming field work
March 10, 2015	Attendees: CTUIR, BLM, USFS, and EPG	In-person meeting	Biological focus, B2H Project overview, design features of the B2H Project for environmental protection, Section 7 consultation, minimizing impacts, special tribal interests, mitigation, and next steps
March 13, 2015	To: Catherine Dickson From: Jennifer Theisen	Email	Cairn memo to C. Dickson
March 17, 2015	Between: Catherine Dickson and Jennifer Theisen	Emails and phone call	Draft EIS data and potential cairns in the B2H Project area

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
March 19, 2015	From: Audie Huber To: Renee Straub	Email	The CTUIR submits comments on Draft EIS
May 21, 2015	Attendees: CTUIR, BLM, USFS, and EPG	In-person meeting	Introduce EPG in person, B2H Project updates, possible new alignments, CTUIR Draft EIS comments, processes, resource impacts, Sage-Grouse, mitigation, Draft EIS analysis, visual, rock features (cairns), NAGPRA Plan of Action, BLM permits, GIS data procedures, and routing
July 1, 2015	From: Renee Straub To: Audie Huber, Catherine Dickson, Carey Miller, and Carl Scheeler	Email	Workshop invitation to cooperating agencies/interdisciplinary team in-person meeting on August 27, 2015
July 14, 2015	From: Jennifer Theisen To: Catherine Dickson, Carey Miller, and Audie Huber	Email with attachment	Request tribal government review of NAGPRA Plan of Action and B2H Project update
August 7, 2015	From: Renee Straub To: Carey Miller and Catherine Dickson	Email	B2H Project Programmatic Agreement update
August 13, 2015	From: Audie Huber To: Jennifer Theisen	Email	BLM receive comments from the tribe on the NAGPRA Plan of Action
August 27, 2015	Attendee: Catherine Dickson	Cooperating agencies/interdisciplinary team in-person meeting	Draft EIS comments, EIS analysis methodologies, and presentation of alternative routes and route variations
September 10, 2015	From: Carey Miller To: BLM and consulting parties	Email	Comments on the Programmatic Agreement
October 9, 2015	To: Carey Miller and Catherine Dickson From: Jennifer Theisen	Email	Initiate a consultation meeting and request input on EIS cultural analysis
October 20, 2015	To: Carey Miller From: Jennifer Theisen	Email	Coordination on the RLS
October 22–23, 2015	Between: Catherine Dickson and Jennifer Theisen	Emails	EIS cultural analysis

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 28, 2015	To: Carey Miller and Catherine Dickson From: Jennifer Theisen	Email	Revisions to the Draft EIS cultural analysis
November 2, 2015	To: Alan Crawford From: Donald Gonzalez	Letter	BLM submits to the CTUIR the Class I, Class II, and RLS reports for their records
November 12 and 19, 2015	Between: Audie Huber, Carey Miller, and Jennifer Theisen	Emails	NAGPRA Plan of Action review and questions on the Inadvertent Discovery Plan
November 19, 2015	To: Catherine Dickson From: Jennifer Theisen	Three separate emails	Submit to the CTUIR the RLS GIS data, RLS comment response sheets, and the Class I and II comment response sheets
December 10, 2015	Attendee: Catherine Dickson	Cooperating agencies/interdisciplinary team in-person meeting	Preliminary results of impact assessments, alternative route screening and comparison, resource breakout sessions
December 16, 2015	Between: Catherine Dickson and Jennifer Theisen	Email	CTUIR requests GIS data, BLM fulfills request, also communication about cultural drivers in development of preliminary preferred alternatives
January 4–6, 2016	Between: Catherine Dickson and Jennifer Theisen	Emails and Phone call	Cultural issues in alternative route selections, further clarification of CTUIR data request
January 5, 2016	To: Audie Huber, Carey Miller, and Catherine Dickson From: Jennifer Theisen	Email	Additional information for the meeting on January 21, 2016
January 21, 2016	Attendees: CTUIR, BLM, USFS, and EPG	Conference call	B2H Project Management update, NAGPRA Plan of Action, EIS update, review of December 10 cooperator's meeting
March 22, 2016	To: Audie Huber, Carey Miller, Catherine Dickson, and Carl Scheeler From: Renee Straub	Email	For information, BLM notify the CTUIR of press release announcing Preliminary Agency Preferred Alternative
May 19, 2016	Attendees: CTUIR, BLM, USFS, and EPG	Conference call	B2H Project Management update, discussion of Preliminary Agency Preferred Alternative, Section 106 coordination with navy, NAGPRA Plan of Action, and EIS update
July 27, 2016	Attendees: CTUIR, BLM, USFS, and EPG	Conference call	B2H Project Management update, Navy meeting, Programmatic Agreement, and EIS update
September 7, 2016	Attendees: CTUIR, BLM, USFS, and EPG	Conference call	B2H Project Management update, comment response update, Programmatic Agreement, and EIS update

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
Confederated Tribes of Warm Springs Indian Reservation of Oregon			
August 21, 2008	To: Karen Crutcher	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
May 4, 2011	To: Ronald Suppah, Sally Bird, and Steph Charette From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
August 30, 2012	To: Ron Suppah	Letter	Submit revised Scoping Report
October 23, 2013	To: Sally Bird From: Donald Gonzalez	Letter (electronic delivery)	November 12, 2013 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submit trails map set
Week of October 28, 2013	Attendees: Don Gonzalez and Tribes	In-person meeting in Warm Springs, Oregon	B2H Project update (among other topics)
December 13, 2013	To: Sally Bird From: Jennifer Theisen	Email	For review and consultation: submit site eligibility table
December 24, 2013	To: Sally Bird From: Donald Gonzalez Cc: Austin Greene Jr.	Letter	Request review of RLS for the Visual Assessment of Historic Properties
February 28, 2014	To: Austin Greene Jr. and Sally Bird From: Donald Gonzalez	Letter	Inform the tribes that the visual APE extends into Washington
Week of March 10, 2014	Attendees: Don Gonzalez and Tribes	In-person meeting in Warm Springs, Oregon	B2H Project update (among other topics)
September 17, 2014	From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review
May 21, 2016	Attendees: CTUIR, BLM, USFS, and EPG	Conference call	B2H Project management update, NAGPRA Plan of Action, EIS update, changes to the Programmatic Agreement, and potential upcoming field work
October 1, 2014	To: Sally Bird From: Jennifer Theisen	Phone call followed by email	Programmatic Agreement signatory confirmation; email Programmatic Agreement and attachments for review
November 11, 2014	To: Eugene Austin Green and Sally Bird From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action
December 18, 2014	To: Eugene Austin Greene Jr From: Donald N. Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
Shoshone-Paiute Tribes of the Duck Valley Indian Reservation			
August 21, 2008	To: Nancy Egan and Ted Howard From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
October 21, 2009	Attendees: Tribes, consultants, and BLM, including Lucas Lucero (National Project Lead)	Wings and Roots Meeting	Potential B2H Project routes, B2H Project schedule, draft Programmatic Agreement, and Environmental Resources Phases Study Plan
December 16, 2009	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Tribal comments on draft Programmatic Agreement; Phased Resource Survey Plan and Ethnographic scope-of-work needs tribal review
December 16, 2009	To: BLM From: the Tribes	Electronic comments in document	B2H Project Programmatic Agreement received at meeting then sent the next day through email
December 16, 2009	To: BLM From: the Tribes	Electronic comments in document	Phased Study Plan; received at December 2009 meeting, distributed January 5, 2010
December 17, 2009	To: BLM From: the Tribes	Electronic comments in document	B2H Project Programmatic Agreement, received at meeting, sent the next day through email
February 17, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	New Vale District Manager, timeline for Programmatic Agreement, tribal comment, and initiate preparation of Ethnographic Study
April 26, 2010	To: Robert Bear From: Donald Gonzalez (BLM Vale)	Letter	BLM response to tribal comments on the Programmatic Agreement
June 24, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Gateway West Programmatic Agreement, B2H Project right-of-way application, update on statement-of-work, and NEPA schedule
June 28, 2010	To: Diane Pritchard (BLM Vale) From: Deward Walker	Email	Dr. Walker introduces himself and asks about statement-of-work for Ethnography Study
July 21, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Update on Phased Study Plan, Ethnographic Study statement-of-work and discussion of Gateway West Memorandum of Agreement template
September 13, 2010	Between: Ted Howard and Diane Pritchard (BLM Vale)	Email	Statement-of-work for Ethnography Study status
September 14, 2010	To: Diane Pritchard (BLM Vale) From: Ted Howard	Email	Tribal consultation and Wings and Roots Meeting
September 14, 2010	To: Ted Howard From: Diane Pritchard (BLM Vale)	Email	Response to consultation and meetings

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Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 8, 2010	To: Ted Howard From: Renee Straub (BLM Vale)	Email	Deliver proposed ethnographic statement-of-work, map and figure review, follow-up of September communication
October 20, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Statement-of-work for Ethnographic Study presented for tribal review
November 17, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots	Update on statement-of-work, update on Resource Study Plan, NEPA contractor changes
December 7, 2010	To: Renee Straub (BLM Vale) From: Ted Howard	Email	Statement-of-work for Ethnographic Study with tribal changes
December 15, 2010	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Statement-of-work for Ethnographic Study, B2H Project update, and introduction of Ron Malecki of USFWS
January 12, 2011	To: Renee Straub (BLM Vale) From: Ted Howard	Email	Marked up statement-of-work
January 19, 2011	Attendees: Tribes, consultants and BLM	Wings and Roots Meeting	Ethnographic statement-of-work tribal comments, B2H Project update, and introduction of Logan Simpson Design
February 15, 2011	To: BLM Cultural Team From: Doug McConnaughey	Email	Quechan Tribe vs. BLM
February 16, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Ethnographic statement-of-work and contracting process, B2H Project revised Scoping Report
March 3, 2011	To: Renee Straub (BLM Vale) From: Ted Howard	Email	Status request of B2H Project Ethnographic statement-of-work
March 9, 2011	To: Renee Straub (BLM Vale) From: Ted Howard	Email	Status request of B2H Project Ethnographic statement-of-work
March 10, 2011	To: Ted Howard From: Renee Straub (BLM Vale)	Email	Status of B2H Project Ethnographic statement-of-work and schedule
March 16, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Overall tribal concerns for the B2H Project, Scoping Report, B2H Project update, and alternative route development
April 4, 2011	To: Ted Howard From: Kathryn Leonard	Email	Consultation Scoping document comments
April 20, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Scoping Report, B2H Project update, ACHP and Section 106, Ethnographic Study, alternative development, Cultural Report statement-of-work, Owyhee Below the Dam Area of Critical Environmental Concern, and Idaho routing

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
April 27, 2011	To: John Styduhar (BLM) From: Fred Grant	Email	Contracting and bidding for Ethnography Study
May 4, 2011	To: Robert Bear and Ted Howard From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
May 18, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Consultation with Nancy Brown ACHP, Programmatic Agreement, Ethnography cost estimate, alternative development update, distribute revised Scoping Report, cultural statement-of-work, B2H Project in service date 2016, Resource Reports review schedule, Owyhee County update, and State of Idaho meeting planned
June 2011	From: the Tribes	Electronic comments in document	Cultural Resources Survey Plan with tribal comments
June 10, 2011	To: Ted Howard, et al. From Renee Straub (BLM Vale)	Email	Survey Plan and summary submittal
June 11, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Follow-up tribal comments on Nancy Brown's visit and ACHP participation, B2H Project update, route alternatives development, Cultural Resources Survey Plan update, Ethnographic Study update, Owyhee County update, and upcoming Wings and Roots schedule
July 13, 2011	To: Ted Howard From: Donald Gonzalez (BLM Vale)	Letter	Consulting party
July 20, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Survey Plan, Ethnographic Study update, BLM Cultural Plan of Action, cultural APE, visual resource maps and Section 106
August 18, 2011	To: Ted Howard et al. From: Diane Pritchard (BLM Vale)	Email	Ethnographic Study schedule
August 24, 2011	Attendees: BLM, the Tribes, and Owyhee County	Three Sovereigns Campfire Meeting	Memorandum for administrative record submitted by Cecil Werven BLM, group update on Gateway West and B2H projects, review of proposed route and route modification request
August 24, 2011	To: Doug McConnaughey From: Cecil Werven (BLM)	Email	Letter from IDL to B2H Project BLM and ODOE forwarded a copy to Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, subject: comment on proposed line location
September 21, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Cultural Survey Work Plan, Ethnographic Study update, discussion over Section 106 meeting in La Grande on August 16, 2011, IDL requests to change route, Memorandum of Agreement, and tribes expressed concern over inappropriate data sharing with ODOE

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
September 27, 2011	To: BLM Cultural Team and consultants From: John Styduhar (BLM)	Email with attachments	Memorandum of Agreement edits from June 27, 2011
September 28, 2011	Between: Sue Oliver (ODOE), Diane Pritchard (BLM Vale), and John Pouley	Email	Data Sharing Agreement draft and related issues; per the request by the tribes
October 11, 2011	To: Ted Howard, et al. From: Kathryn Leonard	Email	Cultural Resources Work Plan edits
October 19, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	IDL requested route change, Owyhee County meeting, Cultural Resources Work Plan, Ethnographic Study, tribal concerns expressed over ODOE access to cultural resources information, Tetra Tech's archaeological survey methods, MOU updated, and B2H Project management update
November 4, 2011	To Diane Pritchard (BLM Vale) From: Terry Gibson	Letter	Disposition of the literature review for Ethnographic Study
November 16, 2011	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Renewable energy team, Gateway West Memorandum of Agreement status, rapid response team, revised definitions of the Cultural Resources Work Plan, and tribal request that ODOE attend future Wings and Roots meeting
January 6, 2012	To: Robert Bear From: Donald Gonzalez (BLM Vale)	Letter	APE, including direct, indirect and cumulative effects
January 18, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Tribes expressed concern with BLM transparency and internal communication protocol, tribal comments on Gateway West Memorandum of Agreement and Programmatic Agreement, Archaeological Work Plan, ODOE, Ethnographic Study, and B2H Project update
January 24, 2012	From: Kathryn Leonard	Electronic comments in document	Memorandum of Agreement edits from January 24, 2012
January 25, 2012	From: Kathryn Leonard	Electronic comments in document	Memorandum of Agreement edits from January 25, 2012
February 3, 2012	To: Terry Gibson From: Donald Gonzalez (BLM Vale)	Letter	Disposition of the literature review for Ethnographic Study

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
February 6, 2012	To: Sue Oliver (ODOE) From: Donald Gonzalez (BLM Vale)	Letter	Invitation to Shoshone-Paiute Wings and Roots tribal consultation meeting
February 14, 2012	Attendees: Tribes, USFWS, consultants, and BLM	Wings and Roots Meeting	Ethnographic Study updates, tribal review of Archaeological Survey Plan, Memorandum of Agreement, schedules for resource reports, tribes expressed concerns over review period protocol, and B2H Project manager updates
March 5–7, 2012	To: Ted Howard From: Renee Straub	Email	Resource reports for review: 8, 10, 11,12, and13
March 21, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Ethnographic Study updates, information from RET, tribal comments on the Socioeconomic Report, tribal review requested for 9 resource reports, geotechnical bore holes, APE, revised SF-299 Report POD, visual viewshed for Gateway and B2H Project manager updates
March 23, 2012	To: Deward Walker From: Diane Pritchard (BLM Vale)	Email	Ethnographic Study deliverables and procedures, also includes a response to Diane from Deward
April 9, 2012	To: Cultural Team and consultants From: Holly Orr (BLM Washington)	Email	BLM and tribal consultation on the Memorandum of Agreement
April 18, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Ethnographic Study, response to tribal comments on Socioeconomic Report, resource reports schedules and request for tribal review, SF-299 Report POD, APE, cultural landscapes presentation, and B2H Project manager updates
May 1, 2012	From: Holly Orr (BLM Oregon) To: Doug McConnaughey	Email with attachments	Concerning ODOE response to tribal invitation to Wings and Roots meetings
May 16, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Agency review status of resource reports and tracking of tribal comments, SF-299 Report POD, alternatives maps, draft interview for Ethnographic Study, and NEPA alternatives
May 23, 2012	To: Sue Oliver (ODOE) From: Holly Orr (BLM Oregon)	Email with attachments	Follow-up requesting response from ODOE to tribal invitation to Wings and Roots meetings
June 20, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Agency review status of resource reports and tracking of tribal comments, NEPA alternative maps updates, Ethnographic Study and the EIS, Sage-Grouse Plan, visual resources, electrical environment, ODOE literature review on electromagnetic fields, and B2H Project manager updates

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
July 18, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Discussion of Bureau of Indian Affairs investigators sent to affected sites, Wings and Roots facilitator's role and tribal concerns over the government-to-government consultation process, resource reports and agency comments, Ethnographic Study update and inclusion in the EIS, Archaeological Survey Plan, visual analysis, and B2H Project manager updates
July 30, 2012	To: Terry Gibson	Letter	Summary of position in consultation
August 13, 2012	To: Doug McConnaughey From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Section 106, Programmatic Agreement, and Visual Assessment of Historic Properties
September 18, 2012	To: Doug McConnaughey and Renee Straub (BLM Vale) From: Ted Howard	Email	Request for water resources document
September 19, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Programmatic Agreement and tribal comments, Archaeological Inventory Plan, draft Visual Assessment of Historic Properties, cultural landscape study, and B2H Project manager updates
October 2, 2012	To: the Tribes From: BLM Cultural Team	Document	Memorandum of Agreement draft submittal, from October 2, 2012, to the tribes
October 15, 2012	To: Ted Howard From: BLM Cultural Team	Memo	Comments on draft Visual Assessment of Historic Properties and Archaeological Survey Plan
October 17, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Archaeological Survey Plan, Visual Assessment of Historic Properties, landscape based key observation points, draft final report of Ethnographic Study, resource report tribal reviews and comments, EIS tribal review and comments, and B2H Project manager updates
November 19, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Ethnographic Study, tribal comments on Draft EIS, request for tribal review and consultation on Resource Reports, and B2H Project manager updates
December 19, 2012	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Tribal comments on Draft EIS chapters-Geology, Recreation, Transportation, and Air Quality, more Draft EIS Chapters distributed and tribal review requested, and B2H Project manager updates
January 8, 2013	To: Ted Howard From: Renee Straub	Email	B2H Project Programmatic Agreement for consultation

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
January 16, 2013	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Tribal comments on Draft EIS Chapters-Geology, Vegetation, and Water Resources, more Draft EIS chapters distributed and tribal review requested right-of-way renewal process and Memorandum of Agreement between Idaho Power Company and BLM, and B2H Project manager updates
January 16, 2013	To: Dr. Walker From: BLM	Email	Ethnographic Study contract extension
March 1, 2013	To: Ted Howard From: Renee Straub (BLM Vale)	Email	Request for tribal review and consultation of Resource Report 2, Cultural Resources
March 22, 2013	To: Ted Howard and Terry Gibson From: Diane Pritchard (BLM Vale)	Email	Request from tribes for formal approval to share Ethnographic Study data with Logan Simpson Design consultant Kathryn Leonard
April 8, 2013	To: Ted Howard From: Renee Straub (BLM Vale)	Email	Request for tribal review and consultation of Resource Report 1, General Visual Resource Report
April 15, 2013	To: Ted Howard From: Renee Straub (BLM Vale)	Email	Request for tribal review and consultation of Resource Report 1, General Visual Resource Report
April 24, 2013	To: Renee Straub From: Dennis Smith	Letter	Tetra Tech Visual Assessment by key observation point
May 2, 2013	To: Dennis Smith From: Donald Gonzalez	Letter	Visual Assessment of Historic Properties Study Plan
June 26, 2013	To: Dennis Smith From: Donald Gonzalez	Letter	ODOE and BLM MOU
July 11, 2013	To: Ted Howard From: Donald Gonzalez	Letter	Oregon and Idaho Class I and II
July 30, 2013	To: Dennis Smith From: Donald Gonzalez	Letter	Final Tribal Confidential Ethnographic Report and status
September 17, 2013	To: Ted Howard From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review
September 18, 2013	Attendees: Tribes, consultants, and BLM	Wings and Roots Meeting	Introduction to new B2H Project manager and discussion about Section 106 and Draft Inadvertent Discovery Plan, Oregon and Idaho Class I and II, NAGPRA, Manual 6280 trails compliance

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
January 15, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots Meeting	Administrative Draft EIS, viewshed studies, landscapes, sites, beliefs, Sage-Grouse, forced march, and Programmatic Agreement
February 19, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots Meeting and letter	Cultural landscapes, RLS, maps, important sites, Inadvertent Discovery Plan, and B2H Project updates
February 28, 2014	To: Dennis Smith and Ted Howard From: Donald Gonzalez	Letter	Inform the tribes that the visual APE extends into Washington
April 16, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots Meeting	Inadvertent Discovery Plan, important sites, visual assessments, RLS, upcoming meeting schedule, and NAGPRA Plan of Action
June 18, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots meeting	Inadvertent Discovery Plan, Programmatic Agreement, NAGPRA Plan of Action, data sharing, RLS, subsurface testing strategy, and Ethnographic Study
August 20, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots Meeting	Tribal comments on RLS, discussions on Inadvertent Discovery Plan, NAGPRA Plan of Action, testing strategies, and Administrative Draft EIS
August 25, 2014	To: Ted Howard From: Renee Straub	Email	BLM requested the review of the Administrative Draft EIS
September 17, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design	Wings and Roots Meeting	Tribal comments on the Administrative Draft EIS, subsurface testing strategy, and NAGPRA Plan of Action
October 28, 2014	Attendees: Gary Aman (Tribal Ranger) and Jennifer Theisen	Field trip	Field review of sites to include in RLS
October 29, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Logan Simpson Design by phone	Wings and Roots Meeting	NAGPRA Plan of Action, subsurface testing strategy, and B2H Project document updates

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
November 4, 2014	From: Renee Straub To: Ted Howard	Email	Request review and participation in drafting the NAGPRA Plan of Action
December 17, 2014	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and Tamara Gertsch (BLM Project Manager) by phone	Wings and Roots Meeting	NAGPRA Plan of Action outline, draft Testing Definitions, high probability areas, and Draft EIS review; delivery of CD and Class I, Class II, and Visual Assessment of Historic Properties RLS results summary
December 18, 2014	To: Lindsey Manning From: Donald N. Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review
March 18, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, and BLM	Wings and Roots Meeting	B2H Project updates, October 2014 Idaho field review, high probability areas, EPG resumes, written tribal comment to the Draft EIS, and mitigation
April 15, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation (including Buster Gibson), facilitator, BLM, and EPG	Wings and Roots Meeting	Introduce new NEPA contractor EPG, B2H Project update, October 2014 Idaho field review, GIS exercise looking at resources, pictographs, and mitigation
May 20, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, EPG	Wings and Roots Meeting	Introductions, April GIS walk-through of resources, October 2014 Idaho field review of sites, B2H Project update, mitigation, NAGPRA Progress, B2H Project/EIS schedule update, and Section 7 consultation
June 17, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	NAGPRA update and receive comments and input from the tribes, mitigation, Nine-Agency MOU, and B2H Project management updates
July 1, 2015	From: Renee Straub To: Ted Howard	Email	Workshop invitation to cooperating agencies/interdisciplinary team in-person meeting on August 27, 2015
July 15, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, NAGPRA Plan of Action review tribal comments, and ongoing tribal discussions on B2H Project mitigation
August 7, 2015	From: Renee Straub To: Ted Howard	Email	Programmatic Agreement update

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
October 16, 2015	To: Lindsey Manning From: Donald N. Gonzalez	Letter	BLM submits to the tribes the Class I, Class II, and RLS reports for their records at October 21 Wings and Roots meeting
October 21, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, NAGPRA Plan of Action, EIS cultural analysis, and delivery of letter and Class I, Class II, and RLS reports
November 18, 2015	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, NAGPRA Plan of Action, EIS cultural analysis, and upcoming meeting schedule
January 20, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, Final EIS update, review of the revised B2H Project alternative routes, Sage-Grouse, and NAGPRA Plan of Action
February 17, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, Final EIS update, sites in tribal interest area, NAGPRA Plan of Action, and Navy involvement
April 20, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, NAGPRA Plan of Action revised document for tribal comment, Preliminary Agency Preferred Alternative for Final EIS, Endangered Species Act - Consultation Species List (information), and B2H Project management updates
May 18, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, NAGPRA Plan of Action opportunity for tribal comment, and Final EIS review sessions upcoming meetings
July 20, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, tribal response to AFEIS, NMFS Biological Assessment, and opportunity for tribal comment
August 17, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, Programmatic Agreement, potential mitigation options, and opportunity for tribal comment

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
September 21, 2016	Attendees: Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, facilitator, BLM, and EPG	Wings and Roots Meeting	B2H Project management update, response to tribal comment, NMFS Biological Assessment, and opportunity for tribal comment
Nez Perce Tribe			
August 25, 2008	To: Joseph Band (Nez Perce) From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
August 21, 2008	To: Rich Christian and Samuel Penny From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
May 4, 2011	To: Samuel Penny, Aaron Miles, and Vera Sonniq From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
August 30, 2012	To: Silas Whitman From: Don Gonzalez	Letter	B2H Project Programmatic Agreement for review
July 11, 2013	To: Patrick Baird From: Donald Gonzalez	Letter	Oregon Class I and II reports
September 17, 2013	To: Silas Whitman From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review
October 23, 2013	To: Maxine Smart From: Donald Gonzalez	Letter (electronic delivery)	November 12 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submittal of trails map set
December 13, 2013	To: Keith (Patrick) Baird From: Jennifer Theisen	Email	For review and consultation: submit site eligibility table
December 24, 2013	To: Patrick Baird From: Donald Gonzalez Cc: Silas Whitman	Letter	Request review of RLS for the Visual Assessment of Historic Properties
September 2, 2014	To: Patrick Baird From: Jennifer Theisen	Phone call	Programmatic Agreement signatory confirmation
November 11, 2014	To: Silas Whitman, Patrick Baird From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
November 24, 2014	To: Jennifer Theisen From: Patrick Baird	Email	NAGPRA Plan of Action
December 18, 2014	To: Silas Whitman, Patrick Baird, and THPO From: Donald N. Gonzalez	Letter	Inform the tribe of Draft EIS availability and LUP Amendments for review
Joseph Band of the Nez Perce			
August 25, 2008	To: Joseph Band (Nez Perce) From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
Fort McDermitt Paiute and Shoshone Tribe			
August 21, 2008	To: Karen Crutcher From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping notification
August 2010	From: Diane Pritchard (BLM Vale)	Letter	Second Scoping CD and letter
May 4, 2011	To: Billy Bell From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
August 30, 2012	To: Billy Bell From: Don Gonzalez	Letter	B2H Project Programmatic Agreement for review
November 1, 2012	To: Don Gonzalez From: Maxine Smart	Letter	Removal of Chairperson Bell
July 11, 2013	To: Maxine Smart From: Donald Gonzalez	Letter	Oregon Class I and II reports
September 17, 2013	To: Maxine Smart From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review
October 23, 2013	To: Maxine Smart From: Donald Gonzalez	Letter (electronic delivery)	November 12 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, submit trails map set
November 18, 2013	Attendees: Pat Ryan, Renee Straub, and Jennifer Theisen	In-person meeting	Introductions, B2H Project updates, Class I and II report
December 16, 2013	Attendees: Pat Ryan and Jennifer Theisen	In-person meeting	Meet new Chairperson Smart, hand deliver RLS and explanation of survey, site eligibility table, Class I and II, monitoring, and no artifact collection

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
December 24, 2013	To: Tildon Smart From: Donald Gonzalez	Letter (hand-delivery)	Request review of RLS for the Visual Assessment of Historic Properties; no enclosure, document hand delivered December 16, 2013 by Jennifer Theisen (BLM)
November 11, 2014	To: Tildon Smart, Dale Barr, and Billy Bell From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action
December 18, 2014	To: Tildon Smart From: Donald N. Gonzalez	Letter	Inform the tribe of Draft EIS availability and LUP Amendments for review
Shoshone-Bannock Tribes of the Fort Hall Indian Reservation			
August 21, 2008	To: Adam Hill, Alonzo Coby, Anthony Broncho, Blaine Edmo, LeeJuan Tyler, Marlene Skunkcap, and Nathan Small From: David Henderson (BLM Vale)	Letter	Letter to inform about the B2H Project and initiate consultation
August 25, 2008	From: Diane Pritchard (BLM Vale)	Letter	Initial Scoping Notification
August 2010	From: Diane Pritchard (BLM Vale)	Letter	Second Scoping CD and letter
May 4, 2011	To: Carolyn Smith and Alonzo Coby From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
June 8, 2011	To: Yvette Tuell From: Diane Pritchard (BLM Vale)	Phone call and email	Discussed interest of Shoshone-Bannock to participate in consultation; sent email with contact information for the B2H Project and Vale District and overview map of the proposed route; Yvette Tuell requested letter to be sent to tribal chairperson with copy to Tuell and Carolyn Smith
June 23, 2011	To: Nathan Small From: Donald Gonzalez (BLM Vale)	Letter	Invitation to initiate government-to-government consultation
July 13, 2011	To: Nathan Small From: Donald Gonzalez (BLM Vale)	Letter	Participation as consulting party Section 106 process
July 29, 2011	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email	Welcome the tribe as consulting party Section 106
January 9, 2012	To: Nathan Small From: Donald Gonzalez (BLM Vale)	Letter	Request for tribal comments on the APE: direct, indirect and cumulative

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
February 27, 2012 March 6–7, 2012 March 23, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email	Documents for review: Resource Reports 3, 8, 10, 12, 13, 4, 7
March 29, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 6 with the report attached
March 29, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 7 with the report attached
March 30, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 5 with the report attached
March 30, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 6 with the report attached
April 26, 2012	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 9 with the report attached
July 26, 2012	Between: Renee Straub (BLM Vale) and Leah Hardy	Email	Draft EIS, Interdisciplinary RMP, Programmatic Agreement, and NEPA alternatives
August 30, 2012	To: Carolyn Smith From: Diane Pritchard	Email	Participation in Section 106 and Programmatic Agreement
March 1, 2013	To: Yvette Tuell From: Renee Straub (BLM Vale)	Email with attachments	Request for tribal review and consultation of Resource Report 2 with the report attached
July 11, 2013	To: Carolyn Smith From: Don Gonzalez	Letter	Oregon and Idaho Class I and II reports
September 17, 2013	To: Nathan Small From: Donald Gonzalez	Letter	B2H Project Programmatic Agreement for review
October 23, 2013	To: Carolyn Smith From: Donald Gonzalez	Letter (electronic delivery)	November 12, 2013 meeting invite and tribal coordination, BLM Manual 6280 trails compliance, and submittal of trails map set
December 13, 2013	To: Carolyn Smith and Romelia Martinez From: Jennifer Theisen	Email	For review and consultation: submit site eligibility table
December 24, 2013	To: Carolyn Smith From: Donald Gonzalez Cc: Nathan Small	Letter	Request review of RLS for the Visual Assessment of Historic Properties

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
May 9, 2014	To: Carolyn Smith From: Jennifer Theisen	Email	Initiate in-person meeting
May 29, 2014	Between: Carolyn Smith and Jennifer Theisen	In-person meeting	Discussed Programmatic Agreement, subsurface testing strategy, NAGPRA Plan of Action, other cultural topics, and general B2H Project information
September 11, 2014	Between: Cleve Davis and Renee Straub	Email	B2H Project updates and meeting planning
November 5, 2015	Meeting attendees: Fort Hall Business Council (including the Chairman), BLM (including Authorized Officer), and B2H National Project Manager	In-person meeting	B2H Project overview, resource concerns, construction specifics, mitigation, Plan Amendments, NEPA, Draft EIS review, wildlife concerns, treaty rights, tribal monitors, and the Bannock War
November 11, 2014	To: Nathan Small, Carolyn Smith, and Cleve Davis From: Donald N. Gonzalez	Letter	Request review of outline and participation in drafting the NAGPRA Plan of Action
November 26, 2014	To: Nathan Small, Carolyn Smith, and Cleve Davis From: Donald N. Gonzalez	Letter	Thank you letter, NAGPRA Plan of Action, and tribal monitors
December 8, 15, and 16 2014	Between: Carolyn Smith and Jennifer Theisen	Emails and phone calls	NAGPRA Plan of Action and draft summary of sites of Native American concern
December 18, 2014	To: Nathan Small, Carolyn Smith, and Cleve Davis From: Donald N. Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review
January 2, 2015	To: Carolyn Smith From: Jennifer Theisen	Informal letter and package	Mailed cultural resource information to C. Smith
July 1, 2015	From: Renee Straub To: Cleve Davis and Carolyn Smith	Email	Workshop invitation to cooperating agencies/interdisciplinary team in-person meeting on August 27, 2015
July 14, 2015	From: Jennifer Theisen To: Carolyn Smith and Cleve Davis	Email with attachment	Request tribal review of NAGPRA Plan of Action and B2H Project update
July 23, 2015	To: Carolyn Smith From: Jennifer Theisen	Phone call	NAGPRA Plan of Action review and Draft EIS comments

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
August 7, 2015	From: Renee Straub To: Carolyn Smith and C. Colter	Email	Programmatic Agreement update
October 28, 2015	To: Carolyn Smith From: Jennifer Theisen	Email	Request meeting, NAGPRA Plan of Action, and revisions to the Draft EIS cultural analysis
November 2, 2015	To: Blaine Edmo From: Donald Gonzalez	Letter	BLM submits to the tribes the Class I, Class II, and RLS reports for their records
December 1 and 7, 2016	To: Carolyn Smith From: Jennifer Theisen	Email	Meeting planning
December 14, 2015	Attendees: Shoshone-Bannock Tribes of the Fort Hall Indian Reservation and BLM	In-person meeting at Fort Hall	Project EIS and Section 106 updates, NAGPRA Plan of Action, Programmatic Agreement, and sites of concern
March 22, 2016	To: Carolyn Smith and Cleve Davis From: Renee Straub	Email	For information, BLM notify the tribes of press release announcing Preliminary Agency Preferred Alternative
August 4, 2016	Attendees: Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, BLM, and EPG	In-person meeting at Fort Hall	Project EIS updates, upcoming treaty seminar, B2H Project schedule, AFEIS review, NAGPRA Plan of Action, tribal meeting, and Ethnographic Study
August 26, 2016	Attendees: Shoshone-Bannock Tribes of the Fort Hall Indian Reservation, BLM, and EPG	In-person meeting at Fort Hall	B2H Project EIS updates
Yakama Nation			
May 4, 2011	To: William Yallup and Lonnie Selmarn From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
February 28, 2014	To: Harry Smiskin and Johnson Meninick From: Donald Gonzalez	Letter	Inform tribe that the visual APE extends into Washington; invite participation
March 27, 2014	To: Jessica Lally From: Jennifer Theisen	Email	Check in to see whether tribe wants to participate; further extend the invitation to the Programmatic Agreement conference meeting
May 21, 2014	To: Donald Gonzalez From: Harry Smiskin	Letter	Extended invitation again to participate in the B2H Project
December 18, 2014	To: JoDe L. Goudy From: Donald Gonzalez	Letter	Inform the tribes of Draft EIS availability and LUP Amendments for review

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
Affiliated Tribes of Northwest Indians			
May 4, 2011	To: Nolee Olson From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Confederated Tribes of Grand Ronde			
May 4, 2011	To: Kathryn Harrison and Erik Thorsgard From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Columbia River Inter-Tribal Fish Commission			
May 4, 2011	To: Jim Webber From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Northwest Indian Fisheries Commission			
May 4, 2011	To: James Anderson From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Klamath Tribe			
May 4, 2011	To: Perry Chocktoot From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians			
May 4, 2011	To: Dick Clarkson From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Coquille Indian Tribe			
May 4, 2011	To: Ed Metcalf From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Puyallup Tribe			
May 4, 2011	To: Bill Sterud From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Cow Creek Band of Umpqua Indians			
May 4, 2011	To: Sue Shaffer From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Kalispel Tribe			
May 4, 2011	To: Clen Nenema From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report

Table A-1. Boardman to Hemingway Transmission Project Tribal Consultation Log[1]			
Date of Contact	**To/From**	**Consultation Type**	**Summary of Consultation**
Fort Bidwell Indian Community			
May 4, 2011	To: Ralph Degarmo From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Confederated Tribes of Siletz Indians			
May 4, 2011	To: Delores Pigsley From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
May 4, 2011	To: Robert Kentta From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Spokane Tribe			
May 4, 2011	To: Bruce Wynne From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report
Samish Indian Nation			
May 4, 2011	To: Ken Hansen From: Donald Gonzalez (BLM Vale)	Letter	Submit revised Scoping Report

Table Notes:
[1]Refer to EIS Chapter 4, Section 4.2.2.2
ACHP = Advisory Council on Historic Preservation
APE = Area of potential effect
B2H Project = Boardman to Hemingway Transmission Line Project
BLM = Bureau of Land Management
BPA = Bonneville Power Administration, U. S. Department of Energy
CTUIR = Confederated Tribes of the Umatilla Indian Reservation
EIS = Environmental Impact Statement
EPG = Environmental Planning Group, LLC
GIS = Geographic Information System
IDL = Idaho Department of Lands
LUP = Land use plan
MOU = Memorandum of Understanding
NAGPRA = Native American Graves Protection and Repatriation Act
NEPA = National Environmental Policy Act
NHPA = National Historic Preservation Act
NMFS = National Marine Fisheries Service
ODOE = Oregon Department of Energy
POD = Plan of Development
Reclamation = Bureau of Reclamation
RLS = Reconnaissance level survey
RMP = Resource Management Plan
SHPO = State Historic Preservation Office
THPO = Tribal Historic Preservation Office
USFS = U.S. Forest Service

APPENDIX K2
TRIBAL GOVERNMENTS

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COMMENT(S)

RESPONSE(S)

T1 **Confederated Tribes of the Umatilla Indian Reservation (CTUIR)**

comment@boardmantohemingway.com

From: Audie Huber <AudieHuber@ctuir.org>
Sent: Thursday, March 19, 2015 4:28 PM
To: 'comment@boardmantohemingway.com'; 'Straub, Renee L (rstraub@blm.gov)'
Cc: Teara Farrow Ferman; Catherine Dickson; Carey Miller
Subject: Boardman to Hemingway Transmission Line Project Draft EIS.
Attachments: CTUIR DNR 3 19 15 Comments on Boardman to Hemingway Transmission Line Project.pdf

Please find attached the comments of the Confederated Tribes of the Umatilla Indian Reservation Department of Natural Resources regarding the Boardman to Hemingway Transmission Line Project DEIS.

If you have any problems with this transmission, please contact me at this e-mail or the numbers below. Thank you.

A

Audie Huber
Intergovernmental Affairs Manager
Department of Natural Resources
Confederated Tribes of the Umatilla Indian Reservation
46411 Timíne Way
Pendleton, Oregon 97801

(w) 541-429-7228
(f) 541-276-3447
(c) 541-969-3123

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1

COMMENT(S)

RESPONSE(S)

T1 **CTUIR (cont.)**

Confederated Tribes *of the*
Umatilla Indian Reservation
Department of Natural Resources
Administration

46411 Timíne Way
Pendleton, OR 97801

www.ctuir.org ericquaempts@ctuir.org
Phone 541-276-3165 Fax: 541-276-3095

March 19, 2015

Boardman to Hemingway Transmission Line Project
P.O. Box 655
Vale, OR 97918

Transmitted electronically to comment@boardmantohemingway.com and rstraub@blm.gov

RE: Boardman to Hemingway Transmission Line Project Draft EIS.

To whom it may concern:

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Department of Natural Resources (DNR) appreciates the opportunity to comment on the Bureau of Land Management (BLM) Draft Environmental Impact Statement and Land Use Plan Amendments for the Boardman to Hemingway Transmission Line Project, DOI-BLM-OR-V000-2012-016-EIS (DEIS). The CTUIR has worked with the BLM on this project for a number of years addressing the cultural resource and treaty rights impacts of the project and remains concerned that some of the alternatives unnecessarily endanger cultural resources and First Foods. The CTUIR DNR is deeply concerned about the Timber Canyon Alternative as this would adversely affect big game, critical sage grouse habitat, and cultural resources.

T1a

Based on information available in the DEIS and our meetings, the CTUIR DNR recommends the following alternatives in each Segment.:

Segment 1:
1. The Longhorn Alternative should be selected. The Horn Butte Alternative and the proposed route will impact more cultural and natural resources. Further, the Longhorn Variation will impact more cultural resources and intact habitat.

Segment 2:
2. The proposed route should be selected rather than the Glass Hill Alternative. Both alternatives will have impacts, but the proposed route introduces fewer new effects.

Segment 3:
3. The Flagstaff Alternative should be selected because that it parallels an existing transmission line. As noted above, the Timber Canyon Alternative is the worst possible choice for resource impacts.
4. The proposed route should the selected over the Burnt River Mountain Alternative based on landscape, previous disturbance, and reducing impacts to known cultural resources as well as minimizing effects to big game.

Segment 4:
5. The Tub Mountain Alternative should be selected over the proposed route or Willow Creek Alternative based on proximity to previous development.

T1b

T1a Comments noted. The Timber Canyon Alternative was re-evaluated for the Final EIS to better identify potential impacts associated with this alternative. This route crosses mixed conifer forest, which also is of particular concern for the Forest Service. The Forest Service expressed concern about loss of forested habitat (and associated effects on wildlife habitat and timber products). In addition, this route is 19 miles longer than other routes in this segment. See Section 2.1.1.3 (Recommended Route-Variation Options) for further detail.

T1b Comments and route preference noted.

COMMENT(S)

T1 **CTUIR (cont.)**

CTUIR DNR Letter to BLM
Subject: Boardman to Hemingway Transmission Line Project Draft EIS
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These alternatives will maximize beneficial uses, reduce degradation, and preserve important aspects of heritage under both Section 106 of the NHPA, 54 USC § 306108, and Section 101 of the National Environmental Policy Act, preserving "important historic, cultural, and natural aspects of our national heritage, and maintain, wherever possible, an environment which supports diversity and variety of individual choice[.] 42 USC § 4331(b)(4).

As a procedural matter, the CTUIR will provide sensitive cultural resource information and must be withheld from public release under the National Historic Preservation Act, 54 USC § 307103(a) (formerly 16 USC § 470w-3). That material will be provided to Renee Straub of the BLM in a separate e-mail.

The DNR appreciates that the DEIS addresses First Foods, however the way the DEIS discusses First Foods it appears to limit the application of the concept to plants, leaving out the fish and wildlife CTUIR tribal members rely upon as well. In the Definitions section, First Foods are accurately defined as "Plant and animal resources gathered or cultivated by American Indians for subsistence, economic, medicinal, and ceremonial purposes that have important tribal historical, cultural, and religious value." Page 5-7, line 20-22. However, in the Affected Environment the DEIS states "The one mile analysis area was also used for the analysis of first foods because these resources were analyzed within the context of the vegetation communities." 3-105, line 35 and page 3-106, line 1. This remains true on the following pages when First Foods/Ethnobotanical Resources are lumped together on page 3-121, line 13 as well as the methodology for impacts to vegetation, in Section 3.2.3.6, pages 3-161-191. Our December 4, 2013 comments stated:

> On page 3-212, on line 6, the direct effects of construction, operation and maintenance do not consider the impacts to big game. Is BLM considering the impacts to big game and mitigating for those impacts? The line impacts 82.8 miles of elk winter range. Impacts to elk during the winter in their security habitat through maintenance activities can have immediate and significant impacts to populations. Big game, including elk, mule deer and deer have special significance to the CTUIR as one of our first foods that tribal members rely upon for physical and cultural subsistence. The CTUIR DNR hopes that BLM incorporates into the analysis avoidance and mitigation of impacts to big game habitat. Please explain how BLM addresses direct, indirect and cumulative impacts to big game.

T1c The oversight omitting big game and other fish and wildlife populations from the analysis of the impacts to First Foods fails to acknowledge the significance of fish, wildlife and big game to the CTUIR and tribal members. Please include references to the significance of big game as a tribal First Food throughout the Big Game section starting on page 3-239 similar to the language contained in the First Foods/Ethnobotanical section. The section discussing Tribal Wildlife Concerns on page 3-240, line 12-17 should be expanded to identify the significance of big game as one of the First Foods but the significance of fish and other wildlife should also include tribal

RESPONSE(S)

T1c Comment noted. As requested, discussions of traditional foods resources have been added to Sections 3.2.3, 3.2.4, 3.2.5, and 3.2.13.

COMMENT(S)

T1 **CTUIR (cont.)**

CTUIR DNR Letter to BLM
Subject: Boardman to Hemingway Transmission Line Project Draft EIS
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concerns. If BLM needs assistance with the revisions to this language, the CTUIR can provide it at a later date.

T1d The potential impact of the line to big game is highlighted in at least one alternative that has specific, direct, broad range impacts on big game, big game winter range and other wildlife habitat. The Timber Canyon Alternative is the route which is the least consistent with the protection of big game habitat. The alternative crosses approximately 25 miles of elk summer range habitat, approximately 35 miles of Elk Winter Range habitat, approximately 30 miles of mule deer winter range, approximately 27 miles of sage grouse general habitat and is on the border of approximately 30 miles of sage grouse priority/core habitat. No alternative has impacts as profound as the Timber Canyon Alternative. This alternative should not be chosen.

T1e The DEIS does an inadequate job addressing how impacts to big game will be mitigated. Direct effects of construction will impact big game populations, but so will operation and maintenance activities. Any new roads should be restricted access to prevent additional public use and disturbance of wildlife, including both winter and summer range habitat.

Cultural Resources

This undertaking will adversely affect historic properties of religious and cultural significance to the CTUIR. The BLM has the opportunity to reduce those effects through the selection of appropriate alternatives.

T1f The DNR appreciates the BLM cultural resource "sensitivity" ranking system and the explanation of it contained on page 3-804-5. However, it would have been preferable if BLM had worked with DNR in the development of the ranking system. As the DEIS notes, some sites are more sensitive than others, i.e. some sites "have strong cultural values to tribes and other ethnic groups." The CTUIR would have liked to have engaged in discussion of site type and sensitivity. For example, this would have changed the ranking of rock images and rock features, which are properties of religious and cultural significance or TCPs. The CTUIR DNR disagrees with the ranking of lithic scatters without features or projectile points on the surface as low value. Until the site has been formally evaluated, one cannot know whether it has datable material or not. Further, the definitions are vague and it is unclear what exactly is included in "Task-specific sites", which BLM assigned low-moderate sensitivity. If the specific task is sacred in nature, than surely it is more sensitive than that. Note that in the ranking, non-eligible historic trails are more sensitive than lithic scatters, quarries, and task-specific sites. We do not understand how the BLM arrived at that conclusion. Finally, the ranking of Paleoindian sites as the most significant type needs more explanation. Has BLM assessed the number of sites documented dating to various time periods within the Plateau and Great Basin?

T1g The ranking system fails to take into account existing impacts, such as existing transmission lines and the route of Interstate 84. These are critical when assessing affects to integrity of setting, feeling, and association. If there already is a transmission line within the viewshed of a

RESPONSE(S)

T1d Route preference noted. The potential effects of the B2H Project on big game species, is analyzed for all alternative routes considered (refer to Section 3.2.4.5 in the Final EIS). The Applicant has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects to big game and other wildlife, including seasonal and spatial restrictions, creation of a Plan of Development that includes a Biological Resources Conservation Plan, and limiting new or improved accessibility to sensitive habitat.

T1e Comment noted. The Applicant has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects to big game and other wildlife, including seasonal and spatial restrictions, creation of a Plan of Development that includes a Biological Resources Conservation Plan, and limiting new or improved accessibility to sensitive habitat (refer to Section 3.2.4.5 in the Final EIS).

T1f Comment noted. Site sensitivity rankings and descriptions have been modified based upon specific comments received from the CTUIR and were discussed during government-to-government consultation. Please refer to BLM Team internal meetings: Wings and Roots, October 21, 2015 and November 18, 2015.

T1g See next page for response to T1g.

COMMENT(S)

T1 **CTUIR (cont.)**

CTUIR DNR Letter to BLM
Subject: Boardman to Hemingway Transmission Line Project Draft EIS
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T1g given historic property, the effects of another transmission line in the same viewshed is less than if the viewshed were intact. When considering the RLS data, the BLM determined to rank impacts from 0-250 feet as most severe, 250-750 feet as medium severe, and 750-5 miles as most severe. Speaking relatively, that is of course correct. However, the break at 750 feet is not intuitive. Please explain how this number was arrived at. BLM decided the overall assessment area is 26,400 feet. BLM put 1% of that area in the most severe category, 2% in medium, and 97% in least severe. The towers themselves will be tall and highly visible from quite a distance (presumably there's been an analysis as to exactly how far). We understand that the severity of impact will change over distance, but these categories appear arbitrary and do not seem reflective of actual impact.

T1h Chapter 3.2.8 discusses the PA and the cultural resource work that has been completed and will happen. The PA has not been signed. Based on meetings with the BLM, it appears to the DNR that aspects of the cultural resource work discussed in the EIS and PA are not being completed as outlined in the documents. The BLM is making agreements to move aspects of the reconnaissance level survey (RLS) to the intensive level survey (ILS). Please ensure that the EIS accurately reflects the work that is being done. In addition, the DNR expressed concerns about what will be addressed in the ILS and what will be addressed in the RLS; those concerns were not resolved prior to the issuance of the DEIS. Responses to cultural resource concerns have been slow; and it remains unclear how many issues have been or will be resolved prior to finalization of the EIS. This uncertainty prevents an adequate review of these documents.

As noted above, DNR will provide sensitive cultural resource information that is exempt from the Freedom of Information Act release to Renee Straub in a separate e-mail communication. This identifies specific site impacts of the alternatives.

T1i I refer the BLM back to CTUIR comments on the subject of the 15% sample and whether or not it is truly random. A random sample is not stratified by landownership. The EIS should accurately reflect what the BLM did to consider impacts to our cultural and historic heritage. The CTUIR has provided many comments over the last seven years meeting and working with Idaho Power and BLM. We expect that those comments we provided have been and will be considered in the final alternative selection.

T1j The Cultural Resources section ends with a list of mitigation measures, Section 3.2.8.9. None of these mitigation measures will address adverse effects to historic properties of religious and cultural significance to the CTUIR. This list includes preparation of National Register nominations. Evaluating sites for their eligibility for inclusion in the National Register is not mitigation; it is part of the section 106 process. It also lists "partnerships and funding for public archaeology projects." The CTUIR is opposed for excavating archaeological sites for recreational purposes. We provided many comments on this list in the PA in August 2012. In the August 2013 and January 2014 version, it was removed altogether. In the September 2014 version it was back. Please review our comments, address them with us, and change or remove the list.

RESPONSE(S)

T1g The methodology was not designed to account for existing impacts along a given alternative route. Impacts associated with existing infrastructure are identified and discussed qualitatively in the cultural resources analysis.

These distance criteria are not tied specifically to the Reconnaissance Level Survey (RLS) data, these criteria are applied to all known sites within the 4 -mile-wide Class I literature review study corridor for the purposes of the EIS analysis. The revised analysis methodology has incorporated a fourth distance zone in order to further refine distance as a variable in the model. Revised distance zones are as follows: 0 to 250 feet; 251 to 750 feet; 751 to 1,000 feet; and 1,000 feet to 2 miles.

The distance criteria are representative of distance zones established for the purposes of GIS analysis only. These distances in-and-of-themselves are not reflective of specific impacts on sites, they are simply a tool for use in the comparison of alternatives relative to the proximity of known sites to the centerline. When the distance and site sensitivity variables are combined in the model the resulting calculations can be used to identify potential initial impacts on cultural resources by alternative route.

T1h The EIS references all studies conducted that are pertinent to the NEPA process. Studies required as part of the EFSC process in Oregon or the Section 106 process may inform, but are not required under NEPA. Though often conducted parallel to NEPA these are separate actions required under separate laws. The Programmatic Agreement directs how Section 106 will be carried out (refer to Appendix I).

T1i Inability to access all private lands for survey made a completely random survey impractical. Reference to the 15 percent survey will be referred to as a 15 percent survey.

T1j Measures described in the EIS represent typical approaches to mitigation; however, site-specific mitigation will be developed as part of the Historic Properties Management Plan in compliance with Section 106 and in consultation with the tribes and consulting parties and in accordance with the Programmatic Agreement developed for the B2H Project.

COMMENT(S)

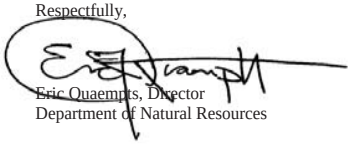
T1 **CTUIR (cont.)**

CTUIR DNR Letter to BLM
Subject: Boardman to Hemingway Transmission Line Project Draft EIS
March 19, 2015
Page 5 of 5

T1k Finally, in our December 4, 2013 comments the CTUIR requested that the term "rock image" be used rather than "rock art." Please replace the phrase "rock art" with "rock image" on pages 3-769 line 18, and 3-796 lines 3 and 10.

If you have any further questions, please contact Audie Huber, DNR Intergovernmental Affairs Manager at 541-429-7228.

Respectfully,



Eric Quaempts, Director
Department of Natural Resources

Cc: Renee Straub, BLM [with enclosure]

Treaty June 9, 1855 ~ Cayuse, Umatilla and Walla Walla Tribes

RESPONSE(S)

T1k The term "Rock Art" has been replaced as suggested.

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes**

comment@boardmantohemingway.com

From: Chad Colter <ccolter@sbtribes.com>
Sent: Thursday, March 12, 2015 4:42 PM
To: comment@boardmantohemingway.com
Subject: Comments to DEIS BOARDMAN TO HEMINGWAY - Shoshone-Bannock Tribes
Attachments: 031215_B2H_deiscomments_Shoshone Bannock Tribes.pdf

Attached please find comments from the Shoshone-Bannock Tribes regarding the DEIS for the Boardman to Hemingway Transmission line.
Thanks.

Chad Colter, Director Fish and Wildlife Department
Shoshone-Bannock Tribes

1

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

The SHOSHONE-BANNOCK TRIBES

FORT HALL INDIAN RESERVATION
PHONE: (208) 478-3700
(208) 237-0797

FORT HALL BUSINESS COUNCIL
PO BOX 306
FORT HALL, IDAHO 83203

March 12, 2015

Bureau of Land Management
B2H Project
P.O. Box 655
Vale, OR 97918

RE: Comments from the Shoshone-Bannock Tribes regarding the Boardman-Hemingway Transmission Line Draft Environmental Impact Statement.

The Shoshone-Bannock Tribes (Tribes) have reviewed the draft Environmental Impact Statement (EIS) for the proposed Boardman-Hemingway Transmission Line project (Project) and offer the following comments for consideration. The Tribes request that the Bureau of Land Management (BLM) consider the issues presented in this comment letter and respond in writing to the Tribes; indicating how the comments were evaluated and where changes, if applicable, were made for the final EIS and Record of Decision (ROD).

Consideration during the NEPA Process

The National Environmental Policy Act (NEPA, 42 U.S.C. 4321-4347, January 1, 1970) requires federal agencies to provide a process which results in a more comprehensive and strategic approach to decision-making; integrating environmental considerations into proposed federal actions to achieve a "productive harmony" among our various social, economic and environmental objectives. Tribal input is a necessary part of the NEPA process, helping federal agencies effectively consider Tribal rights and issues; prior to implementing an action. Without effective consultation, the Tribes often bear the burden of development activities or the adverse impacts from federal land management decisions, such as those likely to arise from the implementation of the Project. The Tribes input during this process is aimed at ensuring Tribal rights and interests are adequately represented in the final decision.

Tribal interests extend beyond the cultural and spiritual aspects of our lifestyles to the unique relationship the Tribes retain the with United States government. Various federal statutes and executive orders protect the Tribes cultural interests and treaty rights. The federal trust responsibility doctrine requires federal agencies to manage federal lands for the benefit of tribal rights and interests. Executive orders and federal law require meaningful government-to-government consultation with the Fort Hall Business Council, the governing body of the Shoshone-Bannock Tribes, when actions may affect Tribal rights

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

Tribal Treaty Rights

The Shoshone and Bannock peoples' aboriginal lands cover a vast geographic area and encompass what are now known as the states of Idaho, Oregon, Nevada, California, Utah, Wyoming and Montana. Rivers which our people used included the Snake, Columbia, Missouri and the Colorado river systems, all of which provided past and current subsistence resources. These natural resources provided food, medicine, shelter, clothing and other uses and purposes, intrinsic to traditional practices. The riverine ecosystem was vital to support the lifestyles of the Shoshone and Bannock people who successfully utilized the resources. Hunting for deer, elk, rabbits, sage grouse and Snake River salmon was important, along with vital native plant resources, including, but not limited to, roots, such as "*doza*," camas, "*yampa*," bitterroot, sage, sagebrush, and berries. The natural resources provided food, medicine, shelter, clothing and other uses and purposes, intrinsic to traditional practices. Hunting for big game was important, along with vital native plant resources, including roots. The topography of this area required that the local native peopled use a network of trails that crisscrossed along rivers, mountain ridges and passes.

Various cultural sequences or phases, as set forth in archeological chronologies, all indicate continued cultural presence of the Bannock and Shoshonean groups, whose descendants now reside on the Fort Hall Reservation in southeastern Idaho. The earliest written records, by Lewis and Clark and other emigrants verify the presence of Shoshone and Bannock people as they traveled though this region. Fur trappers confirmed these reports of hunting and trading. Intertribal relationships included warfare and socializing, between Shoshone, Bannock and other tribes, such as the Flatheads and Blackfeet.

In June 1867, an Executive Order established the Fort Hall Indian Reservation, as a collective place to consolidate the various bands of Shoshones, Bannocks and even other tribes, from their aboriginal lands, clearing the way for European-American settlements, such as ranchers and miners who desired rich resources present on aboriginal lands. The United States then signed a treaty, the Treaty with the Eastern Shoshone and Bannock Indians in 1868 with Shoshone and Bannock headmen (commonly referred to as the "Fort Bridger Treaty"). The Fort Bridger Treaty of July 3, 1868 was the only treaty ratified by Congress between the Eastern Shoshone bands and the Bannocks. In the Treaty, the Shoshone and Bannock people expressly reserved off-reservation hunting, fishing and gathering rights on the unoccupied lands of the United States. The Fort Bridger Treaty (15 Stat 73) Article IV states:

> *The Indians herein named agree, when the agency-house and other buildings shall be constructed on their reservations named, they will make said reservations their permanent home, and they will make no permanent settlement elsewhere; but they shall have the right to hunt on the unoccupied land of the United States so long as game may be found thereon, and so long as peace subsists among the whites and Indians on the borders of the hunting districts.*

T2a Article IV reserved the right for the Tribes to maintain a cultural, social and spiritual link to our ancestral homelands. Over the past 140 years the Tribes have utilized these unoccupied lands to visit significant sites, hunt fish and wildlife for subsistence, gathered botanical species for medicine and food. In addition to the reserved Treaty rights, Tribal members also continue to

T2a Comment noted. The BLM recognizes Tribal Inherent Rights and Treaty Rights as set forth in the Fort Bridger Treaty of 1868. Discussion of Treaty Rights have been expanded and clarified in the Final EIS to better reflect tribal perspectives with regard to the B2H Project area.

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

T2a

exercise inherent rights including, but not limited to, visits to sacred sites or practice of traditional cultural practices. The Fort Hall Business Council is obligated to protect and preserve both Treaty rights and any inherent rights. The Tribes remain concerned that this Project has the potential to impact both Treaty and inherent rights, and the component resources which underlie those rights.

T2b

Snake River Policy
The Tribes stress the importance of initiating efforts to restore the Snake River system and affected unoccupied lands to a natural condition. Article IV of the Fort Bridger Treaty of July 3, 2868, reserved the right to hunt on the unoccupied lands of the United States and the Tribes work diligently to ensure the protection, preservation and enhancement of those rights for future generations. The Tribes management policies generally allow for supporting federal proposals that will improve or restore resource conditions. The Shoshone-Bannock Tribes Policy for Management of the Snake River Basin Resources states:

> *The Shoshone Bannock Tribes (Tribes) will pursue, promote, and where necessary, initiate efforts*
> *natural condition. This includes the restoration of component resources to conditions which most closely represents the ecological features associated with a natural riverine ecosystem. In addition, the Tribes will work to ensure the protection, preservation, and where appropriate-the enhancement of Rights reserved by the Tribes under the Fort Bridger Treaty of 1868 (Treaty) and any inherent aboriginal rights.*

The lands and resources within the Project area are an important part of the Tribes' history, contemporary subsistence and cultural practices. The Project has the potential to impact cultural and natural resources within the Tribes' original territory. The proponent and BLM need to consider and implement specific strategies to ensure future generations of Tribal members will have the same unique opportunities to enjoy the natural landscape, gather resources and continue traditional cultural practices.

T2c

Wildlife Resources
The Tribes continue to hunt wildlife species in the Project area and formally request the BLM protect access and harvest opportunities from proposed Project development activities. Access to hunting areas is a vital component of the Treaty and inherent rights, any proposal to limit the ability to exercise reserved or inherent rights will be viewed by the Tribes as unacceptable. Accordingly, adverse modifications to wildlife habitat are also a significant concern for the Tribes and a re-evaluation of potential habitat mitigation measures should also be considered during the planning process.

T2d

Migratory Waterfowl
The Snake River plain, Columbia River Plateau and associated wetlands have been home to significant populations of numerous species of migratory waterfowl since time immemorial. The Tribes rely on robust populations of these species to continue contemporary subsistence and economic activities. The integrity of the migratory flyway is an issue that needs to be carefully examined in the final EIS and according mitigation measures need to be incorporated into the ROD for the Project. The Tribes are particularly concerned about the alignment for the Project

T2b Comment noted. The BLM recognizes Tribal Inherent Rights and Treaty Rights as set forth in the Fort Bridger Treaty of 1868. Discussion of Treaty Rights have been expanded and clarified in the Final EIS to better reflect tribal perspectives with regard to the B2H Project area.

T2c The BLM recognizes Tribal Inherent Rights and Treaty Rights as set forth in the Fort Bridger Treaty of 1868. Discussion of Treaty Rights have been expanded and clarified in the Final EIS to better reflect tribal perspectives with regard to the B2H Project area.

T2d Comment noted. The EIS was revised to include additional analysis of potential effects of the B2H Project on migratory birds. Also, the Applicant has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects to migratory birds, including preconstruction surveys for sensitive species, seasonal and spatial restrictions, and avian-safe design standards. Refer to Section 3.2.4.5 in the Final EIS.

COMMENT(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

T2d being perpendicular to the migratory flyway and its potential to disrupt utilization of available habitat in the Project area.

T2e *Raptors*
The raptor species are of critical cultural importance to the Tribes that would be negatively impacted by the Project, and each alternative contains significant risks to the integrity of the species along the Project corridor. Golden eagles carry an especially high intrinsic value to the Tribes, so the Tribes request to be involved in the studies that may be necessary to determine eagle use of the area, including potential telemetry studies. Invasive methods that may result in undue stress to eagles must be avoided. The Tribes are particularly concerned about the corridor's alignment alternatives that encroach near the Snake River and across the Columbia River Plateau because of the rich habitat values for raptors along the riverine corridors and their nesting habitat further upland.

T2f *Sage Grouse and Sharp-Tail Grouse*
Sage Grouse is a significant species in the Shoshone and Bannock cultures. The tangible significance of Sage Grouse is illustrated in tribal traditional dance and ceremonial songs, which speak of the power the sage grouse possesses. The Sage Grouse is also a traditional subsistence resource and a part of the traditional diet of the Shoshone Bannock Tribes. On a broad cultural scale, the Sage Grouse is an integral component of the web of life and plays an important role in maintaining the balance of life. The Tribes do not support any proposals which would result in the short or long-term displacement of Sage Grouse, and urge the BLM to monitor habitat and populations to prevent adverse impacts from the proposed Project.

T2g The Project is proposed to move through areas that are basically undisturbed and still provide substantial opportunities for recruitment and potential maintenance of these populations. Each of the alternatives poses a substantial risk, even with the assumption that these birds will behave in a similar fashion to sage-grouse in oil and gas developed areas. There is a very real potential that the construction of the Project will result in an irretrievable loss of habitat and an actual loss of native upland birds from the associated infrastructure and towers. The proposed mitigation should include reducing perching opportunities and other best management practices for upland birds; but the EIS offers little in the way of specific mechanisms to improve the transmission line.

Noxious and Invasive Species
In accordance with the Tribes' Policy for Management of the Snake River Basin Resources, the Tribes urge the BLM to require active restoration of the native plant communities potentially affected by Project activities. Traditional, subsistence and medicinal plants the Tribal members rely upon have often been unduly compromised due to the introduction and invasion of non-native plants. The Tribes request a full restoration of any construction disturbance, utilizing only native plant species, and the proponent give specific management protocol for preventing the spread of noxious or invasive species during other Project activities; such as routine driving along trails for maintenance.

The Tribes are concerned about potential impacts to native botanical communities. Tribal elders and staff indicated concern over the removal of shrubs and brushes due to the tower construction.

RESPONSE(S)

T2e The Applicant has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects to eagles, including preconstruction surveys for sensitive species, seasonal and spatial restrictions, and avian-safe design standards. Additional analysis was added to the Wildlife section (Section 3.2.4) of the EIS to provide more detailed information on the potential impacts of the project on bald and golden eagles.

T2f The Applicant has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects on Greater Sage-Grouse, including creation of a Plan of Development that will include best management practices, preconstruction surveys of sensitive species, seasonal and spatial restrictions, perch deterrents, and avian-safe design standards. The B2H Project would be designed, sited, and implemented to adhere to a mitigation hierarchy that would result in a net conservation gain for Greater Sage-Grouse.

The Greater Sage-Grouse analysis has been revised for the Final EIS to include additional information on the potential direct and indirect effects from the B2H Project.

The Applicant has committed to design features and site-specific mitigation measures to minimize impacts to sensitive wildlife, including preconstruction surveys, seasonal and spatial restrictions for sensitive periods and habitats, minimization of timber and other vegetation clearing, spanning/avoiding sensitive features (e.g., water bodies), and a Plan of Development that includes a Biological Resources Conservation Plan. Refer to Section 3.2.4 in the Final EIS.

T2g Comment noted. Idaho Power has committed to design features and site-specific selective mitigation measures designed to minimize anticipated B2H Project effects to Greater Sage-Grouse and other native upland birds, such as creation of a Plan of Development that includes best management practices for the B2H Project, installation of flight diverters and perch deterrents, and seasonal and spatial restrictions. A full listing of the design features and selective mitigation measures and their descriptions is included in the Final EIS. Also, the B2H Project will be designed, sited, and implemented to adhere to a mitigation hierarchy that will result in a net conservation gain for Greater Sage-Grouse in accordance with BLM's Greater Sage-Grouse ARMPAs for Oregon and Idaho.

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

A healthy community of native botanical species provides unique opportunities for Tribal members to continue to harvest wildlife and plant resources as a part of traditional, medicinal and subsistence activities, which Tribal people conducted from time immemorial. Botanical products are essential to the survival of Tribal culture, medicinal uses, language and continued traditional cultural practices. Traditional cultural practices surrounding the harvest of botanical species have a unique place in Tribal culture; as the gathering of botanical species often coincide with seasonal use patterns. Maintaining these patterns helps pass traditional knowledge to younger generations.

T2h The Tribes would recommend including an analysis in the FEIS for a comprehensive vegetation management plan, developed by the BLM and the proponent, to reduce or eliminate the probable impacts to vegetation from the Project. At a minimum the Tribes would expect that a proposal for a large scale operation, such as the Project, would include a noxious weed control program and a native vegetation rehabilitation program within the area affected by operations and construction. Successful examples of noxious weed programs often include GIS modeling for weed spread, mechanical and chemical treatments, and transport vehicle cleaning stations for all vehicles entering the Project area. A rehabilitation project would focus on restoring those component vegetation resources in the project area where feasible. Replanting previously affected areas in the Project area with native species to increase the spatial structure of special status plants would help reduce the potential for the Project to adversely impact these resources. In reviewing the DEIS, the Tribes were concerned that these features were not adequately presented in the document, and would like to highlight the importance of resource planning for a project of this scope.

T2h All required weed control and reclamation and rehabilitation activities would be documented in the Plan of Development in the Noxious Weed Management and the Reclamation, Revegetation, and Monitoring Framework Plans, which must be approved by BLM and cooperating agencies prior to issuance of the Record of Decision and right-of-way grant. The Plan of Development would be a condition of the Record of Decision and a stipulation of the right-of-way grant.

Visual Resources

T2i The Tribes encourage transmission lines on private lands only, to protect Tribal rights and resources located on federal lands. The Tribes are concerned about the visual impacts from the 110 to 130 feet steel towers, which would alter the areas that are not within existing utility corridors. The value of the pristine open landscape is extremely high to the Tribes, must be protected from unsightly towers by constraining development to previously disturbed areas.

T2i Comment noted.

Habitat Mitigation Program

Assuming that approval to move forward with the Project is granted in the final EIS and Record of Decision, the Tribes formally request that an off-site mitigation program be required of the proponent to replace lost or disturbed fish and wildlife habitat along the corridor. For the purposes of the Project, the Tribes would recommend evaluating habitat impacts to big game, raptors, migratory waterfowl, small mammals, fish, and protected or sensitive species.

A clear example of this type of mitigation is already in effect across the Columbia River basin, funded by the Bonneville Power Administration. In Idaho, the Tribes are a partner in the Southern Idaho Wildlife Mitigation program, which was required by the Northwest Power Act, to mitigate for lost habitat from the construction, inundation and operation of the federal Snake River hydroelectric projects. The State of Idaho, Shoshone-Bannock Tribes, and Shoshone-Paiute Tribes each develop proposals for acquisition and protection of habitat designed to replace those lost habitat units; which may include acquisition of private property or conservation easements on available habitat. A similar program for the Project would result in complete

COMMENT(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

replacement, over the life of the Project, for lost or disturbed habitat, funded directly by the proponent.

T2j The Tribes would propose to use the habitat inventory, by target species, found in the EIS to set up a base assessment of potentially lost or disturbed habitat. That assessment would then be converted to a ledger of habitat units that the proponent would be required to replace throughout the project life. The Tribes recommend that a program, composed of the relevant fish and wildlife managers, be given access to program funds to identify replacement habitat, purchase conservation easements or property from willing sellers, and manage that habitat for the benefit of target species in perpetuity. Every habitat unit replaced would then be assessed against the ledger until the transmission line is completely mitigated. Although the proponent will assume that the moderate compensatory mitigation for the easement is enough to cover the externalized impacts to habitat, the Tribes maintain the position that if the corridor is approved a program must be developed to replace lost habitat units for each target species.

Cultural Resources

The Tribes have an expanded definition of cultural resources, utilizing a holistic perspective that encompasses plants, water, animals and humans, and the relationship existing between them. Cultural resources located along the Project corridor are highly significant because they directly contribute to the Shoshone and Bannock peoples' unique cultural heritage. Simply stated, a cultural resource is any resource of cultural character. Cultural resources are those social institutions, practices, beliefs, religious practices, sacred landscapes and objects, archaeological sites, natural resources and their use, intellectual property, oral traditions, language, historical documents and structures, secular and non-secular items are cultural resources. An expanded definition of cultural resources is warranted in the EIS to ensure all resources receive an inclusive analysis for project impacts.

T2k The EIS insufficiently characterizes cultural resources as only archeological resources, a typical 'stones and bones' analysis of impacts. Common impacts from project development to archaeological sites includes trampling, disturbing site stratigraphy, breakage of artifacts, soil erosion exposing buried artifacts for looting, and removal of artifacts. Unidentified archaeological sites and traditional cultural properties are at risk from the same impacts.

T2l In the event that the Project is ultimately approved in some form, the Tribes request that a cultural resource management plan should be developed, in consultation and concurrence with affected tribes for these BLM lands, and if possible, on private and state lands. If the BLM truly intends to include the Tribes in future preservation or data recovery efforts to promote effective management of cultural resources, then any agreements must include the tribes. An effective plan, with tribal participation, should address native plants, subsistence hunting and gathering, medicinal and ceremonial plants, petroglyphs, pictographs, and other traditional cultural properties which may be impacted by BLM land management. Interagency coordination may also be required between other federal land managers and local BLM field offices to avoid conflicting or duplicative management schemes for cultural resources.

Formal consultation between local Field Office, Tribal staff, and the Fort Hall Business Council is necessary to effectively address the control of confidential information. NHPA § 106

RESPONSE(S)

T2j Appendix D - Framework for Development of Compensatory Mitigation Plans for Biological Resources has been revised for the Final EIS as Appendix C to include additional details and information on the Compensatory Mitigation Plans.

T2k Comment noted. The EIS has been reviewed and a more thorough characterization of cultural resources as a suite of different sites types, traditional cultural properties and other locations of significance have been incorporated throughout the cultural resources discussions.

T2l The BLM would not prepare a project-specific Cultural Resources Management Plan; however, a Historic Properties Management Plan will be prepared to address cultural resources affected by the B2H Project. Site-specific mitigation will be developed as part of the Historic Properties Management Plan in compliance with Section 106 and in consultation with Native American tribes and consulting parties and in accordance with the Programmatic Agreement developed for the B2H Project.

Per Stipulation IV.B of the Programmatic Agreement for the B2H Project "The BLM will consult with the parties to this agreement to seek ways to avoid or minimize adverse effects to historic properties. If historic properties cannot be avoided, subsurface investigation may be necessary for archaeological sites within the direct effect APE which may be adversely affected. Determination of the site boundaries in relation to the direct effect APE, and actual area of ground disturbance, may be undertaken through subsurface investigation to aid in developing alternative design and/or mitigation strategies. If adverse effects cannot be avoided, the BLM will consult with the parties to this agreement to determine appropriate mitigation measures to be detailed in the HPMP." Site-specific mitigation for the B2H Project will be developed in the Historic Properties Management Plan in compliance with Section 106 of the National Historic Preservation Act and in consultation with tribes and consulting parties.

COMMENT(S)

RESPONSE(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

Consultation provides opportunity for Tribal input over how best to manage the cultural resources on BLM lands. To date, this Project has raised numerous 'red-flags' with the Tribal community regarding the irreversible loss of significant cultural resources. Any future consultation with the Tribes necessarily must include an in-depth discussion about the impacts and what can be 'avoided' through creative management strategies and what resources would be destroyed by development; in particular during the actual site selection for an approved route.

T2m

A cultural resource management plan should also include protocols for coordinating with tribes regarding inadvertent discoveries, burials, curation of Native American cultural materials, and Native American archeological sites. The Tribes would also need to be immediately notified if any cultural artifacts or human remains are uncovered or inadvertently discovered; with an immediate stop work order for construction activities. When necessary, Section 106 compliance needs to occur or the required NAGPA consultation is initiated with the Tribes. In such a situation, the Tribes request no work proceed until Tribal staff concurs/approves. The Tribes further request that qualified Tribal members be hired to assist in monitoring requirements for this Project.

We would also like to address the following issues from the DEIS in this comment letter to alleviate any confusion about our interests in the Project area:

Chapter 3 – Affected

T2n

- Pg. 3-760: "By the time of contact with Euro-American cultures in the early 1700s, the historically documented groups still present today were living in Northeast Oregon, including the Cayuse, Umatilla, Walla Walla, Nez Perce and Paiute."
    - This sentence must include Shoshone and Bannock peoples. There are numerous historical documents that reference Shoshone and Bannock presence on the Bruneau, Boise, Malheur, Payette, and Weiser rivers well into the 20th century, even after the creation of the Fort Hall Reservation. The Shoshone-Bannocks presence in the lower Snake River is characterized by a compilation of historic documents summarized by Albers, Patricia . C., et al, 1998. The Rivers and Fisheries of the Shoshone-Bannock Peoples. American West Center University of Utah.

T2o

- Pg. 3-771: "On July, 1, 1868, the Bannocks and Paiute also signed a treaty, providing for resettlement on reservation lands (Michno 2003)." Not sure what treaty this is in reference to but if it's about the Fort Bridger Treaty then it is definitely a wrong statement. On July 3, 1868, the Fort Bridger Treaty with the Eastern Band of Shoshones and the Bannock Indians was signed and later ratified and proclaimed in February 1869. President Andrew Johnson's Executive Order signed June 14, 1867 created the Fort Hall Reservation. Bands of Shoshones and Bannocks from Boise, Bruneau, Lemhi and Montana Territory were also brought to the Fort Hall Reservation.
    - Suggested language - The Shoshone-Bannock Tribes were parties to numerous unratified and one ratified treaty in their history. The treaties of the Great Peace Commission were the last which Congress ratified. The Fort Bridger Treaty of 1868 is part of the Great Peace Commission's work Gen. Christopher C. Augur is the Commission's sole representative at Ft. Bridger, Utah Territory. Washakie speaks for the Eastern Shoshone and Taghee for the Bannocks. (Smoak, G. E.,

T2m Comment noted. The BLM is preparing a Programmatic Agreement, Plan of Action in compliance with the Native American Graves Protection and Repatriation Act, and Historic Properties Management Plan for the B2H Project. These documents are being prepared in consultation with the tribes and will identify the various protocols and procedures for coordinating with the tribes and addressing cultural resource compliance issues under state and federal law.

T2n Text has been edited as suggested: By the time of contact with Euro-American cultures in the early 1700s, the historically documented groups still present today were living in northeast Oregon, including the Shoshone and Bannock, Cayuse, Umatilla, Walla Walla, Nez Perce, and Paiute.

T2o Text has been edited as requested.

COMMENT(S)

T2 **The Shoshone-Bannock Tribes (cont.)**

T2o

Ph.D., April 2004. The Treaty History of the Shoshone-Bannock Tribes. Colorado State University Department of History)

T2p

Cumulative Impacts of Energy Development
Cumulative impacts to the area, if the Project is ultimately approved, may lead to additional energy development along the corridor; further increasing the potential to impact sensitive resources and Tribal rights. The cumulative impacts analysis for fish and wildlife, cultural resources and Treaty rights reveals substantial impacts to the Tribes in several key areas from this particular Project. Taken as a whole, the Project will increase the likelihood that irreversible and irretrievable impacts will occur to natural and cultural resources of importance to the Tribes. While it is important to reconcile energy needs with available resources, an analysis of the Project reveals impacts of serious magnitude to the Project area.

Simply driving through major transportation routes in Idaho and eastern Wyoming, it's apparent that a dramatic increase of wind farms and natural gas development is occurring, which may result in impacts to migratory birds, wildlife and especially to regional and local habitat. Major changes to the character of the land are being made, often with no analysis for those wind farms constructed on private lands. The purpose of an effective cumulative analysis is to account for those reasonable and foreseeable impacts from increasing the capacity of existing transmission lines; which in turn increases the demand for energy resources along the corridor from wind, hydroelectric, coal and natural gas.

Conclusion
The BLM has the discretion to approve, modify or deny the applicants request for a right-of-way for all Project activities. The Tribes request that the BLM heavily consider the comments submitted and earnestly develop a comprehensive mitigation program due to the significant adverse impacts to the environment. Understanding that the BLM is under a multi-use mandate, the Tribes remind and emphasize that the BLM also has a federal trust responsibility to the Tribes to manage lands under their jurisdiction in a manner which preserves and protects Treaty and cultural resources. By preserving the unique natural and cultural resources present in the Project area, without unnecessary additional structures or developments, the BLM is upholding and supporting those Tribal rights for future generations.

If you have any further technical questions regarding this submission, please call Cleve Davis, Environmental Coordinator at (208) 239-4552 or email at cbdavis@sbtribes.com. For policy questions on further consultation with the Fort Hall Business Council, contact Claudeo Broncho, Fish & Wildlife Policy Representative at 208-239-4563 or at cbroncho@sbtribes.com.

Sincerely,



Nathan Small, Chairman
Fort Hall Business Council, Shoshone-Bannock Tribes

RESPONSE(S)

T2p

Comments on the Draft EIS expressed that not enough information was provided in the Draft EIS to enable the reviewers to understand where impacts would occur and where mitigation would be applied to reduce impacts. Chapter 2, Section 2.5.1 of the Final EIS presents an explanation of the study and analysis approach employed for the B2H Project. Chapter 3 has been expanded to provide more description of the methods for used for analyzing effects associated with each resource (tiered to the overall approach). Chapter 3 also provides more information about the resources, mitigation applied to reduce impacts, and residual impacts on resources along each alternative route by segment, including cumulative effects.

ATTACHMENT

T2 **The Shoshone-Bannock Tribes (cont.)**

THE POLICY OF THE SHOSHONE-BANNOCK TRIBES FOR MANAGEMENT OF SNAKE RIVER BASIN RESOURCES

November 1994
Resolution # GAME-94-1049

ISSUE DEFINITION

Beginning in 1989 and continuing through 2008, many non-Federal hydroelectric projects (Projects) within the Snake River Basin (Basin) will be reviewed under the Federal Energy Regulatory Commission relicensing process. In addition, subsequent to the listing of various salmon and snail species under the Endangered Species Act as well as the initiation of other conservation efforts, the Basin is being viewed, as never before, as a valuable resource contributing to the overall Pacific Northwest regional conservation framework. The Shoshone-Bannock Tribes support efforts to conserve, protect, and enhance natural and cultural resources within the Basin and therefore establish this policy to re-emphasize previous policy statements and provide new direction with regards to recently initiated Basin actions.

BACKGROUND AND INTRODUCTION

Since time immemorial, the Snake River Basin has provided substantial resources that sustain the diverse uses of the native Indian Tribes including the Shoshone-Bannock. The significance of these uses is partially reflected in the contemporary values associated with the many culturally sensitive species and geographic areas within the Basin. Various land management practices, such as the construction and operation of hydroelectric projects have contributed extensively to the loss of these crucial resources and reduced the productive capabilities of many resource systems. These losses have never been comprehensively identified or addressed as is the desire of the Shoshone-Bannock Tribes.

The Shoshone-Bannock Tribes reserved guaranteed continuous use Rights to utilize resources within the region that encompasses and includes lands of the Snake River basin. The Fort Hall Business Council has recognized the contemporary importance of these Rights and resources by advocating certain resource protection and restoration programs and by preserving a harvest opportunity on culturally significant resources necessary to fulfill inherent, contemporary and traditional Treaty Rights. However, certain resource utilization activities including the operation of federal and non-federal hydroelectric projects effect these resources and consequently, Tribal reserved Rights.

It has always been the intent and action of the Shoshone-bannock Tribes to promote the conservation, protection, restoration, and enhancement of natural resources during the processes that consider the operation and management of Federal projects and during the land management activities of other entities.

This policy re-emphasizes the Tribes previous policies with regards to these processes

ATTACHMENT

T2 **The Shoshone-Bannock Tribes (cont.)**

and activities. However, the formal relicensing process for non-federal projects (Projects) as well as other recent undertakings that will consider the overall management of the Basin represent previously unavailable opportunities to comprehensively identify and address impacts to and losses of, resources affected by these Projects.

The importance of considering Tribal goals and objectives for effected resources is specifically recognized in the regulations outlining the federal relicensing process. The Fort Hall Business Council has established the following policy for the Basin in order to provide guidance in determining these goals and objectives. This direction is intended to be consistent with existing Tribal policy for participating in processes dealing with other land and water management activities.

STATEMENT OF POLICY

The Shoshone Bannock Tribes (Tribes) will pursue, promote, and where necessary, initiate efforts to restore the Snake River systems and affected unoccupied lands to a natural condition. This includes the restoration of component resources to conditions which most closely represents the ecological features associated with a natural riverine ecosystem. In addition, the Tribes will work to ensure the protection, preservation, and where appropriate-the enhancement of Rights reserved by the Tribes under the Fort Bridger Treaty of 1868 (Treaty) and any inherent aboriginal rights.

CONCLUSION

In addition to the ongoing efforts of the Tribes and its cooperating agencies, the relicensing process as well as recently initiated Basin recovery efforts provide a firm basis for striving to meet Tribal needs regarding resource conservation, protection, and enhancement. This policy will provide direction to Tribal staff for participating in regional processes as well as for the future development of resource and process specific Tribal plans and guidelines.

Tribal participation in the Project relicensing efforts will be used to identify the direct, indirect, and cumulative effects attributable to the construction, operation, and any proposed modifications of Project facilities. The Tribes expect the license applicant(s) and the Federal Energy Regulatory Commission, in consultation with the Tribes and agencies during the relicensing process, to identify alternative management strategies and develop mitigation measures to reduce or eliminate the identified impacts consistent with this Policy.

In combination with existing policy and direction, other natural and cultural resource management activities (typically those undertaken by the Tribes cooperating agencies) will be utilized to identify additional land management impacts within the Snake River Basin and will similarly identify alternative management strategies and apply mitigation measures consistent with this Policy.

All cooperating agencies will be expected to utilize all available means, consistent with their respective trust responsibility mandates, to protect Treaty rights and Tribal interests consistent with this Policy.

ATTACHMENT

T2 **The Shoshone-Bannock Tribes (cont.)**

The Shoshone-Bannock Tribes' Position Regarding the Transfer of Federal Lands

July 2005

Introduction

The Shoshone-Bannock Tribes set forth the following position concerning any deposition, sale or transfer of federal lands, use rights or other rights in lands that may affect the Shoshone-Bannock Tribes' treaty rights as guaranteed by the Fort Bridger Treaty of July 3, 1868 and subsequent cession agreements. The Tribes oppose any federal land disposition, sales or transfers to private entities or state and local governments based on two fundamental reasons. First, the United States government entered into a solemn treaty with the Shoshone and Bannock tribal peoples in which the Tribes reserved certain off-reservation hunting, fishing and gathering rights which they continue to exercise on unoccupied lands of the United States. Subsequent to the 1868 Treaty, the Tribes ceded certain lands to the United States and reserved in the cession agreements certain communal rights for grazing and use of the public lands. Second, the United States, including its federal agencies, have a trust responsibility as established in the Fort Bridger Treaty and other federal laws, policies and executive orders to protect and preserve the rights of Indian tribes, and to consult with the Tribes prior to such land sales or transfers.

Treaty Guaranteed Rights

The Shoshone-Bannock Tribes ('Tribes") have reserved rights based on their Treaty of Fort Bridger of July 3, 1868. In the treaty negotiations, the Tribal leaders made it clear that they wished to continue to fish for salmon, hunt buffalo and elk, gather the plants and medicines and other cultural resources in their aboriginal areas within the United States, including but not limited to the present states of Idaho, Utah, Wyoming, Nevada and Montana. The Tribes ceded millions of acres of their aboriginal homelands in return for a much smaller reservation known as the Fort Hall Reservation. Accordingly, the Tribes in the Treaty reserved certain off-reservation hunting, fishing and gathering rights which they continue to exercise on unoccupied lands. These reserved treaty rights have been recognized and confirmed by the Idaho Supreme Court.

Following the Treaty of 1868, the United States sought further land cessions from the Tribes in the late 1880's. Under these cession agreements the Tribes reserved grazing and gathering rights on public or unoccupied lands. Today, Tribal members continue to graze their livestock on federal lands, and gather firewood, posts, poles, food and medicinal plants for traditional practices.

The disposition, sale or transfer of federal lands to a private entity or state and local governments adversely impacts the Shoshone-Bannock Tribes' guaranteed off-reservation treaty rights by diminishing the locations and access to areas where Tribal members exercise treaty rights. Tribal members, whose ancestors hunted, fished or gathered on aboriginal lands for thousands of years, are forced to relocate to other areas or cease the exercise of such treaty guaranteed rights. Tribal members grazing areas are also reduced by land transfers, depositions or sales and access for gathering may be severely limited. The transfer, patent or outright purchase of federal lands, and the extension of leases for mining on federal lands by private

Page 1 of 2

ATTACHMENT

T2 **The Shoshone-Bannock Tribes (cont.)**

businesses enable them to control access and use, which jeopardize access to certain Shoshone-Bannock traditional fishing, hunting and gathering areas, and grazing and plant material use.

Federal Trust Responsibility

It is well established that the United States has a solemn trust obligation to the Shoshone-Bannock Tribes. Under this obligation the United States has a special fiduciary responsibility to consider the best interests of the Shoshone-Bannock Tribes pursuant to the Fort Bridger Treaty. The United States assumed this responsibility when it entered into the Treaty with the Tribes. Today, most fundamentally, the modern form of the trust obligation is the federal government's duty to protect tribal lands and treaty resources, including the off-reservation rights the Tribes reserved. This duty to protect treaty resources includes preserving the integrity of lands upon which the resources are located.

The cultural resources located on many off-Reservation lands are essential to the culture and traditions of the Tribes. Importantly, these resources provide subsistence to a majority of Tribal families residing on the Fort Hall Reservation. Loss of the aboriginal lands because of federal land depositions, sale or transfers to private businesses and non-federal governmental agencies may be devastating to the Tribes and lead to irreversible cultural extinction of traditional practices. Loss of Tribal culture and traditions occur because Tribal identity depends heavily upon the socio-cultural ties that link individuals, families and groups to specific traditional and aboriginal territories and lands. The reservation of these aboriginal areas for hunting, gathering and fishing were contemplated by the Tribal leaders and reserved in the Fort Bridger Treaty. Accordingly, elimination of the federal lands through transfers severely impacts the subsistence food sources for Tribal members, severs the family and cultural ties to certain traditional lands, and restricts the use of cultural resources which are not found on the Fort Hall Reservation.

The federal trust obligations require a federal agency to carefully consider and investigate the effects of its actions on tribal interests and assess its obligation to tribes. The Tribes must not be treated like merely citizens. Instead, the federal land management agencies owe a duty to preserve and protect the Tribal resources by diligently discussing and considering the Shoshone-Bannock Tribal interests through consultation with the Tribes concerning any consideration of a transfer of lands located within the Tribes' aboriginal areas. Proposed land depositions, sales or transfers must consider appropriate mitigations to address reserved treaty rights, cultural resource laws and Tribal policy. Consultation is required by numerous federal laws, including Executive Orders 12875, 13007, 13084 and 13175.

The Shoshone-Bannock Tribes oppose any federal land depositions, sales or transfers that may adversely impacts natural and cultural resources and/or our reserved treaty rights of hunting, fishing and gathering on unoccupied lands of the United States. We certainly welcome the opportunity to work with any federal agency in transferring any federal lands to the Shoshone-Bannock Tribes to insure the Tribes' treaty rights are secured for future generations. If any federal agency or employee has any questions regarding the Shoshone-Bannock Tribes' position, please contact the Chairperson at 478-3700.

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CONFIDENTIAL ATTACHMENT S-4
HIGH PROBABILITY AREAS

This attachment is not included here because it contains confidential information.

ATTACHMENT S-5
PROGRAMMATIC AGREEMENT

FINAL
PROGRAMMATIC AGREEMENT
AMONG
THE BUREAU OF LAND MANAGEMENT
THE U.S.D.A. FOREST SERVICE
THE BONNEVILLE POWER ADMINISTRATION
THE U.S. ARMY CORPS OF ENGINEERS
BUREAU OF RECLAMATION
THE ADVISORY COUNCIL ON HISTORIC PRESERVATION
THE OREGON STATE HISTORIC PRESERVATION OFFICER
THE IDAHO STATE HISTORIC PRESERVATION OFFICER
THE WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)
THE CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION,
TRIBAL HISTORIC PRESERVATION OFFICER
NATIONAL PARK SERVICE
IDAHO POWER COMPANY

REGARDING COMPLIANCE WITH
THE NATIONAL HISTORIC PRESERVATION ACT
FOR THE CONSTRUCTION OF THE
BOARDMAN TO HEMINGWAY 500 KV TRANSMISSION LINE PROJECT

WHEREAS, Idaho Power Company (Proponent) has proposed to construct, operate, maintain and eventually decommission the Boardman to Hemingway 500 kV Transmission Line Project (Undertaking), an approximately 300-mile-long transmission line stretching from near Boardman, Oregon to near Melba, Idaho across multiple federal, state and local jurisdictions and across the ancestral lands of several Indian tribes, requiring permits from multiple federal agencies; and

WHEREAS, the Bureau of Land Management (BLM), in consultation with the State Historic Preservation Officers (SHPOs) / Tribal Historic Preservation Officer (THPO), determined that a phased process for compliance with Section 106 of the National Historic Preservation Act (NHPA), as amended (54 USC §306108), through a Programmatic Agreement (PA) is appropriate, as specifically permitted under 36 Code of Federal Regulation (CFR) 800.4(b)(2), such that the identification and evaluation of historic properties, determinations of specific effects on historic properties, and consultation concerning measures to avoid, minimize, or mitigate any adverse effects will be carried out in phases as part of planning for and prior to the issuance of any Notices to Proceed (NTP) as detailed in stipulation XII; and

WHEREAS, the Proponent intends to construct, operate and maintain and eventually decommission the Boardman to Hemingway Transmission Line Project according to general parameters contained in the project Plan of Development (POD) for the Undertaking which shall be appended to and made a part of the Record of Decision (ROD) authorizing the right of way (ROW) grant; and

WHEREAS, the BLM is considering the issuance of a ROW grant for the construction, operation and maintenance, and eventual decommissioning of the Undertaking, and the ROW grant will incorporate this PA by reference; and

WHEREAS, this PA, and the Historic Properties Management Plan (HPMP) that will be developed pursuant to this PA, will be incorporated into the approved project POD; and

WHEREAS, the BLM is a multiple use agency responsible for permitting and issuing a ROW grant and the protection of cultural resources on federal public lands as authorized under the Federal Lands Policy and Management Act (FLPMA) of 1976 (43 USC §1701) and the Proponent has requested a 30-year, renewable ROW grant from the BLM for the Undertaking; and

WHEREAS, portions of this Undertaking will occur on lands managed by the United States Department of Agriculture Forest Service (USFS), and USFS has designated that the BLM will serve as lead federal agency for Section 106 of the NHPA compliance pursuant to 36 CFR 800, the regulations implementing Section 106 of the NHPA of 1966, as amended (54 USC §306108) and is a Signatory to this PA; and

WHEREAS, portions of this Undertaking will occur on lands managed by the Bureau of Reclamation (Reclamation) and the Reclamation has designated that the BLM will serve as lead federal agency for Section 106 of the NHPA compliance pursuant to 36 CFR 800, the regulations implementing Section 106 of the NHPA and is a Signatory to this PA; and

WHEREAS, the Bonneville Power Administration (BPA), owner of the Boardman to Ione transmission line and proposed Longhorn substation, may market and distribute power transmitted by the Undertaking, has agreed to fund a portion of the environmental and cultural compliance and permitting of the line, may participate in the construction of the line, has designated the BLM to serve as lead federal agency to serve as the agency official who shall act on its behalf, fulfilling any BPA responsibilities under Section 106 of the NHPA regarding the Undertaking, and is a Signatory to this PA; and

WHEREAS, the Portland and Walla Walla Districts, U.S. Army Corps of Engineers (USACE), with the Portland District serving as the lead district per a Memorandum of Agreement with the Walla Walla District, will evaluate a permit application for the Undertaking to place structures in, under, or over navigable waters of the U.S. pursuant to Section 10 of the Rivers and Harbors Act of 1899 (33 USC §403) and for the placement of dredged or filled material in the Waters of the U.S. pursuant to Section 404 of the Clean Water Act (33 USC §1344; 33 CFR 323) and the issuance of a permit under either statute will be a federal action associated with the Undertaking that requires compliance with Section 106 of the NHPA, and USACE has designated that the BLM will serve as lead federal agency for Section 106 of the NHPA compliance pursuant to 36 CFR 800, and is a Signatory to this PA; and

WHEREAS, the BLM has determined the Undertaking may have direct, indirect and cumulative effects on properties listed in, or eligible for the National Register of Historic Places (NRHP); and

WHEREAS, the BLM has notified the Advisory Council on Historic Preservation (ACHP) pursuant to Section 106 of the NHPA and the implementing regulations (36 CFR 800.6(a)(1)) and the ACHP has elected to participate in consultations and is a Signatory to this PA; and

WHEREAS, the Undertaking crosses both Oregon and Idaho, and the SHPOs for each state are participating in this consultation and are Signatories to this PA; and

WHEREAS, the Undertaking does not physically cross into Washington but the Area of Potential Effect (APE) for indirect effects on one of the alternatives extends into Washington and the Department of Archaeology and Historic Preservation (DAHP) is a Signatory to this PA; and;

WHEREAS, the APE for indirect effects extends onto the Umatilla Indian Reservation (UIR), and the Confederated Tribes of the Umatilla Indian Reservation (CTUIR) THPO is a Signatory to this PA;

WHEREAS, the National Park Service (NPS) has been invited to participate in this consultation in its capacity as administrator of the Oregon National Historic Trail and the Lewis and Clark National Historic Trail, as this Undertaking may affect segments of the Oregon National Historic Trail and the Lewis and Clark National Historic Trail, and is an Invited Signatory to this PA; and

WHEREAS, the Proponent has participated in consultation per 36 CFR 800.2(c)(4), agrees to carry out the terms of this agreement under BLM oversight, and is an Invited Signatory to this PA; and

WHEREAS, the Undertaking may have an adverse effect under NHPA Section 106 on the Oregon National Historic Trail, the Oregon-California Trails Association (OCTA) is committed to protect emigrant trails by working with government agencies and private interests, OCTA has been invited to participate in consultation and is a Concurring Party to this PA; and

WHEREAS, the Undertaking may have an adverse effect under NHPA Section 106 on some of Oregon's 16 legislatively designated historic trails, as well as some National Historic Trails (NHT) in Oregon; and the Governor's Oregon Historic Trails Advisory Council (OHTAC) is committed to evaluating and recording trail conditions and making recommendations for marking, interpretation, education, and protection for Oregon's Historic Trails; and OHTAC has been invited to participate in consultation and is a Concurring Party to this PA; and

WHEREAS, the Undertaking does not physically cross into Washington but the APE for indirect effects on one of the alternatives extends into Washington and the Umatilla National Wildlife Refuge and the US Fish and Wildlife Service has been invited to participate in consultation and may be a Concurring Party to this PA; and

WHEREAS, the BLM has initiated government-to-government consultation with the following Indian tribes that may be affected by the proposed Undertaking and invited them to be concurring parties to this PA: The CTUIR; Shoshone-Paiute Tribes of the Duck Valley Indian Reservation; Nez Perce Tribe; Yakama Nation; Confederated Tribes of the Colville Reservation; Burns Paiute Tribe; Fort McDermitt

Paiute and Shoshone Tribe; Shoshone-Bannock Tribes of the Fort Hall Indian Reservation; and the Confederated Tribes of Warm Springs Reservation of Oregon. These Tribes understand that, notwithstanding any decision by these tribes, the BLM will continue to consult with them throughout the implementation of this PA pursuant to 36 CFR 800.2(c); and

WHEREAS, the BLM recognizes that historic properties may also include Traditional Cultural Properties (TCPs). Per NPS Bulletin 38, a TCP is defined as a type of historic property that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that are rooted in that community's history and are important in maintaining the continuing cultural identity of the community. A community may include a Native American tribe, a local ethnic group, or the people of the nation as a whole. TCPs may include historic properties that Native American communities consider to be traditional ecological knowledge properties or of traditional religious and cultural importance; and

WHEREAS, the CTUIR, Shoshone-Paiute Tribes of the Duck Valley Indian Reservation, the Burns Paiute, the Fort McDermitt Paiute and Shoshone-Bannock Tribes of the Fort Hall Indian Reservation have expressed interest in the Undertaking and desire to review studies conducted on their ancestral lands; and

WHEREAS, it is the position of Oregon Department of Energy (ODOE) that the execution of this PA can assist the Energy Facility Siting Council (EFSC), to which ODOE serves as technical staff, in determining whether the Undertaking complies with EFSC's Historic, Cultural and Archaeological Standard at OAR 345-022-0090 during its review of the site certificate application for the Undertaking; and ODOE is a Concurring Party to this PA; and

WHEREAS, the project does not physically cross into Washington but the APE for indirect effects on one of the alternatives extends into Washington and the Undertaking may be visible from Lewis and Clark Historic Trail in both Oregon and Washington and the Lewis and Clark Heritage Trail Foundation Washington and Oregon state chapters have been invited to consult on this PA and are Concurring Parties to this PA; and

WHEREAS, the Navy was invited to be a Concurring Party to this PA and has opted not to sign this PA, and should any portion of the undertaking be proposed to occur on Naval Weapons Systems Training Facility (NWSTF) Boardman in Morrow County, Oregon, the U.S. Navy will serve as the lead federal agency for that portion of the Undertaking for Section 106 of the NHPA compliance pursuant to 36 CFR 800, the regulations implementing Section 106 of the NHPA; and

WHEREAS, reference to "parties to this agreement" shall be taken to include the Signatories to this PA, Invited Signatories, and Concurring Parties. Tribes and other parties consulting under Section 106 of the NHPA may decline to sign this document; however, the decision not to sign shall not preclude their continued or future participation as consulting parties to this Undertaking; and

WHEREAS, all parties agree that the PA will serve as the definitive document delineating Section 106 procedures to be followed for the undertaking, if actual or construed discrepancies arise between the PA's requirements and direction found in other documents, or appendices to the PA, the requirements set forth in the main body of the PA will be followed; plans/documents completed prior to execution of the PA will not necessarily require revision due to these circumstances; and

NOW, THEREFORE, the Signatories to this PA agree that the proposed Undertaking will be implemented in accordance with the following stipulations in order to take into account the effect of the Undertaking on historic properties and to satisfy all NHPA Section 106 responsibilities for all aspects of the Undertaking.

STIPULATIONS

The BLM will ensure that the following stipulations are carried out:

I. **Area of Potential Effects (APE)**

A. Defining the APE

The BLM, in consultation with the parties to this agreement, has defined and documented the APE based on potential direct, indirect and cumulative effects. The APE will apply to all lands regardless of management status that may be affected by the transmission line corridor, staging areas, access roads, borrow areas, transmission substations, or other related transmission infrastructures for this Undertaking. The APE, as defined and documented, is a baseline for survey and inventory.

1. Direct Effects—The following definition of direct effects APE takes into account ground-disturbing activities associated with the Undertaking:

   a. The direct effects APE for the above ground transmission line will be 250 feet on either side of centerline (500 feet total) for the ROW and extend the length of the Undertaking, approximately 300 miles.

   b. The direct effects APE for new or improved access roads will be 100 feet on either side of centerline (200 feet total). Existing crowned and ditched or paved roads will be excluded from inventory.

   c. The direct effects APE for existing unimproved service roads will be 50 feet on either side of centerline (100 feet total).

   d. The direct effects APE for the 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 activity.

   e. The direct effects APE for pulling/tensioning sites that fall outside the ROW will be a 250 foot radius around these points.

f. The direct effects APE for borehole locations needed for geotechnical studies conducted as part of detailed engineering will include a 250 foot radius area centered on the borehole location if outside the transmission line direct effects APE.

g. The direct effects APE for operation and maintenance activities will be the same as the APEs described in a.-f. above and within the area of the ROW grant.

2. Indirect Effects

a. The APE for indirect effects on historic properties will include, but not be limited to, the visual, audible and atmospheric elements that could adversely affect NRHP listed or eligible properties. Consideration will be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the NRHP.

b. The indirect effects APE for the Undertaking will extend generally for five miles or to the visual horizon, whichever is closer, on either side of the centerline of the proposed alignment and alternative routes.

c. Studies for previous 500 kV lines have identified noise created by corona and electromagnetic fields as possible indirect effects for transmission lines. These same studies indicate that these effects are greatest immediately under the line and within the APE for direct effects. Although they may on occasion be measured as far as 300 feet from the centerline of a 500 kV line, data gathered for this Undertaking indicate that the noise created by corona and electromagnetic fields will be limited to within the inventoried indirect effects APE.

d. Where the indirect APE includes TCPs, NHTs, and other classes of visually-sensitive historic properties, additional analyses may be required and the indirect APE may need to be modified accordingly. These areas will require analysis on a case by case basis.

3. Cumulative Effects

a. The identification of the APEs will consider cumulative effects to historic properties as referenced in 36 CFR 800.5. Cumulative effects may be direct and/or indirect, or reasonably foreseeable effects caused by the Undertaking that may occur over time, be farther removed in distance or be cumulative.

B. Modifications to the APE

1. An APE may be modified where tribal consideration, additional field research or literature review, consultation with parties to this agreement, or other factors indicate that the qualities and values of historic properties that lie outside the boundaries of the APEs may be affected directly, indirectly and/or cumulatively.

2. Any party to this agreement may propose that the APEs be modified by submitting a written request to the BLM providing a description of the area to be included, justification for modifying the APE(s), and map of the area to be included. The BLM will notify the

parties to this agreement of the proposal with a written description of the modification requested within 15 days of receipt of such a request. From the date of notification, the BLM will consult with the parties to this agreement for no more than 30 days to reach consensus on the proposal.

3. If the parties to this agreement cannot agree to a proposal for the modification of the APEs, then the BLM will consider their concerns and will render a final decision within 30 days after the consultation period closes.
4. For all modifications to the APE(s) the BLM will provide a written record of the decision to the parties to this agreement.
5. Amending the APEs will not require an amendment to the PA.
6. Minor changes to the APE during construction of the Undertaking that may require additional fieldwork, regardless of land ownership, may be handled through the BLM ROW grant variance process in accordance with stipulation VII.C.4.c.

II. Identification of Cultural Resources

A. For the purposes of this document cultural resources are defined as archaeological, historical or architectural sites, structures or places that may exhibit human activity or occupation and/or may be sites of religious and cultural significance to tribes (excerpted from BLM Manual 8100).

B. All cultural resources within the APEs that will have achieved 50 years of age or more at the time of the completion of construction, defined as "the cessation of all construction activities associated with the Undertaking", or shall have achieved "exceptional significance" (National Register Bulletin 15, Criteria Consideration G) shall be identified and evaluated.

C. The BLM will ensure that work undertaken to satisfy the terms of this PA and to adequately identify and document cultural resources that may be affected by this Undertaking and as described herein, will be consistent with ACHP and NPS guidance. The BLM will also ensure that all identification, evaluation, assessment and treatment of cultural resources will be conducted by, or under the direct supervision of, persons with applicable professional qualifications standards set forth in the Secretary of the Interior's Standards for Archaeology and Historic Preservation (48 FR 44716 Federal Register, September 29, 1983) and the federal agency or SHPOs/THPO guidance or permitting requirements.

D. The Proponent will directly fund all fieldwork, analysis, reporting, treatment and curation. Fieldwork will be conducted only after the Proponent has obtained the appropriate federal, tribal and state permits for such fieldwork. Depending on land ownership, the appropriate federal or state agency will require fieldwork authorizations to conduct inventories on public lands upon receipt of an application from the Proponent and within the timeframes stipulated in the land-managing agency's procedures. The CTUIR THPO will require fieldwork authorizations to conduct inventories on tribal lands.

E. The Proponent will conduct the identification effort and inventory of cultural resources in order to identify historic properties for this Undertaking through the following series of steps including a literature review and phased field surveys. Details on these surveys are found in the Archaeological Survey Plan (Appendix A) and the Visual Assessment of Historic Properties (VAHP) Study Plan (Appendix B).

Class I Literature Review—The Proponent will conduct a literature review/record search and include a review of cultural resource investigations and all cultural resources previously identified within a corridor two miles wide on either side of the transmission centerline (four miles total) and will include the proposed and alternative routes to be considered for detailed analysis in the Draft Environmental Impact Statement (DEIS).

The Proponent will also conduct a literature review and record search for the indirect APE, which will comprise a corridor five miles wide on either side of the transmission centerline (10 miles total) and will include the proposed and alternative routes to be considered for detailed analysis in the DEIS. The literature review for the indirect APE will at minimum consist of review of ethnographic literature, General Land Office (GLO) and other available historic maps, an electronic search of the National Register Information System (NRIS), the Oregon Historic Sites Database, Archaeological Survey of Idaho Database, the Idaho Historic Sites Inventory forms, the Washington Information System for Architectural and Archaeological Records Data (WISAARD), the CTUIR THPO site database, local landmarks and registers, and an investigation of historic and contemporary aerial photography. Information on cultural resources existing in the indirect APE that may require further analysis will also be sought from parties to this agreement.

1. Class II Sample Inventory—The Proponent will undertake a Class II pedestrian inventory to document cultural resources within the 15 percent sample area of the direct effects APE for the Proponent's proposed alignment and analyzed DEIS alternatives. The 15 percent sample survey will consist of a series of one-mile long by 500-feet-wide units, centered on the centerline of the Proponent's proposed alignment and DEIS alternatives. The Class II survey will also record the location of areas judged to have high potential for buried cultural resources which may require further subsurface probing, as discussed under stipulation II.E.7.

2. Indirect Effects APE Inventory—The Proponent will identify cultural resources, within the indirect APE that may be affected by the visual, atmospheric and audible elements of the Undertaking.

The visual elements of the indirect APE will be identified using Geographic Information Systems (GIS) viewshed analysis and field verification. Details regarding the process for indirect visual effects are provided in the VAHP Study Plan (Appendix B). The BLM will consult with tribes to identify TCPs and properties of religious and cultural significance within the APE as described in stipulation VI.

A reconnaissance level survey will be conducted to identify potential historic properties, including cultural landscapes. The preliminary results report will be distributed to the federal agencies that are parties to this agreement, SHPOs, THPO and tribes for consultation on eligibility as per stipulations V. and VIII. At their discretion, any federal agency may decline receipt and review of the report by notifying the BLM in writing prior to report distribution. Intensive level surveys (VAHP) will be conducted on select properties upon consultation with the appropriate parties to this agreement (the BLM to determine based on location, state and/or jurisdiction, property ownership, etc.). The reconnaissance and intensive level surveys (VAHP) will be documented in reports.

Once historic properties are identified, the BLM will seek additional information from relevant technical studies (such as the noise and electromagnetic field studies) as well as consult with parties to this agreement to assess indirect effects from atmospheric or audible elements that may diminish the integrity of the property's significant historic features (36 CFR 800.5(a)(2)(v)).

3. Initial Class III Intensive Level Inventory—The Proponent will complete a 100 percent Class III inventory to document cultural resources within the direct effects APE of the BLM-final selected alternative(s) and all roads and facilities related to the Undertaking on lands where access has been granted, including all federal, state, and private lands. Previously surveyed areas from the Class II inventory will count toward the 100 percent inventory. This survey will also record the location of areas judged to have high potential for buried cultural resources which may require further subsurface probing, as discussed under stipulation II.E.7.

4. Class III Intensive Level Inventory of Geotechnical Testing APE—The Proponent will complete Class III surveys around each proposed borehole location for areas outside the direct effects APE. See stipulation I.A.1.f.

5. Preconstruction Class III Intensive Level Inventory—The BLM shall ensure that Class III inventory is completed by the Proponent for areas within the direct effects APE that have not been subject to previous Class III inventories. See stipulation XII. These will include any areas where access was previously denied or where there are modifications to the Undertaking, such as modified access roads or lay-down yards that are identified after the ROD has been issued. Prior to conducting this Class III inventory, a record search will be conducted to obtain currently available data.

6. Subsurface Investigations for Purposes of Identifying Cultural Resources—The BLM will employ reasonable and good faith efforts to identify historic properties, in accordance with ACHP guidance titled *Meeting the "Reasonable and Good Faith" Identification Standard in Section 106 Review*. There will be neither collection of artifacts nor disturbance of ground during initial Class II and Class III intensive level pedestrian cultural resources surveys. Wherever possible, existing information and professional judgment will prevail in an effort to be efficient, pragmatic and protect the resources during the identification of historic properties. A sampling strategy model, including a provision for reporting the results and

validity of the methods, may be employed. The sampling strategy will be tailored to account for results of previous strategies employed in the region.

Areas identified as possessing a high potential for buried cultural resources located within the direct APE may be subjected to subsurface probing to determine the presence or absence of cultural resources, where ground disturbing activities will occur. Selection of areas with a high potential for buried deposits, which include factors such as proximity to water, deep soils, geological features, etc. which may be coupled with low surface visibility, will be based on professional judgment, in consultation with the consulting parties , and comparison with existing site context in the area.

The BLM will develop a research design and sampling strategy for the subsurface investigation, in consultation with the Proponent, and parties to this agreement, prior to undertaking any such investigation. The details of the research design and sampling strategy for the subsurface investigation will be encompassed within the HPMP. The BLM will consult with Indian tribes and parties to this agreement regarding the potential areas proposed for this testing.

7. Subsurface Investigations Alternatives—For certain classes of resources, less invasive technologies, such as remote sensing, may be appropriate. Such methods may be considered as an alternative to subsurface testing.

F. The BLM will make a reasonable and good faith effort to identify properties of religious and cultural significance to Indian tribes, through tribal participation. Identification of historic properties of religious and cultural significance to Indian tribes will occur through government-to-government consultation and ethnographic studies.

The BLM will make a reasonable and good faith effort to identify TCPs as discussed in *National Register Bulletin #38, Guidelines for Evaluating and Documenting Traditional Cultural Properties,* of the NPS guidance, through the consultation and/or through ethnographic studies. Reports identifying such historic properties will be prepared with the participation of the associated group.

G. The BLM will ensure that the Proponent completes draft and final reports for the steps of stipulation II. The BLM will send the reports out to the parties to this agreement for review as described in stipulation V. Review times will be 30 days unless otherwise agreed to.

III. Evaluation and Determination of Eligibility

A. The BLM, in consultation with the appropriate parties to this agreement in each state, will determine the NRHP eligibility of cultural resources within the APEs, pursuant to 36 CFR 800.4(c)(1), and 36 CFR 60.4 NRHP evaluations may be conducted in phases as project plans are refined. Initial evaluations may be followed by more thorough evaluations using NRHP Criteria A-D and NPS Bulletin 15 as the APEs become better defined. Cultural resources may remain unevaluated if there is no potential for effect from the Undertaking. Cultural resources that possess some or all of the characteristics of both archaeological and built environment

resources, such as cultural landscapes and trails, shall be evaluated according to the provisions of stipulations C. through G. of this section.

B. Determinations of eligibility will be consistent with applicable SHPO/THPO guidelines in each respective jurisdiction, in effect at the time of the signing of this PA. Determinations of eligibility require concurrence by the SHPO/THPO as detailed in stipulation III.H.

C. Archaeological Resources

1. Initial evaluations for archaeological resources may rely on surface observations, additional research or remote sensing. If a site is recommended as "eligible" during the initial evaluation and will be affected by the Undertaking, subsurface investigations (i.e. archaeological testing) may be required to make a final determination of NRHP eligibility, but shall be undertaken only after consultation with affected tribes.

2. Determinations of eligibility will be based on reasonable and good faith efforts using available knowledge and data such as existing surface manifestations of the site and cultural context from other site investigations, as well as the environmental and paleoenvironmental setting. Subsurface investigation may be considered as a tool to determine eligibility on an as needed basis but must be prudent and minimize disturbance of cultural deposits. The research design and sampling strategy outlined under stipulation II.E.7 will include provisions for the determinations of eligibility. Such testing will only occur in areas that cannot be avoided and will be directly impacted by the Undertaking.

3. In cases where surface observations, additional research or remote sensing are not sufficient to provide an initial recommendation of NRHP eligibility, the recorder will recommend the resource as requiring further investigation to assess eligibility. Further subsurface investigations will be undertaken in the event that final design will directly impact the resource, per stipulation II.E.7.

   Subsurface investigation strategy shall include an assessment of the depositional environment and objectives for subsurface testing; methods to be employed for subsurface testing and probing; proposed disposition of materials associated with subsurface testing and probing; provisions for reporting and consultation on results of testing. If the site is found ineligible, the evaluation will be reported per the procedures established in stipulation III.G. If the site is found to be eligible, then effects will be assessed as outlined in stipulation IV, and a mitigation plan will be prepared, as applicable per stipulation VII.C.2.

   Subsurface investigation strategy shall be subject to review and consultation per the terms of stipulations V. and VI. of this agreement.

4. In cases where surface observations are adequate to support a recommendation that the resource is "not eligible" for listing in the NRHP, this evaluation will be reported per the procedures established in stipulation III.G.

D. Built Environment

The BLM, in consultation with the parties to this agreement, will determine NRHP eligibility of built environment resources (e.g., buildings, structures, objects, districts, and sites with above ground components), pursuant to 36 CFR 800.4(c)(1).

1. Initial assessment of eligibility for built environment resources will take into account the resources' age and integrity (location, setting, design, materials, workmanship, feeling and association) per the guidance provided in NRHP Bulletin 16A, and per other applicable NPS and state guidance.

2. Resources determined NRHP eligible per initial assessment and assessed as affected by the Undertaking per the procedures established in stipulation IV. of this PA will be reassessed to verify their eligibility in terms of the resources' association with the NRHP criteria of significance. This secondary assessment may involve additional research into the history, events and people associated with the resource, as well as more detailed recordation of the resources' physical attributes and character-defining features.

E. Historic Trails

The BLM, in consultation with the parties to this agreement, will determine the National Register eligibility of historic trails, trail segments and associated sites pursuant to 36 CFR 800.4(c)(1). Historic trails will be evaluated for eligibility as historic properties including linear resources along with associated trail sites such as camps, associated markers, glyphs or other trail elements. For designated National Historic Trails, such as the Oregon Trail, the trail elements, as well as trail segments, will be evaluated as contributing or non-contributing in terms of National Register eligibility based on their integrity (primarily for feeling, association, location and setting).

BLM may seek input and utilize existing information and strategies from other agencies and groups, such as the NPS and trail associations, as well as consulting parties in determining the National Register eligibility of sites and trail segments.

F. Traditional Cultural Properties

Like all historic properties, to be considered eligible a Traditional Cultural Property (TCP) must be a district, site, building, structure, or object that meets at least one of the four criteria established by the NRHP. It must also be associated with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. TCPs apply to groups of every ethnic origin that have properties to which they ascribe traditional cultural value (NRHP Bulletin 38).

To identify TCPs, the BLM will rely on NRHP Bulletin 38 and other NPS guidance, and consultation with Indian tribes, ethnic groups or communities ascribing traditional significance to an area. The BLM will make its determinations of eligibility based on consultation and

information from literature reviews, ethnographies, traditional use studies, field inventories, oral histories, interviews, and other forms of research.

G. Properties of Religious and Cultural Significance to Indian Tribes

Federal agencies are required to consult with Indian tribes to identify properties of religious and cultural significance and to determine if they are eligible for the NRHP (NHPA Section 101(d)(6)(B) and 38 CFR 800.2(c)(2)). The BLM acknowledges that Indian tribes possess special expertise in assessing the eligibility of properties that may possess religious and cultural significance to them (NHPA Section 101(d)(6)(A) and 36 CFR 800.4(c)(1)). Unlike TCPs, the determinations of NRHP eligibility of such properties are not tied to continual or physical use of the property (ACHP Handbook on Consultation with Indian Tribes, 2012).

To identify properties of religious and cultural significance, the BLM will rely on consultation with Indian tribes. The BLM will make its determinations of eligibility based on consultation and information from literature reviews, ethnographies, traditional use studies, field inventories, oral histories, interviews, and/or other forms of research.

H. Reporting on Initial and Final Recommendations of NRHP Eligibility

1. The BLM will distribute recommendations of initial NRHP eligibility to the appropriate parties to this agreement in each state for review and comment following 36 CFR 800.4(c). After a 30 day review period, the BLM will consider all comments and consult with parties to this agreement before submitting its determinations of eligibility, with all comments and responses, to the applicable SHPOs/THPO for concurrence. The BLM will then seek consensus on its determinations of eligibility with the appropriate SHPOs/THPO for all properties regardless of ownership.

    a. If the applicable SHPOs/THPO, tribes, and BLM agree that the cultural resource is eligible, an assessment of effects will be completed in accordance with stipulation IV.

    b. If the applicable SHPOs/THPO, tribes, and BLM agree that the cultural resource is ineligible, then the resource will receive no further consideration under this PA.

    c. If the applicable SHPOs/THPO, tribes, and BLM do not agree on eligibility, the BLM will discuss issues of eligibility with the parties to this agreement and continue to consult to reach consensus. If agreement cannot be reached within 30 days, then the BLM will obtain a determination of eligibility from the Keeper of the NRHP pursuant to 36 CFR 800.4(c)(2) and 36 CFR 63. The Keeper's determination will be final. The BLM will distribute the Keeper's comments to the appropriate parties to this agreement in each state.

2. The BLM will distribute the results of the final evaluations to parties to this agreement for review and comment following 36 CFR 800.4(c). After a 30 day review period, the BLM will submit the final determinations of eligibility, with all comments to the applicable SHPOs/THPO for concurrence. The BLM will then seek consensus on the final determination of eligibility with the appropriate SHPOs/THPO for all properties regardless of ownership.

IV. Assessment of Effects

A. The BLM, in consultation with the parties to this agreement, will assess the direct, indirect and cumulative effects of this Undertaking on historic properties consistent with 36 CFR 800.4(d) and identify effects on each historic property within the APEs in accordance with the criteria established in 36 CFR 800.5(a)(1)-(2), and provide the parties to this agreement with the results of the finding following 36 CFR 800.11(e)(4)-(6), as outlined under stipulation V. The assessment of effects will serve as the basis for the development of the Historic Properties Management Plan (HPMP) for those properties determined to have the potential to be adversely affected by the Undertaking.

B. The BLM will consult with the parties to this agreement to seek ways to avoid or minimize adverse effects to historic properties. If historic properties cannot be avoided, subsurface investigation may be necessary for archaeological sites within the direct effects APE which may be adversely affected. Determination of the site boundaries in relation to the direct effect APE, and actual area of ground disturbance, may be undertaken through subsurface investigation to aid in developing alternative design and/or mitigation strategies. If adverse effects cannot be avoided, the BLM will consult with the parties to this agreement to determine appropriate mitigation measures to be detailed in the HPMP.

C. The Proponent has developed a VAHP Study Plan, (Appendix B) in consultation with federal agencies party to this agreement, SHPOs, THPO and tribes, to assess whether the Undertaking will introduce visual effects that may alter the characteristics that qualify the historic property for the NRHP or that may diminish the integrity of the property's setting, feeling and/or association. The guidelines for conducting the assessment of visual effects of the Undertaking are located in the VAHP. The inventory will focus on indirect visual effects. Other potential indirect effects, including but not limited to atmospheric and audible elements, will be addressed as per stipulation IV.A. above.

D. The Proponent will prepare maps indicating the extent of electromagnetic fields, corona and noise generated by the proposed Undertaking as well as the distribution of identified historic properties in the APE. The BLM will employ these maps in the agency's assessment of effects and will consult with parties to this agreement per the procedures outlined in stipulation V.

E. The BLM, in consultation with the parties to this agreement, will broadly assess cumulative effects under Section 106 in order to identify all reasonably foreseeable, potentially adverse effects, such as effects due to increased access, as a result of the Undertaking (36 CFR 800.5 (a)(1)). Potential cumulative or reasonably foreseeable effects will be based on the APEs for direct and indirect effect and be addressed in the HPMP.

F. The BLM will provide all assessments of effect to historic properties in writing to the parties to this agreement. Review will proceed according to the procedures and timeframes established in stipulation V.

G. Disagreement regarding assessments of effect will be handled according to the procedures established in stipulation XIV.

V. Reporting and Review of Documentation

A. Consistent with the terms and conditions of this PA, the Proponent will prepare reports of cultural resource activities (inventory, evaluation, mitigation/treatment, monitoring and related cultural resource actions) including associated site records and organize them for distribution and review following these general guidelines:

1. Organization of reports by geographic/administrative boundaries: The Proponent will prepare separate reports, as applicable, for those cultural resource inventories and evaluations involving cultural resources and/or historic properties and the built environment (a) within the state of Oregon (excluding lands within the Umatilla Indian Reservation); (b) within the state of Idaho; and (c) on lands within the Umatilla Indian Reservation, utilizing the guidelines in the respective jurisdictions in effect at the time of the signing of this PA.

    a. The Proponent will prepare reports (including report revisions) of activities within the state of Oregon (excluding the Umatilla Indian Reservation) for the BLM's distribution to the Oregon SHPO, federal agencies, applicable parties to this agreement and tribes.

    b. The Proponent will prepare reports (including report revisions) of activities within the state of Idaho for the BLM's distribution to the Idaho SHPO, federal agencies party to this agreement and tribes.

    c. The Proponent will prepare reports (including report revisions) of activities, cultural resources and/or historic properties on CTUIR tribal lands for the BLM's distribution to both the THPO and Chairman of the CTUIR.

2. Reports shall clearly identify land ownership and administrative jurisdiction for both (a) lands covered by the report and (b) cultural resources/historic properties discussed in the report(s).

B. At the conclusion of the phases of fieldwork described under stipulation II.E, as well as any variances undertaken, as described in stipulation VII.C.4.c, the Proponent will submit the draft report for the phases to the lead BLM office for distribution to the appropriate parties to this agreement in each state.

C. Each report will follow appropriate state guidelines and formats including recommendations of eligibility and effect that are in effect at the time of the signing of this PA. Reports will include appropriate site inventory forms and recommendations on the NRHP eligibility of cultural resources (36 CFR 800.4(c)).

D. The BLM will consolidate comments received from parties to this agreement on the reports and submit comments to the Proponent within 60 days of receipt of all comments. The Proponent will produce a revised report addressing these comments within 30 days of receipt. Additional time may be necessary depending on the extent of the revisions.

E. Comments received by the BLM within 30 calendar days of receipt of the report will be considered. Comments may address issues such as the adequacy of inventory, methods of

assessment and reporting, the eligibility of historic properties identified during each phase (36 CFR 800.4(c)), and the effects of the Undertaking on any historic properties (36 CFR 800.4(d) and 36 CFR 800.5). Reviewers will notify the lead BLM office if the 30 day review time frame cannot be met and request an extension from the BLM. Within 10 days of receipt of a request for an extension, the BLM will determine if the request will be granted and send written notification to the requesting party. After 30 days, provided there is no request for extension, the BLM will submit all comments to the Proponent for the Proponent to address per the process outlined in stipulation V.D.

F. For reports that are not time sensitive or are in excess of 200 pages, the BLM may expand review times beyond 30 calendar days.

G. The BLM will submit revised reports to the appropriate agencies, SHPOs/THPO, tribes and parties to this agreement for their records.

H. Versions of reports redacted (see stipulation VIII.) by the BLM for sensitive information, such as site-specific locations and names, may also be distributed to other parties to this agreement, who do not fall under the applicable professional qualifications standards set forth in the Secretary of the Interior's Standards for Archaeology and Historic Preservation (48 FR 44716 Federal Register, September 29, 1983) for review and comment.

I. The BLM will prepare a HPMP per the terms specified in stipulation VII.

J. Prior to any eventual decommissioning of the Undertaking, the Proponent will prepare a plan for protecting historic properties per the terms in stipulation VII.C.5.

K. The Proponent will provide a state specific, final summary report for each respective SHPO/THPO documenting all changes to previous report findings and additional cultural resources-related work not included in the pre-construction reports. The report format will be identified in the HPMP. A summary report may also be provided to parties to this agreement in accordance with stipulation VIII. The summary report will be produced no later than three years after the final surveys and will be considered the final Class III inventory report(s).

VI. Consultation

A. Through government-to-government consultation with Indian tribes, based on the U.S. Constitution and Federal treaties, statutes, executive orders and policies, the BLM, in consultation with appropriate federal agencies, will make a good faith effort to identify properties that have traditional religious and cultural importance to Indian tribes and to determine whether they are historic properties. Discussion of these properties may be submitted as a separate report, such as an ethnographic study. Ethnographic studies are not required, but may be requested by tribes. Confidentiality concerns expressed by tribes for properties that have traditional religious and cultural importance will be respected and will be protected to the extent allowed by law. See stipulation VIII.

B. BLM will ensure that tribes and parties to this agreement will be kept informed as to the development of the Undertaking and engaged in review and comment on all pertinent documents associated. The BLM will seek, discuss and consider the views of the consulting parties throughout the Section 106 process. Such consultation may take a variety of forms in order to accommodate the consultation process with different tribes and parties to this agreement. The consultation will occur through previously established protocols, Memoranda of Understanding and/or forums established for the Undertaking. BLM will consult with tribes and parties to this agreement during the identification of cultural resources, the determination of NRHP eligibility, determination of effect and avoidance and mitigation steps of the process. While the nature of consultation is fluid and the input may vary from tribes and parties to this agreement, in general, the procedures and schedule for review of documents outlined in stipulation V. will be followed.

VII. Historic Properties Management Plan (HPMP)

A. The BLM will begin to draft an outline of the HPMP in consultation with the parties to this agreement following execution of the PA that includes mitigation options for anticipated general classes of historic properties that may be affected by the Undertaking. This outline may include options for treatment of specific properties, as discussed under stipulation VII.C.2, if the details of the historic property are available and the exact effects have been determined. The final HPMP, including protection measures, property-specific mitigation plans, and monitoring plans will be finalized prior to the NTP.

B. The draft HPMP will characterize historic properties identified within the APE and will be used as a guide to address pre-construction and post-construction treatment measures to avoid, minimize and mitigate adverse effects to historic properties identified through subsequent phases of the Undertaking. The draft HPMP will also broadly identify classes of historic properties, relevant research, and potential data gaps in research for classes of properties present in the APE. A range of resource-specific (e.g. historic trails) strategies, will include but not be limited to, mitigation and monitoring, to address reasonably foreseeable direct, indirect and/or cumulative adverse effects that may be caused by the Undertaking. The mitigation measures will be commensurate with the nature of the effect and the significance of the resource, and shall take into account the views of the parties to this agreement and the public. The BLM will consult with the parties to this agreement to obtain written comments and recommendations for proposed treatment measures to be included in the HPMP per the procedures established in stipulations V. and VI. BLM, in consultation with the parties to this agreement, will develop a process for review and acceptance of mitigation to be outlined in the HPMP.

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 the following 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.

1. Protection Measures

The HPMP shall include measures to protect identified historic properties from adverse effects that may result from the Undertaking. These measures may include but not be limited to placement of barricades and fencing, notices to law enforcement, seasonal restrictions, and other appropriate measures.

2. Mitigation Plans

a. All historic properties adversely affected by the Undertaking will be subject to property-specific mitigation plans to be drafted after issuance of the ROD to resolve adverse effects as determinations of effect for these properties are made pursuant to stipulation IV. The mitigation plans will be included in the final HPMP.

b. Mitigation plans shall include appropriate measures to resolve adverse effects to the qualities of the historic property that make it eligible for listing in the NRHP. All mitigation plans will be consistent with Secretary of Interior Standards for archaeological, historical and architectural documentation; the ACHP Section 106 archaeology guidance and other guidance from the appropriate SHPOs/THPO.

c. For effects to archaeological sites that will be mitigated through data recovery, mitigation plans shall include but not be limited to a research design that articulates research questions; data needed to address research questions; methods to be employed to collect data; laboratory methods employed to examine collected materials; and proposed disposition and curation of collected materials and records.

d. Mitigation plans for direct effects to historic properties eligible for listing in the NRHP under criteria other than or in addition to criterion D shall articulate the context for assessing the properties' significance, an assessment of the character-defining features that make the property eligible for listing in the NRHP, and an assessment of how the proposed mitigation measures will resolve the effects to the property.

e. Mitigation plans for indirect effects to historic properties eligible under any NRHP criteria shall include an assessment of the character-defining features that make the property eligible for listing in the NRHP; the nature of the indirect effect; an evaluation of the need for long-term monitoring; and an assessment of how the proposed mitigation measure(s) will resolve the effects to the property.

f. Mitigation plans for direct, indirect, and cumulative effects to historic properties may include, but will not be limited to:

1) Completion of NRHP nomination forms

2) Conservation easements

3) Purchase of land for long-term protection of historic properties

4) Partnerships and funding for public archaeology projects

5) Partnerships and funding for Historic Properties interpretation

6) Print or media publication

3. Monitoring Plan

A Monitoring Plan will be developed as a subsection of the HPMP for implementation during construction, operation, and maintenance.

a. This plan will address monitoring for compliance with stipulations of the HPMP, as well as a potential strategy to avoid, minimize, or mitigate direct, indirect and/or cumulative adverse effects to historic properties at any time during the Undertaking.

b. All monitoring plans shall identify monitoring objectives and the methods necessary to attain these objectives, and in particular address those areas determined under the inventory to show a high probability for buried cultural deposits.

Monitoring shall, as appropriate, include archaeological inspection of construction activities by personnel either meeting the Secretary of Interior Professional Qualification standards or working under the direct supervision of a person meeting the standards. Provisions for tribal monitors will meet the above qualifications as well, per the discretion of consulting tribes.

c. Any cultural resources, human remains or funerary objects discovered at any time during construction, construction monitoring, or operation and maintenance activities will be treated in accordance with the Inadvertent Discovery Plan (IDP) contained within the HPMP.

4. Operations and Maintenance

The HPMP shall include operations and maintenance to address all activities related to the functioning of the Undertaking after construction and reclamation are completed and prior to decommissioning. During operations and maintenance, the ROW grant holder will be required to follow all the terms, conditions, and stipulations concerning historic properties which are included in the POD as part of the ROW grant.

a. The HPMP will identify those stipulations necessary to ensure the consideration of historic properties throughout the life of the ROW grant.

b. The BLM will be responsible for ensuring that the stipulations in the BLM ROW grant are enforced for the life of the ROW grant. Federal or state agencies issuing a permit for the Undertaking will take responsibility for permit enforcement under their jurisdiction.

c. The HPMP will identify a variance review process for construction, operations and maintenance, to address any changes in procedures that could have an adverse effect on historic properties in the ROW. The Proponent 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 parties to this agreement, 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.L. 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 parties to this agreement 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.

5. Decommissioning

The POD will contain a stipulation to develop a decommissioning plan to address the potential effects of decommissioning on historic properties. Prior to decommissioning, the BLM, in consultation with the parties to this agreement, will assess the direct, indirect and cumulative effects of decommissioning this transmission line and associated facilities on historic properties and to seek ways to avoid, minimize or mitigate adverse effects under the plan.

B. Reporting

The HPMP shall provide for the preparation of reports as called for during the implementation of plan activities, including but not limited to monitoring reports, Historic American Buildings Survey / Historic American Engineering Record / Historic American Landscapes documentation, and archaeological data recovery documentation, if applicable.

The BLM will ensure that the Proponent completes draft and final reports as called for under the implementation of the HPMP. The BLM will send the reports out to the parties to this agreement for review as described in stipulation V. Review times will be 30 days unless otherwise noted.

C. HPMP and Mitigation Plans Review

1. The BLM shall submit the draft HPMP to the consulting parties for review. Distribution and review of the HPMP and associated documents shall proceed according to the terms outlined in stipulation V. of this agreement.
2. After consultation with the parties to this agreement to address comments and/or objections, and acceptance by the SHPOs/THPO, the BLM will finalize the HPMP.
3. Any party to this PA may object at any time to any actions proposed or the manner in which the terms of the HPMP are implemented. The objecting party must submit in writing to the BLM the reasons for, and a justification of, its objections. The BLM will consult with the party and the parties to this agreement to resolve the objection within 30 days. If the BLM determines that such objection cannot be resolved, the BLM will follow the procedures defined in this PA under stipulation XIV.

D. The HPMP will be finalized prior to the NTP to resolve adverse direct, indirect and/or cumulative effects to historic properties that may result from this Undertaking.

E. The Proponent, in consultation with the Signatories, will conduct a formal review of the HPMP and associated mitigation plans annually during the period of construction and every five (5) years thereafter throughout the life of this agreement.

F. Any party to this agreement may suggest an amendment to the HPMP and should submit the contents of the amendment in writing to the BLM. The BLM will consider the amendment within 30 days of receipt and consult with the parties on the amendment. An amendment to the HPMP will not require an amendment to the PA. After consultation with the parties to the agreement, the BLM will determine if an amendment will be incorporated into the HPMP by the Proponent.

VIII. Confidentiality of Cultural Resources Information

A. The parties to this agreement acknowledge that certain information about cultural resources may be protected from public disclosure under NHPA (54 USC §307103), ARPA (43 CFR 7.18), Idaho state law (Idaho Code § 9-340E(1),(2) and Oregon state law (ORS 192.501(11)). Parties to this agreement will ensure that all actions and documentation prescribed by this PA are

consistent with the non-disclosure requirements of these laws. BLM will ensure that reports sent to parties to this agreement who do not have staff meeting the Secretary of Interior Professional Qualifications have certain confidential information such as place names, location, etc. redacted, unless the party receiving the documents has an executed data sharing agreement with BLM. Due to the potential for inadvertent discoveries, incomplete prior evaluations or the passage of time resulting in changing perceptions of significance (36 CFR 800.4(c)(1)), cultural resources that have not been evaluated for eligibility or that have been determined Not Eligible will be afforded the same level of confidentiality under this agreement. The BLM may require data sharing agreements with parties interested in obtaining confidential information. The data sharing agreements will be written in consultation with the tribes and other parties which so request.

B. The Proponent will not retain sensitive information that tribes and interested parties authorize them to collect, including but not limited to ethnographic data and similar information beyond the time that it is needed to inform the decision-makers and complete compliance with the terms of the PA. The Proponent will return sensitive information to the BLM, or destroy it and provide written documentation of such action to the BLM.

IX. Inadvertent Discovery of Cultural Resources and Human Remains on Non-Federal Lands

The BLM in consultation with federal agencies that are a party to this agreement, SHPOs, THPO and tribes has prepared an IDP for the HPMP to include cultural resources and human remains, that establishes procedures for immediate work stoppage and site protection to be followed in the event that previously unreported and unanticipated cultural resources or human remains are found on state or private lands during the Undertaking in accordance with 36 CFR 800.13(a)(2)(b) and appropriate state laws.

X. Inadvertent Discovery of Human Remains, Funerary Objects, Sacred Objects or Objects of Cultural Patrimony (NAGPRA) on Federal Lands

A. The BLM in consultation with federal agencies party to this agreement, SHPOs, THPO and tribes has prepared an IDP for the HPMP, to include cultural resources and human remains, that establishes procedures for immediate work stoppage and site protection to be followed in the event that previously unreported and unanticipated cultural resources or human remains are found on federal lands during the Undertaking.

B. Discovery of Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony on federal lands shall be subject to 25 USC §3001 et seq., the Native American Graves Protection and Repatriation Act (NAGPRA), and its implementing regulations, 43 CFR 10 et. seq. The BLM will prepare a NAGPRA Plan of Action (POA) in consultation with federal agencies party to this agreement and in consultation with Native American tribes party to this agreement. The POA will describe the procedures for the treatment and disposition of Native American human remains, funerary objects, sacred objects or objects of cultural patrimony for intentionally excavated and inadvertent

discoveries during construction and planned, if any, excavation of sites located within the Project APE on federal lands. The POA will be completed prior to any ground disturbing activities associated with the Undertaking.

XI. Curation

A. The BLM will ensure curation and other disposition of cultural materials and associated records not subject to the provisions of NAGPRA resulting from implementation of this PA on federal land is completed in accordance with 36 CFR 79. Documentation of the curation of these materials will be provided to the BLM and the appropriate SHPOs/THPO within 30 days of acceptance of the final cultural resource report for the Undertaking. Cultural materials not subject to the provisions of NAGPRA found on BLM and USFS lands will remain federal property when curated. Curation will be undertaken in a manner consistent with and respectful of cultural sensitivities. Materials found on federal land in Oregon will be curated at the federally approved Oregon Museum of Natural and Cultural History (OMNCH). Materials found on federal land in Idaho will be curated at the Archaeological Survey of Idaho-Western Repository in Boise at the Archaeological Survey of Idaho–Western Repository federally approved curation facility.

B. Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony recovered from federal lands shall be subject to the provisions of NAGPRA, and shall be treated in accordance with protocol developed between the BLM, USFS, and consulting tribes and memorialized in the approved NAGPRA Plan of Action for the Undertaking. This protocol shall be consistent with 43 CFR 10.3-10.7, the regulations implementing NAGPRA.

C. Collections made on state land in the State of Oregon, will comply with ORS 390.235 and ORS 97.745. Collections on state land in Idaho will be curated at the Archaeological Survey of Idaho-Western Repository in accordance with Idaho Statute Title 33, Chapter 39, Idaho Archaeological Survey, Sections 3901-3905.

D. For collections recovered from private lands in Oregon, the Proponent will work with landowners and parties to this agreement, through applicable state permits, to arrange for the disposition of cultural resources collections. In Oregon, private landowners will be encouraged to rebury or donate cultural resources collections to the OMNCH and will be informed that Oregon state law (ORS 97.745) excludes retention of Native American human remains, funerary objects, or objects of cultural patrimony and requires the return of such objects to the appropriate tribe. Collections from private lands to be returned to the landowner will be maintained in accordance with 36 CFR 79 until any specified analysis is complete. The Proponent will provide documentation of the transfer of the collection to the landowner as well as to the BLM and the appropriate parties to this agreement within 30 days of acceptance of the final cultural resource reports for the Undertaking. In the event a landowner chooses to retain a collection they will be notified by the BLM or Proponent that tribes may prefer

collected items be reburied. Any arrangements for reburial will be negotiated with the tribe(s) outside of the Section 106 process.

E. Collections recovered from private lands in Idaho remain the property of the landowner. The landowner will be encouraged to donate the collections to the Archaeological Survey of Idaho-Western Repository. Collections from private lands to be returned to the landowner will be maintained in accordance with 36 CFR 79 until any specified analysis is complete.

F. The Proponent will assume the cost of curation including the preparation of materials for curation in perpetuity.

XII. Initiation of Construction Activities

A. Construction will only occur after issuance of a federal ROW grant, Special Use Authorization and specific NTP or any other federal or state authorization to the Proponent which will occur after the ROD.

B. The BLM will ensure that mitigation for adversely affected historic properties is implemented to the degree required in the mitigation plans prior to issuance of NTPs. The BLM will authorize construction to begin once the parties to this agreement have been provided with documentation of mitigation activities and consultation has occurred pursuant to stipulation V. Disagreements regarding the adequacy of the implementation of mitigation plans are subject to resolution as described in stipulation XIV. NTPs may be issued to the Proponent for individual construction segments under the following conditions:

1. Construction of the segment 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 parties to this agreement, 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

3. The permitting agencies, in consultation with the SHPOs/THPO, have implemented the procedures described in the HPMP within the construction segment; and

    a. The fieldwork phase of the treatment option has been completed;

    b. The federal agencies that are a party to this agreement have accepted a summary description from the Proponent of the fieldwork performed and a reporting schedule for that work;

    c. The permitting agencies have provided the parties to this agreement with a summary description of the fieldwork performed and a reporting schedule for that work; and

    d. The permitting agencies, in consultation with the parties to this agreement, have determined that all preconstruction fieldwork is complete and adequate.

C. Changes in Ancillary Areas/Construction ROW

1. The BLM will notify the parties to this agreement of proposed changes in ancillary areas or the ROW. The BLM will ensure that the APE of the new ancillary area or reroute is inventoried and evaluated in accordance with stipulation II, and will consult with the parties to this agreement on the proposed APE and the determination of eligibility and effect in accordance with stipulations III. and IV. The reports addressing these areas will be reviewed in accordance with stipulation V. of this PA.

2. The BLM will provide the tribes, and parties to this agreement with the revised addendum reports and findings on eligibility and effects for a 30 day review and comment period. The BLM will seek consensus determinations of eligibility for all properties identified in the APEs. If consensus cannot be reached, the process articulated in stipulation III. for seeking a determination of eligibility from the Keeper of the NRHP will be followed.

XIII. PA Evaluation

A. The BLM will evaluate the implementation and operation of this PA annually until all construction and reclamation activities and mitigation reports are complete. The annual evaluation will include a written report submitted by the BLM to the parties to this agreement and may include in-person meetings among the BLM and parties to this agreement to discuss any potential PA modifications or amendments.

B. The BLM's written report will describe all activities pertaining to the Undertaking for that year and will be sent to all parties to this agreement by December 31st of each year. Parties to this agreement may provide comments on reports to the BLM within 30 days of receipt. The BLM will collate and distribute comments to the parties to this agreement, revise the report, as necessary, and explain why particular revisions were or were not made. If there are significant revisions needed, and if the parties to this agreement agree, the BLM may hold a meeting or conference call to discuss any needed revisions.

XIV. Dispute Resolution

A. Any party to this agreement may object at any time to any actions proposed or the manner in which the terms of this PA are implemented. The objecting party must submit in writing to the BLM the reasons for, and a justification of, its objections. The BLM will consult with the objecting party and all parties to this agreement to resolve the objection within 30 days. If the BLM determines that such objection cannot be resolved, the BLM will:

1. Forward all documentation relevant to the dispute, including the BLM's proposed resolution, to the ACHP within 30 days after the BLM's initial determination that the objection cannot be resolved. The ACHP will provide the BLM with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final determination on the dispute, the BLM will prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP

and parties to this agreement, and provide them with a copy of this written response within 30 days of receiving advice from the ACHP. The BLM will then proceed according to its final determination.

2. If the ACHP does not provide its advice regarding the dispute within the 30 day time period, the BLM may make a final determination on the dispute and proceed accordingly. Prior to reaching such a final determination, the BLM will prepare a written response that takes into account any timely comments regarding the dispute from the parties to this agreement to the PA, and provide to all parties to this agreement with a copy of such written response within 30 days.
3. The BLM's responsibilities to carry out all other actions subject to the terms of this PA that are not the subject of the dispute remain unchanged.

XV. Review of Public Objection

At any time during implementation of the measures stipulated in this PA, should an objection to any such measure or its manner of implementation be raised by a member of the public, the BLM will take the objection into account, consult as needed with the objecting party and the parties to this agreement to resolve the objection. The BLM will determine the final resolution.

XVI. Amendment

Signatories and Invited Signatories of this PA may request an amendment to the PA by providing proposed changes in writing. The BLM will notify all parties to this agreement of the proposed amendment and consult with them for no more than 30 days to reach agreement. The amendment will be effective on the date the amendment is signed by all Signatories. If the amendment is not signed within 60 days of receipt the BLM will reinitiate consultation for another 30 days. If all the signatories do not agree to the amendment, BLM will determine that the PA will stand as is.

XVII. Termination

A. If any Signatory or Invited Signatory to this PA determines that its terms will not or cannot be carried out, that party will immediately provide written notice to the BLM and the other Signatories and Invited Signatories stating the reasons for the determination. BLM will then consult with all parties to this agreement to attempt to develop an amendment per stipulation XVI, above. If within 60 days (or another time period agreed to by all Signatories) an amendment cannot be reached, any Signatory or Invited Signatory may terminate the PA upon written notification to the other parties to the agreement.

B. If an individual SHPO/THPO terminates their participation in this PA, that termination will apply only within the jurisdiction of the SHPO/THPO electing to terminate

C. An individual SHPO/THPO may withdraw from the PA upon written notice to all Signatories and Invited Signatories after having consulted with them for at least 30 days to attempt to find

a way to avoid the withdrawal. Upon withdrawal, the BLM and the withdrawing SHPO/THPO will comply with Section 106 in accordance with 36 CFR 800.3 through 800.7 or the execution of an agreement in accordance with 36 CFR 800.14(b). Such Section 106 compliance will be limited to consideration of effects of the Undertaking solely within the jurisdiction of the withdrawing SHPO/THPO. This PA will still remain in effect with regard to the portions of the Undertaking located in the jurisdiction of the SHPO that have not withdrawn from the PA. If both SHPOs/THPO withdraw from the PA, the PA will be considered to be terminated. In the event this PA is terminated, and prior to work continuing on the Undertaking, the BLM will comply with 36 CFR 800.6(c)(8) and will take reasonable steps to avoid adverse effects to historic properties until another PA has been executed or will request, take into account, and respond to ACHP comments, in accordance with 800.7 BLM must either (a) execute a PA pursuant to 36 CFR 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR 800.7. If a withdrawal occurs, the BLM will notify all parties to this agreement as to the course of action it will pursue for Section 106 compliance for the Undertaking.

XVIII. Duration of This PA

A. Until the Undertaking has been initiated, the BLM shall convene a meeting of the Signatories and Invited Signatories five years after execution of the PA, and every five years following, to review the status of the Undertaking and the ROW, and to determine whether any amendments to the agreement are needed. This PA will expire if the Undertaking has not been initiated within 15 years of the execution of this PA, or the BLM ROW grant is terminated or is withdrawn. At that time, the BLM will notify, in writing, the parties to this agreement of this determination, whereupon this PA will be null and void.

B. Unless this PA is terminated pursuant to stipulation XVII. above, another agreement executed for the Undertaking supersedes it, or the Undertaking itself has been terminated, this PA will remain in effect until the BLM, in consultation with the parties to this agreement, determines that construction of all aspects of the Undertaking has been completed and that all terms of this PA and any subsequent agreements have been fulfilled in a satisfactory manner, not to exceed 15 years. Upon a determination by BLM that implementation of all aspects of the Undertaking have been completed and that all terms of this Agreement and any subsequent tiered agreements have been fulfilled in a satisfactory manner, BLM will notify the parties to this agreement in writing of the agency's determination. The duration of the PA may be extended through an amendment as per stipulation XVI, through consultation with the parties to this agreement.

C. Parties to this agreement shall meet at least one year prior to the expiration of the PA to determine if the conditions of this PA have been met. At that time, the parties to this agreement may agree to amend or terminate the PA or to meet again within an agreed-upon period of time to consider the status of the PA.

D. Upon termination of the PA, the instrument for addressing cultural resource concerns will be the POD within the ROW grant. The POD will contain the HPMP which outlines the management of historic properties through construction as well as operations and maintenance and decommissioning. The BLM will retain responsibility for administering the terms and conditions of the ROW grant pertaining to historic properties for the life of the grant.

XIX. Financial Security

The proponent will post a financial instrument approved under the ROW regulations (43 CFR 2800) with the BLM in an amount sufficient to cover all post-fieldwork costs associated with implementing the HPMP, or other mitigative activities such as data recovery, curation, and report completion, as negotiated by the Proponent where they contract for services in support of this PA. Details regarding the instrument will be developed in the HPMP and posted prior to issuance of any NTP.

XX. Failure to Carry Out the Terms of this PA

In the event that the Proponent fails to follow the terms of this PA, the BLM will comply with 36 CFR 800.4 through 800.6 with regard to individual actions pertaining to this Undertaking.

EXECUTION of this PA by the BLM, USFS, BPA, USACE, Reclamation, OR SHPO, ID SHPO, WA SHPO, and CTUIR THPO, as Signatories to this PA, and implementation of its terms evidence that the BLM has taken into account the effects of this Undertaking on historic properties and afforded the ACHP an opportunity to comment.

This PA may be executed in two or more counterparts, each of which shall be deemed an original but all of which together shall constitute one and the same instrument. The BLM may consolidate the original signature pages to produce the final copies. The BLM will distribute copies of all pages to all Consulting Parties once the PA is signed.

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF LAND MANAGEMENT

Signature: _____ Date: 11/21/16

Donald Gonzalez, Authorized Officer

SIGNATURE PAGES – REQUIRED SIGNATORIES

U.S.D.A. FOREST SERVICE

Signature: _____ Date: 10/24/16

Tom Montoya, Wallowa Whitman National Forest Supervisor

SIGNATURE PAGES – REQUIRED SIGNATORIES

BONNEVILLE POWER ADMINISTRATION

Signature: G. T. Donalfinger Acting For Date: 10/27/2016
F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

SIGNATURE PAGES – REQUIRED SIGNATORIES

U.S. ARMY CORPS OF ENGINEERS

Signature: _____ Date: 9/6/16

Jose L. Aguilar, Colonel, District Commander

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF RECLAMATION

Signature: _____ Date: 11/21/16

Roland K. Springer, Area Manager

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF LAND MANAGEMENT

Signature: [See page S-1] Date: _____

Donald Gonzalez, Authorized Officer

U.S.D.A. FOREST SERVICE

Signature: [See page S-2] Date: _____

Tom Montoya, Wallowa Whitman National Forest Supervisor

BONNEVILLE POWER ADMINISTRATION

Signature: [See page S-3] Date: _____

F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

U.S. ARMY CORPS OF ENGINEERS

Signature: [See page S-4] Date: _____

Jose L. Aguilar, Colonel, District Commander

BUREAU OF RECLAMATION

Signature: [See page S-5] Date: _____

Jerrold D. Gregg, Area Manager

OREGON STATE HISTORIC PRESERVATION OFFICER

Signature: Christine Curran Date: 11.21.16

Christine Curran, Deputy SHPO

IDAHO STATE HISTORIC PRESERVATION OFFICER

Signature: [See page S-7] Date: _____

Janet Gallimore, SHPO

WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)

Signature: [See page S-8] Date: _____

Allyson Brooks, SHPO

SIGNATURE PAGES – REQUIRED SIGNATORIES

IDAHO STATE HISTORIC PRESERVATION OFFICER

Signature: _____ Date: November 30, 2016

Janet Gallimore, SHPO

SIGNATURE PAGES – REQUIRED SIGNATORIES

BUREAU OF LAND MANAGEMENT

Signature: [See page S-1] Date:

Donald Gonzalez, Authorized Officer

U.S.D.A. FOREST SERVICE

Signature: [See page S-2] Date:

Tom Montoya, Wallowa Whitman National Forest Supervisor

BONNEVILLE POWER ADMINISTRATION

Signature: [See page S-3] Date:

F. Lorraine Bodi, Vice President, Environment, Fish and Wildlife

U.S. ARMY CORPS OF ENGINEERS

Signature: [See page S-4] Date:

Jose L. Aguilar, Colonel, District Commander

BUREAU OF RECLAMATION

Signature: [See page S-5] Date:

Jerrold D. Gregg, Area Manager

OREGON STATE HISTORIC PRESERVATION OFFICER

Signature: [See page S-6] Date:

Christine Curran, Deputy SHPO

IDAHO STATE HISTORIC PRESERVATION OFFICER

Signature: [See page S-7] Date:

Janet Gallimore, SHPO

WASHINGTON DEPARTMENT OF ARCHAEOLOGY AND HISTORIC PRESERVATION (SHPO)

Signature: Date: 12/19/16

Allyson Brooks, SHPO

SIGNATURE PAGES – REQUIRED SIGNATORIES

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION TRIBAL HISTORIC PRESERVATION OFFICER

Signature: Carey L. Miller Date: Jan 22, 2017

Carey Miller, Tribal Historic Preservation Officer

SIGNATURE PAGES – REQUIRED SIGNATORIES

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Signature: John M. Fowler Date: 2/7/17

John M. Fowler, Executive Director

SIGNATURE PAGES – INVITED SIGNATORIES

IDAHO POWER COMPANY

Signature: _____ Date: 11-7-16

Adam Richins, General Manager of Customer Operations, Engineering and Construction

SIGNATURE PAGES – INVITED SIGNATORIES

NATIONAL PARK SERVICE

Signature: _____ Date: 10/28/16

Aaron Mahr, Superintendent for National Trails, Intermountain Region

SIGNATURE PAGES – CONCURRING PARTIES

OREGON DEPARTMENT OF ENERGY

Signature: _____ Date: 12.16.16

Michael Kaplan, Director

SIGNATURE PAGES – CONCURRING PARTIES

OREGON DEPARTMENT OF ENERGY

Signature: [See page S-13] Date:
Michael Kaplan, Director

SHOSHONE-PAIUTE TRIBES OF THE DUCK VALLEY INDIAN RESERVATION

Signature: Date:
Lindsey Manning, Chairman

CONFEDERATED TRIBES OF THE UMATILLA INDIAN RESERVATION

Signature: Date:
Gary Burke, Chair, Board of Trustees

SHOSHONE-BANNOCK TRIBES OF THE FORT HALL INDIAN RESERVATION

Signature: Date:
Blaine Edmo, Chairman

NEZ PERCE TRIBE

Signature: Date:
Mary Jane Mills, Chairman

CONFEDERATED TRIBES OF THE COLVILLE RESERVATION

Signature: Date:
Dr. Michael E. Marchand, Chairman

BURNS PAIUTE TRIBE

Signature: Date: 1-12-17
Jose DeLaRosa Jr., Chairperson

FORT MCDERMITT PAIUTE AND SHOSHONE TRIBE

Signature: [See page S-15] Date:
Brad Crutcher, Chairperson

CONFEDERATED TRIBES OF THE WARM SPRINGS INDIAN RESERVATION

Signature: Date:
Eugene Austin Greene Jr., Chair

SIGNATURE PAGES – CONCURRING PARTIES

FORT MCDERMITT PAIUTE AND SHOSHONE TRIBE

Signature: _____ Date: 11-7-2016

Brad Crutcher, Chairperson

SIGNATURE PAGES – CONCURRING PARTIES

OREGON-CALIFORNIA TRAILS ASSOCIATION

Signature: William Symms Date: 10/21/2016

William Symms, NW Chapter Preservation Officer

SIGNATURE PAGES – CONCURRING PARTIES

CONFEDERATED TRIBES OF THE YAKAMA NATION

Signature:_____ Date:_____

JoDe L. Goudy, Chairman

OREGON AND CALIFORNIA TRAILS ASSOCIATION

Signature: [See page S-16] Date:_____

William Symms, NW Chapter Preservation Officer

OREGON HISTORIC TRAILS ADVISORY COUNCIL

Signature: Glenn Harrison Date: 10/22/16

Glenn Harrison, Oregon Historic Trails Advisory Council representative

U.S. FISH AND WILDLIFE SERVICE

Signature: [See page S-18] Date:_____

Lamont Glass, Manager, USFWS Umatilla National Wildlife Refuge

LEWIS AND CLARK HERITAGE TRAIL FOUNDATION

Signature: [See page S-19] Date:_____

Robert Heacock, Director Washington State Chapter

SIGNATURE PAGES – CONCURRING PARTIES

U.S. FISH AND WILDLIFE SERVICE

Signature: _____ Date: 11/1/16

Lamont Glass, Manager, USFWS Umatilla National Wildlife Refuge

SIGNATURE PAGES – CONCURRING PARTIES

LEWIS AND CLARK HERITAGE TRAIL FOUNDATION

Signature: Robert Heacock Date: 10/25/16

Robert Heacock, Director Washington State Chapter

APPENDICES

1 Appendix A: Archaeological Survey Plan

2 Appendix B: Visual Assessment of Historic Properties Study Plan

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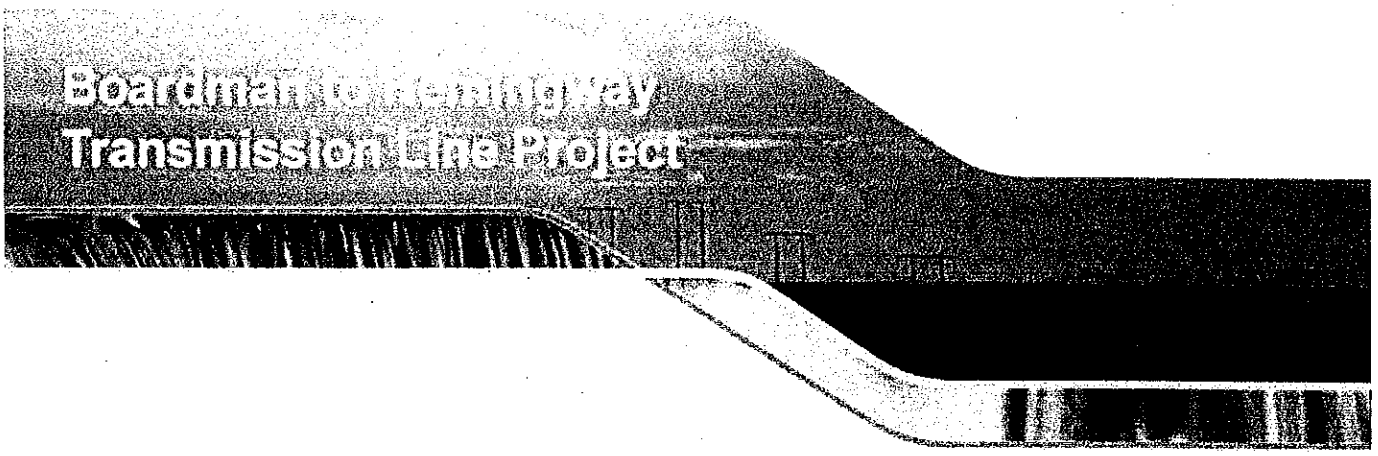

Archaeological Survey Plan

Prepared by
Tetra Tech
3380 Americana Terrace
Suite 201
Boise, ID 83706

Prepared for
Idaho Power Company
1221 W Idaho Street
Boise, ID 83702

January 2013

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1.0 PURPOSE AND GOAL

Idaho Power Company (IPC) is proposing to construct, operate, and maintain approximately 300 miles of 500-kilovolt (kV) transmission line, known as the Boardman to Hemingway Transmission Line Project (Project; IPC 2011). Figure 1 shows the proposed and alternative routes. The Project is complex, located in both Idaho and Oregon and involving multiple federal and state agencies, and the cultural resource work will occur in phases. For these reasons, a Programmatic Agreement (PA) regarding the Section 106 National Historic Preservation Act (NHPA) process will be developed pursuant to 36 Code of Federal Regulations (CFR) 800.4(b)(2) and 36 CFR 800.14(b). The PA for this project is an agreement between the Bureau of Land Management (BLM), United States Department of Agriculture Forest Service (USFS), Idaho and Oregon State Historic Preservation Officers (SHPOs), Confederated Tribes of the Umatilla Reservation Tribal Historic Preservation Officer (CTUIR THPO), Advisory Council on Historic Preservation (ACHP), and other parties, such as Oregon Department of Energy (ODOE), Tribes, and IPC, as appropriate. The PA outlines the general process for completion of all phases of the Section 106 process, i.e., how the lead government agency will define the Areas of Potential Effect (APE), how historic resources will be identified and evaluated, how effects will be assessed, and how effects to historic properties will be resolved. The PA will be in place prior to the BLM's Record of Decision (ROD), but was not completed prior to the start of archaeological field work. IPC acknowledges that additional fieldwork may be necessary if work completed prior to signing the PA is not consistent with the terms of the PA.

This Archaeological Survey Plan (Plan) describes the processes for the file search and literature review and Class II and Class III pedestrian archaeological inventories, which will complete the identification efforts required by Section 106 of the NHPA and provide information for the ODOE Energy Facility Siting Council (EFSC), subject to laws requiring confidentiality. Within the parameters of laws requiring confidentiality, information collected through application of this plan will be used in support of IPC's Application for Site Certificate to EFSC and will be provided to the BLM to assist with the preparation of a National Environmental Policy Act (NEPA) document for the Project. This Plan is not intended to address the entire cultural resources identification process; rather it is intended only to describe IPC's plan to conduct archaeological inventories and outlines the methods and protocols for file searches and literature reviews and the conduct of Class II and Class III archaeological inventories. Evaluations of visual impacts to historic structures, trails, and other aboveground resources will also occur for the Project. The methodology for those studies is presented in a separate Visual Assessment of Historic Properties Study Plan (VAHP; Tetra Tech 2012). Ethnographic studies are in progress; these studies will be conducted to identify both properties of religious and cultural significance and Traditional Cultural Properties. As defined in NRHP Bulletin 38 (NPS 1998), a traditional cultural property can be defined generally as one that is eligible for inclusion in the National Register because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. Religious and cultural significance have been added to this definition to reflect that BLM will also identify and assess impacts to properties of significance to tribes that may not meet the NRHP criteria as a TCP.

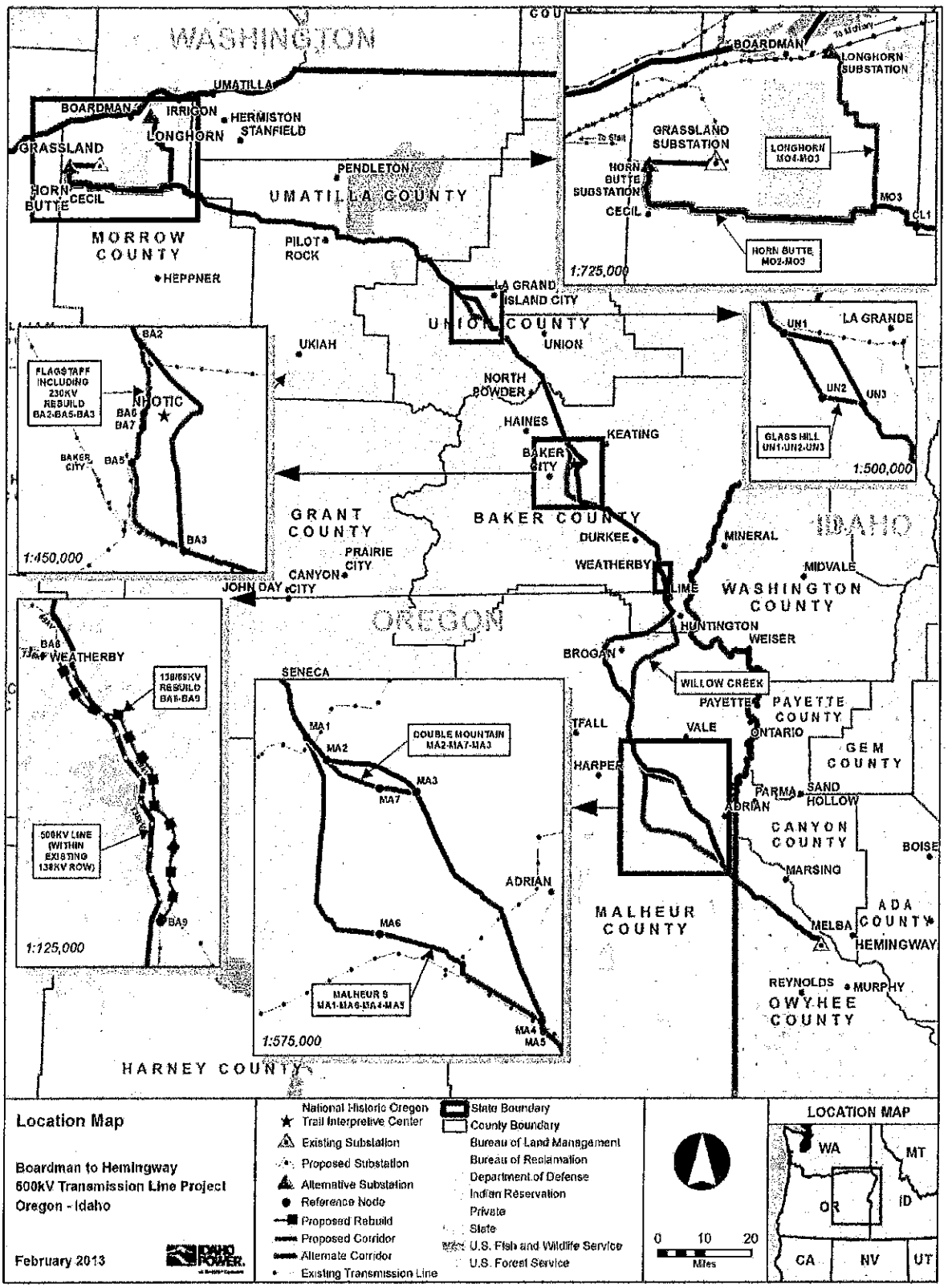

Figure 1. Proposed and Alternative Routes for NEPA Analysis

2.0 TECHNICAL STUDIES

This section outlines the scope of field investigations and the site National Register of Historic Places (NRHP) eligibility evaluation methodology for the Project archaeological inventory. Field investigations will focus on three inter-related tasks: surface survey, subsurface testing, and resource recordation. To meet Project needs, these tasks will be conducted in two stages. The initial survey will consist of a 100 percent (BLM Class III) inventory of the proposed route segments and all currently identified Project facilities, including access roads and ancillary facilities, as well as a 15 percent (BLM Class II) survey of alternative routes (see Figure 1). The findings of the inventory will be compiled into a formal report and submitted to consulting parties for review as well as presented in the Draft Environmental Impact Statement (EIS). Additional surveys will focus on completion of 100 percent inventory of any modifications to route access roads, laydown areas, or other Project surface modifications identified subsequent to the initial survey. Subsurface probing to assist in resource identification, boundary determination, or NRHP eligibility may be conducted as part of the survey effort, as determined by the agencies and consulting parties. In addition, in the event that an alternative corridor is selected as an element of the preferred route, all portions of this corridor segment not previously surveyed as part of the 15 percent sample will be subject to a complete 100 percent inventory. The inventory will be completed prior to initiation of construction activities, and findings will be presented in the Final EIS. All technical studies will comply with Section 106 of the NHPA, as well as follow applicable Idaho and Oregon SHPO standards.

2.1 File Search and Literature Review

Archaeological records searches and literature reviews were conducted for both the Oregon and Idaho portions of the Project. In Oregon, Tetra Tech initially conducted a file search and literature review at the Oregon SHPO for an area extending one mile on either side of the centerline of the proposed route and all alternatives; at the Idaho SHPO, a file search and literature review of an area 0.5 mile on either side of the centerline was conducted. This study area was later expanded through additional records searches to 2 miles on either side of the center line of the proposed route and alternatives in both Oregon and Idaho. Supplemental file searches at appropriate agency offices were also conducted to ensure that updated information from inventories and previously recorded cultural resources were considered prior to completion of field work. These offices included the Baker and Vale District Offices of the BLM, the Wallowa-Whitman National Forest, and the CTUIR THPO.

In addition to agency records, the file searches and literature reviews included examination of archaeological and historical literature of the region; General Land Office (GLO) plats and survey notes; a variety of modern and historic maps, including Oregon Trail maps provided by the National Historic Oregon Trail Interpretive Center in Baker City, Oregon; aerial photographs; and abandoned mine data from the BLM. Records were collected on all available resources, inclusive of archaeological sites and historic features and structures. Additional inventory and review of historic resources are addressed in the VAHP (Tetra Tech 2012). Examination of the data from the file searches and literature reviews indicates that 111 previously recorded sites are present within the study area. Previously recorded precontact sites are dominated by lithic scatters, but also include quarry sites, camps, cairns, and rock alignments. Historic sites include several segments of the Oregon Trail, other historic trails, stage stops, structures, and railroad grades.

An additional 143 potential historic sites were identified within the 2-mile study area from the examination of GLO plats, historic maps, etc. These locations are dominated by mining sites, but also include canals and ditches, cemeteries, trails, and wagon roads.

2.2 Archaeological Inventory Methods

As discussed above, the cultural resources inventory will be conducted in two phases. Phase 1 will consist of an intensive pedestrian inventory (BLM Class III) of the proposed corridor segments and all currently identified Project facilities, as well as a sample (BLM Class II) survey of alternative corridors. Any additional survey required to complete a 100 percent inventory of the selected route, as well as any necessary subsurface inventory or evaluation efforts, will be conducted during Phase 2. Methods to be employed during these phases are presented below. All inventory and recordation efforts, regardless of land ownership, will be conducted under the direct supervision of archaeologists who meet the Secretary of the Interior's Standards and Guidelines and appropriate state requirements.

2.2.1 Intensive Field Survey

The intensive Class III survey will focus on the Project's direct APE, identified as areas on the centerline of the right-of-way as well as proposed ancillary facilities such as substations, access roads, laydown areas, fly yards, and pulling and tensioning sites as identified in IPC's Plan of Development (POD; IPC 2011). The APE is applicable to the entire Project, regardless of land ownership. The APE is for direct project impacts to archaeological sites and other cultural resources, and may change with modifications to the Project or revisions to the APE by the consulting parties.

The APE identified for the initial Class III pedestrian inventory includes the following:

- 250 feet each side of the centerline of the Proposed Route. This area is twice the width of the final right-of-way grant that is being requested for the Project, and provides sufficient margin to allow realignment of the line as necessary.
- 50 feet on either side of the centerline of existing access and service roads. This width will allow for any minor alignment changes needed and provide adequate clearance for any new disturbance associated with road repair.
- 100 feet on either side of the centerline of new access and service roads. This width will allow margin for changes to the horizontal and vertical alignment of the road and for any cut and fill requirements.
- 200 feet beyond the boundary of the planned areas of disturbance of ancillary Project features such as staging areas, fly yards, and pulling and tensioning sites.
- 250 feet beyond the boundary of pulling/tensioning sites and borehole locations that fall outside the right-of-way.

The survey will be conducted using pedestrian transect intervals of 20 meters or less. Control will be maintained through the use of 1:24,000 scale maps and Global Positioning System units with sub-meter accuracy with the Project centerline or ancillary facility footprint programmed into the unit.

An intensive BLM Class III level inventory will be conducted of the entire survey area, as defined above. Areas with very steep slopes (in excess of 25 percent) may be excluded; however, if the file search and literature review indicate a potential for certain types of sites typically found on steep slopes (such as mines, talus pits, etc.) to occur in the area, these slopes will be examined. The examination of steep slopes will take into account the safety of the crew, and transect intervals may be increased. Areas not surveyed, or surveyed at a reduced level, will be clearly identified in the report, with the rationale behind their exclusion or reduced survey effort spelled out.

2.2.2 Sample Field Surveys

For purposes of providing a comparative analysis of the proposed and alternative routes, an archaeological inventory of a 15 percent random sample will be conducted of all route alternatives subject to study in the Draft EIS. Combined with the results of the records search, literature review, and ethnographic study, application of this approach is designed to aid in characterizing the probable density, diversity, and distribution of cultural resources along the alternative routes, particularly in areas where no previous inventories have been conducted. This information is being collected for use in the EIS analysis. Within the sample survey units, methods used are identical to those applied in a Class III intensive survey, and all pedestrian survey and site recording and reporting for a Class II survey will meet Class III standards. An intensive cultural resource inventory will be completed along the preferred route after selection and before initiation of construction. Data collected during the sample inventory will be provided to the BLM in the form of a technical report prepared in compliance with laws requiring confidentiality and will contribute to but will not replace complete inventory of the selected route.

The sampling plan developed for the Project employs random selection of sampling units. Inventory will be conducted using 1-mile-long by 500-foot-wide survey blocks. The 1-mile length is used as an arbitrary measure, while the 500-foot width corresponds to the width of the comprehensive inventory being conducted along the proposed Project corridor. Following this procedure, all completed sample units will directly contribute to completion of the comprehensive inventory, once a final route is selected.

Individual survey units will be selected based on the following sampling strategy. First, for each alternative route, 1-mile-long parcels will be designated with a unique survey unit number (e.g., sampling units along a 50-mile-long segment will be designated 1-50). A table of random numbers will then be used to select specific units for inventory within a route segment. Sufficient numbers of units will be selected to account for inventory of 15 percent of each route segment. To ensure adequate representation of each route segment, units will be selected regardless of land ownership and will likely include a mix of private, state, and federally managed lands. It is anticipated that access constraints will affect the ability to complete survey of units selected on private lands. To account for this and to ensure completion of a 15 percent sample, additional units will be selected at random and held in reserve for use in case of denied access or other access issues. Following these procedures, it is anticipated that sufficient information will be collected to allow for assessment and comparison of cultural resources by proposed and alternative route segment.

For alternatives that are being analyzed in the Draft EIS, revised maps showing sample locations will be prepared and submitted for agency review. A complete 100 percent survey of the preferred route will be completed in accordance with this inventory plan.

2.2.3 Subsurface Probing

Subsurface probing will be conducted for sites for which SHPO and THPO consultation has indicated that Phase 2 efforts are necessary to determine NRHP eligibility under Criterion D. Subsurface survey methods (e.g., shovel probes) will be employed to assist with the discovery of buried deposits, definition of archaeological site boundaries, and determinations of site eligibility, as stipulated in the PA. Site identification shovel probes may be particularly useful in forested areas containing dense undergrowth and accumulations of surface litter and duff/humus, especially within zones where there is probability for the presence of cultural materials or features. Shovel probes may also prove useful for locating sites in zones of active sediment accumulation, where recent sediment deposition (i.e., fluvial, alluvial, colluvial, or aeolian) has concealed earlier cultural deposits. Shovel probes will measure 50 by 50

centimeters square and will be used to assist in 1) the identification of cultural resources during surface survey (site discovery probes) and 2) site boundary definition (site boundary probes). Identifying site boundaries during a survey is important because a site's location relative to the proposed project is critical to assessing Project effects and developing appropriate mitigation measures. When site boundaries cannot be defined based on surface evidence alone, such as in densely wooded montane areas, subsurface probing has the potential to provide crucial data to guide Project design and resource management decisions. As specified in the PA, neither collection of artifacts nor disturbance of ground will occur during initial Class II and Class III intensive-level pedestrian cultural resources surveys. Upon issuance of the ROD, areas identified as possessing a high potential for buried cultural resources located within the direct APE will be subjected to subsurface probing to determine the presence or absence of cultural resources, where ground-disturbing activities will occur. All identification surveys will follow the methodology presented in this Archaeological Survey Plan. Indian tribes and consulting parties to this agreement will be consulted prior to commencement of any ground-disturbing or collection activity and appropriate federal and state permits will be obtained.

During initial survey efforts, Tetra Tech crews will track the location of areas of high site potential and low surface visibility where subsurface probing may be determined appropriate during a subsequent phase of archaeological investigations. These areas of high site potential will be clearly indicated on tables and maps in the resulting survey reports and will be subject to consultation with Native American tribes. High probability areas will be determined by taking into account relevant environmental variables such as slope, distance to water, locations near stream confluences, vegetation, and potential tool stone sources, as well as areas with tribal place names, which often have correlations with archaeological sites. Low surface visibility is defined as thick vegetative cover or other material preventing adequate examination of the ground surface. Maps indicating high site potential will be considered confidential and subject to laws regarding confidentiality of cultural resources.

Prior to excavation of any shovel probes, a probing plan detailing the approach to subsurface survey will be submitted to state and federal agencies for consultation and approval, and all appropriate federal and state permits will be obtained. Excavation or removal (collection) of archaeological resources from any federally managed land (e.g., BLM, USFS, or other federal agencies) necessitates an ARPA permit from the federal land manager. In Idaho, State excavation permits are required within a known site on state land in accordance with Idaho Code 67-4120; no permits are required on private lands. In Oregon, state law (Oregon Revised Statutes [ORS] 358.905-955, 390.235, Oregon Administrative Rules 051-360-080 to 090) requires that all field investigations conducted on non-federal public lands requiring ground disturbance, and all investigations of known sites on private lands, require a State of Oregon Archaeological Excavation Permit (Oregon SHPO 2007:34). Archaeological permits are 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.

2.2.4 Discoveries of Human Remains

If human remains are discovered during any phase of the Project, work will cease within 200 feet of the location of the discovery and the remains will be protected. If the find is on federally administered lands in either state, the appropriate agency field official will be notified in accordance with the agency obligations under the Native American Graves Protection and Repatriation Act and other laws.

For discoveries on non-federal lands, the applicable law enforcement agency or other entity will be contacted in accordance with appropriate state statutes. In Idaho, Tetra Tech will comply

with Idaho Code §27 501–504 and notify the Idaho State Historical Society and the BLM cultural resources lead who will commence notification of the appropriate tribes, which consist of the Shoshone-Bannock Tribes of the Fort Hall Reservation, Shoshone Paiute Tribes of the Duck Valley Indian Reservation, the Confederated Tribes of the Umatilla Indian Reservation, and the Burns Paiute Tribe.

In Oregon, Tetra Tech will comply with ORS 97.745(4) and will notify the Oregon State Police, the Oregon SHPO, the Commission on Indian Services (CIS), and the BLM cultural resources lead. The BLM cultural resources lead will then commence notification of the appropriate tribes, which may consist of the Shoshone Paiute Tribes of the Duck Valley Indian Reservation, the Confederated Tribes of the Umatilla Indian Reservation, the Burns Paiute Tribe, and other tribes.

2.3 Site Documentation and Reporting

The results of the file search, literature review, and Class II and Class III inventories will be incorporated into technical reports that will be submitted to BLM to assist in NHPA and NEPA compliance. Separate stand-alone technical reports will be provided for each state; a separate report will be prepared for the USFS documenting inventory on USFS-managed lands. Reports will be prepared in accordance with BLM and USFS permit requirements and applicable SHPO guidelines for each state.

Reports will include full documentation of all archaeological and cultural sites and resources identified during inventory efforts, recorded per appropriate state requirements as described below, but within the parameters of and subject to laws requiring confidentiality:

- **Oregon.** All archaeological resources encountered will be recorded on Oregon Archaeological Site Forms or Oregon State Cultural Resource Isolate Forms (http://www.oregon.gov/OPRD/HCD/ARCH/docs/Online_Site_Form_Manual_Dec2009.pdf). Field surveys will be conducted and results reported in accordance with the *Guidelines for Conducting Field Archaeology in Oregon* (http://www.oregon.gov/OPRD/HCD/ARCH/ docs/draft_field_guidelines.pdf) and State of Oregon Archaeological Reporting Guidelines (http://www.oregon.gov/OPRD/HCD/ARCH/docs/State_of_Oregon_Archaeological_Survey_and_Reporting_Standards.pdf) issued by the Oregon SHPO. Definitions of sites and isolates will be those provided in the *Guidelines for Conducting Field Archaeology in Oregon* unless permit stipulations require otherwise. For aboveground historic resources, data will be entered into the Oregon SHPO Historic database.
- **Idaho.** All archaeological resources encountered will be recorded on Archaeological Survey of Idaho Site Inventory Forms. Treatment of historic buildings, structures, and facilities, as discussed in a separate inventory plan addressing aboveground resources, will be recorded on Idaho Historic Sites Inventory Forms (both forms available at http://history.idaho.gov/shpo.html). Field inventories will be conducted and results will be reported in accordance with *Guidelines for Documenting Archaeological and Historical Inventories* (http://www.history.idaho.gov/sites/default/files/uploads/SurveyGuidelines.4.5.2012.pdf).

If survey is conducted on tribal lands of the Confederated Tribes of the Umatilla Indian Reservation, additional forms required by, and provided by, the THPO will also be completed.

3.0 DEFINITIONS

Area of Potential Effects (APE) means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (see 36 CFR 800.16[d]). The APE includes all lands regardless of ownership in the survey area, as well as any associated area of potential impact associated with ancillary facilities. The effects may be direct, indirect, or cumulative.

Class I Inventory (Record Search and Literature Review) is a compilation of all reasonably available cultural resources data and literature and a management-focused, interpretive narrative overview and synthesis of the data. Existing cultural resource data are obtained from published and unpublished documents, BLM cultural resource inventory records, institutional site files, state and national registers, and other information sources.

Class II Inventory (Probabilistic Field Survey) is a sample survey designed to aid in characterizing the probable density, diversity, and distribution of cultural resources in an area. Within sample units, methods used are the same as those applied in Class III intensive survey. While Class II surveys are generally not appropriate for determining specific effects of a proposed land use, they are useful when comparing alternative locations for proposed undertakings (per BLM Manual 8110).

Class III Inventory (Intensive Field Inventory), also referred to as survey, is a professionally conducted, thorough pedestrian inventory of an entire target area (except for any subareas exempted), intended to locate and record all cultural resources. It describes the distribution of properties in an area; determines the number, location, and condition of properties; determines the types of properties actually present within the area; permits classification of individual properties; and records the physical extent of specific properties. It is conducted in accordance with standards in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation (48 *Federal Register* 44716, September 29, 1983) per BLM Manual 8110.

Consultation refers to the general process of seeking, discussing, and considering the views of other participants, and, where feasible, seeking agreement with them regarding matters arising in the section 106 process. The Secretary's "Standards and Guidelines for Federal Agency Preservation Programs pursuant to the National Historic Preservation Act" provides further guidance on consultation (36 CFR 800.16 [f]). See also the ACHP (2008) *Consultations with Indian Tribes in the Section 106 Review Process: A Handbook*.

Cultural Resources include archaeological, historical, or architectural sites, structures, or places that may exhibit human activity or occupation, or may be sites of religious or cultural significance to tribes. Cultural resources include, but are not limited to, archaeological sites, cultural landscapes, natural resources and landforms, grave sites, buildings, and structures. The term "cultural resources" encompasses properties of traditional religious significance that may or may not be eligible for listing in the NRHP but are of critical significance for tribes. The current plan is designed primarily to address the identification of archaeological resources.

Effect means alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the NRHP (36 CFR 800.16[i]).

Historic property refers to a district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes

properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization that meet the National Register criteria (36 CFR 800.16[1][1]).

Programmatic Agreement (PA) refers to a legally binding document that memorializes the terms and conditions agreed upon to fulfill the lead federal agency's compliance with Section 106 of the National Historic Preservation Act, in accordance with 36 CFR 800.14(b) and 36 CFR 800.16(t). Programmatic Agreements are undertaken as alternatives to Section 106 procedures, and are often used when effects on historic properties are similar and repetitive; are multi-state or regional in scope; when effects cannot be fully determined prior to approval of an undertaking; or when non-federal parties are delegated major decision making responsibilities.

Proposed Route is the route proposed by IPC in the November 2011 POD. This route is subject to change with new data, but will not be inventoried until the POD is officially changed.

State Historic Preservation Officer (SHPO) means the official appointed or designated pursuant to Section 101(b)(1) of the NHPA to administer the State historic preservation program or a representative designated to act for the State historic preservation officer (36 CFR 800.16[v]).

Study Area is the area subject to a complete record search and literature review for the purpose of compiling information on previously recorded cultural resources and previous cultural resource surveys. The study area measures 2 miles on either side of the centerline, for a total study area corridor width of 4 miles.

Survey Area is the area that will be examined on foot by archaeologists to determine the presence or absence of archaeological resources. For purposes of the current document, this term is synonymous with the APE.

Traditional Cultural Properties (TCPs) are a class of National Register-eligible properties that possess association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community. (See *National Register Bulletin 38: Guidelines for Evaluating and Documenting Traditional Cultural Properties*).

Tribal Historic Preservation Officer refers to the tribal official appointed by the tribe's chief governing authority or designated by a tribal ordinance or preservation program who has assumed the responsibilities of the SHPO for the purposes of Section 106 compliance on tribal lands in accordance with section 101(d)(2) of the NHPA and 36 CFR 800.2.

Undertaking means a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license, or approval (36 CFR 800.16[y]).

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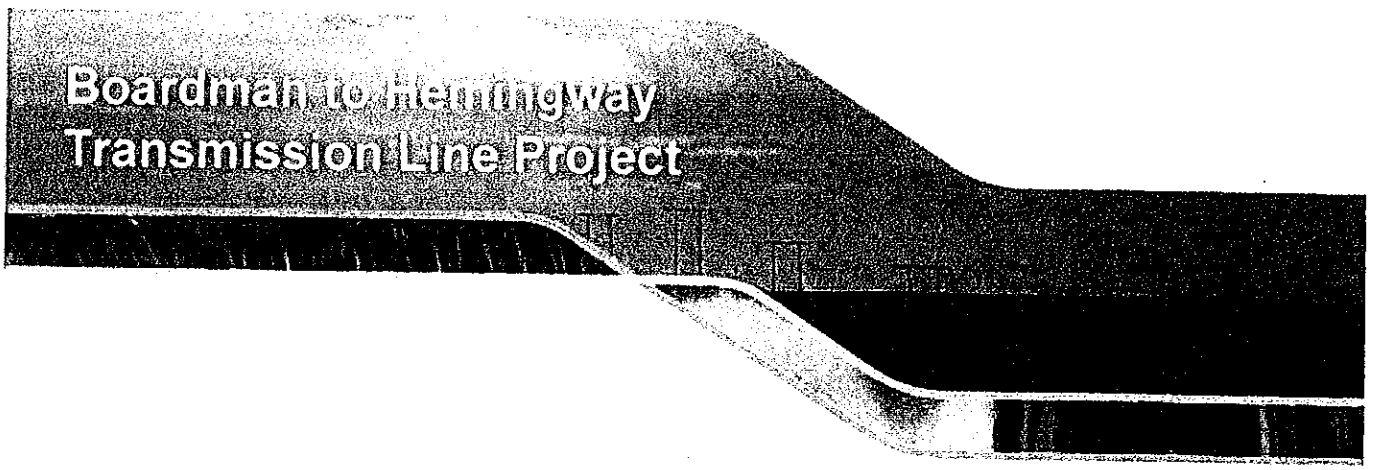

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Appendix A Visual Assessment of Historic Properties Form

ABBREVIATIONS AND ACRONYMS

ACHP	Advisory Council on Historic Preservation
APE	Area of Potential Effects
ASC	Application for Site Certificate
BLM	Bureau of Land Management
BPA	Bonneville Power Administration
CFR	Code of Federal Regulations
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
EFSC	Energy Facility Siting Council
EIS	Environmental Impact Statement
GIS	geographic information system
GLO	General Land Office
GPS	global positioning system
IHSI	Idaho Historic Sites Inventory
ILS	Intensive Level Survey
IPC	Idaho Power Company
KOP	key observation point
kV	kilovolt
MET	Mapping Emigrant Trails
NEPA	*National Environmental Policy Act of 1969*
NHPA	*National Historic Preservation Act of 1966*
NHT	national historic trail
NPS	National Park Service
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rules
OCTA	Oregon–California Trails Association
ODOE	Oregon Department of Energy
OHSD	Oregon Historic Sites Database
PA	Programmatic Agreement
Project	Boardman to Hemingway Transmission Line Project
RLS	Reconnaissance Level Survey
ROW	right-of-way
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
USC	United States Code
USFS	United States Forest Service
VAHP	Visual Assessment of Historic Properties
VCR	visual contrast rating

1.0 INTRODUCTION

1.1 Project Summary

Idaho Power Company (IPC) proposes to construct, operate, and maintain the Boardman to Hemingway Transmission Line Project (Project), a 305 mile-long, single-circuit 500-kilovolt (kV) overhead electric transmission line and related facilities. The Project will begin at the proposed Grassland Substation near Boardman, Oregon, and terminate at the existing Hemingway Substation near Melba, Idaho (Figure 1-1). In addition, 5.3 miles of 138-kV and 69-kV transmission lines will be relocated and/or rebuilt. IPC's proposed Project provides additional capacity connecting the Pacific Northwest and Intermountain regions of southwestern Idaho to alleviate existing transmission constraints and ensure sufficient capacity to meet present and forecasted load requirements. The proposed Project route crosses federal, state, and private lands.

IPC has applied to the United States Bureau of Land Management (BLM) for a right-of-way (ROW) grant and to the United States Forest Service (USFS) for a special-use permit for the use of public lands along portions of the Project. These entities are or will be conducting an independent environmental review of the proposed Project as part of their respective evaluations of the IPC applications for Project permits. The BLM and USFS will be preparing a joint Environmental Impact Statement (EIS) under the National Environmental Policy Act of 1969 (NEPA) to document the environmental review of the Project. In addition, the Bonneville Power Administration (BPA) will be providing some of the funding for the Project. The Project is also subject to Section 106 of the National Historic Preservation Act (NHPA) (16 United States Code [USC] 470) and its implementing regulations (36 Code of Federal Regulations [CFR] Part 800).

IPC will submit an Application for Site Certificate (ASC) for the Project to the Oregon Department of Energy (ODOE) through the state's Energy Facility Siting Council (EFSC). To receive a Site Certificate, the Project must satisfy the regulatory requirements contained in the Oregon Administrative Rules (OAR) 345-021-0010(s) [Contents of An Application, Exhibit S] and OAR 345-022-0090 [General Standards for Siting Facilities: Historic, Cultural and Archaeological].

IPC and its environmental consultant, Tetra Tech, are assisting the BLM and USFS and the cooperating federal and state agencies and tribes in meeting NEPA, NHPA, and EFSC requirements. Tetra Tech, on behalf of IPC, retained URS Corporation to conduct a Visual Effects on Historic Properties study according to the methods and standards required by Section 106 of the NHPA, the BLM, the BPA, the USFS, the Oregon and Idaho State Historic Preservation Offices (SHPOs), as well the Tribal Historic Preservation Officer (THPO) of the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). Tetra Tech may elect to engage other firms as necessary to complete this work.

The federal government, the State of Oregon, and other affected government agencies all require the proposed Project be adequately analyzed to determine environmental effects associated with the Project's implementation, including effects to historic properties and their visual settings.

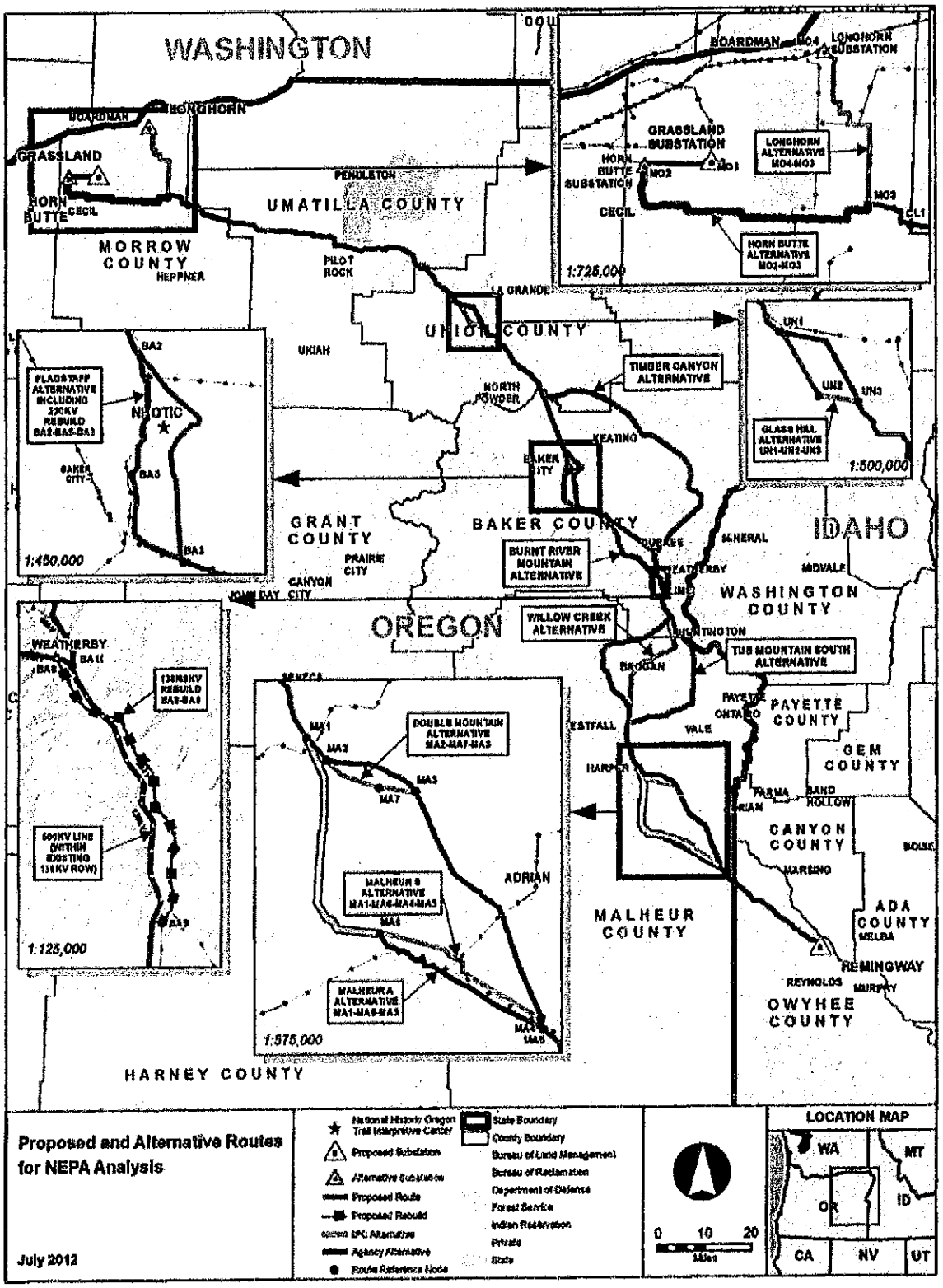

Figure 1-1. Proposed and Alternative Routes

The Project, including road construction (i.e., new roads in addition to widening and improving existing roads), staging areas, substations, and the installation of large overhead transmission towers and conductors, may directly or indirectly affect built environment historic properties (e.g., ranches, homesteads, or mines). The Project may also directly or indirectly affect National Historic Trails (NHT), NHT variants from the original trail, other historic trails, and associated resources (e.g., stage stations and/or grave sites). Many of the routes manifest the westward emigration that dominated the mid-nineteenth century, while other historic routes document the evolution of trails and variants to other forms of transportation, including wagon and automobile roads, from the late nineteenth through mid-twentieth centuries. While some historic trails have been recognized as a part of the National Historic Trail program by the National Park Service (NPS), other historic trails affected by the Project may also be classified as historic properties under the NRHP criteria. Trail segments that lack integrity will be considered non-contributing elements to the trail, and will not be subject to further study.

The Project may also directly or indirectly affect prehistoric sites eligible under criteria other than D only, as well as Traditional Cultural Properties (TCP) and properties of religious and cultural significance to tribes. Eligibility, effect, and treatment of these types of properties will be addressed through consultation between the BLM and the appropriate tribe or interested party.

1.2 Study Purpose

The purpose of this Visual Assessment of Historic Properties (VAHP) Study Plan is to outline the methods proposed to:

1) conduct a reconnaissance and intensive level inventory of the Area of Potential Effects (APE) of above ground resources inclusive of the proposed route and alternatives being evaluated for NEPA and EFSC;

2) identify NHTs, NHT variants from the original trail, other historic trails[1] and associated resources (e.g., stage stations and/or graves sites), other historic transportation related sites and features, TCPs, properties of religious and cultural significance to tribes, historic structures, canals and ditches, home- and ranchsteads, and historic structures;

3) evaluate the historic resources by applying the National Register of Historic Places Criteria for Evaluation;

4) conduct a visual assessment of historic properties, in addition to historic trails, identified during the resource inventory, and analyze potential Project effects.

The preliminary results of the study will be distributed to the BLM, BPA, USFS, tribes, and other consulting parties for consultation on eligibility and effect. The final results of this study will be documented as a report submitted to the BLM and USFS to assist in the preparation of the NEPA EIS and Section 106 of the NHPA compliance documents. The report will also be filed as a part of Exhibit S of the ASC to satisfy the regulatory requirements of the ODOE. Recommendations from this study will contribute to the development of the Historic Properties Management Plan (HPMP). This Plan is being developed pursuant to the Section 106 Programmatic Agreement (PA) for the Project which will include measures to avoid, minimize, or resolve adverse effects to historic properties identified and evaluated in the VAHP study.

[1] "Other historic trails" may include trails that are designated at the state level and that are administered by the Oregon Historic Trails Advisory Council (OHTAC).

The VAHP study is part of a series of studies to consider the Project's impacts to various types of historic properties and/or visual resources that may also have cultural values, recreational values, and archaeological and historical significance. The study, therefore, is designed to be coordinated with, and complementary to these other studies including:

- Literature Review
- Visual Resources Assessment Study
- Archaeological Survey Plan
- Ethnographic Studies

It should be noted that this study does not identify or evaluate archaeological sites, but will identify those previously recorded sites (either by this project or during previous investigations) that have the potential to be visually affected by the Project and that are eligible under National Register criteria other than or in addition to Criterion D. These resources include, but are not limited to rock cairns, petroglyphs, stone circles, and other historic properties of religious and cultural significance. Due to the sensitive nature of these sites, it is anticipated that the BLM and USFS will undertake tribal consultation to identify and evaluate these resources, and assess potential impacts to these resources.

2.0 REGULATORY BACKGROUND

2.1 State Requirements

It is anticipated that IPC will submit an ASC for the Project to the Oregon Department of Energy (ODOE) through the state's EFSC. To receive a Site Certificate, the Project must satisfy the regulatory requirements contained in OAR 345-021-0010(s) [Contents of An Application, Exhibit S] and OAR 345-022-0090 [General Standards for Siting Facilities: Historic, Cultural and Archaeological]. EFSC relies on the Oregon SHPO as the state reviewing agency to assist EFSC with determining whether standards under OAR 345-022-0090 are met. The Project could affect historic, cultural and archaeological resources within the Project area; therefore, the Project's EIS and the EFSC ASC must include an assessment of the potential impacts.

It is also anticipated that the state and federal regulatory processes will be coordinated between the applicable federal and state agencies. The BLM and USFS are developing a PA with the Oregon and Idaho SHPOs, CTUIR THPO, BPA, the Advisory Council on Historic Preservation (ACHP) in addition to other consulting parties to allow the Project to move forward under the NEPA and NHPA processes. ODOE–EFSC is also an invited signatory to this agreement.

2.2 Federal Requirements

The BLM is the designated lead federal agency for the Project under NEPA and for compliance with Section 106 of the NHPA and will coordinate the preparation of an EIS for the Project. Tetra Tech will prepare a VAHP report for the BLM that will analyze the potential for the project to impact historic properties and NHTs and to provide supporting documentation to comply with NEPA, Section 106 of the NHPA, and Oregon EFSC.

The Section 106 process stipulates that the responsible lead federal agency, in this case the BLM, establishes the undertaking (permitting of the Project), identifies consulting parties, identifies historic properties, and assesses Project effects on those historic properties. Section 106 requires the BLM to consider the effect the Project might have on historic properties before approving the Project and granting a ROW or special-use permit. Historic properties are defined at 36 CFR 800.16(l)(1) as "any prehistoric or historic district, site, building, structure, or object

included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior." The BLM develops appropriate measures to resolve adverse effects to those historic properties in consultation with the Oregon and Idaho SHPOs, CTUIR THPO, the ACHP, the BPA, the USFS, American Indian tribes, IPC, and other consulting parties. When completed, the NHPA process will provide mitigation measures applicable to the route and associated facilities, such as access roads and staging areas. A PA is currently in preparation. Once the PA is signed by the applicable signatory parties, the Section 106 process, with the stipulated consultation requirements, resource identification efforts, and any mitigation measures contained or anticipated in the agreement, would be implemented.

In accordance with the National Trails System Act of 1968 (Public Law 90-543, as amended 2009), the BLM and NPS have developed management plans to identify and protect the NHTs and associated sites and resources (BLM 1986a; NPS 1998). It is the responsibility of the BLM to protect and interpret trail resources under its jurisdiction (BLM 1986a). Implementing these responsibilities includes, but is not limited to, regular monitoring of the resource, keeping the NPS informed, defining boundaries, erecting and maintaining trail markers, providing and maintaining facilities, issuing and enforcing regulations, maintaining the scenic/historic integrity, avoiding the destruction of segments, and mitigating unavoidable effects (BLM 1986a).

2.2.1 Criteria for Evaluating Historic Properties

In order to be eligible for or listed in the NRHP, a resource must maintain integrity and be judged significant under one or more of the four National Register Criteria. More specifically, and as noted in 36 CFR 60.4, the resource must

1) possess integrity of location, design, setting, materials, workmanship, feeling, and association: and
2) possess at least one of the following National Register Criteria which includes:
   A) an association with events that have made a significant contribution to the broad patterns of our history; or
   B) an association with the lives of persons significant in our past; or
   C) embodying the distinctive characteristics of a type, period, or method of construction, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
   D) that have yielded or may be likely to yield, information important in history or prehistory.

Additional criteria considerations may also apply in special instances to properties that have been moved, religious properties, cemeteries, individual graves or birthplaces, reconstructed or commemorative properties, and properties that have achieved significance within the past 50 years. Due to the Project's extended construction timeframes all previously recorded resources that are 50 years old, or will have achieved 50 years of age at the time of the completion of the construction, will be assessed for their eligibility to the NRHP.

All resources may be eligible under any one or more of these criteria. For example, a historic building that has sufficient integrity to convey its historic associations may be eligible under Criterion B for its association with a significant person and Criterion C as an excellent example of a particular style of architecture. Guidelines for applying the criteria are provided in *How to Apply the National Register Criteria for Evaluation, Bulletin 15* (NPS 1997a) and *Guidelines for Evaluating and Registering Archeological Properties, National Register Bulletin 36* (NPS 2000).

During implementation of the VAHP study, archaeological resources, commonly determined eligible solely under Criterion D for their data potential, will not be evaluated.

2.2.2 *Assessing Project Effects*

For those properties that are determined as eligible, federal agencies are required to apply the "criteria of adverse effect" to determine whether the project will affect historic properties (36 CFR 800.5). Adverse effects are found when an undertaking alters, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the NRHP in a manner that would diminish the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects that are caused by the undertaking that may occur later in time, be farther removed in distance, or be cumulative (36 CFR 800.5(1)).

This Project differs from some other types of projects as it introduces conspicuous features (e.g. transmission line towers) on the landscape that can indirectly affect certain elements of a historic property's integrity such as setting, feeling, and association. This study plan provides the methodology by which these indirect effects to historic properties will be analyzed.

3.0 HISTORIC CONTEXT

This chapter provides a brief overview to an approach for developing the applicable historic contexts for the Project APEs. A historic context typically consists of prevailing historic themes and chronological periods of development within a given geographic area to assist in understanding cultural resources within the APEs (see section 4.1) of the Proposed Project and Alternatives. When the VAHP Study is prepared, the historic context will use the identified historic resources in addition to published ethnographic data, historic documents, previously recorded oral histories, and secondary sources to develop a more complete history of the resources within the Project APEs.

In order to assess the significance of a historic property and formally evaluate it for listing in the NRHP, a historic context must first be established to demonstrate how a particular resource relates to a local or regional history. The historic context will focus on American Indian and European American land use within the vicinity of the Project APEs. Although the majority of built environment resources are likely to date to the twentieth century, a few mid to late-nineteenth century resources, such as farms and ranches, the Oregon Trail, and the route of the forced march of the Shoshone-Paiute Tribes to Fort Simcoe, do exist within the APEs. The historic context reaches farther back than the dates of anticipated resources to provide information on trends and themes that influenced development patterns found today. It should be noted that this research, for the purposes of the study plan, will be organized by geographic area and then topically subdivided into chronological period and then historical theme consistent with the NPS approach to historic contexts (NPS 1997a; NPS 1997b).

3.1 Anticipated Historic Properties

3.1.1 *Historic Period Themes, Ethnohistoric Occupation, and Associated Resource Types*

From the period of early historic contact through the 1960s, the landscape in the vicinity of the Project has been shaped by a number of broad historic themes. These themes include, but are not limited to; American Indian land use, early historic contact between American Indian tribes and Euro-American settlers, the fur trade, tribal and Euro-American relations, trails and

transportation, community growth and town building, rural electrification, railroads and highways, mining, agriculture and timber, homesteading, ranching, and irrigation.

In addition to these broad historic themes, the Project crosses an area that is layered with a number of cultural and ethnic patterns of occupation. The Project, for instance, crosses the aboriginal and ethnohistoric ranges of the Northern Paiute, Bannock, Nez Perce, Cayuse, Umatilla, Shoshone, and Walla Walla people. Also, the Project occurs in an area that retains important cultural associations with Basque, Chinese, and Latino settlers and workers. All of these groups, in addition to Euro-American settlers, have shaped the historic landscape and will be discussed in the historic context.

Resources constructed during the nineteenth and twentieth centuries and associated with the aforementioned themes are listed in Table 3-1. This table is *not inclusive* of all resources that may be encountered during the survey but provide preliminary indication of resource types in the Project APEs.

Table 3-1. Historic Themes and Anticipated Resource Types

Theme	Resource Category	Resource Type
Agriculture: Ranching, Farming, and Forest Management	Homesteads and Ranches, (Agricultural Uses)	Barns, granaries, poultry houses, root cellars, cool houses, stock sheds, water towers, smokehouses, chicken coops, irrigation networks and canals, historic rock alignments/sheep fences, cisterns, wells, corrals, dendroglyphs, cairns, stock driveways, and line shacks.
	Homesteads and Ranches (Domestic Uses)	Residences (Rural Gothic, Queen Anne, Colonial Revival, Bungalow, English Cottage, Craftsman, vernacular), migrant houses and camps, sheepherder cabins
	Forest Management	Ranger's Station/Cabins, Warehouses, Recreational Cabins, bunkhouses, Civilian Conservation Corps (CCC) era resources, fire lookouts, and communication sites
Trails and Transportation	Road Networks	culverts, bridges, viaducts, retaining walls, road cuts, right-of-ways, CCC-era buildings and features, road projects, and diversion canals,.
	Trail Networks	Trails, stagecoach stations
	Railroads	Culverts, bridges, viaducts, embankments, railbeds, stations, and construction camps
	Aviation	Airports--runways, taxiways, hangars, control towers, warm up pads. Airways—beacons, radio ranges
Industry and Commerce	Mining	Adits, ditches, open pits, headframes, tailings, assay, generator house, power plant, rock cairns, tailings, mills, and camps
	Manufacturing	Concrete plant, hydroelectric plant, electrical transmission/distribution lines
	Commercial hubs	Stores, warehouses, hotels, stables, gas stations
	Timber	Sawmills, water impoundments, log flumes, camps, and springboard stumps

Theme	Resource Category	Resource Type
Ethnohistoric Resources	Assorted	TCPs, cambium peeled trees, Basque/Greek sheepherder cabins and camps, dendroglyphs, tribal allotment homesteads, Chinese sites, work camps
Theme	**Resource Category**	**Resource Type**
Settlement and Community	Cities, towns and crossroads communities	Houses, residential subdivision, grid plan town, schools, courthouse, jail, churches, office buildings
Prehistoric Resources	Assorted	Petroglyphs, rock circles, cairns, prehistoric trails

3.1.2 Multi-Component Resources with Important Visual Contexts

It is anticipated that some historic properties that have been previously recorded as archaeological resources may maintain characteristics that also make them eligible under National Register Criteria A, B, and/or C. With many of these properties containing multiple occupations or uses through time, historic contexts will play a critical role in identifying and assessing the importance of each component.

It is also anticipated that these resources may have visual settings that contribute to their overall significance. Resources such as rock cairns, rock circles, and petroglyphs, for instance, often occur in areas where their physical context or setting is an important character-defining feature. The historic (or prehistoric) context surrounding these resources, however, is often known only to Tribes with associations to the area. Tribal consultation by the BLM and other federal agencies for this project will play a role in developing a better understanding of the contexts (physical, cultural, and historical) behind these resources. Ethnographic and traditional use studies conducted by/for the applicable tribes would also assist in developing the context for these resources.

4.0 METHODS

4.1 Area of Potential Effects and Project Setting

In consultation with the other agencies and consulting parties and through the PA, the BLM has established an APE for indirect visual effects as five miles or to the visual horizon, whichever is closer, on either side of the centerline of the proposed alignment and alternative routes. In rare instances, the indirect visual effects APE may extend beyond the file-mile convention to encompass properties that have visually sensitive resources. For the purposes of this Project, indirect effects include, but are not limited to, effects that change the characteristics that make the property eligible for inclusion in the National Register, as well as the introduction of visual, atmospheric, or audible elements that alter any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the property's integrity. This study is, however, specifically directed towards visual effects. Other indirect effects outside of visual will be analyzed through the Project's Draft Environmental Impact Statement or evaluated through Section 106 consultation. Those aspects of integrity that are most likely to be indirectly affected by visual effects include setting, feeling, and association. The Project's potential to contribute to cumulative effects will also be analyzed consistent with 36 CFR 800.5(1). In several areas, for instance, the Project will be placed immediately beside existing transmission lines and may affect historic properties in a cumulative manner. The instances in which this occurs are listed in Table 4-1.

Table 4-1. Existing Transmission Line Corridors Within the APEs

Route/Alternative Name	Approximate MP Range	County	Existing Transmission Line Voltage
Proposed Route	0-6.5	Morrow County	500kV
Proposed Route	96.4-98.9	Union County	230kV
Proposed Route	103.0-111.6	Union County	230kV
Proposed Route	124.0-125.8	Union County	230kV
Proposed Route	128.0-150.0	Union County/Baker County	230kV
Flagstaff Alternative (and 230kV Rebuild)	0-5.0	Baker County	230kV
Flagstaff Alternative	7.5-11.0	Baker County	230kV
Flagstaff Alternative	11.0-14.4	Baker County	138kV
Proposed Route	162.2-164.9	Baker County	69kV/138kV Corridor
Proposed Route	164.9-167.5	Baker County	138kV
Proposed Route	170.0-173.7	Baker County	138kV
Proposed Route and DC Rebuild	187.0-191.1	Baker County	69kV/138kV Corridor
Proposed Route	191.1-197.0	Baker County	138kV
Malheur A Alternative	20.0-33.2	Malheur County	500kV
Malheur S Alternative	25.9-33.6	Malheur County	500kV
Proposed Route	271.6-280.0	Malheur County/Owyhee County	500kV
Proposed Route	283.0-299.7	Owyhee County	500kV

The APE for indirect effects includes approximately 3,400 square miles located in Umatilla, Union, Baker, Morrow, and Malheur Counties of Oregon and Owyhee County in Idaho. The APE consists of terrain with varying degrees of visibility, vegetation density, and accessibility and contains large parcels of private, state, tribal, and federal land. Some of the Proposed Corridor is collocated with existing transmission lines and near the major transportation corridor of Interstate 84. It will also cross near the National Historic Oregon Trail Interpretive Center. The APE is relatively undeveloped and there are few population centers. Communities within or near the indirect APE include Adrian, Boardman, Pilot Rock, La Grande, North Powder, Baker City, Vale, Willowcreek, Brogan, and Ontario, Oregon as well as Marsing, Idaho. While none of the Project's proposed or alternative routes go through the Umatilla Indian Reservation (UIR), the Project's indirect APE will include portions of the UIR. In addition to being consulted on resources of importance to the tribe off the reservation, the CTUIR THPO will be consulted on any resources identified on the Reservation that have the potential to be indirectly affected by the Project. A permit will be secured from the tribe to access to the Reservation.

Geographic Information System (GIS) "bare earth" modeling will be used to assess areas that will not be visually affected by Project elements. This modeling consists of establishing Project heights and using ground elevation data to determine whether an area would have views of the Project or whether intervening landforms would block views. This analysis will be completed as part of the visual resources analysis prepared for the overall Project. These areas will be mapped and used during the field survey to verify that resources situated within these zones would not be visually affected by the Project.

Other mapping overlays will be used from the Visual Resources Assessment to identify areas that have been previously inventoried for visual/aesthetic qualities. Particular attention will be

paid to places that included visible cultural resources (historic barns, hay derricks, fence lines, canals, etc.) that complement the scenic quality of that particular area. These mapping overlays will assist field crews to better anticipate and assess the integrity of a resource's setting and ensure consistency between the visual and historic property studies.

4.2 Pre-Field Research Methods

A literature review was conducted for this Project to identify potential historic properties within the Project direct APE. Consistent with BLM Manual 8110 (BLM 2004) and 36 CFR 800.4(2), a literature review consists of a reasonable compilation of existing information assembled from a review of previously recorded historic resources and any associated studies. For this Project, information was retrieved from the Oregon Historic Sites Database (OHSD), Oregon SHPO archaeological records, Idaho Historic Sites Inventory (IHSI), Archaeological Survey of Idaho (ASI), BLM and USFS site files (including the Oregon Heritage Information Management System), CTUIR site database, and available historical and ethnographic literature. The study area for the literature review was two miles wide on either side of the centerline of the proposed and alternative routes. This APE was established to aid route-siting efforts, to accommodate shifts in the proposed route, and to cover areas where access roads, substations, and other construction or operation facilities may occur outside the 500-foot-wide intensive survey corridor (direct effect APE).

Due to the scale of the Project and the relatively rural setting for much of the corridor, the identification efforts for the indirect visual APE, which is out to five miles on either side of the Project centerline, will consist of a reconnaissance level survey (RLS) (known in Oregon as a selective RLS) and an intensive level survey (ILS) of resources that:

- have been previously identified through historic resource investigations and that appear in the OHSD, IHSI, or ASI;
- are listed on the NRHP;
- are participants in the Oregon and Idaho Century Farms and Ranches Program;
- appear in State and local registers and landmarks lists;
- are considered by the county as a Statewide Planning Goal 5 Resource (Oregon only);
- have been identified by federal or state agencies;
- have been identified by consulting parties, tribes, local historical societies or private individuals as potentially important historical resources that warrant identification and evaluation;
- are on General Land Office (GLO) plat maps or Ogle and Metsker maps dating to before 1965; and
- Current published and unpublished literature, emigrant diaries, journals, letters, newspaper accounts, Army topographical engineer maps describing trails, older USGS topographic maps and folios, published trail descriptions, chronologies, cultural and historical contexts, ethnographic reports, and information provided by the BLM, USFS, local counties, and National Park Service (NPS) National Trails Office (e.g., historic survey records, maps, etc.).

Research on NHTs and associated resources, such as camps sites, glyphs, and graves, will begin with a review of GLO maps to identify additional trails and establish a record of the historic route of each trail (BLM 2011a). The site records for each resource will also be reviewed to determine the extent of the resource, recording history, and current NRHP status. A summary

of this information, spatially organized west to east, will be included in the overview sections for each trail resource in the Project APEs.

A variety of digital data sources will be used to spatially assemble the network of trails within the Project APEs. These data sources include NPS and BLM shapefiles, as well as digitized trail information from the Idaho Chapter of the Oregon-California Trails Association (OCTA) (Eichhorst 2010) and the Northwest Chapter of OCTA, in addition to trail resources identified in *Emigrant Trails of Southern Idaho* (Hutchison and Jones 1993), and from *Powerful Rockey: The Blue Mountains and the Oregon Trail* (Evans 1991). The Oregon Historic Trails Advisory Council (OHTAC) would also be consulted to identify potential historic trail locations in Oregon. Collectively, these data sources will be used to produce a list of legal locations (township, range, and quarter-quarter section) for each trail resource, inclusive of primary routes, alternates, and cut-offs. The pre-field research combined with the digital data effort will assist with cross referencing historic accounts, mapping, and documentary evidence of historic trail(s) locations.

4.3 Standards for Conducting Fieldwork

The field methods to be employed for the VAHP will be consistent with the Secretary of the Interior's *Standards for Archaeology and Historic Preservation* (NPS 1983, as amended) in addition to the *Oregon SHPO Guidelines for Historic Resource Surveys in Oregon* (OPRD2011), *How to Apply the National Register Criteria for Evaluation* (NPS 1997a), *How to Complete the National Register Registration Form* (NPS 1997b), *Guidelines for Evaluating and Documenting Rural Historic Landscapes (NPS 1999)*, *Guidelines for Local Surveys: A Basis for Preservation Planning* (NPS 1985), and other applicable state and federal standards, guidelines, and white papers that may be consulted as field efforts proceed. These documents may include, but not be limited to *Guidelines for Historic Resources Surveys in Oregon* (OPRD 2011) and Idaho's *Architectural and Historic Sites Survey and Inventory* or *Guidelines for Documenting Archaeological and Historical Inventories*, as appropriate (ISHPO 2011). The level of effort for fieldwork to identify historic properties will be consistent with 36 CFR 800.4(b)(1) as well as "Meeting the "Reasonable and Good Faith" Identification Standard in Section 106 Review" (ACHP 2011). In addition to taking into account the previously discussed background research and consultation, the field survey methodology also considers the magnitude and nature of the Project and the nature and extent of potential Project effects on historic properties. An architectural historian and/or an archaeologist (as appropriate) that meets the Secretary of Interior's Standards and Guidelines (36 CFR 61) will supervise each crew (each crew will have two staff members) that conducts the field survey. Field staff will have an established familiarity with the OHSD as well as the IHSI, methodologies explained in the most recent survey guidance published by the Oregon and Idaho SHPOs, as well as the methods explained in this Study Plan. Field crew members will have experience in history, architectural history, archaeology, and/or the role of landscape in the significance of historic resources. Having multi-disciplinary field teams will be particularly beneficial when assessing the integrity of a multi-component resource's setting and how setting contributes to the significance of that resource.

4.4 Field Survey Methods

4.4.1 Reconnaissance Level Survey (RLS)

A RLS is designed to be a "first look" at a broad group of historic resources and records basic information. Fieldwork for the RLS will be conducted by teams of two field crew members, who will drive publicly accessible rights-of-way and record resources in a systematic manner. For those resources inventoried in the APEs, specific information will be collected, at least two or

more photographs taken, and each resource noted on a field map with latitude, longitude, and UTM coordinates recorded. The information collected in the field will include the address, historic name, original use (when readily evident), preliminary eligibility recommendations, construction date, materials, style, plan type, and number of contributing and non-contributing resources, and any additional location information, as well as comments that make note of any loss of historic integrity. Data collected in the field will be entered into the appropriate OHSD, IHSI, or ASI forms. While there are some differences in the types of data needed to complete respective data entry into the OHSD, IHSI, or ASI forms, field crews will ensure that the appropriate information is collected in the field and entered into the appropriate database. The data collected and entered into the database will be consistent with the respective state's requirements for conducting built environment and archaeological surveys.

For a resource identified during the RLS that retains integrity (including integrity of the setting), is 45 years old or older[2], may be eligible under any of the NRHP criteria for evaluation, and that has the potential to be indirectly affected by the Project, the resource[3] will be subject to additional analysis so that NRHP eligibility can be ascertained during the ILS. Prior to the finalization of the RLS, the preliminary results of the survey will be shared with the BLM, BPA, USFS, appropriate SHPOs/THPO, and consulting parties as an interim summary report so that the relative effectiveness of the methodologies can be gauged and adjusted.

4.4.2 *Intensive Level Survey (ILS)*

The ILS is a detailed look at each individual resource, and records in-depth information collected from a physical examination of the resource and includes research about the resource's property and ownership history. It identifies the resource's potential eligibility for the NRHP, either individually or as a contributing resource to a historic or archaeological district. Field crews conducting the ILS will record information about each resource that is consistent with the survey guidelines of Oregon and Idaho. This will include sufficient photographs to record the characteristics that potentially make the resource eligible for the NRHP. A site plan that records the physical layout of the property and its relationship to the Project also will be prepared.

To complement this more intensive field recordation, additional research will be undertaken to better understand the resource's history. This will include SHPO/USFS/BLM files, historic maps (such as GLO, Metsker's, and Sanborn Fire Insurance maps), newspapers, and other applicable resources such as census records, genealogical records, biographical encyclopedias, city directories, oral histories, family histories, or tribal consultation. The ILS also will contain a list of literature cited that will include any primary and secondary sources consulted for the specific history of the resource as well as the resource's historic context. After taking into account the overall integrity and historical significance of the resource, a final recommendation concerning a resource's eligibility for the NRHP will be made. This information will be entered into the OHSD or onto IHSI.

Once the ILS is completed, an interim summary report with recommendations concerning the eligibility of resources for the NRHP will be forwarded to the BLM, SHPOs/THPO, and consulting parties for review. The SHPOs/THPO would then review the findings and either

[2] The 45 year criterion was chosen to take into account the effects that could be present during the full Project construction period.

[3] It should be noted that the RLS and ILS will be coordinated with the archaeological investigations to ensure that multi-component resources (see Section 3.1.2) are correctly identified and evaluated.

concur or not concur with the BLM's determinations of eligibility. Resources determined to be eligible for the NRHP would then be subject to an assessment of Project effects. If an adverse effect to a specific property is found, then mitigation or other treatment will completed under the terms of the Project Programmatic Agreement and associated Historic Properties Management Plan.

4.4.3 National Historic Trails and Associated Resources Survey

Historic trail segments within the APEs of the proposed route and alternatives will be identified and recorded during the RLS and ILS for the Project. A table will be created for each resource that includes the crossing location, a photo of the trail, the trail condition including the integrity of the setting, and the NRHP status. Each field crew will be equipped with a Trimble® GeoXH global positioning system (GPS) unit. These GPS units will be loaded with digital maps, allowing field crews to navigate to the proposed route and alternative centerlines and record the trail segment.

When potential trail locations and/or actual trails have been identified, the crew will define the class of trail consistent with the standards and examine the condition of the trail consistent with the OCTA classification and examine the setting and condition of the trail (see Table 4-3 Trail Classification Categories), and document the trail and any associated features or artifacts. These classification strategies will be dovetailed with an assessment of the trail's physical integrity, as well as the integrity of its setting, that will utilize the applicable National Register guidance as well as guidance published in recent BLM and NPS historic trails management plans (Management and Use Plan Update/Final Environmental Impact Statement Oregon National Historic Trail/Mormon Pioneer National Historic Trail, NPS 1999; BLM 2011b). Digital photographs will be taken of each trail, and photos facing each cardinal direction will be taken to document the current setting condition. Photos looking at and from along the path of the trail will be taken so that a proper assessment of the trail's setting can be conducted. Existing Oregon survey forms and Idaho ASI forms will be used to record historic trails. Addendum sheets may be used to include additional mapping and other trail data as needed.

The 5-part MET classification of trail categories for overland emigrant trails and roads is designed to assess the condition of trails at the time of mapping. These five categories are OCTA's standard classification for all emigrant trail mapping (OCTA 2002) and will be used to guide judgments concerning the historical integrity of historic trails. Trail condition and integrity will be classified and assessed using the terminology and classification system as defined in the OCTA publication Mapping Emigrant Trails (MET) (OCTA 2002). The system will be used for the NHTs and other historic trails. The terms and classifications are provided in Table 4-2 (Trail Terminology) and Table 4-3 (Trail Classification Categories). These classifications are one aspect of evaluation for NRHP eligibility and can aid in determining the level of integrity of trail segments, but do not replace NRHP significance assessments.

Table 4-2. Trail Terminology

Term	Description
Trace	A general term for any original trail segment.
Swale	A depression, but of deeper dimensions and with sloping sides.
Depression	A shallow dip in the surface, often very faint and difficult to see.
Rut	A deep depression without a center mound and with steep sides.
Erosion feature	A trace of any sort that has been deepened and altered by subsequent wind and/or water action; sides are often irregular.
Track	A visible trace caused by the compacting of surface or discoloration due to salt evaporation on alkali flats; little or no depression. Often seen as streaks across an alkali flat.

Term	Description
Two-track	Parallel wheel tracks separated by a center mound. Typically an unimproved ranch road currently used by motorized vehicles. Usually a Class 2 trail.
Scarring	An irregularly wide flat surface devoid of vegetation that no longer shows any wagon depressions or swales. Often seen trailing through sagebrush flats in an uneven pattern.
Improved road or secondary road	Bladed, graded, crowned, graveled, oiled, or blacktop roads usually having side berms, curbs, or gutters.

Source: OCTA 2002.

Table 4-3. Trail Classification Categories

Term	Type	Description
Class 1	Unaltered Original Trail	The trail route remains representative of its original condition, not having been used by motor vehicles or altered by road improvements. There is clear physical evidence of the original trail in the form of depressions, ruts, swales, or tracks, some of which may be eroded and/or visible only intermittently.
Class 2	Used Original Trail	The trail route retains its original character although it has been used by motor vehicles. The road has not been bladed, graded, crowned, or otherwise improved and typically remains as a two-track road traversing the original wagon trail. In some forested areas, the trail may have been used for logging but still retains its original character.
Class 3	Verified Original Trail	The trail route is accurately located and verified from written, cartographic, artifact, wagon ruts, evidence of wheel impact such as grooves, polish or rust on rocks, and/or topographic evidence, but due to subsequent weathering, erosion, or development (e.g., paved roads, agricultural use, logging, etc.), physical remains of the trail will be non-existent or insignificant. Typically, this would include trails that once traversed through forests or meadows, across excessively hard surfaces or bedrock, over alkali flats, through soft or sandy soils, alongside streams or rivers, on ridge, or through ravines.
Class 4	Impacted Original Trail	The trail route is located and verified accurately, but the trail has permanently lost its original physical and environmental integrity due to the impact of development. Most often, this impact takes the form of light-duty or secondary roads overlaying the trail (bladed, graded, crowned, graveled, oiled, or blacktop roads). In other cases, residential, industrial, pipeline, agricultural, or recreational development have altered or destroyed the trail remains and its natural environment, though the trail location is still known.
Class 5	Approximate Original Trail	The trail route is no longer verifiable or accurately located. In some cases, there is not enough historical or topographic evidence by which to accurately locate the trail. In many cases, it has been destroyed entirely by highway, urban, agricultural, industrial, or utility corridor development. In other cases, it has been submerged under reservoirs or raised lakes. Thus only the approximate route is known.

Source: OCTA 2002.

4.5 Analysis of Indirect Visual Effects to Historic Properties and Trails

The ultimate goal of this analysis will be to identify those indirect visual Project effects, in particular the indirect visual effects, that diminish the integrity and thus the characteristics that make the historic property eligible for the NRHP. While the Project may have indirect visual effects upon historic properties within the APEs, this analysis will help determine whether these effects are adverse. The Visual Assessment of Historic Properties (VAHP) analysis will be

conducted in the field after resources have been determined eligible for the National Register. To provide recommendations on Project visual effects to the BLM, the visual effects analysis will utilize the VAHP Form (Appendix A) which consists of four different parts. This includes:

1) types of indirect visual effects on historic property;
2) integrity of historic property;
3) viewshed and setting; and
4) distance, contrast, obstruction, and fragmentation.

These four components of the analysis will include information observed during fieldwork in addition to GIS viewshed modeling. The modeling will help in understanding the geographic extent of Project visibility from the historic property. Project visual simulations will also be used to estimate the placement of Project elements and its impact upon the setting.

4.5.1 Viewshed and Setting

For the purposes of this study, a *viewshed* is defined as the geographic area visible from a historic property that includes the spatial extent of potential views of the Project within the APEs. Individualized viewshed analyses will be conducted for those historic properties with views of the Project. The viewshed will estimate the extent of the Project's visibility through fieldwork and/or GIS modeling

The viewshed will be determined first by reviewing a GIS viewshed model that illustrates the geographic extent of Project visibility. For the purposes of this analysis, input parameters will include:

- Maximum tower heights are estimated for 500-kV towers to be 195 feet tall, 138/69-kV rebuild towers to be 100 feet tall, and 138-kV relocation towers to be 100 feet tall.
- Digital Elevation Modeling that illustrates the role topography plays in Project visibility.

If, after a review of the model, it is determined that the historic property would not be visually affected by the Project (i.e., would have no views of the Project), then a "no effect" (36 CFR 800.4(d)(1)) recommendation will be made for the specific historic property, and no additional information will be collected. Field visits to each historic property will confirm the veracity of the GIS model. For those historic properties with views of the Project, the VAHP form will be used to document the estimated extent of Project visibility from key contributing elements of the historic property.

The bare earth model viewshed will define the geographic area considered in the analysis of setting. This analysis will identify and map significant features of the landscape tied to the historic setting of the historic property, such as historic circulation patterns, land divisions, land uses, presence or absence of buildings and structures, current vegetation composition and patterns, and topography. This analysis will provide descriptive data on the settings of historic properties.

4.5.2 Integrity of Historic Properties and Trails

Due to the nature of the Project's indirect visual effects, only three of the seven aspects of integrity will be evaluated for each historic property during the visual assessment. These aspects include:

- setting – the physical environment of a historic property;

- feeling – a property's expression of the aesthetic or historic sense of a particular period of time; and
- association – the direct link between an important historic event or person and a historic property (NPS 1997a).

The constituent parts of the *setting* include aspects such as surrounding vegetation, topography, the presence of other forms of land use and manmade buildings, structures, or features. Field crews will record and attempt to ascertain whether these features within the larger setting were present during the property's period of significance and thus evaluate whether they collectively contribute to a Property's integrity of *feeling*. Field crews will record whether the historic property retains its integrity of *association* by assessing whether it is sufficiently intact to convey its links to important historic events or people (NPS 1997a).

For those properties whose integrity of setting, feeling, and association have already been significantly compromised or where those aspects of integrity do not contribute to the resource's significance, no additional information will be collected beyond the RLS stage and a "no effect" recommendation will be made consistent with 36 CFR 800.4(d)(1). It should also be noted that the integrity of historic trails will also be assessed using the MET classification categories noted in Table 4-3.

Additional consultation between the BLM and tribes or other interested parties will occur for the assessment of integrity of properties of religious and cultural significance or Traditional Cultural Properties.

4.5.3 *Indirect Effect Criteria: Distance, Contrast, Obstruction, and Fragmentation*

For the purposes of this visual assessment, there will be four indicators used to inform the effects assessment for historic properties. They include distance, contrast, obstruction, and fragmentation (BLM 1984, 1986b), and will be addressed on the VAHP form. *Distance* plays an important role in analyzing indirect visual effects upon the landscape that surround historic properties. Typically, as distance between the Project and the property increases, the perception of visual contrast of the Project with the surrounding landscape decreases. At greater distances, for example, atmospheric haze often makes colors become paler and reduces the strength of lines (BLM 1986b) (See also Figure 4-1). For the purpose of this analysis distance will be measured from visible Project elements to the historic property, and classified into the following distance zones: foreground (less than 2 miles), middleground (between 2 and 5 miles) and background (more than 5 miles) (See Table 4-4).

Table 4-4. VRM Distance Zones

Distance Zone	Distance Parameter
Foreground	Less than 2 miles
Middleground	Between 2 and 5 miles
Background	More than 5 miles

Distance plays an important role in determining Project visibility and thus the extent of Project contrast. *Contrast* is linked to the degree to which the Project "stands out" amidst the landscape in which it exists either through line, form, color, reflectivity, texture, scale, or space. For transmission lines, for instance, a strong contrast can often occur when a transmission structure is "skylined"; where the transmission structure is easily recognized as rising above the surrounding topography and observable against the sky. Likewise, a strong contrast can also

result from clearing a linear swath through forested areas. A weak contrast would occur for Project features that are in the middle to background zones and set against a landscape of low hills that inhibit skylining and that obscure Project components. Observations made in the field will be guided by the following matrix in order to best characterize the Project's potential to contrast in a landscape that is visible from a historic property (See Table 4-5).

Table 4-5. Degree of Contrast

Degree of Contrast	Criteria
None	The Project element contrast is not visible or perceived.
Weak	The Project element contrast can be seen but does not attract attention.
Moderate	The Project element contrast begins to attract attention and begins to dominate the characteristic landscape.
Strong	The Project element contrast demands attention, will not be overlooked, and is dominant in the landscape.

While distance and contrast play a role in understanding the degree to which a Project affects a particular historic property, they do not entirely describe how the Project may affect the physical inter-relationships of the historic property with other historic properties in the surrounding landscape. For instance, the Project may obstruct the sightlines between the historic property and prominent natural or manmade features that are integral to the property's significance. *Obstruction*, therefore, is another important component of effect and will assist in identifying specific instances where the Project has the potential to interfere with landscape inter-relationships. Levels of obstruction will be estimated in the field by noting "obstruction", "partial obstruction", or "no obstruction" (See Table 4-6). In some instances simulations will be used to estimate the level of obstruction in addition to contrast, in order to give the Project engineers the opportunity to develop more sensitive Project siting options.

Table 4-6. Level of Obstruction

Level of Obstruction	Criteria
None	A visible Project element does not visually obstruct a landscape component and thus does not diminish the integrity of a historic property's setting, association, and/or feeling.
Partial Obstruction	The Project element partially obscures a landscape component that contributes to the property's overall significance and thus may diminish the integrity of a historic property's setting, association, and/or feeling.
Obstruction	The Project element noticeably obscures a landscape component that contributes to the property's overall significance and clearly diminishes the integrity of a historic property's setting, association, and/or feeling.

Field observations and simulations may also provide indications of how the Project interacts with open spaces present within a particular viewshed. Project components, for instance, may result in the *fragmentation* of open spaces that are character-defining features within a particular historic landscape by introducing new vertical or horizontal elements or by clearing linear strips of vegetation through forested areas. Fragmentation of open space will be gauged as "fragmentation of open space," "moderate fragmentation," and "little to no fragmentation" depending upon the Project's routing and interaction with open spaces.

Table 4-7. Level of Fragmentation

Degree of Contrast	Criteria
Little to no fragmentation	The Project element contrast is at most minimally visible from the historic property and does not subdivide open spaces that contribute to the integrity of a historic property.
Moderate fragmentation	The Project element is visible from the historic property and contributes to the fragmentation of open space, but the division is not complete due to intervening land forms and a moderate Project contrast with the surrounding landscape.
Fragmentation of Open Space	The Project element is plainly visible from the historic property and clearly fragments open space that is a character defining feature of the historic landscape that surrounds the historic property.

4.6 Level of Effects to Historic Properties and Trails

Although it is anticipated that the overall Project effect will have an adverse effect on historic properties, the purpose of this plan is to assess the visual effects to individual properties. This will be done to aid in the development of mitigation strategies and the HPMP. When taken together, the visual assessment of a historic property's setting, association, and feeling, the property's role in the larger landscape, and the propensity for the Project to diminish the characteristics that make that property eligible for the NRHP provides a rough basis for effect recommendations. So assuming that the resource retains its historic integrity, when Project features are in the background distance zone, exhibit little contrast to their surroundings, do not obstruct landscape inter-relationships and/or fragment open spaces, then a "no adverse effect" (36 CFR 800.5(b)) finding would be appropriate for the individual property. Whereas, a potential "adverse effect" (36 CFR 800.5(d)(2)) would occur for a property when the Project is in the foreground distance zone, presents a high contrast, obstructs views to important landscape elements, or fragments open space that contribute to a property's historic integrity.

Due to the complex interplay of a particular property's integrity and significance in addition to the range in effects that a property may be exposed to, the Project team will make every effort to identify similar situations to ensure consistency in the effect recommendations. To facilitate a qualitative approach and consistency, recommendations of no adverse effect and adverse effect will be based upon the information (including photographs) collected in the VAHP field form (Appendix A) in addition to the selective use of viewshed modeling and simulations particularly when a property may be adversely affected by a Project element.

Table 4-8. Level of Fragmentation

	Distance	Degree of Project Contrast	Level of Obstruction	Level of Fragmentation
Level of Integrity (Setting)				
High	Background	None or Weak	None	Little to None
	Middleground	Moderate or Strong	Partial or Full Obstruction	Moderate or Full Fragmentation

	Foreground	Moderate or Strong	Partial or Full Obstruction	Moderate or Full Fragmentation
Medium	Background	None, Weak, or Moderate	None, Partial Obstruction	Little to None, Moderate
	Middleground	Weak	Partial Obstruction	Moderate
	Foreground	Strong, Moderate	Obstruction	Fragmentation
Low	Background	None	None	Little to None
	Middleground	Weak, Moderate	Partial Obstruction	Moderate
	Foreground	Strong	Obstruction	Fragmentation

Shaded cells: Indicates that the level of Project impacts, when combined with other factors in the table, would diminish the integrity of the historic property's setting and thus adversely affect the characteristics that make the property eligible for the NRHP.

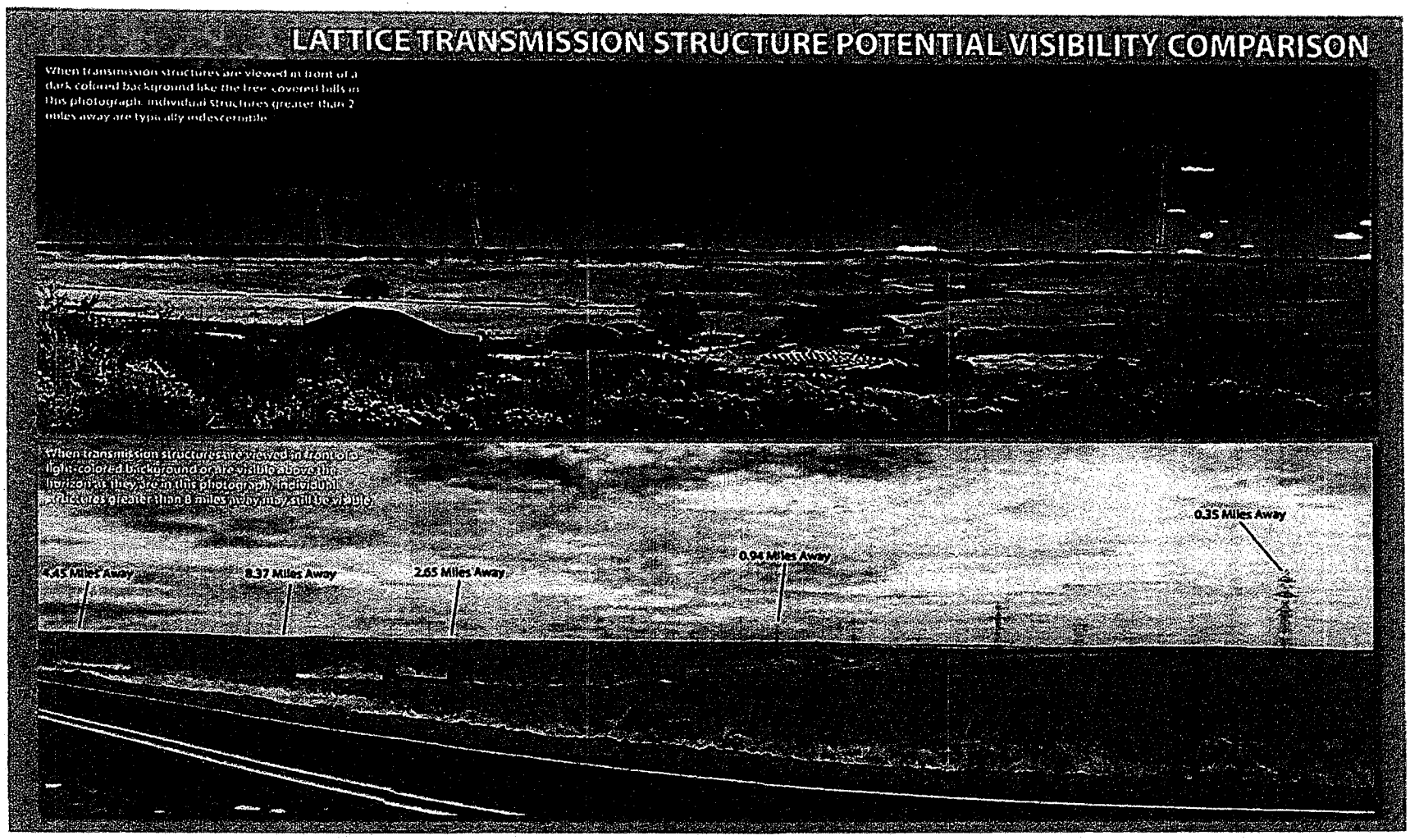

Figure 4-1. Lattice Transmission-Structure Potential-Visibility Comparison

5.0 DOCUMENTATION

5.1 Schedule

Over the course of this study, the components of this study will be reported through interim summaries (one each for the RLS and ILS) and a draft and final report. Table 5-1 provides the reporting and consultation phases.

Table 5-1. Project Reports and Consultation Phases

Phase	Report
1	Completion of RLS Interim Summary
1a	BLM/USFS review of RLS Interim Summary
1b	IPC/TT address comments
2	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on RLS Interim Summary
3	Completion of ILS Interim Summary and Effect Assessment
3a	BLM/USFS review of RLS Interim Summary
3b	IPC/TT address comments
4	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on ILS Interim Summary and Effect Assessment
5	Draft VAHP Report
5a	Completion of ILS Interim Summary and Effect Assessment
5b	BLM/USFS review of RLS Interim Summary
6	BLM/USFS Request for Review and Comment from BPA, Tribes, SHPOs/THPO, and consulting parties on Draft VAHP Report
7	Final VAHP Report

5.2 Description of Study Deliverables

As noted in Table 5-1, each Interim Summary and the Draft VAHP Report will be made available by the BLM and USFS for an initial review and comment. After the initial comments are addressed, the revised draft will be distributed to the BPA, Tribes, SHPOs/THPO, and the consulting parties. At the conclusion of each review and comment period, the BLM and USFS will take into account the views of these parties and provide direction on subsequent study to be conducted.

The RLS Interim Summary will include summary data on the number of resources that were identified through the literature review and background research, the number of resources that were re-located and/or identified during the field investigation, and which resources will be carried forward for study into the ILS and effect analysis. The RLS Interim Summary will include location information, whether the resource potentially meets the NRHP Criteria for Evaluation, level of integrity, age, and a photograph. The intent of the summary is to provide the BLM, BPA, USFS, Tribes, SHPOs/THPO, and the consulting parties with information, including NRHP eligibility recommendations, about the resources encountered in the field and to obtain direction on moving forward with the next phase of study.

The ILS Interim Summary and Initial Effect Assessment will include brief paragraphs on the history of each resource that was studied at the intensive level in addition to the resource's level of integrity, and a recommendation of potential Project effects. Photographs and a map of each resource and its relationship to the Project will be provided. Representative viewshed mapping and Project simulations may also be included to illustrate the extent and nature of effects to historic properties during fieldwork. The intent of the summary is to provide the BLM, BPA,

USFS, Tribes, SHPOs/THPO, and the consulting parties with preliminary information about the integrity of resources and the potential extent of Project effects. The BLM and USFS will review the documents and distribute to other agencies, tribes, and consulting parties in accordance with the PA to determine the eligibility of resources for the NRHP and the effects upon historic properties.

Once the BLM and USFS have taken into account the views of the BPA, Tribes, SHPOs/THPO and consulting parties, a Draft VAHP Report will be prepared. The Report will include the full results of the RLS and ILS Interim Summaries and the Effect Assessment for compliance with Section 106 of the NHPA and to also satisfy the requirements of Oregon's EFSC. The Draft Report will at a minimum include the following:

- Literature review, Background Research, and Historic Context
- Regulatory Background
- Methods of Identification and Evaluation of Historic Properties and Effect Analysis
- RLS Results
- ILS Results and NRHP Eligibility Recommendations
- Visual Effect Assessment and Effect Recommendations
- Recommendations for Avoidance, Effect Minimization, and/or Resolution of Adverse Effects
- An appendix that includes VAHP field forms for all applicable properties

The completed Draft VAHP Report will be reviewed by the BLM and USFS prior to submission to the BPA, respective Tribes, SHPOs/THPO and consulting parties. Once the BLM and USFS has reviewed and approved the report, it will be submitted to the respective SHPOs/THPO for concurrence and to the Tribes and consulting parties for comment in accordance with the PA.

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APPENDIX A
VISUAL ASSESSMENT OF HISTORIC PROPERTIES FORM

VISUAL ASSESSMENT OF HISTORIC PROPERTIES FORM
Boardman to Hemingway Project

Property Name and #: _____

Property Eligibility (NRHP Criteria A, B, C, or D): _____ Period(s) of Significance: _____

Date of Form: _____ Recorder: _____

TYPES OF EFFECT

View of Project? **Y / N** (if no, then no additional information is necessary: "No Historic Properties Affected")

Trans. Tower (# & type): ☐_____ **Access road:** ☐ **Veg. clearing:** ☐ **Substation:** ☐ **Laydown/Staging:** ☐

VIEWSHED & LANDSCAPE CONTEXT

Breadth of Viewshed from Historic Property Affected: **90° 180° 270° 360°**

Is Property part of larger cultural landscape? Y/N

If "yes", then does the property contribute to the significance of that landscape or is the landscape part of the property's overall setting?

_____

_____

_____

In box to right sketch breadth of viewshed from historic property towards Project (note background and intervening topography, historic circulation patterns, land divisions, land uses, buildings and structures, and prevailing vegetation type and patterns, & prominent open spaces; include North arrow).

EXISTING INTEGRITY OF HISTORIC PROPERTY/ TRAIL

Aspect of Historic Integrity	Existing Retention or Loss of Integrity
Setting – physical environment of a historic property	
Feeling – a property's expression of the aesthetic or historic sense of a particular period of time	
Association – the direct link between an important historic event or person and a historic property	

INDIRECT VISUAL EFFECT CRITERIA: DISTANCE, CONTRAST, OBSTRUCTION, AND FRAGMENTATION

Distance to Project: **Foreground (< 2 mi.)** _____ **Middleground (2-5 mi.)** _____ **Background (> 5 mi.)** _____

Expected Degree of Project Contrast: **None Weak Moderate Strong**

Describe Project features and how they will contrast with landscape (line, form, color, texture, scale, or space):

Level of Obstruction: (Obstruction of views of important landscape components): **None Partial Obstruction Obstruction**

Describe Project features and how they obstruct landscape components that contribute to the property's integrity/significance:

Level of Fragmentation (Open Space): **Little to No Fragmentation Moderate Fragmentation Fragmentation of Open Space**

Describe how open space is/is not fragmented by Project elements:

Photograph

Include representative view of Project as seen from historic property. Include direction of view. If necessary, provide additional photos and/or simulations on addenda sheets.

Direction of view:

Date of photo:

Description:

LEVEL OF EFFECT

Effect Recommendation	Y/N
Adverse Effect 36 CFR 800.5(d)(2)	
No Adverse Effect 36 CFR 800.5(b)	

Adverse Effect An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association.

No Adverse Effect: The undertaking's effects do not meet the criteria of adverse effect (as found in 36 CFR 800.5(a)(1) or the undertaking is modified or conditions are imposed so that adverse effects are avoided.

Preserving America's Heritage

February 7, 2017

Donald N. Gonzalez
Bureau of Land Management
District Manager
Vale District Office
100 Oregon Street
Vale, OR 97918

Ref: *Boardman to Hemingway Transmission Line Project*
Various Counties: Oregon, Idaho, and Washington

Dear Mr. Gonzalez:

Enclosed is the executed Programmatic Agreement for the referenced project. By carrying out the terms of this Agreement, the Bureau of Land Management will have fulfilled its responsibilities under Section 106 of the National Historic Preservation Act and the Advisory Council on Historic Preservation's regulations, 36 CFR Part 800, implementing Section 106 of the National Historic Preservation Act.

Should you have any questions, please contact Nancy J. Brown, who can be reached at 202-517-0209 or nbrown@achp.gov.

Sincerely,

Tom McCulloch, Ph.D., R.P.A.
Assistant Director
Federal Property Management Section
Office of Federal Agency Programs

Enclosure

CONFIDENTIAL ATTACHMENT S-6
CULTURAL RESOURCES TECHNICAL REPORT

This attachment is not included here because it contains confidential information.

CONFIDENTIAL ATTACHMENT S-7
RECONNAISSANCE LEVEL SURVEY – VISUAL ASSESSMENT OF HISTORIC PROPERTIES REPORT

This attachment is not included here because it contains confidential information.

ATTACHMENT S-8
NATIONAL HISTORIC TRAILS STUDY

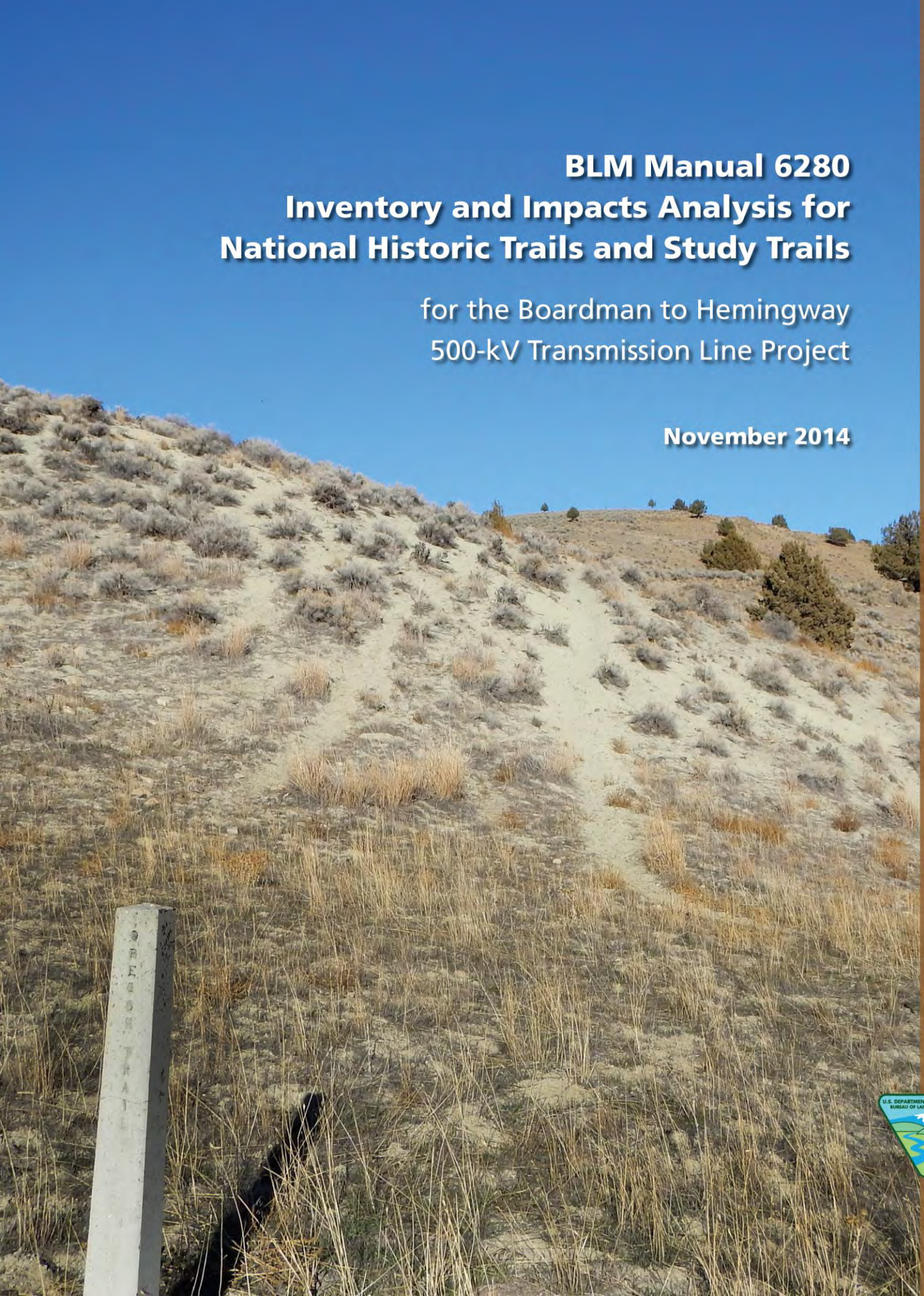
BLM

Vale District Office

BLM Manual 6280
Inventory and Impacts Analysis for National Historic Trails and Study Trails

for the Boardman to Hemingway 500-kV Transmission Line Project

November 2014



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BLM Manual 6280
Inventory and Impacts Analysis for National Historic Trails and Study Trails

for the Boardman to Hemingway 500-kV Transmission Line Project

November 2014

Prepared For
Bureau of Land Management
Vale District Office
100 Oregon Street
Vale, Oregon 97918

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1.0 INTRODUCTION

An Application for Transportation and Utility Systems and Facilities on federal lands has been submitted by Idaho Power Company (IPC) to the Bureau of Land Management (BLM) and the U.S. Forest Service. The BLM determined that approval of the request would be a major federal action, requiring the preparation of an environmental impact statement (EIS). IPC proposes to construct, operate, maintain, and decommission a single-circuit alternating-current 500-kilovolt (kV) overhead electric transmission line, including a number of ancillary facilities. The proposed transmission line would be constructed to connect the planned Grassland Substation in Morrow County, Oregon, to the existing Hemingway Substation, near the city of Melba in Owyhee County, Idaho. The proposed Boardman to Hemingway Transmission Line Project (B2H Project) route is approximately 305 miles long and would cross federal, state, and private lands in six counties in Oregon and Idaho.

The B2H Project analysis area includes private and public lands near the designated Oregon National Historic Trail and the Goodale's Cutoff and Meek Cutoff Study Trails. In compliance with the National Trails System Act (NTSA) of 1968 and with the guidelines in BLM Manual 6280*, Management of National Scenic and Historic Trails Under Study or Recommended as Suitable for Congressional Designation* (2012), it is necessary to inventory cultural, historic, visual, and recreation resources and characteristics for sites and trail segments associated with the portions of these trails on BLM lands that occur within theB2H Project analysis area. The NTSA of 1968, as amended, established a network of visual, historic, and recreational trails to provide for outdoor recreation needs; promote the enjoyment, appreciation, and preservation of open-air, outdoor areas, and historic resources; and encourage public access and citizen involvement. BLM Manual 6280 establishes the agency's policies for managing these National Trails and trails under study for National Trail designation, and it provides direction for identifying and evaluating impacts on "the nature and purposes of the trail, trail resources, qualities, values, uses (including public access and enjoyment) and associated settings" (2012:1–18). This Inventory and Impacts Analysis report follows Manual 6280's directive to identify those resources, qualities, values, associated setting, and primary uses that support the nature and purposes of National Historic Trails (NHTs) and trails undergoing a National Trail Feasibility Study (Study Trails) in the B2H analysis area. The B2H Project EIS identifies the consequences that the Proposed Action and alternatives would have on those resources. There are no National Scenic Trails, Recreation (including Water) Trails, or Connecting and Side Trails in the inventory area, and as such, this inventory focuses solely on segments of NHT and Study Trails for NHT status in the B2H analysis area on BLM lands.

2.0 REGULATORY FRAMEWORK

2.1 NATIONAL TRAILS SYSTEM ACT

According to the NTSA of 1968, federal agencies must consider the effects of proposed actions on NHTs. 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). Easements or

rights-of-way granted by the Secretary of the Interior or Secretary of Agriculture must comply with laws applicable to the national park system and national forest system and conditions established in the easements or rights-of-way must reflect the policy and purposes of the NTSA (16 U.S.C. 1248).

The proposed B2H Project, the alternatives, and their associated features may directly or indirectly impact segments of the Oregon NHT, NHT-related resources, and the Meek Cutoff and Goodale's Cutoff Study Trails present within the inventory area. NHTs, which are authorized and designated only by an act of Congress, commemorate historically significant routes (i.e., historic routes of exploration, migration, trade, communication, and military action) whose location is known sufficiently to permit public recreation and historical interest (NPS 2013). To be designated by Congress, NHTs must follow as closely as possible the actual route of historic use, be of national significance, and have significant potential for public recreation and/or interpretation opportunities (16 U.S.C. 1242).

2.2 National Historic Preservation Act

Section 106 of the National Historic Preservation Act (16 U.S.C. 470) requires that the federal agency permitting the undertaking "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register" and provide the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. *Effect* is defined in the implementing regulations for Section 106 (36 Code of Federal Regulations 800.16(i)) as "alteration to the characteristics of a historic property qualifying it for inclusion in or eligibility for the National Register." Section 106 requires the lead federal agency to consult with the State Historic Preservation Office (SHPO), members of the public, affected Native American tribes, and the ACHP throughout the process of identification, evaluation, and resolution of effects. Section 106 compliance is considered satisfied with the execution of a programmatic agreement (PA), a legal document that describes the lead federal agency's (in this case, the BLM's) process of identifying and evaluating impacts on historic properties and its plans for resolving adverse effects.

As historic properties listed on the National Register of Historic Places (NRHP), the Oregon NHT, the Meek Cutoff and Goodale's Cutoff Study Trails are all properties that require evaluation of effect under Section 106. Segments and sites associated with the trail located in the direct and indirect area of potential effects established for the project will be assessed through cultural resources inventory associated with the Section 106 process and effects will be determined in consultation with tribes and parties to the project PA. This Inventory and Impacts Analysis draws upon the NRHP eligibility assessments of segments through previous documentation; fieldwork performed in conjunction with the inventory and analysis did not reevaluate the NRHP eligibility of previously documented trail segments and sites.

2.3 Federal Land Policy and Management Act

The Federal Land Policy and Management Act (FLPMA) governs the manner in which public lands shall be managed. This act, also known as the BLM Organic Act, establishes the agency's "multiple-use mandate to serve and protect future generations" (BLM and Office of the Solicitor 2001). The concept of "multiple-use" management is defined within the act (43 U.S.C. 1702) as "management of the public

lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people." The uses and values associated with the Oregon NHT and Study Trails that fall within the B2H analysis area are documented in this inventory.

2.4 National Environmental Policy Act

The National Environmental Policy Act (NEPA) (42 United States Code [U.S.C.] 4321) requires the federal government to take a "hard look" and to evaluate and disclose the anticipated environmental consequences that would occur if major federal actions are implemented. This analysis includes an articulation of what action is to be considered (the proposed action), where it will occur (the affected environment), a reasonable range of alternatives for accomplishing the project, and a description of the environmental consequences associated with the project. The purpose of NEPA is to allow the decision maker and the public to have information sufficient to understand the environmental consequences of major federal actions. This information is disclosed in the context of an environmental assessment or environmental impact statement.

This NHT Inventory and Impacts Analysis report responds to these regulatory requirements. This report focuses on the resources within the designated Oregon NHT, in accordance with the NTSA, as well as on resources within trails under study for inclusion as NHTs, in accordance with BLM Manual 6280. As guided by National Historic Preservation Act, this report allows BLM to "take into account the effect of the undertaking on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register." FLPMA guides BLM to manage public lands for multiple use, including protection of resources of historic significance, as well as allowed uses, including establishment of rights of way for utilities. NEPA requires identification of resources and evaluation of the environmental consequences associated with the action to approve the right of way requested for construction of the proposed B2H Project.

2.5 BLM Manual 6280 (*Management of National Scenic and Historic Trails and Trails under Study or Recommended as Suitable for Congressional Designation*)

BLM Manual 6280 states that NEPA analysis for a proposed action must (1) be able to identify reasonable alternative project locations with potentially less or no adverse impact, (2) document the resources, qualities, values, associated setting, and primary uses that support the nature and purposes for which the trail was designated, and (3) assess potential impacts to the landscape elements of potentially affected designated NHTs (e.g., Oregon NHT). The policy also requires consideration of impacts to Study Trails and trails recommended as suitable for National Trail designation through the National Trail Feasibility Study. The National Park Service (NPS) is currently conducting a Feasibility Study/Environmental Assessment (EA) for additional alternate routes of the Oregon NHT under the NTSA, Public Law 90-543, as amended through Public Law 111-11, March 30, 2009. The Study Trails that may be potentially affected by construction of the proposed B2H Project include the Meek Cutoff and the Goodale's Cutoff.

Per BLM Manual 6280, this inventory and analysis is limited to the potentially affected segments of the Oregon NHT and Study Trails that are located on BLM-managed lands. Potentially affected segments of the Oregon NHT and Study Trails on U.S. Forest Service, private, or other lands in the inventory area are described in the cultural resources inventory reports prepared for the B2H Project and in the Cultural Resources section of the Draft EIS for the B2H Project.

3.0 INVENTORY AREA

The inventory area for Manual 6280 compliance has been defined to consist of all BLM-managed lands visible within a 10-mile-wide corridor based on the Proposed Action and alternative route centerlines for the proposed B2H Project. A GIS "bare-earth" viewshed analysis was used to determine whether BLM-managed trail segments or associated sites could have a view of the proposed B2H Project and therefore be located within the inventory area for Manual 6280 compliance. Some portions of the Oregon NHT and Study Trails were located within the 10-mile-wide corridor but were determined to be "not visible" based on the GIS bare-earth visibility analysis—for example, the Boardman/Four Mile Canyon High Potential Route Segment of the Oregon NHT. Because the B2H Project would not be visible from these locations, they were considered to be outside of the Manual 6280 compliance inventory area and thus not carried forward for inventory and analysis. Although visible from the B2H analysis area, the portions of the Lewis and Clark NHT, the Ice Age National Scenic Trail, and the Upper Columbia River Route Study Trail that fall within the 10-mile corridor are not included in this inventory and analysis, as these trails are not located on BLM lands. However, the Lewis and Clark and Oregon Trail Columbia River Route trails are located in the inventory area established for cultural resources and are described in the Cultural Resources section of the Draft EIS.

Table 1 identifies Oregon NHT and Study Trails located within the inventory area by county, state, and BLM Field Office (FO). Trail length data for the much more comprehensive inventory area established for cultural resources data collection is included to provide the reader with a sense of the limited scope of the Manual 6280 compliance inventory area. As depicted in Table 1, the Manual 6280 compliance inventory area includes 55.4 of the 311.8 miles of trail located within the cultural resources inventory area; the remaining 256.4 miles of trail are located on non-BLM lands and are thus not considered in the Manual 6280 compliance inventory.

Per the inventory guidelines in BLM Manual 6280 (3.4, A), the inventory area was divided into analysis units (AUs) by trail segment. According to Manual 6280, AUs should consist of areas that encompass discrete segments of the NHT or Study Trails based on one or more of the following considerations:

- High Potential Historic Sites (HPHS) and High Potential Route Segments (HPRSEG) or groupings of sites and segments
- Jurisdictional boundaries
- Distinct trail segments
- Breaks in landform
- Human-made features

Table 1. Length of Oregon National Historic Trail and Study Trails within the Manual 6280 Compliance Inventory Area by County, State, and BLM Field Office

Trail Name and Designation	County, State	BLM Field Office	Length of Trails within Cultural Resources Inventory Area (in miles)	Length of Trails within Manual 6280 Inventory Area (in miles)
Oregon Trail NHT Designated Route	Gilliam, Oregon	Central Oregon	6.1	1.6
Oregon Trail NHT Designated Route	Morrow, Oregon	Baker	30.9	0.0
Oregon Trail NHT Designated Route	Umatilla, Oregon	Baker	14.0	0.0
Oregon Trail NHT Designated Route	Union, Oregon	Baker	41.5	0.3
Oregon Trail NHT Designated Route	Baker, Oregon	Baker	70.0	7.0
Oregon Trail NHT Designated Route	Malheur, Oregon	Malheur	37.2	10.3
Oregon Trail NHT Designated Route	Owyhee, Idaho	Owyhee	18.7	0.3
Length of Oregon NHT			218.4	19.5
Upper Columbia River Route Study Trail	Morrow, Oregon	Baker	8.5	0.0
Meek Cutoff Study Trail	Malheur, Oregon	Malheur	13.1	1.0
Goodale's Cutoff Study Trail	Baker, Oregon	Baker	65.3	32.7
Goodale's Cutoff Study Trail	Washington, Idaho	Four Rivers	6.5	2.2
Length of Study Trails			93.4	35.9
Total Length of NHT and Study Trails			311.8	55.4

Table Abbreviations: NHT = National Historic Trail.

The AUs that were developed for this inventory were based on breaks in landform that serve to define historic and contemporary user experience. As Table 2 indicates, five AUs have been delineated for the Oregon NHT in the Manual 6280 compliance inventory area (Blue Mountains, Flagstaff Hill/Virtue Flats, Burnt River, Alkali Springs/Tub Mountain, and South Alternate); one AU is delineated for the Meek Cutoff Study Trail; and two AUs are defined for the Goodale's Cutoff Study Trail. An overview of the Oregon NHT and Study Trails AUs is presented in Figure 1, Figure 2, and Figure 3. The AUs are also illustrated in Figure 4 through Figure 14 at a more refined map scale. Although viewsheds were identified for segments of trail occurring on BLM-managed lands, these viewsheds also include lands not managed by the BLM.

To develop the AUs, a GIS-based "bare-earth" viewshed analysis was conducted from the centerlines of the Proposed Action and alternatives. This type of viewshed analysis is based on a digital elevation model (DEM) and therefore reflects visible areas of the landscape based on existing landforms, without consideration of vegetation or built environment. Because availability of data regarding existing vegetation and built environment is limited, the bare-earth analysis makes the best use of available GIS DEM data and also provides a "worst case" scenario for visibility. This analysis identified segments of the Oregon NHT and Study Trails on BLM lands that would potentially have views of the project within 5 miles of the transmission line alignments. These trail segments were considered to be potentially affected by the B2H Project and were carried forward for a trail-centric visibility analysis.

The trail-centric visibility analysis was then performed from all of the potentially affected trail segments on lands managed by the BLM. This analysis identified all areas of the landscape from which the project could potentially be seen from affected trail segments and formed the basis for delineation of the AUs. The outer extents of the AUs were delineated by creating polygons that encompassed the general edges of this visibility analysis, with a maximum distance of 5 miles (Figures 4 through 14).

Table 2 presents the miles of the Congressionally Designated Oregon NHT (NHT^1), Oregon NHT Segments (NHT^2), and Oregon Trail Auto Tour Route (NHT^3) that fall within the NHT AUs and are located on BLM land. The Federal Trail Data Standards divides NHTs into three distinct data types, all of which are examined in this inventory and analysis:

NHT^1 Designated Route

- Includes the route congressionally designated as the Oregon NHT, as well as associated Oregon NHT heritage sites.

NHT^2 Heritage Resources

- Includes Oregon NHT associated heritage resources (routes and/or sites) where historical events are known to have occurred. Although physical evidence and/or remnants may no longer be present, and the location of these resources may exist outside of the congressionally designated route.

NHT^3 Recreation and/or Interpretive Trail/Road/Sites

- Includes Oregon NHT-associated recreation or interpretive routes and/or sites, such as auto tour routes which may vary from the NHT^1 congressionally designated route and/or NHT^2 original, historically used routes. These properties, such as the Oregon Trail Auto Tour Route, may be commemorative in nature and not linked with documented historical events. NHT^3 resources play a significant role in characterizing use of the trail under Manual 6280 guidance.

Table 2. Miles of Oregon Trail Resources on BLM Land within Analysis Units

Analysis Unit	Length of Oregon Trail Resources on BLM Land (in miles)		
	Congressionally Designated Trail (NHT^1)	Oregon Trail Segments (NHT^2)	Oregon Trail Auto Tour Route/ Interstate 84 (NHT^3)
Blue Mountains	0.3	1.9	0.2
Flagstaff Hill/Virtue Flats	13.7	13.3	0
Burnt River	4.6	14.8	12.0
Alkali Springs/Tub Mountain	27.8	21.6	3.2
South Alternate	0.3	0.9	0
Total	18.0	52.4	15.4

Table Abbreviations: NHT = National Historic Trail.
Table Note: See text above for detailed descriptions of the NHT^1, NHT^2, and NHT^3 trail data types.

Table 3 presents the miles of the Meek Cutoff and Goodale's Cutoff Study Trails that are located on BLM lands within the respective AUs.

Table 3. Miles of Study Trail Resources on BLM Land within Analysis Units

Analysis Unit	Total Length of Study Trails within the Analysis Unit (in miles)	Length of Study Trails on BLM Land (in miles)
Meek Cutoff	2.9	1.0
Goodale's Cutoff North	102.6	48.2
Goodale's Cutoff South	7.8	2.0
Total	113.3	51.2

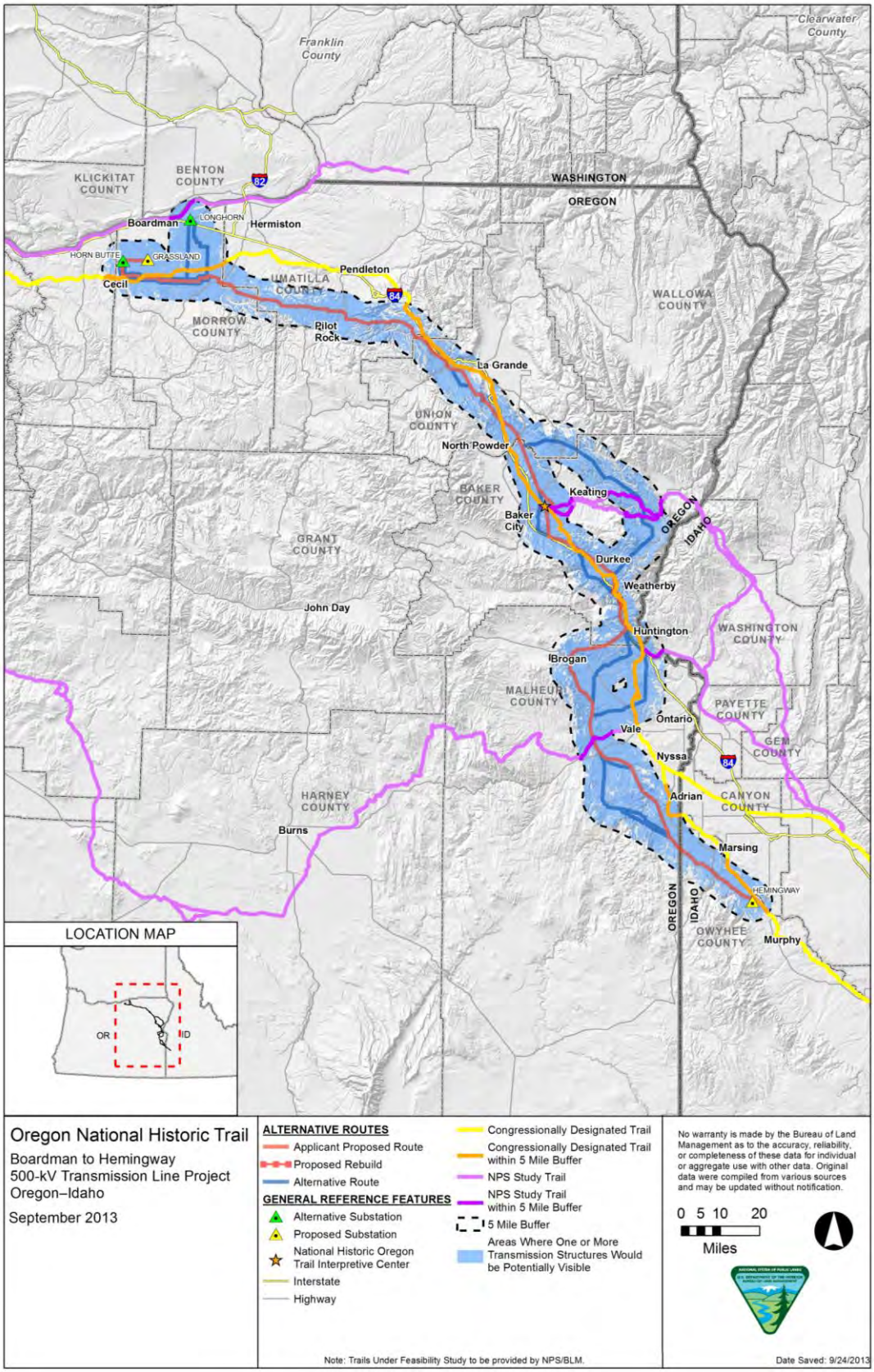


Figure 1. Oregon National Historic Trail and Study Trails within the 5-Mile Buffer and Viewshed Area

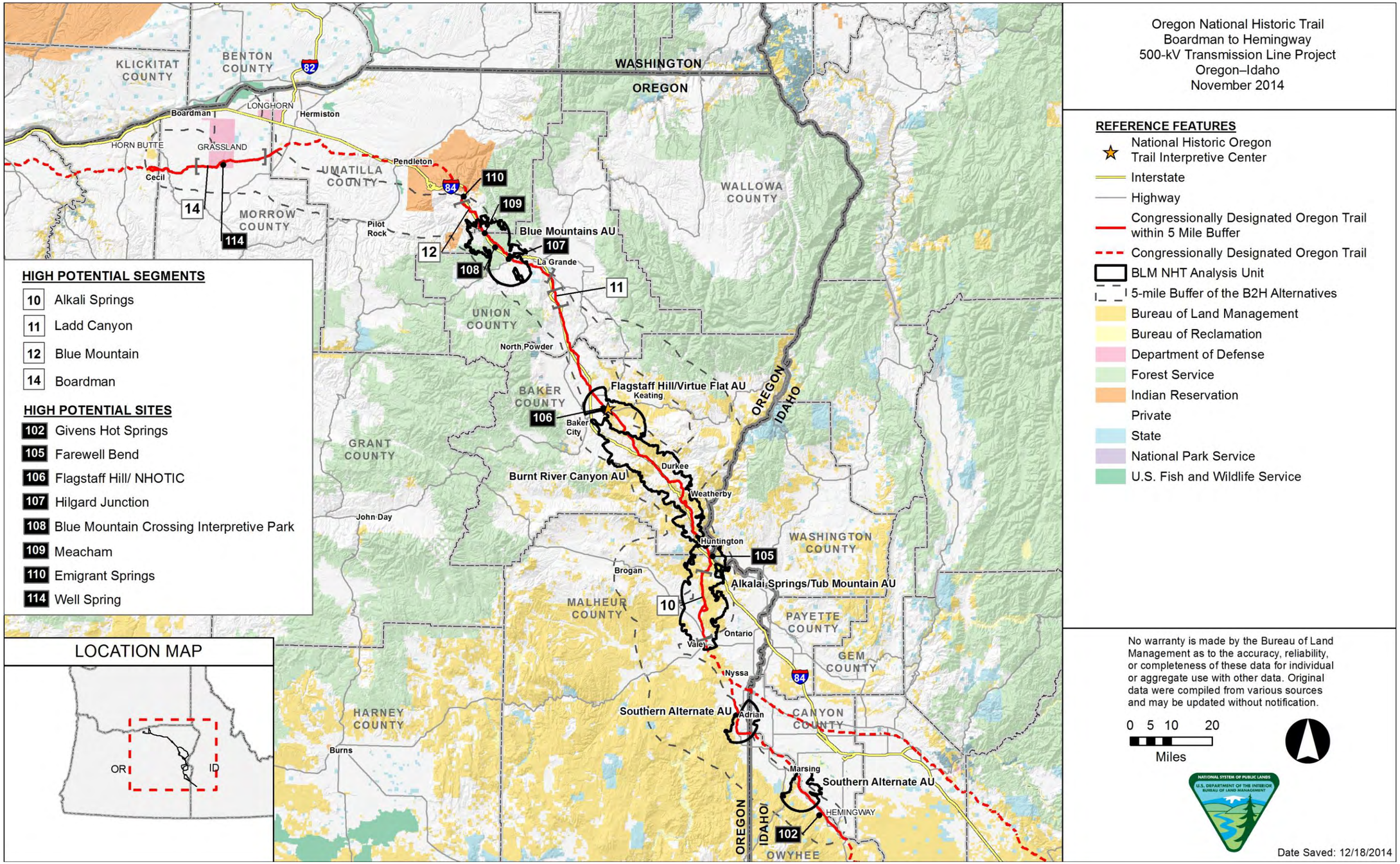
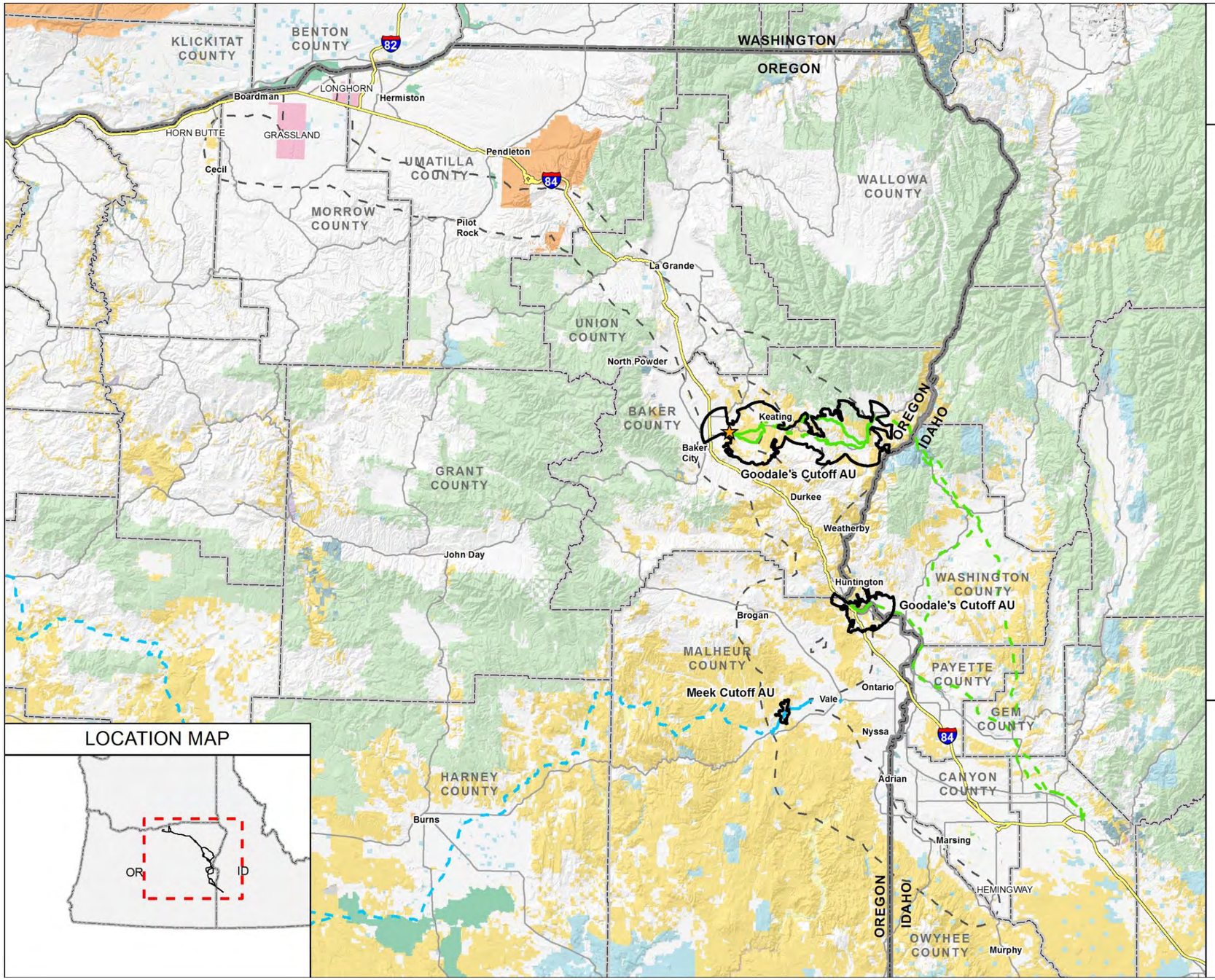


Figure 2. Oregon National Historic Trail Analysis Units



Study Trails
Boardman to Hemingway
500-kV Transmission Line Project
Oregon–Idaho
November 2014

REFERENCE FEATURES

- National Historic Oregon Trail Interpretive Center
- Interstate
- Highway
- Goodale's Cutoff within 5 Mile Buffer
- Goodale's Cutoff
- Meek Cutoff within 5 Mile Buffer
- Meek Cutoff
- Study Trail AU
- 5 Mile Buffer
- Bureau of Land Management
- Bureau of Reclamation
- Department of Defense
- Forest Service
- Indian Reservation
- Private
- State
- National Park Service
- U.S. Fish and Wildlife Service

No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.

0 5 10 20
Miles

Date Saved: 12/18/2014

Figure 3. Study Trails Analysis Units

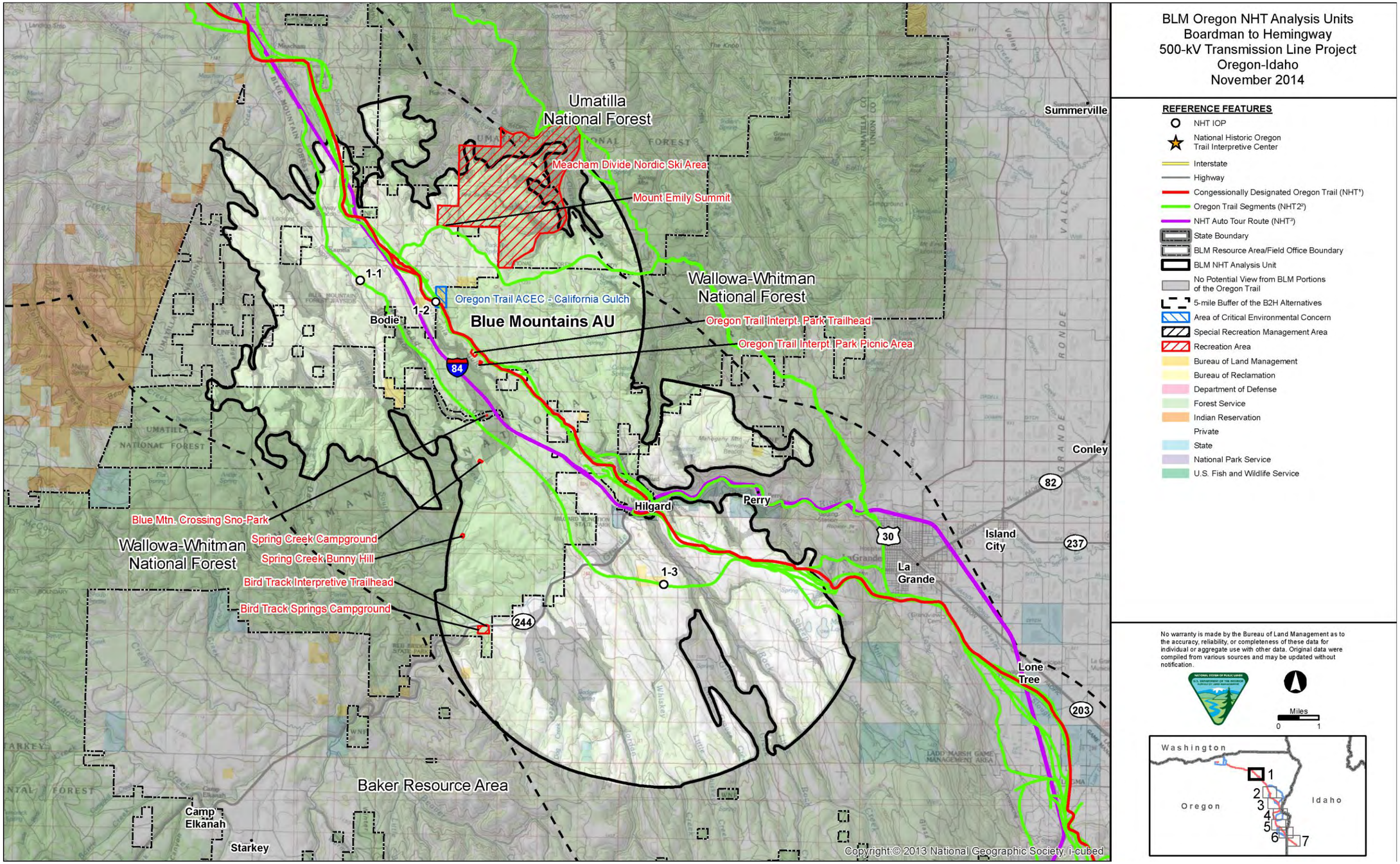


Figure 4. Blue Mountains Analysis Unit

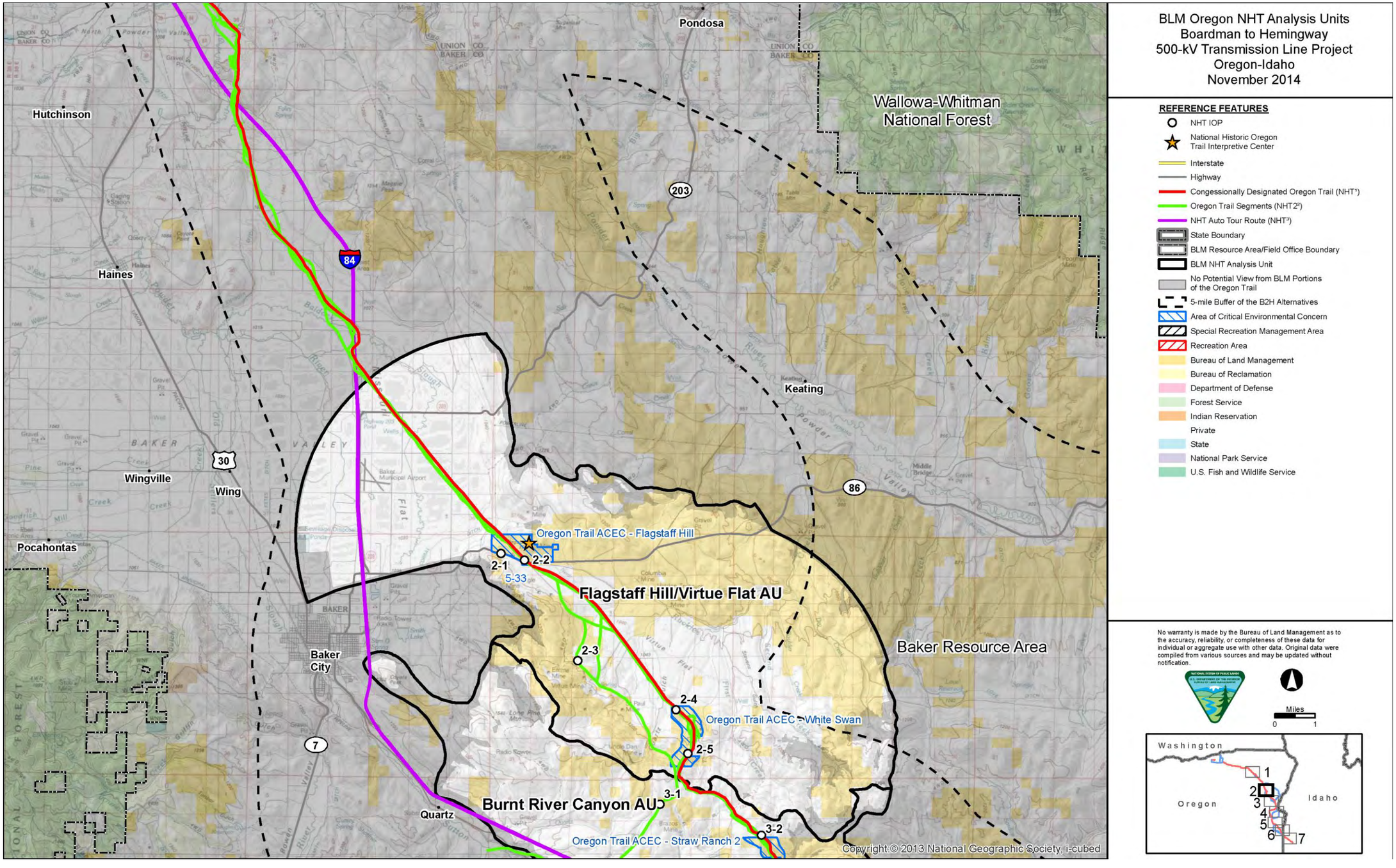


Figure 5. Flagstaff Hill/Virtue Flat Analysis Unit

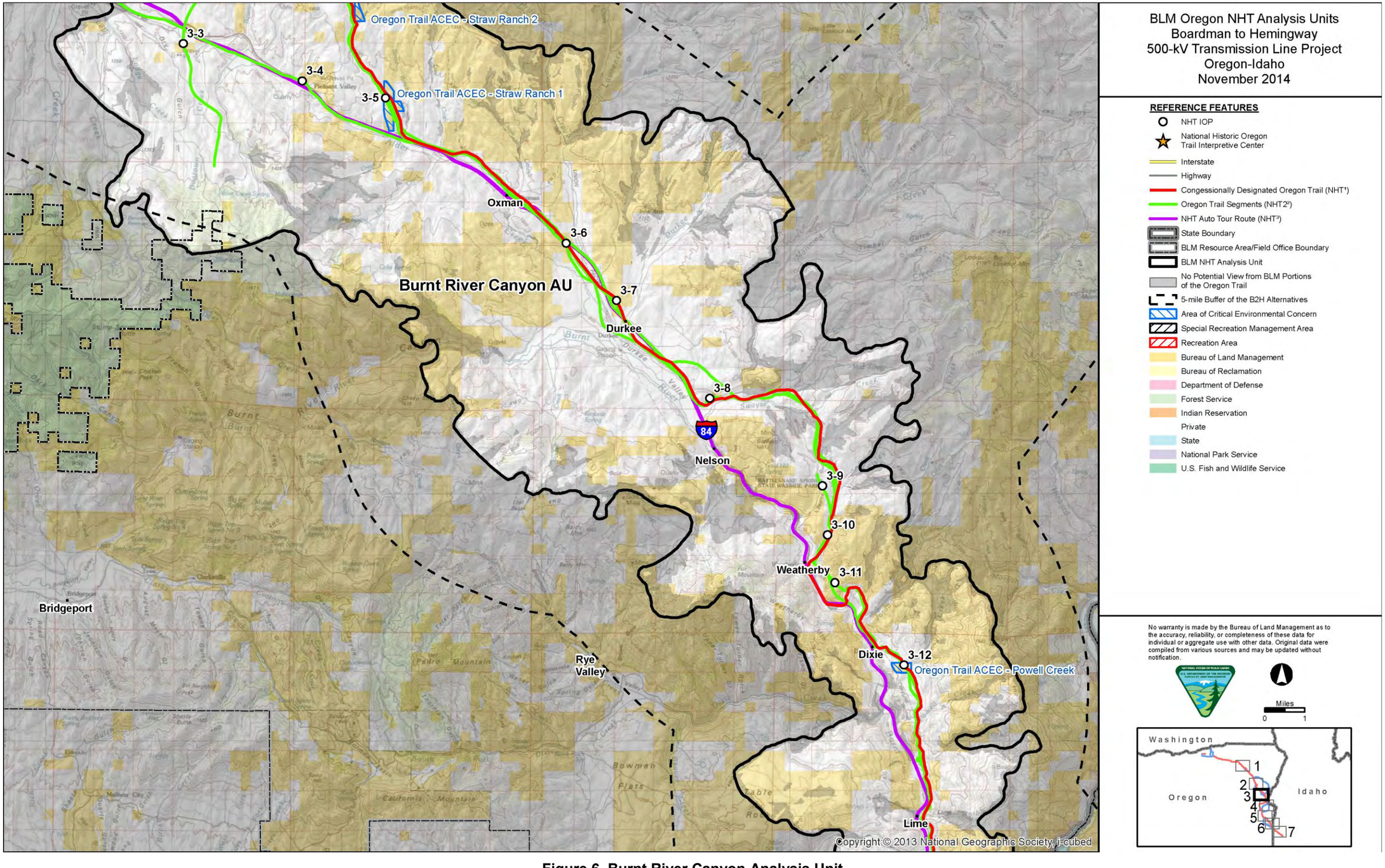


Figure 6. Burnt River Canyon Analysis Unit

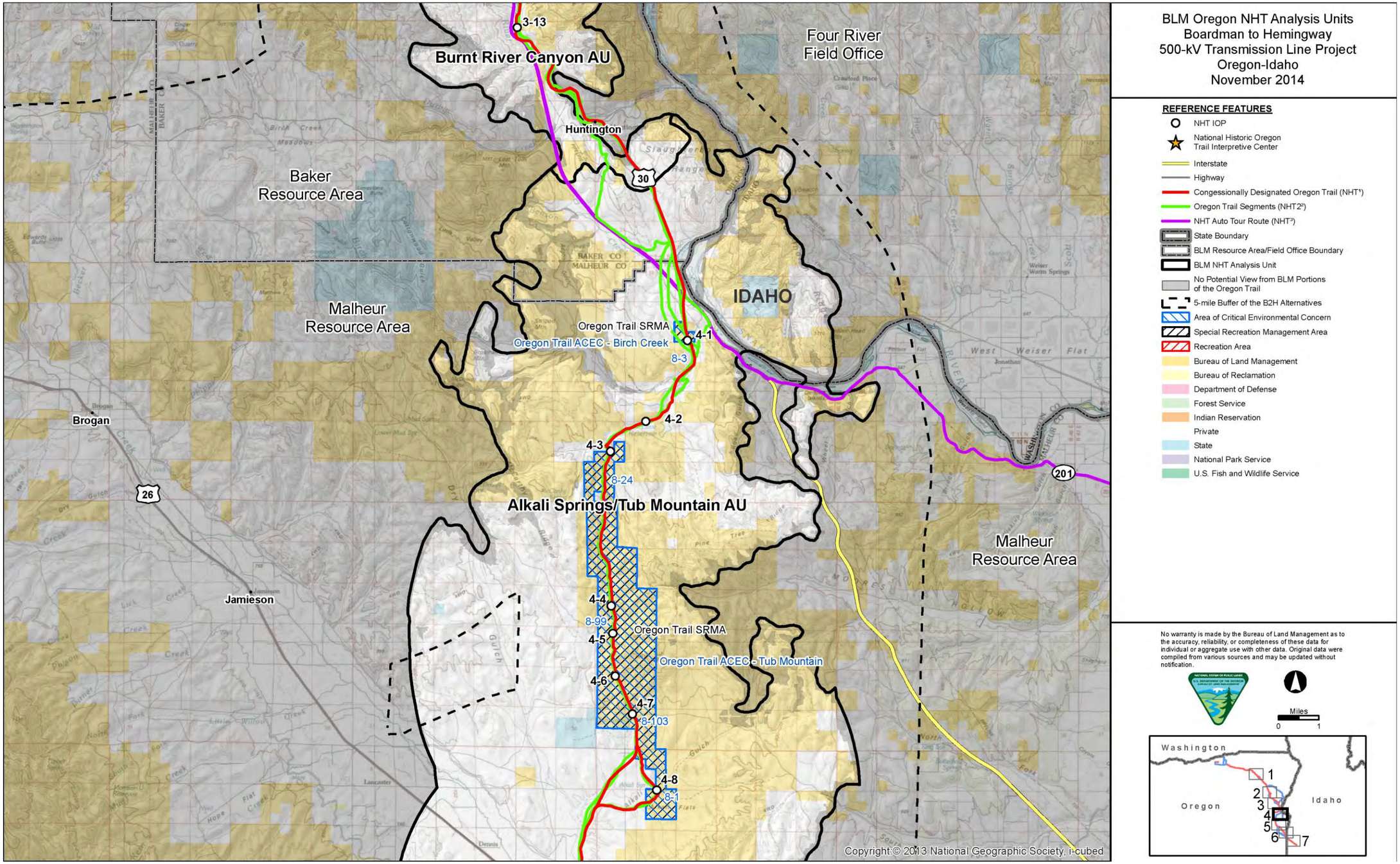


Figure 7. Alkali Springs/Tub Mountain Analysis Unit, Northern Portion

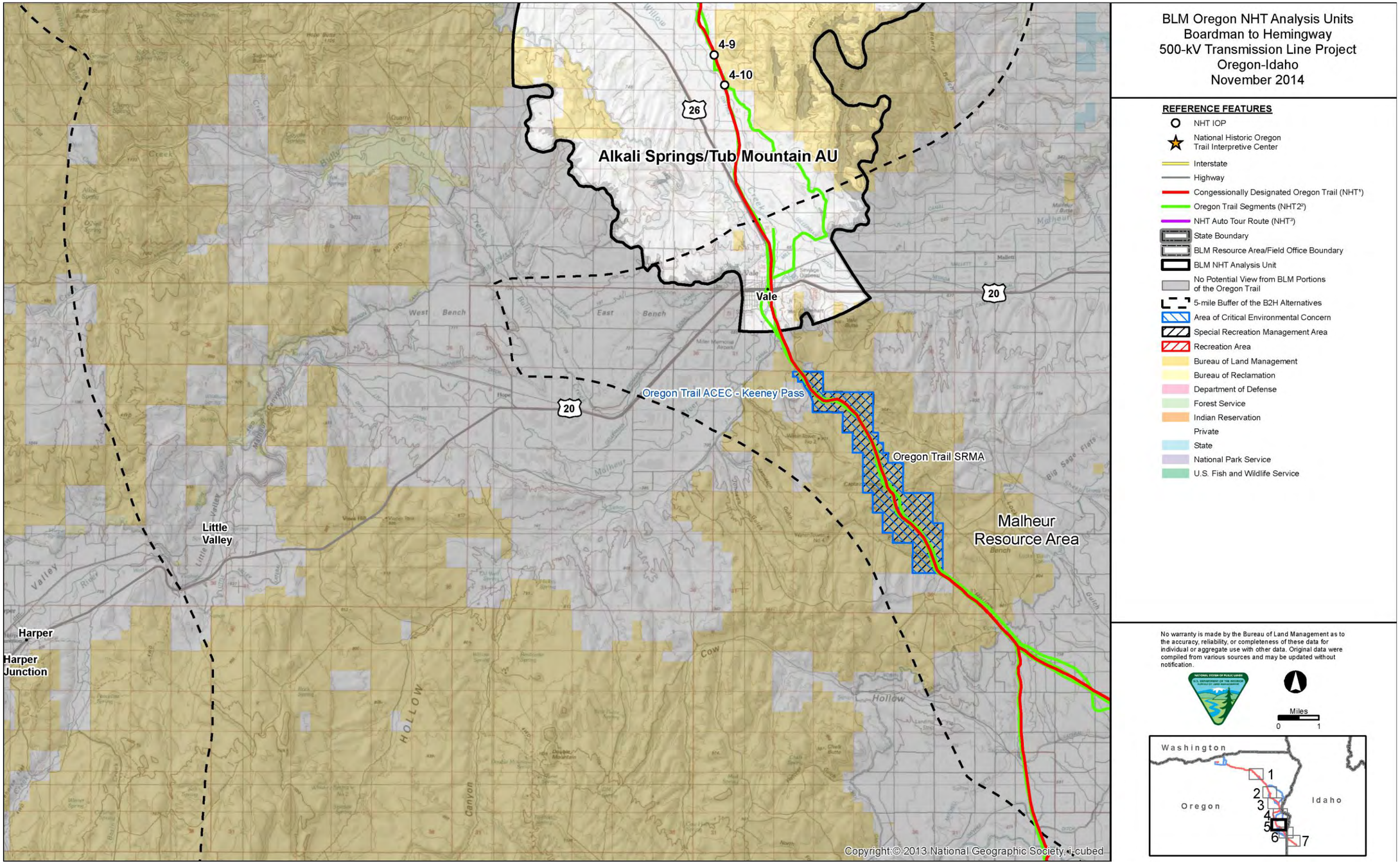


Figure 8. Alkali Springs/Tub Mountain Analysis Unit, Southern Portion

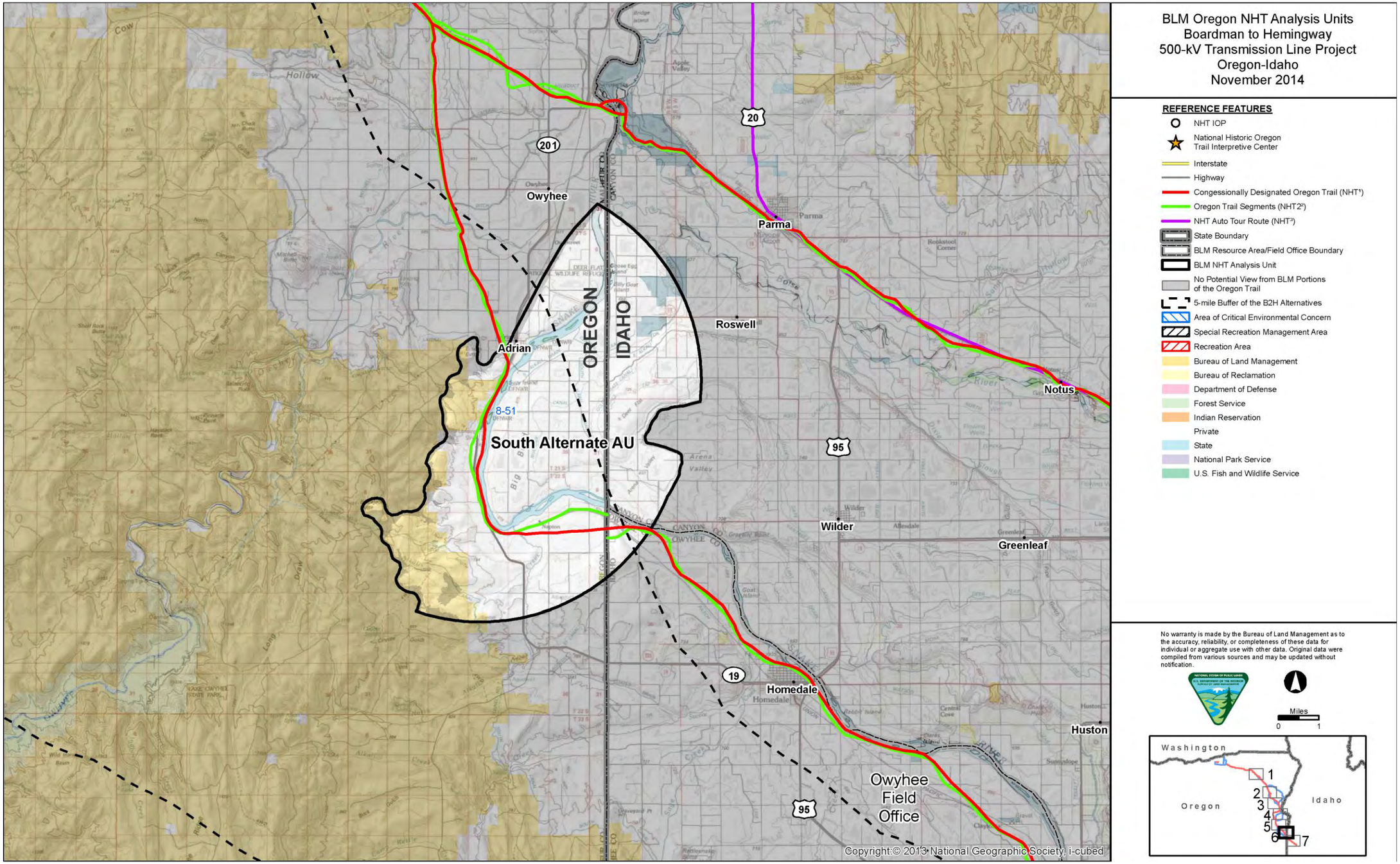


Figure 9. South Alternate Analysis Unit, Northern Portion

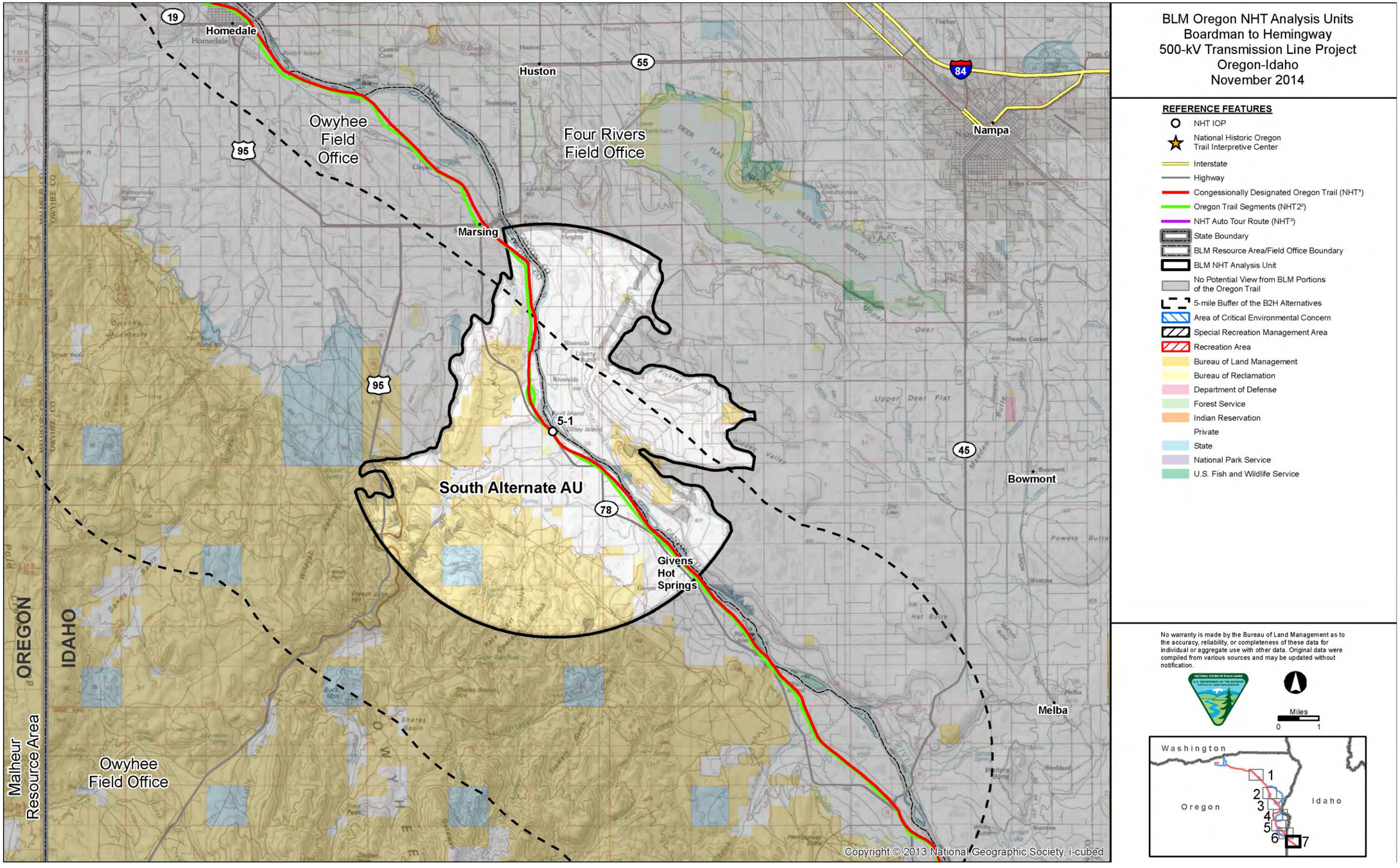


Figure 10. South Alternate Analysis Unit, Southern Portion

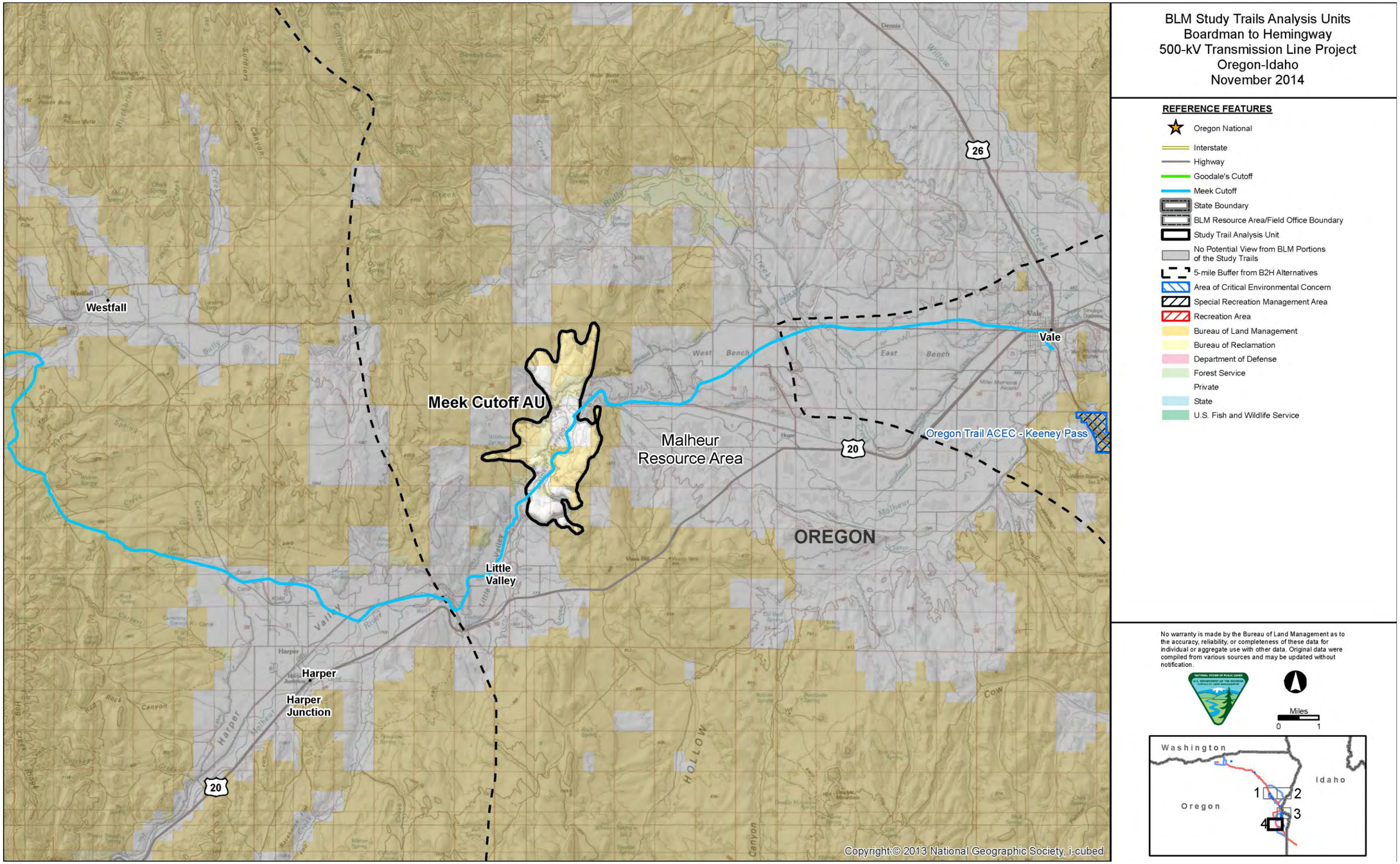


Figure 11. Meek Cutoff Study Trail Analysis Unit

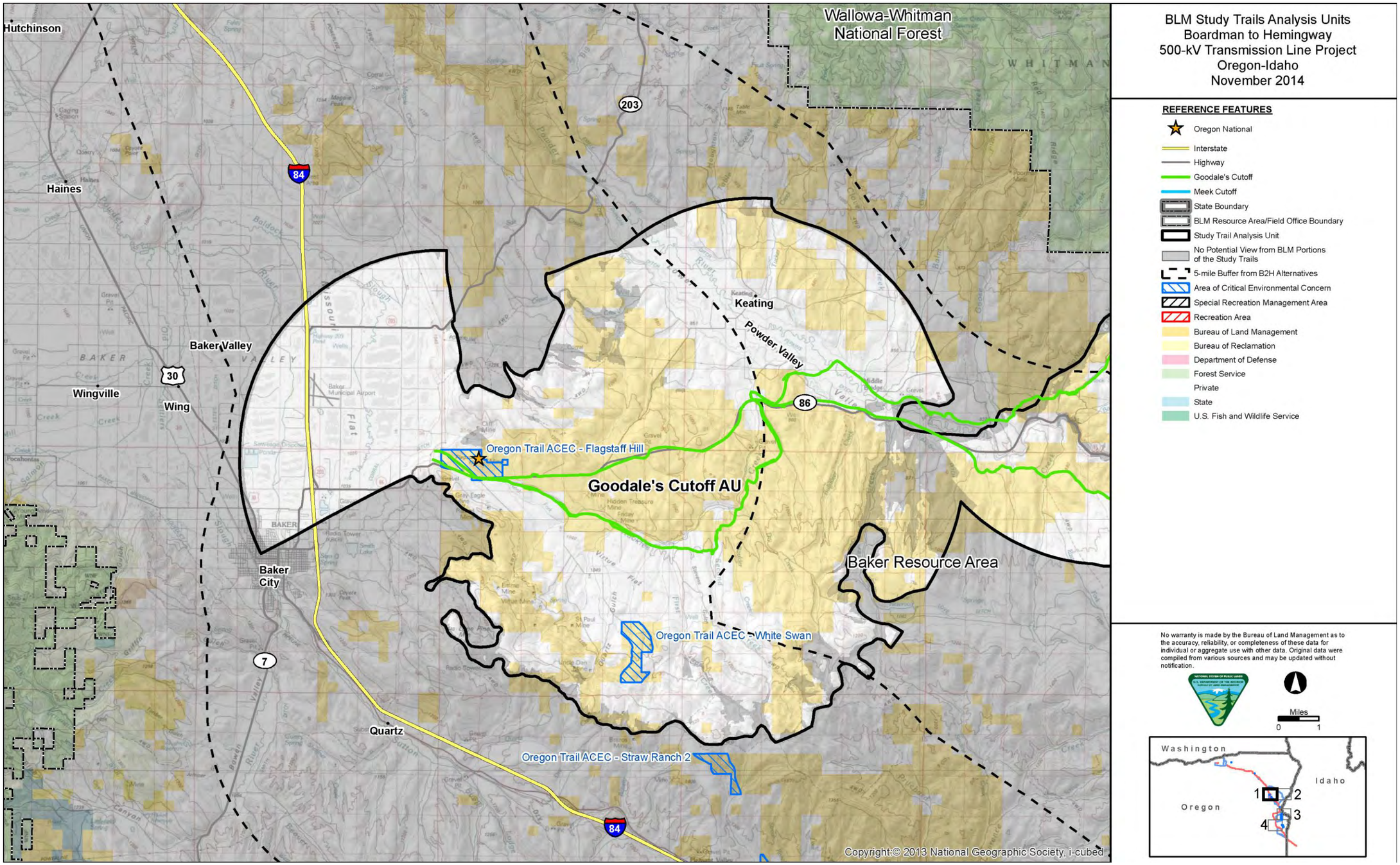


Figure 12. Goodale's Cutoff Study Trail Analysis Unit, Western Portion

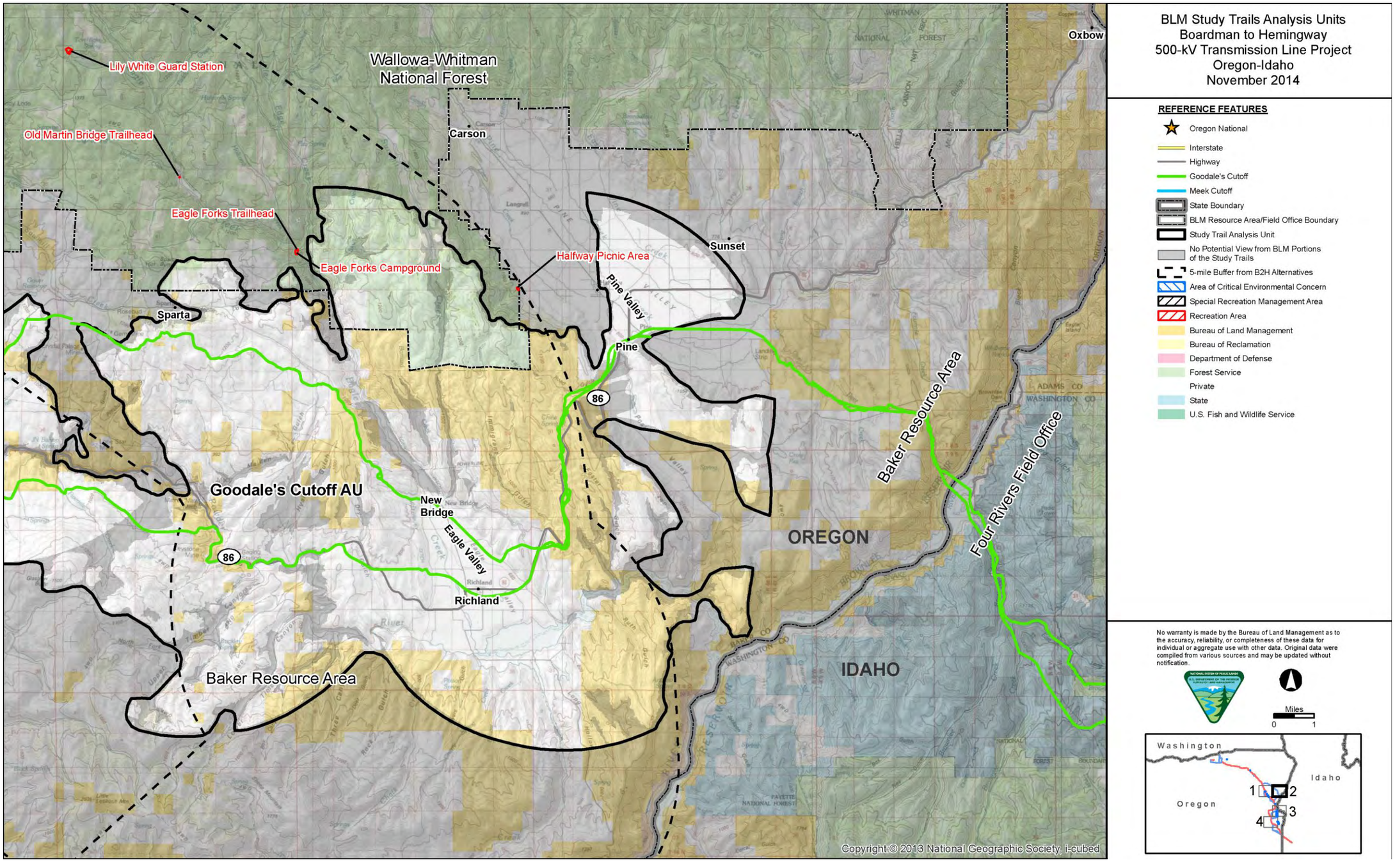


Figure 13. Goodale's Cutoff Study Trail Analysis Unit, Eastern Portion

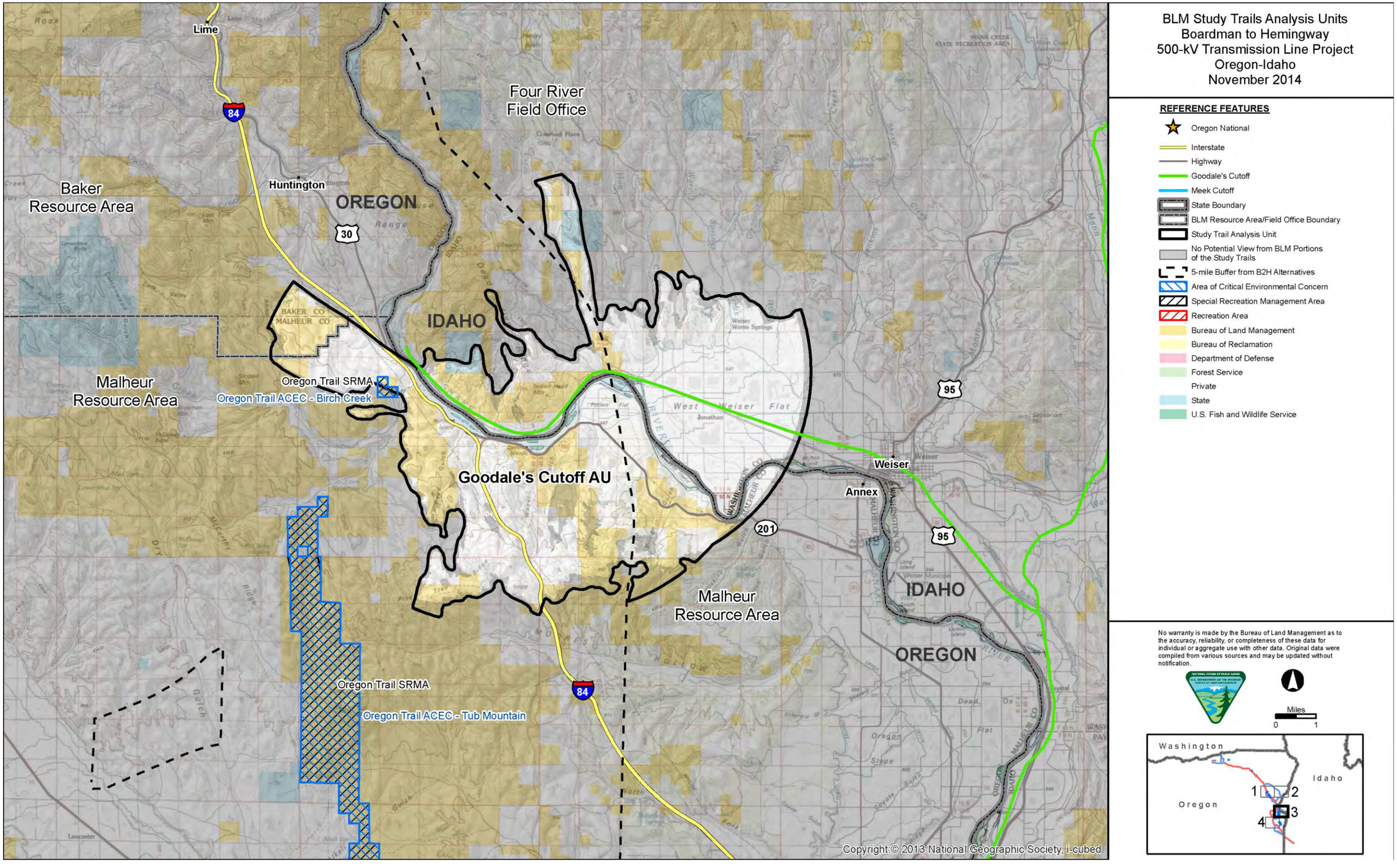


Figure 14. Goodale's Cutoff Study Trail Analysis Unit, Southern Portion

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4.0 METHODOLOGY

Manual 6280 instructs BLM to document the resources, qualities, values, associated setting, and primary uses that support the nature and purposes of segments of the Oregon NHT and Meek Cutoff and Goodale's Cutoff Study Trails that may be affected by the B2H Project. However, the manual does not provide a formal methodology for such documentation. As such, a detailed strategy for inventory and analysis of impacts on the Oregon NHT and Meek Cutoff and Goodale's Cutoff Study Trails was developed for the B2H Project in coordination with BLM trail administrators, BLM Washington Office National Trails System managers, and the B2H Project's visual and cultural resources technical leads. The preliminary approach and initial inventory findings were shared with appropriate public trail organizations including the Oregon California Trails Association (OCTA) and the Oregon Historic Trails Advisory Council (OHTAC). The following discussion summarizes the methodology for collecting the data presented in this inventory, which included the establishment of inventory observation points for documenting the physical nature, including appearance, setting, and visual data, for HPHSs and HPRSEGs. Information on primary uses supporting the NHT and Study Trails' purposes, including recreational and travel management opportunities, was collected at the level of the AU through examination of relevant BLM planning and management documents.

4.1 INVENTORY OBSERVATION POINTS

Inventory observation points (IOPs) were established per the guidance provided in Manual 6280, and they include points related to HPHSs and HPRSEGs, other significant historic trail-related features, and interpretative exhibits and trails that provide historical information and facilitate access and opportunities for the public to have vicarious experiences. Based on viewshed analyses performed from each of the initially selected IOPs, additional IOPs were established to ensure that all views of the potentially affected Oregon NHT segments were captured by at least one IOP. IOPs established for this inventory and analysis are presented in Figure 4 through Figure 10, and photographic overviews of the viewsheds from each IOP are presented in Appendix A.

The guidance provided in Manual 6280 blends the traditional concepts of BLM IOPs (for visual resource inventory fieldwork efforts) and the viewshed analysis-based "observer points" (for GIS viewshed analysis efforts). Both of these concepts have been incorporated into this inventory and analysis, and additional "observer points" were incorporated into the trail-centric viewshed analysis in order to provide viewsheds that more accurately represent the multiple and sometimes braided trail segments located on lands managed by the BLM. Although these IOPs are illustrated as single points, they functionally represent multiple Oregon NHT segments that share similar physical qualities, including historic setting and contemporary viewshed (see Figure 4 through Figure 10).

Inventory of the Oregon NHT is based on fieldwork efforts associated with IOPs. Per Manual 6280 directive, the two Study Trails were inventoried using desktop analysis involving three-dimensional GIS mapping applications, and as a result, generalized qualitative assessments were made rather than using point-specific IOPs.

4.2 BACKGROUND AND ARCHIVAL RESEARCH

Once AUs and IOPs were established for the inventory area, existing data available from the BLM and NPS regarding HPHSs and HPRSEGs, visual resources, historic setting, and recreation (including travel and transportation) was compiled. The purpose of the research effort was to determine what information is known about the condition of the Oregon NHT and Study Trails and their resources, qualities, values, and associated settings. Technical documents consulted during the background research effort include the following:

- *National Trails Feasibility Study*
- *Oregon Trail Comprehensive Management and Use Plan* (NPS 1981)
- *Oregon, California, Mormon Pioneer, and Pony Express National Historic Trails Long-Range Interpretive Plan* (NPS 2010)
- *Oregon Trail Management Plan* (BLM 1984)
- BLM resource management plans (RMPs) for the Oregon NHT (Oman 1989); the Owyhee Resource Area (BLM 1999); the Baker Resource Area (BLM 1989); the Malheur and Jordan Resource Areas (BLM 2002)
- The Oregon Trail, Oregon 1840 to 1880 National Register of Historic Places Multiple Property Documentation Form (Beckham 2012)
- Oregon Trail: White Swan and Flagstaff Hill Segments National Register of Historic Places Registration Form (Beckham 2013a)
- Oregon Trail: Blue Mountain Crossing Segment National Register of Historic Places Form (Beckham 2013b)
- *Management and Use Plan Update Final Environmental Impact Statement Oregon National Historic Trail Mormon Pioneer National Historic Trail* (NPS 1998)

In addition to reviewing BLM and NPS technical reports, archival research was completed to characterize the historical resources by AU and the historical setting by IOP, as well as to identify the possible presence of previously unrecorded HPHSs not documented by previous cultural resources investigations for the B2H Project. Primary and secondary sources consulted during this effort included published emigrant accounts; manuscripts and books on the history of the Oregon Trail; historic maps (e.g., General Land Office plats and Metsker's map); modern trail guides; BLM pamphlets for Oregon NHT interpretative sites; genealogical records; ethnographies; diaries and journals; and oral and family histories. Members of OCTA and OHTAC confirmed the results of the background and archival research effort and to identify the likelihood of additional HPRSEGs and HPHS within the inventory area.

4.3 VISUAL RESOURCE INVENTORY

Per the guidance provided in BLM Manual 6280, documentation of visual resources included both disclosure of existing BLM visual resource inventory (VRI) components and determination of trail-

specific visual components for the portions of trail located on lands managed by the BLM. Applicable VRI components were derived from the existing VRI documents and data provided by the Owyhee FO in Idaho and the Baker and Malheur FOs in Oregon. This data included existing scenic quality classifications, sensitivity level classifications, visual distance zone classifications, and VRI classes. This information has been included in the description for each IOP associated with this report and is illustrated on the maps provided in Appendix B.

As described in BLM Visual Resource Management (VRM) Manual 8400, scenic quality classifications are an evaluation of the visual quality of the landscape. Scenic quality ratings include three distinct classifications—A, B, and C. Class A landscapes have the most variety and highest harmonious composition, which correlates to scenic value/visual quality, when compared to Classes B and C landscapes. Class B landscapes have more scenic value in relation to Class C but less than Class A; and so forth. BLM considers that all public lands have scenic value, including Class C landscapes. Scenic quality ratings within the inventory area are directly related to the visual assessment units (VAUs) used for the visual analysis for the B2H Draft EIS. These VAUs are consistent with the scenic quality rating units (SQRUs) from the existing FO VRI documents.

The BLM's VRI sensitivity levels represent an analysis to ascertain the general sentiment about where visual change to the public lands would be more or less accepted by the public. Sensitivity levels include three classifications, including high, moderate, and low.

Distance zones provide an assessment of how visible lands are to the general "viewer," or user of public lands. The distance zones provide a generalized method to describe relative visibility within the landscape as it relates to varying distances. In general terms, distance zones rely on the premise that visibility of an object decreases as the distance from the object increases. Distance zones per the VRIs are generally based on views from the most heavily used and/or visually sensitive viewing platforms (primary roads, scenic roads and trails, etc.), and include the following categories:

- Foreground/Middleground (FG/MG) (0 to 5 miles)
- Background (BG) (beyond 5 miles, up to 15 miles)
- Seldom seen/Not seen (SS) (beyond 15 miles, and/or not visible)

On the basis of these three inventory factors (*scenic quality*, *visual sensitivity*, *distance zone)*, all BLM-administered lands are placed into one of four visual inventory classes (Class I, II, III, or IV). VRI Class I areas are assigned based on existing management direction—as opposed to inventory—using the matrix provided in Manual 8400. VRI classes for each of the IOPs are presented in the inventory.

VRM classes describe allowable levels of visual modification to the land. Each class permits a level of noticeability by the public (Table 4). VRM classes are established through the RMP process and are subject to NEPA review and public comment. Once a Record of Decision is signed for an RMP, the VRM class decisions are established and must be conformed to, as with any other agency resource management decision.

Table 4. Visual Resource Management Class Objectives

VRM Class	Management Objective
I	Preserve the existing character of the landscape. This class provides for natural ecological changes but does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention
II	Retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.
III	Partially retain the existing character of the landscape. The level of change to characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.
IV	Provide for management activities that require major modification of the existing character of the landscape. The level of change to the characteristic landscape can be high

Table Source: BLM 1986.

Determination of trail-specific visual resources was completed based upon field evaluation at each IOP within each AU. The field assessment included an evaluation of the scenic quality of the IOP viewshed based on BLM Manual 8410. For each IOP, these evaluations are compared to the scenic quality rating from the VRIs. Differences in these evaluations are expected, because the VRI scenic quality ratings are based on large resource areas and the trail-specific evaluations are particular to the viewshed of the IOP. Any differences in the visual quality assessed in the VRI and the field assessment of existing conditions within the IOP viewshed are described in the individual IOP descriptions presented in each AU.

Because the IOPs are located directly on or very near to trail segments, the level of sensitivity is considered to be “high” (unless otherwise noted) for all IOPs. As the trail-specific distance zone determinations of each IOP are consistently in the foreground/middleground of the trail segments, they are not restated in the individual IOP descriptions.

The general landscape character surrounding the IOPs/trail segments was also documented during fieldwork efforts, including descriptions of the elements and patterns created by the forms, lines, colors, and textures of landforms, water, vegetation, and existing human-made structures within the landscape.

4.4 Historic and Cultural Resource Inventory

According to BLM Manual 6280, the cultural resource inventory for NHTs should include a Class I literature review to determine the presence of nationally, regionally, and locally significant NHT-related resources and determine the quality of existing inventory data; a Class II random sample survey to characterize the probable density, diversity, and distribution of significant cultural resources; and a comprehensive Class III cultural resources survey of select locations to identify, locate, and verify HPHSs and HPRSEGs and determine the potential NRHP eligibility of NHT-related resources. The manual also acknowledges that additional research and documentation may be required and should be determined in consultation with the SHPO and Trails groups.

In 2012 and 2013, a Class I literature review, Class II 15 percent random sample surveys, and a reconnaissance level survey (RLS) were completed for the B2H Project (Tetra Tech 2012 and 2013c). The findings of these cultural resources inventories as they pertain to the Oregon NHT and to the Meek Cutoff and Goodale's Cutoff Study Trails are briefly summarized below.

4.4.1 Class I Literature Review

The study area for the Class I literature review consisted of a 2-mile-wide area located on both sides of the Proposed Action centerline (a 4-mile-wide corridor) in Oregon and Idaho. This broad area was established to aid siting efforts for the route, to accommodate shifts in the route alignment, and to accommodate areas where access roads, substations, and other construction or operation facilities may be needed outside the 500-foot-wide intensive survey corridor (Tetra Tech 2012). The inventory resulted in the identification of three previously recorded cultural resources associated with the Oregon NHT on BLM land, all of which are located in Oregon. These resources consisted of an NRHP-eligible "historic site" (not further specified), trail monument, and a "landmark" whose NRHP eligibility had not been previously assessed at the time of the literature review (Tetra Tech 2012).

4.4.2 Class II 15 Percent Random Sample Surveys

Field surveys of a 15 percent sample of the applicant preferred route and alternatives were completed in 2011 and 2012 employing random sampling units. Individual mile-long sampling units for each alternative were assigned numerical identifiers and selected for survey through a web-based random number generator. Selected units that were located in areas of inaccessible private land were excluded from consideration, and a replacement unit was randomly selected. A total of 41 sample units on private land and 49 sample units on federal lands were surveyed. No cultural resources associated with the Oregon NHT or the Meek Cutoff and Goodale's Cutoff Study Trails were recorded on BLM land during the Class II 15 percent random sample surveys (Anderson et al. 2013).

4.4.3 Reconnaissance Level Survey

In 2013, an RLS of the built environment was conducted to evaluate the presence of significant built environment resources that have the potential to be indirectly (e.g., visually) impacted by the Proposed Action and alternatives (Tetra Tech 2013c). The study area for the RLS consisted of a 10-mile-wide corridor, 5 miles from centerline or to the visual horizon (whichever was closer), which is also consistent with the inventory area for Manual 6260 compliance. The reconnaissance effort involved driving publicly accessible rights-of-way to re-locate and record previously identified buildings and structures over 50 years of age and to identify any previously unrecorded buildings and structures within the RLS study area. Built environment resources (generally consisting of buildings or structures that possessed integrity) that may be indirectly impacted by the B2H Project were recommended to move forward for further evaluation and impact analysis through an intensive level survey (ILS) of the built environment, which will occur in the Phase II cultural resources inventory efforts for the B2H Project.

The RLS of the built environment resulted in the identification of 19 discrete segments of the Oregon NHT, 12 of which were recommended for further study in the ILS. Of these segments, 9 are located either entirely or partially on BLM land (Table 5).

Table 5. Oregon National Historic Trail Resources Identified in the Reconnaissance Level Survey

Resource Name	NRHP Status	Landowner	Associated Analysis Unit	Associated IOPs
Oregon Trail Interpretive Park ACEC—California Gulch/Blue Mountain Segment	Unevaluated	BLM/USFS	Blue Mountains	1-2
Whiskey Creek Segment	Unevaluated	BLM	Blue Mountains	1-3
Oregon Trail ACEC—White Swan Segment (Flagstaff Hill)	Determined eligible	BLM/Private	Flagstaff Hill/Virtue Flat	2-4 2-5
Virtue Flat Segment	Determined eligible	BLM	Flagstaff Hill/Virtue Flat	2-2
Oregon Trail ACEC—Straw Ranch 1 and 2 Segments (near Pleasant Valley and Durkee)	Determined eligible	BLM/Private	Burnt River Canyon	3-2 3-5
Oregon Trail ACEC—Swayze Creek Segment (near Plano Road)	Determined eligible	BLM/ Private	Burnt River Canyon	3-8
Oregon Trail ACEC—Birch Creek Segment	Determined eligible	BLM	Alkali Springs/Tub Mountain	4-1
Oregon Trail ACEC—Tub Mountain Segment	Determined eligible	BLM	Alkali Springs/Tub Mountain	4-3 4-4 4-5 4-6 4-7
Oregon Trail: Alkali Springs Segment	Determined eligible	BLM	Alkali Springs/Tub Mountain	4-8

Table Source: Tetra Tech 2013c.

Table Abbreviations: ACEC = area of critical environmental concern; IOP = inventory observation point; NRHP = National Register of Historic Places; USFS = U.S. Forest Service.

4.5 HISTORIC AND CULTURAL SETTING INVENTORY

Field observation of trail segments at IOPs was conducted to characterize the physical appearance of the trail segment, including retention of character-defining features and observation of changes and/or additions to the landscape that would impact historic setting. The inventory of historic and cultural setting presented below characterizes the surroundings and viewshed of the NHT HPHSs and HPSEGs from IOPs. The inventory further describes elements that complement, support, or otherwise corroborate the period of historic significance for the trail (1840-1880), as well as those elements that have developed outside the period of trail significance or are visually intrusive. Field assessment of trails resources did not include comprehensive physical documentation of the resource per professional cultural resources standards, as this work will occur either during the Class III pedestrian inventory of the preferred alternative or during the ILS of built environment resources.

4.6 Recreation and Travel Management Opportunities Inventory

Recreation and travel resources within the inventory area consist of three general opportunities. First are resources and experiences related directly to the NHT, which include access to, interpretation, presentation, protection, and vicarious trail-based recreational experiences. These opportunities are unique to the NHT and occur within the trail corridor. Second are opportunities for recreation that occur within and near the project corridor but that may not be related to the NHT. These types of recreation opportunities typically include hiking, trail use, hunting, fishing, wildlife viewing, camping, or other recreational activities not directly related to the NHT. The third type of recreational opportunities include developed recreational sites including campgrounds, day use area, or other developed sites that are within or near the project corridor but that are not related to the NHT.

For the purposes of this inventory, current published information regarding recreation opportunities forms the basis of descriptions of recreation opportunities within each AU. Such sources include BLM websites listing developed recreation sites, EISs associated with RMPs that identify recreation resources in the affected environment chapters, and publicly available recreation maps. Some developed recreation sites, such as state parks or U.S. Forest Service campgrounds are not on BLM lands and therefore are not in the inventory area. However, these sites may serve as a base for recreation associated with segments of the NHT on BLM-administered lands, and were consequently included in the inventory.

Recreation within the trail corridor either is associated with developed recreation sites or is considered "dispersed recreation." Developed recreation sites are specific locations that have constructed facilities to support the recreating public. These generally include day-use areas that may have picnic facilities, parking areas, restrooms, campgrounds, interpretive opportunities, trail heads, boat ramps, constructed trails, or motorized trail use staging areas. Dispersed recreation is recreation that takes place on undeveloped portions of BLM lands and generally includes many recreation activities that are not facility-dependent, such as fishing, hiking, hunting, wildlife viewing, or even sightseeing from roads or trails not specifically built for recreation purposes. Camping can be categorized as a dispersed recreation activity if it does not involve a constructed campground with facilities. Both developed and dispersed recreation opportunities are identified for each AU of this inventory.

4.7 Study Trails Inventory

For the two Study Trails in the inventory area, (Meek Cutoff and Goodale's Cutoff), there is less available information regarding the characteristics that would advance the Study Trail to an NHT designation. Per Manual 6280, desktop documentation of these trails was performed, which took into account the significant trail values, characteristics, and settings to determine if the B2H Project would potentially compromise the Study Trails' future designation as NHTs. The desktop analysis utilized existing cultural resource reports, including the Class I Literature Review (Tetra Tech 2012), the Class II 15 percent pedestrian archaeological surveys (Anderson et al. 2013), and the RLS of the built environment (Tetra Tech 2013c); information gathered through aerial images and Google Earth was also examined. As the inventory discussion for the two Study Trails is based solely on desktop analysis,

with no field reconnaissance, discussion of these segments occurs by AU and does not include site-specific descriptions from IOPs.

4.8 IMPACT ANALYSIS METHODOLOGY

4.8.1 VISUAL RESOURCE ANALYSIS METHODOLOGY

In broad terms, impacts on visual resources refer to the change in aesthetic values resulting from modifications to the landscape. Because BLM Manual 6280 does not specifically identify methodology for evaluation of impacts on visual resources related to the identified trail segments, the methodology for evaluating visual impacts in this assessment was based on the general concepts of VRM System, as identified in the Bureau of Land Management VRM Manual 8400.

The VRM System was developed to minimize the visual impacts of activities and to manage scenic values as a specific resource. The VRM System includes a large scale (planning level) inventory of scenic values known as a VRI—followed by establishment of VRM classes, which establish objectives for the inventoried values through the resource management planning (RMP) process. Proposed activities are then evaluated from key observation points (KOP) using contrast rating forms (BLM Handbook 8431-1). The contrast rating forms provide a determination of the level of contrast (and associated environmental factors) expected from each KOP, which relates directly to the determination of conformance with the VRM class objectives. In the BLM's VRM System, KOPs represent the most critical viewpoints in a project analysis area and can include both stationary platforms (e.g., scenic overlooks, trailheads) and linear platforms (e.g., trails, scenic roads, floatable rivers).

Although the VRM system does not specifically discuss analysis of NHTs and Study Trails, the trails and trail segments represent linear KOPs from which viewers could potentially see the proposed project. Impacts for this analysis were therefore assessed in terms of changes to the landscape that could be identified by viewers along the BLM-managed trail segments identified in the NHT inventory. These changes were identified using the thresholds identified in Section 3.2.7 (Visual Resources) of the Draft EIS for linear KOPs and are included in Table 6.

In accordance with general guidance in BLM Manual 6280 regarding IOPs and KOPs, the IOPs established for the NHT inventory were used as the KOPs for the environmental consequences portion of the document. This concept is distinctly different than standard VRM policy, in which IOPs are generally located for inventory purposes to gain representative perspective on a specific unit of the landscape, and KOPs are separately located for analysis purposes to represent key locations from which viewers see the landscape. These concepts are merged in efforts related to BLM Manual 6280 because the points that offer representative perspectives of the landscape are also the same locations from which trail users would potentially be viewing the proposed project.

As recommended in BLM Manual 6280, visual analysis (and inventory) related to the Oregon NHT was based on fieldwork efforts, while analysis related to the Study Trails was based on desktop analysis. The Oregon NHT analysis was therefore associated with specific KOPs, and the Study Trails were instead analyzed using desktop analysis involving three-dimensional GIS mapping applications. Rather

than using field-specific KOPs, the Study Trails were reviewed by larger geographical areas based on changes in landform.

Both the KOPs and geographical areas functionally represent either a single trail segment or multiple trail segments that are in relatively close proximity to one another and share a similar visual setting (see Figure 4 through Figure 14). Based on the linear nature of the trail segments, both the KOPs and geographical areas were analyzed as linear viewing platforms rather than stationary viewing platforms. This type of analysis allows for disclosure of impacts that directly relate to the environmental factors that users would experience as they move along the trail segments, rather than merely standing at stationary points along the trail segments.

Environmental factors can influence the amount of visual contrast, dominance, and level of attraction introduced by project components, including the visibility conditions, the angle of observation (head-on or parallel), the length of time the project would be in view, and the scale of the Proposed Action and alternative (BLM 1986a). For each of the linear platforms identified in this analysis, an environmental factors evaluation was completed. The visual resource thresholds associated with the linear analyses are located in Table 6, and they match the thresholds identified for linear platforms in Section 3.2.7 (Visual Resources) of the Draft EIS.

As noted in BLM Manual 8400, the ability to discern change in the landscape partially depends on distance. Distance zones are established with the intent of representing general changes in “relative visibility” from observation platforms at varying distances from the proposed project. In this assessment, the foreground distance zone is defined as the area up to 0.5 mile from the Proposed Action or the alternatives, and the middleground distance zone is the area from 0.5 mile to 5.0 miles. Distance zones in this analysis were incorporated into the Environmental Factors evaluation and then carried through to the impact summaries and comparison of alternatives.

4.8.2 Cultural and Historic Resource Analysis Methodology

To evaluate potential impacts on the qualities and values of the Oregon NHT and Study Trails, cultural resource studies completed for the B2H Project were consulted to determine the condition, NRHP eligibility, and character-defining features of the trail segments and their associated cultural and historic resources. These findings were then compared with observations made during the field inventory to determine what impacts, if any, the project would have on NRHP-eligible trail segments and cultural and historic resources located within the B2H analysis area.

Cultural and historic resources were evaluated according to the impact thresholds provided in Table 6. These thresholds are based on the alteration of character-defining features, the diminishment to aspects of NRHP integrity (i.e., location, design, setting, materials, workmanship, feeling, and association), and whether or not the degree of alteration would constitute an adverse effect that would or would not be amenable to minimization or mitigation.

In general, if there was no alteration to the character-defining features of the trail segments and no diminishment to aspects of NRHP integrity, then the impact threshold of the project was considered to

be “none.” In comparison, an impact threshold of “high” was assigned to trail segments and associated cultural and historic resources if the character-defining features of the trail were subject to both indirect and direct impacts which severely altered the aspects of NRHP integrity to such a degree that the NRHP eligibility of the trail segments was adversely affected and could not be minimized and/or mitigated. As the field assessment associated with the draft NHT inventory report did not include comprehensive physical documentation of trail resources per professional cultural resources standards, impacts on trail segments for which an NRHP eligibility assessment has not yet been made, a sixth category, of “undetermined” was assigned.

4.8.3 Cultural and Historic Setting Analysis Methodology

The analysis of cultural and historic settings is dependent on both the existing historic character of the landscape and the degree to which the historic character would be affected by the project. In order to evaluate potential impacts on the historic and/or cultural landscape elements that influence actual and vicarious trail experiences and comprise the trail setting, the inventory included background research and field inventory data that identify, to the extent practicable, the historic character or character-defining qualities of the trail, as well as those elements that detract from the historic landscape.

Based on observations made during the field inventory, the historic setting of each trail segment was categorized in the draft NHT inventory report as either retained or diminished. Generally, the historic setting of a trail segment was considered to be retained if the segment was located in a pristine wilderness area with no visible modern intrusions, such as transmission lines, circulation features, fencing, and/or buildings and structures. In comparison, if the trail segment was situated in close proximity to I-84, was located within a utility corridor or right-of-way, or the surrounding landscape was dominated by modern intrusions, then the historic setting of the trail segment was considered to be diminished. Cardinal directions were also taken into account, making it possible for the historic setting of a trail segment to be diminished in some views, and retained in others.

Changes in historic setting were then compared to the historic character of the landscape to determine what impact, if any, the project would have on the trail segment. These impacts on cultural and historic settings were evaluated based on the thresholds provided in Table 6. If the cultural and historic setting of the trail segment was retained and there was no perceived change to the historic character of the landscape, then the impact of the project to the cultural and historic setting of the trail segment was considered to be “none.” However, if the historic character of the landscape was considered to be diminished, one of four impact thresholds were assigned—negligible, low, moderate, or high—based on the perceived level of impact that the project would have on the surrounding landscape of the trail segment. For example, the project was considered to have a negligible impact on the cultural and historic setting of a trail segment if intact supporting or contributing elements of the historic character of the landscape would be *subtly modified*. Similarly, if historic character of the landscape was considered to be *notably, substantially, or severely modified* by the project, then the trail segments were assigned low, moderate, and high impact thresholds, respectively.

4.8.4 Methodology for Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

According to BLM Manual 6280, the NHT analysis must identify "any adverse impacts on the nature and purposes" or "primary use or uses" of the NHT. This requirement does not apply to Study Trails because they do not have an established nature and purpose or primary uses. For this assessment, it was assumed that low and very low adverse impacts would not specifically have a considerable impact on the nature and purpose or primary uses of the Oregon NHT. Potential impacts on the nature and purpose and primary uses of the Oregon NHT for this analysis were therefore based on the assumption that both moderate and high magnitudes of impact would be specifically "adverse to the nature and purpose and primary uses" because they represent substantial and severe impacts, respectively (see Table 6). These impacts would vary for the Proposed Action and alternatives based on the three identified trail-related resources (visual resources, historic and cultural resources, and historic and cultural settings). For this reason, the number of impacts "adverse to the nature and purpose and primary uses" is included for the Proposed Action and each alternative in Table 19 through Table 31. The total number of adverse impacts for the Proposed Action and each alternative are likewise provided in Table 32, allowing for a quick comparison of each alternative route.

Although the magnitude of change related to sensitive viewers is divided into impacts associated with visibility conditions, angles of observation, quantifications of view, and spatial relationships, the impacts "adverse to the nature and purpose and primary uses" of the Oregon NHT were specifically based on the spatial relationships for each linear platform. The impacts associated with spatial relationships were considered because they represent the overall degree to which the project components would be noticeable from the trail segments, as well as the perceived degree of contrast from trail users on the trail segments.

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Table 6. National Trails System Impact Thresholds

Visual Resources Visibility Conditions	Visual Resources Angle of Observation	Visual Resources Quantification of View	Visual Resources Spatial Relationship	Cultural and Historic Resources	Historic and Cultural Setting	Nature and Purpose and Primary Uses of the Oregon National Historic Trail
None (No Impacts) (Green)						
• Not seen	• Not applicable	• Not seen	• No perceived change	• No alteration of the character defining features of the Trail and/or associated resources; no diminishment to aspect of NRHP integrity (location, design, setting, materials, workmanship, feeling, setting and association).	• No perceived change to the historic character of the landscape.	• No perceived change to spatial relationship in visual resources, cultural and historic resources, or historic and cultural setting.
Negligible Impacts (Green)						
• Views of proposed project components are consistently backdropped against terrain. • Views are consistently partially obstructed • Views are consistently intermittent	• Viewer position: superior • View orientation: views are consistently parallel	• The project component(s) would be seen from 20 percent or less of the total miles of the linear KOP platform within the analysis area. • The project component(s) would be seen 20 percent or less of the total travel time along the linear KOP platform within the analysis area. • 20 percent or less of the total miles of the project component(s) would be seen along the linear KOP platform.	• Project components would repeat elements/patterns common in the landscape. • Project components would not be visually evident.	• Character defining features of the Trail and/or associated resources would be **subtly** altered with some degree of diminishment to aspects of NRHP integrity (location, design, setting, materials, worksmanship, feeling, setting, and association.). However, this degree of alteration would not constitute an “adverse effect” to the NRHP-listed and/or eligible property.	• Existing historic character of the landscape is diminished. • Intact elements that support or contribute to the historic character of the landscape would be would be **subtly** modified by the project.	• Negligible degrees of change to spatial relationship in visual resources, cultural and historic resources, or historic and cultural setting.
Low Impacts (Yellow)						
• Views of proposed project components are predominantly backdropped against terrain • Views are predominantly partially obstructed • Views are predominantly intermittent	• Viewer position: are neutral and/or superior • View orientation: views are predominantly parallel	• The project component(s) would be seen 20 percent to 40 percent of the total miles of the linear KOP platform within the analysis area. • The project component(s) would be seen 20 percent to 40 percent of the total travel time along the linear KOP platform within the analysis area. • 20 percent to 40 percent of the total miles of the project component(s) would be seen along the linear KOP platform.	• Project components would introduce elements/patterns common in the landscape that would be visually subordinate • Project components would create low contrast as compared to other features in the landscape.	• Character defining features of the Trail and/or associated resources would be **notably** altered with some degree of diminishment to aspects of NRHP integrity (location, design, setting, materials, worksmanship, feeling, setting, and association.) However, this degree of alteration would not constitute an “adverse effect” to the NRHP-listed and/or eligible property.	• Existing historic character of the landscape is diminished. • Intact elements that support or contribute to the historic character of the landscape would be would be **notably** modified by the project.	• Low degrees of change to spatial relationship in visual resources, cultural and historic resources, or historic and cultural setting.

Visual Resources Visibility Conditions	Visual Resources Angle of Observation	Visual Resources Quantification of View	Visual Resources Spatial Relationship	Cultural and Historic Resources	Historic and Cultural Setting	Nature and Purpose and Primary Uses of the Oregon National Historic Trail
Moderate Impacts (Blue)						
• Views of proposed project components are equally backdropped against terrain and skylined. • Views are equally unobstructed and partially obstructed • Views are equally continuous and intermittent	• Viewer position: neutral and/or inferior • View orientation: views are equally head-on and parallel	• The project component(s) would be seen 40 percent to 80 percent of the total miles of the linear KOP platform within the analysis area. • The project component(s) would be seen 40 percent to 80 percent of the total travel time along the linear KOP platform within the analysis area. • 40 percent to 80 percent of the total miles of the project component(s) would be seen along the linear KOP platform.	• Project components would introduce elements/patterns not common in the landscape. • Project components would be visually prominent in the landscape and would create moderate contrast as compared to other features in the landscape.	• Character defining features of the Trail and/or associated resources would be **substantially** altered with a degree of diminishment to aspects of NRHP integrity (location, design, setting, materials, worksmanship, feeling, setting, and association) such that the NRHP eligibility of the Trail and/or associated resources would be adversely affected. The adverse effect would be indirect and amenable to minimization and/or mitigation.	• Existing historic character of the landscape is diminished. • Intact elements that support or contribute to the historic character of the landscape would be would be **substantially** modified by the project.	• Moderate degrees of change to spatial relationship in visual resources, cultural and historic resources, or historic and cultural setting.
High Impacts (Red)						
• Views of proposed project components are predominantly skylined. • Views are predominantly unobstructed • Views are predominantly continuous	• Viewer position: neutral and/or inferior • View orientation: views are predominantly head-on	• The project component(s) would be seen 80 percent or greater of the total miles of the linear KOP platform. • The project component(s) would be seen greater than 80 percent of the total travel time along the linear KOP platform within the analysis area. • 80 percent or greater of the total miles of the project component(s) would be seen along the linear KOP platform.	• Project components would introduce elements/patterns that would be visually dominant and create strong contrast as compared to other features in the landscape.	• Character defining features of the Trail and/or associated resources would be **severely** altered with a degree of diminishment to aspects of NRHP integrity (location, design, setting, materials, worksmanship, feeling, setting, and association) such that the NRHP eligibility of the Trail and/or associated resources would be adversely affected. The adverse effect would be either direct or indirect and not amenable to minimization and/or mitigation.	• Existing historic character of the landscape is intact. • The historic character of the landscape would be **severely** modified by the project.	• High degrees of change to spatial relationship in visual resources, cultural and historic resources, or historic and cultural setting.

5.0 INVENTORY RESULTS

The inventory results associated with the Oregon NHT and Meek Cutoff and Goodale's Cutoff Study Trails are described below. Discussion of the NHT begins with a characterization of the nature and purposes of the trail, as established in the Oregon Trail Comprehensive Management and Use Plan (CMUP) and as articulated in the RMPs which govern BLM land in the inventory area. The discussion of the Oregon NHT is organized within the five AUs defined for the inventory area (Blue Mountains AU, Flagstaff Hill/Virtue Flat AU, Burnt River Canyon AU, Alkali Springs/Tub Mountain AU, and South Alternate AU). Separate AUs have been established for the Meek Cutoff and Goodale's Cutoff Study Trails. Each of these AUs is characterized in terms of visual resources, historic and cultural resources, historic and cultural setting, and recreation and transportation opportunities. Each corresponding IOP is described within its respective AU for the NHT. As previously noted, representative photographs of viewsheds from each IOP are presented in Appendix A.

5.1 OREGON NATIONAL HISTORIC TRAIL

The numerous braided trails that compose the Oregon NHT are actually a network of trail segments, river crossings, and sites that stretch across 1,800 miles of landscape and link what at the time was considered to be the western frontier to the settled lands of the east. Interconnecting with these braided transcontinental trail alignments are regional and local historic stage and freight roads.

The Oregon NHT represented the principal route of westerly migration across southern Idaho, Oregon, and northern California. The trail was originally blazed by Native Americans to meet their short and long distance transportation needs, and later refined by early Euro-American explorers and fur trappers, including members of the Astor expedition of 1811 to 1812 and 1843 Frémont expedition. Although formal documentation has never occurred, the Shoshone-Paiute Tribes maintain that segments of the Oregon NHT generally follow the "Trail of Tears" followed by Shoshone and Paiute peoples during their forced march from Fort Harney to Fort Simcoe.

The first wave of migration along the trail came during the 1830s as Protestant missionaries journeyed west to convert native populations in Idaho and Oregon (Hutchinson and Jones 1993). The Bartleson-Bidwell Party, led by Captain John Bartleson and John Bidwell, was the first true emigrant wagon train to attempt a wagon crossing from Missouri to California. However, when the wagon train arrived in the 19th-century military and trading outpost of Fort Hall in southeastern Idaho, the party fractured and only 34 members continued west accompanying missionaries along what would eventually become the Oregon NHT. Shortly after, in 1843, Captain John C. Frémont explored the region as part of a federal expedition, publishing accounts that would eventually become trail guides for emigrants traveling along the Oregon Trail (Hutchinson and Jones 1993). By the mid-1840s, the Oregon Trail had become a major, nationally recognized thoroughfare for emigrants making their way west.

Emigrants were generally driven by a mindset which held that it was Euro-Americans' destiny to settle and reclaim western lands for productive use, converting the natural resources of the Pacific Northwest (land, minerals, wildlife and fisheries) into wealth. Native peoples, who maintained a subsistence strategy, moved seasonally along many travel routes that later formed the Oregon Trail to utilize

available resources prior to historic emigrant use. The sudden influx of emigrants, whose settlement patterns favored water sources and whose agricultural practices converted the most fertile grasslands into agricultural production, along with livestock, rapidly decimated the wild grasses and root crops and severely disrupted the subsistence patterns upon which Native American traditional lifeways depended.

Portions of the Oregon Trail continued to be used into the late 1890s; however, use of the route declined once the transcontinental railroad, which provided faster, safer, and, usually, cheaper travel east and west, was completed in 1869. Many well-traveled segments of the Oregon Trail were converted to modern highways and railroad segments, including several segments of Interstate 84 (I-84) in Idaho and Oregon. Numerous markers and memorials have been erected at burial sites, springs, emigrant camps, and inscription sites along these segments.

In the past decade, community interest and partnerships have led to the development, improvement, and rehabilitation of several recreation facilities and interpretive sites; most notably, the construction of the Flagstaff Hill National Historic Oregon Trail Interpretive Center (NHOTIC) in 2001 and ongoing rehabilitation of its historic landscape (BLM Preserve America 2004), as well as improvements to parking facilities and interpretive signage at several Oregon NHT interpretive sites. Malheur and Baker Counties have identified investments in tourism industries, attractions and activities, particularly those related to the Oregon NHT, to further bolster the region's economy (BLM 2002).

Nature and Purpose

The Oregon Trail was designated an NHT on November 10, 1978. Although neither the NTSA nor the CMUP developed for the Oregon Trail by the NPS specifically defines the "nature and purpose" of the Oregon NHT, the CMUP does describe the trail's "purpose and significance" (NPS 1999). According to the CMUP, the primary purposes of the Oregon NHT are "to identify, preserve, and interpret the sites, route, and history of the Oregon Trail for all people to experience and understand" and "to commemorate the westward movement of emigrants to the Oregon country as an important chapter of our national heritage" (NPS 1999).

The CMUP (NPS 1999) further states that the Oregon NHT is significant because:

- It was the first trail that demonstrated the feasibility of moving families, possessions, and cultures by wheeled vehicles across an area previously perceived as impassable;
- It was the corridor for one of the largest and longest emigration of families in the history of the United States;
- It is a symbol of American westward traditional migration embodied in traditional concepts of pioneer spirit, patriotism, and rugged individualism; and
- It strengthened the United States' claim to the Pacific Northwest.

A Multiple Property Documentation Form, prepared by Dr. Stephen Dow Beckham in 2012, defines a period of significance of 1840 to 1880 for the segments of the trail located in Oregon and eastern Idaho (Beckham 2012). This period begins with the commencement of overland emigrant travel through

Oregon and concludes with completion of the Oregon Railway & Navigation Company's line between Portland and Umatilla, which ultimately led to a decline in trail use (Beckham 2012).

Primary Uses

The Oregon NHT CMUP (1999) identifies a variety of recreational uses including: interpretation; heritage tourism; media interest (which manifests itself in production of movies and documentaries); walking, biking; horseback riding; historic reenactments of the trails experience, including handcart and covered wagon expeditions; and commemorative activities such as trail visitation, driving along auto-tour routes and BLM backcountry byways, reading interpretive brochures and publications, and visiting associated museums and educational facilities.

The primary use or uses of the Oregon NHT as defined in BLM RMPs are as follows:

- *Baker RMP* (BLM 1989): Sightseeing, historical interpretation, historic sightseeing, hiking, hunting, and interpretation.
- *Southeastern Oregon RMP* (BLM 2002): Recreation management emphasizing public education and enjoyment of the Oregon NHT and its setting while protecting important cultural resource values, with specific management for semi-primitive motorized and roaded natural recreation.
- *Owyhee RMP* (BLM 1999): Sightseeing, hiking, picnicking, and horseback riding.

Overall recreation activities on BLM lands within the Oregon NHT AUs include camping, boating, hunting, fishing, horseback riding, motorized recreational vehicles, sightseeing, hiking/walking, education/interpretation, wildlife viewing, driving for pleasure, and picnicking. In the Baker FO area, which covers the majority of the inventory area, NHOTIC visitation is the fourth most popular recreational activity on BLM lands—attracting over 66,000 visitors annually or 26 percent of all recreational use on Baker FO BLM lands, after boating (137,000 visitors), fishing (100,000 visitors), and camping and picnicking (69,767) (BLM, *Baker Draft RMP and EIS*, 2011a). NHOTIC visitors typically consist of adults primarily between the ages of 22 and 50 and groups numbering between one or two people (BLM 2011b).

Visitors wishing to follow the Oregon NHT can do so through a number of means such as hiking, biking, horseback riding, and driving along county roads and specially designated roadways. Many of the cross-country sections along the Oregon NHT provide recreational opportunities for motorized travel in a semi-primitive setting. Trail-related sites along the Old Oregon Trail State Highway (State Highway 30) and I-84 provide easy access to recreational opportunities. Interpretive sites can be accessed throughout the year, with most visits occurring between June and October. Current recreation use is not controlled and private ownership and/or the lack of legal public access agreements generally limits access to historic remnants and trail sites on BLM parcels that are located more than one mile from I-84. The route can be followed during dry weather periods between April and November; however, cross country portions are inaccessible during winter months and spring thaw due to snowpack or muddy conditions (NPS 1989).

As the Oregon Trail Auto Tour Route (NHT[3]), I-84 provides opportunities for visitors to enjoy the trails year round. The Auto Tour Route has been marked consistent with the provisions of the NTSA and existing state departments of transportation plans. The purpose of the Auto Tour Route is to heighten public awareness of the trails, to confirm the routes, and to stimulate interest in visiting actual trail sites, segments, and interpretive facilities. The route and NPS visitor brochures guide visitors on a relatively simple and direct line of travel that parallels the designated route of the Oregon NHT to the extent possible, making it convenient for auto tourists to locate designated trail sites and segments (NPS 1999).

5.1.1 Blue Mountains Analysis Unit (Oregon)

The Blue Mountains AU is situated within Union County in northeast Oregon. The 87,260-acre AU is characterized by views of the Blue Mountains, an imposing mountain range that encompasses a 4,060-square-mile area between Pendleton and the Oregon-Idaho border, and the wide fertile valley of the Grande Ronde River. Similar to other historic trails in the region, segments of the Oregon NHT in this AU were originally blazed for use by indigenous peoples including the Walla Walla, Cayuse, Nez Perce, and Umatilla (who comprise the contemporary Confederated Tribes of the Umatilla Indian Reservation), as well as 19th-century Euro-American trappers and traders, missionaries, and explorers, until the first emigrants made their ascent up the mountain's eastern flanks in 1843 (Beckham 2013b). Both the river and mountains were important landmarks of the trail, as the well-watered, lush valley and steep forested slopes characterizing the Blue Mountains AU were a verdant contrast to the open sagebrush plains located immediately to the south. Additionally, the mountain's steep terrain—with summits reaching upward of 9,000 feet—made crossing the Blue Mountains both a memorable and daunting experience, requiring that travel be strategically planned to avoid inclement winter weather (Franza 1972). In comparison, those who traveled the route during the summer and early fall encountered natural springs and a "grand and beautiful" wooded environment supporting a variety of vegetation (Palmer 1845:55).

The Oregon NHT within the Blue Mountains AU is comprised of numerous trail segments. These segments, which include 77.8 miles of trail and 19.0 miles of the congressionally designated route, are predominantly located to the east of I-84 and, although braided, generally follow the same southeast to northwest alignment (see Table 2 and Figure 4). A single trail segment is also present to the west of I-84; this segment largely parallels the current alignment of the interstate until it crosses the Grande Ronde River, then turns to the east, where it connects with the congressionally designated route and other trail braids. Within this AU, the trail crosses BLM land in three areas—in the California Gulch area to the east of I-84; to the west of I-84 within the Blue Mountain Forest Wayside, and in the Whiskey Creek area to the southwest of La Grande. Trail segments within these three areas total approximately 1.85 miles and are characterized by IOPs 1-1, 1-2, and 1-3 respectively. These trail segments and associated IOPs are discussed in more detail below.

5.1.1.1 Visual Resources

Within the Blue Mountains AU, trail segments on BLM lands are located within landscapes dominated by rolling mountains and narrow creek valleys. The landforms surrounding these trail segments are

enclosed to varying degrees by tall evergreen vegetation. The sense of enclosure is strongest within heavily wooded areas and is diminished in areas where evergreen vegetation gives way to pockets of open grasslands. Evergreen vegetation includes fir, pine, larch, and cedar of varying shades of dark and medium green. Grassland patches vary seasonally from bright green to straw color, and soil colors are not generally visible. Cultural modifications visible from these trail segments vary within the AU and are discussed below for each IOP. The trail segments in the Blue Mountain AU fall within VRM Class III. The visual quality ratings identified in the FO VRI would be consistent with the IOP-specific visual quality ratings identified through field inventory for this AU.

IOP 1-1

- IOP 1-1 is located on the eastern rim of Railroad Canyon and represents the setting of a trail segment that passes through a heavily wooded landscape. Cultural modifications are not visible from this IOP because tall evergreen vegetation screens views.
- This trail segment falls within a high sensitivity level rating, the seldom-seen visual distance zone VRI Class III, as identified in the Baker FO VRI.

IOP 1-2

- IOP 1-2 is located on the eastern rim of California Gulch and represents four trail segments that pass through a wooded landscape with small pockets of grassland.
- Tall evergreen vegetation generally limits views from this IOP, although I-84 can be seen intermittently to the west.
- This trail segment falls within a high sensitivity level rating, the seldom-seen visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 1-3

- This IOP is located approximately 0.5 mile to the east of Whiskey Creek and represents the setting of a trail segment that passes through a pocket of grassland surrounded by clusters of evergreen trees.
- This trail segment runs generally parallel to the Proposed Alternative. Cultural modifications visible from this IOP include gravel and two-track roads, fences, cattle tanks, and corrals.
- The trail segment represented by this IOP falls within sensitivity level rating unit (SLRU) 004, as identified in the Baker FO VRI, which is designated as having a high public concern for visual quality.
- This trail segment falls within a high sensitivity level rating, the seldom-seen visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

5.1.1.2 Historic and Cultural Resources

Trail-related cultural resources identified within the Blue Mountains AU include two discrete trail segments and two historic markers. One of the segments—originally identified in the NPS CMUP as the Blue Mountains HPRSEG—consists of a 17-mile-long, predominantly southwest-to-northeast-trending

section of the congressionally designated trail that stretches from the western edge of present-day La Grande, Oregon, northwest to Mount Emily Interchange of I-84. Of this length, only approximately 0.23 mile is located on BLM land; the remaining mileage is situated within Wallowa-Whitman Forest or is within Oregon State Park and private lands. In July 2013, this section of trail was recommended eligible for listing in the NRHP for its many miles of intact earthen swales and well-preserved "forest and meadow landscape" through the preparation of a NRHP nomination by historical consultant Stephen Dow Beckham (Beckham 2013:4). In June 1995, the Northwest Chapter of OCTA erected a permanent marker consisting of a bronze plaque mounted on a granite rock to commemorate this segment of the Oregon NHT (OCTA 2013). However, due to its recent age, this marker is not considered a historic trail-related resource.

The second segment of trail previously identified within the Blue Mountains AU is located in the vicinity of Whiskey Creek and IOP 1-3. Referred to in the *Baker RMP* as the Whiskey Creek Site (Oman 1989:64), this segment consists of remnants possibly associated with a ca. 1867 unnamed wagon road or an alternate route of the Oregon NHT. The RMP also notes the presence of a stone marker, or small boulder inscribed with "Oregon Trail 1856," located in a "grassy field" in close proximity to the road/trail remnants (Oman 1989:64). Both the stone marker and trail segment were identified in the August 2013 RLS, although neither were evaluated for their NRHP eligibility (Tetra Tech 2013). An additional trail marker, which was erected by OCTA in the 20th century to mark the trail's location, was also identified during the RLS. The trail segment was assigned a site number (B2H-UN-005), and the trail markers were recorded as features. The site will be further documented during the ILS of the inventory area. Neither marker was re-located during the NHT inventory.

5.1.1.3 Historic and Cultural Setting

The Blue Mountain AU represents a notable landscape change along the Oregon Trail as it would have been historically experienced; emigrants reached the fertile valley of the Grande Ronde River after having traveled through miles of extensive sagebrush hills. The Blue Mountains stood as an imposing backdrop against the verdant river valley which received water from the Grande Ronde. Many emigrants stopped at the valley to camp before attempting to cross the mountains. John C. Fremont described the valley as "a beautiful level basin, or mountain valley, covered with good grass, on a rich soil, abundantly watered, and surrounded by high and well timbered mountains" (Fremont 1845:174). Fremont further postulated that the valley, some 20 miles in diameter, would serve as excellent farm land. To the north of the valley, the precipitous slopes of the Blue Mountains were thick with pines, including spruce, balsam, and larches. In the fall the deciduous larches turned yellow, contrasting with the green of the surrounding pines, which were described by some travelers as being up to 200 feet in height. Emigrants Overton Johnston and William Winter noted that "a great portion of these Mountains are covered with dense forests of lofty pine. Those portions which are destitute of timber, are generally covered with good grass and a considerable portion of the soil appears to be fit for cultivation" (Johnson and Winter 1846:32–33). The denseness of the stands of pine and fallen timbers often made the trail nearly impassable which was only exacerbated by the steep ravines and ridgelines of the surrounding topography.

Contributing and non-contributing features of the Blue Mountains AU which are evident today are listed in Table 7. The area's topography and vegetation remain the dominant contributing elements of the AU as they would still likely be recognizable to emigrants who traveled through this region during the historic period. Evidence of these notable landscape features can be seen at IOP 1-1 where the trail segment is located on a steeply sloped hilltop of the Blue Mountains. The trail segment is present in a small clearing surrounded by dense pine vegetation, similar in nature to the description given above by Johnson and Winter (1846:32–33). In comparison, the trail segment represented by IOP 1-3 more closely demonstrates the characteristics of the La Grande Ronde valley as it is set in a landscape of open grassy plains surrounded by low rolling hills with limited stands of pine located along ravines and hilltops. The hydrology of Whiskey Creek and the nearby Grande Ronde River contribute to the lush grasses in the landscape at this location.

In comparison, the most noticeable human-related intrusion to the historic setting of the trail segments within the Blue Mountains AU is I-84, which largely parallels the congressionally designated route to the northwest of La Grande. At IOP 1-2, for example, the interstate is located downslope and approximately 0.5 mile west of the Oregon NHT which follows an adjacent ridgeline. Although the intrusion at this IOP location is primarily auditory, portions of the highway are visible from viewpoints along the route through clearings in the vegetation. In other areas, such as at IOP 1-1, the highway is effectively shielded from the trail by intervening forest. Similarly, the interstate is not visible from IOP 1-3, which is located 1.9 miles to the southeast near the intersection of Oregon State Highway 244 and Mill Canyon Road.

Table 7. Inventory of Features Contributing and Non-Contributing to Historic Character of Trail Segments within the Blue Mountains Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Blue Mountains	C		This range was an important landmark and was considered the first forested terrain the emigrants had seen since leaving the hills of Kansas. It was also the last major vertical obstacle to be overcome before reaching the Columbia River.
Terrain	Ladd Canyon	C		Many emigrant journals describe the difficulty of descending this "rocky," "circuitous," and "dusty" canyon into the Grand Ronde Valley (Beckham 2012).
Hydrology	Grande Ronde River	C		Although not visible from the three IOP locations, the river played a prominent role in the landscape of the region creating a respite before emigrants attempted to cross the Blue Mountains.
Hydrology	Whiskey Creek	C		This small creek is an offshoot of the Grande Ronde River and flows to the southeast intersecting with the trail segment identified at IOP-3; the creek is not visible from this IOP location, however.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Circulation	I-84	NC	No	The current alignment of I-84 as seen from IOP 1-2 was built by the Oregon State Highway Department in the 1970s; it was completed to interstate standards by 1980.
Circulation	Mill Canyon Road	NC	No	At IOP 1-3, a portion of the trail follows the same alignment as this graded gravel road.
Vegetation	Native vegetation community	C		Includes vegetation mentioned in historical accounts such as cedar, larches, and other pines, as observed at IOPs 1-1 and 1-2.
Small-scale features	Post and wire fencing	NC	Yes	A post and wire fence separates BLM land from Forest Service land and the Oregon Trail Interpretative Park, which is located 1.3 miles (6,976 feet) to the southeast of IOP 1-3. Similar fencing is also visible at IOP 1-3 along both sides of Mill Canyon Road.
Small-scale features	Trail marker	NC	Yes	Concrete marker in the vicinity of IOP 1-3 was erected in the 20th century to identify the historic trail.
Small-scale features	Stone marker	C		The origin of this stone marker, noted as being in the vicinity of the trail trace at IOP 1-3, will be further investigated by Tetra Tech during its ILS.

Table Abbreviations: C= contributing, NC = non-contributing; ILS = intensive level survey; IOP = inventory observation point.

A summary of the historic setting at the three IOP locations within the Blue Mountains AU is provided in Table 8. With the exception of IOP 1-1, which has no discernable intrusions, largely due to its remote location and tall dense canopy of evergreen trees, the integrity of setting within the Blue Mountains AU has been moderately impacted by modern development, including the construction of I-84, gravel and two-track roads, fence lines, and an existing transmission line. Despite these modern intrusions, however, the trail segments within the Blue Mountains AU, and particularly those on BLM land, are highly representative of their original historic setting. As such, the Blue Mountains AU is found to retain a high degree of integrity of historic setting.

Table 8. Integrity Assessment by Inventory Observation Point, Blue Mountains Analysis Unit

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
1-1	Emigrants traveling along the eastern rim of Railroad Canyon would have experienced medium grade slopes and a heavily wooded landscape.	This IOP is located in a heavily forested area that is enclosed by tall evergreen vegetation.	The historic setting at this IOP is retained as there are no visible intrusions.
1-2	Located along a ridgeline within the Blue Mountains/California Gulch ACEC; California Gulch is located to the west. The heavily forested mountains with medium grade slopes restricted paths of travel.	This IOP, located approximately 0.5 mile east of Interstate 84, has earthen trail ruts and swales in some stage of reclamation.	This IOP retains integrity due to the well-preserved trail ruts and minimal intrusion of modern circulation features.
1-3	Located on Mill Canyon Road, approximately 1.9 miles east of its intersection with State Highway 244; Whiskey Creek is approximately 0.5 mile to the east. Historically, this area would have been grasslands surrounded by clusters of evergreen trees.	Modern intrusions visible from this location include gravel and two-track roads, fences (some with wrought iron signage/gates), and an H-frame transmission line. Additionally, it is not clear if the trail trace in this location, which has been permanently altered by road construction, represents the remains of a historic wagon road, or an alternate route of the Oregon NHT. The relationship of this segment to the Oregon NHT will be further investigated as part of the ILS.	Although the area's rolling hills and timbered draws are reminiscent of the natural environment which would have been encountered by emigrants, modern intrusions diminish the integrity of historic setting at this IOP location.

Table Abbreviations: ACEC = area of critical environmental concern; ILS = intensive level survey; IOP = inventory observation point; NHT = National Historic Trail.

5.1.1.4 Recreation and Travel Management Opportunities

The majority of the Blue Mountains AU resides in the Blue Mountains North/Grande Ronde River Basin Area in the Wallowa-Whitman National Forest. Several developed recreation sites managed by the Forest Service are found within this AU including the Blue Mountain Crossing Interpretative Park, which is considered an HPHS in the NPS CMUP (1998). This park, which features pristine ruts of the Oregon NHT, offers fully accessible interpretive trails developed by the Forest Service, as well as living history demonstrations. Hilgard Junction, a state park managed by the Oregon Parks and Recreation Division, is also located within the boundary of the AU and is considered by the NPS to be an HPHS (1998). Hilgard Junction offers streamside camping, fishing, rafting, swimming, and bird watching. An interpretive kiosk describes the historical significance of the area as a place where emigrants camped before making the ascent into the Blue Mountains. The 1989 *Baker RMP* establishes the Oregon NHT Area of Critical Environmental Concern (ACEC) and the NHOTIC to protect trail settings but does not provide Recreation Opportunity Spectrum (ROS) direction for segments of the Oregon NHT on BLM land. The 1989 *Baker RMP* also identifies recreation activities in this area, as they relate to the Oregon NHT, as sightseeing, historic interpretation, historic sightseeing, hiking, hunting, and interpretation. These recreation opportunities can either be related to or unrelated to the Oregon NHT, but occur within the trail corridor.

5.1.2 FLAGSTAFF HILL/VIRTUE FLAT ANALYSIS UNIT (OREGON)

The Flagstaff Hill/Virtue Flat AU is located within Baker County in northeastern Oregon. Located north of the Virtue Hills, the sagebrush covered, rolling hills of Virtue Flat bridged the gap between the Burnt and Powder Rivers and provided emigrants with nearly panoramic views of the distant Wallowa Mountains to the north, the Blue Mountains to the west, and more immediately, Flagstaff Hill to the northwest (Beckham 2013). Emigrant accounts did not refer to the area as Virtue Flat, but instead described it as the "sage plains" or "dividing grounds" between the two river channels (Cleaver 1848; Frémont 1845). Similarly, Flagstaff Hill, to the northwest of Virtue Flat, was not known during the Emigrant era by this name. Flagstaff Hill and the land immediately surrounding it would become known as the Virtue District for James W. Virtue who purchased a gold mining claim there in 1868; after Virtue established the Flagstaff Mine, the landform would become known as Flagstaff Hill (Tetra Tech 2013; Oregon Department of Geology and Mineral Industries n.d.). This hill, on which the NHOTIC is now located, was an important landmark for emigrants traveling the Oregon Trail, as it was one of the first landforms visible after descending the north face of Virtue Hills onto Virtue Flat (Beckham 2013). Flagstaff Hill also offered, and continues to offer through the NHOTIC, a commanding view across the Baker Valley. The "lone tree" often described by emigrants prior to its removal in the early 1840s would have been visible in the Baker Valley from Flagstaff Hill.

Encompassing approximately 56,340 acres of the public and private land to the east of Baker City, the Flagstaff Hill/Virtue Flat AU consists of approximately 13.7 miles of the congressionally designated route of the Oregon NHT (see Table 2 and Figure 5). Data provided from the BLM, Oregon SHPO and OCTA indicate another 48.4 miles of Oregon NHT, consisting predominantly of trail braids paralleling the congressionally designated route, are also present within this AU. The segments of the Oregon NHT and its parallel braids cross Baker Valley and Missouri Flat in a generally northwest to southeast trending direction and continue south along the western and southern flanks of Flagstaff Hill within the Flagstaff Hill ACEC. Approximately 1.1 miles southeast of this landform, the trail diverges to the south and forms a second alignment which roughly parallels the congressionally designated route to the east. In this location, the trail splits in numerous directions and crosses BLM land in ten locations before turning to the east at Quartz Gulch and nearly reconnecting with the congressionally designated route within the White Swan ACEC. In comparison, the congressionally designated route continues to the southeast, where it crosses the White Swan ACEC and forms multiple trail braids to the west of White Swan Mine. In total, approximately 13.3 miles of trail are located on BLM land within this AU. Due to the braided and divergent nature of the trail in this area, data was collected from five IOP locations (IOPs 2-1, 2-2, 2-3, 2-4, and 2-5) established within the AU.

5.1.2.1 VISUAL RESOURCES

Within the Flagstaff Hill/Virtue Flat AU, trail segments on BLM lands are located within landscapes dominated by rolling hills and flat to moderately sloping valleys. The landscapes surrounding these trail segments are generally panoramic, with open views of rolling sage steppe vegetation against the occasional backdrop of steep, rugged mountains. The sense of enclosure experienced from the trail segments is generally weak. The sagebrush vegetation includes shades of sage green and gray, while the grassland vegetation varies seasonally from bright green to straw color. Landform colors are not

generally visible through the dense vegetative cover, but beige and medium brown colors are occasionally visible. Cultural modifications visible from these trail segments vary within the AU, and are discussed below for each IOP. The Flagstaff Hill/Virtue Flat AU falls within VRM Class II.

The trail segments on BLM-managed lands occur intermittently throughout the AU; the setting of these segments is represented by five IOPs. Unless noted otherwise, the visual quality ratings identified in the FO VRI would be consistent with the IOP-specific visual quality ratings identified through field inventory for this AU.

IOPs 2-1 and 2-2

- These IOPs are generally located along State Highway 86 near Flagstaff Hill and together represent a number of trail segments that extend in a southeast to northwest alignment from Flagstaff Hill. IOP 2-1 is located at an historic marker directly adjacent to State Highway 86, and IOP 2-2 is located upon the general trail alignment northeast of an interpretive site along State Highway 86. The setting of these trail segments includes open, panoramic views of rolling hills covered with fairly dense sage steppe vegetation. The flat expanse of Baker Valley is visible to the northwest against the backdrop of the steep, rugged Blue Mountains. Cultural modifications visible from these IOPs include State Highway 86, roadway and interpretive signage, guardrail, wood and wire fencing, a large stone monument (known as the Flagstaff Hill Monument), transmission lines and wooden poles, the NHOTIC and its associated facilities, and agricultural fields and rural development associated with Baker Valley.

IOP 2-1

- IOP 2-1 is located within VAU BA-014.
- This trail segment falls within a high sensitivity level rating, the background visual distance zone, and VRI Class II, as identified in the Baker FO VRI.

IOP 2-2

- IOP 2-2 is located within VAU BA-021.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the Baker FO VRI.
- This trail segment falls within a high sensitivity level rating, the background visual distance zone, and VRI Class II, as identified in the Baker FO VRI.

IOP 2-3

- IOP 2-3 is located on the eastern rim of the Ruckles Creek drainage, and was selected to represent several trail segments that pass through rolling sagebrush hills.
- The setting of these trail segments includes open, panoramic views of rolling hills covered with dense sage steppe vegetation.

- The steep and rugged Wallowa Mountains are visible in the distance to the northeast. The only cultural modifications visible from this IOP are distant, clustered ranching structures.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the background visual distance zone, and VRI Class II, as identified in the Baker FO VRI.

IOP 2-4

- This IOP is located approximately 0.5 mile east of Quartz Gulch and was selected to represent several trail segments that pass through rolling sagebrush hills.
- The setting of these trail segments includes open, panoramic views of rolling hills covered with dense sage steppe vegetation.
- The steep and rugged Wallowa Mountains are visible in the distance to the northeast. Cultural modifications visible from this IOP include gravel roads; fence lines; the NHOTIC; and distant, clustered ranching buildings and structures.
- This IOP is located within VAU BA-021.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality B, which differs from the scenic quality rating of C identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the background visual distance zone, and VRI Class II, as identified in the Baker FO VRI.

IOP 2-5

- IOP 2-5 is located to the south of the White Swan Mine and the upper end of White Swan Gulch.
- The IOP was selected to represent several trail segments that pass through rolling sagebrush hills.
- The setting of these trail segments includes open, panoramic views of rolling hills covered with dense sage steppe vegetation.
- The steep and rugged Wallowa Mountains are visible in the distance to the northeast. Cultural modifications visible from this IOP include gravel roads; the NHOTIC; and distant, clustered ranching buildings and structures.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class II, as identified in the Baker FO VRI.

5.1.2.2 Historic and Cultural Resources

Identified historic and cultural resources within the Flagstaff Hill/Virtue Flats AU include the Flagstaff Hill and White Swan Segments of the Oregon NHT, the Flagstaff Hill Monument, and the Meeker Marker. Additionally, the NHOTIC, a 23,000-square-foot center built on top of Flagstaff Hill and overlooking a

well-preserved section of the Flagstaff Hill Segment of the Oregon NHT, is considered an HPHS (No. 106) in the 1989 CMUP (NPS 1989:306). The center was constructed by the BLM in partnership with a non-profit organization between 1989 and 1992.

The Flagstaff Hill Segment of the Oregon NHT is located adjacent to State Highway 86 in an expansive sagebrush plain known as Virtue Flat. The trail segment was first recommended eligible for inclusion in the NRHP by the BLM in 1976. That year, the BLM prepared a NRHP nomination for a historic district composed of the Flagstaff Hill Segment and an adjacent segment of the Oregon NHT, referred to in the nomination as the Virtue Flat Segment. The historic district was determined eligible for listing by the Keeper of the NRHP; however, as portions of the nominated trails were located on both public and private land, the nomination was returned to the BLM so that permissions from private landowners could be obtained. The BLM was unsuccessful in obtaining landowner agreement to list the property, and the proposed nomination was not re-submitted (NPS 1989:14).

In 2013, the previously nominated portion of the Flagstaff Hill Segment on BLM land was again recommended eligible for inclusion in the NRHP through a NRHP nomination prepared by Stephen Beckham. This nomination included a second segment of the Oregon NHT—the White Swan Segment—also located on BLM land in the Virtue Flat area. The Flagstaff Hill Monument and Meeker Marker were also documented in the nomination as non-contributing. Constructed in 1943, outside the established period of significance for the NHT, the Flagstaff Hill Monument consists of an 18-foot-tall roughly pyramidal-shaped cement and cobble marker situated in a pull-off along the southern shoulder of State Highway 86. The monument was assigned a site number (B2H-BA-279) by Tetra Tech as part of their 2013 RLS of the analysis area. The Meeker Marker was originally placed along the Oregon NHT by Ezra Meeker in 1906 but was moved to its current location along an unpaved interpretative trail at the NHOTIC sometime prior to 1992.

5.1.2.3 Historic and Cultural Setting

Emigrants who traveled the segment of Oregon Trail through the Flagstaff Hill/Virtue Flat AU crossed the sagebrush hills north of the Burnt River Canyon, where they were then afforded a view over the Powder River Valley with the imposing Blue Mountains in the distance. During his 1842 expedition of the trail, J.C. Frémont described the condition of the trail between the Brulé (Burnt) River and Powder River, noting that “from the dividing grounds we descended by a mountain road to Powder River, on an old bed of which we encamped. Descending from the summit, we enjoyed a picturesque view of high rocky mountains on the right, illuminating [*sic*] by the setting sun” (Frémont 1845:177). Emigrants Cecelia Adams and Parthenia Blank described their journey along the trail after leaving the Burnt River as follows:

> [We] traveled over hills till afternoon then came to a pretty level piece of land covered with sage on which we traveled till nearly night and then descended to another beautiful smooth plain several miles in extent bounded by grass covered hills except on the west which is bounded by the Blue Mountains, beautiful in the distance covered with pine looks as if we

> were coming somewhere - camped among the sage without water plenty of grass for our cattle on hill nearby [*sic*]. (Holmes and Dunniway 1997:300)

Peter Burnett, who journeyed along the Oregon Trail in 1843, noted the presence of tall mountain ranges in the distance, remarking that the sun glanced through “open spaces upon the gleaming mountains” (Burnett 1904:81). He also wrote about passing “through some of the most beautiful valleys” and camping “on the branch of the Powder River at the Lone Pine” (Burnett 1904:81).

Contributing and non-contributing features of the Flagstaff Hill/Virtue Flat AU which are evident today are listed in Table 9. The area’s topography, which afforded expansive views, and vegetation remain the dominant contributing elements of the AU, as they would still likely be recognizable to emigrants who traveled the through this region during the historic period. Evidence of these significant landscape features can be seen at IOP 2-3 where the trail segment is located on a modest slope of the Virtue Hills. The trail segment is present in an open landscape of rolling hills where sagebrush and grasses are the predominant forms of vegetation. The trail segment represented by IOP 2-5 offers the expansive views of the distant Wallowa and Blue Mountains which emigrants commonly described while crossing the northern side of the Virtue Hills. Due to its poorly developed hydrology, this area is also dominated by brush and grasses which the emigrants more broadly referred to as “sage plains” (Cleaver 1848).

The most noticeable human-related intrusion to the historic setting of the trail segments in the Flagstaff Hill/Virtue Flat AU is State Highway 86, which runs east to west across the expanse of the AU. IOP 2-1 is located in an asphalt pull-off along the highway and it is also adjacent to the trail segment identified at IOP 2-2. Similarly, the road its traffic is visible from each of the five IOPs.

The NHOTIC is located on the southern slope of Flagstaff Hill. This modern facility which is operated by the BLM is visible from all of the IOP locations within the Flagstaff Hill/Virtue Flat AU, except IOP 2-3; while considered an HPHS site in the Oregon NHT CMUP, the facility’s presence affects the retention of historic setting of the trail segments identified in these locations.

A summary of the historic setting at the five IOP locations within the Flagstaff Hill/Virtue Flat AU is provided in Table 10. The integrity of setting within the Flagstaff Hill/Virtue Flat AU has been moderately impacted by modern development, including the construction of State Highway 86, gravel and two-track roads, fence lines, mining features, existing transmission lines, and the NHOTIC and its associated facilities. Despite these modern intrusions, however, the trail segments and associated features within the Flagstaff Hill/Virtue Flat AU—and particularly those on BLM-administered land—have strong visual values that are generally representative of their original historic setting. As such, the Flagstaff Hill/Virtue Flat AU is found to retain integrity of historic setting.

Table 9. Inventory of Features Contributing and Non-Contributing to Historic Character of Trail Segments within the Flagstaff Hill/Virtue Flat Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Flagstaff Hill	C		Although not referred to as "Flagstaff Hill" between 1840 and 1880, this landform was an important landmark along the Oregon NHT, as it was one of the first landforms visible when emigrants descended the north face of Virtue Hills onto Virtue Flat (Beckham 2013).
Terrain	Virtue Flat	C		This expansive area was historically referred to in emigrant accounts as the "sage plains" or "dividing grounds" between the Burnt and Powder Rivers (Cleaver 1848; Frémont 1845).
Terrain	Virtue Hills	C		From the top of these hills, emigrants had a panoramic view of Virtue Flat and the distant Blue and Wallowa Mountains.
Terrain	Wallowa Mountains	C		Panoramic views of the Wallowa Mountains were visible to the north as emigrants traveled through Virtue Flat.
Terrain	Blue Mountains	C		The "lofty peaks" of these mountains were described by numerous emigrants traversing the Oregon NHT as they were a constant reminder of the difficult segments of trail that they ahead.
Terrain	Lone Pine Mountain	C		This landform was named after a large pine tree which served as a landmark for emigrants until it was cut down for fuel sometime prior to 1843 (Burnett 1904).
Circulation	Oregon State Highway 86	NC	No	This highway is either adjacent to or visible from all of the IOPs within the Flagstaff Hill/Virtue Flat AU.
Circulation	Two-track roads	NC	Yes	Numerous two-track roads providing access to mines and ranches in the region are present in the Virtue Flat area. In some cases, portions of the Oregon NHT have been incorporated into these graveled routes, as is evidenced by the trail trace at IOP 2-5.
Buildings and structures	Transmission lines	NC	No	H-frame structures of a predominantly north-south trending transmission line are visible to the north, south, and west of IOPs 2-1 and 2-2.
Buildings and structures	Oregon National Historic Trail Interpretative Center	NC	Yes	This building is listed in the National Park Service's 1989 Comprehensive Management and Use Plan as High Potential Historic Site No. 106 of the Oregon NHT. Although not historic in age, it contributes to the character of the Oregon NHT at IOPs 2-1 and 2-2 as it provides opportunities for visitors to experience the trail in these locations.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Vegetation	Native vegetation community	C		Consists predominantly of sagebrush, rabbitbrush, and grasses, which were historically present in the region.
Vegetation	Agricultural crops	NC	No	Agricultural fields within Baker Valley are visible at IOPs 2-1 and 2-2.
Small-scale features	Post and wire fencing	NC	Yes	Post and wire fencing lining the State Highway 86 rights-of-way are visible at IOPs 2-1 and 2-2.
Small-scale features	Tailings/prospects	NC	No	Prospects and tailing piles of varying sizes, evident of both historic and modern mining occurring in the region, are visible at IOPs 2-3, 2-4, and 2-5 in the Virtue Flat area of the analysis unit.
Small-scale features	Interpretative signage	NC	Yes	Panels describing the general history of the Oregon NHT are present at a wayside along the north side of State Highway 86 in the vicinity of IOP 2-2.
Small-scale features	Concrete marker	NC	Yes	A 20th-century concrete trail maker is present in the vicinity of IOP 2-4.
Small-scale features	Flagstaff Hill Monument	NC	Yes	Located in the vicinity of IOP 2-1, this cement and cobble marker was erected by the Kiwanis Club in 1943.

Table Abbreviations: C= contributing, NC = non-contributing; IOP = inventory observation point; NHT = National Historic Trail.

Table 10. Integrity Assessment by Inventory Observation Point, Flagstaff Hill/Virtue Flat Analysis Unit

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
2-1	Located within Virtue Flat to the southwest of Flagstaff Hill. Emigrants traversing the trail in this location would have had expansive views of Baker Valley and Missouri Flat to the west and north, as well as the Blue Mountains and Wallowa Mountains in the distance.	This IOP is located in a pull-off/parking area at the ca. 1943 Flagstaff Hill Monument. State Highway 86 and its right-of-way fence, a predominantly north-south trending H-frame transmission line, and infrastructure associated with the NHOTIC (National Park Service's High Potential Historic Site No. 106) are prominent intrusions to the historic setting in this location. Additionally, numerous residential and agricultural buildings are present	This IOP has diminished integrity due to prominent modern circulation features and development associated with agriculture and power transmission.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
2-2	Located along the southern flank of Flagstaff Hill. The relatively level topography of this area created opportunities for multiple paths of travel and several braids of the trail intersect here. The Goodale's Cutoff, an NHT study trail which enters Virtue Flat from the Lower Powder Valley to the east, also converges with the Oregon NHT in this location.	This IOP, located to the west of State Highway 86, has several sets of earthen and reclaimed trail ruts in excellent condition. Lone Pine Mountain is visible in the distance to the south and the level topography of Missouri Flat is visible to the north and east. Interpretative signage and a post and wire fence are present within a wayside approximately 189 feet to the southwest of the IOP. The IOP is accessed via a graveled footpath which extends to the trail trace.	This IOP retains integrity due to the well-preserved trail ruts and minimal intrusion of modern circulation features.
2-3	Historically, this area was characterized by low rolling hills covered with sage steppe vegetation. Emigrants who passed through this area had panoramic views of the Blue Mountains to the west and distant Wallowa Mountains to the north, which they described as being either "bald" or "black with pines" (Jackson and Spence 1970[1]:543).	This IOP is located downslope and east of a two-track road; the Emma and Virtue Mines are located to the southwest. Although hardly discernable, the trail trace in this location has not been altered and appears to follow its original alignment. A cluster of buildings and a gravel pit and numerous prospects/tailings piles associated with historic and modern mining activities in the Virtue Flat area are the most prominent intrusions to the historic setting in this location. State Highway 86, located to the north of the IOP, is not visible unless traffic is present.	The historic setting at this IOP is retained. With the exception of several two-track roads to the south, the majority of the intrusions visible from this IOP are located to the northeast.
2-4	Situated at the northern base of the Virtue Hills, this area is characterized by level and homogenous terrain which emigrants commonly referred to as "sage plains."	The trail trace at this IOP has been altered by the construction of a graded and graveled county road which follows the trail's historic alignment. Intrusions visible at this location include numerous ranch buildings and structures to the north, west, and east; State Highway 86 to the north; the NHOTIC to the northwest; and several fence lines to the west. Additionally, a concrete trail marker is present immediately west of the IOP.	While modern development is evident, this IOP retains integrity as the surrounding landscape remains evocative of an expansive sagebrush flat interspersed with low rolling hills.
2-5	Situated within Virtue Flat near the upper end of White Swan Gulch, emigrants traveling the Oregon NHT in this location would have had panoramic views of the steep and rugged Wallowa Mountains to the northeast.	Intrusions visible from this IOP include gravel roads; the NHOTIC; and distant, clustered ranching buildings and structures. Additionally, the trail trace at this IOP has been permanently altered by a graveled road which was constructed in the early 20th century to provide access to the White Swan Mine, which is located to the north.	While modern development is evident, this IOP retains integrity as the location retains both its sweeping views of distant mountains, as well as the surrounding rolling hills covered in sage steppe vegetation.

Table Abbreviations: IOP = inventory observation point; NHT = National Historic Trail; NHOTIC = National Historic Oregon Trail Interpretive Center.

5.1.2.4 Recreation and Travel Management Opportunities

The Oregon NHT in the Flagstaff Hill/Virtue Flat AU can be accessed from several locations along State Highway 86 and White Swan Road. The primary recreation activity related to the Oregon NHT in this AU is visitation of the NHOTIC. Considered an HPHS in the 1998 NPS CMUP, this center provides educational, interpretive, and sightseeing programs throughout the year and attracts approximately 66,000 visitors annually. Due to its hilltop location, it also provides panoramic views of the Oregon NHT north into the Baker Valley and south into Virtue Flat. The AU also has two ACEC parcels of the Oregon Trail ACEC—the White Swan segment and the Flagstaff Hill segment—both of which were established under the *Baker RMP* as part of the larger Oregon Trail ACEC to protect well-preserved trail segments. These ACEC segments have special provisions which (1) prohibit uses incompatible with maintaining visual qualities or public interpretation within the 0.5 mile congressionally designated corridor of the NHT; (2) prohibit the development of campgrounds within 0.25 mile of the Oregon Trail; (3) prohibit the construction of new roads; and 4) restrict OHV usage to designated roads and trails (Oman 1989).

The 1989 *Baker RMP* also recognizes Virtue Flat as an extensive recreation management area and the Oregon NHT as a special recreation management area (SRMA). Virtue Flat primarily resides on BLM land with some spurs extending onto private land, and provides a variety of motorized trails year-round for all classes of off-highway vehicles (OHVs) including motorcycles, four-wheel drives, and quads. While the RMP protects trail settings within these areas, it does not provide ROS direction for the segments of the Oregon NHT on BLM land.

Another recreation opportunity associated with the trails segments in this AU is State Highway 86, or the Hells Canyon Scenic Byway, which provides access to recreation sites along the Oregon NHT and within Virtue Flat. This section of byway follows the route early pioneers first traveled to Willamette Valley to reach mining towns like Halfway, Pine, and Copperfield.

5.1.3 Burnt River Canyon Analysis Unit (Oregon)

The Burnt River Canyon AU is located in Baker County in eastern Oregon near the Idaho border. The Burnt River is a tributary of the Snake River where it intersects near the present-day town of Huntington, Oregon. The Oregon Trail largely paralleled the Snake River in its route across Idaho. Upon crossing the Oregon border, emigrants left the river—which continued north for the final time at "Farewell Bend," traveling northwest until arriving at the Burnt River.

The Burnt River Canyon was one of the more treacherous segments of the Oregon Trail. The river received its name from the frequent number of wildfires which burned the adjacent hillsides. Emigrant journals frequently described the poor nature of the trail and the necessity of crossing the river at multiple locations. The river included both shallow and deep depths which exacerbated the difficulties of crossing and left animals fatigued from their efforts. Joel Palmer, who traveled through Burnt River Canyon in September of 1845, reported the following: "This day we traveled about twelve miles. The road exceeded in roughness that of yesterday. Sometimes it pursued its course along the bottom of the creek, at other times it wound its way along the sides of mountains, so sidelong as to require the weight

of two or more men on the upper side of the wagons to preserve their equilibrium" (Palmer 1845). The emigrants continued to follow the Burnt River's southeast to northwest trajectory until reaching the area of the present-day town of Durkee, where they departed the river and continued north.

Within the Burnt River Canyon AU, the Oregon NHT is comprised of six trail segments, five of which follow the same general northwest to southeast trending alignment as I-84 and State Highway 30 (see Table 2 and Figure 6). The remaining trail segment extends from the White Swan ACEC within Virtue Flat and continues to the southwest where it crosses the interstate and highway before terminating to the east of Dry Gulch and Dogtown Creek. Within this AU, the trail crosses BLM land in approximately 20 locations which are spread out over a 156,540-acre area between Pleasant Valley and Huntington, Oregon. The length of the trail segments within these locations varies, with the shortest segment measuring approximately 0.2 mile and the longest spanning approximately 1.2 miles between Weatherby and Doman Road to the east of I-84; the total length of all of the trail segments on BLM land within this AU is approximately 14.8 miles. The historic setting of the trail segments within the Burnt River Canyon AU are characterized by 13 IOPs, which are discussed in more detail below.

5.1.3.1 Visual Resources

Within the Burnt River Canyon AU, trail segments on BLM lands are located along the I-84 corridor which generally stretches from the unincorporated community of Pleasant Valley, OR south to Huntington, OR. The landscapes surrounding these trail segments are dominated by rolling hills, steep mountains, and narrow agricultural valleys. Setting varies from open and panoramic in the uplands to strongly enclosed within valleys and landform depressions. Views from the trail segments are dominated by adjacent mountains within the Blue Mountain Range, including Iron Mountain, Gold Ridge, Gold Hill, Baldy Mountain, Lookout Mountain, Fur Mountain, Weatherby Mountain, Morgan Mountain, Table Rock, Lost Tom Mountain, and the Slaughterhouse Range. The mountains and rolling hills are generally covered by dense sagebrush steppe vegetation. The sagebrush introduces shades of sage green and gray, while the mixed grasses are straw color and seasonally bright green. Higher elevations within the adjacent mountains also include dark green colors of clustered and stippled evergreen trees. Agricultural vegetation within the flat valley bottoms varies seasonally from bright green to straw color. Riparian vegetation is also visible from some of the trail segments, and introduces medium to bright green colors along the edges of the rivers and creeks. Landform colors are often visible within the steep mountain formations, and range from light beige to gray, medium brown, and dark brown. Cultural modifications visible from these trail segments vary within the AU and are discussed below for each IOP. The Burnt River Canyon AU falls within VRM Class III.

The trail segments on BLM-managed lands occur intermittently throughout the AU and their setting are represented by13 IOP locations. Unless noted otherwise, the visual quality ratings identified in the FO VRI would be consistent with the IOP-specific visual quality ratings identified through field inventory for this AU.

IOP 3-1

- IOP 3-1 lies within the rolling sage steppe hills north of I-84 and south of Virtue Flat.
- The IOP represents a single trail segment that passes from Baiseley Creek over a small saddle into Dry Creek.
- The setting varies along the trail segment, as views from the higher ground of the saddle are open and panoramic. In comparison, views from within the Dry Creek drainage are generally enclosed by valley sidewalls with distant focal views oriented down the drainage toward the Blue Mountains to the southwest.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe vegetation, while distant mountains transition to evergreen trees in the higher elevations.
- Cultural modifications are not generally visible from this trail segment, although distant modifications can be seen along the I-84 corridor.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-2

- This IOP is located within the rolling sage steppe hills north of I-84 and south of Virtue Flat and has been selected to represent four trail segments that follow an unnamed drainage approximately 2.5 miles north and east of Pleasant Valley.
- The setting of these trail segments varies; from the higher ground on the northern portions of the trail segments, views of surrounding hills and valleys are relatively open and panoramic.
- Views from within the drainage are generally enclosed by its sidewalls, but also include distant focal views down the drainage to the southeast.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe vegetation, transitioning to evergreen trees in the higher elevations.
- Cultural modifications visible from these trail segments include wire fencing, as well as distant modifications along the I-84 corridor.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-3

- This IOP is located to the west of Dogtown Creek within rolling sage steppe hills along I-84.
- The IOP represents four trail segments—two of which parallel the I-84 alignment.
- The third segment passes through a shallow drainage and up to the top of broad, low hill south of I-84, and the fourth is an extension along this same alignment that lies just north of I-84 across State Highway 30.

- The setting of these trail segments includes open and panoramic views of surrounding hills and mountains, as well as the broad valley through which I-84 passes.
- Vegetative cover adjacent to the trail segments consists of dense sage steppe transitioning to evergreen trees in the higher elevations.
- The lands within view appear generally undeveloped, aside from cultural modifications visible along the I-84 corridor.
- These modifications include the interstate and interchange, an underpass structure, a transmission line comprised of wood H-frame structures, and a cluster of ranching structures.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-4

- This IOP is located atop a rolling sage steppe hill directly adjacent to I-84 southeast of the community of Pleasant Valley, OR.
- The IOP represents a single trail segment, which parallels the alignment of I-84.
- The setting of this trail segment includes moderately enclosed views of Pleasant Valley and the surrounding rolling mountains.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe and scattered evergreen trees, while adjacent mountains also include clustered evergreen trees.
- A variety of cultural modifications are visible within this enclosed landscape, including I-84, State Highway 30, gravel roads and parking/staging areas, railroad tracks, and associated staging areas, transmission lines (both single and H-frame wooden poles), communication towers, and the clustered development associated with the community of Pleasant Valley.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-5

- This IOP is located within the rolling sage steppe hills north of I-84 and south of Virtue Flat in the Straw Ranch I ACEC.
- The IOP represents four trail segments that follow an unnamed drainage just east of Straw Ranch Creek.

- The setting of these trail segments varies along the trail. From the higher ground on the northern portions of the trail segments, views of surrounding hills and valleys are relatively open and panoramic. Views from within the drainage are generally enclosed by its sidewalls but include distant focal views down the drainage to the southeast.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe transitioning to evergreen trees in the higher elevations.
- Cultural modifications visible from this trail segment include a cluster of ranching structures, barbed wire fencing, transmission lines with wooden H-frame poles, and distant modifications along the I-84 corridor.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-6

- This IOP is located within a weakly enclosed valley west of Pritchard Creek.
- The IOP represents five trail segments that are directly parallel to I-84 and Old US 30.
- The setting of these trail segments includes weakly enclosed views of Durkee Valley and the surrounding rolling mountains.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe and scattered evergreen trees, while adjacent mountains also include clustered evergreen trees.
- A variety of cultural modifications are visible within this landscape, including clustered ranching buildings and structures, gravel roads, and fences.
- I-84 is not visible from IOP 3-6, but the highway and associated features would be visible from the trail at various points along the five segments.
- A small segment of trail also falls within VAU BA-014.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-7

- This IOP is located on the eastern edge of Durkee Valley, adjacent to I-84 and north of Durkee Creek.
- The IOP represents five trail segments that are directly parallel to I-84.
- The setting of these trail segments includes weakly enclosed views of Durkee Valley and the surrounding rolling mountains.
- Two trail segments follow the alignment of I-84, and one is a short segment that is crossed by the interstate.

- The two remaining segments parallel an unnamed drainage before crossing over a low, rounded ridge on the edge of the valley.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe and scattered evergreen trees. Adjacent mountains include clustered to dense evergreen trees in higher elevations.
- A variety of cultural modifications are visible from the IOP and trail segments within this landscape, including I-84 and its associated features, signage, gravel roads, transmission lines comprised of wooden H-frame poles, clustered ranching buildings and structures, fences, and agricultural fields.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality C, which differs from the scenic quality rating of B identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-8

- This IOP is located along Plano Road, near the southern end of Durkee Valley.
- The IOP represents two trail segments that parallel Swayze Creek to the north of Gold Hill.
- One segment follows the alignment of Plano Road, while the other runs parallel along the south of the road, and north of Swayze Creek.
- The setting of these trail segments includes moderately enclosed views of Durkee Valley as it extends up Swayze Creek and is surrounded by Gold Hill and other rolling mountains.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe and scattered evergreen trees.
- Riparian vegetation is also visible from the trail segments, clustered alongside the edges of the creek. Agricultural fields and heavily grazed grassland vegetation dominate the flat valley bottom.
- Several cultural modifications are visible from the IOP and trail segments, including a gravel road, irrigation equipment, single wooden pole transmission lines, clustered ranching structures, a large cement plant, and agricultural fields.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality B, which differs from the scenic quality rating of C identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-9

- This IOP is located within Pearce Gulch, north and east of the unincorporated community of Weatherby, OR.

- The IOP represents a single trail segment that parallels Plano Road and the eastern slope of the gulch. The setting of this trail segment includes moderately enclosed views of Pearce Gulch and distant views of the Fir and Weatherby Mountains to the southwest.
- Vegetative cover adjacent to the trail segment consists of dense sage steppe and scattered evergreen trees. Higher elevations within the distant Fir and Weatherby Mountains also include fairly dense evergreen trees.
- Cultural modifications visible within this landscape are limited, and consist of a gravel road (Plano Road).
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-10

- This IOP is located along Sisley Creek, north and east of the unincorporated community of Weatherby, OR.
- The IOP represents three trail segments that parallel Sisley Creek south of Gold Cliff Gulch.
- One segment follows the alignment of Sisley Road, while the others run parallel to the road at a higher grade within the Sisley Creek valley.
- The setting of these trail segments includes strongly enclosed views of the Sisley Creek valley which is surrounded by rounded hills and mountains.
- Vegetative cover adjacent to the trail segments consists of dense sage steppe and scattered evergreen trees. Riparian vegetation is also visible from the trail segments, clustered alongside the edges of the creek.
- Cultural modifications visible within this landscape are limited, and consist of the gravel road and a transmission line comprised of single wood poles.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-11

- This IOP is located along the I-84 corridor, atop a ridge to the east of Quartz Gulch and directly across I-84 from Weatherby Mountain.
- The five trail segments that this IOP represents stretch from the community of Weatherby, OR south to Jordan Creek.
- One trail segment follows the alignment of I-84, and two others parallel the alignment of Doman Road. The remaining two trail segments traverse a steep hill and cross several drainages before reaching the Sisley Creek valley.
- The setting of the trail segments varies depending on each segment's location within the landscape.

- The setting of the trail segments in the valley bottoms includes strongly enclosed views of the Burnt River valley surrounded by steep, rounded hills and mountains.
- Cultural modifications are readily apparent from these trail segments and include I-84 and its associated facilities (signage, rock cuts, guard rail/Jersey barrier, etc.), railroad tracks, clustered ranching structures, agricultural fields, and transmission lines comprised of wooden H-frame poles.
- Views from the portions of trail that traverse over the hills and drainages are panoramic from highpoints, and enclosed within drainage bottoms.
- The setting of these trail segments includes occasional views of cultural modifications within the valley bottoms—as seen from above—but is nearly devoid of visible cultural modifications within drainages.
- Vegetative cover adjacent to the trail segments generally consists of dense sage steppe and scattered evergreen trees.
- Agricultural vegetation is also visible within the valley bottom, in addition to riparian vegetation that is clustered along the Burnt River.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-12

- This IOP is located within the Chimney Creek valley, southeast of the unincorporated community of Dixie, Oregon.
- The IOP represents four trail segments that traverse down the southern slope of the Chimney Creek valley landform, extending northward near the creek's edge.
- From the higher ground on the southern portions of the trail segments, views are moderately enclosed, generally limited by surrounding hills and the rounded mountains to the west, but also including distant focal views up and down the adjacent Burnt River Canyon.
- Views from within the Chimney Creek valley are more enclosed than the southern portions of the trail segments. Vegetative cover adjacent to the trail segments consists of dense sage steppe vegetation, transitioning to evergreen trees in the higher elevations.
- Riparian vegetation is also visible from the trail segments, clustered alongside the edges of the creek.
- Cultural modifications visible within this landscape include a gravel road (Valentine Lane), the I-84 corridor, railroad tracks, and a transmission line with wooden H-frame poles.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

IOP 3-13

- This IOP is located along the I-84/State Highway 30 corridor within Burnt River Canyon, and represents nine trail segments extending approximately from Binder Gulch north to Powel Creek.
- The six southernmost trail segments are located along the Burnt River/State Highway 30 corridor—lying between Binder Gulch and Bragg Creek.
- The three northernmost trail segments traverse the bottom of Powell Creek Canyon.
- The setting of the trail segments varies depending on these two general locations, as described below.
- The setting of the southernmost six trail segments includes strongly enclosed views to the east and west within Burnt River Canyon but also offers distant focal views down the length of the canyon to the north and south.
- Cultural modifications are readily apparent from these trail segments, including I-84/State Highway 30 and associated facilities (signage, rock cuts, guardrails, Jersey barriers, etc.), railroad tracks, gravel roads, clustered ranching structures, wood and wire fencing, and single wooden pole transmission lines.
- The setting of the northernmost trail segments includes strongly enclosed views to the north, east, and west within the Powell Creek valley but also offers distant focal views down the length of the adjacent Burnt River Valley to the south.
- Cultural modifications are not readily apparent from these trail segments, although the corridors for I-84 and the railroad are visible in the distance to the south.
- Vegetative cover adjacent to all nine of the trail segments generally consists of dense sage steppe vegetation and scattered evergreen trees.
- Riparian vegetation is also visible within the valley bottoms, clustered along the Burnt River and Powell Creek.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality B, which differs from the scenic quality rating of C identified in the FO VRI.
- This trail segment falls within a high sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Baker FO VRI.

5.1.3.2 Historic and Cultural Resources

Historic and cultural resources within the Burnt River Canyon AU include three segments of the Oregon NHT identified in Tetra Tech's 2013 RLS as the Straw Ranch I and II and Swayze Creek segments (Tetra Tech 2013). All three of these trail alignments are located either entirely or partially within an ACEC. The three trails were assigned site numbers (B2H-BA-285 [includes both Straw Ranch segments] and B2H-BA-291) and recommended eligible for inclusion in the NRHP. Additionally, a fourth segment of the trail within the Chimney Creek ACEC is identified by Tetra Tech as an NRHP-

eligible Goal 5 Resource (Tetra Tech 2013). With the exception of the Chimney Creek segment, all of these trail segments will be documented during the ILS of the project study area.

5.1.3.3 HISTORIC AND CULTURAL SETTING

The treacherous topography and dramatic change in landscape seen after traveling for such an extensive distance along the Snake River, led many emigrants to comment on their experience of the Burt River Canyon. Emigrant Peter Burnett, who traveled the Oregon Trail in 1843, noted that the Burnt River was "so named from the many fires that have occurred there, destroying considerable portions of timber." However, it is clear that extensive vegetation was nonetheless present in the canyon, as he continues: ". . . the road up this stream was then a terrible one, as the latter runs between two ranges of tall mountains through a narrow valley full of timber, which we had not the force or time to remove" (Burnett 1904:81). This description is corroborated by John C. Frémont, who notes that while

> . . . travelling was slow and fatiguing to the animals, we were delighted with the appearance of the country, which was green and refreshing after our tedious journey down the parched valley of Snake River. The mountains were covered with good bunch grass, (*festuca;*) the water of the streams was cold and pure; their bottoms were handsomely wooded with various kinds of trees; and huge and lofty and picturesque precipices were displayed where the river cut through the mountains. (Frémont 1845:176)

These precipices, while "picturesque," had to be avoided and emigrants often struggled to move their wagons up and over the hills that flanked the steep canyon walls, before ultimately bearing north across the flats toward the Virtue Hills.

Features evident today that either contribute to or detract from the historic character of the trail segments within the Burnt River Canyon AU are listed in Table 11. As with the other AUs located within the analysis area, the topography of the region and its retention of native vegetation are the predominant contributing elements of the trail segments situated within the Burnt River Canyon AU. Topography within this AU is varied, with the majority of the trail segments traversing rolling hills or narrow agricultural valleys. This dichotomy of setting is most evident at IOP 3-7 where the trail crosses gentle undulating hills along the east edge of Durkee Valley, and at IOP 3-10, where the trail trace is enclosed within a narrow valley to the south of Sisley Creek. In both of these locations, modern intrusions are largely absent; thus the setting remains characteristic of the historic period. Additionally, sage steppe and riparian vegetation, as observed at IOPs 3-8 and 3-10, was commonly noted by emigrants who traveled along the many braided routes of the Oregon Trail within Burnt River Canyon.

The most noticeable intrusion to the historic setting of the trail segments in the Burnt River Canyon AU is I-84, which runs generally northwest to southeast through the center of the AU. The I-84 corridor is visible and/or audible from nearly all of the IOPs within the AU; the only exceptions are IOPs 3-10 and 3-11, where the trail trace is either located on a ridgeline overlooking the I-84 corridor or in an enclosed valley where the highway is effectively shielded from view. Additionally, numerous transmission lines,

including several parallel alignments, are visible from eight of the 13 IOPs within the Burnt River Canyon AU.

Table 11. Inventory of Features Contributing and Non-Contributing to Historic Character of Trail Segments within the Burnt River Canyon Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Burnt River Canyon	C		A deeply incised, narrow canyon experienced as taxing on both emigrants and their draft animals.
Terrain	Blue Mountains	C		The “lofty peaks” of these mountains were described by numerous emigrants traversing the Oregon NHT as they were a constant reminder of the difficult segments of trail that they ahead.
Terrain	Iron Mountain	C		A distinctive spired butte north of Durkee, Oregon.
Hydrology	Burnt River	C		The numerous crossings along this river between miles 1552 and 1600 were commonly mentioned in emigrant accounts (Beckham 2012).
Hydrology	Dry Creek	C		IOP 3-1 is located on the west bank of this creek.
Hydrology	Sisley Creek			IOP 3-10 is located to the east of this creek. This creek served as the northern terminus of a 6-mile-long cut-off trail (commonly referred to as the Gold Hill Cutoff) which extended south to Swayze Creek.
Hydrology	Swayze Creek	C		This creek, located in the vicinity of IOP 3-8, served as the southernmost terminus of the Gold Hill Cutoff.
Circulation	I-84	NC	N	This highway and its associated infrastructure including guardrails, underpass structures, and signage, are visible from IOPs 3-3, 3-7, and 3-8. Although noise is pervasive, the interstate is only visible from the trail segments at IOPs 3-1 and 3-6.
Circulation	Oregon State Highway 30	NC	N	This 75-mile-long highway largely parallels I-84 within the inventory area.
Circulation	Durkee Cemetery Road	NC	N	This graded and graveled road leads to the ca. 1890s Durkee Cemetery, which is located to the southeast of IOP 3-6.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Circulation	Plano Road	NC	Y	This graded and graveled road follows the historic alignment of Oregon Trail at IOP 3-8.
Buildings and Structures	Union Pacific Railroad	NC	N	Tracks and signage associated with this historic railroad are visible from several IOP locations.
Buildings and Structures	Transmission lines	NC	N	Transmission lines comprised of both H-frame and single wooden pole structures are visible from six of the 13 IOPs within the Burnt River Canyon Analysis Unit. In some areas, such as at IOPs 3-4 and 3-11, more than one transmission line is present.
Buildings and Structures	Cell tower	NC	N	A cell tower and adjacent radio equipment are visible on a ridgeline overlooking the I-84 corridor at IOPs 3-3 and 3-4.
Buildings and Structures	Residential/agricultural buildings	NC	N	With the exception of IOP 3-4, which is situated within Pleasant Valley, most of the buildings and structures visible from the IOP locations exist in small clusters and are barely visible.
Buildings and Structures	Underground gas pipeline	NC	N	Markers denoting the presence of a buried gas pipeline are visible at IOPs 3-4 and 3-11.
Buildings and Structures	Cement plant	NC	N	Visible from IOP 3-8, the property's current owner, the Ash Grove Cement Company, began operations at this plant in 1979.
Vegetation	Native vegetation community	C		Includes plants mentioned in historical accounts, such as sagebrush, rabbit brush, juniper, various grasses, and evergreen trees (in higher locations). Riparian vegetation such as cottonwoods and willows are also present in locations where the trail is situated in close proximity to creeks (e.g., IOPs 3-8 and 3-10).
Small-scale features	Post and wire fencing	NC	Y	Post and wire fencing is present in the vicinities of IOPs 3-1 and 3-6.
Small-scale features	Trail markers	NC	Y	One concrete marker erected in the 20th century to identify the historic trail is located at IOP 3-8. An additional concrete marker was noted along the trail segment paralleling Oregon State Highway 30 near IOP 3-6.

Table Abbreviations: C= contributing, NC = non-contributing; IOP = inventory observation point.

A summary of the historic setting at the 13 IOP locations within the Burnt River Canyon AU is provided in Table 12. The integrity of setting within this AU has been moderately impacted by modern development, including the construction of I-84, gravel and two-track roads, fence lines, existing transmission lines, and agricultural development. Despite these modern intrusions, however, the trail segments within the Burnt River Canyon AU, and particularly those on BLM land, have strong visual values and are representative of their original historic setting. Additionally, the trail traces at many of the IOP locations have a high degree of integrity and appear virtually unchanged since their period of historic use. Although some of the segments have been impacted by erosion, the appearance of the trail and its grassy swales are as close to their historic condition as could be expected. For these reasons, the Burnt River Canyon AU retains integrity of historic setting.

Table 12. Integrity Assessment by Inventory Observation Point, Burnt River Canyon Analysis Unit

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
3-1	Located to the north of I-84 and south of Virtue Flat along the west bank of Dry Creek.	The trail is a two-track road at this IOP. The trace is enclosed by the gently sloping sidewalls of the drainage, which parallels the trail in a generally north-south trending direction. Vegetation consists predominantly of sagebrush, rabbitbrush, and grasses. Modern intrusions include the audible (not visual) presence of I-84, and two buildings located to the south-southeast of the IOP on a hill slope above the I-84 corridor.	This IOP retains integrity due to the continued use of the trail as a roadway, and the absence of any modern features.
3-2	Located within the Straw Ranch II ACEC, to the south of Virtue Flat. This location would have provided emigrants with panoramic views of the surrounding hills, Virtue Flat area to the north, and their first glimpse of the distant Blue Mountains to the northwest.	A barbed wire fence is the only cultural modification in this location. Vegetation consists predominantly of sagebrush, rabbitbrush, and grasses. The trail trace at this IOP is well-preserved and shows no evidence of being impacted by subsequent use or other modifications.	Due to its lack of modern intrusions and retention of native vegetation, this IOP retains its integrity of historic setting in all directions.
3-3	Located within rolling sage steppe hills to the north of I-84 and west of Dogtown Creek.	I-84 (including an underpass structure), two transmission lines, and a cluster of radio/communications towers are intrusive to the historic setting at this location. The transmission lines and radio/communication towers are within the I-84 corridor, which is located approximately 1,705 feet (0.35 mile) to the north. A trail trace was not evident in this location.	Integrity of historic setting at this IOP has been diminished to the east-northeast by the construction of I-84 and development associated with power transmission/ communications. Integrity of the viewshed to the west, however, is retained.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
3-4	Located directly east of I-84 and Oregon State Highway 30. The small unincorporated community of Pleasant Valley is located to the southeast. Although a post office wasn't established there until 1868, the community served as a way station on the Toll Place Road as early as 1865, and was also settled by Oregon Trail emigrants who farmed the area.	Circulation features including I-84, State Highway 30, and several graded and graveled roads are prominent intrusions to the historic setting at this IOP. Other inclusions include tailings piles associated with mining activity to the north; the Union Pacific Railroad, which parallels the current alignment of I-84; two transmission lines to the north and south; and numerous buildings situated within the community of Pleasant Valley to the northwest. Additionally, a temporary building and staging/gravel storage area for the Oregon Department of Transportation is located 1,745 feet (0.3 mile) to the southeast.	This IOP has lost integrity due to prominent modern circulation features and development associated with mining and energy transmission.
3-5	Located south of Virtue Flat within the Straw Ranch I ACEC. This location would have provided emigrants with panoramic views of the surrounding hills, Virtue Flat area to the north, and the distant Blue Mountains to the northwest.	This IOP has several sets of trail ruts which are in excellent condition. Lindsay and Lookout Mountains are visible in the distance to the southwest and east respectively, and the relatively flat topography of Virtue Flat is visible to the north. Intrusions include an H-frame transmission line 0.1 miles north, an H-frame transmission line 0.4 miles south, a ranching complex, and a barbed wire fence. A concrete marker is present along the trail trace and immediately southwest of the IOP.	Integrity of historic setting to the west and east of the IOP is diminished due to development associated with energy transmission, vehicular noise from I-84, and visible ranching complex. Integrity is retained to the north and south, however, as these features are screened from view.
3-6	Located within an enclosed valley to the west of Prichard Creek. There are three braids of trail here, all of which generally parallel I-84 and Oregon State Highway 30. The gently rolling slopes of the valley created opportunities for multiple alignments.	This IOP is located adjacent to a rocky outcrop in an area where two trail braids purportedly intersect. However, no trail traces are evident. Prominent intrusions include State Highway 30 and Durkee Cemetery Road, both of which are graded and graveled. Limited agricultural development comprised of temporary equipment storage, tanks, and fences is also visible to the southwest.	This IOP retains integrity of historic setting to the east, north, and west. Although I-84 is audible, the east-west trending road is not visible from this location. Integrity of setting to the south has been diminished by agricultural development.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
3-7	Located north of Durkee Creek along the eastern edge of Durkee Valley. Three braids of trail are located here, all of which parallel I-84 to the east. The undulating hills at this IOP allowed for numerous paths of travel.	This IOP, located approximately 0.18 mile east of I-84, is surrounded by gentle, undulating hills in all directions, except to the north, where the steep peaks of Iron Mountain are visible. The trail in this location is a gravel two-track road that follows a shallow east-west trending gulch. An H-frame transmission line is sited approximately 0.08 mile east of the trail and parallels its general alignment.	This IOP retains its integrity of historic setting to the north and west due to the absence of any modern features. Integrity is diminished to the south and east, however, by views of the transmission line and I-84 travel corridor.
3-8	Located approximately 0.08 mile north of Swayze Creek along the northern shoulder of Plano Road. The lush vegetation surrounding the creek and the relatively level terrain would have likely served as a respite for emigrants traveling this section of the trail before entering the Burnt River Valley at Durkee.	The trail in this location follows the improved and maintained alignment of Plano Road, although intact and well-preserved wagon ruts pass over the adjacent hills on private land. A concrete trail marker marks the location of the trail along the shoulder of the road. The flat valley bottom in this location is currently dominated by agricultural fields and heavily-grazed grasslands. Prominent intrusions include I-84 and a large cement plant, as well as two predominantly north-south trending transmission lines.	This IOP retains integrity of its historic setting to the north, south, and east, where the only visible intrusions are Plano Road, a fence line, and agricultural fields. Integrity is lost to the west due to prominent and modern industrial and circulation features, and energy transmission structures.
3-9	Located along Plano Road north of Weatherby within sage steppe hills.	The graded, gravel alignment of Plano Road to the southwest and a distant communication tower to the southeast are the only modern intrusions at this IOP location. A potential trail trace, running east-west across a natural drainage and Pearce Creek was identified; however, the alignment of the trail, as shown in the Tetra Tech GIS data, was not found here.	This IOP retains its integrity of historic setting due to its remote location and lack of modern intrusions.
3-10	Located along the east bank of Sisley Creek and to the south of Gold Cliff Gulch. The unincorporated community of Weatherby, founded by area's first postmaster Andrew J. Weatherby in 1879, is located to the southwest.	The trail follows the graded, graveled alignment of Plano Road in this location. A transmission line comprised of single wooden pole structures is the only modern intrusion.	Integrity of historic setting is retained in all cardinal directions at this IOP, as its location within a canyon effectively screens all modern intrusions from view.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
3-11	Situated to the east of Quartz Gulch on a ridgeline overlooking the I-84 travel corridor.	Although the trail trace is not evident at this location, the area retains its native sage steppe vegetation and panoramic views of the surrounding hills and mountain ranges. I-84 and two parallel transmission lines are the only intrusions to the historic setting in this location.	This IOP has diminished integrity to the south and west, where both east-west trending transmission lines are visible. Integrity is retained, however, to the north and east due to the absence of any modern features.
3-12	Located within the Chimney Creek ACEC to the west of I-84 within the foothills of Lookout Mountain; Chimney Creek, a predominantly east-west trending drainage, is located approximately 0.06 mile to the north. The low rolling hills at this IOP allowed for multiple paths for travel.	Vegetation within the trail corridor is dominated by grasses, compared to the sage steppe vegetation on the adjacent hills. Lookout Mountain is visible to north. Modern intrusions consist of I-84, the Union Pacific Railroad, and an existing transmission line to the northwest. The trail in this location is well-preserved and has visible swales.	This IOP has diminished integrity to the northwest due to prominent circulation features (e.g., I-84, Lookout Mountain Road, and the Union Pacific Railroad tracks) and an existing transmission line paralleling the I-84 travel corridor. However, integrity of historic setting is retained to the north, east, and south.
3-13	Located along the eastern shoulder of Oregon State Highway 30/ Oregon Trail Boulevard approximately 3 miles northwest of the city of Huntington.	Circulation features including I-84 and State Highway 30, and a bladed road are prominent intrusions to the historic setting at this IOP. Other inclusions include the Union Pacific Railroad, which parallels the current alignment of I-84; two north-south trending transmission lines and an associated substation to the north; and an abandoned cement plant to the northwest near the unincorporated community of Lime.	This IOP has lost integrity due to prominent modern circulation features and development associated with energy transmission and industrial facilities.

Table Abbreviations: ACEC= area of critical environmental concern; I-84 = Interstate 84; IOP = inventory observation point.

5.1.3.4 Recreation and Transportation Management Opportunities

The *Baker RMP* establishes the Oregon NHT ACEC and the NHOTIC to protect trail settings. There is no ROS characterization for this area of BLM-managed lands. The Straw Ranch I ACEC is situated in the Burnt River Canyon AU, but is not accessible to the public due to adjacent private property. The ACEC has special requirements which (1) prohibit uses incompatible with maintaining visual qualities or public interpretation within a 0.5-mile buffer of the trail corridor; (2) prohibit the development of campgrounds within 0.25 mile of the Oregon Trail; (3) prohibit the construction of new roads; and (4) restrict OHV usage to designated roads and trails (Oman 1989). Due to the mixed private-public ownership and steep terrain, many public parcels of the Oregon NHT in the Burnt River AU have little or no public access by vehicle. Easily accessible trail segments located on BLM land follow developed roads such as State Highway 30 (also known as the Old Oregon Trail State Highway) and Sisley Creek Road.

Recreation in the Burnt River AU is generally dispersed in nature. There are no developed recreation sites, with the exception of some trail markers and interpretive signage for the Oregon NHT. Recreation activities in the area generally include those typical of dispersed recreation areas, including hiking, biking, horseback riding, OHV use, sightseeing, fishing, hunting, picnicking, wildlife viewing, and dispersed camping.

5.1.4 Alkali Springs/Tub Mountain Analysis Unit (Oregon)

The Alkali Springs/Tub Mountain AU is located on the eastern border of Oregon in Malheur County. The unit spans an area roughly 20 miles in length, from Vale, Oregon near the Malheur River, to Birch Creek west of Farewell Bend. The trail passes through a rolling terrain covered in sagebrush and rabbitbrush and was historically considered to be a readily passable road in this location. Alkali Springs represented the first water emigrants reached, some ten miles, after leaving the Malheur River. The Tub Mountain Springs are located 1.5 miles to the north of Alkali, and after leaving these springs emigrants had to travel another 10 miles to reach water at Birch Creek. The springs, as indicated by their name, were alkaline in nature and were commonly referred to as “sulphur springs” by emigrants. The water was noted as brackish and those with sufficient water often avoided drinking it. However, the water was of sufficient quality for herds of livestock to use as watering holes. Alkali poisoning was a risk factor and ox and cattle who were weakened by the travel could easily succumb; thus a number of accounts exist regarding hardship and the sight of dead livestock along this portion of the trail. This area served as a resting point en route to Birch Creek where the formally established campground of Willow Springs was located. Upon reaching the Willow Springs camp, emigrants found good water as well as abundant grasses for their livestock.

Encompassing approximately 127,822 acres of public and private land to the north of Vale, the Alkali Springs/Tub Mountain AU consists of approximately 27.8 miles of the congressionally designated route of the Oregon NHT (see Table 2, Figure 7, and Figure 8). Another 70.6 miles of trail, consisting predominantly of trail braids paralleling the congressionally designated route, are also present within this AU. Six braids of trail segments extend from Farewell Bend on the Snake River southwest to Birch Creek. Only three of these trail braids cross Birch Creek and extend southwest to the Willow Springs Campground. The three parallel segments then follow a southern alignment along low rolling hills passing Tub Springs, an important historical site where the BLM has placed an interpretive panel for public education. To the south of Tub Springs, three additional trail ILSs split off to the southwest while the remaining three track to the southeast before curving back to the southwest to rejoin the other three trail alignments. Alkali Springs is present along the three trail braids which extend to the southeast. The site of this spring was often noted by emigrants and BLM has placed an interpretive panel at this location. The two sets of parallel segments converge to the northeast of the agricultural valley surrounding Willow Spring. Three segments continue on a southeastern trajectory hugging the foothills adjacent to the valley to the east. Within this AU, the trail crosses BLM land in approximately ten locations. The length of the trail segments within these locations vary with the shortest segment, located to the northeast of Willow Spring Campground measuring 73 feet, and the longest, extending between an area south of Willow Spring Campground and Tub Springs, spanning 6.5 miles. The setting

of the trail segments within this AU is characterized by nine IOP locations (IOPs 4-1 through 4-10) which are discussed in further detail below.

5.1.4.1 VISUAL RESOURCES

Within the Alkali Springs/Tub Mountain AU, trail segments on BLM lands are located within landscapes dominated by rolling sage steppe hills. The landscapes surrounding these trail segments are generally panoramic, with open views of rolling sage steppe, flat agricultural valleys, and distant steep, rounded mountains. A moderate sense of enclosure experienced from the trail segments occurs in the northern half of the AU where trail segments are located on valley bottoms. Views in the southern half of the AU are panoramic and overlook Willow Creek. The sagebrush vegetation includes shades of sage green and gray, while grassland vegetation varies seasonally from bright green to straw color. Agricultural vegetation likewise varies seasonally from bright green to straw color, and includes bright to medium green deciduous trees that are clustered around agricultural structures. Landform colors are not generally visible through the dense vegetative cover, but beige and medium brown colors of soil and rock are occasionally visible. Cultural modifications visible from these trail segments vary within the AU, and are discussed below for each IOP. The Alkali Springs/Tub Mountain AU falls within VRM Classes II, III, and IV.

The trail segments on BLM-managed lands occur intermittently throughout the AU, with continuous segments occurring west of Tub Mountain for approximately 6.5 miles. Unless noted otherwise, the visual quality ratings identified in the FO VRI would be consistent with the IOP-specific visual quality ratings identified through field inventory for this AU.

IOP 4-1

- This IOP is located within the rolling sage steppe hills in the vicinity of Birch Creek and McBride Reservoir.
- The IOP represents seven trail segments that follow two general routes.
- The first route generally parallels Birch Creek and includes two short trail segments.
- The five remaining trail segments extend north from Birch Creek and traverse gently rolling sage steppe hills to the west of McBride Reservoir.
- The setting of the trail segments along Birch Creek is dominated by views of the Birch Creek drainage, while the setting of the trail segments west of McBride Reservoir is dominated by views of softly rolling sage steppe hills.
- Both setting include distant views of the steeply rolling Blue Mountain range to the northeast. Vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within view.
- These areas possess sparse development, including cultural modifications such as wooden and wire fences, clustered ranch buildings and structures, single wooden pole transmission lines, and gravel and dirt roads.

- Moderate visual contrast results from the presence of pipeline corridors at 0.2 miles away, an H-frame transmission line at 0.4 miles away, and a silver cell tower at 0.75 miles away, as well as distant wind towers in the Blue Mountains.
- This trail segment falls within a low sensitivity level rating, the seldom seen visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall primarily within VRM Class II, although portions of the trail also fall within VRM Class III.

IOP 4-2

- This IOP is located within the rolling sage steppe hills adjacent to Love Reservoir.
- The IOP captures the experience along multiple braided trail segments that traverse the north edge of the reservoir across Willow Creek, towards the rolling hills south of Birch Creek.
- The setting of the segments is dominated by moderately enclosed views of nearby hills and Love Reservoir, although views become open and panoramic from atop the rolling hill south of Birch Creek.
- Vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within view.
- Riparian vegetation is also visible within the drainages and along the edges of the reservoir.
- The visual quality rating for this IOP's viewshed was identified through field review as scenic quality B, which differs from the scenic quality rating of C identified in the FO VRI.
- Cultural modifications within these areas are fairly limited, consisting primarily of gravel and dirt roads.
- This trail segment falls within a low sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall primarily within VRM Class IV, although the northernmost segment falls within VRM Class III.

IOP 4-3

- This IOP is located within the rolling sage steppe hills to the east of Bierman Spring.
- The IOP represents six trail segments that closely parallel one another through a drainage that runs north and then northeast toward Love Reservoir.
- Because the trail segments follow the drainage, the setting of the segments is dominated by moderately enclosed views of nearby hills.
- Vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within view.
- Cultural modifications within these areas are fairly limited, consisting primarily of gravel and dirt roads.

- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall primarily within VRM Class II, although the northern three segments are within VRM Class IV.

IOP 4-4

- This IOP is located within the rolling and undulating hills northwest of Tub Mountain.
- The IOP represents three trail segments that closely parallel one another northward through a hollow surrounded by hills and small badland formations.
- The setting of the trail segments is dominated by moderately enclosed views, and vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within view.
- Cultural modifications within these areas are fairly limited, consisting primarily of gravel and dirt roads. White trail/road markers are visible along the route, as are wind towers in the distant Blue Mountains.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class II.

IOP 4-5

- This IOP is located within the rolling hills in the vicinity of Tub Mountain Reservoir.
- The IOP represents views from a fenced enclosure containing Class I trail segments that closely parallel one another across an elevated landform adjacent to Tub Mountain.
- Surrounding landforms are comprised of rolling hills and small pockets of badland formations.
- The setting of the trail segments is dominated by fairly open, panoramic views, with distant views of steeply rounded mountains.
- A portion of the Malheur River valley is also visible to the southwest from the southern portions of the trail segments.
- Vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within the viewshed.
- Agricultural fields are also visible in the distance. Cultural modifications within these areas are fairly limited, consisting primarily of dirt roads.
- Wind towers are visible to the north in the distant Blue Mountains, and agricultural development can be seen in the distance to the southwest.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class II.

IOP 4-6

- This IOP is located east of the West Tub Mountain Reservoir, within a vast expanse of rolling hills near the southwest base of Tub Mountain.
- The IOP represents three trail segments that closely parallel one another as they climb northward toward a highpoint west of Tub Mountain.
- Surrounding landforms are generally comprised of rolling hills.
- The rounded, flat-topped Tub Mountain formation is visible to the northwest of the trail segments, and the view includes dark brown to black basalt rock outcroppings and scree slopes.
- The setting of the trail segments is dominated by fairly open, panoramic views, with distant views of steeply rounded hills and mountains, as well as a portion of the valley to the southwest.
- Vegetative cover adjacent to the trail segments is consistent with the dense sage steppe vegetation that covers nearly all landforms within the viewshed.
- Agricultural fields are also visible in the distant Malheur River valley.
- Cultural modifications within this area are fairly limited, consisting primarily of dirt roads. A communication structure is visible 5.25 miles in the distance to the south atop a rounded hill, and agricultural development to the southwest can be seen in the distance.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class II.

IOP 4-7

- This IOP is located at the Sulphur Springs/Tub Springs Interpretive Site, within a vast expanse of rolling hills south and west of Tub Mountain.
- The IOP represents three trail segments that closely parallel one another as they climb out of Alkali Flats to the north.
- Surrounding landforms are generally comprised of rolling hills with patches of white to light gray/brown soils.
- The rounded, flat-topped Tub Mountain formation is visible to the northwest of the trail segments, and includes dark brown to black basalt rock outcroppings and scree slopes.
- The setting of the trail segments is dominated by weakly enclosed views, with open, panoramic views limited to the south.
- Distant views to the south include steeply rounded hills and mountains.
- Vegetative cover adjacent to the trail segments is consistent with the sage steppe vegetation that covers nearly all landforms within the viewshed.
- Cultural modifications within this area are fairly limited, consisting primarily of dirt roads and wire/T-post fences.

- A communication structure is visible in the distance to the south atop a rounded hill.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class II.

IOP 4-8

- This IOP is located at the Alkali Springs Interpretive Site, within an expanse of rolling hills south of Tub Mountain.
- The IOP represents three trail segments that closely parallel one another as they turn from the west to the north within the Alkali Flats landform.
- Surrounding landforms are generally comprised of rolling hills with patches of white to light gray/brown soils; landforms to the southeast include steeply rolling hills.
- The setting of the trail segments is dominated by panoramic to weakly enclosed views.
- Vegetative cover adjacent to the trail segments is consistent with the sage steppe vegetation that covers nearly all landforms within view.
- Cultural modifications within this area are fairly limited, consisting primarily of dirt roads and wooden and wire fences.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class II.

IOP 4-9

- This IOP is located at the northern edge of the Malheur River valley, where the flat valley bottom begins to transition to rolling hills.
- The IOP represents three trail segments that generally parallel one another near the base of the rolling hills.
- Landforms to the east of the trail segments consist of rolling hills with patches of white to light gray/brown soils, while the land to the west of the segments consists of flat valley bottom and distant rounded mountains.
- The setting of the trail segments is dominated by panoramic views across the valley. Vegetative cover adjacent to the trail segments includes heavily grazed sage steppe vegetation with considerable amounts of bare earth.
- Within the valley bottom, agricultural fields are dominant, along with clustered deciduous trees near ranching structures.
- Because this trail segment occurs at the edge of a developed agricultural valley, cultural modifications are readily visible.

- These modifications include gravel roads, fences, clustered agricultural structures and fields, and utility poles and lines.
- This trail segment falls within a low sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class III.

IOP 4-10

- This IOP is located at the northern edge of the Malheur River valley, where the flat valley bottom begins to transition to rolling hills.
- The IOP represents three trail segments that generally parallel one another near the base of the rolling hills.
- Landforms to the east of the trail segments consist of rolling hills with patches of white to light gray/brown soils, while the land to the west of the segments consists of flat valley bottom and distant rounded mountains.
- The setting of the trail segments is dominated by panoramic views across the valley.
- Vegetative cover adjacent to the trail segments includes heavily grazed sage steppe vegetation with considerable amounts of bare earth.
- Within the valley bottom, agricultural fields are dominant, along with clustered deciduous trees near ranching structures.
- Because this trail segment occurs at the edge of a developed agricultural valley, cultural modifications are readily visible.
- These modifications include gravel roads, fences, clustered agricultural structures and fields, and utility poles and lines.
- This trail segment falls within a low sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class IV, as identified in the Malheur FO VRI.
- The IOP and associated trail segments fall within VRM Class III.

5.1.4.2 Historic and Cultural Resources

Historic and cultural resources within the Tub Mountain/Alkali Springs AU include three discontinuous alignments of the Oregon NHT known as the Birch Creek, Alkali Springs, and Tub Mountain segments (Tetra Tech 2013). All three of these segments are located entirely within ACECs and were assigned site numbers (B2H-MA-042, B2H-MA-10, and B2H-MA-041) during the 2013 RLS of the inventory area (Tetra Tech 2013). Additionally, the Alkali Springs segment is considered to be a HPRSEG (no. 7) by the NPS, as the springs for which the route is named were the only water source for emigrants traveling the 22-mile stretch of trail between the Malheur River and Birch Creek (NPS 1999:286). This segment, as defined by the NPS CMUP (1999:286), begins 6 miles north of the present-day community of Vale, Oregon and extends north to a former emigrant camp site at Willow Springs. Portions of all three of

these segments are recommended eligible for listing in the NRHP and will be documented further during the ILS.

5.1.4.3 Historic and Cultural Setting

Emigrants traveling along the Alkali Springs/Tub Mountain route of the Oregon Trail found a landscape between the Malheur River and Birch Creek which was sandy and largely comprised of sagebrush. Two small alkali springs were present, roughly halfway between these waterways, and at times, grasses could be found there. Emigrant Martha Reed's 1852 description of the route stated, ". . . went 12 miles to the sulphur springs. Our teams drank the water very well. Campt [*sic*] 1/2 mile from the spring. Found pretty good grass. Found a level road today but deep sand as usual" (Holmes and Duniway 1997:242).Cecilia Adams and Parthenia Blank, in a separate account, noted: "to day [sic] traveled over a smooth level road for about 15 miles when we came to a sulphur spring. Here we watered our cattle but did not find much grass. Country very poor-Nothing but sage and grease wood - From the spring we began to ascend hills and the country began to improve" (Holmes and Duniway 1997:297). In 1852, emigrant Elizabeth Jane Scott described the journey from the Malheur River to Birch Creek observing that the land through the dry branch of the Malheur was covered in grass; however, she noted that after "leaving this bottom we struck sand hills and traveled through a very dusty ravine until ten o'clock when we reached the before mentioned spring and encamped. . . . The water of these springs is not very palatable, it being strongly impregnated with Sulphur" (Scott 1852:114-115). It was another ten miles to reach Birch Creek where Scott stated "there are several good springs at the head of this stream which is a small one, it heads near the road" (Scott 1852:115). Each of these accounts notes that livestock were watered at the springs; however, it is clear that emigrants were also often forced to drink the water, as Martha Reed's travel log noted that the group had taken ill after drinking it (Holmes and Duniway 1997:242).

Contributing and non-contributing features of the Tub Mountain/Alkali Springs AU which are evident today are listed in Table 13. The area's topography, which in many cases afforded expansive views, vegetation, and access to hydrological features, are the dominant contributing elements of the AU; the setting of which is, for the most part, unchanged and is therefore characteristic of the historic period. Evidence of significant landscape features can be seen at IOP 4-3 where the trail segment is located on low, rolling sage covered hills and views of distant mountains to the north, south, and west provide a sense of vast openness. The trail segment at IOP 4-5 also offers expansive views of the distant Blue Mountains to the north, which would have served as a key topographical landmark for the emigrants' journey. While vegetation at the majority of segments of trail within the Tub Mountain/Alkali Springs AU consists of sage brush, rabbit brush, and grasses, the hydrological features of Tub Springs, Alkali Springs, and Birch Creek provided contrasting riparian vegetation in the form of cattails, grasses, and birch trees.

Table 13. Inventory of Contributing and Non-Contributing Features to the Historic Character of the Tub Mountain/Alkali Springs Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Blue Mountains	C		The Blue Mountains are visible in the distance to the north from IOPs 4-1, 4-3, 4-4, and 4-5.
Terrain	Tub Mountain	C		Tub Mountain, which gave name to the nearby Tub Springs, is visible from IOP 4-7.
Hydrology	McBride Reservoir	NC	Y	The McBride Reservoir is located to the north of IOP 4-1 and has limited visibility.
Hydrology	Birch Creek	C		This creek was a noted landmark in emigrant accounts describing this section of Oregon Trail. Although located between IOPs 4-1 and 4-2, the creek is not visible from these points.
Hydrology	Tub Springs	C		Referred to more broadly as “Sulphur Springs” by emigrants, Tub Springs is located to the west of IOP 4-7. Water from these springs was historically used to water livestock, many of which later died after drinking it.
Hydrology	Alkali Springs	C		Referred to more broadly as “Sulphur Springs” by emigrants, Alkali Springs is located to the west of IOP 4-8. Water from these springs was historically used to water livestock, many of which later died after drinking it.
Hydrology	Malheur River	C		Although not visible from any of the IOPs, the river forms the southernmost boundary of the AU and was consistently mentioned in historic emigrant accounts.
Circulation	State Highway 26	NC	N	This road is in close proximity to the trail segments visible to the west at IOPs 4-9 and 4-10, but is not visible.
Circulation	State Highway 30 (Old Oregon Trail State Highway)	NC	N	This graded gravel road, which follows the original route of the Oregon Trail in some locations, parallels IOPs 4-2 through 4-10.
Circulation	Lockett Road/turnout	NC	Y	This graded, gravel road is located adjacent to IOP 4-1. The road has a turnout/parking area for access to an interpretative panel that describes the trail’s history.
Buildings and structures	Wind turbines	NC	N	Wind turbines on the ridgeline of distant mountain to the north are visible from IOP 4-1, 4-4, and 4-5.
Buildings and structures	Transmission lines	NC	N	An H-frame transmission line is visible to the east and northeast of IOP 4-1.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Buildings and structures	Cell tower	NC	N	A cell tower is visible on a hilltop to the northeast of IOP 4-1.
Buildings and structures	Residential/ agricultural buildings	NC	N	Small clusters of residential buildings are visible from numerous IOP locations within this AU, including IOPs 4-1, 4-9, and 4-10. IOP 4-1.
Buildings and structures	Stock corral	NC	Y	A wood frame stock corral is located to the northwest of IOP 4-8.
Vegetation	Native vegetation community	C		Includes plants mentioned in historical accounts, such as sagebrush, rabbitbrush, and various grasses. In the areas along Birch Creek, such as that represented at IOP 4-1, riparian vegetation including cottonwoods and willows are also present.
Vegetation	Agricultural fields	N	N	Agricultural fields are present to the west of the trail segments at IOPs 4-6, 4-9, and 4-10.
Small-scale features	Post and wire fencing	NC	Y	Post and wire fencing is visible at numerous IOP locations, including IOPs 4-1, 4-5, 4-7, 4-8, 4-9, and 4-10. In some areas, these fence lines delineate BLM and private lands.
Small-scale features	Interpretive panel	NC	N	An interpretive panel commemorating the Oregon Trail is located at IOP 4-1. Additional panels located at Alkali and Tub Springs note emigrant accounts of passing these two “sulphur springs.”
Small-scale features	Trail markers	NC	Y	Concrete markers erected in the 20th century to identify the historic trail are located at IOPs 4-1 and 4-4 through 4-6.

Table Abbreviations: C= contributing, NC = non-contributing; IOP = inventory observation point.

In comparison to the contributing features to the Tub Mountain/Alkali Springs AU, the most noticeable human-related intrusions to the historic setting of the trail segments include the energy-generating wind turbines on the Blue Mountains, which are visible from IOPs 4-1, 4-4, and 4-5, as well as the modern development of agricultural land to the south and west of IOPs 4-6, 4-9, and 4-10.Graded gravel roads are present at all ten IOPs, and it is possible that many of these follow portions of the original alignment of the Oregon Trail. Small-scale features such as post and wire fencing are considered to have minimal impact upon the landscape.

A summary of the historic setting at the ten IOP locations within the Tub Mountain/Alkali Springs AU is provided in Table 14. The integrity of setting within the Tub Mountain/Alkali Springs AU has been moderately impacted by modern development, including the construction of wind turbines, gravel and two-track roads, fence lines, and existing transmission lines, as well as agriculture. Despite these modern intrusions, however, the trail segments within the Tub Mountain/Alkali Springs AU, and

particularly those on BLM land, have strong visual values and are representative of their original historic setting. As such, the Tub Mountain/Alkali Springs AU retains integrity of historic setting.

Table 14. Integrity Assessment by Inventory Observation Point, Tub Mountain/Alkali Springs Analysis Unit

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
4-1	Located to the north and west of Birch Creek and south of McBride Reservoir along an elevated sage steppe hill. There are multiple braids of trail in this location which cross Birch Creek before intersecting with the Snake River. Birch Creek is often noted resting stop along the Oregon Trail where emigrants took advantage of fresh water after traveling along the trail for 10 miles with no potable water other than the two springs (Tub Springs and Alkali Springs).	The trail consists of earthen ruts at this IOP. The trace is located along the top of the hill following a north-south trending direction. Vegetation consists predominantly of sagebrush, rabbitbrush, and grasses. Modern intrusions include the graded gravel Lockett Road (with turnout/parking loop), a transmission line, cell tower, wind turbines, fencing, an adjacent trail marker and interpretive panel, and two buildings.	Integrity of historic setting at this IOP has been diminished to the northeast by the construction of power transmission/communications structures. Integrity of setting to the south has diminished by the construction of two residential buildings and modern fencing. Integrity to the west-northwest, however, is retained.
4-2	Located within rolling sage steppe hills approximately 1.2 miles to the southwest of Love Reservoir.	The trail in this location is a graded, gravel road. With the exception of the reservoir itself, several fences, and a distant wind farm that is intermittently visible from access roads in the vicinity, there are no modifications at this IOP.	This IOP retains integrity of setting in all directions due to its remote location and lack of modern intrusions.
4-3	Located within rolling sage steppe hills to the east of Bierman Spring. The trail in this location consists of three parallel braids located within natural drainages.	The IOP in this location is adjacent to a graded, gravel road. The improved road may be the original trail alignment, as no other trail trace is evident. The graded road is the only modern intrusion in the setting of the landscape.	This IOP retains integrity of setting due to the minimal intrusion of modern features.
4-4	The IOP is located to the northwest of Tub Mountain in a series of rolling hills. Three parallel alignments of the trail are present in the vicinity of this IOP.	The IOP is adjacent to a graded, gravel road which may be an original trail alignment. A narrow depression to the east of the road could be indicative of the historic trail, but its width suggests that it is a modern cattle trail. Modern intrusions at this IOP consist of the graded road as well as six wind turbines located on the ridgeline to the north. The turbines, although a considerable distance away, are readily visible.	The IOP retains integrity of setting to the east, west, and south. Integrity of setting to the north has been diminished by wind farm development.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
4-5	This IOP is located to the west of Tub Mountain and southeast of Tub Mountain Reservoir in an area of rolling sagebrush hills. Three parallel trail segments are present in this location.	The trail segment at this IOP has been classified as a Class I segment and has been fenced by BLM to protect its prominent earthen ruts. A single modern intrusion is present within the landscape and consists of six wind turbines located on the ridgeline of a distant mountain to the north. Although a considerable distance away, the turbines are visible from this location.	This IOP retains integrity of setting to the east, west, and south due to the well-preserved trail ruts and lack of modern intrusions. Integrity of setting to the north, however, has been diminished by the wind farm, which is visible on a distant ridgeline.
4-6	This IOP is located to the southwest of Tub Mountain and to the east of West Tub Mountain Reservoir within rolling sagebrush hills. Tub Mountain, with its dark brown to black basalt rock outcroppings would have likely been a prominent geographical way finding point. Three parallel historic trail segments are located in the area.	The IOP is adjacent to a graded gravel road which may be an original trail alignment. A narrow depression to the east of the road could be indicative of the historic trail, but its narrow width suggests that it is a modern cattle trail. Native vegetation consists of dense sage and rabbitbrush. Agricultural fields are present to the southwest of the IOP and a cell tower is located on a distant mountain to the southeast.	Integrity of setting is retained to the north, south, and east as few modern modifications are visible. Integrity of setting has been diminished to the southwest by the development of agricultural fields.
4-7	The IOP is located at Tub Springs, which historically was one of two springs referred to by emigrants as the “sulphur springs.” The springs were a stopping point between water at the Malheur River and Birch Creek. Due to the alkalinity of the water, the spring predominantly served as a watering hole for livestock.	The IOP is adjacent to a graded road and an interpretive panel which provides emigrant accounts of the spring. Native vegetation is consistent with the sage steppe vegetation that covers nearly all landforms within view, with spring-fed wetlands in the valley bottoms. The graded, gravel road may represent one of these alignments, and an additional trail trace is evident to the northeast of the gravel road. The only modern intrusion, in addition to the interpretive panel, includes post and wire fencing which surrounds the spring.	Integrity of setting is retained to the east. Integrity of setting to the north, south, and west has been minimally impacted by the graded road and the fence to the west.

IOP Number	Historic Character	Existing Condition	Historic Setting Integrity
4-8	This IOP is located to the east of Alkali Springs, one of two springs historically referred to by emigrants as the "sulphur springs." The springs served as a resting point between available water at the Malheur River and Birch Creek. Due to the alkalinity of the water, emigrants with adequate drinking water used the spring predominantly to water livestock.	The IOP is adjacent to a graded road and interpretive panel describing emigrants' accounts of the spring. Native vegetation is consistent with the sage steppe vegetation that covers nearly all landforms within view, with spring-fed wetlands in the valley bottoms. The graded gravel road may represent one of these alignments, as no other trace is evident. Modern intrusions include the wire and wood post fence surrounding a wetland area with cattail growth. A metal stock corral is present to the north of the IOP and an isolated single building is located to the east of the IOP.	Integrity of setting is retained to the east. Integrity of setting to the north and south has been minimally impacted by the graded road. Integrity of setting has also been diminished to the northwest and west by construction of the modern stock corral structure, post and wire fencing, and isolated building.
4-9	This IOP is located at the eastern edge of the flat bottomed agricultural valley where Willow Creek flows. At this location the topography shifts to rolling hills. This IOP is located north of the Malheur River, which historically provided water for emigrants along the Oregon Trail.	The IOP is adjacent to a graded gravel road which may be an original trail alignment. No other trail trace is evident. Modern intrusions at this IOP consist of the graded road as well as agricultural fields to the west and south, and clusters of buildings to the west, southwest, and south. A post and wire fence line follows the western edge of the gravel road and an additional fence is located to the east of the IOP.	The IOP retains integrity of setting to the north. Integrity of setting to the west and south has been diminished by the development of agricultural fields and clusters of residential and agricultural buildings. Integrity of setting to the east has been minimally impacted by the installation of a post and wire fence.
4-10	This IOP is located near the eastern edge of the flat bottomed agricultural valley where Willow Creek flows south toward the Malheur River. The topography in this location shifts to rolling hills. Emigrants gave many accounts of the travel between the Malheur River and the "sulphur springs," noting the shift to rolling sage steppe hills.	The IOP is adjacent to a two-track road which may be an original trail alignment. The two-track road intersects with a graded road to the north. A narrow depression to the east of the road could be indicative of a historic trail alignment, but its narrow width suggests that it could also be a cattle trail. Native vegetation consists of dense sage and rabbitbrush. Agricultural fields are present to the west and southwest of the IOP. A cluster of residential and agricultural buildings is present to the west of the IOP and a single building is located to the southwest. Post and wire fence lines are present along both sides of the two-track road.	The IOP retains integrity of setting to the east. Integrity of setting to the north, west, and east has been impacted by the construction of roads and fences, agricultural development, and clusters of residential and agricultural buildings.

Table Abbreviations: IOP = inventory observation point.

5.1.4.4 Recreation and Transportation Management Opportunities

The majority of the Oregon NHT segments on BLM land in the Alkali Springs/Tub Mountain AU are located within the Oregon Trail ACEC and SRMA. Along these segments, visitors have the opportunity to follow the trail for 12 continuous miles on BLM backcountry roads (BLM, *Southeastern Oregon RMP*, 2002. The purpose of the Oregon Trail SRMA is to emphasize public education and enjoyment of the trail and its setting while protecting important cultural resource values. The RMP designates the Oregon NHT within the Oregon Trail SRMA as "semi-primitive motorized" and "roaded natural" ROS classes. The term "semi-primitive motorized" is defined as natural or natural-appearing with low user interaction whereas "roaded natural" is described as predominantly natural-appearing with moderate evidence of humans where opportunities for motorized and non-motorized recreation are available (BLM, *Southeastern Oregon RMP*, 2002). Approved activities within the Oregon Trail SRMA include boating, motor biking, specialized land-craft use, mountain climbing, driving for pleasure, camping, and picnicking. Recreation activities identified in the RMP also include hiking, horseback riding, biking, OHV use, hunting, fishing, sightseeing, wildlife viewing, and dispersed camping.

The two interpretive sites—the Alkali Springs and Tub Mountain Interpretive Site and the Birch Creek Interpretive Site—are located within the ACEC and SRMA boundaries. The Alkali Springs and Tub Mountain Interpretive Site has carsonite markers and concrete obelisks along the trail route as well as interpretive signs which explain the sites' historical significance. The Birch Creek Interpretive Site offers recreationists the opportunity to learn about the prehistoric and historical significance of the area through interpretive displays. Management objectives highlighted for these two sites include providing enhanced interpretive signage, parking facilities, permitted overnight camping, and limited surface-disturbing activities observable from the trail (BLM, *Southeastern Oregon RMP*, 2002).

Located on private land, but within the southern end of the AU is the Vale Complex, which consists of several Oregon NHT historic and interpretive sites dispersed throughout the town of Vale. These sites, which include Malheur Hot Springs, the Old Stone House, the Malheur River Crossing, and the grave of John D. Henderson, are all considered HPHSs in the 1998 NPS CMUP.

Another HPHS located at the north end of the Alkali Springs/Tub Mountain AU but outside of BLM lands is the Farewell Bend State Recreation Area, which memorializes the place where trail emigrants rested and enjoyed one last look at the Snake River. Wagon ruts are visible and accessible from the site, and historic markers and interpretive displays are provided for educational purposes. Camping, fishing, water skiing, boating, picnicking, hiking, and interpretive programs are also offered at this recreation area (oregonstateparks.org).

5.1.5 South Alternate Analysis Unit (Idaho)

The South Alternate AU is comprised of two discontinuous areas along the Snake River; one area is located on the central border of Oregon and Idaho and the second area is located in Idaho just east of the Oregon border. The northernmost portion of the AU encompasses the section of the trail that originates northwest of Homedale, Idaho and continues southeast of Owyhee, Oregon, and the

southernmost portion of the AU encompasses an area between the Idaho communities of Givens Hot Springs and Marsing. Some of the trail segments in these areas are collectively referred to as the South Alternate Route. At Three Island Crossing, Idaho, emigrants were faced with the option of crossing the Snake River and taking a northern route to Fort Boise or staying to the south of the Snake River and following a route which closely paralleled the river. When water was flowing more rapidly in the Snake River, emigrants often had no choice but to take the southern route. The route which followed the south side of the Snake River, the South Alternate, traversed a rough landscape which was dry and lacked vegetation. In many instances, the trail paralleling the Snake River was perched high above the river, traversing rocky bluffs. Geographical landmarks for emigrants on the route included Castle Butte, Wild Horse Butte, and Sinker Creek (Hutchison and Jones 1993:75). As the route continued to the northwest, enterprising emigrants also set up ferries along the Snake River. Emigrants who continued along the western bank of the Snake found themselves on the opposite bank of Fort Boise before re-uniting with the northern alternate route to the west of Fort Boise. It was at this location that the landscape, as experienced by emigrants, changed from rocky bluffs to the dry plains of the South Alternate Route.

Approximately 16.2 miles of the congressionally designated route of the Oregon NHT and an additional 16.9 miles of trail consisting predominantly of braids paralleling the congressionally designated route are present within the South Alternate AU (see Table 2, Figure 9, and Figure 10). The discontinuous AU encompasses approximately 69,937 acres between the Idaho communities of Adrian and Given Hot Springs. The trail within this AU consists of two primary routes, both of which follow the Snake River. A portion of one of these alignments, known as the South Alternate Route, represents the route which developed as a spur of the main trail extending along the south side of the river. Although this route allowed emigrants to avoid two river crossings, the terrain along the route was much steeper and had less access to water than the main route. The two trail routes within the South Alternate AU cross BLM land in three locations in the vicinity of Adrian and to the south of Marsing along the eastern shoulder of State Highway 78 between Fruit and Dilley Islands. The historic setting of the trail segments within this AU is characterized by a single IOP location (IOP 5-1) (see Figure 10) which is discussed in more detail below.

5.1.5.1 Visual Resources

Within the South Alternate AU, trail segments on BLM lands are located within landscapes dominated by flat valley bottoms along the Snake River. The landscapes surrounding these trail segments are generally panoramic, with open views of the Malheur River valley in Idaho to the east. Views to the west are limited by the rolling Owyhee Mountains and associated foothills. The sense of enclosure experienced from the trail segments is generally weak. Sagebrush vegetation of the mountains and foothills includes shades of sage green and gray, while the agricultural vegetation of the flat valley bottoms generally varies seasonally from bright green to yellowish brown. Riparian vegetation is also visible from the trail segments, and introduces medium to bright green colors along the edges of the river. Where visible, landform colors are predominantly beige to medium brown and gray. Dark brown to black basalt rock outcrops are also visible within the foothills and mountains. Cultural modifications

visible from these trail segments vary within the AU, and are discussed below for each IOP. The South Alternate AU falls in VRM Class III.

The trail segments on BLM-managed lands occur in two general locations within the AU. The setting of these trail segments is represented by the following Oregon NHT IOP. The visual quality rating identified in the FO VRI would be consistent with the IOP-specific visual quality rating identified through field inventory for this AU.

IOP 5-1

- This IOP is located upon a bluff between State Highway 78 and the Snake River near Dilley Island.
- The IOP represents a single trail segment that passes through a flat to softly rolling valley bottom.
- The setting of the trail segment includes open, panoramic views of the flat valley bottom, several buttes and bluffs within the valley and along the river, as well as the rounded Owyhee Mountains and foothills to the west.
- The Snake River is visible, but partially hidden from view by the bluffs adjacent to the river.
- Vegetative cover directly adjacent to the trail segment consists of dense sage-steppe vegetation, as does the vegetative cover within the distant mountains.
- Nearby lands within the valley are primarily covered with agricultural vegetation and clustered deciduous trees surrounding farm dwellings.
- The adjacent river is flanked with riparian vegetation, including tall cottonwood trees.
- Because this trail segment occurs within a developed agricultural valley, cultural modifications are readily visible in all directions. These modifications include paved and gravel roads, clustered agricultural buildings, structures and fields, and utility poles and lines.
- An existing 500kv transmission line with lattice towers is intermittently visible along the foot of the Owyhee Mountain foothills depending on lighting conditions, but generally blends into the backdrop of vertical landforms.
- This trail segment falls within a moderate sensitivity level rating, the foreground/middleground visual distance zone, and VRI Class III, as identified in the Malheur FO VRI.

5.1.5.2 Historic and Cultural Resources

Only one trail-related cultural resource—a segment of the South Alternate Route of the Oregon NHT (10OE6025)—is located on BLM land within the South Alternate AU. This 126-mile-long segment, which originates at Three Mile Crossing on the Snake River in Idaho and rejoins the congressionally designated route just west of Fort Boise, is recognized as one of the hottest, driest, and dustiest stretches of the entire Oregon NHT (NPS 1999:35). The NPS CMUP identifies five HPHSs and one HPRSEG along this route, though none are located on BLM land within the inventory area. Although

Tetra Tech notes that the South Alternate Route is listed in the NRHP (Tetra Tech 2013b:47), documentation supporting this listing could not be obtained.

5.1.5.3 Historic and Cultural Setting

Emigrant accounts of the South Alternate Route, such as those of William H. Winter, noted the bleak and difficult terrain. On his 1843 journey, Winter stated that "this is perhaps the most rugged, desert and dreary country, between the Western borders of the United States and the shores of the Pacific. It is nothing else than a wild, rocky, barren wilderness, of wrecked and ruined nature, a vast field of volcanic desolation" (Johnson and Winter 1846:30). In addition to the barren landscape, the trail condition in this area was also often noted as quite precarious. Abigail Scott noted that "in many places the wagons were held by two or three men or they would [have] been precipitated over the rocks into the river" (Rau 2001:162). While some emigrants chose to cross the Snake River via ferry, others continued along the South Alternate alignment, where they would have the opportunity to camp at what would subsequently be known as Givens Hot Springs. Emigrant Lucia Loraine Williams traveled past the hot springs in July of 1851 and reported:

> Came to Hot Springs. There was a little stream or drain running across the road about one-half mile from the spring . . . Camped near. Visited the springs. There we found the water hot enough for cooking. The ground a few feet from the spring was covered with saleratus and those of the company who were short of the same replenished their storage. (Hutchinson and Jones 2000: 78)

When emigrants reached the valley of Fort Boise, the dry plains of the South Alternate Route gave way to a more lush landscape of the Boise and Snake Rivers. L.W. Hasting's *Emigrant's Guide to Oregon and California* notes that "there are also several very extensive plains and valleys, in the immediate vicinity of Fort Boisia [sic], which are quite fertile and capable of producing grains and vegetables in great abundance; yet, the surrounding country, is generally, barren and mountainous" (Hastings 1845:37).

Features which either contribute to or detract from the historic character of trail segments within the South Alternate AU are listed in Table 15. The predominant contributing element of the trail segments located within this AU is the Snake River. This 1,078-mile-long tributary of the Columbia River was an important landmark for emigrants following the Oregon Trail and its predominantly north-south trending alignment served as a visible dividing line between Idaho and Oregon. Because of its depth and rough waters, which were often viewed as foreboding to travelers, numerous ferries such as Three Mile Crossing, Brownlee Ferry, and Olds Ferry, were established along its route to provide crossings for emigrants. As the Oregon Trail followed the course of the river for nearly 340 miles, it is a prominent feature mentioned in nearly all emigrant accounts describing their journey along the route. Additionally, the river defined the travel experience throughout Idaho as the numerous braids of the trail in the state were blazed to follow either the eastern or western banks of the river.

Observations regarding the historic setting of the trail segments in this AU were collected from a single observation point, IOP 5-1. This IOP, which is located approximately 244 feet (0.05 mile) west of the Snake River within a softly rolling valley bottom, is surrounded by modern development including numerous residential and agricultural buildings, two-track graded and graveled roads/driveways, ORV trails (many of which intersect with the trail trace), fencing, and landscaping comprised of non-native vegetation. Additionally, two transmission lines are visible to the south and west of IOP 5-1. The transmission line to the south consists of a series of lattice towers and the line to west is supported by wooden poles. The most noticeable human-related intrusion to the historic setting of the trail segment in this location, however, is Idaho State Highway 78, which is located approximately 172 feet (0.03 mile) west of the IOP. The paved and divided highway largely parallels the congressionally designated route and the Snake River to the south of the rural community of Marsing. Due to the close proximity of State Highway 78 to the congressionally designated trail route and residential/agricultural development in this area of Owyhee County, the historic setting within the South Alternate AU is not retained.

Table 15. Inventory of Features Contributing and Non-Contributing to the Historic Character of Trail Segments within the South Alternate Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Owyhee Mountains	C		These rounded mountains provided a stark contrast to the region's predominantly barren landscape and bluffs adjacent to and along the Snake River.
Terrain	Liberty Butte	C		This prominent butte served as a landmark for emigrants traversing the South Alternate Route of the Oregon NHT.
Hydrology	Snake River	C		The depth and strong current of this river, which emigrants followed for more than 300 miles after first encountering it at Fort Hall, Idaho, was a geographical barrier that shaped the emigrant route and had a profound impact on the accessibility of travel.
Circulation	State Highway 78	NC	No	This divided rural highway, which connects the Idaho communities of Marsing and Hammett, largely parallels the Snake River and South Alternate Route of the Oregon NHT.
Circulation	Off-road-vehicle trails	NC	No	The trail trace at IOP 5-1 is crossed by off-road-vehicle trails in several locations.
Circulation	Paved and graveled roads/driveways	NC	No	Due to residential and agricultural development in the area, paved and graded roads and driveways are numerous.
Buildings and structures	Residential/agricultural buildings	NC	No	Numerous houses and agricultural buildings and structures are visible to the north, northwest, northeast, and southeast of IOP 5-1.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Buildings and structures	Transmission lines	NC	No	Two transmission lines are located to the west of State Highway 78.
Vegetation	Native vegetation community	C		Includes riparian vegetation along the Snake River and the sage steppe vegetation on the distant mountain slopes and adjacent to IOP 5-1.
Vegetation	Agricultural fields	NC	No	Cultivated fields are visible in all directions at IOP 5-1.
Vegetation	Modern landscaping	NC	No	Includes multiple rows of planted trees adjacent to residential development.
Small-scale features	Post and wire fencing	NC	Yes	These are common along property boundaries.

Table Abbreviations: C= contributing, NC = non-contributing; IOP = inventory observation unit; NHT = National Historic Trail.

5.1.5.4 Recreation and Transportation Management Opportunities

Opportunities for recreation in the Southern Alternate AU are limited to typical dispersed types of recreation, and recreation associated with the Snake River. BLM has identified in the 2002 *Southeastern Oregon RMP*, as Rural, in the ROS. On the Idaho portion of the AU, BLM also identified the area as Rural, in the ROS. Additionally, BLM identified the trail as an SRMA in the 1999 *Owyhee RMP*, requiring that the land be managed in accordance with the 1989 NPS CMUP.

Most of the lands in this AU are private, thus limiting public recreation to some extent. Recreation associated with the Snake River includes boating and fishing, as the Oregon NHT generally follow the river. Other recreation opportunities in the AU include auto-touring, sightseeing, wildlife viewing, boating, fishing, hiking, horseback riding, and OHV use. There are no developed recreation sites on the either the Oregon or Idaho portions of the South Alternate AU.

Located on private land, Givens Hot Springs also serves as a base of recreation along the congressionally designated alignment of the Oregon NHT. Initially developed by emigrants Milford and Mattie Givens in 1879 as a wayside, the area is now developed with a bathhouse, swimming, and camping facilities.

5.2 Study Trails

5.2.1 Meek Cutoff (Oregon)

The NPS is currently conducting a feasibility study to add the Meek Cutoff to the Oregon NHT. The Meek Cutoff has been recognized by the Oregon State Legislature as one of five alternate routes of the historic alignment of the Oregon Trail that pass through the state of Oregon (NPS 1998).

The Meek Cutoff trail was blazed as an alternate route of the Oregon Trail in 1845. In August of that year, fur trapper Stephen Meek proposed to take emigrants from Fort Hall to the Willamette Valley via a cutoff through the Cascade Mountains which he alleged would reduce the overall length of travel by 150 miles. Roughly 1,000 persons decided to follow Meek on this trail, which was anticipated to head directly west from the Oregon Trail's juncture with the Malheur River through central Oregon. Meek led the wagon train along the rough and rocky banks of the Malheur River, before heading over precipitous bluffs, which caused injury to both wagons and livestock. When the wagon train was not able to find water, the group forced Meek to abandon the westward route and turn north with the hopes of reaching The Dalles along the Columbia River. As the emigrants faced continued water and food shortages, the group divided into those who wanted to take a direct route to The Dalles and those who wanted to travel west to the Deschutes River to see if there was a passage over the Cascades and, if not, follow the Deschutes north towards The Dalles (Beckham 1991).

The wagon train ultimately split south of the Maury Mountains, with one faction following Meek northwest toward the Deschutes River, while the other group sought to travel due north towards the Columbia River. The northbound group, in particular, experienced bouts of illness and suffered from lack of food and water before inadvertently arriving at Sagebrush Springs on the Deschutes River where the second group joined them. Each wagon train had to be ferried across the river in order to continue the journey to The Dalles, which they reached in mid-October. While accounts vary, at least two dozen people lost their lives on the trip due to disease and hunger (Beckham 1991).

Nature and Purpose

The nature and purpose of this trail has not yet been defined, as it is currently under feasibility study.

Primary Uses

As this trail is currently under feasibility study and does not yet have a Comprehensive Management Use Plan (CMUP), its primary uses have not been identified.

5.2.1.1 Meek Cutoff Analysis Unit

The Meek Cutoff AU is located on the western border of Oregon in Malheur County. The unit spans an area, roughly 5 miles in length, west of the small city of Vale. The trail route, blazed in August of 1845 by fur trapper Stephen Meek and some 1,000 emigrants, was intended to take emigrants from Fort Hall to the Willamette Valley via a cutoff through the Cascade Mountains and eliminate 150 miles of journey on the main alignment of the Oregon Trail. The alignment was attractive to a number of emigrants not only for the proposed shorter duration of travel, but also because of concerns based on accounts of emigrant conflicts with Walla Walla and Cayuse Indians along the Blue Mountains segment of the main trail. The Meek Cutoff left the Oregon Trail at Vale, Oregon and followed the Malheur River to the Harney Basin. However, the flat terrain offered little vegetation other than sagebrush and native grasses. Additionally, there was limited fresh water. The emigrants abandoned the western route and headed north in search of water at the Crooked River. After reaching the river, the group divided into two with one heading northward to The Dalles and the other seeking the Deschutes River to the west (Beckham 1991). The groups split south of the Maury Mountains. The northbound group inadvertently

reached Sagebrush Springs on the Deschutes River where the second group joined them. Each wagon train had to be ferried across the river in order to continue the journey to The Dalles, which they reached in mid-October (Beckham 1991).

Encompassing approximately 4,216 acres of the public and private land to the west of Vale, the Meek Cutoff AU consists of approximately 3.5 miles of trail currently under feasibility study (see Table 3 and Figure 11). The portion of the trail on BLM land includes two parallel braids, both of which extend along the Malheur River. This route was described by emigrants such as Eli Casey Cooley who followed Meek along the trail in 1845. In his accounts, Cooley noted that, while the terrain could be steep and rocky, water and grass was still plentiful (Cooley 2004).At the southwestern boundary of the AU, the two segments diverge with one alignment continuing to follow the Malheur River and the other maintaining a more direct southwestern trajectory. Because the trail is currently under feasibility study, a field inventory was not done in the Meek Cutoff AU. Instead, the setting of the 1-mile-long segment of the Meek Cutoff on BLM land within the inventory area was characterized by desktop analysis, which is discussed in further detail below.

Visual Resources

A single trail segment on BLM land is present within the Meek Cutoff AU, and is located within the incised Malheur Canyon landform. The landscape surrounding this trail segment is strongly enclosed, with steep hills and canyon walls limiting distant views. Landforms are covered in dense sage steppe vegetation, with occasional rock outcroppings. The sagebrush vegetation includes shades of sage green and gray, while grassland vegetation varies seasonally from bright green to brownish-yellow color. Riparian vegetation is visible along rivers and creeks, and introduces bright green and yellow fall colors. Landform colors are visible in the rock outcroppings and appear beige to medium brown in color. Cultural modifications within the AU are limited, including gravel and two-track roads, a canal, and an abandoned railroad alignment. Features of the abandoned railroad would likely be visible from the trail segment, but it is unlikely that the canal or two track roads would be visible since they are higher in elevation than the trail segment and partially hidden by landforms. The Meek Cutoff falls in VRM Class III.

Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the Meek Cutoff AU. A small section of the trail on private land in Malheur County, Oregon was evaluated during the 2013 RLS. The newly-recorded segment of trail, assigned site number B2H-MA-003, was recommended not eligible for listing in the NRHP due to lack of integrity as the structure was previously impacted by road construction (Tetra Tech 2013:13). The trail will not be subject to further documentation as part of this study.

Historic and Cultural Setting

Fur trapper Stephen Meek blazed the notorious Meek Cutoff Trail, an alternate to the main route of the Oregon Trail, in 1845. He proposed a route which would take emigrants from Fort Hall to the Willamette Valley via a cutoff through the Cascade Mountains—a journey which would purportedly take 20 days to

complete. Roughly 1,000 persons followed Meek on this trail, headed west from the Oregon Trail mainline at its juncture with the Malheur River. The rocky and precipitous bluffs leaving the river proved formidable, however, and many groups became separated by large distances. The route chosen was barren with very little available water; emigrant Stephen King reported in an 1846 letter: "…[we] left the old road to follow the new road and traveled for 2 months over sand, rocks, hills and anything else but good roads" (King 1846:1). As the emigrants faced water and food shortages, they pressured Meek to abandon the westward route and turn north with the hopes of reaching The Dalles, along the Columbia River. Emigrant Betsy Bayley described the dire situation stating,

> We had men out in every direction in search of water but found none. You cannot imagine how we all felt. Go back, we could not and we knew not what was before us. Our provisions were failing us. There was sorrow and dismay depicted on every countenance. (Oregon Historic Trails Fund n.d.)

The prolonged water shortages caused the group to fracture into those who wanted to take a direct route to The Dalles and those who wanted to continue traveling west to the Deschutes River in search of a passage over the Cascades. The latter argued that if such a passage could not be found, the Deschutes could be followed north towards The Dalles (Beckham 1991). The wagon train split south of the Maury Mountains, with one faction following Meek northwest toward the Deschutes and the other group traveling due north towards the Columbia. The groups inadvertently rejoined one another at Sagebrush Springs on the Deschutes River. Each wagon train had to be ferried across the river in order to continue the journey to The Dalles—which they reached, as Stephen King noted, some two months after they departed from the main Trail (Beckham 1991).

Contributing and non-contributing features identified along the trail segment within the Meek Cutoff AU are listed in Table 16. The surrounding terrain and Malheur River are the predominant contributing elements of the trail. The Malheur River, at its juncture with the main route of the Oregon Trail, marked the beginning point of the Meek Cutoff. Emigrants noted the often difficult and rocky terrain during their some 50 miles of travel along the river. However, it was in departing from the Malheur River that emigrants faced a truly arid and unwelcome landscape which ultimately forced them to abandon their westward journey.

Observations regarding retention of historic setting of the trail segments in this AU were derived from the one segment of trail within the study area that is located on BLM land. Desktop analysis suggests that this segment of trail, which is located approximately 11.7 miles to the southwest of Vale within Malheur Canyon, has been only minimally impacted by modern development. Although intrusions such as the Vale Oregon Canal and its associated graveled access road, two-track roads, and an abandoned grade of the Vale to Juntura Oregon Shortline Railroad (now the Union Pacific Railroad) are visible from multiple vantage points along the trail, the majority of these features are at a higher elevation than the trail segment and are thus not visible or are shielded from view by the steep canyon walls and surrounding hills. Additionally, due to its location within an incised canyon, the trail segment has not been impacted by agricultural development—a common impact to the Oregon NHT in more open areas such as Vale, Hope, and Harper Junction. Due to the retention of natural, sage-steppe

vegetation and the lack of cultural modifications in the area, the Meek Cutoff AU retains its integrity of historic setting.

Table 16. Inventory of Features Contributing and Non-Contributing to the Historic Character of Meek Cutoff Study Trail within the Meek Cutoff Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Malheur Canyon	C		
Hydrology	Malheur River	C		The "unlucky river" was noted by John C. Fremont in 1846 as "a considerable stream with an average breadth of 50 feet, and, at this time, 18 inches depth of water" (Fremont 1846:174). The river served as a crossroads for the Meek Party where the wagon train left the main alignment of the Oregon Trail seeking a more direct route to the Willamette Valley. The land near the river was noted as possessing grasses for livestock.
Circulation	Two-track roads	NC	No	Numerous two-track and gravel roads (including an access road for the Vale Oregon Canal) are present in the eastern half of the analysis unit.
Buildings and structures	Vale Oregon Canal	NC	No	This 74-mile-long canal, which provides irrigation water to 35,000 acres of rangeland in east-Central Oregon, was built by the Bureau of Reclamation as part of the Vale Project between 1927 and 1935.
Buildings and structures	Union Pacific Railroad	NC	No	Built ca. 1900, this railroad grade is currently abandoned.
Vegetation	Native vegetation community	C		Includes plants mentioned in historical accounts, such as sagebrush and grasses.

Table Abbreviations: C= contributing, NC = non-contributing.

Recreation and Transportation Management Opportunities

Recreation opportunities in the Meek Cutoff AU include those generally associated with dispersed recreation use. Only a small portion of the trail is located on BLM lands. These lands are identified as rural, within the ROS. There are no developed recreation sites within the AU. Although independent of the Oregon NHT or recreation directly associated with it, nearby Bully Creek Reservoir provides boating, fishing, day-use, and camping activities. Other recreation activities within the AU consist of hiking, biking, horseback riding, wildlife viewing, hunting, and OHV use. BLM has not specified any special management for recreation in the AU.

5.2.2 Goodale's Cutoff (Oregon)

The Goodale's Cutoff (also known as the Goodale/Sparta Trail) is also currently under feasibility study by the NPS as part of three alternate routes to be added to the Oregon NHT in Idaho and Oregon.

The Goodale's Cutoff to the Oregon Trail had its origins as a migration route used by Shoshone peoples and was popularized as an alternate route to the Oregon Trail by John Jeffrey, a river ferry operator, as early as 1852 (NPS n.d.) This cutoff trail left the Oregon Trail at Fort Hall, Idaho proceeding west through the Camas Prairie to the north of the Snake River Valley en route to where it rejoined the trail at the Powder River, near Baker City. The trail saw little emigrant travel until 1862 when a party hired guide Tim Goodale to lead them on the passage. Many of these emigrants were lured by the prospect of gold in the Boise Basin. Goodale successfully led the group of more than 1,000 persons from Fort Hall to Fort Boise. As hostilities increased between Shoshone and Bannock peoples and the emigrants along the main Oregon Trail, larger numbers of people began to use Goodale's alternate route (Dary 2004).

A northern alternate of Goodale's Cutoff continued into Oregon crossing Hells Canyon of the Snake River on the Brownlee Ferry to reach Baker Valley (McGill 2009). This alternative was purportedly used by prospectors, including George Grimes, who used the route to traverse between the Boise mines and Walla Walla. This route became known as the Brownlee Ferry Route (Wells 1972).

Nature and Purpose

The nature and purpose of this trail has not yet been defined, as it is currently under feasibility study.

Primary Uses

As this trail is currently under feasibility study and does not yet have a CMUP, its primary uses have not been identified.

5.2.2.1 GOODALE'S CUTOFF ANALYSIS UNIT

The Goodale's Cutoff AU is comprised of two discontinuous areas: one is located on the central border of Oregon and Idaho and the second is located to the north, spanning the border between Idaho and Oregon. The trail segments within both of these AUs are collectively known as Goodale's Cutoff, an alternate route of the Oregon Trail which extended from Fort Hall, Idaho, through the Camas Prairie, and rejoined the Oregon Trail at the Powder River, in Baker Valley. The route, which was located to the north of the Snake River, was considerably more dry and desolate than the main Oregon Trail route, as it only intermittently crossed creeks and rivers. Emigrants who continued on the Goodale's alignment crossed Devil's Canyon and headed west towards Baker City. The topography and vegetation throughout this western area was comprised of rolling hills with brush and grasses.

As previously mentioned, the NPS is conducting a feasibility study of Goodale's Cutoff trail segments as an alternate route of the Oregon NHT (see Table 3 and Figure 12 through Figure 14). The discontinuous AU encompasses approximately 306,449 acres of which 262,042 are located in the northern area and 44,408 acres are located to the south. The southernmost portion of the AU is situated between Weiser, Idaho and Huntington, Oregon, and the northernmost area is bounded by the Snake River on the east and Baker City, Oregon, to the west. The trail within this northern AU consists of one primary route, roughly 102 miles in length, which splits into two parallel braids in several locations; of these 102 miles, approximately 48.7 are located on BLM land. The trail segment in the

southern portion of the AU is located on the northern banks of the Snake River to the west of Porter's Island and covers an area less than 10miles in length. The historic and cultural setting of the trail segments within this AU are characterized by three geographical areas which are discussed in further detail below.

Visual Resources

Trail segments of the Goodale's Cutoff occur intermittently on BLM land from Baker Valley east to the Lower Powder Valley. The segments begin at the edge of Baker Valley just west of Flagstaff Hill, and extend eastward through Virtue Flat. Upon entering Virtue Flat, the segments split in two directions, with some paralleling the general alignment of Ruckles Creek to the south and others following the basic alignment of State Highway 86 to the north. The two alignments intersect once again near the intersection of Ruckles Creek and State Highway 86, where they extend further east to the Lower Powder Valley near Waterspoint Creek. Views from these trail segments are generally panoramic, but become moderately enclosed along the Ruckles Creek valley formation. Panoramic views include the expanses of rolling sage steppe hills, and the distant rugged Wallowa Mountains. Enclosed views are generally limited by adjacent rolling hills. The flat agricultural lands of Baker Valley and Lower Powder Valley are also visible from the western and eastern trail segments, respectively. The Goodale's Cutoff falls within VRM Class II and IV.

Cultural modifications within this geographical area consist of State Highway 86, gravel roads, two-track roads, roadway and interpretive signage, guardrail, wood and wire fencing, a large stone monument, transmission lines supported by wooden poles, the NHOTIC and its associated facilities, and clustered ranching structures. An extensive network of OHV routes is also visible north of Virtue Mine Road, between State Highway 86 and Ruckles Creek Road. The eastern and westernmost segments of trail also include views of agricultural fields and associated rural development.

Lower Powder Valley to Eagle Valley

These trail segments occur intermittently on BLM land from the Lower Powder Valley east to Eagle Valley. The segments begin at the easternmost end of Lower Powder Valley, and are split into a northern and a southern alignment.

The southern alignment of trail segments begins near the entry of Miller Creek into the Lower Powder Valley, and traverses east across the rolling hills to the south of the incised Powder River valley. The alignment crosses Five mile Creek and eventually drops into the Powder River Valley to the north of Rattlesnake Gulch. The trail segments of this southern alignment terminate near the confluence of the Powder River and Canyon Creek. Views from these trail segments are generally panoramic, but become strongly enclosed within the incised Powder River Valley. Panoramic views include the expanses of rolling sage steppe, and the distant rugged Wallowa Mountains. Enclosed views are generally limited by adjacent rolling hills and associated rock outcroppings. The flat agricultural lands of the Lower Powder Valley are also visible from the western trail segments. Cultural modifications within this geographical area are fairly limited, but include State Highway 86, gravel roads, two-track roads, fences and corrals, road signage, transmission lines and wooden poles, and clustered ranching

structures. The eastern and westernmost segments of trail also include views of agricultural fields and associated rural development.

The northern alignment begins east of the Goose Creek Valley (north of the Powder River) and extends northeast to eventually parallel Sparta Lane. The trail segments follow the basic alignment of Sparta Lane until terminating on the western rim of Eagle Creek approximately 2 miles northwest of the town of New Bridge. Views from these trail segments are generally panoramic, but are occasionally enclosed from within drainages crossed by the alignment. Panoramic views include the expanses of rolling sage steppe, and the distant rugged Wallowa Mountains. Enclosed views are generally limited by adjacent rolling hills and associated rock outcroppings. Views from the trail segments along the rim of Eagle Creek are particularly panoramic, and include overviews of the deeply incised Eagle Creek Canyon. The flat agricultural lands of the Lower Powder Valley and Eagle Valley are also visible from the western and eastern trail segments, respectively. Cultural modifications within this geographical area are fairly limited, but include gravel and two-track roads, fences, and clustered ranching structures. The eastern and westernmost segments of trail also include views of agricultural fields and associated rural development.

Eagle Valley to Posey Valley

These trail segments occur on BLM lands between Eagle Valley and Posey Valley. The segments begin within the steeply rolling hills east of Eagle Valley, and loosely parallel State Highway 86 across Foster Gulch. The segments then follow State Highway 86 into Road Gulch and terminate in Posey Valley. Views from these trail segments are generally panoramic, but become moderately enclosed within the Foster Gulch and Road Gulch landforms. Panoramic views include expanses of rolling sage steppe, and the distant rugged Wallowa Mountains. Enclosed views are generally limited by adjacent rolling hills. The flat agricultural lands of Eagle Valley and Posey and Pine Valleys are also visible from the trail segments.

Cultural modifications within this area of the AU consist of State Highway 86, gravel and two-track roads, roadway signage, guardrail, wood and wire fencing, transmission lines and poles (wood), and clustered ranching structures. The trail segments also include views of agricultural fields and associated rural development within adjacent valleys.

Snake River Valley near Indian Head Mountain

These trail segments occur on BLM land along the north edge of the Snake River below Indian Head Mountain. The segments begin at the base of the mountain within the flat valley bottom and extend approximately from Huffman Island to Porters Island.

Views from the trail segments near Huffman Island are enclosed by Dead Indian ridge to the north, a steeply rolling mountain formation covered by sage steppe vegetation. To the south, views are limited by rolling sage steppe hills that line the Snake River Valley. The Snake River generally dominates views from these trail segments. Cultural modifications within this geographical area consist of railroad

tracks, State Highway 30, gravel roads, transmission lines and wooden poles, and clustered ranching structures.

Views from the trail segments near Porters Island are enclosed by Dead Indian ridge to the west, but are open and panoramic to the east, where topography flattens into the expansive West Weiser Flat landform. The Snake River generally dominates views from these trail segments. Cultural modifications within this geographical area consist of railroad tracks, paved and gravel roads, transmission lines and wooden poles, agricultural fields, wood and wire fencing, clustered agricultural buildings and structures, and an RV park located along the south edge of the river.

Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale/Sparta Trail (B2H-BA-327), was identified during the 2013 RLS of the inventory area. Although this segment was not evaluated as part of this effort, it was recommended for further study during the ILS (Tetra Tech 2013:13).

Historic and Cultural Setting

Goodale's Cutoff was first used as an alternate route of the Oregon Trail by John Jeffrey, a river ferry operator, as early as 1852 (NPS n.d.) The cutoff left the Oregon Trail at Fort Hall, Idaho, and proceeded west through the Camas Prairie to the north of the Snake River Valley before rejoining the Oregon Trail at the Powder River. The route became popularized in 1862 when fur trader Tim Goodale led a group of more than 1,000 emigrants across the trail (Dary 2004).A northern alternate of the Goodale route continued into Oregon, crossing the Hells Canyon of the Snake River on the Brownlee Ferry to reach Baker Valley near present day Baker City (McGill 2009). This route was purportedly used by prospectors, including George Grimes, to travel between the Boise mines and Walla Walla. This route became known as the Brownlee Ferry Route (Wells 1972).

As the NPS CMUP notes "this route is not well documented, and little evidence has survived to indicate its location" (NPS 1998:71). While efforts have been made to conduct physical documentation of the Goodale's Cutoff, the lack of historical firsthand accounts of the journey along the trail limits the ability to make characterizations of the historic setting. Discussions in Table 17 are based on extrapolations from modern aerial photography.

Observations regarding retention of the historic setting of the trail segments located on BLM land in this AU are based upon desktop analysis. Intrusions such as State Highway 86, present throughout the northern portion of AU, as well as Olds Ferry Road/State Highway 201 located in the southern portion of the AU, are visible from the majority of the trail segments on BLM land, and in many cases, the trail segments parallel these two roads. Because of their proximity to the trail segments, both of these modern roadways diminish the integrity of the historic trail setting in these locations. Graded gravel and two-track roads are also visible from multiple vantage points along the trail; however, due to the retention of native materials, these roads have less of a visual impact on the trail segments than the

improved asphalt roads of State Highway 86 and State Highway 201. Additionally, agricultural and ranching development visible from segments in the western portion of the northern AU area and in the eastern portion of the southern AU area significantly detract from the historic setting, which would have consisted predominantly of open sage brush with some riparian vegetation near adjacent waterways. However, due to the expansive nature of the Goodale's Cutoff AU—spanning some 306,000 acres—much of the integrity of the broader historic setting is intact.

Table 17. Inventory of Features Contributing and Non-Contributing to the Historic Character of the Goodale's Cutoff Study Trail within the Goodale's Cutoff Analysis Unit

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	Baker Valley	C		This relatively flat valley is visible from the western end of the cutoff trail near Flagstaff Hill.
Terrain	Lower Powder Valley	C		This incised river valley is characterized by flat, agricultural lands.
Terrain	Eagle Valley	C		Visible at the eastern end of the cutoff trail in the northernmost analysis unit, this broad valley is comprised predominantly of agricultural fields watered by Eagle Creek and the Tobin Ditch.
Terrain	Posy Valley	C		This expansive agricultural valley is located to the northeast of Richland, Oregon near the northeastern limits of the inventory area.
Terrain	Snake River Valley	C		This valley stretches across the central portion of Idaho. Despite the presence of the river, much of the valley was dry and dusty and covered in sagebrush.
Terrain	Indianhead Mountain	C		Located near the community of Weiser, Idaho, this mountain is a famous local landmark known for its stunning views of the Lower Powder, Snake River, and Eagle valleys.
Terrain	Flagstaff Hill	C		Flagstaff Hill was one of the first landforms visible when emigrants of the Oregon Trail descended the north face of Virtue Hills onto Virtue Flat (Beckham 2013). This prominent feature is also visible from the Goodale's Cutoff, where the trail joins the Oregon NHT along the eastern and southern flanks of the landform.
Terrain	Virtue Flat	C		This expansive area, visible from the western end of Goodale's Cutoff, was historically referred to in emigrant accounts as the "sage plains" or "dividing grounds" between the Burnt and Powder Rivers (Cleaver 1848; Frémont 1845).
Terrain	Wallowa Mountains	C		Panoramic views of these mountains were visible to the north as emigrants traveled along the western end of Goodale's Cutoff through Virtue Flat.
Terrain	Virtue Hills	C		From the top of these hills, emigrants had a panoramic view of Virtue Flat and the distant Blue and Wallowa Mountains.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Terrain	West Weiser Flat	C		This expansive landform is situated to the east of the Snake River in Idaho. Emigrants would have had open, panoramic views of the Snake River valley and surrounding mountains from this location.
Terrain	Dead Indian Ridge	C		This steeply rolling mountain formation, visible along the southern portion of Goodale's Cutoff, remains covered in its native sage steppe vegetation.
Terrain	Huffman Island	C		Located within the Snake River channel, this island was visible to those traveling on the portion of the Goodale's Cutoff in the Southern portion of the analysis unit.
Hydrology	Snake River	C		While the Goodale's Cutoff intentionally departed from the main Oregon Trail alignment along the Snake River, the river became visible again as the route reunited with the main trail near the Powder River.
Hydrology	Ruckles Creek	C		The creek, located on the barren expanse of Virtue Flat, provided a limited source of water to travelers before traversing Flagstaff Hill and reaching the Powder River.
Hydrology	Powder River	C		Emigrants reached the Powder River Valley (now Baker Valley) after crossing Flagstaff Hill. The river provided a clear northern route to the Grande Ronde, as well as a place to stop to water cattle. The Powder River also represents the area where the cutoff rejoined the main Oregon Trail.
Circulation	State Highway 86	NC	N	The western end of the Goodale's Cutoff closely follows the alignment of this west to southeast trending state highway.
Circulation	Oregon State Highway 30	NC	N	State Highway 30 parallels the southern boundary of the northern area of the Goodale's Cutoff Analysis Unit.
Circulation	Olds Ferry Road/State Highway 201	NC	N	Olds Ferry Road is located on the northern banks of the Snake River in the lower portion of the Goodale's Cutoff Analysis Unit.
Circulation	Sparta Lane	NC	N	Although now a modern graded and graveled road, Sparta Lane likely follows one of the original segments of Goodale's Cutoff.
Circulation	Two-track/off-road-vehicle roads	NC	N	Numerous two-track roads providing access to mines and ranches in the region are present in the Virtue Flat area at the western end of the cutoff trail. In some cases, portions of the trail have been incorporated into these graveled routes. Off-road-vehicle roads are also common in this location.
Circulation	Fivemile Road	NC	N	This modern graded and graveled road parallels original segments of Goodale's route in the northern analysis unit and has likely subsumed the trail in other locations.

Characteristic	Feature	Contributing to Character	If Non-Contributing, Compatible?	Description
Buildings and structures	Oregon National Historic Trail Interpretative Center	NC	N	This complex, which is of recent construction, provides opportunities for visitors to experience the trail. It is listed in the National Park Service's1989 Comprehensive Management and Use Plan as High Potential Historic Site No. 106 of the Oregon National Historic Trail. Due to its prominent location on the top of Flagstaff Hill, the complex is visible from the western end of Goodale's Cutoff.
Buildings and structures	Flagstaff Hill Monument	NC	Y	Located near the western terminus of Goodale's Cutoff, this cement and cobble marker was erected by the Kiwanis Club in 1943.
Buildings and structures	Residential/agricultural buildings	NC	N	Clusters of agricultural and ranching buildings and structures are located throughout the three geographical areas of the analysis unit.
Buildings and structures	Transmission lines	NC	N	Transmission lines are present in the Snake River to Indian Head geographical area.
Buildings and structures	Railroad tracks	NC	N	Railroad tracks are present in the Snake River to Indian Head geographical area only.
Buildings and structures	RV park	NC	N	An RV park is located along the south edge of the Snake River within the Snake River to Indian Head geographical area.
Vegetation	Native vegetation community	C		Consists predominantly of sagebrush, rabbitbrush, and grasses, which were historically present in the region.
Vegetation	Agricultural crops	NC	N	Agricultural fields are common in Baker Valley to the west of where the Goodale's Cutoff intersects with the Oregon National Historic Trail.
Small-scale features	Post and wire fencing	NC	N	Post and wire fencing is present throughout the upper and lower portions of the Goodale's Cutoff Analysis Unit.
Small-scale features	Tailings/Prospects	NC	N	Prospects and tailing piles of varying sizes, reflective of both historic and modern mining, are common intrusions in the Virtue Flat area along the western and west-central portion of Goodale's Cutoff Analysis Unit.

Table Abbreviations: C= contributing, NC = non-contributing RV = recreational vehicle.

Recreation and Travel Management Opportunities

The primary recreation activities related to the Oregon NHT within the Goodale's Cutoff AU is the NHOTIC, as described previously in the Flagstaff Hill/Virtue Flat AU discussion, as well as the Powder River Canyon Extensive Recreation Management Area. Also within the boundary of this AU, but not located on BLM land, is the popular recreation site of Virtue Flat, also described previously in the Flagstaff Hill/Virtue Flat AU discussion.

Recreation opportunities within the Goodale's Cutoff AU include activities usually associated with dispersed recreation. Activities identified by BLM include hiking, biking, horseback riding, auto-touring,

picnicking, wildlife viewing, fishing, hunting, OHV use, and dispersed camping. Additionally, State Highway 86 has been identified as the Hells Canyon Visual Byway, and provides access to recreation sites along the Oregon NHT and within Virtue Flat. The Oregon NHT can be easily accessed from several locations along State Highway 86 and Ruckles Creek Road. Further south near Eaton, ID, the Goodale's Cutoff follows Olds Ferry Road which is heavily used for river recreation. The 1989 *Baker RMP* establishes the Oregon Trail ACEC and NHOTIC to protect trail settings, but does not provide ROS direction for the Oregon NHT on BLM land.

6.0 Analysis of Impacts for Compliance with BLM Manual 6280

The identification of environmental consequences (impact analysis) that would result to the Oregon NHT and Study Trail segments is based on the change in those conditions that would result from the development of the Proposed Action and alternatives. More specifically, the impact analysis identifies how the B2H Project would affect the trail-specific visual resources, historic and cultural resources, and historic and cultural settings identified by the NHT inventory within each AU. With respect to impact analysis for NHTs and Study Trails, BLM Manual 6280 provides the following guidance:

- Conduct a viewshed analysis to determine if the proposed action is within the viewshed of the trail(s)
- Complete an assessment that enables identification of reasonable alternative locations for the proposed action if it is within the viewshed of the trail(s)
- Delineate the area of potential adverse impact
- Identify any adverse impacts on the nature and purposes and primary use of uses within the area of potential adverse impact
- Determine conformance with established VRM Classes

The viewshed analysis and delineation of the area of potential impact (identified as AUs within this section) were completed during the NHT inventory and illustrated in Figure 4 through Figure 14. This impact analysis will provide data to enable identification of the project alternatives locations that result in lesser degrees of impact, including identification of adverse impacts on the nature and purposes and primary uses of the Oregon NHT for each alternative location. Because the nature and purposes and primary uses of the Study Trails have not been established, there would be no associated impacts. Determination of conformance with National Trail VRM classes is not included in this analysis because no specific National Trail VRM classes have been established for the Oregon NHT or Study Trails within the analysis area.

6.1 Direct and Indirect Impacts

The following subsections describe the potential impacts associated with the Proposed Action and alternatives. The discussion of potential impacts is organized with regard to impacts for the No Action Alternative and impacts common to all action alternatives. The discussion of impacts common to all

action alternatives also includes disclosure of impacts associated with construction, operation, and maintenance. This is followed by a detailed analysis of impacts on the Oregon NHT and Study Trails as related to the Proposed Action, alternatives, and Proposed Action segments as they compare to the alternative routes.

6.1.1 Analysis of Direct and Indirect Impacts for No Action Alternative

Under the No Action Alternative, the agencies would not issue a permit for the construction or operations of the B2H Project on federally managed lands. This alternative would result in no direct or indirect project-related impacts on identified NHT or Study Trail resources. Other effects associated with continued access, recreation, and similar actions would continue at the current rate and would be the responsibility of the land managing agencies.

6.1.2 Effects Common to All Alternatives

The following subsections provide an overview of the impacts common to all action alternatives as they relate to the construction, operations, and maintenance of the proposed project. Because potential effects related to trail-specific visual resources, historic and cultural resources, and historic and cultural settings are generally tied directly to visibility of the project from the trail, Table 18 provides the length of each trail on BLM-managed lands from which trail users would see project components associated with the Proposed Action and alternatives. The Double Mountain, Malheur A, Malheur S, Horn Butte, and Longhorn Alternatives and the Longhorn Variation would not be visible from the trails within the AUs; therefore, they are not included in Table 18. The lengths of trail with views of the project components are further broken down by foreground and middleground distance zones in Table 18, to provide a general indication of the distance of the Proposed Action and alternatives from the trail segments. The measurements provided in Table 18 are based on the bare-earth visibility analyses that were completed for each of the alternatives.

6.1.2.1 Construction

Construction of the Proposed Action and/or alternatives would potentially introduce temporary impacts on visual resources, recreational experiences, and historic and cultural settings, as well as permanent impacts on historic properties. The Proposed Action and alternatives would include temporary impacts such as tower construction, line stringing, equipment operation, equipment/material transport, construction-related dust, and material stockpiling. These impacts would attract attention within the analysis area, resulting in short-term impacts on visual resources and historic and cultural settings. Access to developed recreation facilities could likewise be impacted during construction, as equipment and materials are transported to their appropriate locations along the route. Ground-disturbing activities related to construction and access road development/improvement could result in permanent adverse impacts on unidentified NHT-associated historic and cultural resources, particularly those that are buried.

Table 18. Lengths of Trail on BLM-Managed Lands Visible from the Proposed Action and Alternatives

Trail Name	Distance Zone	Proposed Action (miles)	Glass Hill Alternative (miles)	Burnt River Mountain Alternative (miles)	Flagstaff Alternative (miles)	Timber Canyon Alternative (miles)	Tub Mountain South Alternative (miles)	Willow Creek Alternative (miles)
Oregon National Historic Trail*	Foreground	11.48	0.77	2.16	0.75	0.00	3.59	0.00
Oregon National Historic Trail*	Middleground	22.02	0.00	8.71	3.54	0.10	14.38	1.70
	Total Visible for Oregon National Historic Trail	33.50	0.77	10.87	4.29	0.10	17.97	1.70
Meek Cutoff Study Trail	Foreground	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Meek Cutoff Study Trail	Middleground	0.71	0.00	0.00	0.00	0.00	0.00	0.00
	Total Visible for Meek Cutoff	0.71	0.00	0.00	0.00	0.00	0.00	0.00
Goodale's Cutoff Study Trail	Foreground	3.90	0.00	0.00	0.64	2.09	0.00	0.00
Goodale's Cutoff Study Trail	Middleground	8.34	0.00	0.00	1.26	6.09	0.54	0.00
	Total Visible for Goodale's Cutoff	12.24	0.00	0.00	1.90	8.18	0.54	0.00

Table Notes: Asterisk (*) indicates that distances for the Oregon National Historic Trail were calculated based on the congressionally designated route only.

6.1.2.2 Operations and Maintenance

Once the transmission line has been constructed, the presence of large transmission towers would potentially introduce permanent impacts on visual resources, recreational experiences, and historic and cultural settings. Transmission line replacement/re-stringing, potential transmission tower replacement, ongoing vegetative clearing within the right-of-way, and routine transmission line maintenance (and associated vehicular access) could attract attention within the analysis area. Auditory impacts associated with transmission line "buzzing" or "humming" would also detract from the recreational experience and remote sense of feeling contributing to the historic character of NHT resources.

6.1.3 Direct Physical Crossings of Oregon National Historic Trail and Study Trails by Access Roads

Access roads planned for the Proposed Action and alternatives have been considered in the analysis of residual impacts below. No access roads would directly or physically cross the Meek Cutoff Study Trail, but they would directly and physically cross the Oregon NHT and Goodale's Cutoff Study Trail in the following locations:

Oregon National Historic Trail

- Two physical crossings of the trail segments associated with KOP 3-11, as associated with an access road planned for the Proposed 138/69-kV Rebuild.

Goodale's Cutoff Study Trail

- Three physical crossings of the trail segments associated with the Baker Valley to Lower Powder Valley Geographic Area, as associated with access roads planned for the Proposed Action.
- Three physical crossings of the trail segments associated with the Baker Valley to Lower Powder Valley Geographic Area, as associated with access roads planned for the Timber Creek Alternative.
- Three physical crossings of the trail segments associated with the Baker Valley to Lower Powder Valley Geographic Area, as associated with access roads planned for the Flagstaff Alternative.
- One physical crossings of the trail segments associated with the Lower Powder Valley to Eagle Valley Geographic Area, as associated with access roads planned for the Timber Creek Alternative.

6.1.4 Indirect Impacts

Development of the Proposed Action and/or alternatives may result in short-term and long-term indirect impacts. Vegetative clearings and permanent access roads would create opportunities for people to access previously inaccessible areas. This could result in trampling of additional vegetation and additional impacts on the resources such as increased erosion. Implementation of the project would also provide lands adjacent to the alignment with stronger connectivity to the power grid, which may

result in increased energy development along the alignment. These indirect impacts could lower the scenic quality and further diminish the historic settings of the Oregon NHT and Study Trails.

Increased use of existing and new or improved access roads may likewise lead to adverse impacts on cultural resources through increased artifact collection and/or looting, as well as potential vandalism to historic and cultural sites and trail segments. Alternatively, increased use of access roads could indirectly result in beneficial impacts on recreational resources because the new routes could provide and/or increase access to NHT-associated recreational resources. Recreational use of the trails may also decrease in areas where the scenic quality and historic setting are impacted.

6.1.5 Residual Impacts

The Proposed Action and alternatives were evaluated to determine whether the project would directly affect the resources, qualities, values, and associated setting of the Oregon NHT and Study Trails. This analysis provides the information and data required for determining consistency with existing management objectives and for determining substantial interference with or incompatibility with the nature and purposes of the Oregon NHT.

The following subsections describe the potential direct impacts associated with the segments of the Oregon NHT and the two Study Trails (Meek Cutoff and Goodale's Cutoff) on BLM-managed lands within the analysis area. The Proposed Action is first described in its entirety, followed by each individual alternative. Descriptions of the potential impacts on the portions of the Proposed Action that compare to each individual alternative directly follow their associated alternative.

The impact analysis discussions present an evaluation of impact thresholds for the Proposed Action and alternatives under each of the following resources: visual resources, historic and cultural resources, and historic and cultural settings. Impacts on visual resources are organized by AU and are discussed for each KOP within the 5-mile buffer of the proposed project alignment. Historic and cultural resources and historic and cultural setting are described by AU in the context of the KOPs within the AUs.

6.1.5.1 Proposed Action—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 1-1, 1-2, and 1-3 are provided in Table 19.

Impacts on Historic and Cultural Resources

No impacts on previously recorded trail-related cultural resources within the Blue Mountains AU were identified. The 0.23-mile-long section of the NRHP-eligible Blue Mountain Crossing segment of the Oregon NHT on BLM land, as represented by KOP 1-2, is located approximately 1.1 miles east of the Proposed Action and would not be directly impacted; however, moderate impacts on the historic setting

of the trail are anticipated. As the NRHP eligibility of the trail traces in the vicinity of KOPs 1-1 and 1-3 have not yet been evaluated, impacts on these trail segments could not be determined.

Impacts on Historic and Cultural Setting

Generally, the trail segments on BLM land within the Blue Mountains AU are representative of their historic setting. As planned, the Proposed Action would cross the Blue Mountains AU in a generally northwest to southeast direction, and would intersect the braided trail segments in six of locations, although none of these crossings occur on BLM land. At KOPs 1-1 and 1-3, the Proposed Action is 0.08 mile and 0.07 mile to the northeast and north of the trail segments, respectively, whereas at KOP 1-2, the transmission line is sited approximately 1.1 miles to the west. The historic setting of the trail segments at KOPs 1-2 and 1-3 has already been diminished by modern intrusions including fencelines, two-track roads, I-84 (which is both visible and audible), and clusters of ranch buildings. As such, the impact on the historic and cultural setting in these locations would generally be low. At KOP 1-1, however, impacts vary greatly based on the portion of the trail trace under consideration. The trail trace in this location has not been impacted by modern intrusions. The majority of the trail trace here is located in a heavily forested setting, but the southern portion of the trail trace opens into a pocket of grassland. The portions of the trail trace located in heavily forested setting would not be impacted by the project components, but the portion of the trail trace within the open grassland setting would experience open views of the project components at a close distance of less than one tenth of a mile. Construction of the Proposed Action would therefore have a high magnitude of impact on the historic and cultural setting of the Oregon NHT in this location.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 2-1 and 2-2, 2-3, 2-4, and 2-5 are provided in Table 19.

Impacts on Historic and Cultural Resources

None of the previously recorded trail-related historic and cultural resources located on BLM land within the Flagstaff Hill/Virtue Flat AU would be impacted by the Proposed Action. The NHOTIC, identified as HPHS No. 106 in the NPS CMUP, is situated on top of Flagstaff Hill and overlooks the transmission line, which is sited approximately 1.1 miles to the southeast. Additionally, the NRHP-eligible Flagstaff Hill and White Swan Segments of the Oregon NHT, and their contributing resources—the Meeker Marker and Flagstaff Hill Monument—are all located approximately 0.5 mile from the centerline of the Proposed Action. The magnitude of impact on the historic and cultural setting of the trail segments in these locations, as represented by KOPs 2-2, 2-4, and 2-5, is expected to be high, however. Impacts on the trail at KOP 2-3 could not be determined as the NRHP eligibility for this segment has not yet been evaluated.

Impacts on Historic and Cultural Setting

In general, the numerous braided trail segments within the Flagstaff Hill/Virtue Flat AU, as characterized by the area's five KOPs, retain their integrity of historic setting. The Proposed Action, as

planned, would cross the congressionally designated route and trail segments southwest of the NHOTIC through the open and expansive Virtue Flat landform. This landform, as well as the adjacent Flagstaff Hill, were important landmarks for emigrants traversing the Oregon NHT, and as such, were commonly referenced in journals. Although the Proposed Action crosses BLM land in three principal areas, including the White Swan ACEC, the transmission line would not physically impact any of the BLM-managed trail segments. The transmission line is located in closest proximity to KOP 2-3, where it is sited 0.6 mile to the west. In this location, the integrity of the historic setting is retained as the surrounding sage steppe landscape remains largely the same as it did during the historic period, with the only modern intrusions to the setting occurring to the south and east. For these reasons, construction of the Proposed Action in this location would have a moderate magnitude of impact on the historic setting of the Oregon NHT. Historic setting is also retained at KOPs 2-2, 2-4, and 2-5, where the congressionally designated route and its multiple travel paths span the Flagstaff Hill and White Swan ACECs. Although modern development including road construction, fencelines, mining features, existing transmission lines, and the NHOTIC, is visible from all of these KOP locations, these modifications are subordinate to the historic scenic values and are representative of their original setting. As such, the magnitude of impact on the historic and cultural setting of the Oregon NHT in these locations would also be moderate.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, and 3-13 are provided in Table 19.

Impacts on Historic and Cultural Resources

No impacts on previously recorded trail-related cultural resources within the Burnt River Canyon AU were identified. The three segments of the Oregon NHT on BLM land that were previously recommended eligible for inclusion in the NRHP, as represented by KOPs 3-2, 3-5, and 3-8 are located within the Straw Ranch I and II ACECs and along Swayze Creek would not be directly affected; however, moderate impacts on the historic setting of the trail segments at KOPs 3-2, 3-5, and 3-8 are anticipated. Additionally, the segment of trail within the Chimney Creek ACEC, as represented by KOP 3-12 and identified by the State of Oregon as a Goal 5 Resource, is situated 0.9 mile to the west of the Proposed Action and would not be impacted by the transmission line. As the historic setting at this KOP has already been diminished, the magnitude of impact on the historic setting is considered to be low. As the NRHP eligibility of the trail traces in the vicinity of KOPs 3-1, 3-3, 3-4, 3-6, 3-7, 3-9, 3-10, 3-11, and 3-13, have not yet been evaluated, impacts on these trail segments could not be determined.

Impacts on Historic and Cultural Setting

Despite existing impacts from modern development and erosion, 13 segments of the Oregon NHT on BLM land within the Burnt River Canyon AU retain their historic setting. The Proposed Action, as planned, would intersect with the braided trail segments and congressionally designated route of the Oregon NHT in six areas, although none of these crossings occur on BLM land. The transmission line

intersects the trail most closely at KOP 3-9, which is located approximately 0.8 mile to the west; it is sited furthest from KOPs 3-1 and 3-2, both of which are located in the Virtue Hills approximately 2 miles to the north and northeast of the Proposed Action's centerline.

The historic setting of the trail segments at KOPs 3-4 and 3-13 have already been impacted by prominent modern circulation features and development associated with mining and power transmission. Similarly, modern intrusions including existing transmission lines, I-84 (which is both visible and audible from multiple locations) and Lookout Mountain Road, a communication tower, and the tracks of the Union Pacific Railroad, have diminished the integrity of historic and cultural setting for the representative trail segments at KOPs 3-3, 3-11, and 3-12. As such, the magnitude of impact at these KOP locations would be none.

At KOPs 3-1, 3-2, and 3-5 through 3-10, however, the trail traces are located within canyons or at a low enough elevation that the transmission line is screened from view, or their setting in the direction of the Proposed Action has not been impacted by human-made intrusions. Additionally, the trail segments at KOPs 3-2 and 3-5 are located within the Straw Ranch I and II ACECs, respectively, and do not show evidence of having been impacted by subsequent use or alterations. In particular, several sets of trail ruts in excellent condition are retained in the vicinity of KOP 3-5. For these reasons, the magnitude of impact on the historic and cultural setting of the Oregon NHT at six of the KOPs (KOPs 3-1 and 3-6 through 3-10) would be moderate, whereas construction of the transmission line would have a high magnitude of impact on two of the KOPs (KOPs 3-2 and 3-5).

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from the Proposed Action on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Alkali Springs/Tub Mountain AU was not considered, because the Proposed Action is located beyond the 5-mile NHT analysis area.

South Alternate Analysis Unit (Idaho/Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 5-1 are provided in Table 19.

Impacts on Historic and Cultural Resources

No impacts on previously recorded trail-related cultural resources within the South Alternate AU were identified. A short segment of the 126-mile-long, NRHP-eligible South Alternate Route (10OE6025) of the Oregon NHT is located on BLM land approximately 0.4 mile to the southwest of the Proposed Action (at its closet location) and would not be directly impacted; however, it is possible that the historic setting of the trail in this location may be impacted by construction of the transmission line. Impacts on segments of the Oregon NHT within the South Alternate AU that are not considered part of the South Alternate Route could not be determined, as the NRHP eligibility of these segments have not yet been evaluated.

Impacts on Historic and Cultural Setting

As previously discussed, the historic setting of the Oregon NHT within the South Alternate AU, as represented by the trail trace at KOP 5-1, has diminished integrity due to residential and agricultural development; road construction including two-track, off--vehicle, and gravel roads, driveways, and Idaho State Highway 78; existing transmission lines; and modern landscaping. As planned, the Proposed Action would cross the South Alternate AU in a generally northwest to southeast direction and its sited location does not intersect with either the congressionally designated route or its parallel alignment; only a 3,562-foot-long (0.67-mile-long) section of the trail on BLM land near the southern end of the Proposed Action is located within 0.5 mile of the centerline. In comparison, the centerline of the Proposed Action is located 3.2. miles, or a considerable distance, from KOP 5-1. Due to the distance of the proposed transmission line to the trail routes, as well as the presence of numerous modern intrusions in this location, construction of the transmission line would have a low magnitude of impact on the historic and cultural setting of the Oregon Trail within the South Alternate AU.

6.1.5.2 Proposed Action—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with Meeks Cutoff are provided in Table 19.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the Meek Cutoff AU. A small section of the trail on private land in Malheur County, Oregon was evaluated during the 2013 RLS. The newly-recorded segment of trail, assigned site number B2H-MA-003, was recommended not eligible for listing in the NRHP due to lack of integrity as the site was previously impacted by road construction (Tetra Tech 2013:13). Due to this recommendation, the magnitude of impact resulting from construction of the Proposed Action would be none.

Impacts on Historic and Cultural Setting

One segment of the Meek Cutoff trail is located within the 5-mile analysis area of the Proposed Action. Although this segment is located within an incised canyon, the transmission line would be visible as it is sited roughly 1.3 miles to the west. Desktop analysis suggests that this segment of trail has been only minimally impacted by modern development. Although intrusions such as the Vale Oregon Canal and its associated gravel access road, two-track roads, and an abandoned grade of the Vale to Juntura Oregon Shortline Railroad (now the Union Pacific Railroad) are visible from multiple vantage points along the trail, the majority of these features are at a higher elevation than the trail segment and are thus not visible or are shielded from view by the steep canyon walls and surrounding hills. For these reasons, as well as the proximity of the Proposed Action to the trail segment, construction of the transmission line would have a moderate magnitude of impact on the historic and cultural setting of the Meek Cutoff at this location.

6.1.5.3 Proposed Action—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Baker Valley to Lower Powder Valley Geographic Area are provided in Table 19 and are derived from the detailed NHT Environmental Factors evaluation. There would be no impacts from the Lower Powder Valley to Eagle Valley, Eagle Valley to Posey Valley, or Snake River near Indian Head Mountain Geographic Areas because the Proposed Action is not located within the analysis area.

Impacts on Historic and Cultural Resources

Identified historic and cultural resources within the Goodale's Cutoff AU are limited to the trail segments under study. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during the 2013 RLS of the analysis area. Although this segment was not evaluated as part of this effort, it was recommended for further study during the ILS (Tetra Tech 2013:13). This segment, however, was not evaluated because it is not within the 5-mile analysis area of the Proposed Action.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, spanning some 306,000 acres, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land, modern intrusions have diminished the integrity of historic setting. In total, approximately ten of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Proposed Action. Of these trail segments, six would be subject to visual impacts from the proposed transmission line. As previously discussed, many of the trail alignments in this AU parallel modern roads, and intrusions associated with agricultural development and ranching have impacted the historic setting of trail segments in the eastern and westernmost portions of the 5-mile analysis area. Because the historic setting of the trail segments along Ruckles Creek and Ruckles Creek Road (in the Baker Valley to Lower Powder Valley Geographic Area) has been only minimally impacted by modern development, construction of the Proposed Action in these locations would have a moderate magnitude of impact on the historic and cultural setting of these trail segments.

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Table 19. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View: Miles of Project Seen from Trail (%)		Quantification of View: Miles of Trail with Views of Project (%)		Quantification of View: Duration of View of Project along Trail (%)		Spatial Relationship				
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Blue Mountains Analysis Unit															
KOP 1-1	H	None	L	None	25/L	75/M	100/H	None	100/H	None	H	None	Undetermined	H	H–4 M–1
KOP 1-2	None	H	None	L	None	100/H	None	100/H	None	100/H	None	L	M	L	
KOP 1-3	H	None	L	None	24/L	76/M	100/H	None	100/H	None	H	H	Undetermined	L	
Oregon NHT—Flagstaff Hill/Virtue Flat Analysis Unit															
KOP 2-1, KOP 2-2	N	M	L	H	5/N	95/H	57/M	43/M	53/M	40/M	N	M	H	M	H–4 M–6
KOP 2-3	H	H	H	L	11/N	89/H	20/L	80/H	21/L	83/H	H	M	Undetermined	M	
KOP 2-4	None	M	None	L	None	100/H	None	100/H	None	84/H	L	N	H	M	
KOP 2-5	None	H	None	L	None	100/H	None	100/H	89/H	None	None	N	H	M	
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-1	None	L	None	H	None	100/H	None	100/H	None	60/M	None	N	Undetermined	M	H–5 M–13
KOP 3-2	None	L	None	H	None	100/H	None	100/H	None	28/L	None	N	M	H	
KOP 3-3	H	M	L	H	11/N	89/H	68/M	32/L	71/M	29/L	M	L	Undetermined	None	
KOP 3-4	None	H	None	L	None	100/H	None	100/H	None	50/M	None	N	Undetermined	None	
KOP 3-5	M	None	L	H	32/L	68/M	100/H	None	95/H	None	M	None	M	H	
KOP 3-6	H	M	L	L	19/N	81/H	7/N	93/H	7/N	93/H	N	M	Undetermined	M	
KOP 3-7	None	M	None	L	None	100/H	None	100/H	None	100/H	None	L	Undetermined	M	
KOP 3-8	None	L	None	H	None	100/H	None	100/H	None	100/H	None	N	M	M	
KOP 3-9	H	None	H	None	29/L	71/M	100/H	None	100/H	None	None	H	Undetermined	M	
KOP 3-10	L	None	H	None	93/H	7/N	100/H	None	90/H	None	H	None	Undetermined	M	
KOP 3-11	M	None	L	None	38/L	61/M	100/H	None	100/H	None	H	None	Undetermined	None	
KOP 3-12	None	L	None	L	None	100/H	None	100/H	None	96/H	None	L	L	None	
KOP 3-13	L	H	L	L	12/N	88/H	46/M	54/M	44/M	56/M	N	M	Undetermined	None	
Oregon NHT—South Alternative Analysis Unit															
KOP 5-1	None	L	None	L	None	100/H	None	100/H	None	86/H	None	L	Undetermined	L	H–0 M–0
Meek Cutoff Study Trail Analysis Unit															
Meek Cutoff Study Trail	None	M	None	H	None	100/H	None	100/H	None	70/M	None	L	None	M	N/A
Goodale's Cutoff Study Trail Analysis Unit															
Baker Valley to Powder Valley Geographic Area	H	H	H	H	13/N	87/H	32/L	68/M	23/L	49/M	H	M	None	M	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

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6.1.5.4 Segment 1—Morrow-Umatilla

Horn Butte Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Glass Hill Alternative.

Proposed Action Compared to the Horn Butte Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action in comparison to the Horn Butte Alternative would not be visible within a 5-mile distance from these trail segments.

Longhorn Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Longhorn Alternative would not be visible within a 5-mile distance from these trail segments.

Proposed Action Compared to the Longhorn Alternative—Oregon National Historic Trail, Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action when compared to the Longhorn Alternative would not be visible within a 5-mile distance from these trail segments.

Longhorn Variation—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Longhorn Variation would not be visible within a 5-mile distance from these trail segments.

Proposed Action Compared to the Longhorn Variation—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action in comparison to the Longhorn Alternative would not be visible within a 5-mile distance from these trail segments.

6.1.5.5 Segment 2—Blue Mountains

Glass Hill Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 1-3 are provided in Table 20, and are derived from the detailed NHT Environmental Factors evaluation. There would be no impacts from KOPs 1-1, and 1-2, because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Impacts on Historic and Cultural Resources

The Glass Hill Alternative would potentially impact one previously recorded trail segment within the Blue Mountains AU. This site, identified as the Whiskey Creek Site in the BLM's Oregon NHT Management Plan (Oman 1989:64), consists of a 4,089-foot-long segment of a possible wagon road or alternate route of the Oregon NHT. A stone marker, or small boulder inscribed with "Oregon Trail 1856," is reportedly located in a "grassy field" in close proximity to the road/trail remnants, although it was not located during the NHT inventory. It is believed that this marker may have pointed the way to the Oregon Trail via a wagon road. Both the stone marker and road/trail remnants were identified during the 2013 RLS of the analysis area, although neither was evaluated for its NRHP eligibility. The Glass Hill Alternative crosses the unevaluated site approximately 0.2 mile east of its western terminus on BLM land; KOP 1-3 is located approximately 0.5 mile east of crossing. Although the NRHP eligibility of the trail trace and stone marker have not yet been determined, the landscape and scenery in this area is both beautiful and panoramic and these rare resources would be impacted by construction of this alternative.

Impacts on Historic and Cultural Setting

Of the numerous braided trail segments of the Oregon NHT located on BLM land within the Blue Mountains AU, only one alignment, as represented by KOP 1-3, is located within the 5-mile analysis area of the Glass Hill Alternative. The Glass Hill Alternative crosses the 4,089-foot-long (0.8 mile) east-west-trending segment of the Oregon NHT at this KOP near its western terminus of the trail and continues to the southeast, where it eventually terminates 5.3 miles to the southwest of La Grande. The historic setting at this KOP location has been diminished by numerous modern intrusions including

gravel and two-track roads, fences, and an existing H-frame transmission line. Additionally, it is unclear if the trail trace in this location, which has been permanently altered by the construction of Mill Canyon Road, represents the remains of a historic wagon road or an alternate route of the Oregon NHT. Due to this modern development and the unclear association of the trail segment to the Oregon NHT, the magnitude of impact related to the Glass Hill Alternative would be none.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from the Glass Hill Alternative on Oregon NHT resources, qualities, values, associated setting, and primary uses within the Flagstaff Hill/Virtue Flat AU because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

Burnt River Canyon Analysis Unit (Oregon)

The magnitude of impact from the Glass Hill Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Burnt River Canyon AU because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from the Glass Hill Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Alkali Springs/Tub Mountain AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Glass Hill Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

Glass Hill Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Glass Hill Alternative on the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

Glass Hill Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Glass Hill Alternative on the Goodale's Cutoff resources, qualities, values, associated setting, and primary uses was not evaluated because the trail segments are not within the 5-mile analysis area of the Glass Hill Alternative.

Proposed Action Compared to the Glass Hill Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 1-3 are provided in Table 21.

Impacts on Historic and Cultural Resources

As the NRHP eligibility of the trail trace in the vicinity of KOP 1-3 has not yet been evaluated, impacts on this trail segment could not be determined.

Impacts on Historic and Cultural Setting

As planned, the Proposed Action compared to the Glass Hill Alternative would cross the Blue Mountains AU in a generally northwest to southeast direction, and would intersect the braided trail segments in one location on BLM land. At KOP 1-3, the route is 0.07 mile north of the trail segment. As previously discussed, the historic setting of the trail segment at KOP 1-3 has already been diminished by modern intrusions including fencelines, two-track roads, I-84 (which is both visible and audible), and clusters of ranch buildings. As such, the impact on the historic and cultural setting in this location would generally be low.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from the Proposed Action compared to the Glass Hill Alternative on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Glass Hill Alternative.

Burnt River Canyon Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Glass Hill Alternative.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Glass Hill Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Glass Hill Alternative.

Proposed Action Compared to the Glass Hill Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Meek Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Glass Hill Alternative.

Proposed Action Compared to the Glass Hill Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Goodale's Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Glass Hill Alternative.

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Table 20. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Glass Hill Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Blue Mountains Analysis Unit															
KOP 1-3	H	None	H	None	11/N	89/H	100/H	None	100/H	None	H	None	Undetermined	None	H–1 M–0

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

Table 21. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Glass Hill Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Blue Mountains Analysis Unit															
KOP 1-3	H	None	L	None	24/L	76/M	100/H	None	100/H	None	H	None	Undetermined	Low	H–4 M–1

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

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6.1.5.6 Segment 3—Baker Valley

Timber Canyon Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Timber Canyon Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Blue Mountains AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from the Timber Canyon Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Flagstaff Hill/Virtue Flat AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-8, 3-9, 3-10, and 3-11 are provided in Table 22, and are derived from the detailed NHT Environmental Factors evaluation. There would also be no impact on KOPs 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-12, and 3-13 because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

Impacts on Historic and Cultural Resources

Previously recorded trail-related cultural resources within the Burnt River Canyon AU include four NRHP eligible segments of the Oregon NHT identified in the 2013 RLS as Straw Ranch I and II, Swayze Creek, and Powell Creek (Tetra Tech 2013). As none of these resources are located within the 5-mile analysis area of the Timber Canyon Alternative, the magnitude of impact on these cultural resources was not evaluated.

Impacts on Historic Setting

The trail segments on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-1 through 3-13, have generally retained their scenic value and are representative of their historic setting. As planned, the Timber Canyon Alternative would cross the east-central portion of the Burnt River Canyon AU in a generally west to east alignment. The proposed Timber Canyon Alternative would not cross any congressionally designated or braided trail segments within Burnt River Canyon AU. In total, four of the 13 KOPs (3-8, 3-9, 3-10 and 3-11) would fall within the 5-mile analysis area of the proposed Timber Canyon Alternative, and one of these—KOP 3-8—could be subject to visual impacts. As previously discussed, the integrity of historic setting at KOP 3-8 has been notably diminished by the development of agricultural fields, industrial and circulation features, and power transmission

structures. As such, the magnitude of impact resulting from construction of the Timber Canyon Alternative would be none as the historic and cultural setting at this location would not be affected.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from the Timber Canyon Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Alkali Springs/Tub Mountain AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Timber Canyon Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

Timber Canyon Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Timber Canyon Alternative on the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Timber Canyon Alternative.

Timber Canyon Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Lower Powder Valley to Eagle Valley, and Eagle Valley to Posey Valley Geographic Areas are provided in Table 19, and are derived from the detailed NHT Environmental Factors evaluation. There would be no impacts from the Baker Valley to Lower Powder Valley or Snake River near Indian Head Mountain Geographic Areas because the Proposed Action is not located within the analysis area.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the four general areas of the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during the 2013 RLS of the analysis area. Although this segment was recommended for further study during the ILS, the magnitude of impact on the Goodale's/Sparta Trail would be none based on the proposed location of the Timber Canyon Alternative.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land modern intrusions have diminished the integrity of setting. The Proposed Action route would cross the northwestern portion of the Goodale's Cutoff AU in an arching, southwest to northwest alignment. The proposed alternative would not cross any of the braded trail segments under study in the Goodale's Cutoff AU, however. In total, 7 of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Proposed Action compared to the Timber Canyon Alternative. Five of these trail segments are located in the Lower Powder Valley to Eagle Valley area, three of which would be subject to visual impacts. The other two trail segments are located within the Eagle Valley to Posey Valley area of the AU and would both be subject to visual impacts.

As previously discussed, while modern intrusions such as graded gravel roads and State Highway 86, as well as agricultural and ranching development in the form of fields and buildings, have impacted the historic setting of these trail segments, as a whole, the segments largely retain their historic and cultural setting. As such, construction of the route would have a moderate magnitude of impact on the historic and cultural setting of the trail segments located on BLM land within the Goodale's Cutoff AU (specifically within the Lower Powder Valley to Eagle Valley and the Eagle Valley to Posey Valley Geographic Areas).

Proposed Action Compared to the Timber Canyon Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Proposed Action when compared to the Timber Canyon Alternative on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Timber Canyon Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 2-1 and 2-2, 2-3, 2-4, and 2-5 are provided in Table 23.

Impacts on Historic and Cultural Resources

None of the previously recorded trail-related historic and cultural resources located on BLM land within the Flagstaff Hill/Virtue Flat AU would be impacted by this route. The NHOTIC, identified as an HPHS (No.106) in the NPS CMUP, is situated on top of Flagstaff Hill and overlooks the route, which is sited approximately 1.1 miles to the southeast. Additionally, the NRHP-eligible Flagstaff Hill and White Swan Segments of the Oregon NHT, and their contributing resources—the Meeker Marker and Flagstaff Hill Monument—are all located approximately 0.5 mile from the route's centerline for the Proposed Action in comparison to the Timber Canyon Alternative. The magnitude of impact on the historic and cultural

setting of the trail segments in these locations, as represented by KOPs 2-1, 2-2, 2-4, and 2-5, is anticipated to be high, however. As such, construction of the route would have a moderate magnitude of impact on the NRHP-eligible trail segments in these locations. Impacts on the trail at KOP 2-3 could not be determined, because the NRHP eligibility for this segment has not yet been evaluated.

Impacts on Historic and Cultural Setting

In general, the numerous braided trail segments within the Flagstaff Hill/Virtue Flat AU, as characterized by the area's five KOPs, retain their integrity of historic setting. As planned, the Proposed Action in comparison to the Timber Canyon Alternative compared to the Timber Canyon Alternative would cross the congressionally designated route and trail segments southwest of the NHOTIC through the open and expansive Virtue Flat landform. This landform, as well as the adjacent Flagstaff Hill, were important landmarks for emigrants traversing the Oregon NHT, and as such, were commonly referenced in journals. Although the route crosses BLM land in three principal areas, including the White Swan ACEC, the transmission line would not directly impact any of the BLM-managed trail segments. The route is located in closest proximity to KOP 2-3, where it is sited 0.6 mile to the west. In this location, the integrity of the historic setting is retained as the surrounding sage steppe landscape remains largely the same as it did during the historic period, with the only modern intrusions to the setting occurring to the south and east. For these reasons, construction of the route in this location would have a moderate magnitude of impact on the historic setting of the Oregon NHT. Historic setting is also retained at KOPs 2-1, 2-2, 2-4, and 2-5, where the congressionally designated route and its multiple travel paths span the Flagstaff Hill and White Swan ACECs. Although modern development, including road construction, fencelines, mining features, existing transmission lines, and the NHOTIC, is visible from all of these KOP locations, these modifications are subordinate to the strong scenic values and are representative of their original setting. As such, the magnitude of impact on the historic and cultural setting of the Oregon NHT in these locations would also be moderate.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, and 3-11 are provided in Table 23.

Impacts on Historic and Cultural Resources

Three segments of the Oregon NHT on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-2, 3-5, and 3-8, were previously recommended eligible for inclusion in the NRHP by Tetra Tech (Tetra Tech 2013). All of these trail segments, which are located within the Straw Ranch I and II ACECs and along Swayze Creek, would not be directly affected; however, impacts on the historic and cultural setting of the trail segments are anticipated. For this reason, the magnitude of impact of the Proposed Action when compared to the Timber Canyon Alternative would be moderate for these three segments of trail.

As the NRHP eligibility of the trail traces in the vicinity of KOPs 3-1, 3-3, 3-4, 3-6, 3-7, 3-9, 3-10 and 3-11 have not yet been evaluated, impacts on these trail segments could not be determined.

Impacts on Historic and Cultural Setting

Despite moderate impacts due to modern development and erosion, the 12 segments of the Oregon NHT on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-1 and 3-12 retain their integrity of historic setting. The Proposed Action when compared to the Timber Canyon Alternative, as planned, would intersect with the braided trail segments and congressionally designated route of the Oregon NHT in four areas, although none of these crossings occur on BLM land. The transmission line intersects the trail most closely at KOP 3-5, which is located approximately 0.7 mile to the northwest; it is sited farthest from KOPs 3-1 and 3-2, both of which are located in the Virtue Hills approximately 2 miles to the north and northeast of the route's centerline.

As previously discussed, the historic setting of the trail segment at KOP 3-4 has been impacted due to prominent modern circulation features and development associated with mining and power transmission. Similarly, modern intrusions including existing transmission lines, I-84 (which is both visible and audible from multiple locations) and Lookout Mountain Road, a communication tower, and the tracks of the Union Pacific Railroad, have diminished the historic and cultural setting for the representative trail segments at KOPs 3-3, and 3-11. As such, the magnitude of impact at these KOP locations would be none.

At KOPs 3-1, 3-2, and 3-5 through 3-10, however, the trail traces are located within canyons or at a low enough elevation that the transmission line is screened from view, or their setting in the direction of the Proposed Action in comparison to the Timber Canyon Alternative has not been impacted by human-made intrusions. Additionally, the trail segments at KOPs 3-2 and 3-5 are located within the Straw Ranch I and II ACECs, respectively, and do not show evidence of having been impacted by subsequent use or alterations. In particular, several sets of trail ruts in excellent condition are retained in the vicinity of KOP 3-5. For these reasons, the magnitude of impact on the historic and cultural setting of the Oregon NHT at six of the KOPs (KOPs 3-1 and 3-6 through 3-10) would be moderate, whereas construction of the transmission line would have a high magnitude of impact on two of the KOPs (KOPs 3-2 and 3-5).

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Timber Canyon Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Timber Canyon Alternative.

Proposed Action Compared to the Timber Canyon Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Meek Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Timber Canyon Alternative.

Proposed Action Compared to the Timber Canyon Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Lower Powder Valley to Eagle Valley, and Eagle Valley to Posey Valley Geographic Areas are provided in Table 23, and are derived from the detailed NHT Environmental Factors evaluation. There would be no impacts from the Baker Valley to Lower Powder Valley or Snake River near Indian Head Mountain Geographic Areas because the Proposed Action is not located within the analysis area.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the four general areas of the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during the RLS of the analysis area. Although this segment was recommended for further study during the ILS, the magnitude of impact on the Goodale's/Sparta Trail would be none due to the proposed location of the route.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land modern intrusions have diminished the integrity of setting. The Proposed Action would cross the northwestern portion of the Goodale's Cutoff AU in an arching, southwest to northwest alignment; however, it would not cross any of the braded trail segments under study in the Goodale's Cutoff AU. In total, seven of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within 5 miles of the route. Five of these are located in the Lower Powder Valley to Eagle Valley area, three of which would be subject to visual impacts. The other two trail segments that would be subject to visual impacts are located within the Eagle Valley to Posey Valley area of the AU.

As previously discussed, while modern intrusions such as graded gravel roads and State Highway 86, as well as agricultural and ranching development in the form of fields and buildings, have impacted the historic setting of these trail segments, as a whole, the segments largely retain their historic and cultural setting. As such, construction of the Proposed Action in comparison to the Timber Canyon Alternative

would have a moderate magnitude of impact on the historic and cultural setting of the trail segments located on BLM land within the Goodale's Cutoff AU.

Flagstaff Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Flagstaff Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Blue Mountains AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Flagstaff Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 2-1 and 2-2 are provided in Table 24. There would be no impacts from KOPs 2-3, 2-4, and 2-5 because the project components would not be visible.

Impacts on Historic and Cultural Resources

None of the previously recorded trail-related cultural resources on BLM land within the Flagstaff Hill/Virtue Flat AU would be directly impacted by the Flagstaff Alternative. The NHOTIC, identified as an HPHS (No. 106) in the NPS CMUP, is situated on top of Flagstaff Hill and overlooks the transmission line, which is sited approximately 1.2 miles to the northwest. Additionally, the NRHP-eligible Flagstaff Hill and White Swan Segments of the Oregon NHT, and their contributing resources—the Meeker Marker and Flagstaff Hill Monument—are all located more than 0.5 mile from the centerline and would not be directly impacted by construction of the alternative; however, impacts on the historic setting of the NRHP-eligible trail segments are anticipated. As such, the magnitude of impact resulting from construction of the transmission line would be high.

Impacts on Historic and Cultural Setting

Despite some impacts due to modern development, the four segments of the Oregon NHT on BLM land within the Flagstaff Hill/Virtue Flat AU retain their integrity of historic setting. The Flagstaff Alternative, as planned, would cross the central portion of the Flagstaff Hill/Virtue Flat AU in a generally southwest to northeast direction. The transmission line would intersect with the braided trail segments and congressionally designated route of the Oregon NHT in three areas, although none of these crossings occur on BLM land. The trail segments at KOPs 2-1 through 2-5 would fall within the 5-mile analysis area of the proposed Flagstaff Alternative, and two of these—the trail segments identified at KOPs 2-1 and 2-2—would be subject to visual impacts. Located 0.6 mile to the northwest, KOP 2-2 is sited the closest to the proposed alternative; KOP 2-2 is located 1.2 miles to the southeast. The historic setting for KOPs 2-1 and 2-2 are predominantly intact. Although the trail segments in these locations have been previously impacted by the construction of State Highway 86 and the NHOTIC on the top of Flagstaff Hill, several sets of trail ruts in excellent condition remain in their vicinity. For this reason, construction and operation of the alternative would have a moderate magnitude of impact on the historic setting of the Oregon NHT for KOPs 2-1 and 2-2.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOP 3-3 are provided in Table 24. There would be no impacts from KOPs 3-1, 3-2, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, 3-12, and 3-13 because the project components would not be visible.

Impacts on Historic and Cultural Resources

Previously recorded trail-related cultural resources within the Burnt River Canyon AU include four NRHP-eligible segments of the Oregon NHT identified in the 2013 RLS as Straw Ranch I and II, Swayze Creek, and Powell Creek (Tetra Tech 2013). Two of these resources, represented by KOPs 3-2, and 3-3, are located within the 5-mile analysis area of the Flagstaff Alternative. The project components would not be visible from KOP 3-2, but would be visible from KOP 3-3. A moderate magnitude of change is expected from KOP 3-3.

Impacts on Historic and Cultural Setting

The trail segments on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-1 through 3-13, have generally retained their scenic character and are representative of their historic setting. As planned, the Flagstaff Alternative would cross the northern portion of the Burnt River Canyon AU in a generally southwest to northeast direction. The proposed Flagstaff Alternative would not cross any congressionally designated or braided trail segments within Burnt River Canyon AU. In total, four of the 13 KOPs (3-1, 3-2, 3-3 and 3-4) would fall within the 5-mile analysis area of the proposed Flagstaff Alternative and one of these—KOP 3-3—could be subject to visual impacts. As previously discussed, the historic setting at KOP 3-3 is no longer retained due to the construction of I-84 and developments associated with power transmission and communications. As such, the magnitude of impact in this location would be none as the historic and cultural setting would not be affected by construction of the Flagstaff Alternative.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from the Flagstaff Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Alkali Springs/Tub Mountain AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Flagstaff Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Flagstaff Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Flagstaff Alternative.

Flagstaff Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Flagstaff Alternative on the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Flagstaff Alternative.

Flagstaff Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Baker Valley to Lower Powder Valley Geographic Area are provided in Table 24. There would also be no impact on the Lower Powder Valley to Eagle Valley, Eagle Valley to Posey Valley, or Snake River near Indian Head Mountain Geographic Areas because they are not within the 5-mile analysis area of the Flagstaff Alternative.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the four general areas of the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during the 2013 RLS of the analysis area. Although this segment was recommended for further study during the ILS, the magnitude of impact for the Flagstaff Alternative would be none due to its proposed location.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land the historic and cultural setting of these segments have been diminished by modern intrusions. The proposed Flagstaff Alternative would cross the westernmost portion of the Goodale's Cutoff AU only and would not intersect with any of the braded trail segments located within it. In total, seven of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Flagstaff Alternative in the Baker Valley to Lower Powder Valley Geographic Area. Three of these trail segments would be subject to visual impacts from the Flagstaff Alternative. Modern intrusions such as State Highway 86 and agricultural and ranching development in the form of fields and buildings have compromised the historic setting of these trail segments. As such, the magnitude of impact from construction of the Flagstaff Alternative would be none.

Proposed Action Compared to the Flagstaff Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Proposed Action compared to the Flagstaff Alternative to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Flagstaff Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 2-1 and 2-2, 2-3, 2-4, and 2-5 are provided in Table 25.

Impacts on Historic and Cultural Resources

None of the previously recorded trail-related cultural resources on BLM land within the Flagstaff Hill/Virtue Flat AU would be directly impacted by the route. The NHOTIC, identified as an HPHS (No. 106) in the NPS CMUP, is situated on top of Flagstaff Hill and would overlook the route, which is sited approximately 1.1 miles to the southeast. Additionally, the NRHP-eligible Flagstaff Hill and White Swan Segments of the Oregon NHT, and their contributing resources—the Meeker Marker and Flagstaff Hill Monument—are all located more than 0.5 mile from the centerline of route and would not be directly impacted by construction; however, impacts on the historic setting of the NRHP-eligible trail segments are anticipated. As such, the magnitude of impact resulting from construction of the Proposed Action in comparison to the Flagstaff Alternative would be high.

Impacts on Historic and Cultural Setting

In general, the numerous braided trail segments within the Flagstaff Hill/Virtue Flat AU, as characterized by the area's five KOPs, retain their integrity of historic setting. The Proposed Action when compared to the Flagstaff Alternative, as planned, would cross the congressionally designated route and trail segments on BLM land in one principal location to the southeast of the NHOTIC. The route is located in closest proximity to KOP 2-3, where it is sited 0.6 mile to the west. In this location, the historic setting is retained as the surrounding sage steppe landscape remains largely the same as it did during the historic period, with the only modern intrusions to the setting occurring to the south and east. For these reasons, construction of the route in this location would have a moderate magnitude of impact on the historic setting of the Oregon NHT.

Historic setting is also retained at KOPs 2-1, 2-2, 2-4, and 2-5, where the congressionally designated route and its multiple travel paths span the Flagstaff Hill and White Swan ACECs. Although modern development including road construction, fencelines, mining features, existing transmission lines, and the NHOTIC, is visible from all of these KOP locations, these modifications are subordinate to the strong scenic values and are representative of their original setting. As such, the magnitude of impact on the historic and cultural setting of the Oregon NHT in these locations would be moderate.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-1, 3-2, 3-3, and 3-4 are provided in Table 25.

Impacts on Historic and Cultural Resources

Previously recorded trail-related cultural resources within the Burnt River Canyon AU include four segments of the Oregon NHT; however, only one of these segments is located within 5 miles of the Proposed Action in comparison to the Flagstaff Alternative. This trail segment, as represented by KOP 3-2, is located within the Straw Ranch I ACEC and was previously recommended eligible for inclusion in the NRHP (Tetra Tech 2013). Although the trail would not be directly affected by construction of the route, impacts on its historic setting are anticipated. Therefore, the magnitude of impact would be moderate for this location. As the NRHP eligibility of the trail traces in the vicinity of KOPs 3-1, 3-3, and 3-4 have not yet been evaluated, impacts on these trail segments could not be determined.

Impacts on Historic and Cultural Setting

Despite moderate impacts due to modern development and erosion, the four segments of the Oregon NHT on BLM land, as represented by KOPs 3-1 through 3-4, retain their integrity of historic setting. The Proposed Action when compared to the Flagstaff Alternative, as planned, would intersect with the braided trail segments and congressionally designated route of the Oregon NHT in one area on non-BLM land. The transmission line intersects the trail most closely at KOP 3-3, which is located approximately 0.8 mile to the west; it is sited furthest from KOP 3-1 which is located in the Virtue Hills approximately 2 miles to the north of the route's centerline.

As previously discussed, the historic setting of the trail segment at KOP 3-4 has been impacted due to prominent modern circulation features and development associated with mining and power transmission. Similarly, modern intrusions including existing transmission lines, I-84 (which is both visible and audible from multiple locations) and Lookout Mountain Road, a communication tower, and the tracks of the Union Pacific Railroad, have diminished the integrity of historic and cultural setting for the representative trail segments at KOP 3-3. As such, the magnitude of impact at these KOP locations would be none.

At KOPs 3-1 and 3-2, however, the trail traces are located within canyons or at a low enough elevation that the transmission line is screened from view or their setting in the direction of the route has not been impacted by modern intrusions. Additionally, the trail segment at KOP 3-2 is located within the Straw Ranch I ACEC and does not show evidence of having been impacted by subsequent use or alterations. For these reasons, the magnitude of impact on the historic and cultural setting of the Oregon NHT at KOP 3-1 would be moderate, and construction of the transmission line would have a high magnitude of impact on KOP 3-2.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Flagstaff Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Flagstaff Alternative.

Proposed Action Compared to the Flagstaff Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the Meek Cutoff Study Trail within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Flagstaff Alternative.

Proposed Action Compared to the Flagstaff Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Baker Valley to Lower Powder Valley Geographic Area are provided in Table 25. There would be no impacts from the Lower Powder Valley to Eagle Valley, Eagle Valley to Posey Valley, or Snake River near Indian Head Mountain Geographic Areas because the Proposed Action in comparison to the Flagstaff Alternative is not located within the analysis area.

Impacts on Historic and Cultural Resources

Identified historic and cultural resources within the Goodale's Cutoff AU are limited to the trail segments under study. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during the 2013 RLS of the analysis area. Although this segment was not evaluated as part of this effort, it was recommended for further study during the ILS (Tetra Tech 2013:13). This segment, however, is not within the 5-mile analysis area of the Proposed Action compared to the Flagstaff Alternative; therefore, the magnitude of impact on the segment of the Goodale's/Sparta Trail on BLM land within the Goodale's Cutoff AU was not evaluated.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, spanning some 306,000 acres, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land modern intrusions have diminished the integrity of historic setting. In total,

approximately ten of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Proposed Action when compared to the Flagstaff Alternative. Of these trail segments, six would be subject to visual impacts from the proposed transmission line. As previously discussed, many of the trail alignments in this AU parallel modern roads and modern intrusions associated with agricultural development and ranching have impacted the historic setting of trail segments in the eastern and westernmost portions of the 5-mile analysis area. Because the historic setting of the trail segments along Ruckles Creek and Ruckles Creek Road has been only minimally impacted by modern development, construction of the Proposed Action in comparison to the Flagstaff Alternative in these locations would have a moderate magnitude of impact on the historic and cultural setting of these trail segments.

Burnt River Mountain Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Blue Mountains AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Flagstaff Hill/Virtue Flat AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, and 3-12 are provided in Table 26. There would be no impacts from KOPs 3-1, 3-2, 3-3, and 3-4 because the project components would not be visible. There would also be no impact on KOP 3-13 because it is not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Impacts on Historic and Cultural Resources

Previously recorded trail-related cultural resources within the Burnt River Canyon AU include four NRHP-eligible segments of the Oregon NHT identified in the RLS as Straw Ranch I and II, Swayze Creek, and Powell Creek (Tetra Tech 2013). Straw Ranch I and Swayze Creek, represented by KOPs 3-5 and 3-8, are subject to visual impacts from the Burnt River Mountain Alternative as they are located only 0.5 and 1.5 miles away from the alternative, respectively. No impacts were identified for the Straw Ranch II and Powell Creek segments as the transmission line would not be visible or the historic setting has already been compromised by human-made intrusions. With the exception of the Powell Creek segment, all of these trail segments would be documented during the ILS of the analysis area. An

additional trail segment located on BLM land has not previously been recorded and would be directly impacted by the Burnt River Mountain Alternative. This trail segment, which has not been evaluated for its NRHP eligibility, would be documented during the ILS of the analysis area.

Impacts on Historic and Cultural Setting

Generally, the trail segments on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-1 through 3-13, have retained their scenic character and are representative of their historic setting. As planned, the Burnt River Mountain Alternative would cross the central portion of the Burnt River Canyon AU in a generally northwest to southeast direction, and would intersect the congressionally designated route, braided trail segments, and Auto Tour Route at two locations. One crossing of the congressionally designated route is located on BLM land. In total, eight of the 13 KOP locations (3-5 to 3-12) would be subject to visual impacts from this alternative. The proposed transmission line comes in closest proximity to trail segments on BLM land at KOP 3-11, which is located 0.5 mile from the line, and KOP 3-5, which is situated 0.9 mile from the alternative.

Modern intrusions including existing transmission lines, I-84 (which is both visible and audible from multiple locations) and Lookout Mountain Road, a communication tower, and the tracks of the Union Pacific Railroad have diminished the historic setting for the representative trail segments at KOPs 3-11 and 3-12. The construction of the Burnt River Mountain Alternative would have a low magnitude of impact on the historic and cultural setting in these locations.

At KOPs 3-5 through 3-10, however, the trail traces are located within canyons or at a low enough elevation that the existing transmission line(s) is/are screened from view, or their setting in the direction of the Alternative has not been impacted by human-made intrusions. Additionally, the trail segments at KOP 3-5 are located within the Straw Ranch II ACEC, and do not show evidence of having been impacted by subsequent use or alterations. Several sets of trail ruts in excellent condition are retained in the vicinity of KOP 3-5. For these reasons, the magnitude of impact on the historic and cultural setting of the Oregon NHT at five of the KOPs (KOPs 3-6 through 3-10) would be moderate, whereas construction of the transmission line would have a high magnitude of impact on KOP 3-5.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Alkali Springs/Tub Mountain AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Burnt River Mountain Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Burnt River Mountain Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Burnt River Mountain Alternative to the resources, qualities, values, associated setting, and primary uses of the Goodale's Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Burnt River Mountain Alternative.

Proposed Action Compared to the Burnt River Mountain Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Proposed Action compared to the Burnt River Mountain Alternative to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Burnt River Mountain Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Burnt River Mountain Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOPs 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, and 3-12 are provided in Table 27.

Impacts on Historic and Cultural Resources

Previously recorded trail-related cultural resources within the Burnt River Canyon AU include four NRHP-eligible segments of the Oregon NHT identified in the 2013 RLS as Straw Ranch I and II, Swayze Creek, and Powell Creek (Tetra Tech 2013). These trail segments, as represented by KOPs 3-5, 3-8, and 3-12, would not be directly affected by the Proposed Action compared to the Burnt River Mountain Alternative, but impacts on their historic and cultural setting are anticipated. As such, construction of the route would have a moderate magnitude of impact on these NRHP-eligible segments of the Oregon NHT.

As the NRHP eligibility of the trail traces in the vicinity of KOPs 3-4, 3-6, 3-7, 3-9, 3-10, and 3-11 have not yet been evaluated, impacts on these trail segments could not be determined.

Impacts on Historic and Cultural Setting

Generally, the trail segments on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-4 through 3-12, have retained their scenic character and are representative of their historic setting. The route, as planned, would intersect with the braided trail segments and congressionally designated route of the Oregon NHT in two areas, neither of which occur on BLM land.

In total, ten of the 13 KOP locations (3-2 and 3-4 to 3-12) would fall within the 5-mile analysis area of the Proposed Action compared to the Burnt River Mountain Alternative. The route intersects the trail most closely at KOP 3-9, which is located approximately 0.8 mile to the west.

Modern intrusions including existing transmission lines, I-84 (which is both visible and audible from multiple locations) and Lookout Mountain Road, a communication tower, and the tracks of the Union Pacific Railroad have diminished the historic setting for the representative trail segments at KOPs 3-4, 3-11, and 3-12. As such, the route would have a low magnitude of impact in these locations.

At KOPs 3-5 through 3-10, however, the trail traces are located within canyons or at a low enough elevation that the existing transmission line(s) is/are screened from view, or their setting in the direction of the route has not been impacted by modern intrusions. Additionally, the trail segments at KOP 3-5 are located within the Straw Ranch II ACEC, and do not show evidence of having been impacted by subsequent use or alterations. Several sets of trail ruts in excellent condition are retained in the vicinity of KOP 3-5. For these reasons, the magnitude of impact on the historic and cultural setting of the Oregon NHT at five of the KOPs (3-6 through 3-10) would be moderate, whereas construction of the route would have a high magnitude of impact at KOP 3-5.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Burnt River Mountain Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action compared to the Burnt River Mountain Alternative.

Proposed Action Compared to the Burnt River Mountain Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Meek Cutoff Study Trail within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Burnt River Mountain Alternative.

Proposed Action Compared to the Burnt River Mountain Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Goodale's Cutoff Study Trail within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Burnt River Mountain Alternative.

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Table 22. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Timber Canyon Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-8	None	L	None	H	None	100/H	None	100/H	None	100/H	None	N	None	None	H–0 M–0
KOP 3-9	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
KOP 3-10	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
KOP 3-11	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
Goodale's Cutoff Study Trail Analysis Unit															
Lower Powder Valley to Eagle Valley Geographic Area	L	L	L	H	27/L	73/M	75/M	25/L	75/M	25/L	M	N	None	M	N/A
Eagle Valley to Posey Valley Geographic Area	None	L	None	L	None	100/H	None	100/H	None	100/H	None	N	None	M	

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 23. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Timber Canyon Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Flagstaff Hill/Virtue Flat Analysis Unit															
KOP 2-1, KOP 2-2	N	M	L	H	5/N	95/H	51/M	49/M	49/M	44/M	N	M	M	M	H–1 M–10
KOP 2-3	H	H	H	L	11/N	89/H	20/L	80/H	21/L	83/H	H	M	M	M	
KOP 2-4	None	M	None	L	None	100/H	None	100/H	None	84/H	None	L	M	M	
KOP 2-5	None	H	None	L	None	100/H	None	100/H	89/H	None	None	N	M	M	
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-1	None	L	None	H	None	100/H	None	100/H	None	60/M	None	N	Undetermined	M	H–2 M–12
KOP 3-2	None	L	None	H	None	100/H	None	100/H	None	28/L	None	N	M	H	
KOP 3-3	H	M	L	H	11/N	89/H	67/M	33/L	71/M	29/L	M	L	Undetermined	None	
KOP 3-4	None	H	None	L	None	100/H	None	100/H	None	50/M	None	N	Undetermined	None	
KOP 3-5	M	None	L	H	32/L	68/M	100/H	None	42/M	None	M	None	M	H	
KOP 3-6	H	M	L	L	19/N	81/H	7/N	93/H	7/N	93/H	N	M	Undetermined	M	
KOP 3-7	None	M	None	L	None	100/H	None	100/H	None	100/H	None	L	Undetermined	M	
KOP 3-8	None	L	None	H	None	100/H	None	100/H	None	100/H	None	N	M	M	
KOP 3-9	None	None	None	None	None	None	None	None	None	None	None	None	Undetermined	M	
KOP 3-10	None	None	None	None	None	None	None	None	None	None	None	None	Undetermined	M	
KOP 3-11	None	None	None	None	None	None	None	None	None	None	None	None	Undetermined	None	
Goodale's Cutoff Study Trail Analysis Unit															
Baker Valley to Powder Valley Geographic Area	H	M	H	H	13/N	87/H	32/L	68/M	23/L	49/M	H	M	None	M	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 24. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Flagstaff Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View: Miles of Project Seen from Trail (%)		Quantification of View: Miles of Trail with Views of Project (%)		Quantification of View: Duration of View of Project along Trail (%)		Spatial Relationship				
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Flagstaff Hill/Virtue Flat Analysis Unit															
KOP 2-1, KOP 2-2	M	L	H	H	16/N	84/H	19/N	81/H	18/N	67/M	M	N	H	M	H–1 M–2
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-3	None	L	None	H	0/None	100/H	0/None	100/H	0/None	57/M	None	N	M	None	H–0 M–1
Goodale's Cutoff Study Trail Analysis Unit															
Baker Valley to Powder Valley Geographic Area	L	L	H	H	27/L	73/M	34/L	66/M	6/N	13/N	H	N	None	None	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 25. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Flagstaff Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View: Miles of Project Seen from Trail (%)		Quantification of View: Miles of Trail with Views of Project (%)		Quantification of View: Duration of View of Project along Trail (%)		Spatial Relationship				
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Flagstaff Hill/Virtue Flat Analysis Unit															
KOP 2-1, KOP 2-2	N	M	L	H	6/N	94/H	50/M	50/M	47/M	47/M	N	M	H	M	H–5 M–6
KOP 2-3	M	H	H	L	11/N	89/H	18/N	82/H	17/N	83/H	H	M	H	M	
KOP 2-4	None	M	None	L	None	100/H	None	100/H	None	84/H	None	L	H	M	
KOP 2-5	None	H	None	L	None	100/H	None	100/H	89/H	None	None	N	H	M	
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-1	None	None	None	None	None	None	None	None	None	None	None	None	Undetermined	M	H–1 M–2
KOP 3-2	None	L	None	L	None	100/H	None	100/H	None	8/N	None	N	M	H	
KOP 3-3	None	L	None	H	None	100/H	None	100/H	None	59/M	None	N	Undetermined	None	
KOP 3-4	None	None	None	None	None	None	None	None	None	None	None	None	Undetermined	None	
Goodale's Cutoff Study Trail Analysis Unit															
Baker Valley to Lower Powder Valley Geographic Area	H	H	H	H	14/N	86/H	31/L	69/M	19/N	42/M	H	M	None	M	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 26. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Burnt River Mountain Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-5	N	L	H	H	4/N	96/H	9/N	91/H	9/N	77/M	N	L	Undetermined	H	H–3 M–6
KOP 3-6	H	M	H	H	10/N	90/H	7/N	93/H	7/N	90/H	H	L	Undetermined	M	
KOP 3-7	None	L	None	L	None	100/H	None	100/H	None	100/H	None	N	Undetermined	M	
KOP 3-8	None	L	None	H	None	100/H	None	100/H	None	100/H	None	N	Undetermined	M	
KOP 3-9	None	L	None	L	None	100/H	None	100/H	None	100/H	None	N	Undetermined	M	
KOP 3-10	L	L	H	H	15/N	85/H	12/N	88/H	10/N	70/M	M	L	Undetermined	M	
KOP 3-11	H	L	H	H	42/M	58/M	88/H	12/N	55/M	6/N	H	N	Undetermined	L	
KOP 3-12	None	L	None	H	None	100/H	None	100/H	None	44/M	None	N	Undetermined	L	

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

Table 27. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Burnt River Mountain Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-2	None	None	None	None	None	None	None	None	None	None	None	None	None	None	H–2 M–10
KOP 3-4	None	L	None	H	None	100/H	None	100/H	None	25/L	None	N	Undetermined	L	
KOP 3-5	L	L	H	H	8/N	92/H	3/N	97/H	45/M	68/M	N	N	M	H	
KOP 3-6	H	M	L	L	19/N	81/H	7/N	93/H	7/N	93/H	N	M	Undetermined	M	
KOP 3-7	N	M	None	L	None	100/H	None	100/H	None	100/H	None	L	Undetermined	M	
KOP 3-8	None	L	None	H	None	100/H	None	100/H	None	100/H	None	N	M	M	
KOP 3-9	None	L	None	L	29/L	71/M	None	100/H	None	100/H	None	N	Undetermined	M	
KOP 3-10	L	None	H	None	93/H	7/N	100/H	None	90/H	None	H	None	Undetermined	M	
KOP 3-11	H	L	H	H	58/M	42/M	97/H	3/N	52/M	3/N	M	L	Undetermined	L	
KOP 3-12	None	L	None	H	None	100/H	None	100/H	None	44/M	None	N	M	L	

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

6.1.5.7 Segment 4—Brogan Area

Willow Creek Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Willow Creek Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Blue Mountains AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impacts from the Willow Creek Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Flagstaff Hill/Virtue Flat AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOP 3-13 are provided in Table 28. There would also be no impact on KOPs 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, and 3-12 because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the Burnt River Canyon AU. The 0.25-mile-long braided segment of trail, as represented by KOP 3-13, located within a canyon to the east of the Willow Creek Alternative would not be subject to visual impact by the alternative, nor would it be crossed by the proposed transmission line. Therefore, the magnitude of impact on the trail resulting from construction of the Willow Creek Alternative would be none.

Impacts on Historic and Cultural Setting

The trail segments on BLM land within the Burnt River Canyon AU, as represented by KOPs 3-1 through 3-13, have generally retained their scenic values and remain representative of their historic setting. As planned, the Willow Creek Alternative would cross the southernmost portion of the Burnt River Canyon AU in a generally south to north direction. The proposed Willow Creek Alternative would not cross any congressionally designated or braided trail segments within Burnt River Canyon AU. Of the 13 KOPs within the Burnt River Canyon AU, only one (KOP 3-13) would fall within the 5-mile analysis area of the proposed Willow Creek Alternative. However, because this KOP is located within the Burnt River Canyon it would not be subject to visual impact from the proposed Willow Creek transmission line, and therefore the magnitude of impact on its historic and cultural setting would be none.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

Impacts on Visual Resources

The visual impacts associated with KOPs 4-1, 4-2, 4-3, and 4-4 are provided in Table 28. There would also be no impact on KOPs 4-5, 4-6, 4-7, 4-8, 4-9, or 4-10 because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Impacts on Historic and Cultural Resources

Historic and cultural resources within the Tub Mountain/Alkali Springs AU include three discontinuous alignments of the Oregon NHT known as the Birch Creek, Alkali Springs, and Tub Mountain segments (Tetra Tech 2013). All three of these segments are located entirely within ACECs and were assigned site numbers by Tetra Tech (B2H-MA-042, B2H-MA-10, and B2H-MA-041) during their 2013 RLS of the project area (Tetra Tech 2013). Additionally, the Alkali Springs segment is considered to be a high-potential route segment (No. 7) by the NPS as the springs for which the route is named was the only water source for emigrants travelling the 22 mile stretch of trail between the Malheur River and Birch Creek (NPS 1999:286). This segment, as defined by the NPS CMUP (NPS 1999:286), begins 6 miles north of the present-day community of Vale, Oregon, and extends north to a former emigrant camp site at Willow Springs. Tetra Tech recommended portions of all three segments eligible for listing in the NRHP and is planning to document them further during the ILS. Although the Willow Creek Alternative would not cross any of these trail segments, it is anticipated that the proposed transmission line would have a moderate magnitude of impact on the segments of trail identified at KOP 4-1 and KOP 4-2.

There would be no impacts associated with KOPs 4-3 and 4-4 because the Willow Creek Alternative would not be visible from these locations.

Historic and Cultural Setting

Generally, the trail segments on BLM land within the Alkali Springs/Tub Mountain AU, as represented by KOPs 4-1 through 4-10, have outstanding scenic values and are representative of their historic setting. As planned, the Willow Creek Alternative would follow a general southwest to northwest alignment to the east of the Alkali Springs/Tub Mountain AU. Four of the 10 KOPs (KOPs 4-1 through 4-4) are located within the 5-mile analysis area of the proposed transmission line. The alternative would not intersect the congressionally designated route or braided trail segments within the AU.

The alignment comes in closest proximity to the braided segments at KOP 4-3, or approximately 2.6 miles to the northwest of the trail segments. However, due to topography, only the trail segments identified at KOPs 4-1 and 4-2 would have visibility of the proposed Willow Creek Alternative. The historic setting of the trail segments at KOPs 4-1 and 4-2 has retained a high level of integrity because it has not been altered by modern intrusions. As the proposed Willow Creek Alternative would be visible to the northwest, construction of the transmission line would have a high magnitude of impact the historic and cultural setting from this location.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Willow Creek Alternative on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Willow Creek Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Willow Creek Alternative to the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Willow Creek Alternative.

Willow Creek Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Snake River near Indian Head Mountain Geographic Area are provided in Table 28. There would be no impacts from the Baker Valley to Lower Powder Valley, Lower Powder Valley to Eagle Valley, or Eagle Valley to Posey Valley Geographic Areas because the Willow Creek Alternative is not located within the analysis area.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the four general areas of the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during Tetra Tech's RLS of the analysis area in 2013. Although this segment was recommended for further study during the ILS, the magnitude of impact on the Goodale's/Sparta Trail within the Goodale's Cutoff AU would be none due to the proposed location of the Willow Creek Alternative.

Impacts on Historic and Cultural Setting

Generally, due to the expansive nature of the Goodale's Cutoff AU, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land modern intrusions have diminished the integrity of setting. The proposed Willow Creek Alternative would cross near the northern portion of the southern area of the Goodale's Cutoff AU in a southwest to northeast alignment. The proposed alternative would not cross any of the braded trail segments under study in the Goodale's Cutoff AU. In total, two of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Willow Creek Alternative. Both of these trail segments are located in the Snake River near Indian Head Mountain geographical area and would potentially be subject to visual impacts from this alternative.

As previously discussed, modern circulation features including Olds Ferry Road, Interstate 84, and State Highway 201 are present in this area. As the historic setting for both of these trail traces has been previously diminished by these intrusions, the magnitude of impact would be none as construction of the Willow Creek Alternative would have no impact on historic and cultural setting in these locations.

Proposed Action Compared to the Willow Creek Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from The Proposed Action compared to the Willow Creek Alternative to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Willow Creek Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Willow Creek Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOP 3-13 are provided in Table 29.

Impacts on Historic and Cultural Resources

One cultural resource, represented by the trail trace at KOP 3-13, is located within the Burnt River Canyon AU and within 5 miles of the Proposed Action in comparison to the Willow Alternative. Because the NRHP eligibility of this trail trace has not yet been determined, it is not clear what, if any, impacts construction of the route would have on this cultural resource.

Impacts on Historic and Cultural Setting

Of the numerous braided segments of the Oregon NHT located on BLM land within the Burnt River Canyon AU, only one alignment–as represented by KOP 3-13–is located within 5 miles of the route. The route extends into the southernmost portion of the AU coming within 1.4 miles to the southeast of KOP 3-13. Because this trail trace is located in a canyon, the Proposed Action route would not be visible and the magnitude of impact from its construction would be none.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Willow Creek Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action in comparison to the Willow Creek Alternative.

Proposed Action Compared to the Willow Creek Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Meek Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Willow Creek Alternative.

Proposed Action Compared to the Willow Creek Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Goodale's Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Willow Creek Alternative.

Tub Mountain South Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Tub Mountain South Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon Trail within the Blue Mountains AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Tub Mountain South Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from the Tub Mountain South Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the Flagstaff Hill/Virtue Flat AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Tub Mountain South Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOP 3-13 are provided in Table 30. There would be no impacts from KOPs 3-1, 3-2, 3-3, 3-4, 3-5, 3-6, 3-7, 3-8, 3-9, 3-10, 3-11, and 3-12 because the project components would not be visible.

Impacts on Historic and Cultural Resources

One cultural resource, represented by the trail trace at KOP 3-13, is located within the buffer of the proposed Tub Mountain South Alternative. Because the NRHP eligibility of this trail trace has not yet been determined, it is not clear what, if any, impacts construction of the Tub Mountain South Alternative would have on this cultural resource.

Impacts on Historic and Cultural Setting

Of the numerous braided segments of the Oregon NHT located on BLM land within the Burnt River Canyon AU, only one alignment, as represented by KOP 3-13, is located within the 5-mile analysis area of the Tub Mountain South Alternative. The Tub Mountain South Alternative extends into the southernmost portion of the AU coming within 1.2 miles to the south of KOP 3-13. Because this trail trace is located in a canyon, the proposed transmission line would not be visible and the magnitude of impact from its construction would be none.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

Impacts on Visual Resources

The visual impacts associated with KOPs 4-1, 4-2, 4-5, 4-6, 4-7, 4-8, 4-9, and 4-10 are provided in Table 30. There would be no impacts from KOPs 4-3, or 4-4 because the project components would not be visible.

Impacts on Historic and Cultural Resources

Historic and cultural resources within the Tub Mountain/Alkali Springs AU include three discontinuous alignments of the Oregon NHT known as the Birch Creek, Alkali Springs, and Tub Mountain segments (Tetra Tech 2013). All three of these segments are located entirely within ACECs and were assigned site numbers (B2H-MA-042, B2H-MA-10, and B2H-MA-041) during the 2013 RLS of the project analysis area (Tetra Tech 2013). Additionally, the Alkali Springs segment is considered to be a high-potential route segment (No. 7) by the NPS as the springs for which the route is named was the only water source for emigrants travelling the 22-mile stretch of trail between the Malheur River and Birch Creek (NPS 1999:286). This segment, as defined by the NPS CMUP (NPS 1999:286), begins 6 miles north of the present-day community of Vale, Oregon and extends north to a former emigrant camp site at Willow Springs. Tetra Tech recommended portions of all three segments eligible for listing in the NRHP and is planning to document them further during the ILS. For this reason, it is anticipated that construction of the Tub Mountain South Alternative would have a moderate magnitude of impact on these trail segments.

There would be no impacts associated specifically with KOPs 4-4 and 4-5 because the Tub Mountain South Alternative would not be visible from these locations.

Impacts on Historic and Cultural Setting

Generally, the trail segments on BLM land within the Alkali Springs/Tub Mountain AU, as represented by KOPs 4-1 through 4-10, have outstanding scenic values and are representative of their historic

setting. As planned, the Tub Mountain South Alternative would cross the Alkali Springs/Tub Mountain AU in a generally southwest to northwest direction. All ten KOPs are located within the 5-mile analysis area of the proposed transmission line. The alternative would not intersect the congressionally designated route or braided trail segments within the AU. The alignment comes in closest proximity to the braded segments at KOP 4-1 at approximately 0.08 miles to the northeast of the trail segments. With the exception of KOP 4-4, the transmission line is visible from all of the KOP locations within this AU.

As previously discussed, the historic setting of the trail segments at KOPs 4-2 and 4-3 is retained as the landscape surrounding these locations has not been impacted by modern development. Therefore, the proposed transmission line would have a high magnitude of impact upon the historic setting of trail traces in these locations. KOPs 4-1 and 4-4 through 4-10, however, have been diminished by modern intrusions including the construction of wind turbines, graded and graveled roads, fencelines, and ranch and agricultural buildings. As such, the magnitude of impact on historic and cultural setting in these KOP locations would be none.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from the Tub Mountain South Alternative to the resources, qualities, values, associated setting, and primary uses of the Oregon NHT within the South Alternate AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Tub Mountain South Alternative.

Tub Mountain South Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from the Tub Mountain South Alternative to the resources, qualities, values, associated setting, and primary uses of the Meek Cutoff was not evaluated because the trail segments are not within the 5-mile analysis area of the Tub Mountain South Alternative.

Tub Mountain South Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with the Snake River near Indian Head Mountain Geographic Area are provided in Table 30. There would be no impacts from the Baker Valley to Lower Powder Valley, Lower Powder Valley to Eagle Valley, or Eagle Valley to Posey Valley Geographic Areas because the Proposed Action is not located within the analysis area.

Impacts on Historic and Cultural Resources

No trail-related cultural resources, other than the historic alignment of the trail itself, have been identified within the four general areas of the Goodale's Cutoff AU. A segment of the trail on BLM and private land, referred to as Goodale's/Sparta Trail (B2H-BA-327), was identified during Tetra Tech's

RLS of the analysis area in 2013. Although this segment was recommended for further study during the ILS, the magnitude of impact on the Goodale's/Sparta Trail would be none due to the proposed location of the Tub Mountain South Alternative.

Impacts on Historic and Cultural Setting

Due to the expansive nature of the Goodale's Cutoff AU, much of the integrity of the broader historic setting is intact. However, in many of the areas where trail segments are present on BLM land modern intrusions have diminished the integrity of setting. The proposed Tub Mountain South Alternative would cross the southwestern portion of the Goodale's Cutoff AU in a curving southwest to northwest alignment. The proposed alternative would not cross any of the braded trail segments under study in the Goodale's Cutoff AU. In total, 5 of the roughly 31 trail segments in the broader Goodale's Cutoff AU would fall within the 5-mile analysis area of the Tub Mountain South Alternative. All 5 segments are located in the Snake River near Indian Head Mountain area; 3 of the 5 segments would be subject to visual impacts from the alternative. As previously discussed, modern circulation features including Olds Ferry Road, I-84 and State Highway 201 are present in this area, as well as agricultural and ranching development in the form of fields and buildings to the east. These alterations have impacted the historic setting of these trail segments, and as such, the magnitude of impact on the historic setting in these locations would be none.

Proposed Action Compared to the Tub Mountain South Alternative—Oregon National Historic Trail

Blue Mountains Analysis Unit (Oregon)

The magnitude of impact from the Proposed Action compared to the Tub Mountain South Alternative on BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to Tub Mountain South Alternative.

Flagstaff Hill/Virtue Flat Analysis Unit (Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared to the Tub Mountain South Alternative.

Burnt River Canyon Analysis Unit (Oregon)

Impacts on Visual Resources

The visual impacts associated with KOP 3-13 are provided in Table 31.

Impacts on Historic and Cultural Resources

One cultural resource, represented by the trail trace at KOP 3-13, is located within the Burnt River Canyon AU and within 5 miles of the Proposed Action when compared to the Tub Mountain South

Alternative. Because the NRHP eligibility of this trail trace has not yet been determined, it is not clear what, if any, impacts construction of the route would have on this cultural resource.

Impacts on Historic and Cultural Setting

Of the numerous braided segments of the Oregon NHT located on BLM land within the Burnt River Canyon AU, only one alignment–as represented by KOP 3-13–is located within 5 miles of the route. The route extends into the southernmost portion of the AU coming within 1.4 miles to the southeast of KOP 3-13. Because this trail trace is located in a canyon, the Proposed Action route would not be visible and the magnitude of impact from its construction would be none.

Alkali Springs/Tub Mountain Analysis Unit (Oregon/Idaho)

The magnitude of impact from this route on the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared the Tub Mountain South Alternative.

South Alternate Analysis Unit (Idaho/Oregon)

The magnitude of impact from this route to the BLM-managed segments of the Oregon NHT within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared the Tub Mountain South Alternative.

Proposed Action Compared to the Tub Mountain South Alternative—Meek Cutoff Study Trail

Meek Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Meek Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared the Tub Mountain South Alternative.

Proposed Action Compared to the Tub Mountain South Alternative—Goodale's Cutoff Study Trail

Goodale's Cutoff Analysis Unit (Oregon)

The magnitude of impact from this route on the BLM-managed segments of the Goodale's Cutoff within this AU was not evaluated because the trail segments are not within the 5-mile analysis area of the Proposed Action when compared the Tub Mountain South Alternative.

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Table 28. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Willow Creek Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-13	None	L	None	L	None	100/H	None	100/H	None	22/L	None	N	None	None	H–0 M–0
Oregon NHT—Alkali Springs/Tub Mountain Analysis Unit															
KOP 4-1	None	L	None	None	None	100/H	None	100/H	None	48/M	None	N	M	H	H–2 M–2
KOP 4-2	None	L	None	L	None	100/H	None	100/H	None	6/N	None	N	M	H	
KOP 4-3	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
KOP 4-4	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
Goodale's Cutoff Study Trail Analysis Unit															
Snake River near Indian Head Mountain Geographic Area	None	None	None	None	None	None	None	None	None	None	None	None	None	None	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 29. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Willow Creek Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-13	None	L	None	H	None	2/N	None	100/H	None	22/L	None	N	Undetermined	None	H–0 M–0

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

Table 30. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Tub Mountain South Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-13	None	M	None	H	None	100/H	None	100/H	None	11/N	None	L	Undetermined	None	H–0 M–0
Oregon NHT—Alkali Springs/Tub Mountain Analysis Unit															
KOP 4-1	H	None	H	None	19/N	81/H	100/H	None	100/H	None	H	None	M	None	H–3 M–10
KOP 4-2	None	L	None	H	None	100/H	None	100/H	None	100/H	None	L	M	H	
KOP 4-3	None	M	None	L	None	100/H	None	100/H	None	10/N	None	N	M	H	
KOP 4-4	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
KOP 4-5	None	None	None	None	None	None	None	None	None	None	None	None	None	None	
KOP 4-6	None	L	None	H	None	100/H	None	100/H	None	82/H	None	L	M	None	
KOP 4-7	None	L	None	H	None	100/H	None	100/H	None	100/H	None	L	M	None	
KOP 4-8	None	M	None	H	None	100/H	None	100/H	None	100/H	None	L	M	None	
KOP 4-9	H	H	H	H	0.3/N	99/H	53/M	47/M	58/M	50/M	M	M	M	None	
KOP 4-10	None	L	None	H	None	100/H	None	100/H	None	100/H	None	L	M	None	
Goodale's Cutoff Study Trail Analysis Unit															
Snake River near Indian Head Mountain Geographic Area	None	H	None	L	None	100/H	None	100/H	None	23/L	None	L	None	None	N/A

Table Abbreviations: KOP = key observation point; NHT = National Historic Trail; FG = foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green); N/A = not available.

Table 31. Summary of Impacts by National Historic Trail/Study Trail Analysis Units—Proposed Action Compared to the Tub Mountain South Alternative

Analysis Units/KOPs and Study Trails/Geographic Areas	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Impacts on Historic and Cultural Resources	Impacts on Historic and Cultural Settings	Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
	Visibility Conditions		Angle of View		Quantification of View						Spatial Relationship				
					Miles of Project Seen from Trail (%)		Miles of Trail with Views of Project (%)		Duration of View of Project along Trail (%)						
	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Oregon NHT—Burnt River Canyon Analysis Unit															
KOP 3-13	None	H	None	H	None	100/H	None	100/H	None	67/M	None	N	Undetermined	None	H–0 M–0

Table Abbreviations: FG = KOP = key observation point; NHT = National Historic Trail; foreground distance; MG = middleground distance; H = high (red); M = moderate (blue); L = low (yellow); N = negligible (green); None = no impact (green).

6.1.5.8 Segment 5—Malheur

Double Mountain Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action compared to Double Mountain Alternative would not be visible within a 5-mile distance from these trail segments.

Proposed Action Compared to the Double Mountain Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action when compared to the Double Mountain Alternative would not be visible within a 5-mile distance from these trail segments.

Malheur S Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Malheur S Alternative would not be visible within a 5-mile distance from these trail segments.

Proposed Action Compared to the Malheur S Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action when compared to the Malheur A Alternative would not be visible within a 5-mile distance from these trail segments.

Malheur A Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Malheur A Alternative would not be visible within a 5-mile distance from these trail segments.

Proposed Action Compared to the Malheur A Alternative—Oregon National Historic Trail and Meek Cutoff and Goodale's Cutoff Study Trails

The magnitude of impact on the resources, qualities, values, associated setting, and primary uses of the Oregon NHT, Meek Cutoff Study Trail, or Goodale's Cutoff Study Trail on BLM-administered lands was not evaluated because the Proposed Action when compared to the Malheur A Alternative would not be visible within a 5-mile distance from these trail segments.

6.1.6 Summary of Compared-To Analysis—Oregon National Historic Trail

Direct impacts to the Oregon NHT from each of the alternatives and associated "compared-to" sections of the Proposed Action are briefly discussed below in a bulleted format by segment. These bullets include each of the Oregon NHT-related resources addressed in this analysis (Scenic/Visual Resources, Historic and Cultural Resources, and Historic and Cultural Settings), and summarize the key differences between the impacts associated with each route, focusing primarily on the high and moderate impacts since these impacts would be severe and substantial, respectively. A detailed summary of quantified impacts associated with the Proposed Action, alternatives, and compared-to segments of the Proposed Action that relate to each of the alternatives is provided in Table 19 through Table 31.

6.1.6.1 Segment 2—Blue Mountains

Glass Hill Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Glass Hill Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Glass Hill Alternative and the equivalent section of the Proposed Action when compared to the Glass Hill Alternative are provided in Table 32.

Sensitive Viewers

- Glass Hill Alternative would have more high impacts with regard to angles of observation.
- Neither the Glass Hill Alternative nor equivalent section of the Proposed Action would have moderate impacts.

Historic and Cultural Resources

- Neither the Glass Hill Alternative nor equivalent section of the Proposed Action would have high impacts.
- Neither the Glass Hill Alternative nor equivalent section of the Proposed Action would have moderate impacts.

Historic and Cultural Settings

- Neither the Glass Hill Alternative nor equivalent section of the Proposed Action would have high impacts.
- Neither the Glass Hill Alternative nor equivalent section of the Proposed Action would have moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The equivalent section of the Proposed Action would have more high and moderate impacts on the nature and purpose and primary uses of the Oregon NHT.

6.1.6.2 Segment 3—Baker Valley

Timber Canyon Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Timber Canyon Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Timber Canyon Alternative and the equivalent section of the Proposed Action compared to the Timber Canyon Alternative are provided in Table 32.

Sensitive Viewers

- The equivalent section of the Proposed Action would have more high impacts than the Timber Canyon Alternative with regard to visibility, angles of observation, magnitude of project components visible, magnitude of platform affected, magnitude of duration of view and spatial relationships.
- The equivalent section of the Proposed Action would have more moderate impacts with regard to angle of observation, magnitude of platform affected, magnitude of duration of view and spatial relationships than the Timber Canyon Alternative.
- Timber Canyon Alternative would have more moderate impacts with regard to magnitude of project components visible.
- Neither the Timber Canyon Alternative nor equivalent section of the Proposed Action would have moderate impacts in regard to angle of observation.

Historic and Cultural Resources

- Neither the Timber Canyon Alternative nor equivalent section of the Proposed Action would have high impacts.
- The equivalent section of the Proposed Action would have more moderate impacts.

Historic and Cultural Settings

- The equivalent section of the Proposed Action would have more high impacts.

- The equivalent section of the Proposed Action would have more moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The equivalent section of the Proposed Action would have more high and moderate impacts on the nature and purpose and primary uses of the Oregon NHT than the Timber Canyon Alternative.

Flagstaff Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Flagstaff Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Flagstaff Alternative and the equivalent section of the Proposed Action when compared to the Flagstaff Alternative are provided in Table 32.

Sensitive Viewers

- The equivalent section of the Proposed Action would have more high impacts with regard to visibility, angles of observation, magnitude of project components visible, magnitude of platform affected, magnitude of duration of view and spatial relationships than the Flagstaff Alternative.
- The equivalent section of the Proposed Action would have more moderate impacts with regard to angle of observation, magnitude of platform affected, magnitude of duration of view and spatial relationships than the Flagstaff Alternative.
- The Flagstaff Alternative would have more moderate impacts with regard to magnitude of project components visible than the equivalent section of the Proposed Action.
- Neither the Flagstaff Alternative nor the equivalent section of the Proposed Action would have moderate impacts with regard to angle of observation.

Historic and Cultural Resources

- The equivalent section of the Proposed Action would have more high impacts than the Flagstaff Alternative.
- The equivalent section of the Proposed Action would have more moderate impacts than the Flagstaff Alternative.

Historic and Cultural Settings

- The equivalent section of the Proposed Action would have more high impacts than the Flagstaff Alternative.
- The Flagstaff Alternative and compared-to segment would have equal moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The equivalent section of the Proposed Action would have more high and moderate impacts on the nature and purpose and primary uses of the Oregon NHT than the Flagstaff Alternative.

Burnt River Mountain Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Burnt River Mountain Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Burnt River Mountain Alternative and the equivalent section of the Proposed Action when compared to the Burnt River Mountain Alternative are provided in Table 32.

Sensitive Viewers

- The Burnt River Mountain Alternative would have more high impacts with regard to visibility, angles of observation, magnitude of project components visible, magnitude of platform affected and spatial relationships than the equivalent section of the Proposed Action.
- The equivalent section of the Proposed Action would have more high impacts with regard to magnitude of duration of view than the Burnt River Mountain Alternative.
- Burnt River Mountain Alternative would have more moderate impacts with regard to magnitude of duration of view than the equivalent section of the Proposed Action.
- The equivalent section of the Proposed Action would have more moderate impacts with regard to visibility and spatial relationships than the Burnt River Mountain Alternative.
- Neither the Burnt River Mountain Alternative nor The equivalent section of the Proposed Action would have moderate impacts with regard to angle of observation.
- Burnt River Mountain Alternative and the equivalent section of the Proposed Action would have equal moderate impacts with regard to magnitude of project components visible.

Historic and Cultural Resources

- Neither the Burnt River Mountain Alternative nor the equivalent section of the Proposed Action would have high impacts.
- The equivalent section of the Proposed Action would have more moderate impacts than the Burnt River Mountain Alternative.

Historic and Cultural Settings

- The Burnt River Mountain Alternative and the equivalent section of the Proposed Action would have equal high impacts.
- The Burnt River Mountain Alternative and the equivalent section of the Proposed Action would have equal moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The Burnt River Mountain Alternative would have more high to the nature and purpose and primary uses of the Oregon NHT than the equivalent section of the Proposed Action.
- The equivalent section of the Proposed Action would have more moderate impacts on the nature and purpose and primary uses of the Oregon NHT than the Burnt River Mountain Alternative.

6.1.6.3 Segment 4—Brogan Area

Willow Creek Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Willow Creek Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Willow Creek Alternative and the equivalent section of the Proposed Action when compared to the Willow Creek Alternative are provided in Table 32.

Sensitive Viewers

- The Willow Creek Alternative would have more high impacts with regard to magnitude of project components visible and magnitude of duration of view than the equivalent section of the Proposed Action.
- The equivalent section of the Proposed Action would have more high impacts with regard to angles of observation, and magnitude of platform affected.
- Neither the Willow Creek Alternative nor the equivalent section of the Proposed Action would have high impacts in regard to visibility and spatial relationships.
- The Willow Creek Alternative would have more moderate impacts with regard to magnitude of duration of view than the equivalent section of the Proposed Action.
- Neither the Willow Creek Alternative nor the equivalent section of the Proposed Action t would have moderate impacts in regard to visibility, angle of observation, magnitude of project components visible, magnitude of platform affected and spatial relationships.

Historic and Cultural Resources

- Neither the Willow Creek Alternative nor the equivalent section of the Proposed Action would have high impacts.
- The Willow Creek Alternative would have more moderate impacts than the equivalent section of the Proposed Action.

Historic and Cultural Settings

- Willow Creek Alternative would have more high impacts than the equivalent section of the Proposed Action.

- Neither the Willow Creek Alternative nor the equivalent section of the Proposed Action would have moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The Willow Creek Alternative would have more high impacts on the nature and purpose and primary uses of the Oregon NHT than the equivalent section of the Proposed Action.
- The Willow Creek Alternative would have more moderate impacts on the nature and purpose and primary uses of the Oregon NHT than the equivalent section of the Proposed Action.

Tub Mountain South Alternative Compared to the Associated Segment of the Proposed Action

The following bullet lists provide a succinct summary of potential impacts on the Oregon NHT from the Tub Mountain South Alternative when "compared-to" the section of the Proposed Action. The bullets are organized based on the general headings provided in Table 32. Detailed data for both the Tub Mountain South Alternative and the equivalent section of the Proposed Action as compared to the Tub Mountain South Alternative are provided in Table 32.

Sensitive Viewers

- The Tub Mountain South Alternative would have more high impacts with regard to visibility, angles of observation, magnitude of project components visible, magnitude of platform affected, magnitude of duration of view and spatial relationships than the equivalent section of the Proposed Action.
- The Tub Mountain South Alternative would have more moderate impacts with regard to visibility, magnitude of platform affected, magnitude of duration of view and spatial relationships than the equivalent section of the Proposed Action.
- Neither the Tub Mountain South Alternative nor the equivalent section of the Proposed Action would have moderate impacts in regard to angle of observation and magnitude of project components visible.

Historic and Cultural Resources

- Neither the Tub Mountain South Alternative nor the equivalent section of the Proposed Action would have high impacts.
- The Tub Mountain South Alternative would have more moderate impacts than the equivalent section of the Proposed Action.

Historic and Cultural Settings

- The Tub Mountain South Alternative would have more high impacts than the equivalent section of the Proposed Action.
- Neither the Tub Mountain South Alternative nor the equivalent section of the Proposed Action would have moderate impacts.

Number of Adverse (High and Moderate) Impacts on the Nature and Purpose and Primary Uses of the Oregon National Historic Trail

- The Tub Mountain South Alternative would have more high impacts on the nature and purpose and primary uses of the Oregon NHT than the equivalent section of the Proposed Action.
- The Tub Mountain South Alternative would have more moderate impacts on the nature and purpose and primary uses of the Oregon NHT than the equivalent section of the Proposed Action.

Table 32. Comparison of Alternatives

Alternatives	Magnitude of Impact	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Number of Impacts on Historic and Cultural Resources	Number of Impacts on Historic and Cultural Settings	Total Number of Adverse Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
		Visibility (miles)		Angle of View (miles)		Quantification of View										
						Magnitude of Project Components Visible (miles)		Magnitude of Trail Affected (miles)		Magnitude of Duration of View (minutes)		Spatial Relationship (miles)				
		FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Proposed Action	H	6.5	15.1	5.7	12.1	1	31.2	7.5	20.4	198	316	9.7	0	3	3	H- 13 M- 20
Proposed Action	M	5.2	11.7	0	0	0	0	3.3	10.6	66	240	2.6	15.7	4	10	
Proposed Action	L	1.4	4.4	9.8	19.1	6.5	0	4.5	0.2	90	18	0	6.8	1	7	
Proposed Action	N	2.4	0	0	0	8	0	0.2	0	4	0	3	8.7	0	5	
Proposed Action	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	13	N/A	
Glass Hill Alternative	H	0.8	0	0.8	0	0	0	0.8	0	16	0	0.8	0	0	0	H- 1 M- 0
Glass Hill Alternative	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Glass Hill Alternative	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Glass Hill Alternative	N	0	0	0	0	0.8	0	0	0	0	0	0	0	0	1	
Glass Hill Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	
Proposed Action Compared to Glass Hill Alternative	H	0.8	0	0	0	0	0	0.8	0	16	0	0.8	0	0	0	H- 4 M- 1
Proposed Action Compared to Glass Hill Alternative	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proposed Action Compared to Glass Hill Alternative	L	0	0	0.8	0	0.8	0	0	0	0	0	0	0	0	1	
Proposed Action Compared to Glass Hill Alternative	N	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proposed Action Compared to Glass Hill Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	
Timber Canyon Alternative	H	0	0	0	0.8	0	5.5	0	5.5	0	114	0	0	0	0	H- 0 M- 0
Timber Canyon Alternative	M	0	0	0	0	0	0.7	2.1	0	42	0	2.1	0	0	0	
Timber Canyon Alternative	L	2.1	6.2	2.1	5.4	2.1	0	0	0.7	0	14	0	0	0	0	
Timber Canyon Alternative	N	0	0	0	0	0	0	0	0	0	0	0	6.2	4	4	
Timber Canyon Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	
Proposed Action Compared to Timber Canyon Alternative	H	5.2	5.3	4.5	11.6	0	25.9	2.1	15.4	50	230	4.5	0	0	2	H- 3 M- 22
Proposed Action Compared to Timber Canyon Alternative	M	2.1	19.5	0	0	0	0	2.7	10.3	96	220	2.6	15.4	7	10	
Proposed Action Compared to Timber Canyon Alternative	L	0	1.1	5	14.3	2.1	0	4.5	0.2	90	18	0	6.5	0	0	
Proposed Action Compared to Timber Canyon Alternative	N	2.2	0	0	0	7.4	0	0.2	0	4	0	2.4	4	0	3	
Proposed Action Compared to Timber Canyon Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	N/A	
Flagstaff Alternative	H	0	0	1.4	4.7	0	3.4	0	3.4	0	0	0.6	0	1	0	H- 1 M- 3
Flagstaff Alternative	M	0.8	0	0	0	0	1.3	0	1.3	0	68	0.8	0	1	1	
Flagstaff Alternative	L	0.6	4.7	0	0	0.6	0	0.6	0	0	0	0	0	0	0	
Flagstaff Alternative	N	0	0	0	0	0.8	0	0.8	0	28	26	0	4.7	0	1	
Flagstaff Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	

Alternatives	Magnitude of Impact	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Number of Impacts on Historic and Cultural Resources	Number of Impacts on Historic and Cultural Settings	Total Number of Adverse Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
		Visibility (miles)		Angle of View (miles)		Quantification of View										
						Magnitude of Project Components Visible (miles)		Magnitude of Trail Affected (miles)		Magnitude of Duration of View (minutes)		Spatial Relationship (miles)				
		FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Proposed Action Compared to Flagstaff Alternative	H	3.8	13.3	4.3	11	0	20.8	0	10.3	50	142	4.3	0	4	1	H- 6 M- 8
Proposed Action Compared to Flagstaff Alternative	M	0.5	6.8	0	0	0	0	2.1	10.5	42	220	0	12.9	1	5	
Proposed Action Compared to Flagstaff Alternative	L	0	0.7	2.1	9.8	0	0	3.8	0	0	0	0	4.7	0	0	
Proposed Action Compared to Flagstaff Alternative	N	2.1	0	0	0	6.4	0	0.5	0	86	4	2.1	3.2	0	2	
Proposed Action Compared to Flagstaff Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	*3*	N/A	
Burnt River Mountain Alternative	H	1.9	0	2.2	6.7	0	8.3	1.7	8.3	0	94	1.9	0	0	1	H- 3 M- 6
Burnt River Mountain Alternative	M	0	2.6	0	0	1.7	0.2	0	0	34	72	0.1	0	0	5	
Burnt River Mountain Alternative	L	0.1	5.9	0	1.8	0	0	0	0	0	0	0	5	0	2	
Burnt River Mountain Alternative	N	0.2	0	0	0	0.5	0	0.5	0.2	10	4	0.2	3.5	0	0	
Burnt River Mountain Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	8	N/A	
Proposed Action Compared to Burnt River Mountain Alternative	H	1.8	0	2.6	3.1	0.9	7.3	2.5	7.5	18	92	0.9	0	0	1	H- 2 M- 10
Proposed Action Compared to Burnt River Mountain Alternative	M	0	4.3	0	0	1.6	0.3	0	0	34	54	1.6	2.7	3	5	
Proposed Action Compared to Burnt River Mountain Alternative	L	1	3.3	0.2	4.5	0	0	0	0	0	4	0	1.7	0	3	
Proposed Action Compared to Burnt River Mountain Alternative	N	0	0	0	0	0.3	0	0.3	0.1	4	2	0.3	3.2	1	1	
Proposed Action Compared to Burnt River Mountain Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	6	N/A	
Willow Creek Alternative	H	0	0	0	0	0	1.7	0	0	1.7	0	0	0	0	2	H- 2 M- 2
Willow Creek Alternative	M	0	0	0	0	0	0	0	0	0	28	0	0	2	0	
Willow Creek Alternative	L	0	1.7	0	1.7	0	0	0	0	0	4	0	0	0	0	
Willow Creek Alternative	N	0	0	0	0	0	0	0	0	0	2	0	1.7	3	2	
Willow Creek Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	N/A	
Proposed Action Compared to the Willow Creek Alternative	H	0	0	0	0.2	0	0	0	0.2	0	0	0	0	0	0	H- 0 M- 0
Proposed Action Compared to the Willow Creek Alternative	M	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proposed Action Compared to the Willow Creek Alternative	L	0	0.2	0	0	0	0	0	0	0	4	0	0	0	0	
Proposed Action Compared to the Willow Creek Alternative	N	0	0	0	0	0	0.2	0	0	0	0	0	0.2	0	1	
Proposed Action Compared to the Willow Creek Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	

Alternatives	Magnitude of Impact	Impacts on Visual Resources from Sensitive Viewers (KOPs/Geographic Areas)												Number of Impacts on Historic and Cultural Resources	Number of Impacts on Historic and Cultural Settings	Total Number of Adverse Impacts on the Nature and Purpose and Primary Uses of the Oregon NHT
		Visibility (miles)		Angle of View (miles)		Quantification of View						Spatial Relationship (miles)				
						Magnitude of Project Components Visible (miles)		Magnitude of Trail Affected (miles)		Magnitude of Duration of View (minutes)						
		FG	MG	FG	MG	FG	MG	FG	MG	FG	MG	FG	MG			
Tub Mountain South Alternative	H	3.6	1.1	3.6	13	0	14	2.9	13.4	59	246	2.9	0	0	2	H- 3 M- 10
Tub Mountain South Alternative	M	0	2.2	0	0	0	0	0.7	0.6	14	12	0.7	0.6	8	0	
Tub Mountain South Alternative	L	0	10.7	0	1	0	0	0	0	0	10	0	12.9	0	0	
Tub Mountain South Alternative	N	0	0	0	0	3.6	0	0	0	0	12	0	0.5	2	9	
Tub Mountain South Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	
Proposed Action Compared to Tub Mountain South Alternative	H	0	0.1	0	0.1	0	0.1	0	0.1	0	0	0	0	0	0	H- 0 M- 0
Proposed Action Compared to Tub Mountain South Alternative	M	0	0	0	0	0	0	0	0	0	2	0	0	0	0	
Proposed Action Compared to Tub Mountain South Alternative	L	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Proposed Action Compared to Tub Mountain South Alternative	N	0	0	0	0	0	0	0	0	0	0	0	0.1	0	1	
Proposed Action Compared to Tub Mountain South Alternative	Undetermined	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	1	N/A	

Table Abbreviations: FG = foreground distance; MG = middleground distance; H = high; M = moderate; L = low; N= negligible; KOP = key observation point; NHT = National Historic Trail.

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7.0 CONCLUSION

Following guidance provided in BLM Manual 6280, an inventory of the resources, qualities, values, associated setting, and primary uses that support the nature and purposes of NHTs and Study Trails in the B2H analysis area was completed. Because Manual 6280 does not provide a detailed protocol for documenting salient attributes contributing to the nature and purposes of trails requiring evaluation, BLM trail administrators, BLM Washington Office National Trails System managers, and B2H Project visual and cultural resources technical leads collaborated to develop a methodology for collecting the data necessary to support a Manual 6280 inventory. The resulting inventory documents the existing conditions of the Oregon NHT and the Meek and Goodale's Cutoff Study Trails in terms of visual resources, historic and cultural resources, historic and cultural setting, and recreation and travel management opportunities. These same variables were also examined to assess and compare level of impacts for trail segments located on BLM-administered lands within the analysis area for the B2H Project; the results of the comparative impact analysis is summarized in the discussion above and in Table 32.

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Appendix A
Photographs of Viewsheds from Inventory Observation Points within Oregon National Historic Trail Analysis Units

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LIST OF INVENTORY OBSERVATION POINTS (IOPS) BY OREGON NATIONAL HISTORIC TRAIL ANALYSIS UNIT

Blue Mountains Analysis Unit IOPs (Oregon)

IOP 1-1

IOP 1-2

IOP 1-3

Flagstaff Hill/Virtue Flat Analysis Unit IOPs (Oregon)

IOP 2-1

IOP 2-2

IOP 2-3

IOP 2-4

IOP 2-5

Burnt River Canyon Analysis Unit IOPs (Oregon)

IOP 3-1 IOP 3-8

IOP 3-2 IOP 3-9

IOP 3-3 IOP 3-10

IOP 3-4 IOP 3-11

IOP 3-5 IOP 3-12

IOP 3-6 IOP 3-13

IOP 3-7

Alkali Springs/Tub Mountain Analysis Unit IOPs (Oregon)

IOP 4-1 IOP 4-6

IOP 4-2 IOP 4-7

IOP 4-3 IOP 4-8

IOP 4-4 IOP 4-9

IOP 4-5 IOP 4-10

South Alternate Analysis Unit IOPs (Idaho)

IOP 5-1

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IOP 1-1 (Heavily forested area, looking southeast)



IOP 1-2 (Visible trail segment within forested area, looking south)



IOP 1-2 (Visible trail segment, looking north)



IOP 1-3 (Graded gravel road as possible trail alignment, looking west)



IOP 1-3 (Grassland with intermittent evergreen trees, looking northeast)



IOP 2-1 (Agricultural development, looking northwest)



IOP 2-1 (National Historic Oregon Trail Interpretive Center and highway, looking east)



IOP 2-2 (Trail trace at Flagstaff Hill, looking northwest)



IOP 2-2 (Sage steppe landscape, looking west)



IOP 2-3 (Rolling sagebrush hills, looking northeast)



IOP 2-3 (Faint trail trace, looking west)



IOP 2-4 (Sage steppe hills with Wallowa Mountains in distance, looking northwest)



IOP 2-4 (Graded road as trail alignment, trail marker, looking southeast)



IOP 2-5 (Modern development, looking north)



IOP 2-5 (Graded mining road as trail alignment, looking west)



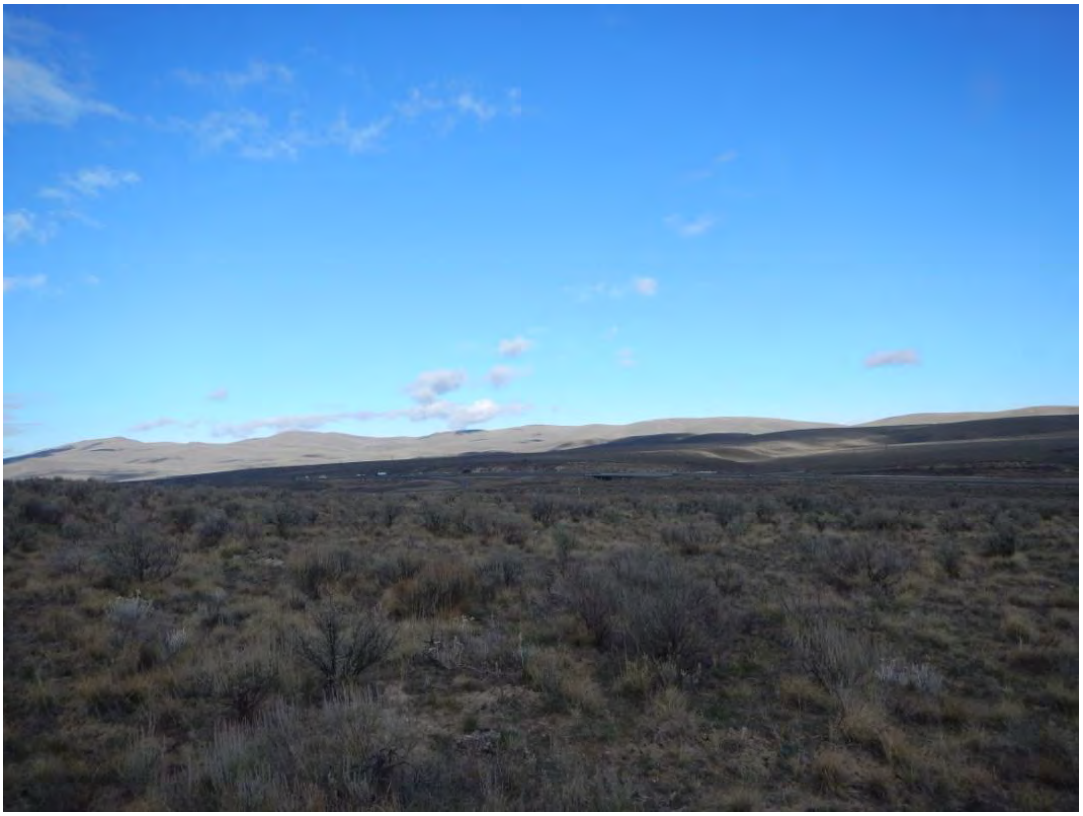
IOP 3-1 (Trail segment present in drainage, looking east)



IOP 3-2 (Sage steppe, Blue Mountains in distance, looking north)



IOP 3-2 (Sage steppe hills, looking west)



IOP 3-3 (I-84 infrastructure, looking northwest)



IOP 3-4 (Development along I-84, looking northwest)



IOP 3-4 (Gravel storage area adjacent to I-84, looking southeast)



IOP 3-5 (Trail marker Straw Ranch I, looking southwest)



IOP 3-5 (Rolling sage steppe hills, looking northwest)



IOP 3-6 (Drainage adjacent to Old Oregon Trail State Highway, looking northwest)



IOP 3-6 (Sage steppe hillside, looking northeast)



IOP 3-7 (H-Frame transmission line, looking southeast)



IOP 3-7 (Trail, transmission line, Iron Mountain in distance, looking northeast)



IOP 3-8 (Stone marker adjacent to Plano Road, looking southeast)



IOP 3-8 (Agricultural land, looking southwest)



IOP 3-9 (Plano Road, looking southwest)



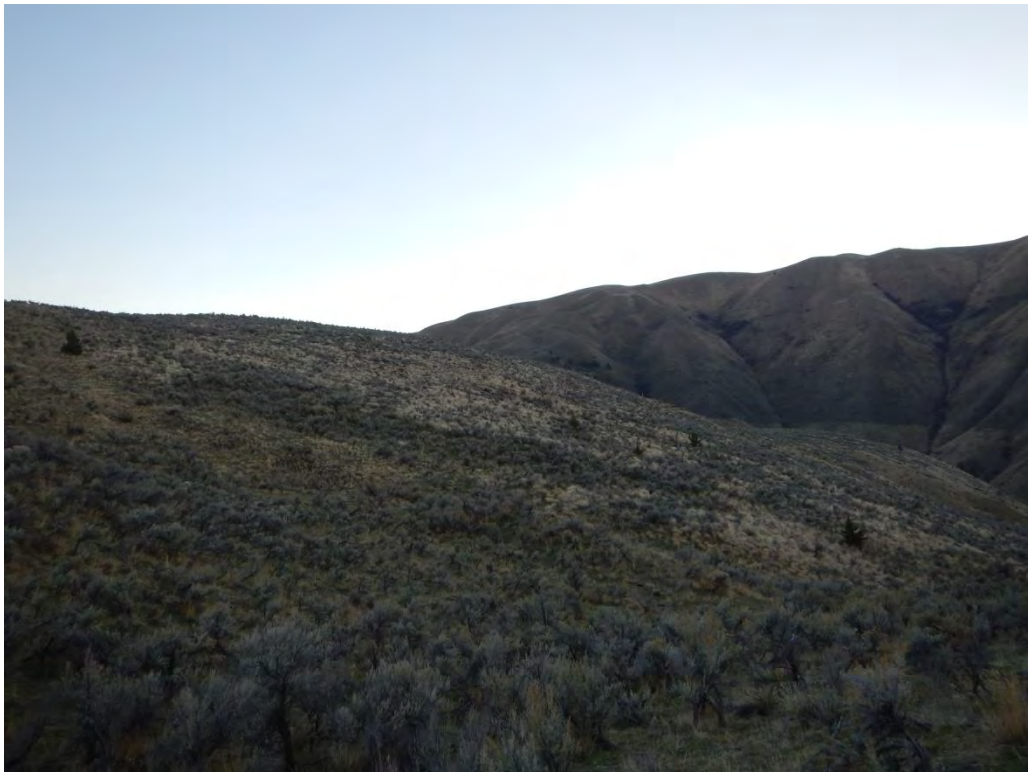
IOP 3-9 (Rolling sage steppe hills with evergreens, looking east)



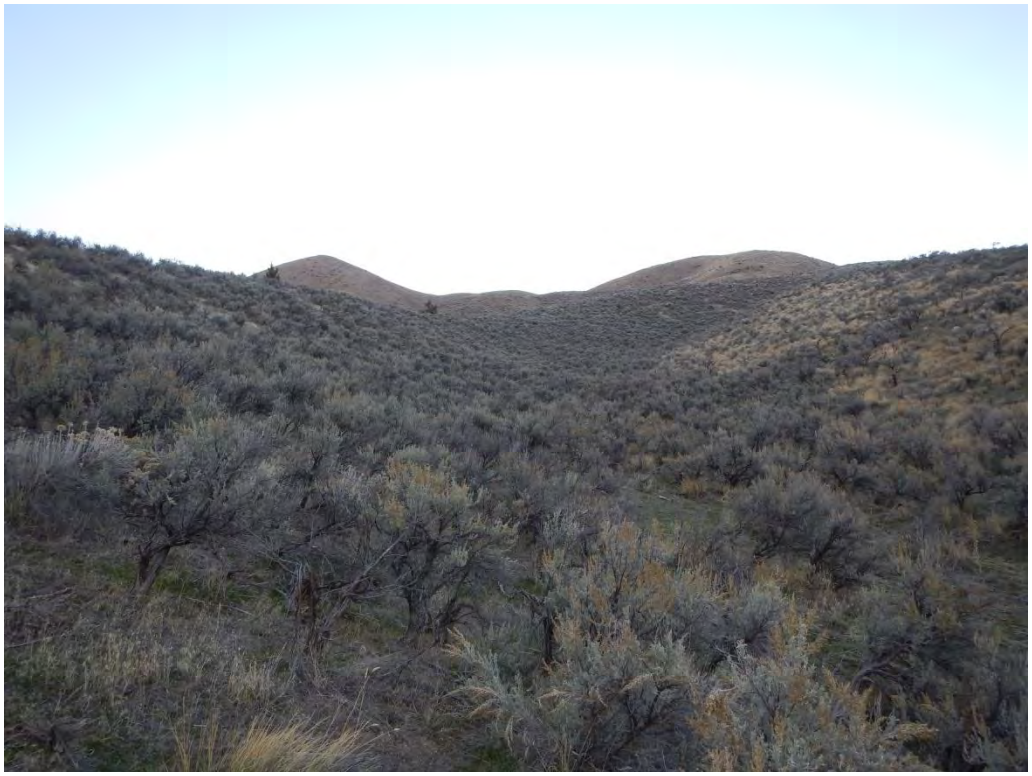
IOP 3-10 (Plano Road, single pole transmission line, looking southwest)



IOP 3-10 (Plano Road adjacent to Sisley Creek, looking north)



IOP 3-11 (Sage steppe hills, mountains in distance, looking southwest)



IOP 3-11 (Sage steppe hills, looking east)

No Photos

IOP 3-12 (Location not accessible)



IOP 3-13 (Interstate 84, modern buildings, looking south)



IOP 3-13 (Interstate 84, Union Pacific Railroad alignment, looking northwest)



IOP 4-1 (Trail trace and adjacent marker, looking north)



IOP 4-1 (Lockett Road, looking southeast)



IOP 4-2 (Love Reservoir, looking northeast)



IOP 4-2 (Graded road, looking northwest)



IOP 4-3 (Gravel road in distance, looking northwest)



IOP 4-3 (Sage steppe hills, looking east)



IOP 4-4 (Graded gravel road, windturbines on mountains in distance, looking north)



IOP 4-4 (Cattle trail adjacent to road, looking south)



IOP 4-5 (Fenced Class I trail segment, looking northeast)



IOP 4-5 (Trail segment, Blue Mountains in distance, looking north)



IOP 4-6 (Graded gravel road as possible trail alignment, looking southwest)



IOP 4-6 (Graded gravel road, looking northwest)



IOP 4-7 (Fenced spring and interpretive panel, looking southwest)



IOP 4-7 (Graded gravel road, looking north)



IOP 4-8 (Fenced wetland, livestock corral in distance, looking northwest)



IOP 4-8 (Graded gravel road, looking north)



IOP 4-9 (Graded gravel road, agricultural development, looking south)



IOP 4-9 (Graded gravel road, agricultural development, looking northwest)



IOP 4-10 (Possible cattle trail, agricultural development, looking south)



IOP 4-10 (Two-track road near fencing, agricultural development, looking northwest)



IOP 5-1 (State Highway 78, looking west)



IOP 5-1 (Snake River and surrounding development, looking southeast)

Appendix B
Maps of Visual Resource Management Classes, Visual Resource Inventory Data, and Inventory Observation Points for National Historic Trail/Study Trail Analysis Units

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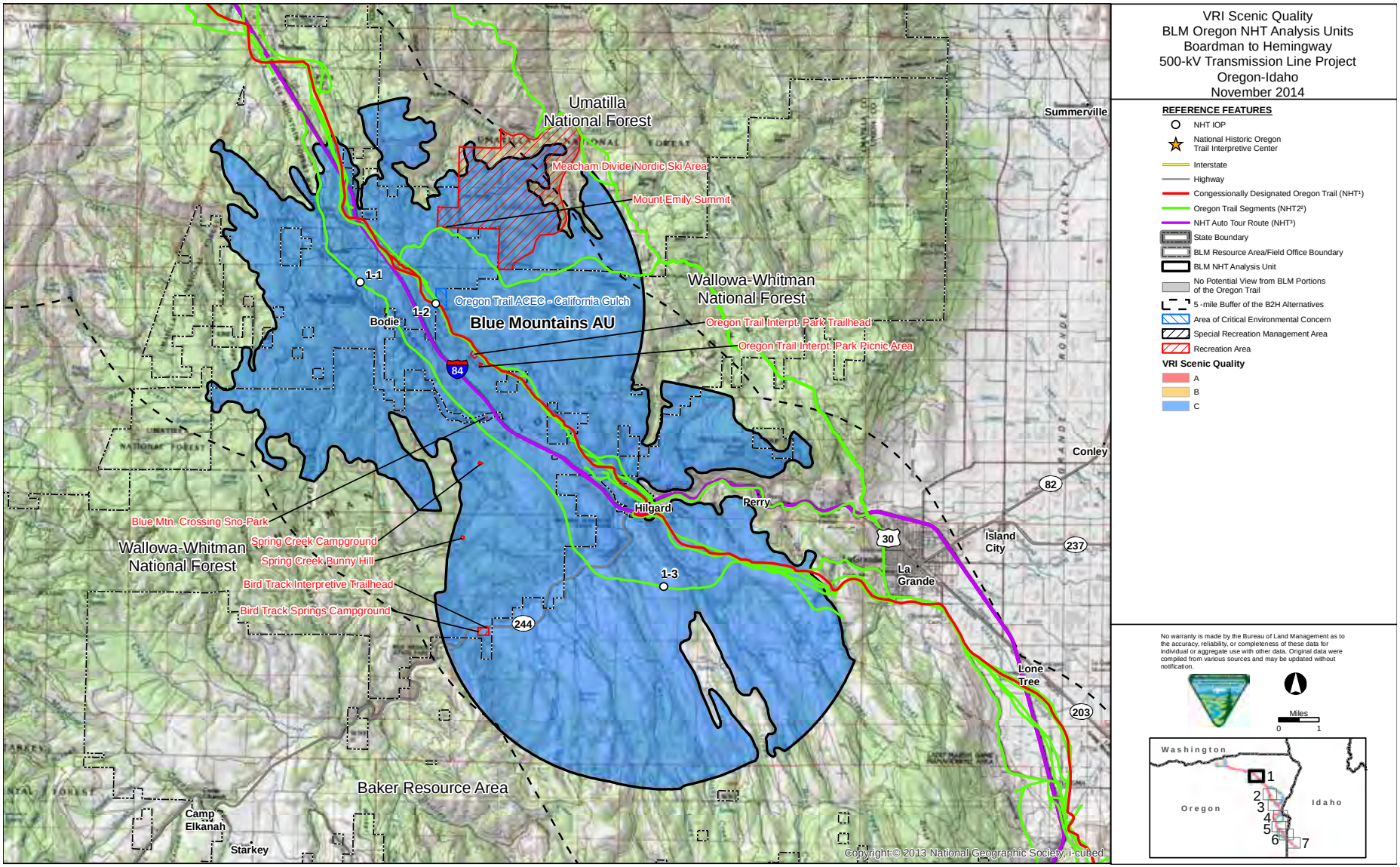
This appendix could not be made fully Section 508 compliant. For help with any of its content, please contact the Bureau of Land Management, Vale District Office, at 541-473-3144. Please reference Appendix B of the November 2014 *BLM Manual 6280 Inventory and Impacts Analysis for National Historic Trails and Study Trails for the Boardman to Hemingway 500-kV Transmission Line Project.*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BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
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National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5 -mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Scenic Quality
A
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Umatilla National Forest
Meacham Divide Nordic Ski Area
Mount Emily Summit
Wallowa-Whitman National Forest
Oregon Trail ACEC - California Gulch
Blue Mountains AU
Oregon Trail Interpt. Park Trailhead
Oregon Trail Interpt. Park Picnic Area
Blue Mtn. Crossing Sno-Park
Spring Creek Campground
Spring Creek Bunny Hill
Bird Track Interpretive Trailhead
Bird Track Springs Campground
Wallowa-Whitman National Forest
Baker Resource Area
1-1
1-2
1-3
Bodie
Hilgard
Rerry
Conley
Island City
La Grande
Lone Tree
Summerville
Camp Elkanah
Starkey
84
82
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237
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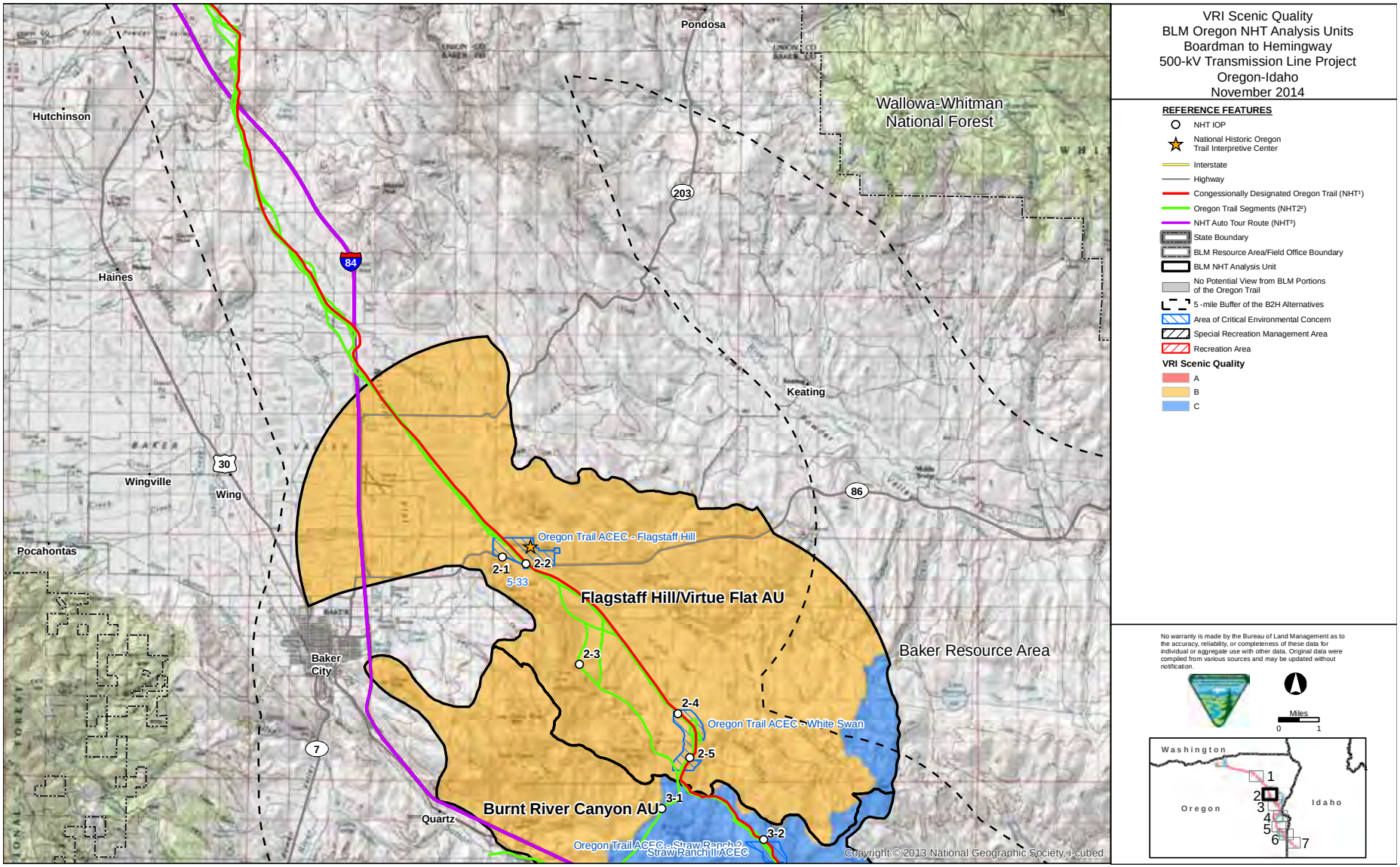
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REFERENCE FEATURES
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Pondosa
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Wingville
Wing
Pocahontas
Baker City
Quartz
Baker Resource Area
Oregon Trail ACEC - Flagstaff Hill
2-1
2-2
5-33
Flagstaff Hill/Virtue Flat AU
2-3
2-4
Oregon Trail ACEC - White Swan
2-5
3-1
Burnt River Canyon AU
3-2
Oregon Trail ACEC - Straw Ranch 2
Straw Ranch III ACEC
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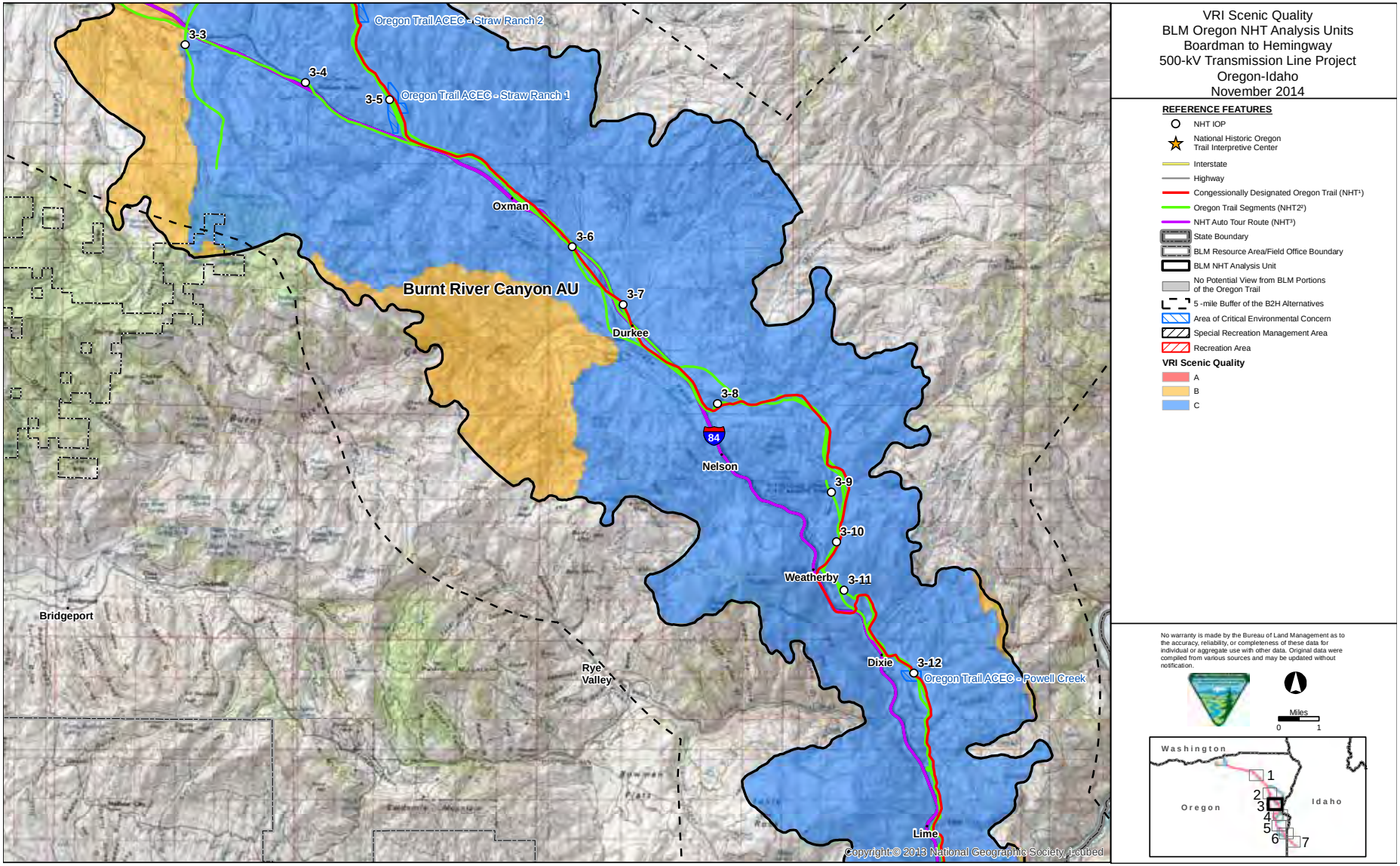
Oregon Trail ACEC - Straw Ranch 2
Oregon Trail ACEC - Straw Ranch 1
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3-4
3-5
Oxman
3-6
Burnt River Canyon AU
3-7
Durkee
3-8
84
Nelson
3-9
3-10
Weatherby
3-11
Bridgeport
Rye Valley
Dixie
3-12
Oregon Trail ACEC - Powell Creek
Lime
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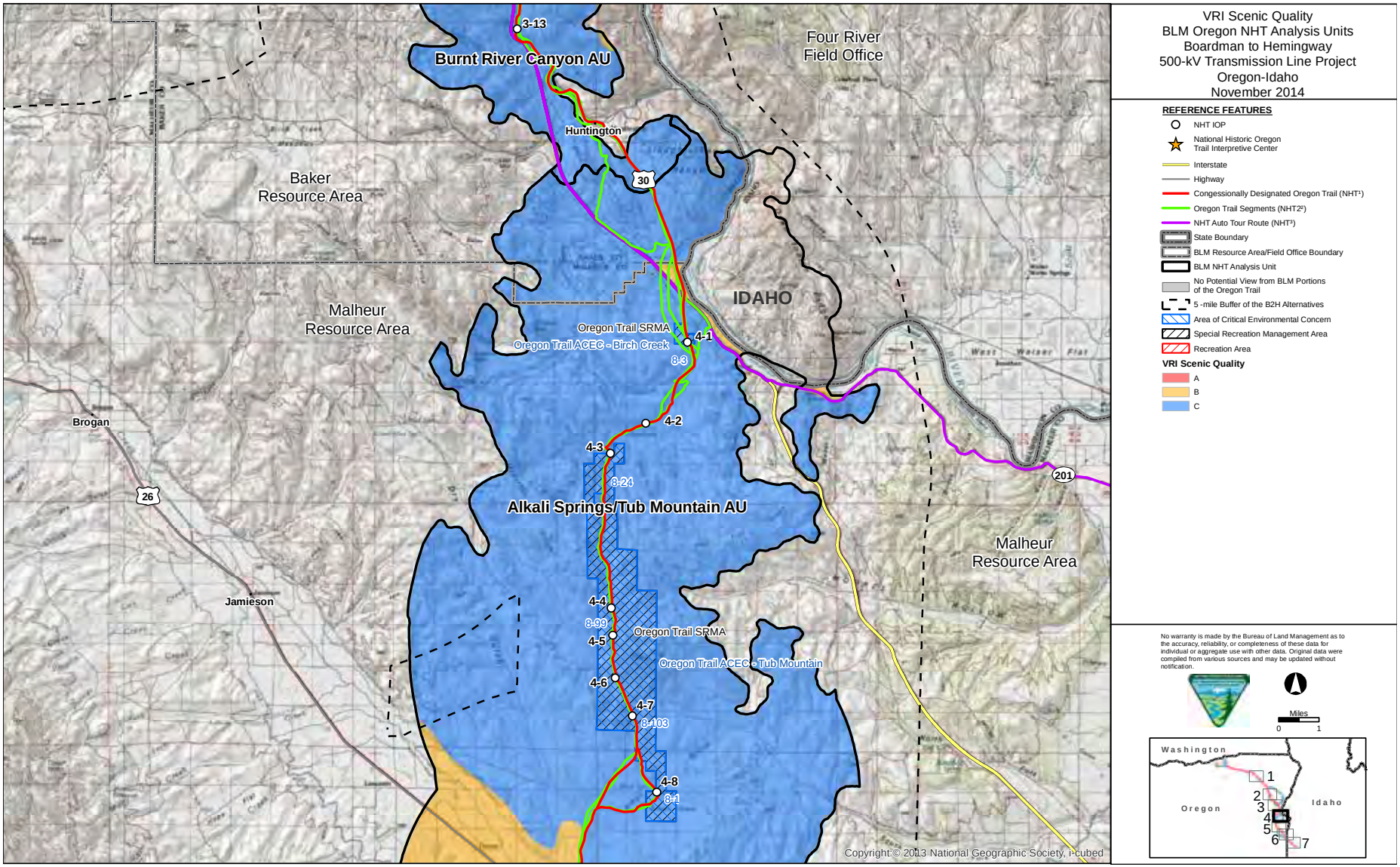
3-13
Burnt River Canyon AU
Four River
Field Office
Huntington
30
Baker
Resource Area
Malheur
Resource Area
IDAHO
Oregon Trail SRMA
Oregon Trail ACEC - Birch Creek
4-1
8-3
4-2
Brogan
26
4-3
8-24
Alkali Springs/Tub Mountain AU
201
Malheur
Resource Area
Jamieson
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Oregon Trail SRMA
Oregon Trail ACEC - Tub Mountain
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8-1
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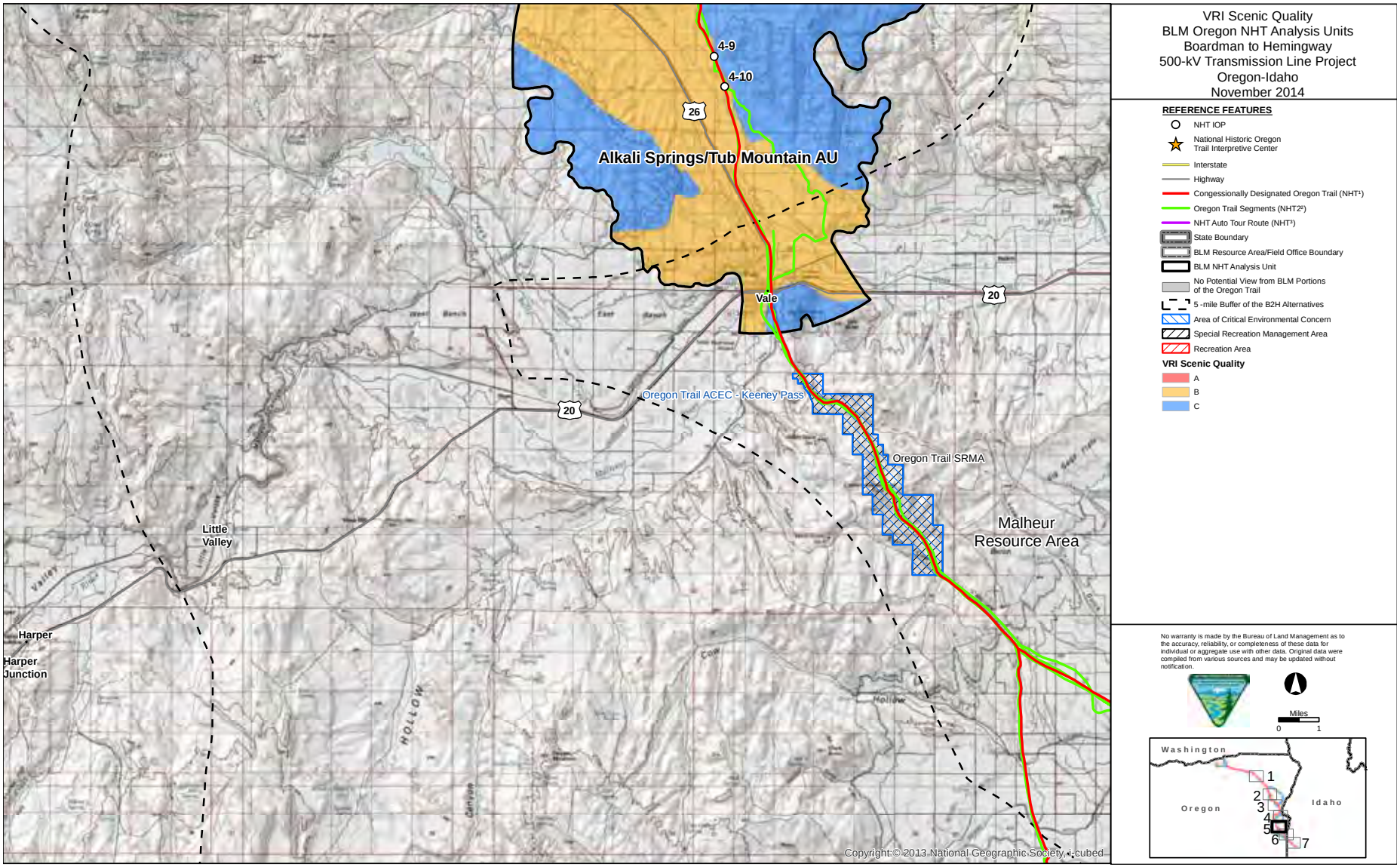
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4-10
26
Alkali Springs/Tub Mountain AU
Vale
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Oregon Trail ACEC - Keeney Pass
Oregon Trail SRMA
Malheur
Resource Area
Little
Valley
Harper
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Junction
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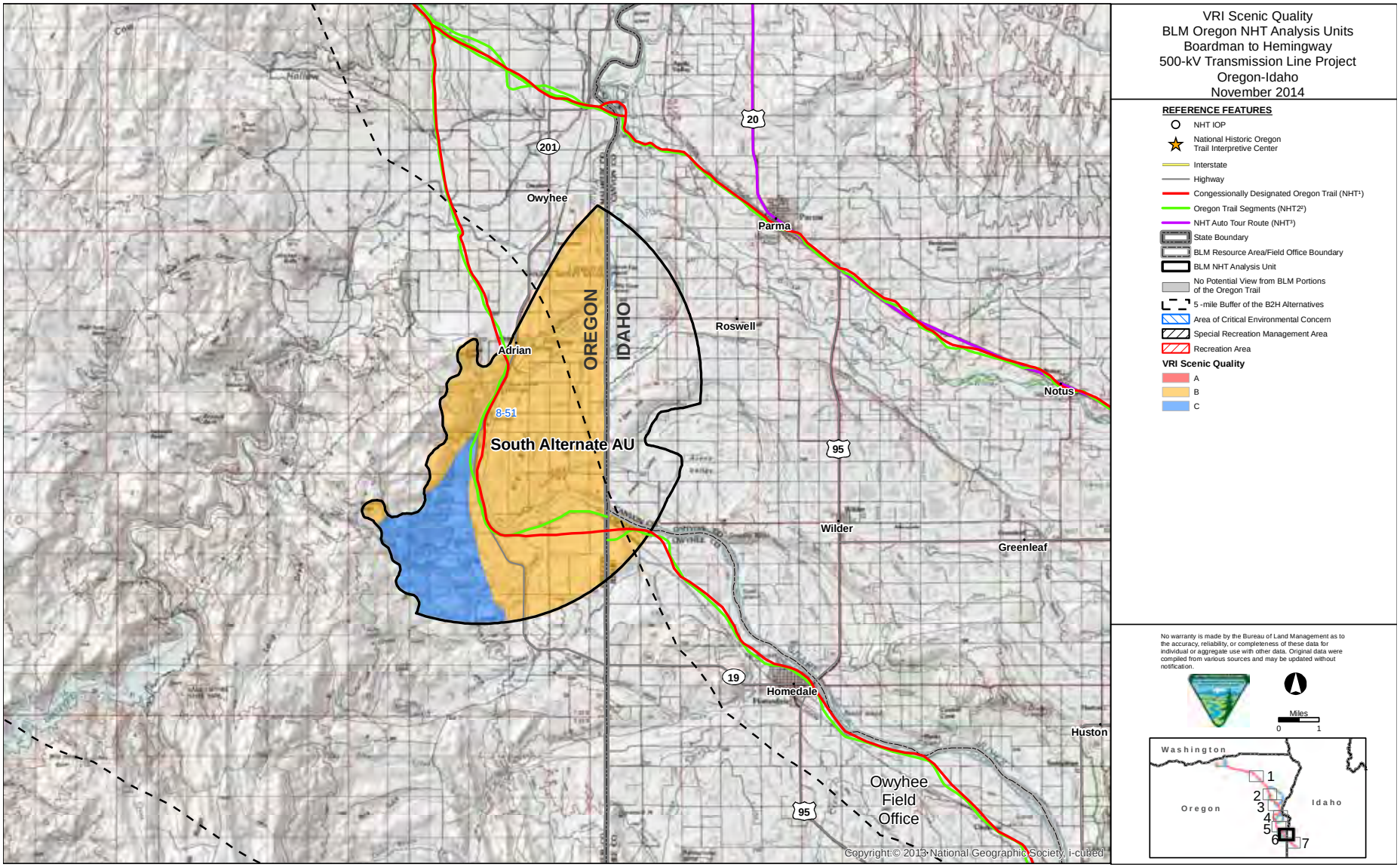
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Boardman to Hemingway
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Oregon-Idaho
November 2014
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Recreation Area
VRI Scenic Quality
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IDAHO
South Alternate AU
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Owyhee
Parma
Roswell
Adrian
Notus
Wilder
Greenleaf
Homedale
Huston
Owyhee Field Office
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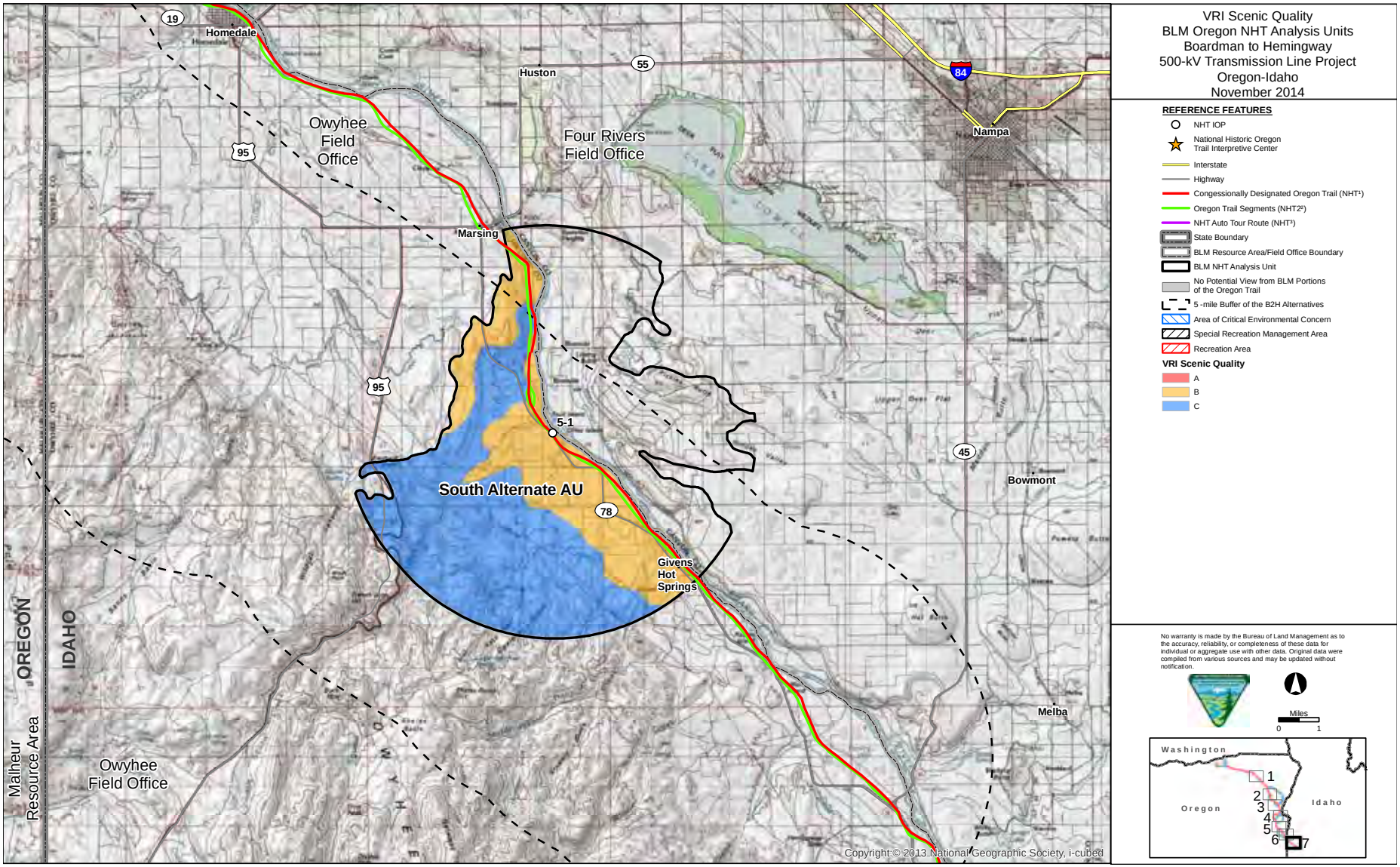
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Owyhee Field Office
Four Rivers Field Office
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South Alternate AU
Bowmont
Givens Hot Springs
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OREGON
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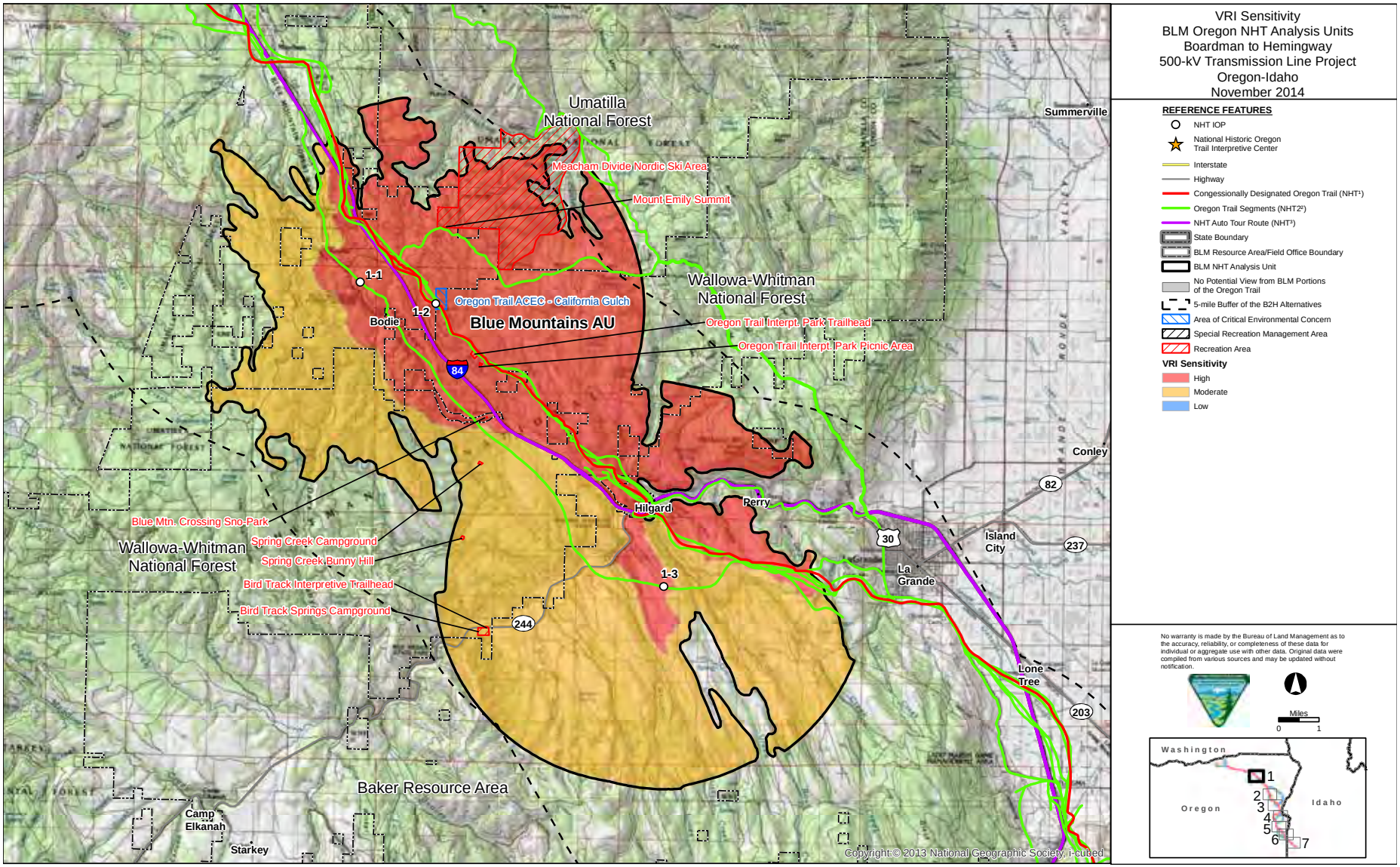
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Oregon-Idaho
November 2014
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VRI Sensitivity
High
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Meacham Divide Nordic Ski Area
Mount Emily Summit
Wallowa-Whitman National Forest
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Blue Mountains AU
Oregon Trail Interpt. Park Trailhead
Oregon Trail Interpt. Park Picnic Area
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Wallowa-Whitman National Forest
Baker Resource Area
Camp Elkanah
Starkey
Summerville
Conley
Island City
La Grande
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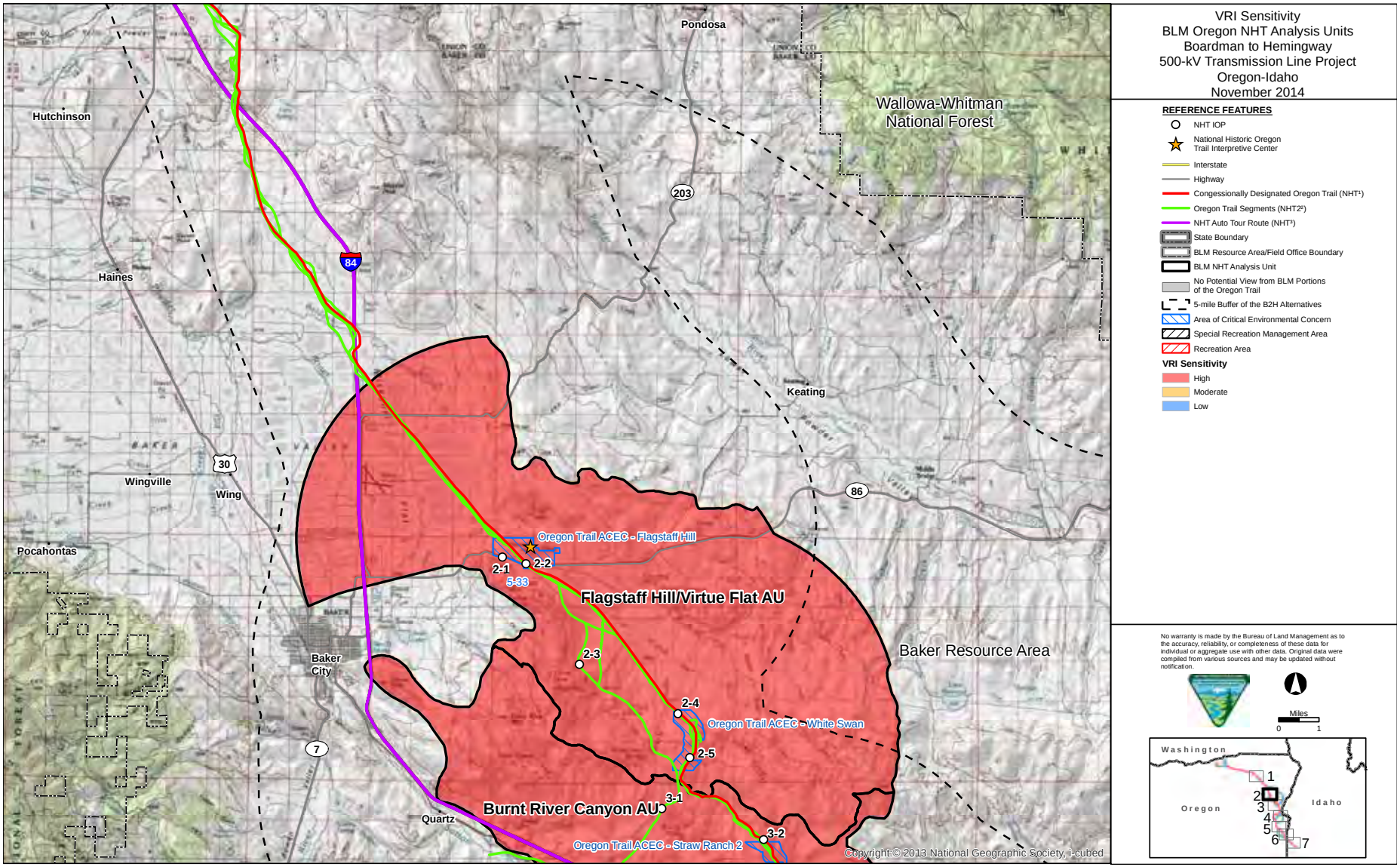
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Oregon-Idaho
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Recreation Area
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High
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Pondosa
Wallowa-Whitman National Forest
Hutchinson
Haines
Keating
Wingville
Wing
Pocahontas
Baker City
Quartz
Baker Resource Area
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5-33
Flagstaff Hill/Virtue Flat AU
2-3
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Oregon Trail ACEC - White Swan
2-5
3-1
Burnt River Canyon AU
3-2
Oregon Trail ACEC - Straw Ranch 2
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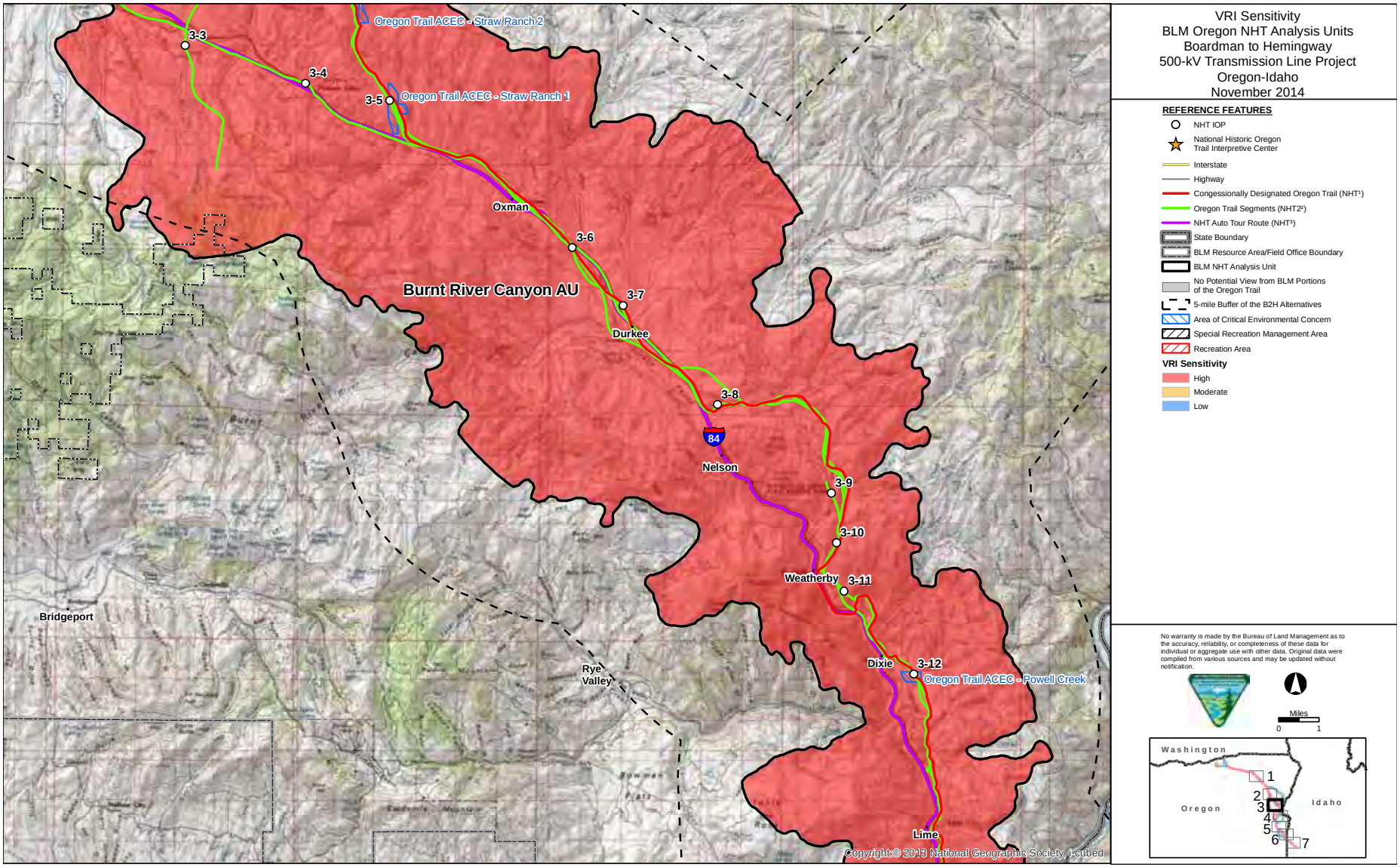
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3-3
3-4
3-5
Oregon Trail ACEC - Straw Ranch 1
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3-6
Burnt River Canyon AU
3-7
Durkee
3-8
84
Nelson
3-9
3-10
Weatherby
3-11
Bridgeport
Rye Valley
Dixie
3-12
Oregon Trail ACEC - Powell Creek
Lime
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Recreation Area
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High
Moderate
Low
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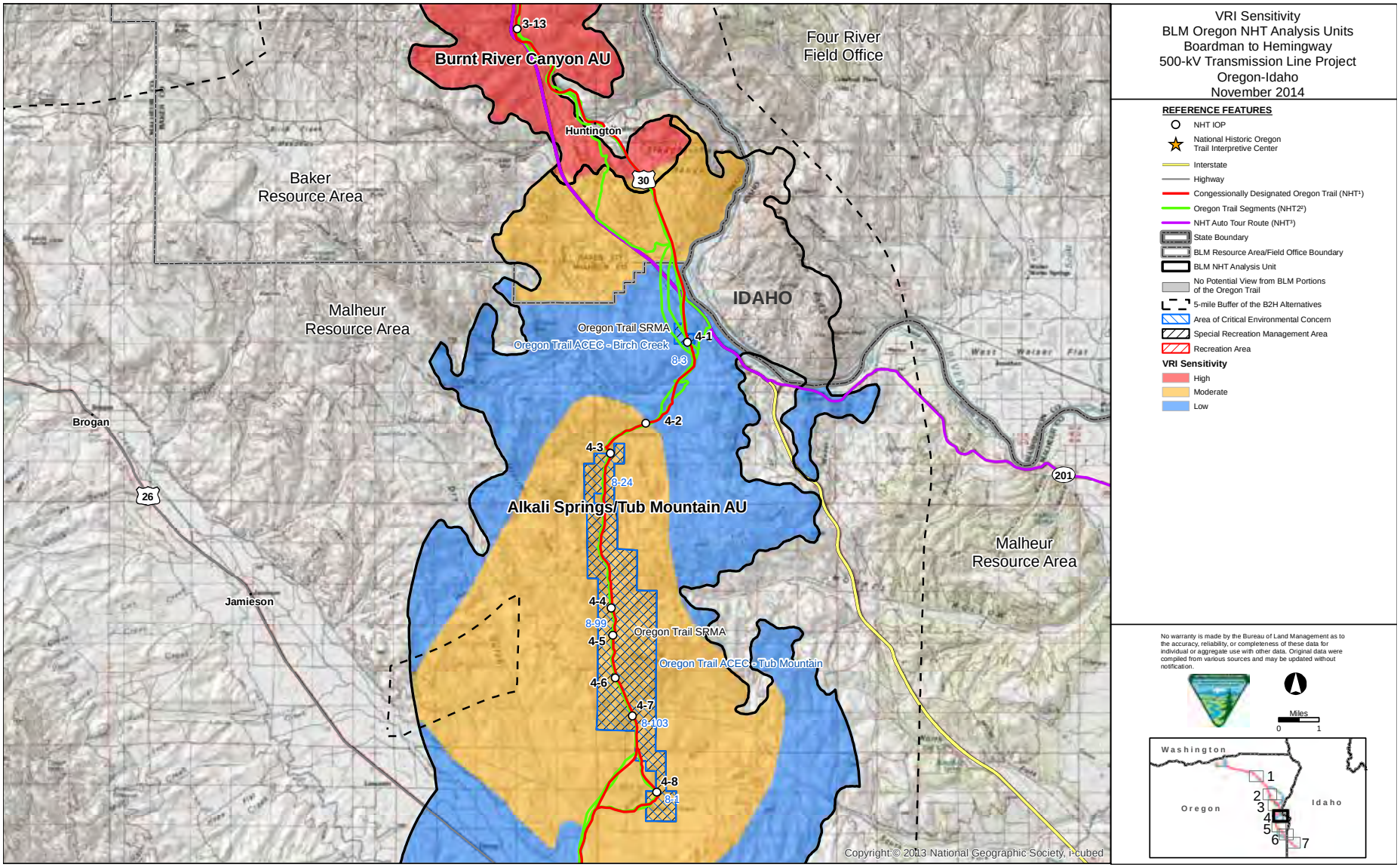
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Moderate
Low
Burnt River Canyon AU
Alkali Springs/Tub Mountain AU
Four River Field Office
Baker Resource Area
Malheur Resource Area
Malheur Resource Area
IDAHO
Huntington
Brogan
Jamieson
Oregon Trail SRMA
Oregon Trail ACEC - Birch Creek
Oregon Trail SRMA
Oregon Trail ACEC - Tub Mountain
3-13
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8-3
4-2
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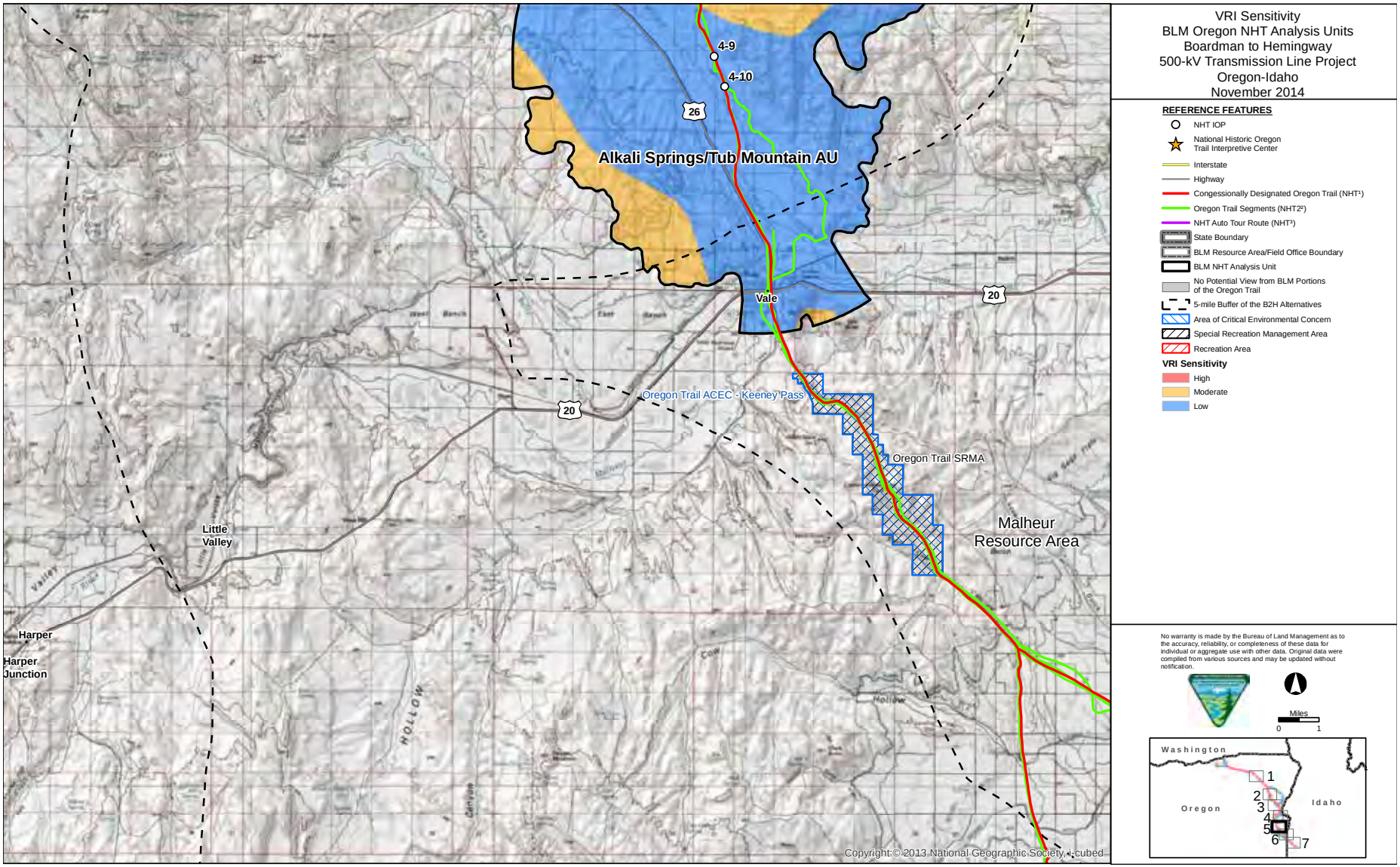
VRI Sensitivity
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Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
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NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Sensitivity
High
Moderate
Low
4-9
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Alkali Springs/Tub Mountain AU
Vale
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Oregon Trail ACEC - Keeney Pass
Oregon Trail SRMA
Malheur Resource Area
Little Valley
Harper
Harper Junction
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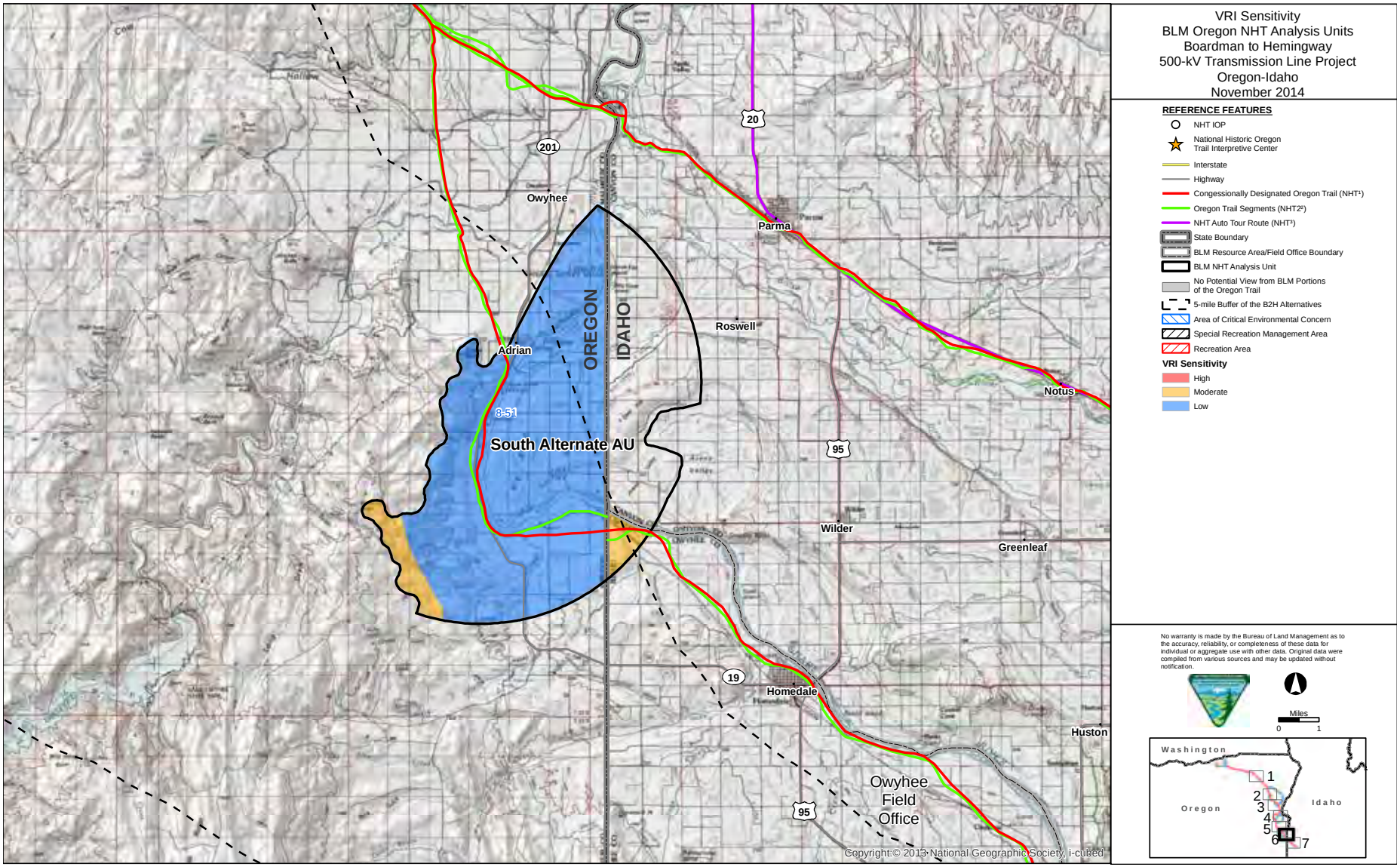
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Boardman to Hemingway
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Oregon-Idaho
November 2014
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National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
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BLM NHT Analysis Unit
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5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Sensitivity
High
Moderate
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Parma
Roswell
Notus
Wilder
Greenleaf
Homedale
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IDAHO
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South Alternate AU
Owyhee Field Office
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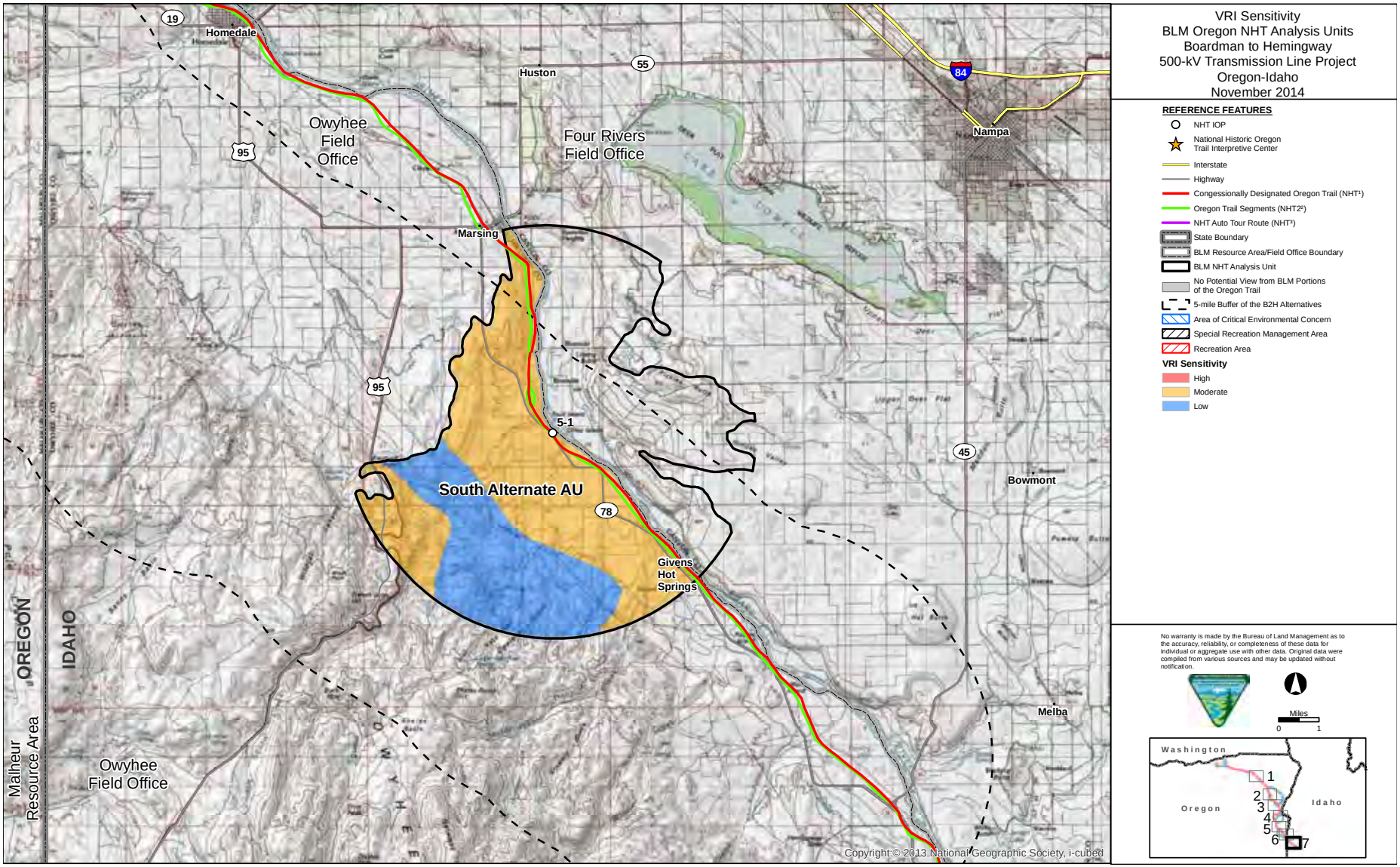
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Oregon-Idaho
November 2014
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Congessionally Designated Oregon Trail (NHT¹)
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Area of Critical Environmental Concern
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Recreation Area
VRI Sensitivity
High
Moderate
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Nampa
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Owyhee Field Office
Four Rivers Field Office
5-1
South Alternate AU
Bowmont
Melba
Givens Hot Springs
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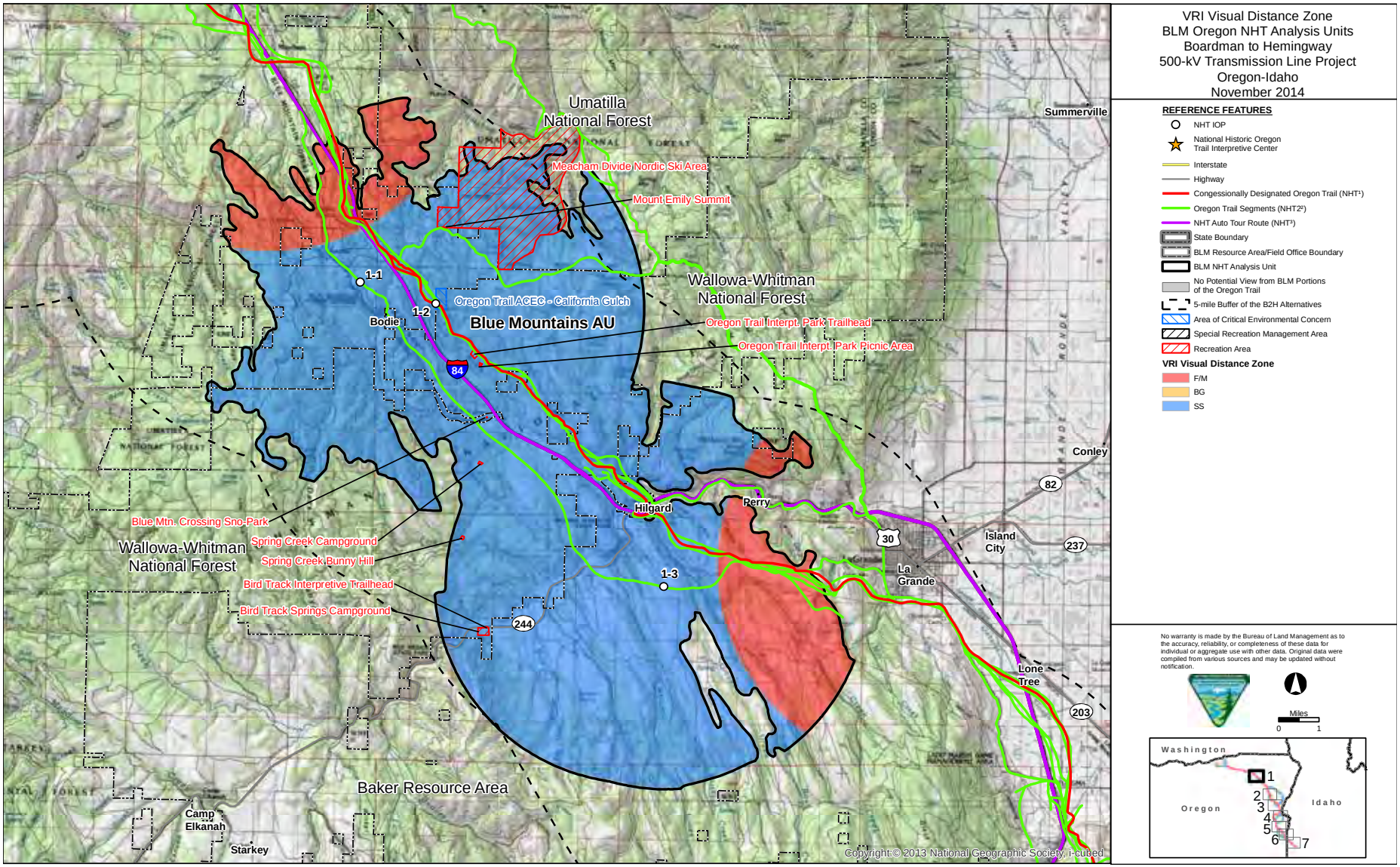
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VRI Visual Distance Zone
F/M
BG
SS
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Mount Emily Summit
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Oregon Trail ACEC - California Gulch
Blue Mountains AU
Oregon Trail Interpt. Park Trailhead
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Wallowa-Whitman National Forest
Baker Resource Area
1-1
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Bodie
Hilgard
Rerry
Summerville
Conley
Island City
La Grande
Lone Tree
Camp Elkanah
Starkey
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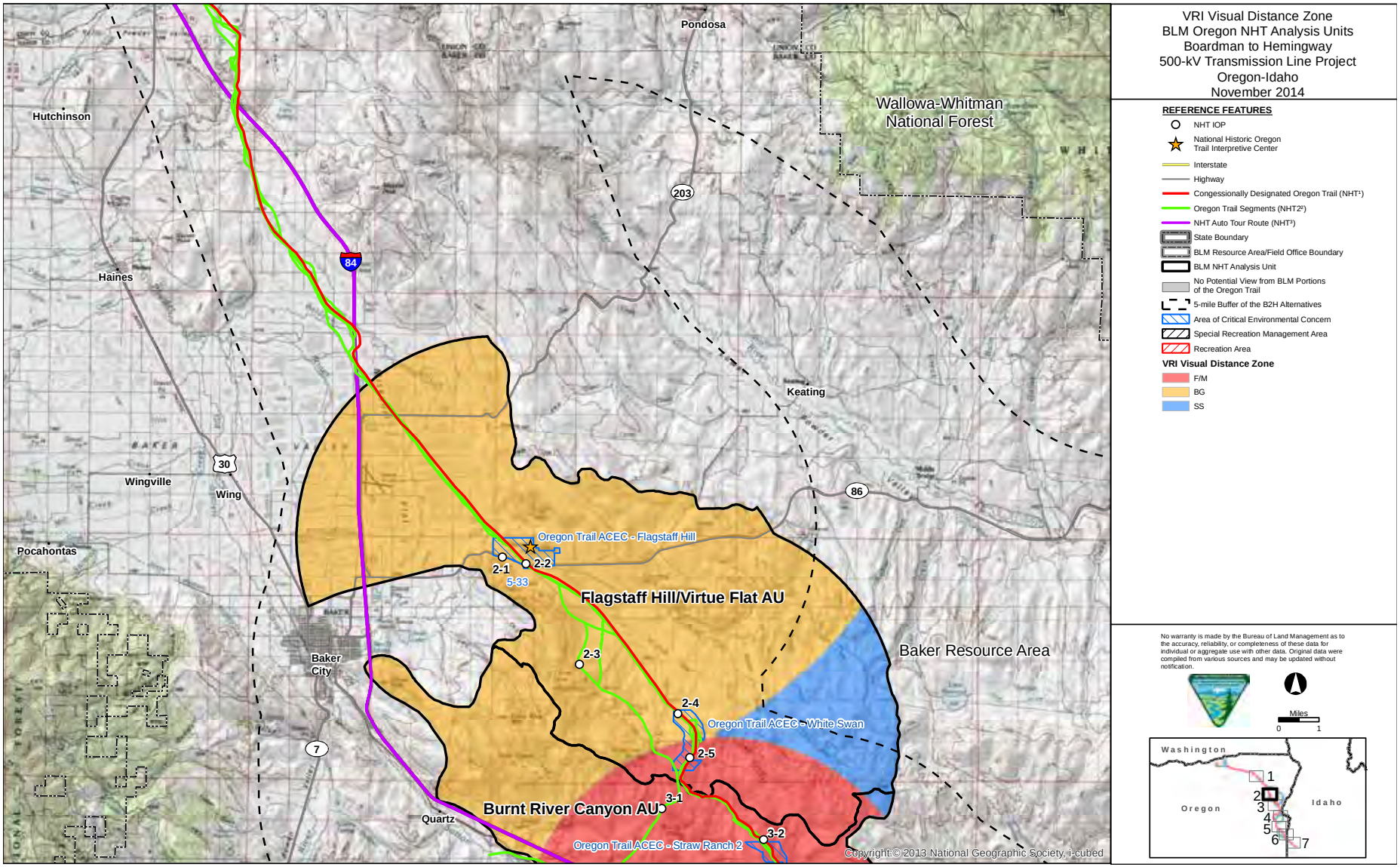
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Recreation Area
VRI Visual Distance Zone
F/M
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Pondosa
Hutchinson
Wallowa-Whitman National Forest
Haines
Keating
Wingville
Wing
Pocahontas
Baker City
Quartz
Oregon Trail ACEC - Flagstaff Hill
2-1
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5-33
Flagstaff Hill/Virtue Flat AU
2-3
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Oregon Trail ACEC - White Swan
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3-1
Burnt River Canyon AU
3-2
Oregon Trail ACEC - Straw Ranch 2
Baker Resource Area
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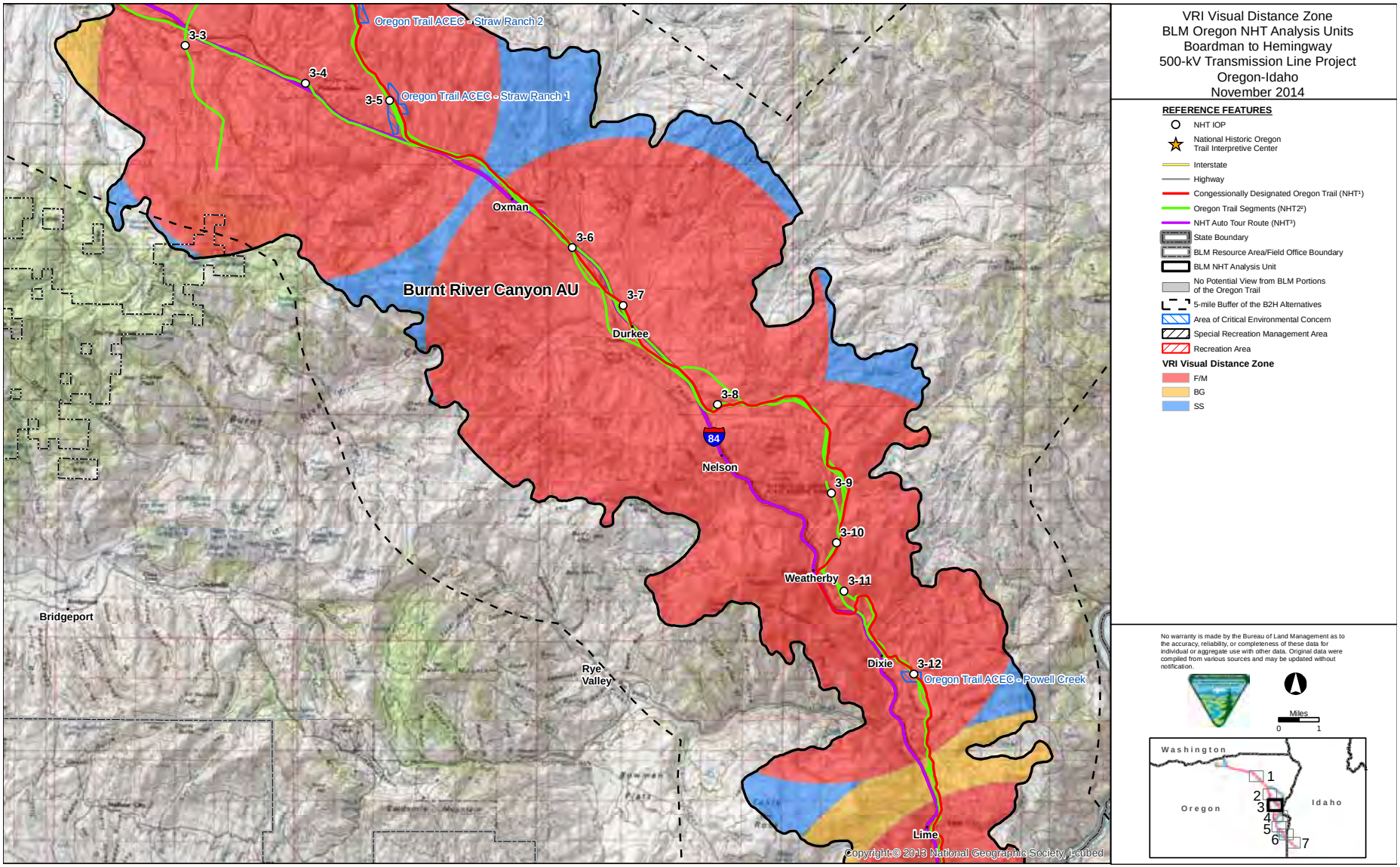
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Oregon Trail ACEC - Straw Ranch 1
Oregon Trail ACEC - Powell Creek
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Burnt River Canyon AU
Durkee
Nelson
Weatherby
Dixie
Lime
Bridgeport
Rye Valley
84
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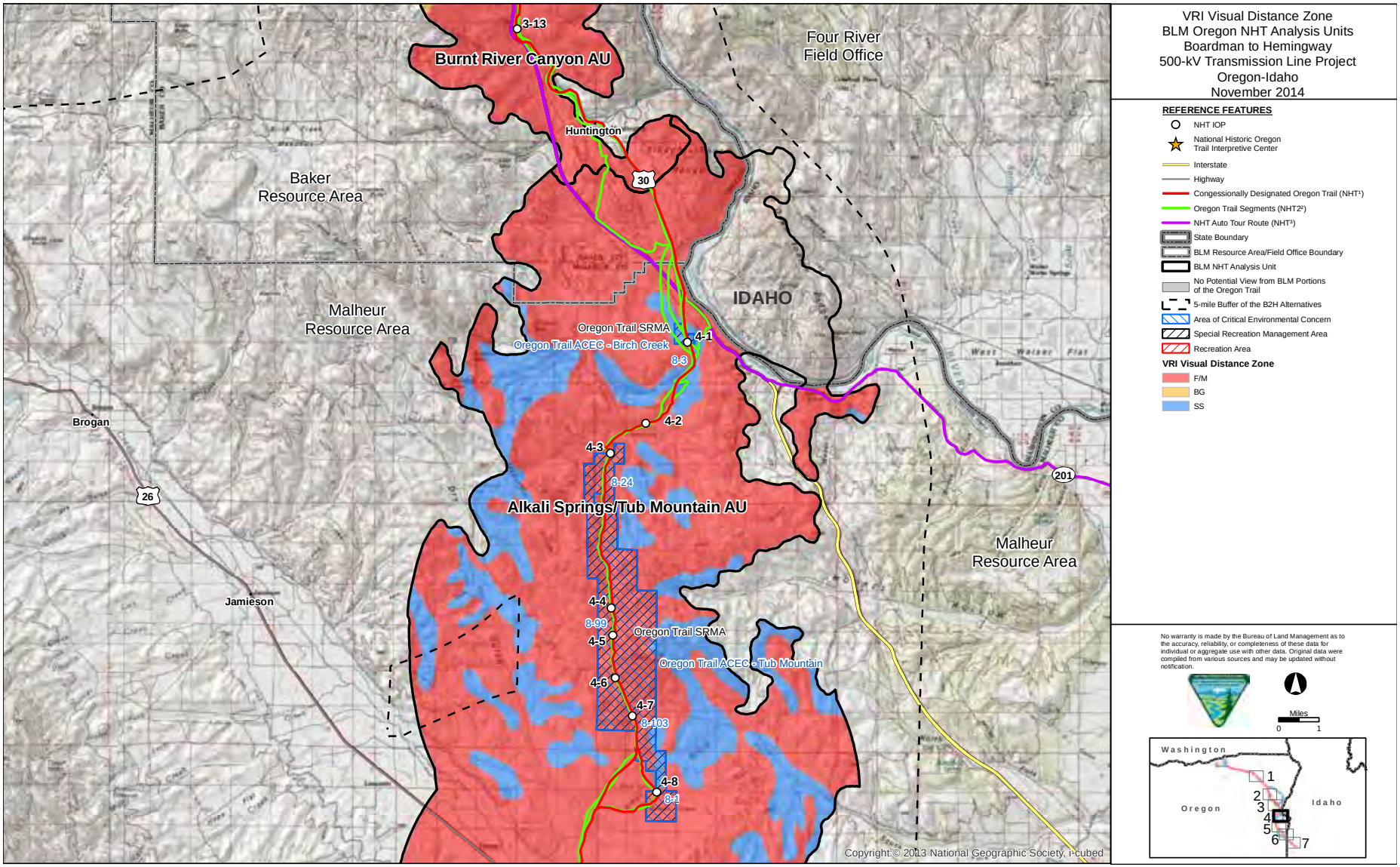
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Burnt River Canyon AU
Alkali Springs/Tub Mountain AU
Four River Field Office
Baker Resource Area
Malheur Resource Area
Malheur Resource Area
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Huntington
Brogan
Jamieson
Oregon Trail SRMA
Oregon Trail ACEC - Birch Creek
Oregon Trail SRMA
Oregon Trail ACEC - Tub Mountain
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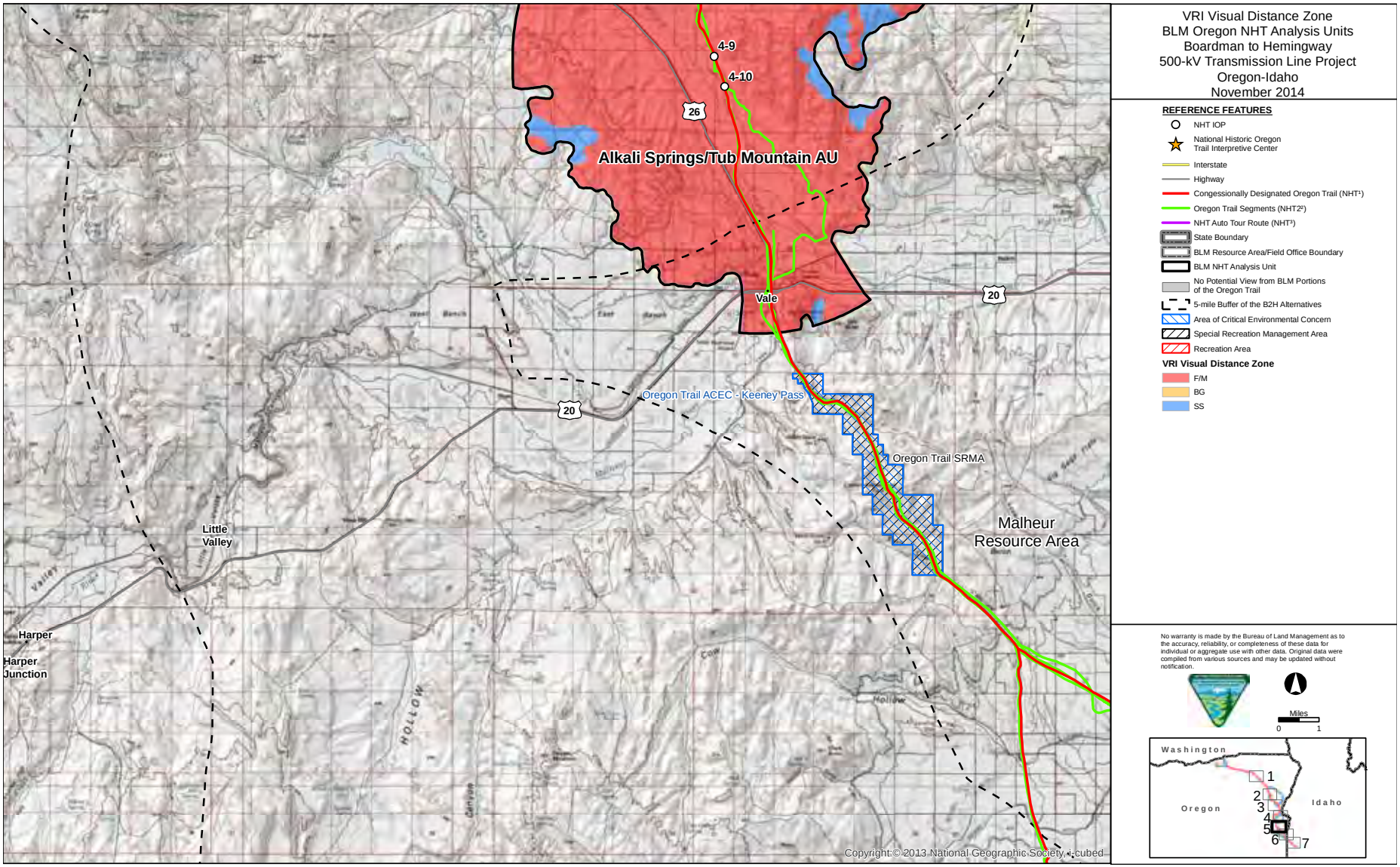
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Oregon Trail SRMA
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Little Valley
Harper
Harper Junction
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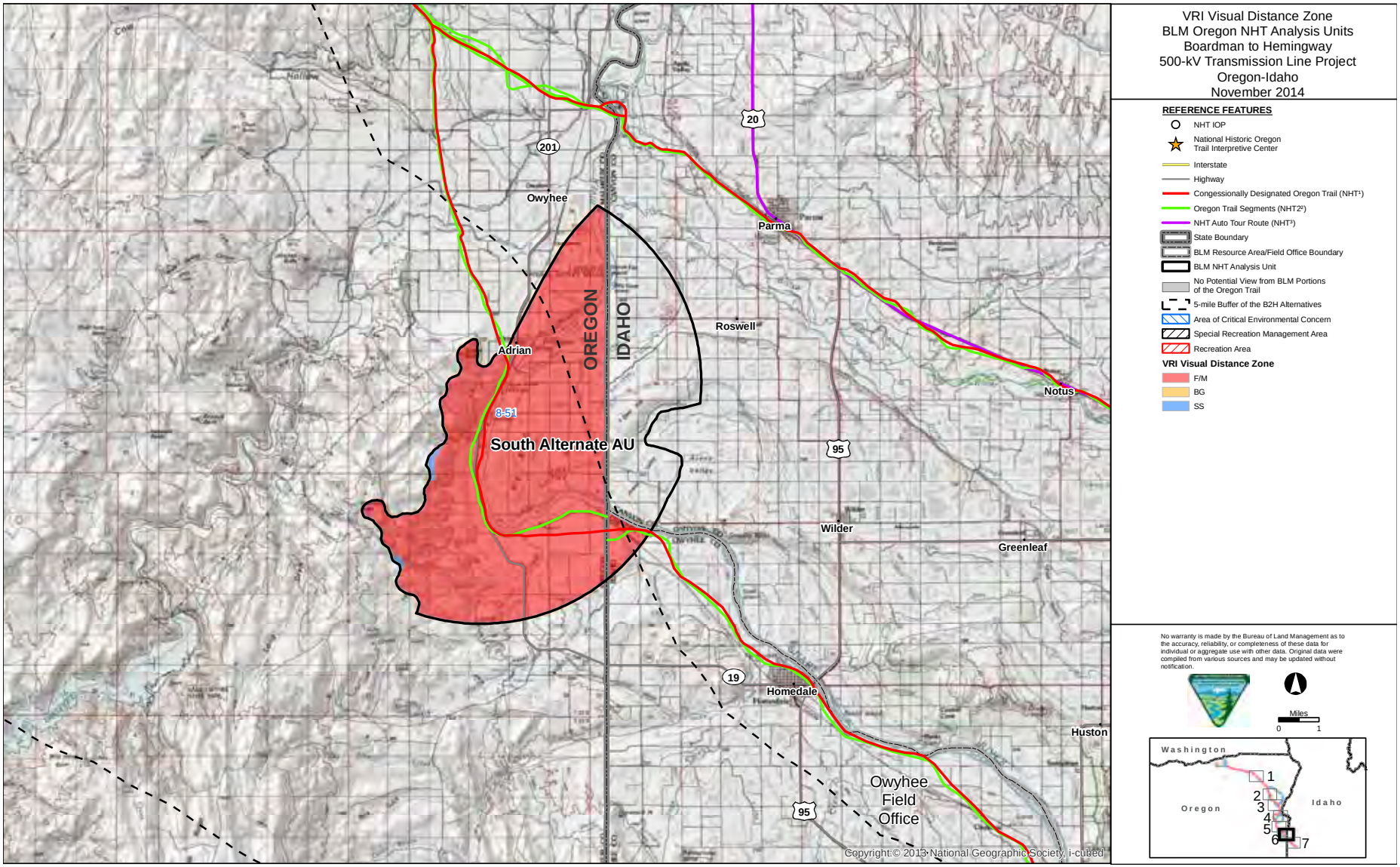
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Adrian
Notus
Wilder
Greenleaf
Homedale
Huston
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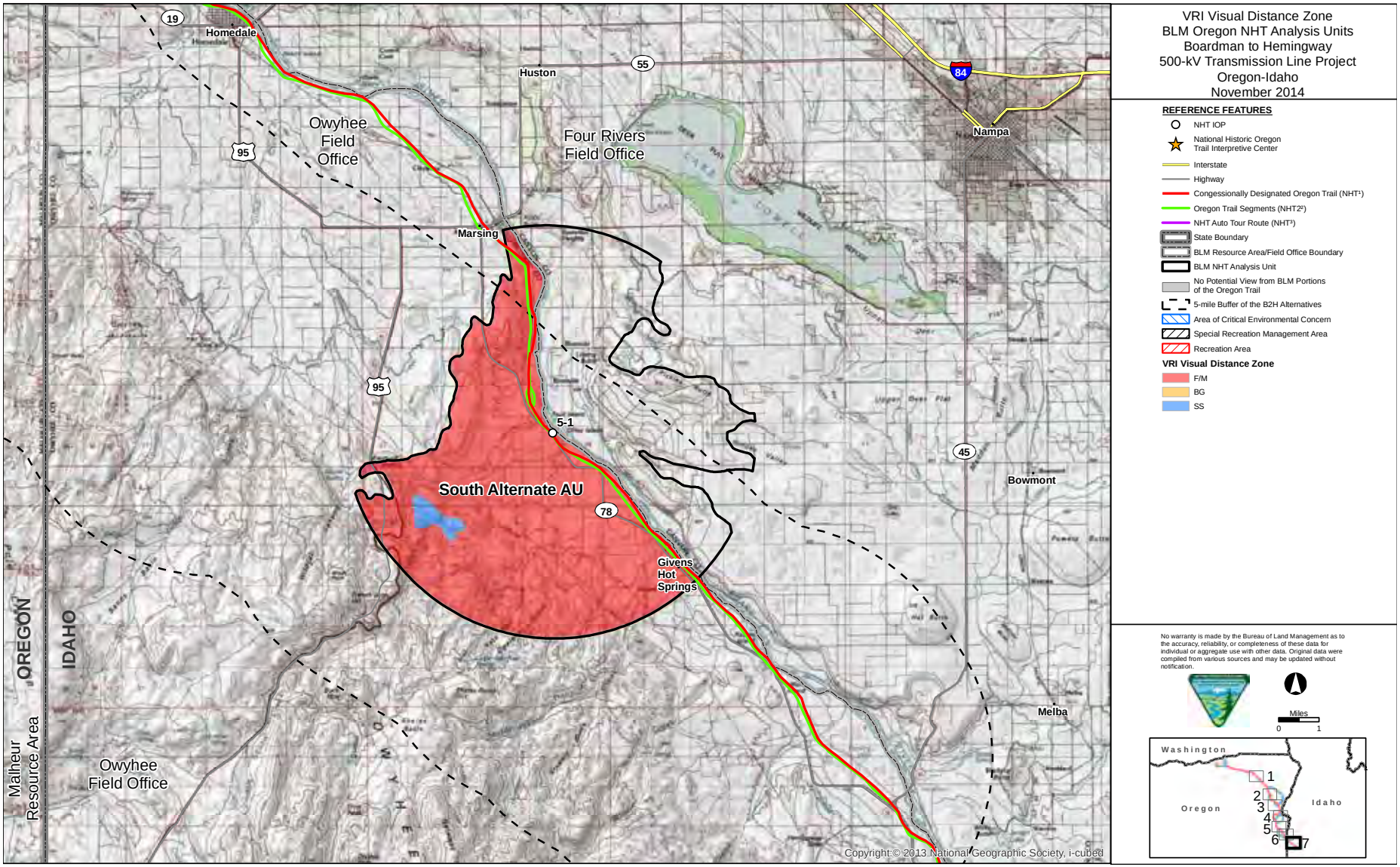
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Owyhee Field Office
Four Rivers Field Office
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South Alternate AU
Bowmont
Givens Hot Springs
Melba
Owyhee Field Office
Malheur Resource Area
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IDAHO
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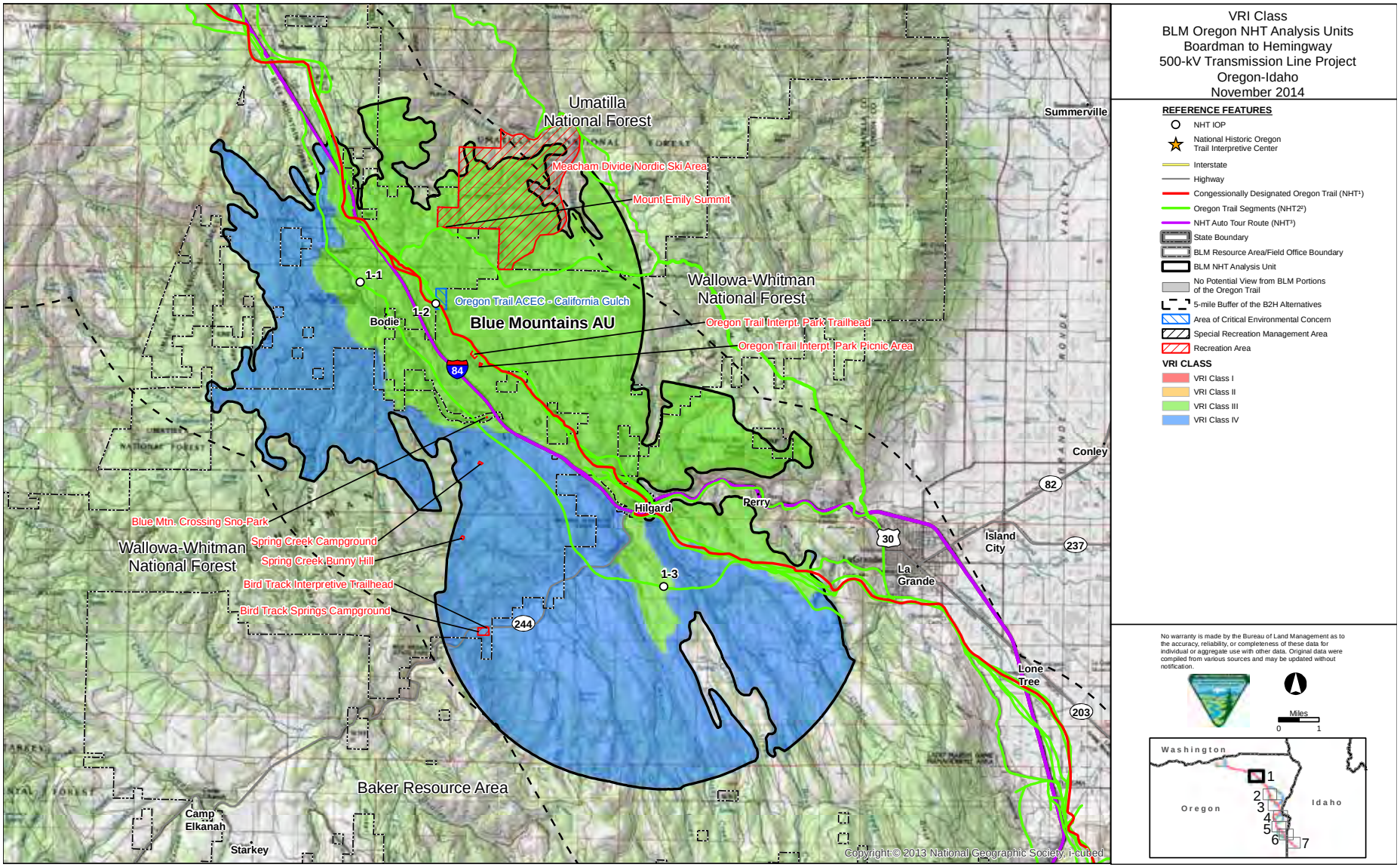
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VRI Class I
VRI Class II
VRI Class III
VRI Class IV
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Meacham Divide Nordic Ski Area
Mount Emily Summit
Wallowa-Whitman National Forest
Oregon Trail ACEC - California Gulch
Blue Mountains AU
Oregon Trail Interpt. Park Trailhead
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Baker Resource Area
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1-2
1-3
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Hilgard
Rerry
Summerville
Conley
Island City
La Grande
Lone Tree
Camp Elkanah
Starkey
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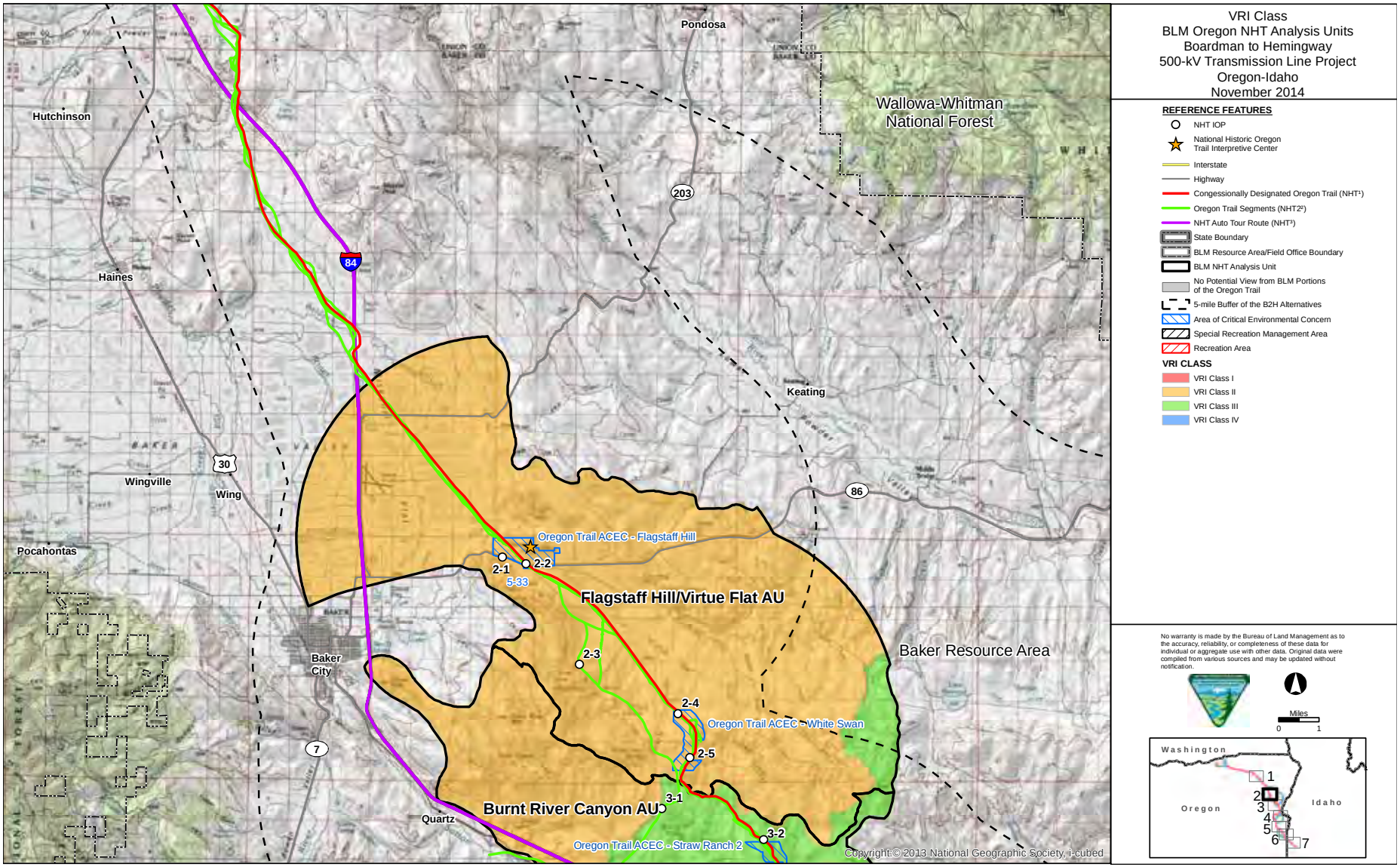
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Recreation Area
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VRI Class I
VRI Class II
VRI Class III
VRI Class IV
Pondosa
Hutchinson
Wallowa-Whitman National Forest
Haines
Keating
Wingville
Wing
Pocahontas
Baker City
Quartz
Oregon Trail ACEC - Flagstaff Hill
2-1
2-2
5-33
Flagstaff Hill/Virtue Flat AU
2-3
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Oregon Trail ACEC - White Swan
2-5
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Burnt River Canyon AU
3-2
Oregon Trail ACEC - Straw Ranch 2
Baker Resource Area
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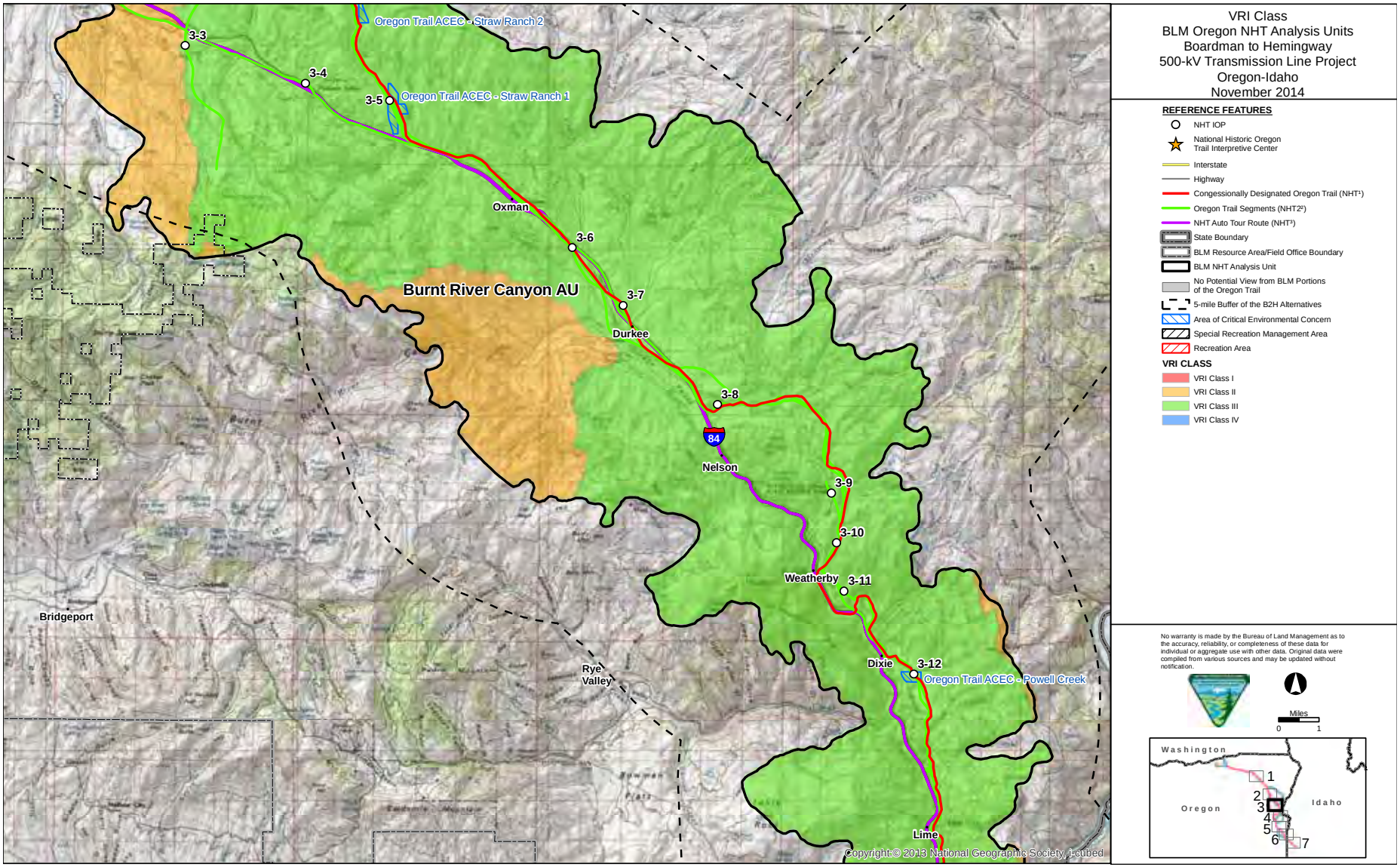
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VRI Class III
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Oregon Trail ACEC - Straw Ranch 2
Oregon Trail ACEC - Straw Ranch 1
Oregon Trail ACEC - Powell Creek
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Burnt River Canyon AU
Durkee
Nelson
Weatherby
Dixie
Lime
Bridgeport
Rye Valley
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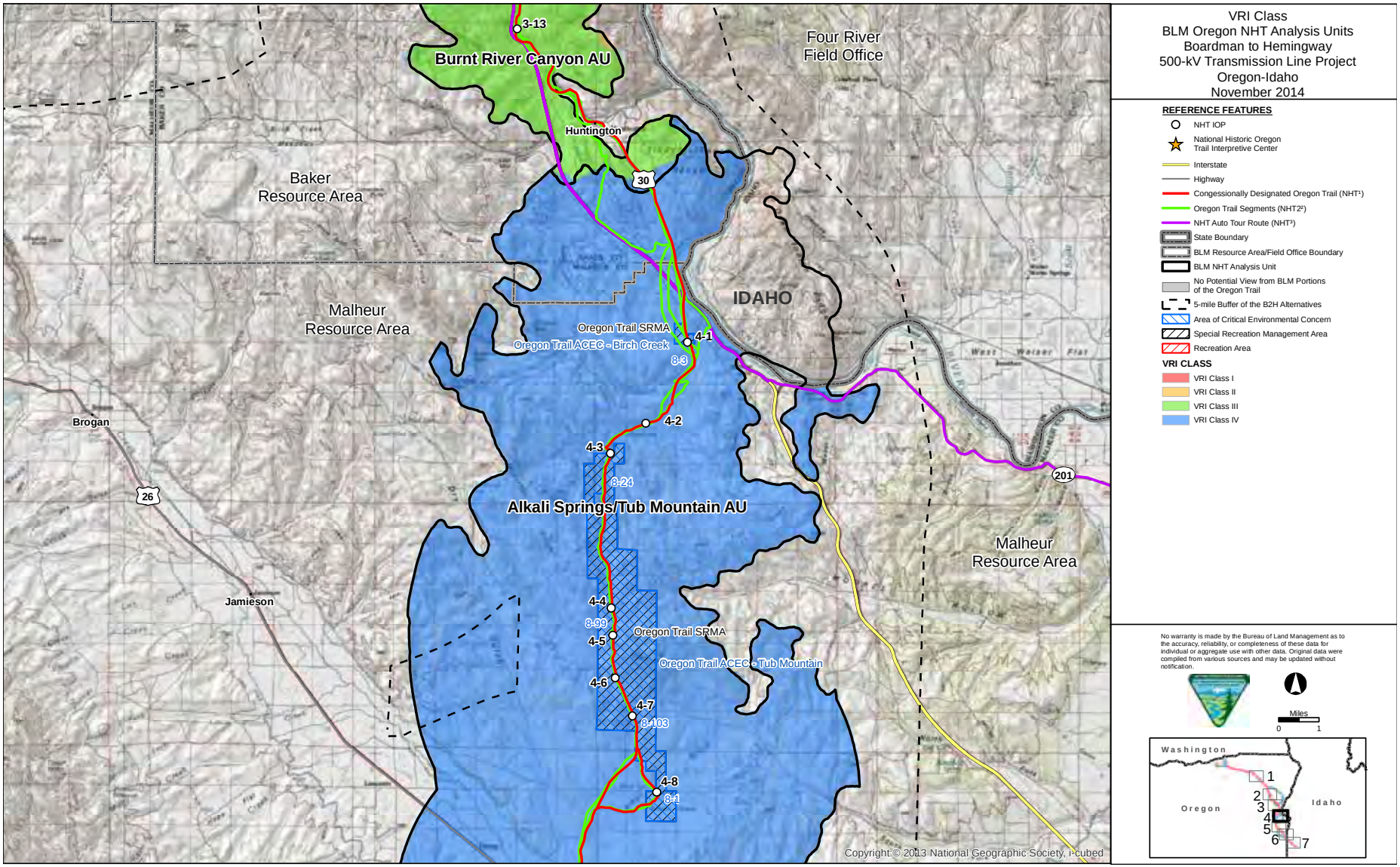
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Oregon Trail ACEC - Tub Mountain
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BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI CLASS
VRI Class I
VRI Class II
VRI Class III
VRI Class IV
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.
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Oregon
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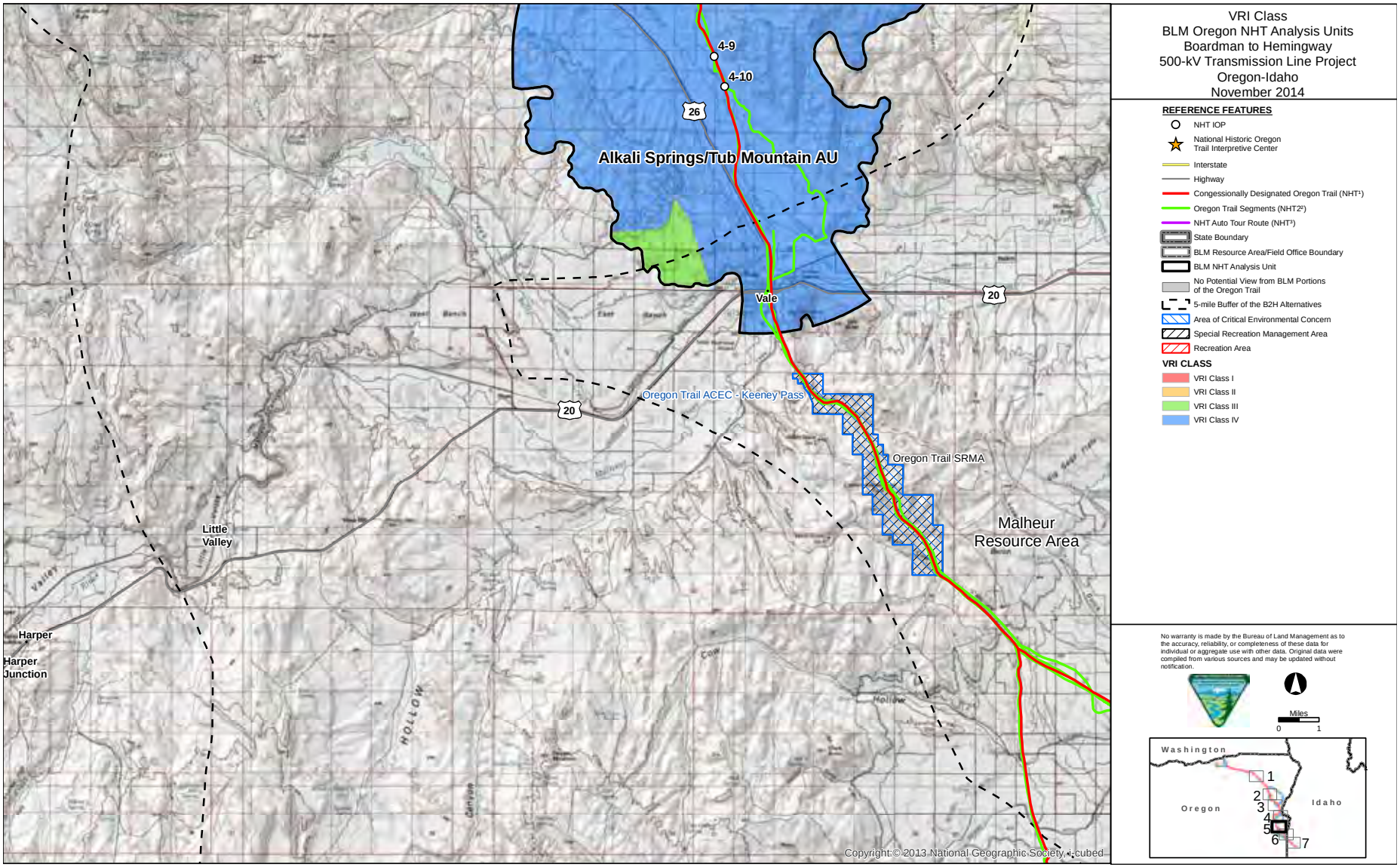
4-9
4-10
26
Alkali Springs/Tub Mountain AU
Vale
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Oregon Trail ACEC - Keeney Pass
Oregon Trail SRMA
Malheur
Resource Area
Little
Valley
Harper
Harper
Junction
Copyright © 2013 National Geographic Society, i-cubed
VRI Class
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
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VRI Class II
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Miles
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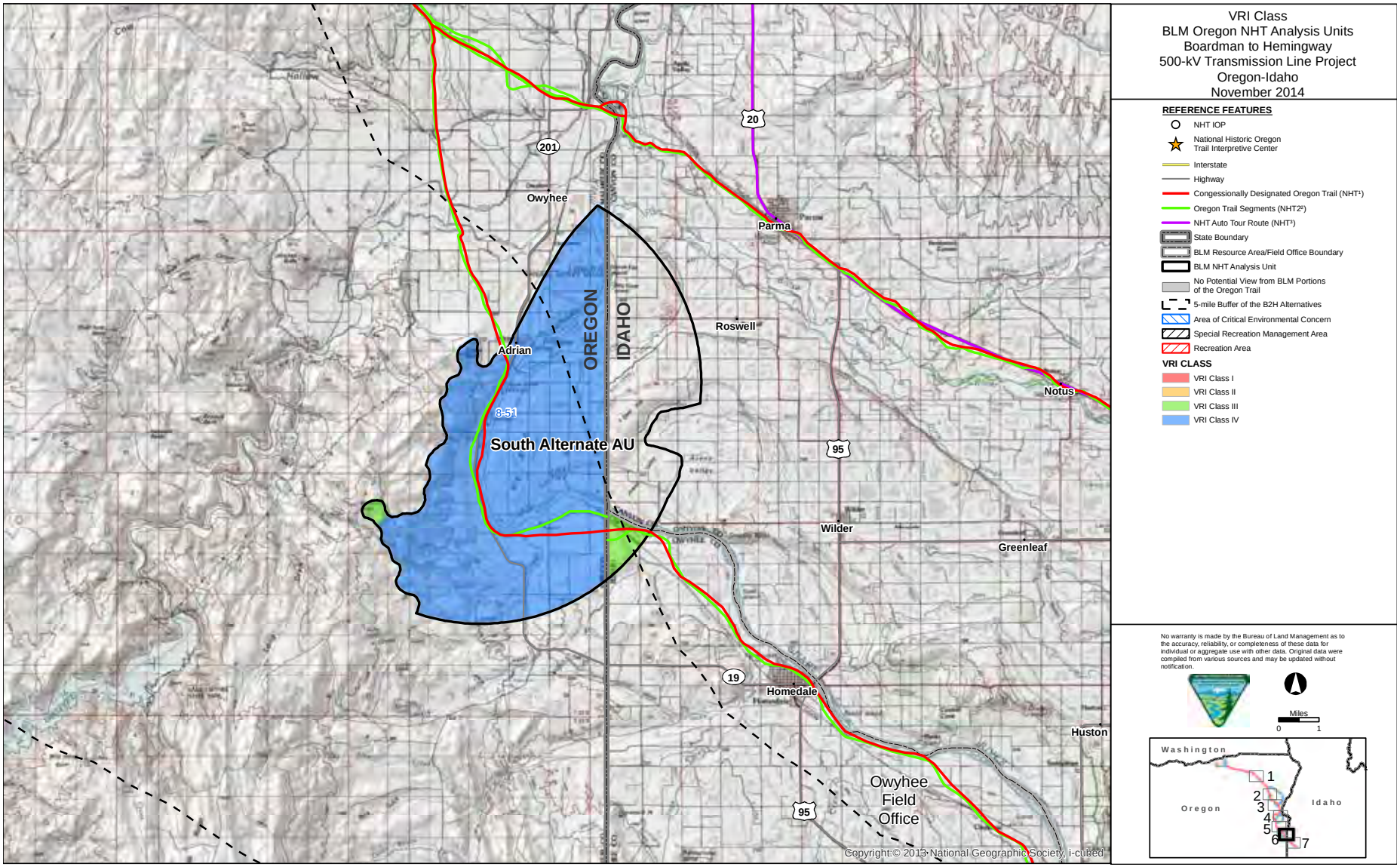
VRI Class
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
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Miles
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Washington
Oregon
Idaho
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OREGON
IDAHO
Owyhee
Parma
Roswell
Adrian
8-51
South Alternate AU
Notus
Wilder
Greenleaf
Homedale
Huston
Owyhee Field Office
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201
95
19
95
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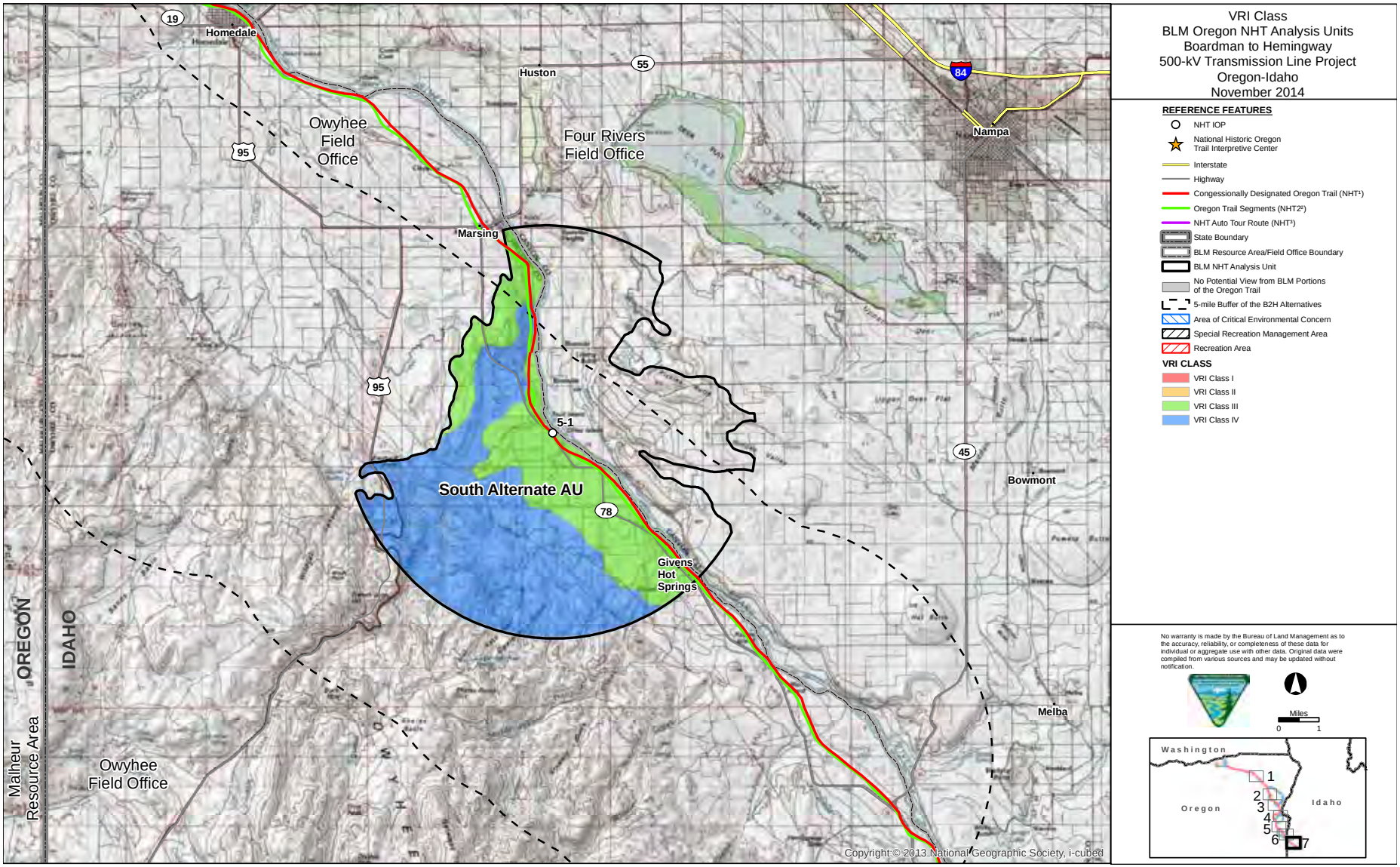
VRI Class
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI CLASS
VRI Class I
VRI Class II
VRI Class III
VRI Class IV
Homedale
Huston
Nampa
Owyhee Field Office
Four Rivers Field Office
Marsing
5-1
South Alternate AU
Bowmont
Givens Hot Springs
Melba
Malheur Resource Area
OREGON
IDAHO
Owyhee Field Office
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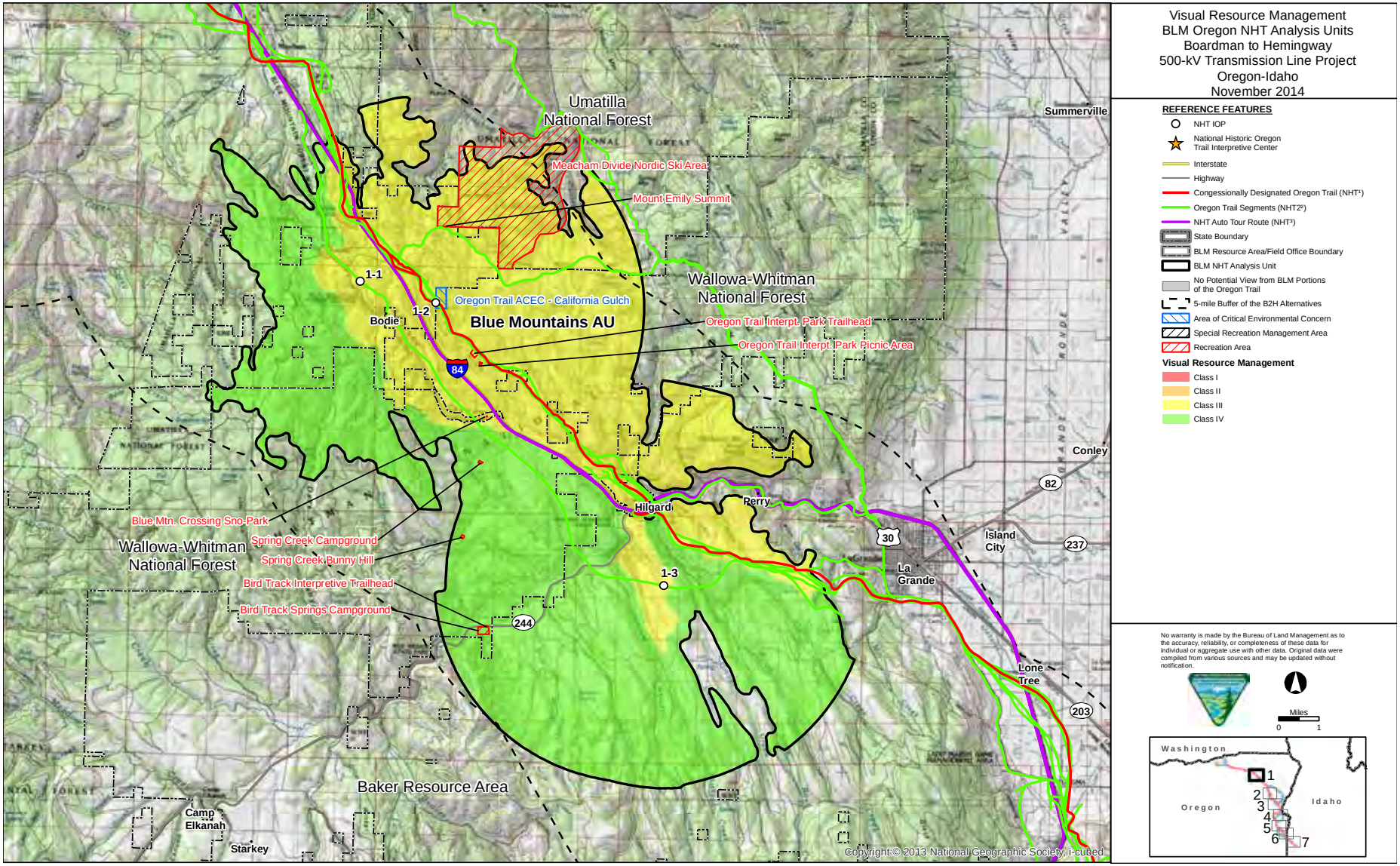
Umatilla
National Forest
Meacham Divide Nordic Ski Area
Mount Emily Summit
Summerville
1-1
Oregon Trail ACEC - California Gulch
Wallowa-Whitman
National Forest
Bodie
1-2
Blue Mountains AU
Oregon Trail Interpt. Park Trailhead
Oregon Trail Interpt. Park Picnic Area
84
Conley
82
Hilgard
Rerry
Blue Mtn. Crossing Sno-Park
Spring Creek Campground
Spring Creek Bunny Hill
Wallowa-Whitman
National Forest
30
Island
City
237
La
Grande
1-3
Bird Track Interpretive Trailhead
Bird Track Springs Campground
244
Lone
Tree
203
Baker Resource Area
Camp
Elkanah
Starkey
Copyright © 2013 National Geographic Society, i-cubed
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon
Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT1)
Oregon Trail Segments (NHT2a)
NHT Auto Tour Route (NHT3)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions
of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
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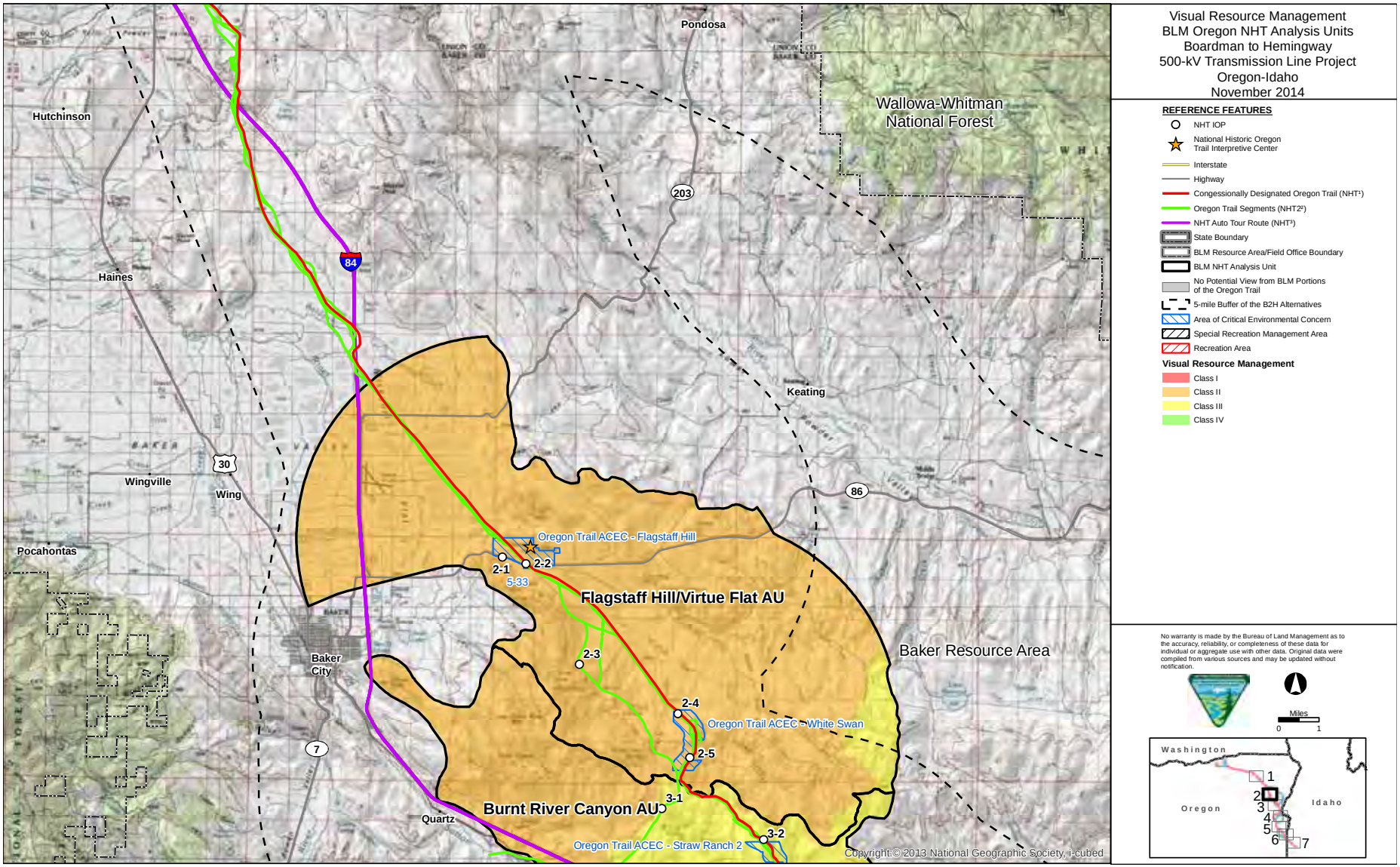
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT1)
Oregon Trail Segments (NHT2a)
NHT Auto Tour Route (NHT3)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
Pondosa
Hutchinson
Wallowa-Whitman National Forest
Haines
Keating
Wingville
Wing
Pocahontas
Baker City
Quartz
Oregon Trail ACEC - Flagstaff Hill
2-1
2-2
5-33
Flagstaff Hill/Virtue Flat AU
2-3
2-4
Oregon Trail ACEC - White Swan
2-5
3-1
Burnt River Canyon AU
3-2
Oregon Trail ACEC - Straw Ranch 2
Baker Resource Area
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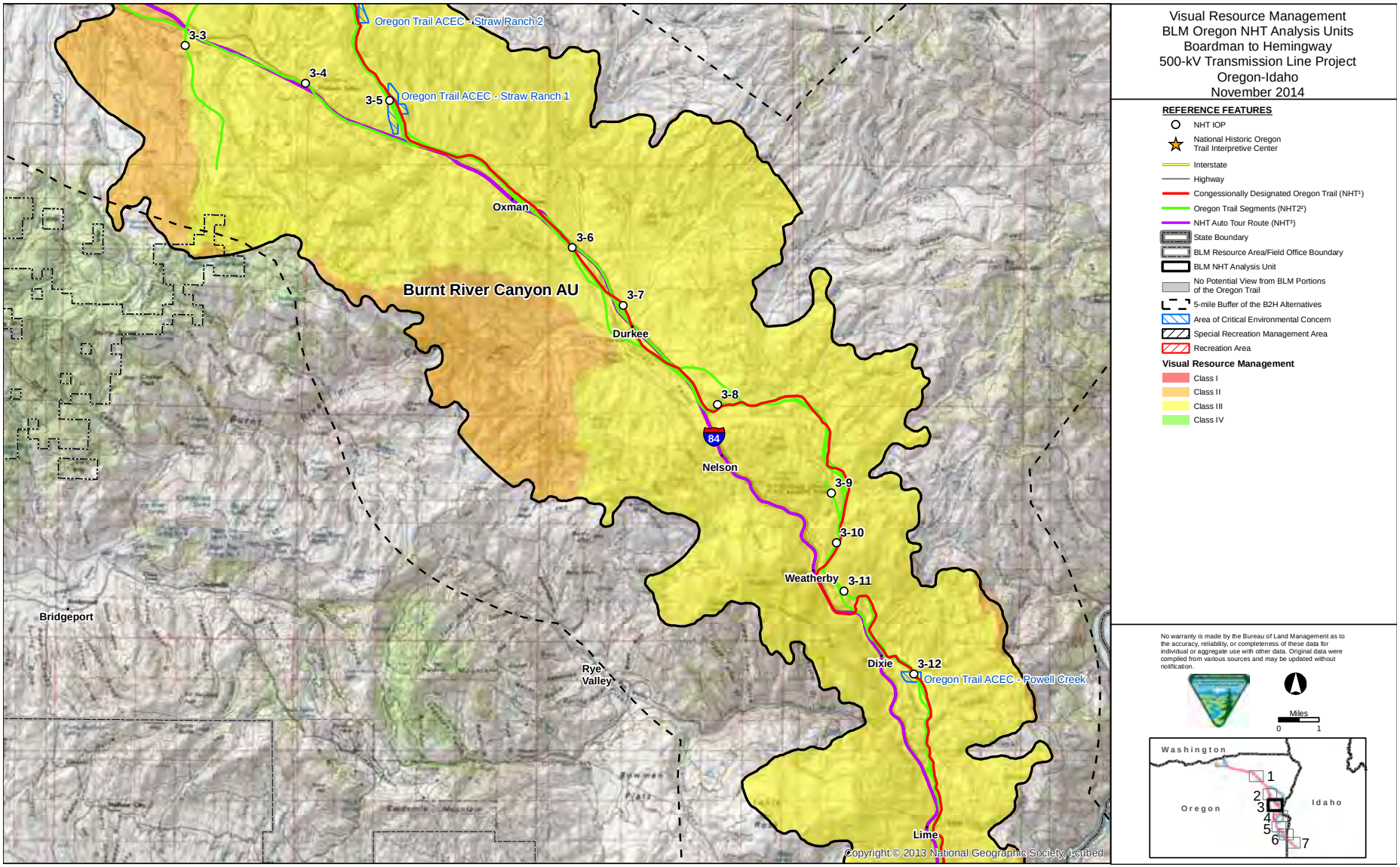
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT1)
Oregon Trail Segments (NHT2a)
NHT Auto Tour Route (NHT3)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
Oregon Trail ACEC - Straw Ranch 2
Oregon Trail ACEC - Straw Ranch 1
Oregon Trail ACEC - Powell Creek
3-3
3-4
3-5
3-6
3-7
3-8
3-9
3-10
3-11
3-12
Oxman
Burnt River Canyon AU
Durkee
Nelson
Weatherby
Dixie
Lime
Bridgeport
Rye Valley
84
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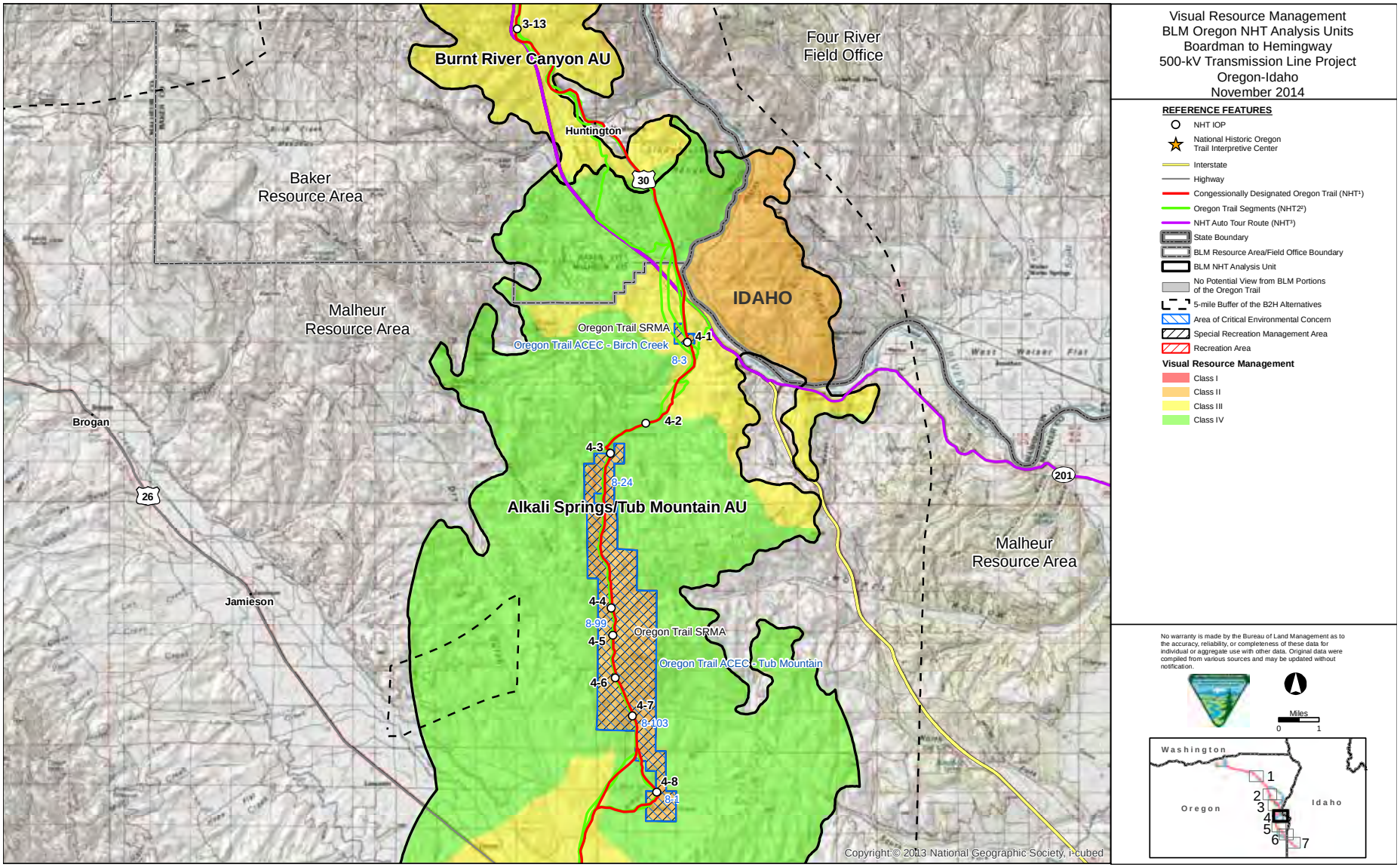
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT1)
Oregon Trail Segments (NHT2e)
NHT Auto Tour Route (NHT3)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
Burnt River Canyon AU
Four River Field Office
Huntington
Baker Resource Area
Malheur Resource Area
IDAHO
Oregon Trail SRMA
Oregon Trail ACEC - Birch Creek
Brogan
Alkali Springs/Tub Mountain AU
Jamieson
Oregon Trail ACEC - Tub Mountain
3-13
4-1
8-3
4-2
4-3
8-24
4-4
8-99
4-5
4-6
4-7
8-103
4-8
8-1
30
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201
No warranty is made by the Bureau of Land Management as to the accuracy, reliability, or completeness of these data for individual or aggregate use with other data. Original data were compiled from various sources and may be updated without notification.
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Idaho
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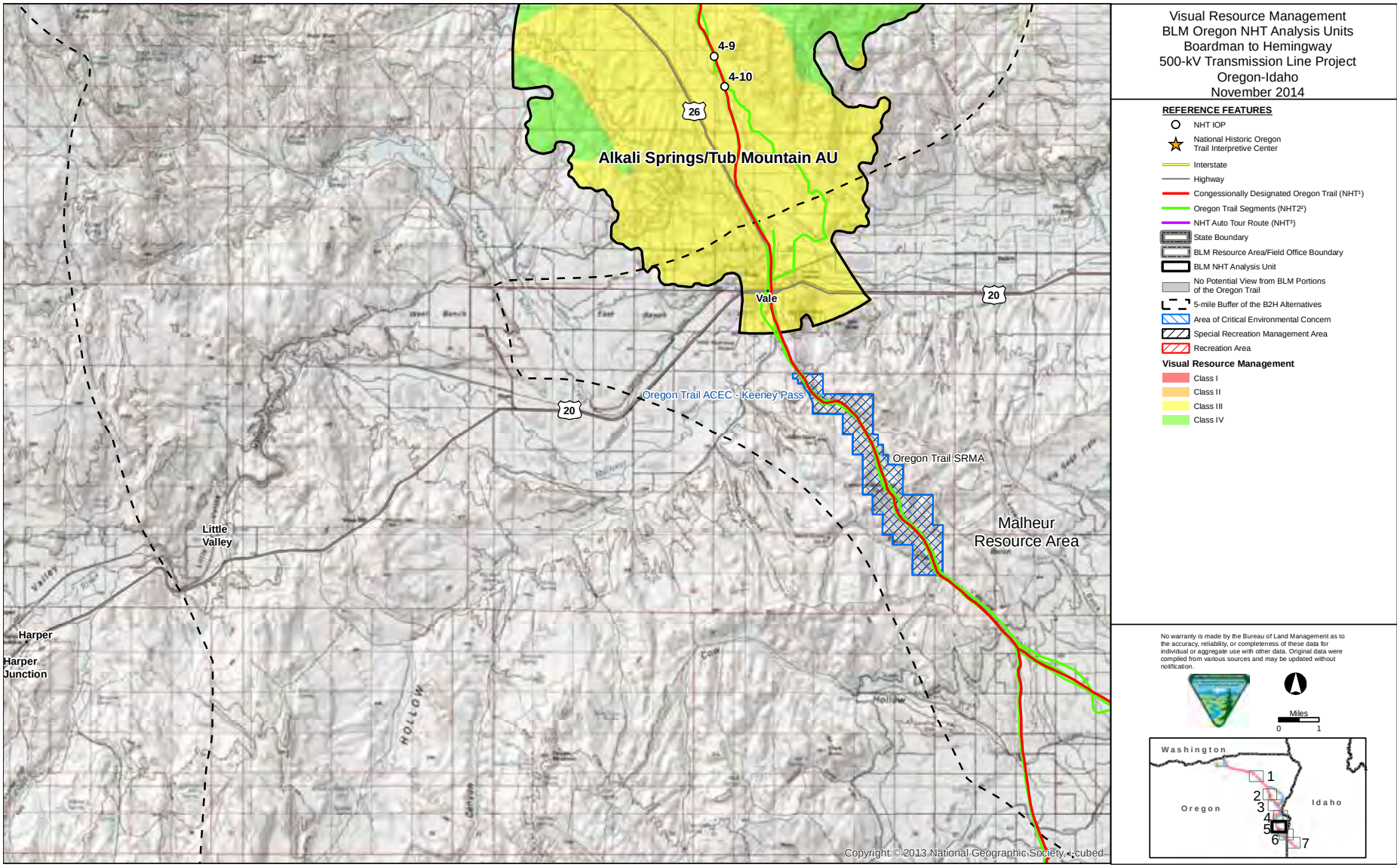
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
4-9
4-10
26
Alkali Springs/Tub Mountain AU
Vale
20
20
Oregon Trail ACEC - Keeney Pass
Oregon Trail SRMA
Malheur Resource Area
Little Valley
Harper
Harper Junction
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Miles
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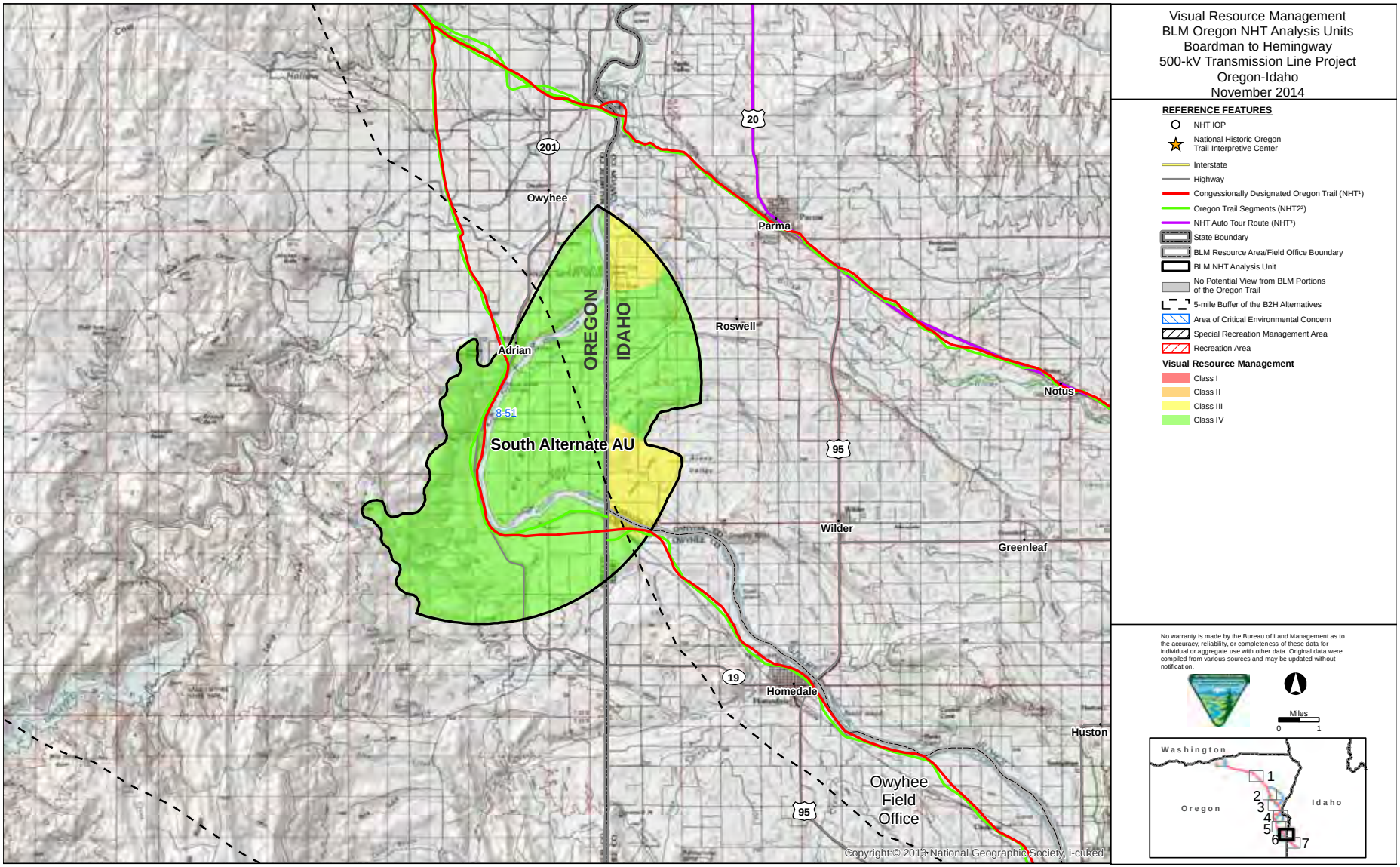
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
Congessionally Designated Oregon Trail (NHT¹)
Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
State Boundary
BLM Resource Area/Field Office Boundary
BLM NHT Analysis Unit
No Potential View from BLM Portions of the Oregon Trail
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
Visual Resource Management
Class I
Class II
Class III
Class IV
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Miles
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Washington
Oregon
Idaho
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Owyhee
Parma
Roswell
Adrian
Notus
Wilder
Greenleaf
Homedale
Huston
OREGON
IDAHO
South Alternate AU
8-51
Owyhee Field Office
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201
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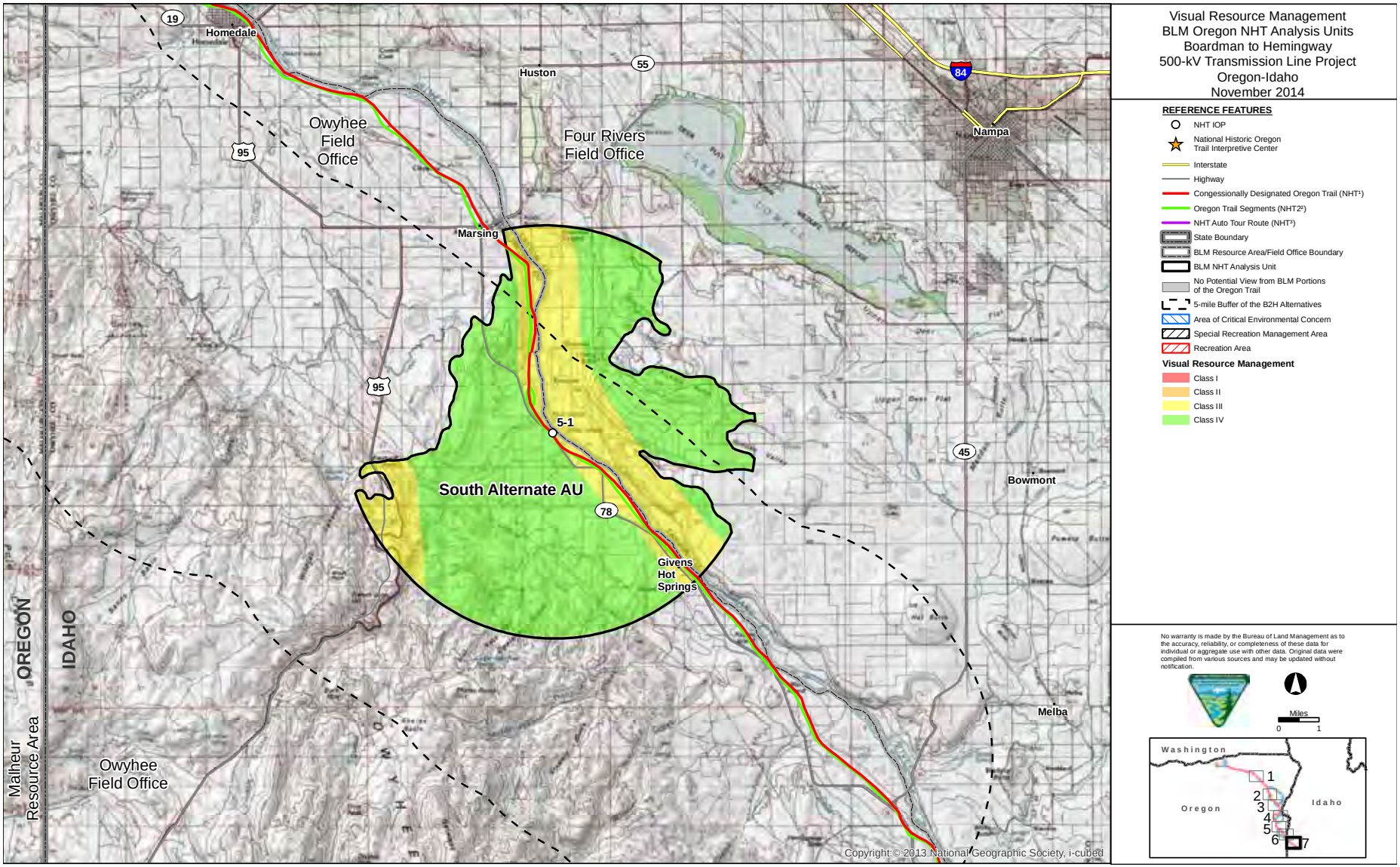
Visual Resource Management
BLM Oregon NHT Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
NHT IOP
National Historic Oregon Trail Interpretive Center
Interstate
Highway
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Oregon Trail Segments (NHT2²)
NHT Auto Tour Route (NHT³)
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BLM Resource Area/Field Office Boundary
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No Potential View from BLM Portions of the Oregon Trail
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Recreation Area
Visual Resource Management
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Class II
Class III
Class IV
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Miles
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Oregon
Idaho
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Homedale
Huston
Nampa
Owyhee Field Office
Four Rivers Field Office
Marsing
5-1
South Alternate AU
Bowmont
Melba
Givens Hot Springs
Malheur Resource Area
Owyhee Field Office
OREGON
IDAHO
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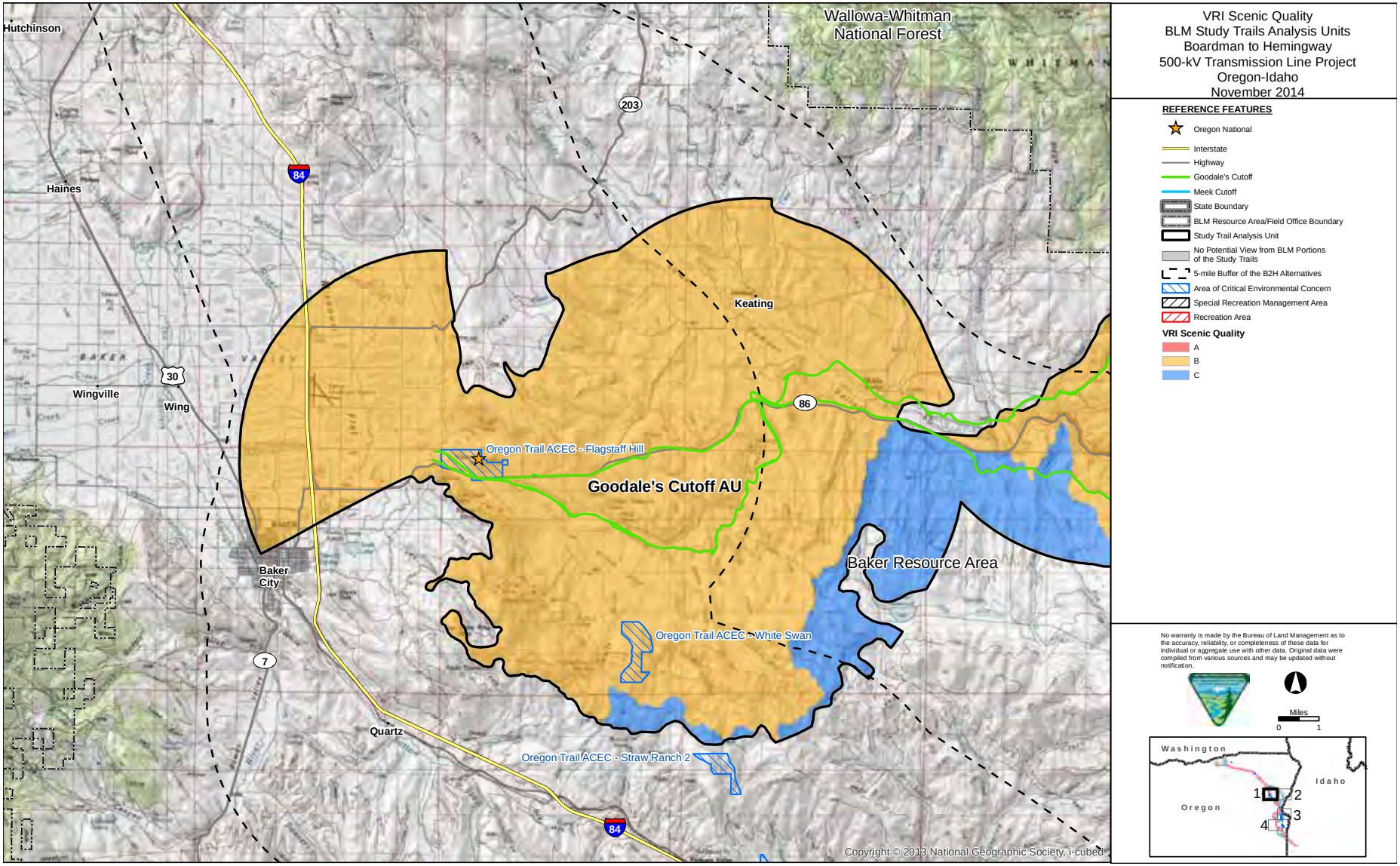

VRI Scenic Quality
BLM Study Trails Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014

REFERENCE FEATURES

- Oregon National
- Interstate
- Highway
- Goodale's Cutoff
- Meek Cutoff
- State Boundary
- BLM Resource Area/Field Office Boundary
- Study Trail Analysis Unit
- No Potential View from BLM Portions of the Study Trails
- 5-mile Buffer of the B2H Alternatives
- Area of Critical Environmental Concern
- Special Recreation Management Area
- Recreation Area

VRI Scenic Quality

- A
- B
- C

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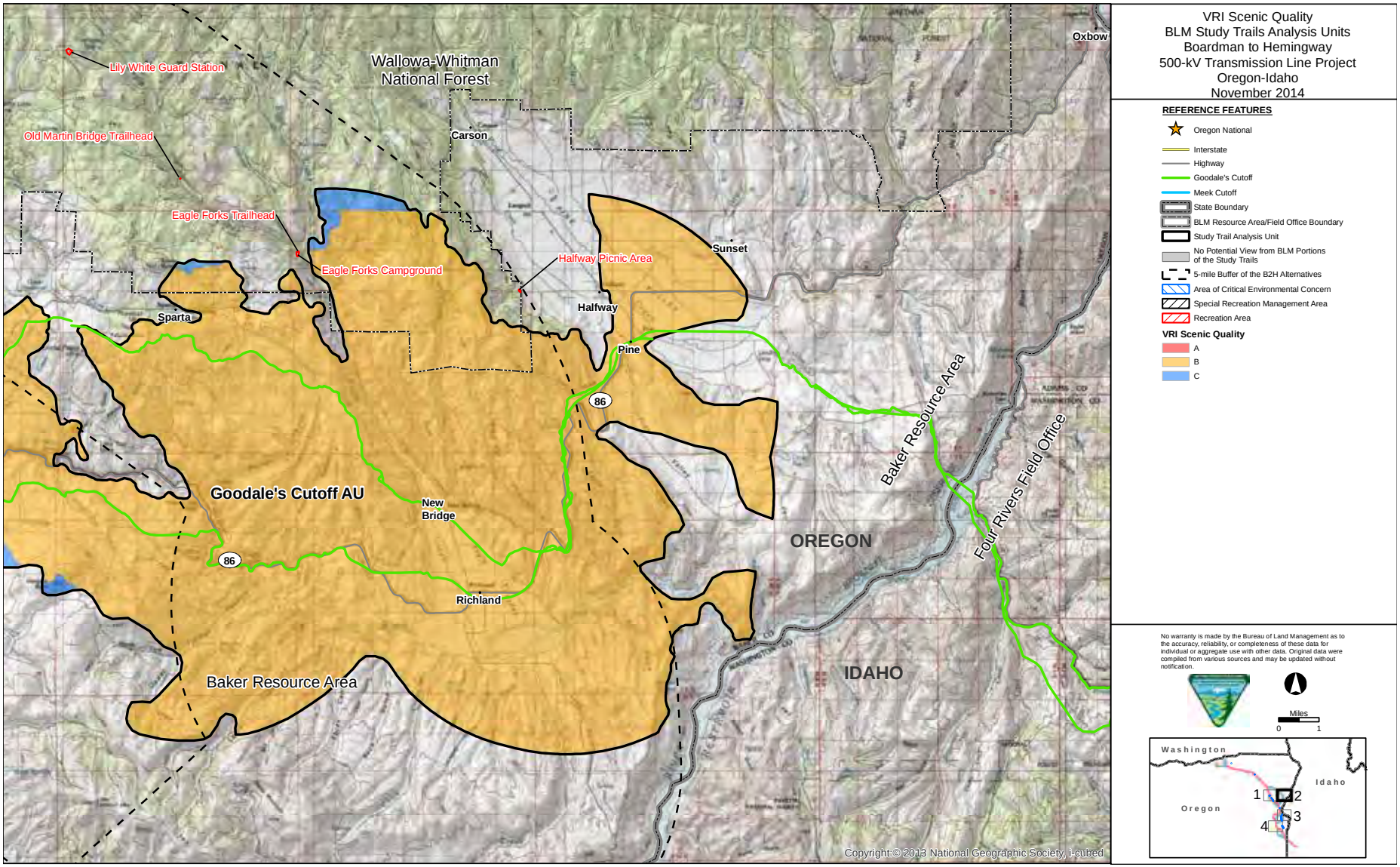
Lily White Guard Station
Wallowa-Whitman
National Forest
Oxbow
Old Martin Bridge Trailhead
Carson
Eagle Forks Trailhead
Eagle Forks Campground
Halfway Picnic Area
Sunset
Halfway
Sparta
Pine
86
Goodale's Cutoff AU
New
Bridge
OREGON
Baker Resource Area
Four Rivers Field Office
86
Richland
Baker Resource Area
IDAHO
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VRI Scenic Quality
BLM Study Trails Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
Oregon National
Interstate
Highway
Goodale's Cutoff
Meek Cutoff
State Boundary
BLM Resource Area/Field Office Boundary
Study Trail Analysis Unit
No Potential View from BLM Portions
of the Study Trails
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Area of Critical Environmental Concern
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Recreation Area
VRI Scenic Quality
A
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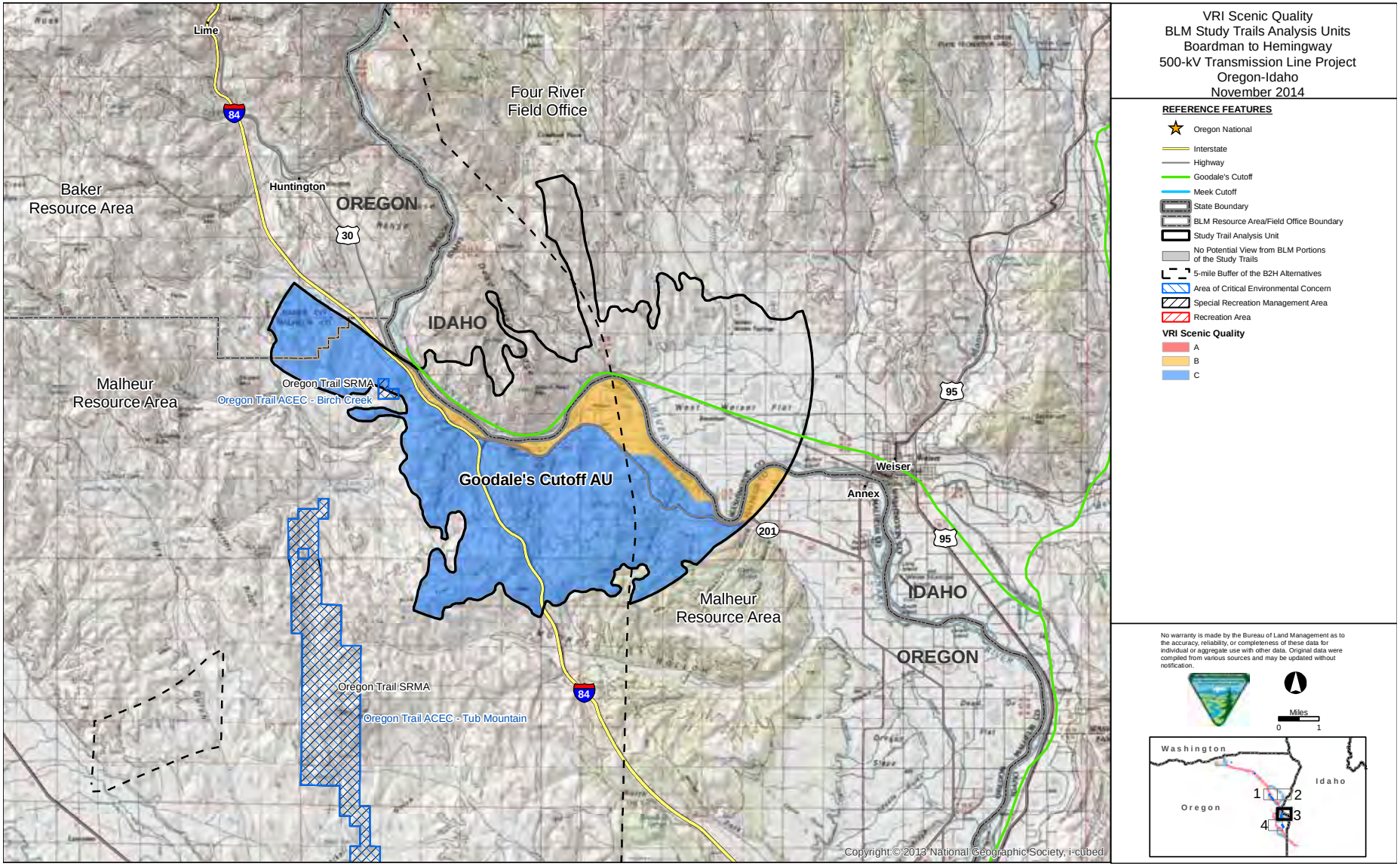
VRI Scenic Quality
BLM Study Trails Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
Oregon National
Interstate
Highway
Goodale's Cutoff
Meek Cutoff
State Boundary
BLM Resource Area/Field Office Boundary
Study Trail Analysis Unit
No Potential View from BLM Portions of the Study Trails
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Scenic Quality
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B
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Lime
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Four River Field Office
Baker Resource Area
Huntington
OREGON
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IDAHO
Malheur Resource Area
Oregon Trail SRMA
Oregon Trail ACEC - Birch Creek
Goodale's Cutoff AU
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Weiser
Annex
201
Malheur Resource Area
IDAHO
OREGON
Oregon Trail SRMA
Oregon Trail ACEC - Tub Mountain
84
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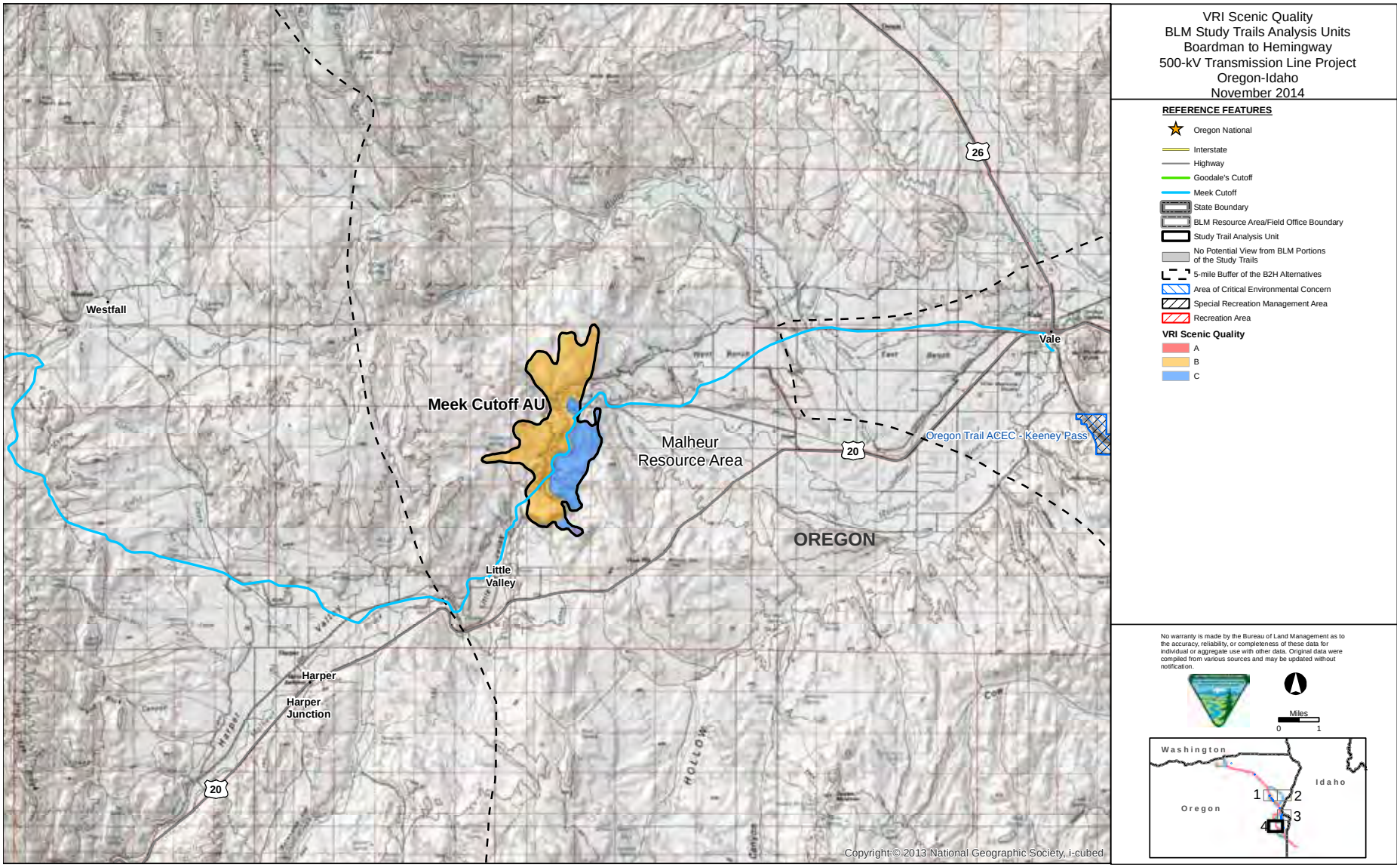
VRI Scenic Quality
BLM Study Trails Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
Oregon National
Interstate
Highway
Goodale's Cutoff
Meek Cutoff
State Boundary
BLM Resource Area/Field Office Boundary
Study Trail Analysis Unit
No Potential View from BLM Portions of the Study Trails
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Scenic Quality
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B
C
Westfall
Meek Cutoff AU
Malheur Resource Area
Vale
Oregon Trail ACEC - Keeney Pass
OREGON
Little Valley
Harper
Harper Junction
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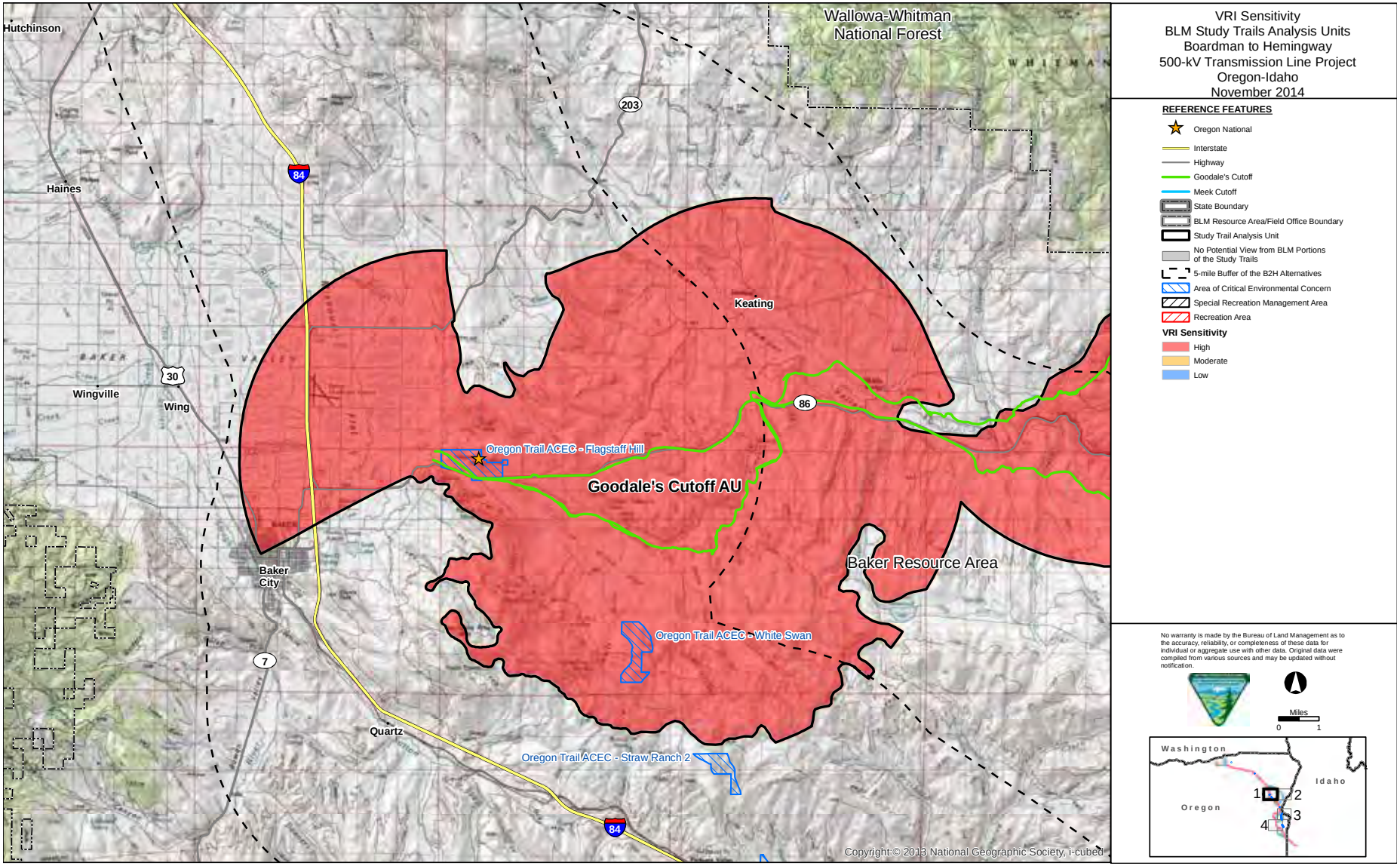
Wallowa-Whitman
National Forest
Hutchinson
Haines
Wingville
Wing
Keating
Oregon Trail ACEC - Flagstaff Hill
Goodale's Cutoff AU
Baker Resource Area
Baker
City
Oregon Trail ACEC - White Swan
Quartz
Oregon Trail ACEC - Straw Ranch 2
203
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VRI Sensitivity
BLM Study Trails Analysis Units
Boardman to Hemingway
500-kV Transmission Line Project
Oregon-Idaho
November 2014
REFERENCE FEATURES
Oregon National
Interstate
Highway
Goodale's Cutoff
Meek Cutoff
State Boundary
BLM Resource Area/Field Office Boundary
Study Trail Analysis Unit
No Potential View from BLM Portions of the Study Trails
5-mile Buffer of the B2H Alternatives
Area of Critical Environmental Concern
Special Recreation Management Area
Recreation Area
VRI Sensitivity
High
Moderate
Low
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Miles
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Washington
Idaho
Oregon
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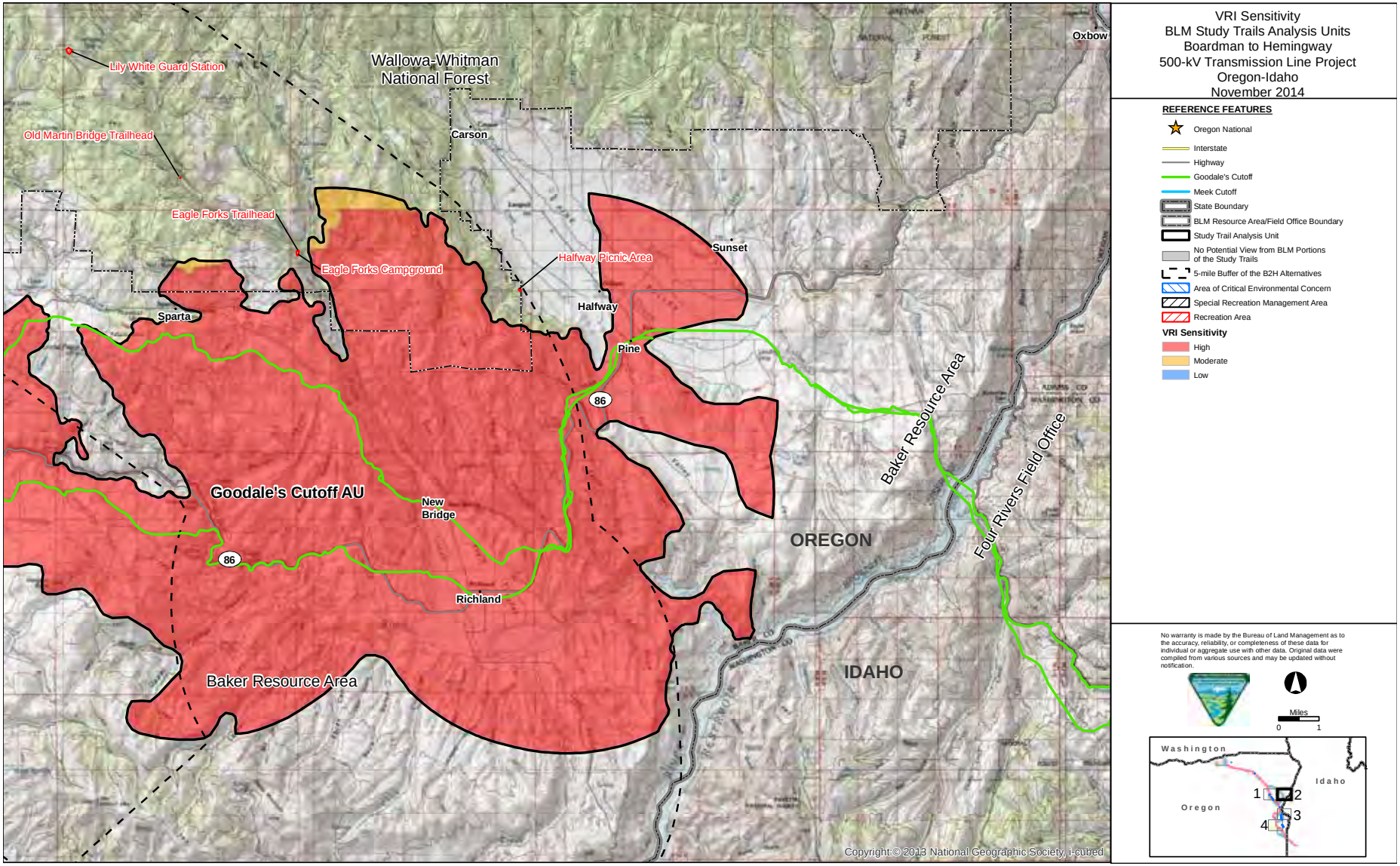
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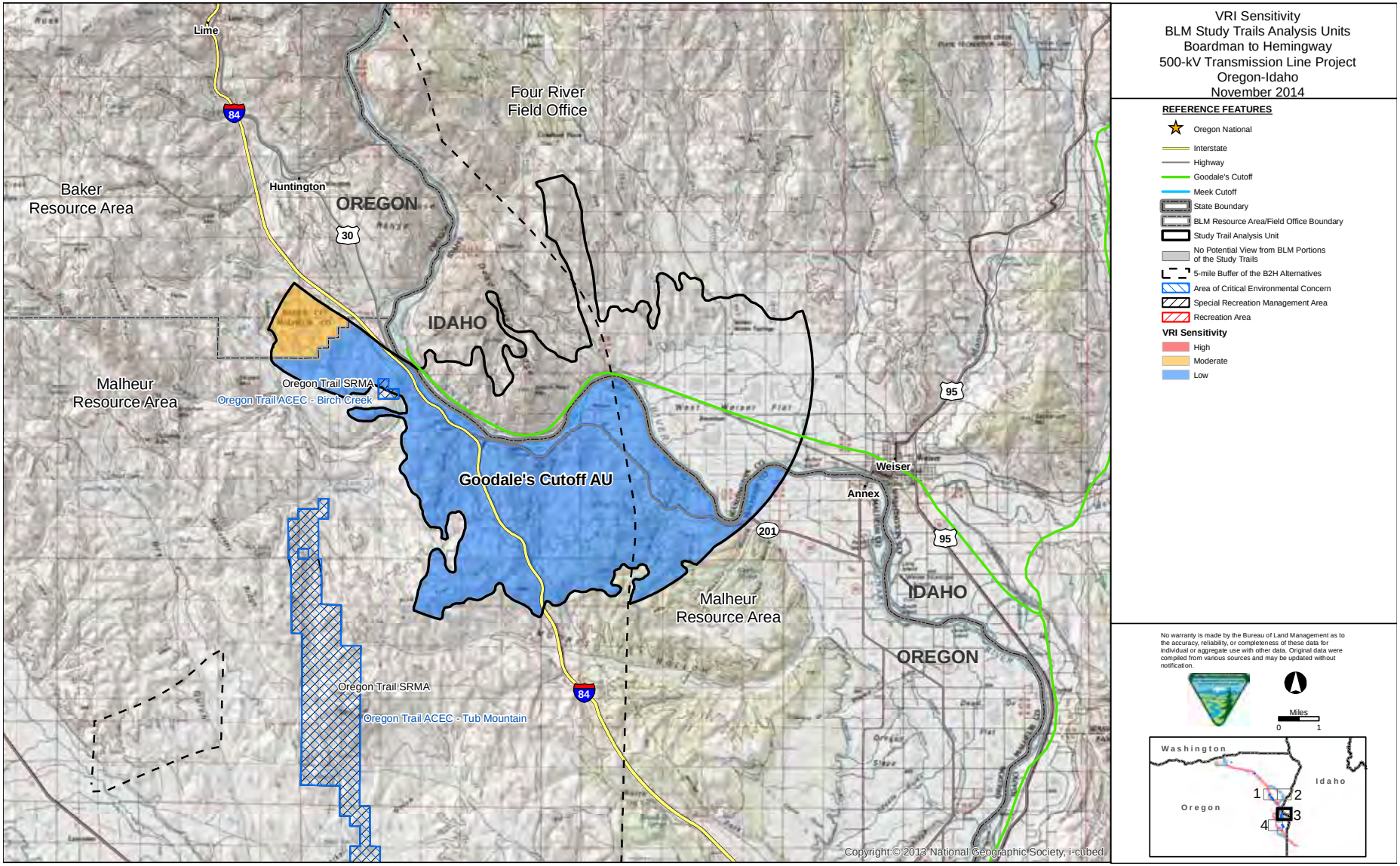
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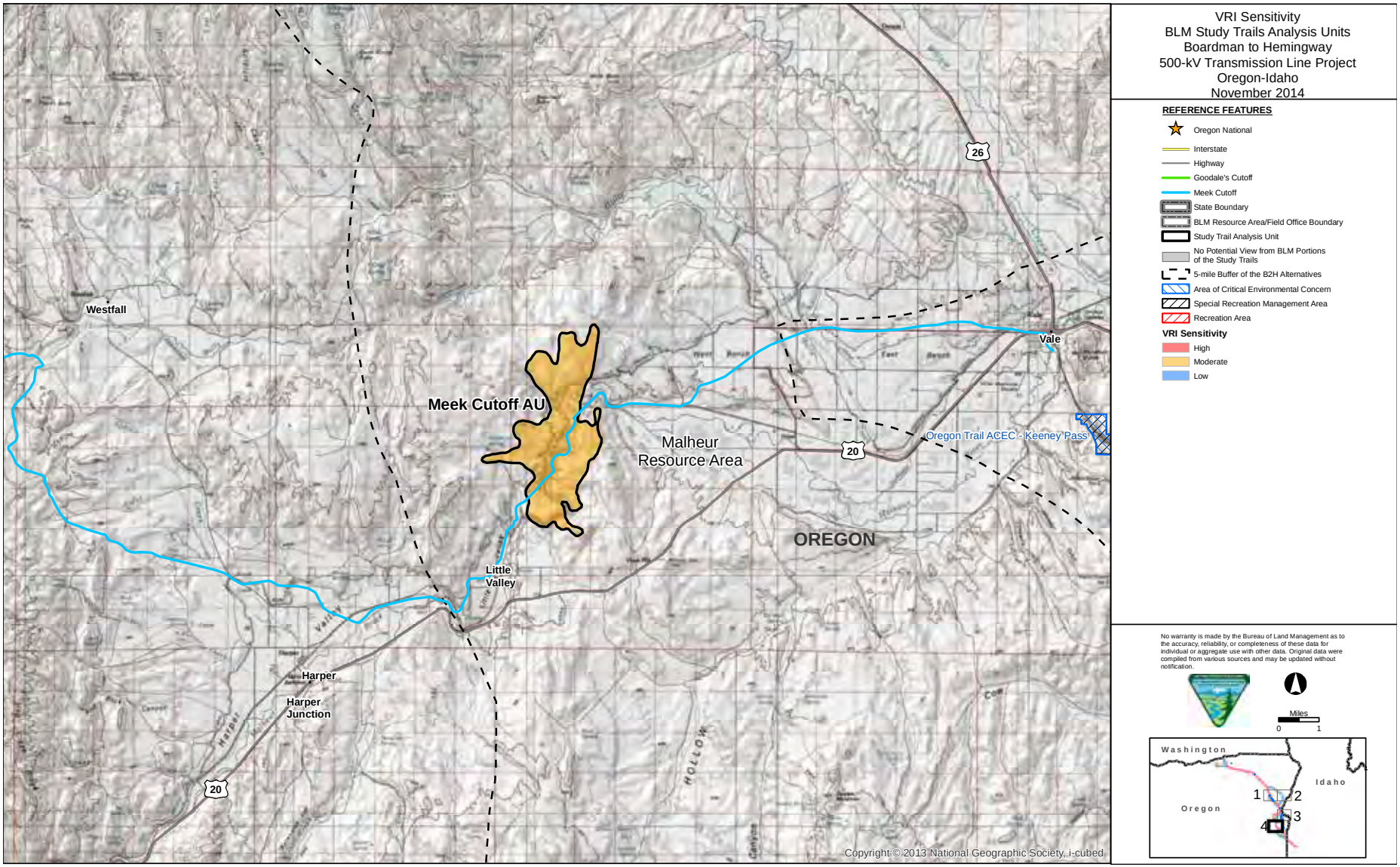

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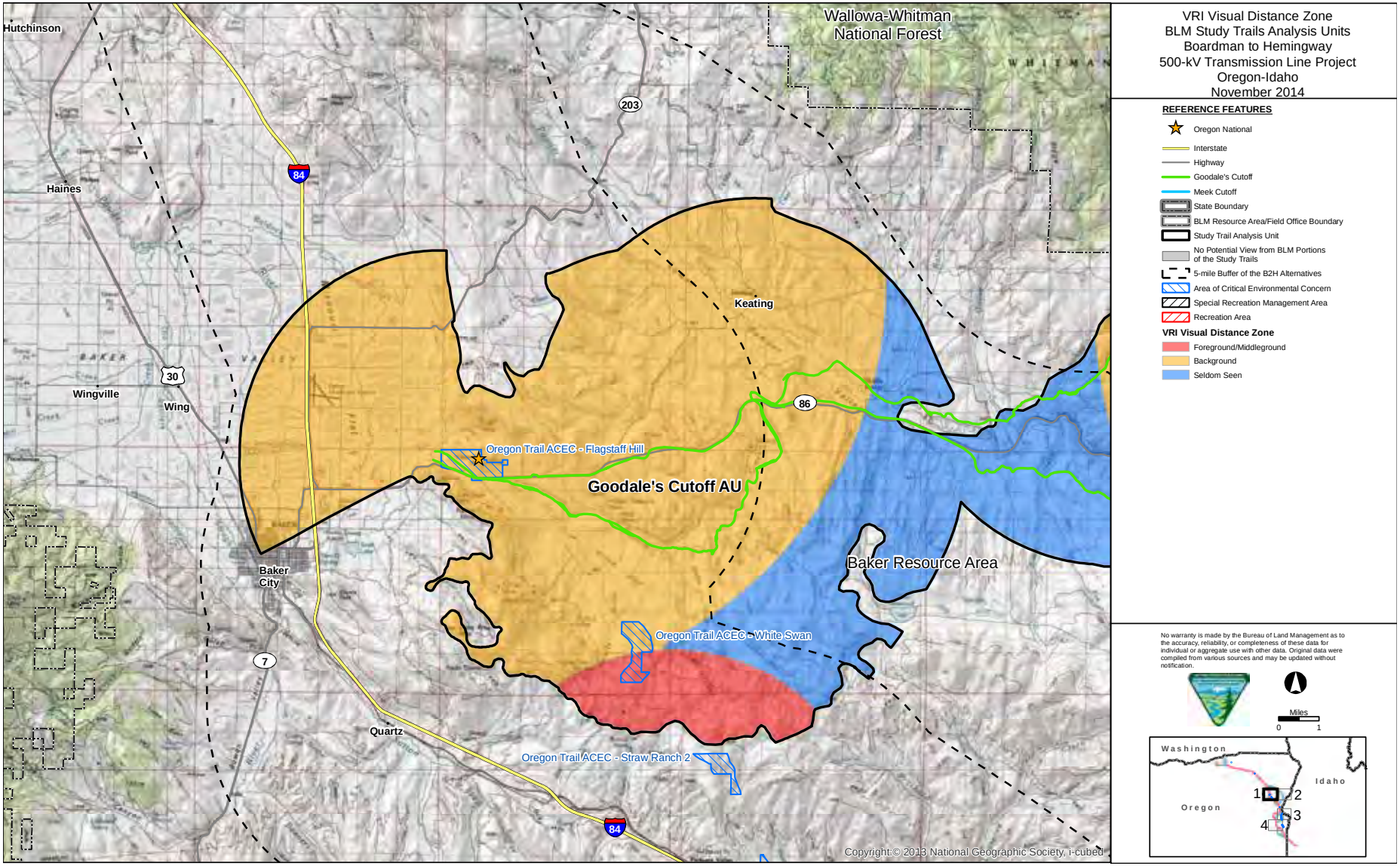

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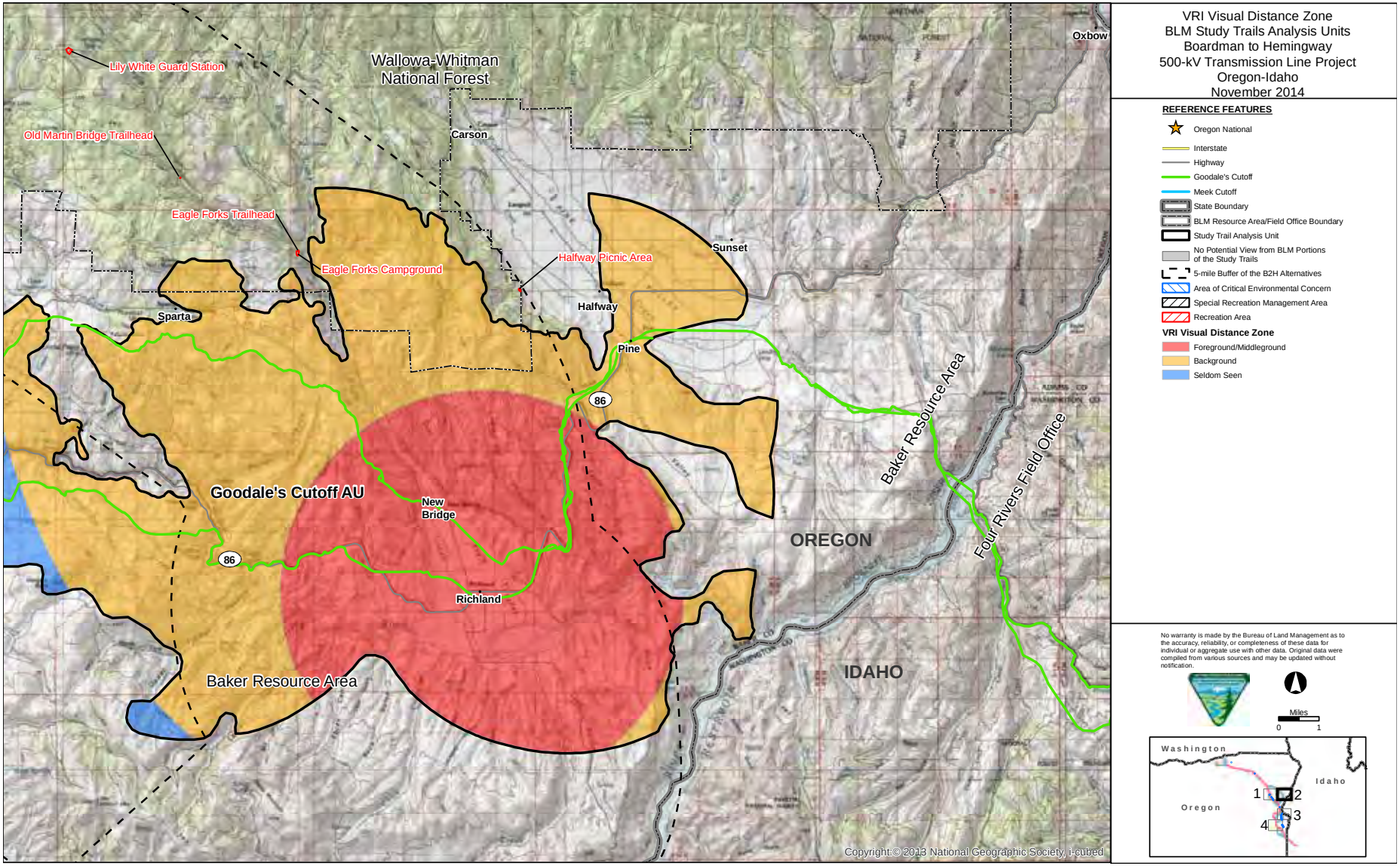
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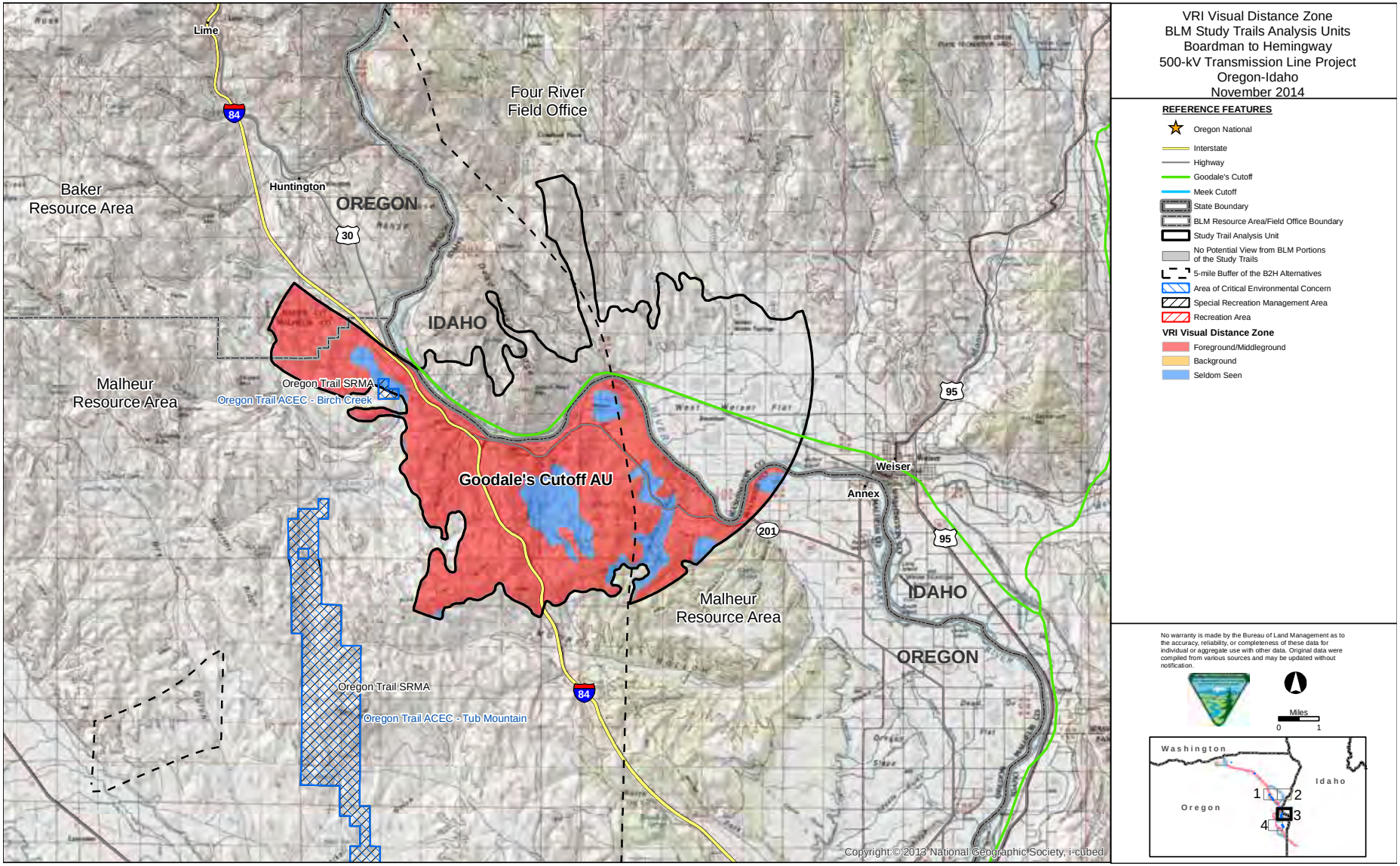
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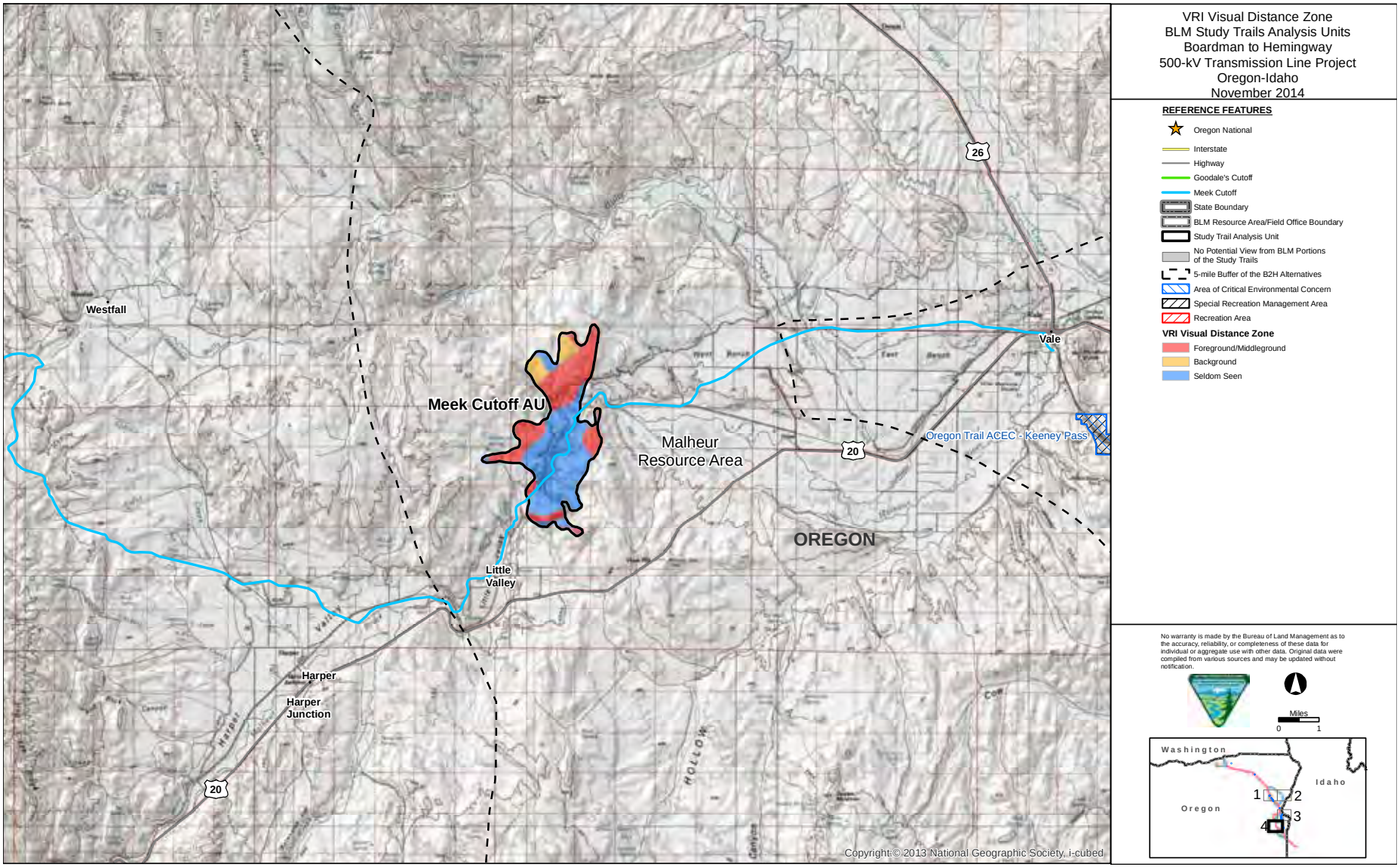
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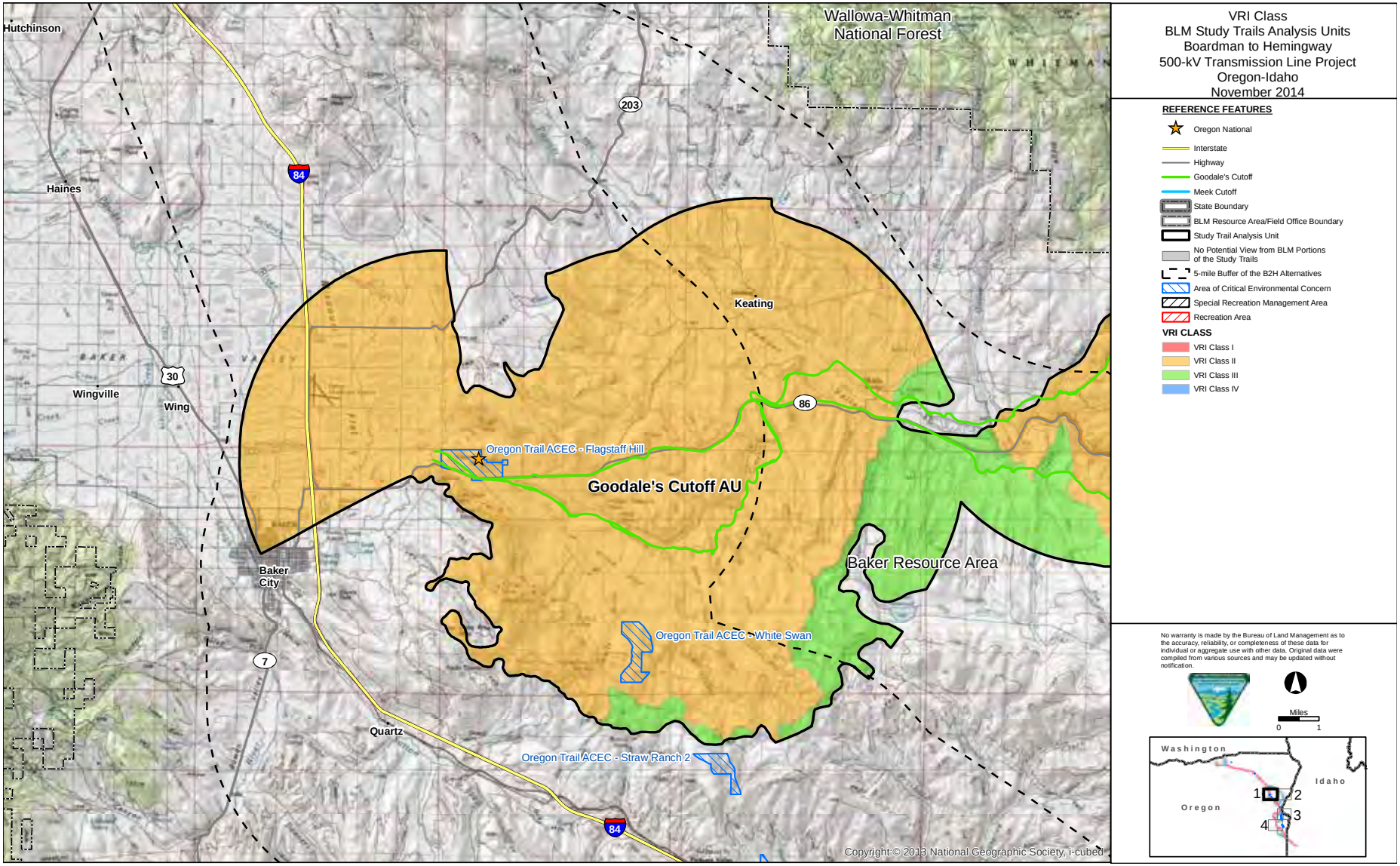

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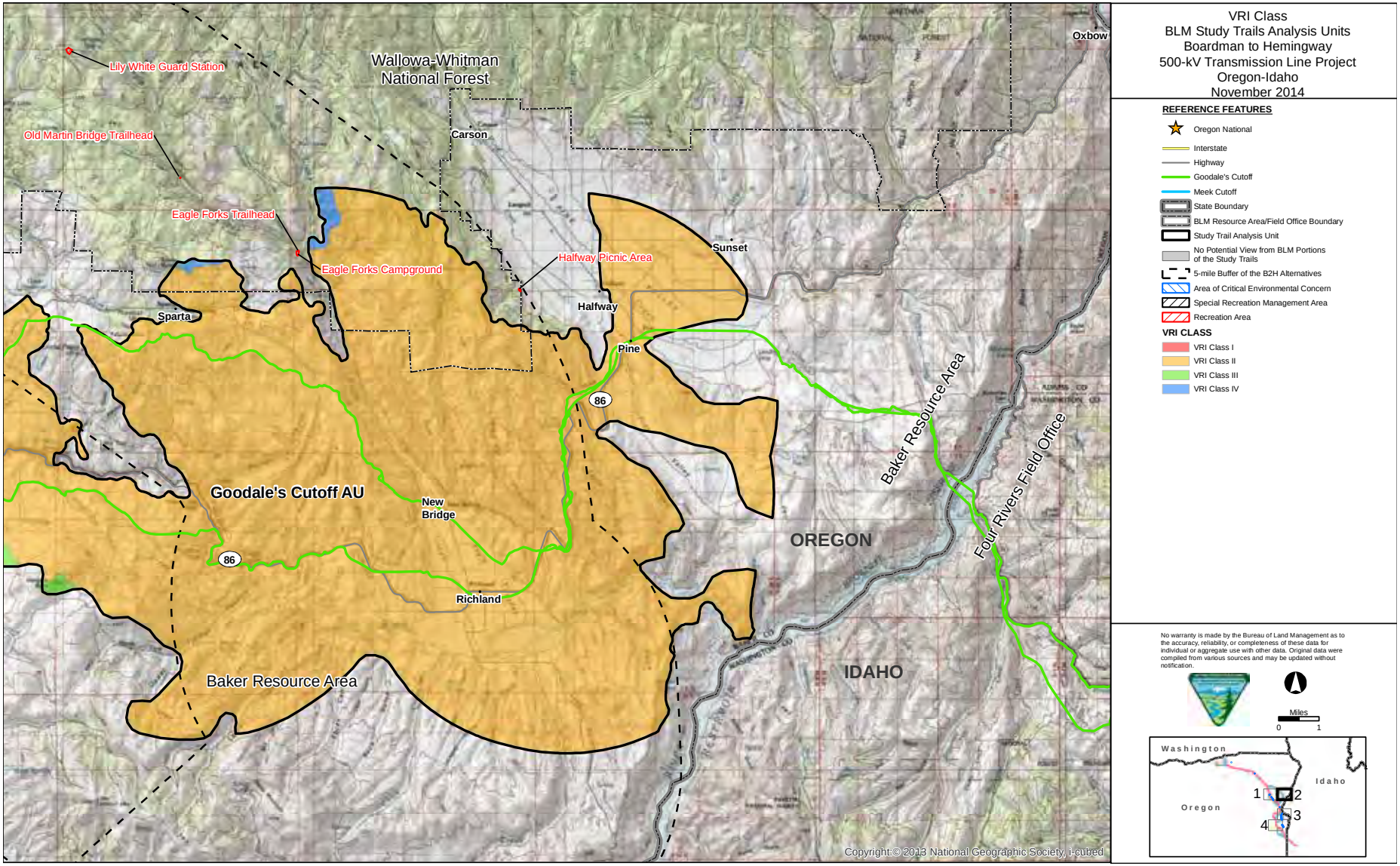
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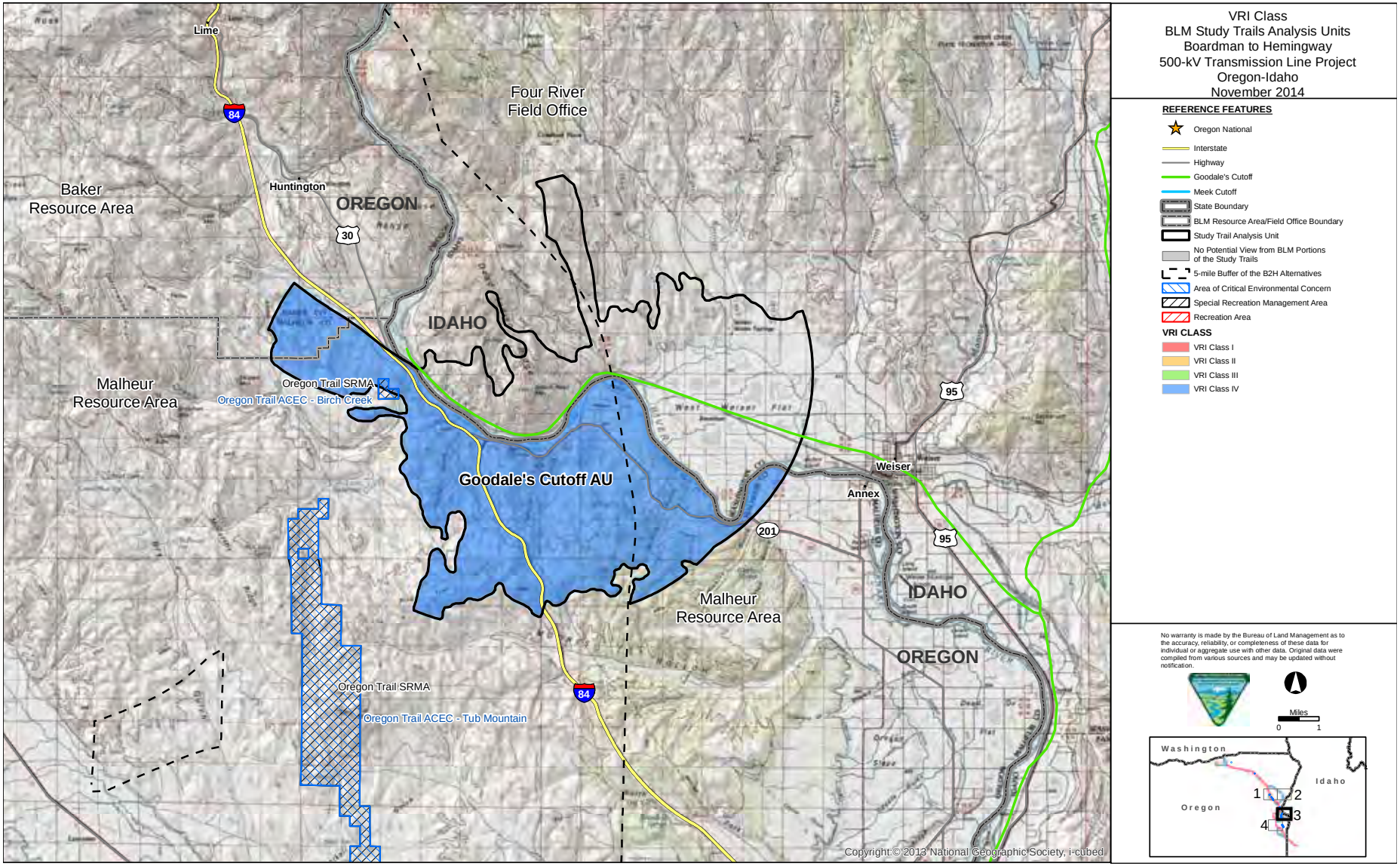
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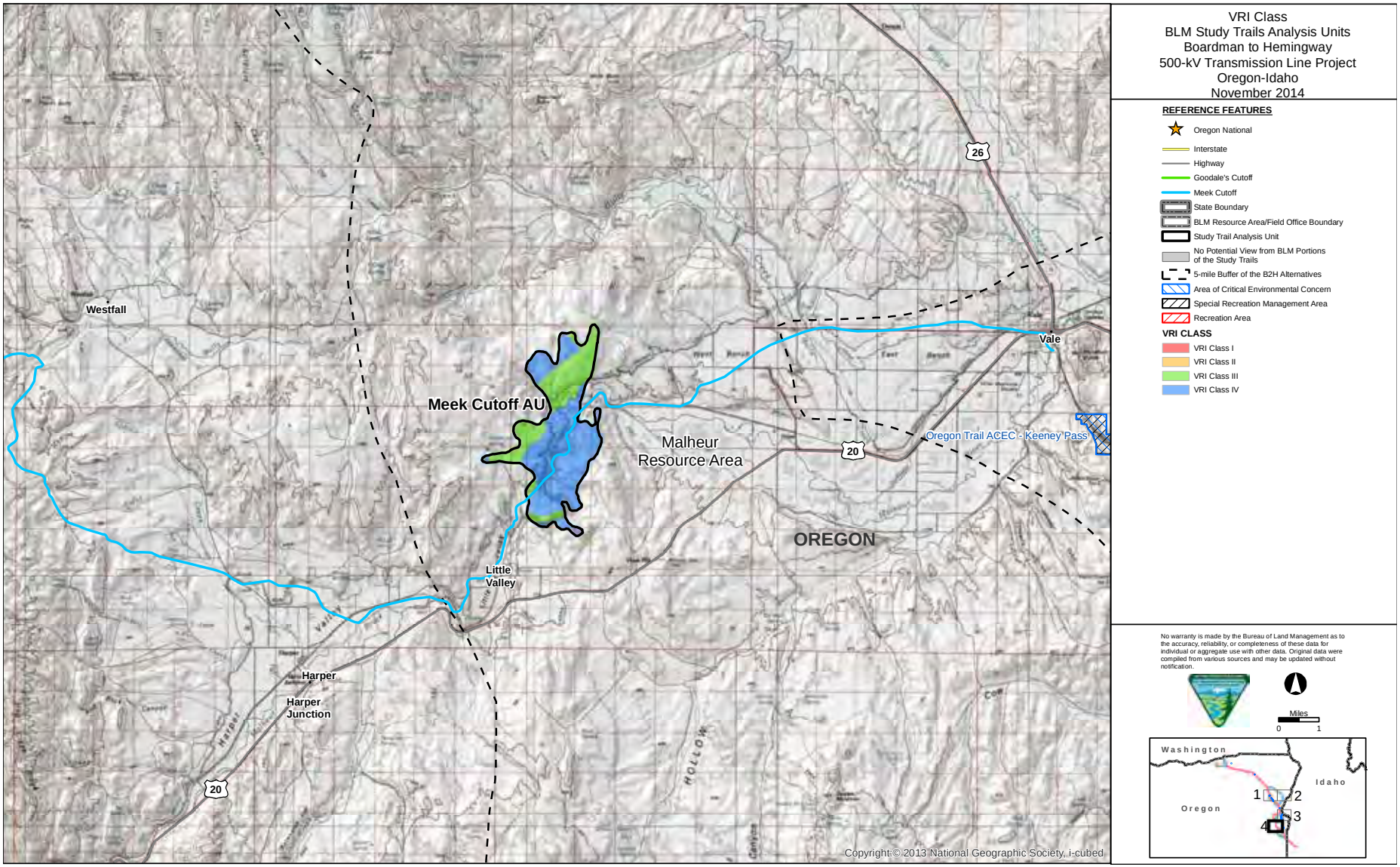
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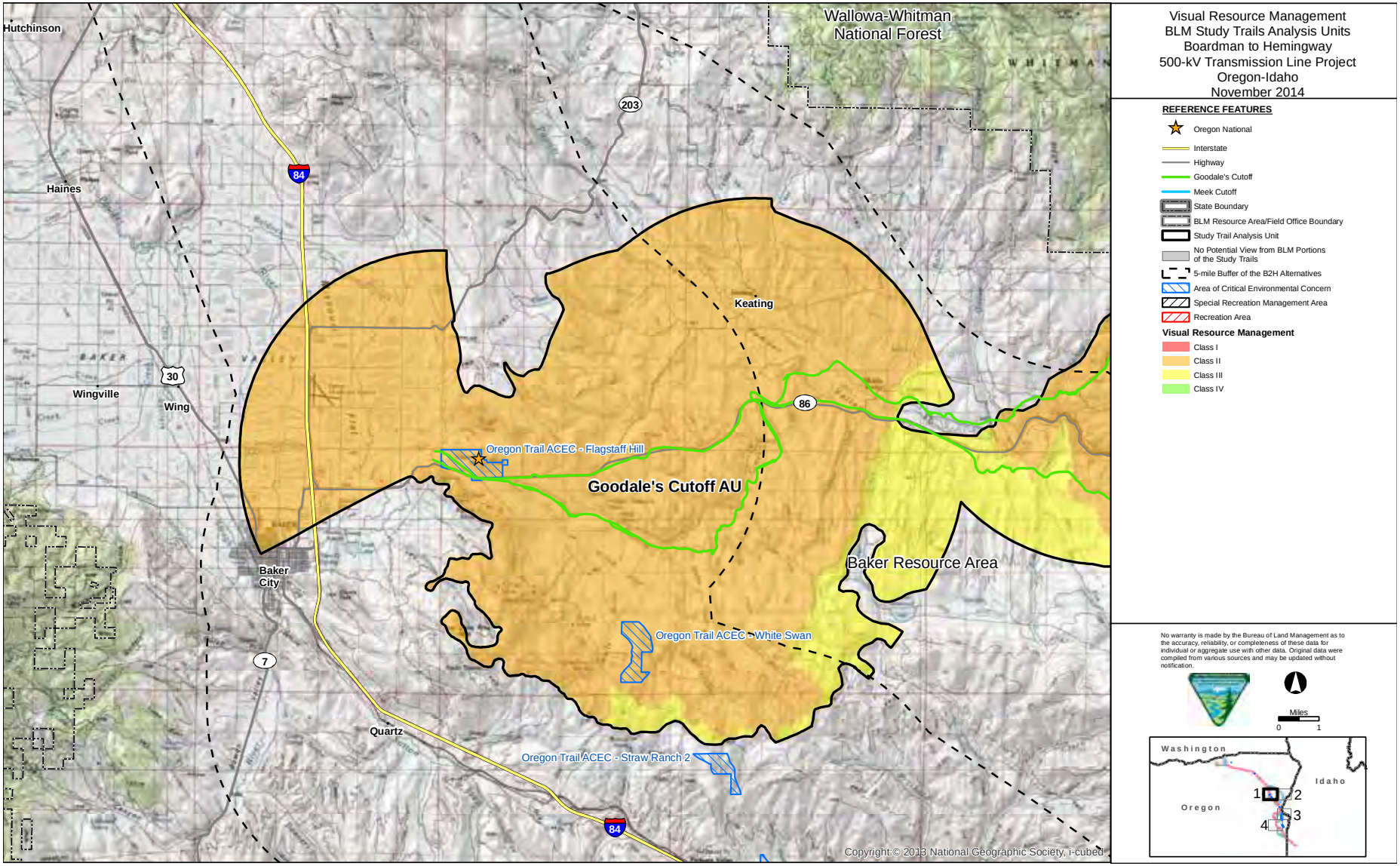

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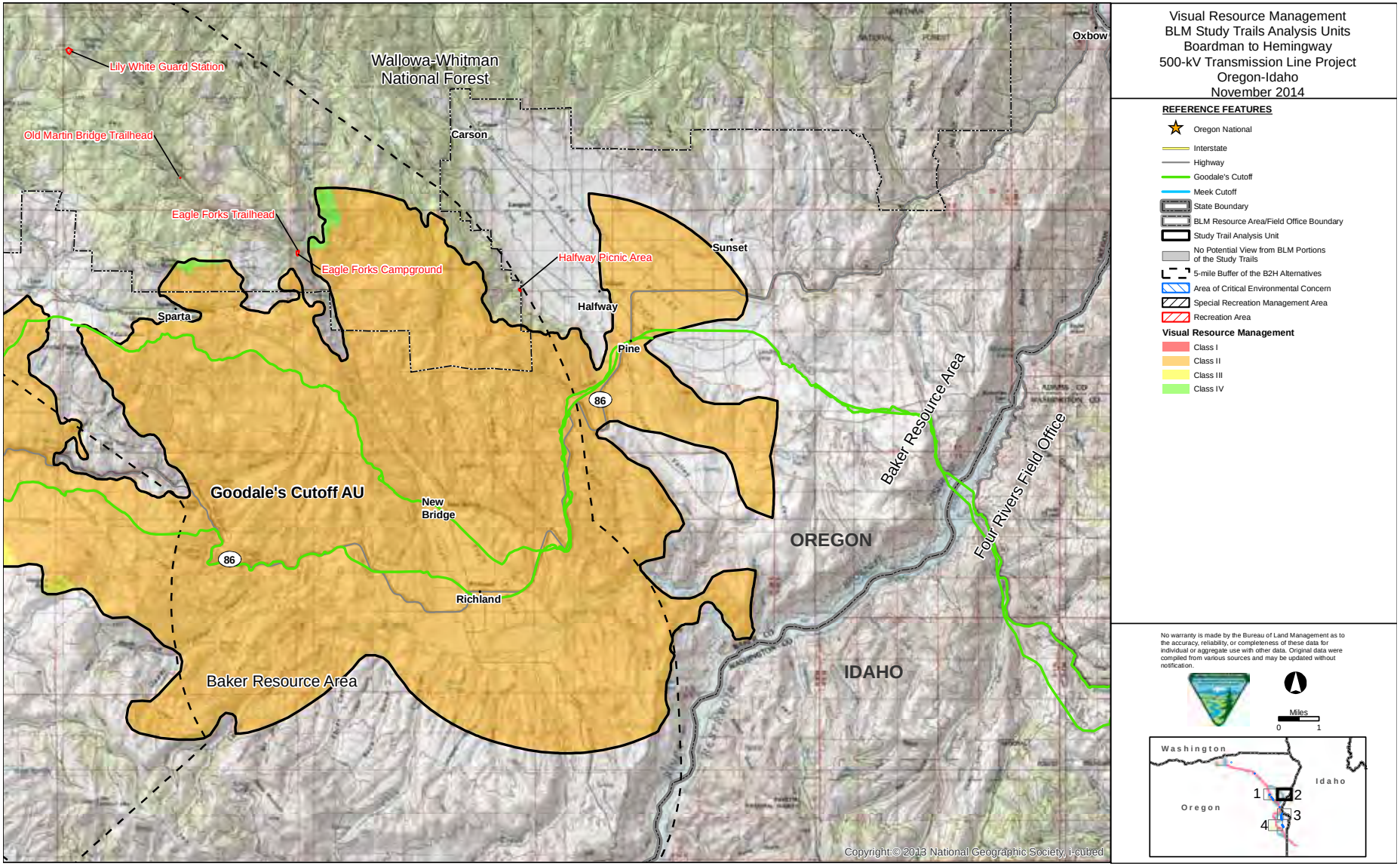
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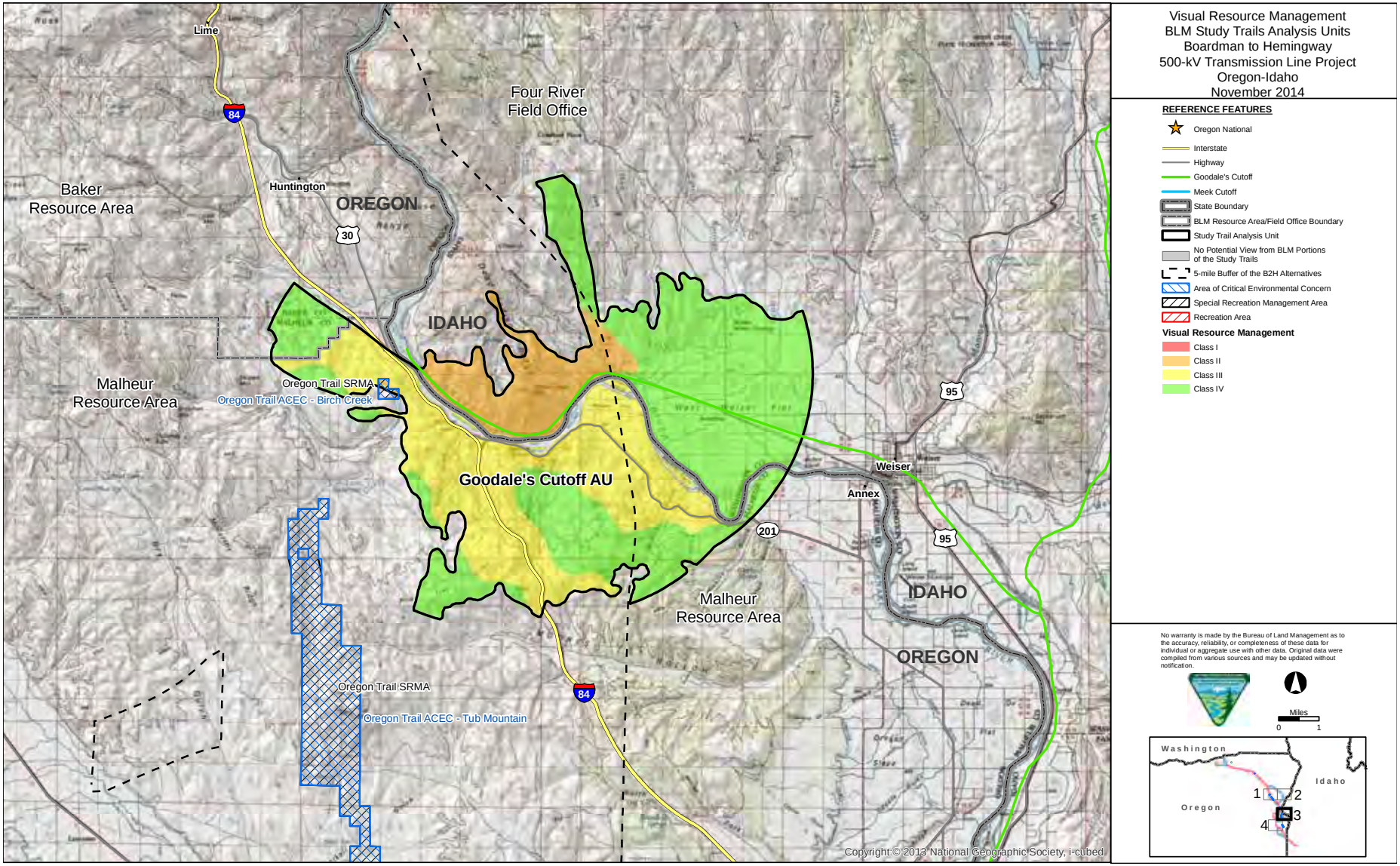
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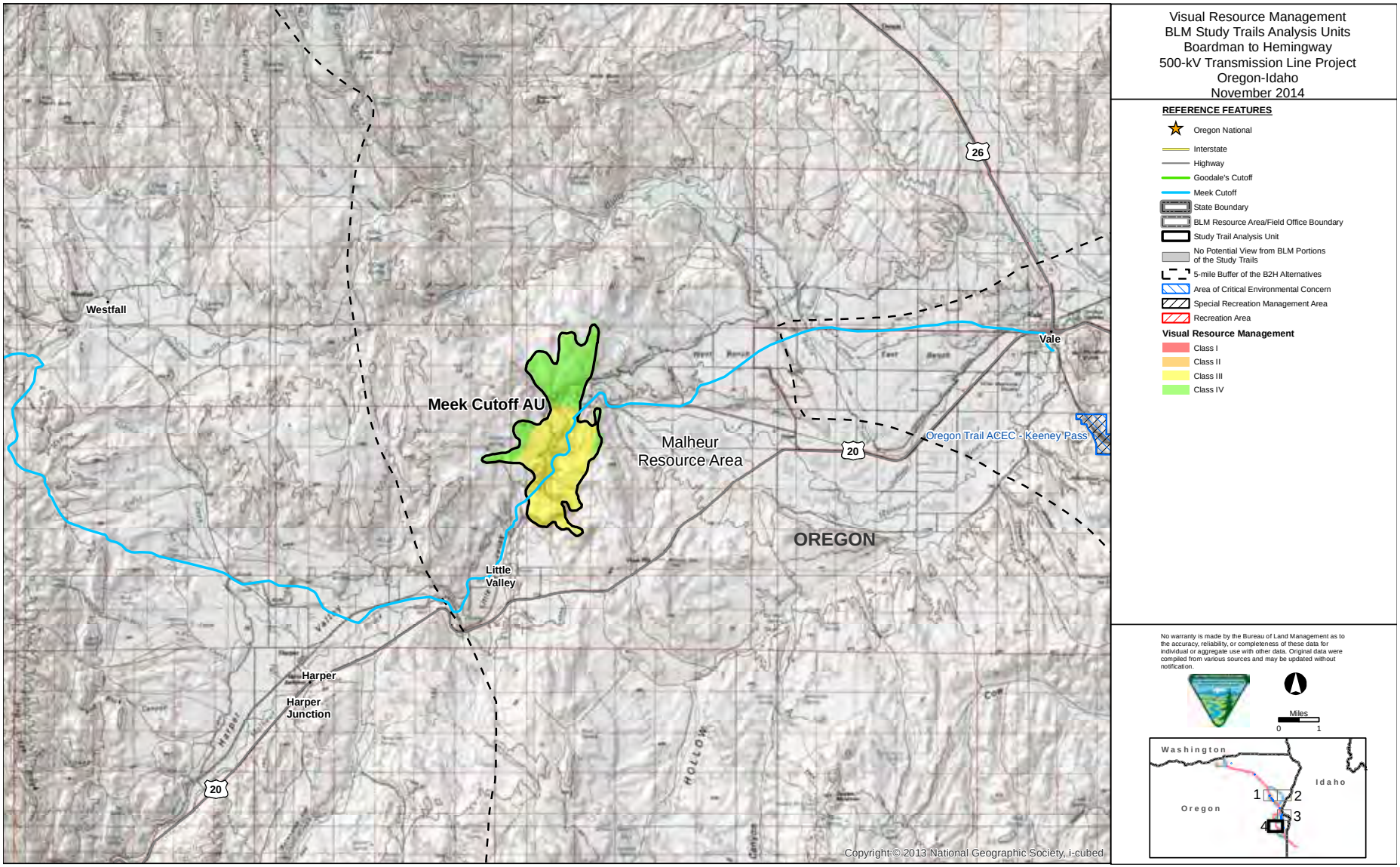
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ATTACHMENT S-9
HISTORIC PROPERTIES MANAGEMENT PLAN (WITH INADVERTENT DISCOVERY PLAN)

BOARDMAN TO HEMINGWAY TRANSMISSION LINE PROJECT HISTORIC PROPERTIES MANAGEMENT PLAN FOR OREGON DEPARTMENT OF ENERGY COMPLIANCE

SHPO Case #: 08-2232

Prepared by:



Idaho Power Company
1221 West Idaho Street
Boise, ID 83702

September 2018

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ABBREVIATIONS AND ACRONYMS

ACHP	Advisory Council on Historic Preservation
APE	area of potential effect
ASC	Application for Site Certificate
BLM	Bureau of Land Management
CCEM	Construction Contractor's Environmental Manager
CIC	Compliance Inspection Contractor
CRM	Cultural Resources Monitor
CRS	Cultural Resources Specialist
CRT	Cultural Resource Team
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
EFSC	Energy Facility Siting Council
HPMP	Historic Properties Management Plan
HPRCSIT	Historic Properties of Religious and Cultural Significance to Indian Tribes
IDP	Inadvertent Discovery Plan
ILS	Intensive Level Survey
IPC	Idaho Power Company
kV	kilovolt
LCIS	Legislative Commission on Indian Services
MP	Monitoring Plan
MPDF	Multiple Property Documentation Form
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act of 1966
NHT	National Historic Trail
NPS	National Park Service
NRHP	National Register of Historic Places
O&M	operation and maintenance
OAR	Oregon Administrative Rules
ODOE	Oregon Department of Energy
ORS	Oregon Revised Statute
PA	Programmatic Agreement
Project	Boardman to Hemingway Transmission Line Project
pASC	Preliminary Application for Site Certificate
RLS	Reconnaissance Level Survey
ROW	right-of-way
SHPO	State Historic Preservation Office
THPO	Tribal Historic Preservation Office
U.S.C.	United States Code
USFS	U.S. Department of Agriculture Forest Service
VAHP	Visual Assessment of Historic Properties

DEFINITIONS

Aboveground resource: A type of cultural resource or feature with aboveground elements that has the potential to be directly or indirectly affected by the Project which includes cairns, rock alignments, shelters, and other buildings, structures, districts, objects, and sites potentially eligible for listing on the NRHP under Criterion A, B, C, or D. Also referred to in Oregon as a historic site.

Analysis area: The overall area examined for impacts by the Project in Exhibit S. Includes subset analysis areas of the direct analysis area and the Visual Assessment analysis area.

Archaeological site: A type of cultural resource consisting of a concentration of a minimum of 10 artifacts within the ground or in ruins or a feature (Oregon State Historic Preservation Office [SHPO] 2013a). 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 each other or biotic or geological remains or deposits (ORS 358.905(1)(c)).

Archaeological object: A type of cultural resource consisting of fewer than 10 artifacts. Also referred to as an isolated find (Oregon SHPO 2013a). It is part of the physical record of an indigenous or other culture found in the state or waters of the state and consists of material remains of past human life or activity that are of archaeological significance (ORS 358.905(1)(a)).

Burial: Any natural or prepared physical location whether originally below, on, or above the surface of the earth, into which, as a part of a death rite or death ceremony of a culture, human remains were deposited (ORS 358.905(1)(e)).

Construction footprint: The area within the Project Site Boundary that will be directly impacted by the Project through ground disturbance during construction.

Cultural resource: Any place where material evidence exists about the human past. Generally, 50 years or older. Physical features, both natural and human made, associated with human activity. These would include sites, structures, and objects representing events in history, architecture, or human development. Cultural resources are unique and non-renewable resources (Thomas 1998).

Cultural site boundary: The extent of a cultural resource as identified by field surveys. Typically defined as the extent of cultural materials (surface and subsurface).

Direct analysis area: The portion of the analysis area examined for direct impacts by the Project. Equivalent to the Project Site Boundary.

Funerary objects: Any artifacts or objects that, as part of a death rite or ceremony of a culture, are reasonably believed to have been placed with individual human remains either at the time of death or later (ORS 358.905(1)(f)).

Historic Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT): A type of cultural resource whose significance is derived from the role it plays in an Indian Tribe's historically rooted beliefs, customs, and practices and that may be located on ancestral, aboriginal, or ceded lands of the Tribe. Also referred to as a sacred site. See also Section 101(d)(6)(A) of the NHPA and Advisory Council on Historic Preservation (ACHP) (2008).

Historic property: A type of cultural resource consisting of any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion on the NRHP, including artifacts, records, and remains related to and located within such a property or resource.

Historic site: A type of cultural resource inclusive of historic buildings, structures, sites, districts, and objects that would be included in the SHPO's online Historic Sites Database.

Human remains: The physical remains of a human body, including, but not limited to, bones, teeth, hair, ashes or mummified or otherwise preserved soft tissues of an individual (ORS 358.905(1)(g)).

Indian tribe: Any tribe of Indians recognized by the Secretary of the Interior or listed in the Klamath Termination Act, 25 United States Code [U.S.C.] 3564 et seq., or listed in the Western Oregon Indian Termination Act, 25 U.S.C. 3691 et seq., if the traditional cultural area of the tribe includes Oregon lands (ORS 97.740(4) [incorporated by reference in ORS 358.905(1)(d)]).

Object of cultural patrimony: An object having ongoing historical, traditional or cultural importance central to the native Indian group or culture itself, rather than property owned by an individual native Indian, and which, therefore, cannot be alienated, appropriated, or conveyed by an individual regardless of whether or not the individual is a member of the Indian tribe. The object shall have been considered inalienable by the native Indian group at the time the object was separated from such group. The term does not include unassociated arrowheads, baskets, or stone tools or portions of arrowheads, baskets, or stone tools (ORS 358.905(1)(h)(A); ORS 358.905(1)(h)(B)).

Operation footprint: The area within the Project Site Boundary that will be directly impacted by the Project during its lifetime of operation.

Professional Archaeologist: A person who has extensive formal training and experience in systematic, scientific archaeology (ORS 97.740(6)).

Project Site Boundary: The perimeter of the site of the proposed energy facility and encompassing all of its related or supporting facilities, all temporary laydown and staging areas, and all corridors and micrositing corridors proposed by the applicant (OAR 345-001-0010(55)).

Sacred object: An archaeological object or other object that: (A) is demonstrably revered by any ethnic group, religious group or Indian tribe as holy; (B) is used in connection with the religious or spiritual service or worship of a deity or spirit power; or (C) was or is needed by traditional native Indian religious leaders for the practice of traditional native Indian religion (ORS 358.905(1)(k)).

Study Area (2-mile, 5-mile): The area examined during pre-survey cultural resource-related research efforts, including the records search and literature review. A 2-mile buffer and a 5-mile buffer on the Proposed Route and alternative routes established two subsets of the Study Area for the pedestrian cultural resources survey and the Visual Assessment of Historic Properties Study Plan (VAHP), respectively.

Traditional Cultural Property (TCP): A type of historic property that is eligible for inclusion on the NRHP because of its association with cultural practices or beliefs of a living community that (a) are rooted in that community's history, and (b) are important in maintaining the continuing cultural identity of the community (Parker and King 1998).

Visual Assessment analysis area: The portion of the analysis area examined for indirect impacts by the Project. The area assessed for indirect effects that extends 5 miles or to the visual horizon, whichever is closer, on either side of the centerline of the Proposed Route and alternative routes.

1.0 INTRODUCTION

This Historic Properties Management Plan (HPMP) provides a general overview of the measures that will be implemented to address the avoidance, minimization of impacts, and mitigation of impacts to cultural resources as a result of Idaho Power Company's (IPC) Boardman to Hemingway Transmission Line Project (Project). It provides a general approach to treat impact resources. When a final route is chosen, resource-specific treatment plans incorporating these general measures will be developed and implemented prior to construction activities. Implementation of the HPMP is anticipated to occur in first and second quarters of 2022. The HPMP addresses cultural resources for the purposes of meeting the Oregon Energy Facility Siting Council's (EFSC or Council) siting standards. These resources include historic properties listed on or likely to be listed on the National Register of Historic Places (NRHP) (NRHP-eligible and including sites determined significant in writing by a Native American tribe), archaeological sites on public or private land, and archaeological objects on private land within the Project Site Boundary described in Exhibit S of the Project's Application for Site Certification (ASC) submitted to the Oregon Department of Energy (ODOE). Such resources could be significantly impacted during construction, reclamation of temporary disturbance areas, or operation and maintenance (O&M). The HPMP demonstrates that the Project will comply with EFSC's Historic, Cultural, and Archaeological Resources Standard (Oregon Administrative Rules [OAR] 345-022-0090) by showing that the construction and operation of the Project, taking into account mitigation, are not likely to result in significant impacts to the cultural resources described above and considered in the EFSC standard.

It is noted that the Bureau of Land Management (BLM) is the lead agency overseeing the National Environmental Policy Act (NEPA) and Section 106 of the National Historic Preservation Act (NHPA) processes for the Project. As part of compliance with those regulations, a Programmatic Agreement (PA) (Attachment S-7 of the ASC) has been prepared for this Project. A separate HPMP will be prepared by the BLM in consultation with the Idaho and Oregon State Historic Preservation Offices (SHPO), Advisory Council on Historic Preservation (ACHP) and the parties to the PA, including ODOE (PA Sections IV, B and VII, A–H). A framework for the BLM's HPMP has been drafted by that agency, but a complete HPMP has not yet been completed. The framework is included as Appendix A of this document. Although the PA can support the EFSC process, the PA does not supersede the EFSC site certificate process and cannot be fully relied upon to determine compliance with EFSC's standards. Therefore, this HPMP was prepared specifically for ODOE and to comply with the EFSC certification process. It may be modified as necessary following completion of the BLM's HPMP or incorporated as appropriate into the BLM's HPMP through BLM's consultation with ODOE as a party to the PA.

1.1 Purposes of HPMP

The purposes of this HPMP are to:

- Provide a summary and overview of the Project and the Site Certificate Project Site Boundary, including a discussion of proposed facilities, location of facilities, and project location maps;
- Provide a summary of state laws and regulations that define the research, evaluation, and reporting procedures to be followed for the Project under the EFSC certification process;
- Provide a brief summary of cultural resources studies conducted for the Project and a review of the findings of those studies;

- Summarize methods for determination and documentation of effects that have been used for the Project and will be used in the event of inadvertent discoveries;
- Document the measures that IPC has already taken or will take to avoid and minimize impacts to cultural resources considered by EFSC's standards
- Document IPC's goals for managing and protecting resources subject to EFSC standards within the analysis area;
- Provide management guidelines for categories of significant impacts to cultural resources considered by EFSC's standards;
- Present a Monitoring Plan (Section 7) which includes guidelines for how avoidance and minimization measures will be implemented during construction, reclamation, and O&M; how the effectiveness of these methods will be documented; procedures for halting construction, including agency notification in the event of unanticipated discoveries during construction; and under what circumstances cultural resources monitors will be present;
- Present an Inadvertent Discovery Plan (IDP) (Section 8), which specifies the procedures to follow in the event that cultural resources are found during construction, reclamation, and O&M, which were not detected during surveys conducted prior to ground-disturbing activities; and
- Be implemented and adhered to during construction, reclamation, and O&M, per OAR 345-021-0010(1)(s)(iii)(E) and OAR 345-022-0090(1).[1]

The intent of this HPMP is to specify the general terms of avoidance and monitoring, and to present a framework for mitigation planning.

1.2 Regulatory Context

The following section briefly discusses the federal and state laws and regulations applicable to the Project in regard to cultural resources.

1.2.1 EFSC Administrative Rules

1.2.1.1 Site Certificate Application Requirements

OAR 345-021-0010(1)(s) provides that IPC must include information in Exhibit S or confidential submissions of the following information regarding historic, cultural, and archeological resources:

> *(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the National Register of Historic Places.*
>
> *(B) For private lands, archaeological objects, as defined in ORS 358.905(1)(a), and archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.*
>
> *(C) For public lands, archaeological sites, as defined in ORS 358.905(1)(c), within the analysis area.*
>
> *(D) The significant potential impacts, if any, of the construction, operation and retirement of the proposed facility on the resources described in paragraphs (A), (B) and (C) and a plan for protection of those resources that includes at least the following:*

[1] Subsections (2) and (3) of the Historic, Cultural, and Archaeological Resources Standard apply to power generation facilities and special criteria facilities, respectively. Because the Project does not include a power generation or special criteria facility, subsections (2) and (3) of OAR 345-022-0090 do not apply to the Project.

> *(i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officer or the National Park Service of the U.S. Department of Interior for the purpose of locating, identifying and assessing the significance of resources listed in paragraphs (A), (B) and (C).*
>
> *(ii) The results of the discovery measures described in subparagraph (i), together with an explanation by the applicant of any variations from the survey, inventory, or testing recommended.*
>
> *(iii) A list of measures to prevent destruction of the resources identified during surveys, inventories and subsurface testing referred to in subparagraph (i) or discovered during construction.*
>
> *(E) The applicant's proposed monitoring program, if any, for impacts to historic, cultural and archaeological resources during construction and operation of the proposed facility.*

1.2.1.2 General Standards for Siting Facilities

Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090(1)[2] provides that IPC must demonstrate that the construction and operation of the Project, 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;*
>
> *(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).*

1.2.2 Applicable Oregon Revised Statutes

The following Oregon Revised Statutes are applicable to the Project, with respect to cultural resources.

1.2.2.1 Indian Graves and Protected Objects

Oregon Revised Statutes (ORS) 97.745 provides for protection of Indian graves and protected objects, including cairns, burials, human remains, funerary objects, sacred objects, and objects of cultural patrimony of any native Indian. It describes acts prohibited in relation to the above resources, the applicability of the statute, and the notification procedures for when suspected Indian human remains are discovered. The statute states:

> *(1) Except as provided in ORS 97.750, no person shall willfully remove, mutilate, deface, injure or destroy any cairn, burial, human remains, funerary object, sacred object or object of cultural patrimony of any native Indian. Persons disturbing native Indian cairns or burials through inadvertence, including by construction, mining, logging or agricultural activity, shall at their own expense reinter the human remains or funerary object under the supervision of the appropriate Indian tribe.*
>
> *(2) Except as authorized by the appropriate Indian tribe, no person shall:*

[2] Subsections (2) and (3) of the Historic, Cultural, and Archaeological Resources Standard apply to power generation facilities and special criteria facilities, respectively. Because the Project does not include a power generation or special criteria facility, subsections (2) and (3) of OAR 345-022-0090 do not apply to the Project.

(a) Possess any native Indian artifacts, human remains or funerary object having been taken from a native Indian cairn or burial in a manner other than that authorized under ORS 97.750.

(b) Publicly display or exhibit any native Indian human remains, funerary object, sacred object or object of cultural patrimony.

(c) Sell any native Indian artifacts, human remains or funerary object having been taken from a native Indian cairn or burial or sell any sacred object or object of cultural patrimony.

(3) This section does not apply to:

(a) The possession or sale of native Indian artifacts discovered in or taken from locations other than native Indian cairns or burials; or

(b) Actions taken in the performance of official law enforcement duties.

(4) Any discovered human remains suspected to be native Indian shall be reported to the state police, the State Historic Preservation Officer, the appropriate Indian tribe and the Commission on Indian Services.

1.2.2.2 Archaeological Objects and Sites

ORS 358.920 identifies prohibited acts on public and private lands in Oregon, relative to archaeological resources. It states that disturbances to archaeological sites or objects on public or private lands must be completed under a permit issued under ORS 390.235 and provides direction for disposition of those archaeological materials and any human remains and associated funerary objects. The section is not applicable to the disturbance of Native American cairns, which is covered by the provisions of ORS 97.740 to 97.760. The statute states:

(1)(a) A person may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon unless that activity is authorized by a permit issued under ORS 390.235.

(b) Collection of an arrowhead from the surface of public or private land is permitted if collection can be accomplished without the use of any tool.

(c) It is prima facie evidence of a violation of this section if:

(A) A person possesses the objects described in paragraph (a) of this subsection;

(B) A person possesses any tool that could be used to remove such objects from the ground; and

(C) A person does not possess a permit required under ORS 390.235.

(2) A person may not sell, purchase, trade, barter or exchange or offer to sell, purchase, trade, barter or exchange any archaeological object that has been removed from an archaeological site on public land or obtained from private land within the State of Oregon without the written permission of the landowner.

(3)(a) A person may not sell, trade, barter or exchange or offer to sell, trade, barter or exchange any archaeological object unless the person furnishes the purchaser a certificate of origin to accompany the object that is being sold or offered. The certificate shall include:

(A) For objects obtained from public land:

(i) A statement that the object was originally acquired before October 15, 1983.

(ii) The location from which the object was obtained and a brief cumulative description of how the object had come into the possession of the current owner in accordance with the provisions of ORS 358.905 to 358.961 and 390.235.

(iii) A statement that the object is not human remains, a funerary object, sacred object or object of cultural patrimony.

(B) For objects obtained from private land:

(i) A statement that the object is not human remains, a funerary object, sacred object or object of cultural patrimony.

(ii) A copy of the written permission of the landowner to acquire the object.

(b) As used in this subsection, "certificate of origin" means a signed and notarized statement that meets the requirements of paragraph (a) of this subsection.

(4)(a) If the archaeological object was acquired after October 15, 1983, from public lands, any object not described in paragraph (b) of this subsection is under the stewardship of the state and shall be delivered to the Oregon State Museum of Anthropology. The museum shall work with the appropriate Indian tribe and other interested parties to develop appropriate curatorial facilities for artifacts and other material records, photographs and documents relating to the cultural or historic properties in this state. Generally, artifacts shall be curated as close to the community of their origin as their proper care allows. If it is not feasible to curate artifacts within this state, the museum may after consultation with the appropriate Indian tribe or tribes enter into agreements with organizations outside this state to provide curatorial services; and

(b) If the object is human remains, a funerary object, a sacred object or an object of cultural patrimony, it shall be dealt with according to ORS 97.740, 97.745 and 97.750.

(5) A person may not excavate an archaeological site on privately owned property unless that person has the property owner's written permission.

(6) If human remains are encountered during excavations of an archaeological site on privately owned property, the person shall stop all excavations and report the find to the landowner, the state police, the State Historic Preservation Officer and the Commission on Indian Services. All funerary objects relating to the burial shall be delivered as required by ORS 358.940.

(7) This section does not apply to a person who disturbs an Indian cairn or burial. Any person who disturbs an Indian cairn or burial for any reason shall comply with the provisions of ORS 97.740 to 97.760.

(8) Violation of the provisions of this section is a Class B misdemeanor.

1.2.2.3 Archaeological Sites and Historical Material

ORS 390.235 sets forth the permit requirements and rules for excavation or removal of archaeological or historical materials as follows:

> *(1)(a) A person may not excavate or alter an archaeological site on public lands, make an exploratory excavation on public lands to determine the presence of an archaeological site or remove from public lands any material of an archaeological, historical, prehistorical or anthropological nature without first obtaining a permit issued by the State Parks and Recreation Department.*
>
> > *(b) If a person who obtains a permit under this section intends to curate or arrange for alternate curation of an archaeological object that is uncovered during an archaeological investigation, the person must submit evidence to the State Historic Preservation Officer that the Oregon State Museum of Anthropology and the appropriate Indian tribe have approved the applicant's curatorial facilities.*
> >
> > *(c) No permit shall be effective without the approval of the state agency or local governing body charged with management of the public land on which the excavation is to be made, and without the approval of the appropriate Indian tribe.*
> >
> > *(d) The State Parks and Recreation Director, with the advice of the Oregon Indian tribes and Executive Officer of the Commission on Indian Services, shall adopt rules governing the issuance of permits.*
> >
> > *(e) Disputes under paragraphs (b) and (c) of this subsection shall be resolved in accordance with ORS 390.240.*
> >
> > *(f) Before issuing a permit, the State Parks and Recreation Director shall consult with:*
> >
> > > *(A) The landowning or land managing agency; and*
> > >
> > > *(B) If the archaeological site in question is associated with a prehistoric or historic native Indian culture:*
> > >
> > > > *(i) The Commission on Indian Services; and*
> > > >
> > > > *(ii) The most appropriate Indian tribe.*
>
> *(2) The State Parks and Recreation Department may issue a permit under subsection (1) of this section under the following circumstances:*
>
> > *(a) To a person conducting an excavation, examination or gathering of such material for the benefit of a recognized scientific or educational institution with a view to promoting the knowledge of archaeology or anthropology;*
> >
> > *(b) To a qualified archaeologist to salvage such material from unavoidable destruction; or*
> >
> > *(c) To a qualified archaeologist sponsored by a recognized institution of higher learning, private firm or an Indian tribe as defined in ORS 97.740.*
>
> *(3) Any archaeological materials, with the exception of Indian human remains, funerary objects, sacred objects and objects of cultural patrimony, recovered by a person granted*

a permit under subsection (2) of this section shall be under the stewardship of the State of Oregon to be curated by the Oregon State Museum of Anthropology unless:

(a) The Oregon State Museum of Anthropology with the approval from the appropriate Indian tribe approves the alternate curatorial facilities selected by the permittee;

(b) The materials are made available for nondestructive research by scholars; and

(c)(A) The material is retained by a recognized scientific, educational or Indian tribal institution for whose benefit a permit was issued under subsection (2)(a) of this section;

(B) The governing board of a public university listed in ORS 352.002, with the concurrence of the appropriate Indian tribe, grants approval for material to be curated by an educational facility other than the institution that collected the material pursuant to a permit issued under subsection (2)(a) of this section; or

(C) The sponsoring institution or firm under subsection (2)(c) of this section furnishes the Oregon State Museum of Anthropology with a complete catalog of the material within six months after the material is collected.

(4) The Oregon State Museum of Anthropology shall have the authority to transfer permanent possessory rights in subject material to an appropriate Indian tribe.

(5) Except for sites containing human remains, funerary objects and objects of cultural patrimony as defined in ORS 358.905, or objects associated with a prehistoric Indian tribal culture, the permit required by subsection (1) of this section or by ORS 358.920 shall not be required for forestry operations on private lands for which notice has been filed with the State Forester under ORS 527.670.

(6) As used in this section:

(a) "Private firm" means any legal entity that:

(A) Has as a member of its staff a qualified archaeologist; or

(B) Contracts with a qualified archaeologist who acts as a consultant to the entity and provides the entity with archaeological expertise.

(b) "Qualified archaeologist" means a person who has the following qualifications:

(A) A post-graduate degree in archaeology, anthropology, history, classics or other germane discipline with a specialization in archaeology, or a documented equivalency of such a degree;

(B) Twelve weeks of supervised experience in basic archaeological field research, including both survey and excavation and four weeks of laboratory analysis or curating; and

(C) Has designed and executed an archaeological study, as evidenced by a Master of Arts or Master of Science thesis, or report equivalent in scope and quality, dealing with archaeological field research.

(7) Violation of the provisions of subsection (1)(a) of this section is a Class B misdemeanor.

Any subsurface archaeological excavation (as applicable) on non-federal public lands, inclusive of any state, county, or municipal lands, will be conducted under a State of Oregon Archaeological Excavation Permit per ORS 390.235(1)(a) and OAR 736-051-0080 to -0090.

1.2.3 Additional Regulatory Context

A substantial portion of the Project is located on private lands (69 percent or 186 miles) with little State lands involved (0.4 percent or 1.1 miles). However, the Project also crosses significant stretches of federally-managed land (24 percent or 65.4 miles across BLM-managed land; 0.2 percent or 0.5-mile across Bureau of Reclamation-managed lands; 4 percent or 10.5 miles across Department of Defense/U.S. Army Corps of Engineers-managed lands; and 3 percent or 7.1 miles on National Forest System lands). BLM is the lead federal agency responsible for completing the NEPA environmental analysis and for compliance with Section 106 of the NHPA.

1.2.3.1 Section 106 Cultural Resources Working Group and Consulting Parties

ODOE is a participant in the BLM's Cultural Resources Working Group for the Project. Consistent with Section 106, the BLM has convened a cultural resources working group, comprising representatives of the Oregon State Office and Vale District Office of the BLM and its contractor; U.S. Department of Agriculture Forest Service (USFS); Bonneville Power Administration; the ACHP; Oregon and Idaho SHPOs; ODOE; Confederated Tribes of the Umatilla Indian Reservation (CTUIR); CTUIR Tribal Historic Preservation Officer (THPO); Shoshone Paiute Tribe; Shoshone Bannock Tribe; Malheur, Baker, Union, Umatilla, and Morrow Counties; Oregon Commission on Historic Trails; Oregon-California Trails Association; Stop Idaho Power; and IPC. In addition to the working group, 32 consulting parties have been identified for the Project, including federal, state, and local agencies; IPC; tribes; historic preservation groups; and, public community groups and individuals with an interest in the Project. These are listed below:

- BLM
- U.S. Army Corps of Engineers
- U.S. Department of the Navy, Naval Weapons Training Facility Boardman
- U.S. Forest Service, Regional Office
- U.S. National Park Service (NPS), Ice Age Floods National Geologic Trail
- NPS, Pacific Northwest Region
- Idaho SHPO
- Washington SHPO
- Burns Paiute Tribe
- Shoshone-Bannock Tribes of Fort Hall
- Baker County
- Union County
- National Trust for Historic Preservation
- Oregon Historic Trails Advisory Council
- Bonneville Power Administration
- Bureau of Reclamation
- U.S. Fish and Wildlife Service, Umatilla National Wildlife Refuge
- USFS, Wallowa-Whitman National Forest
- NPS National Lewis and Clark Trail Offices
- ACHP
- Oregon SHPO
- ODOE[3]
- CTUIR
- Shoshone-Paiute Tribes of the Duck Valley Indian Reservation
- Morrow County
- Lewis and Clark Trail Heritage Foundation
- Oregon-California Trails Association
- City of Baker City

[3] ODOE's involvement in the Section 106 Cultural Resources Working Group was intended to facilitate the use of the federal Section 106 for compliance with ODOE's state regulatory requirements.

- IPC
- Halt Idaho Power
- Private Individual
- Poison Creek Neighborhood Group

To date, the Cultural Resources Working Group has provided an open forum for identifying and resolving issues related to cultural resources. Through in-person meetings and conference calls, the cultural resources working group defined the size and boundaries of the area of potential effect for the Project under Section 106; reviewed, commented upon, and/or approved cultural resources and viewshed assessment study plans; and prepared a PA.

1.2.3.2 Programmatic Agreement

A PA for managing historic properties that may be affected by the Project was prepared by BLM, acting as the designated lead federal agency and in consultation with the Section 106 Cultural Resources Working Group. The intent and applicability of the PA is for compliance with the NHPA and Section 106; however, studies and consultations completed under the direction of the PA may support the EFSC permitting process.

The PA allows for identification of cultural resources as well as NRHP eligibility evaluation and effect determinations on the Proposed Route and all alternative routes considered during the permitting process. The PA allows for the final determinations of Project effects to historic properties (including NRHP-listed, -eligible, and unevaluated resources) and the resolution of adverse effects under Section 106 to be outlined in a HPMP. Although the HPMP required by the PA will be submitted by BLM for review by all PA parties, including ODOE, it is anticipated to be specific to compliance with Section 106 of the NHPA. In order to comply with the EFSC permitting process, this ODOE-specific HPMP has been drafted. Although the HPMP dictated by the PA has not been completed as of the drafting of this document, approaches to identification and effect determinations are expected to be similar between the two HPMPs; however, this ODOE-specific HPMP also addresses archaeological resources and objects on private lands, regardless of NRHP-eligibility status. A framework of the BLM's anticipated Section 106 HPMP is included in Appendix A.

1.3 Organization of the HPMP

Section 1 of this HPMP provides an introduction to the document, describes its purpose, and provides a state regulatory context for the Project. Section 2 describes the Project and the Project's Site Boundary included in the Site Certificate. Section 3 outlines the sequence of Project-related tasks that will occur in order to avoid, minimize, or mitigate significant impacts on cultural resources considered under EFSC's siting standards for cultural resources. Section 4 summarizes the cultural resource studies completed for the Project and their results. Section 5 discusses the methods for determination of NRHP eligibility and other cultural resources considered under EFSC's siting standards and assessment of effects. Section 6 outlines IPC's proposed avoidance and mitigation plan for the Project, as pertains to cultural resources considered under EFSC's siting standards. Sections 7 and 8 provide a general Monitoring Plan and an IDP, respectively. Section 9 is a list of references cited in this HPMP.

2.0 PROJECT DESCRIPTION

This section provides a brief Project description and defines the Project's Site Boundary included in the site certificate. The Project Site Boundary guides what resources are considered in this HPMP.

2.1 Project Description

The Project consists of an approximately 296.6-mile-long single-circuit 500-kilovolt (kV) transmission line between Boardman, Oregon and the Hemingway Substation located near Melba, Idaho (Project). In the state of Oregon, the Project includes 270.8 miles of single-circuit 500-kV 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 along a new right-of-way (ROW). 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, Oregon, and Owyhee County, Idaho. This HPMP is applicable to the 284 miles of transmission line and associated Project components within the state of Oregon.

The Project requires a site certificate from the EFSC, as well as approval from federal land management agencies (for portions of the project on federal land). IPC submitted a Notice of Intent to the ODOE on July 15, 2010, to file an ASC for the Project. On February 27, 2013, IPC submitted a preliminary ASC (pASC) to ODOE, and amended the application in May of 2013 to include BLM alternatives not previously included in the pASC. An amended Project Order was provided by the Council on December 22, 2014. If issued, the Site Certificate would authorize the construction of the transmission lines, a switching station near the Port of Morrow, Oregon, communication stations, related and supporting facilities, and temporary features.

2.2 Project Site Boundary

The Project Site Boundary includes the construction footprint and is the area within which the Project may be built. Although alternative transmission line routes and attendant roads and facilities are included in the Project Site Boundary, this HPMP will only be implemented at the Project components selected for construction. The Project Site Boundary includes the following facilities in Oregon:

- The Proposed Route, consisting of 270.8 miles of new 500-kV electric transmission line, removal of 12 miles of existing 69-kV transmission line, rebuild of 0.9 mile of a 230-kV transmission line, and rebuild of 1.1 miles of an existing 138-kV transmission line;
- Four alternatives that each could replace a portion of the Proposed Route, including the West of Bombing Range Road Alternative 1 (3.7 miles), West of Bombing Range Road Alternative 2 (3.7 miles), Morgan Lake Alternative (18.5 miles), and Double Mountain Alternative (7.4 miles);
- One proposed 20-acre station (Longhorn Station);
- Ten communication station sites of less than 0.25-acre each and two alternative communication station sites;
- Permanent access roads for the Proposed Route, including 206.3 miles of new roads and 223.2 of existing roads requiring substantial modification and for the Alternative Routes including 30.2 miles of new roads and 22.7 miles of existing roads requiring substantial modification; and
- Thirty temporary multi-use areas and 299 pulling and tensioning sites of which four will have light-duty fly yards within the pulling and tensioning sites.

2.3 Visual Assessment Area

In addition to the Project Site Boundary, this HPMP considers historic properties and other cultural resources within 5 miles of the Proposed Route centerline and with a view of the Project. "Other" cultural resources include non-historic properties with aboveground components (such as standing buildings, cairns, hunting blinds, etc.) or other qualities wherein the viewshed is a significant quality of the resource. The Visual Assessment area was determined through a Geographic Information System viewshed analysis of the Project features in the Project Site Boundary described above. Areas within 5 miles of the Proposed Route centerline and with a view of Project features were included in the Visual Assessment area as well as the Project Site Boundary.

3.0 SEQUENCE OF PROJECT-RELATED TASKS

There are a series of tasks that will be completed to ensure that cultural resources considered by EFSC site certificate standards are avoided or Project impacts to them minimized or mitigated to less than significant. These tasks are identified as those that must take place before construction, during construction, and after construction/during reclamation and O&M, as applicable.

3.1 Pre-Construction Tasks

Pre-construction tasks include the following:

- This HPMP will be completed by IPC and submitted to ODOE, SHPO, involved Native American tribes, and historic societies (such as Oregon-California Trails Association), as determined by ODOE, for review;
- IPC's Cultural Resource Team (CRT) will be selected (see Section 7.1);
- IPC will provide the CRT and ODOE with maps and/or drawings of the Project final construction footprint and Visual Assessment area;
- The CRT will ensure avoidance measures (e.g., sensitive resource flagging, complete avoidance) are in place where needed (see Section 7.3); and
- Required mitigation measures will be completed (as applicable).

In addition to the above tasks, IPC will develop and implement a cultural resource training program as part of the overall environmental training program for all Project staff (construction workers, supervisors, etc.) and those who will access the Project area. As part of the cultural resource training program, a local tribal representative(s) will be invited to participate in the environmental training to discuss or provide context from a tribal cultural perspective regarding the cultural resources within the Project Site Boundary and/or the Visual Assessment area, and how these resources have traditional religious and cultural importance to Native American tribes (as appropriate). The presentation will have the goal of ensuring the appropriate and respectful treatment of such resources within or near the Project or upon their inadvertent discovery. The training program will be prepared and presented at the pre-construction meeting by the CRT and the Native American Representative (as appropriate) and will include a discussion of the following:

- All applicable laws and penalties pertaining to cultural resources;
- A brief discussion of the prehistoric and historic regional context of the area, including local Native American beliefs, how those beliefs are related to cultural resources that

may be found in the area, and appropriate and respectful behavior regarding such resources;

- Types of prehistoric and historic deposits/artifacts found in the area and what they look like on the ground surface, partially buried, buried, and/or freshly exposed as a result of construction activities;
- Explanation of the responsibilities of workers during construction of the Project and during O&M regarding cultural resources;
- Instruction that Project workers will avoid identified sensitive areas within the Project footprint and halt construction or an O&M activity if a cultural resource is inadvertently discovered; and
- Review of this HPMP and the protocols and procedures that will be implemented during construction and O&M activities, such as applicable cultural resource laws, Project/construction personnel, CRT staff and Native American monitor roles and responsibilities, monitoring activities and signage, inadvertent and human remain discovery procedures, stop work procedures, etc.

Presentation of the cultural resource training to Project workers will be a one-time in-person presentation by the CRT lead in coordination with the Native American Tribal Representative(s). Thereafter, the Project's construction contractor's environmental compliance manager can provide the training to additional new staff/personnel in the form of a training video. The training video will include visual examples of environmentally sensitive areas (examples of exclusion zone signage or flagging) and images/footage of prehistoric and historic artifacts and/or deposits that are demonstrative of cultural resource finds in the area and evocative of the sensitive nature of these resources. Staff receiving the training will be required to acknowledge the training by signing a training log which will be maintained by the on-site Project compliance manager, and each worker will receive a training sticker that must be displayed and easily visible on their hard hat.

3.2 Construction Phase Tasks

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;
- Construction monitoring as described in Section 7 of this plan; and
- Conduct testing or data recovery or other types of mitigation for any inadvertent discoveries as described in Section 7 of this plan, as necessary.

Additional construction phase tasks may also include site certificate amendments, if any. The CRT will consult and provide support, as needed, for any Project amendment. During construction, the need may arise for changes to Project construction procedures, approved mitigation measures or other stipulations, and/or the Project Site Boundary or construction footprint. Under these or similar circumstances, an amendment to the Site Certificate will need to be filed and approved by EFSC, to stay in compliance with all conditions of Site Certification. The ODOE will consult with the SHPO, as appropriate, and the CRT will conduct any additional studies deemed necessary.

3.3 Post-Construction Phase Tasks

Post-construction phase tasks to be completed by the CRT include completing test investigations or data recovery analysis (as necessary), preparing artifacts for curation (as applicable), transferring these materials to the approved curation facility or appropriate land owner (if requested), and preparing final reports. The CRT will also prepare and finalize the mitigation and monitoring report.

3.3.1 Operation and Maintenance Phase

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. Most normal O&M of the Project would not involve any new ground disturbance outside of the construction footprint, and therefore no impacts to previously known cultural resources subject to the EFSC standard would be expected. However, some O&M activities, specifically vegetation management, ground disturbing repairs, etc., within or near cultural resources subject to the EFSC standard may result in significant impacts. The IDP in Section 8 of this HPMP will be followed during O&M activities to ensure the continued protection of such resources. The IDP contains 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 O&M personnel or contractor(s). 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.

O&M phase tasks to be completed by IPC's O&M staff and contractor(s) include, but are not limited to, the following:

- On-going employee environmental training annually and for newly hired staff, including provision of post-training informational materials;
- Follow procedures contained in this HPMP and the IDP provided in Section 8, as applicable;
- Coordinate activities with the applicable land-managing agency and, as appropriate, tribe(s) regarding how best to avoid, minimize, or mitigate impacts to cultural resources subject to the EFSC standard and in accordance with the applicable procedures outlined in this HPMP. ODOE and SHPO will be consulted regarding all measures to be conducted;
- Coordinate with tribe(s) regarding the scheduling of O&M activities to be conducted within 5 miles of Historic Properties of Religious and Cultural Significance to Indian Tribes (HPRCSIT) (e.g. sacred sites, traditional use areas, etc.). Regular O&M activities will be scheduled so as to not coincide with or impact use of these sites. Further, vegetation management activities, such as the application of herbicides, will avoid impacting species of concern to tribe(s); and
- Monitoring requirements as described in Section 3.3.3.

IPC's O&M staff will continue to coordinate and consult with ODOE, SHPO, and tribes, as necessary.

3.3.2 Reclamation Phase

Once construction is completed, various reclamation treatments will be applied to reclaim Project areas to a condition agreed upon by the landowner, tenant, or land-managing agency. 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 significant impact cultural resources subject to the EFSC standards.

Table 3-1, below, shows typical reclamation activities and general monitoring requirements, but is not a comprehensive list of mitigation measures that may be required. Resource-specific measures will be provided in future resource-specific mitigations and treatment plans. Measures to be applied to resources of concern to tribes will be determined through consultation with those tribes. Such measures may include avoidance of reclamation activities during tribal use of cultural resources subject to the EFSC standards. Reclamation activities may require monitoring and avoidance measures by the CRT. The HPMP will be adhered to during the Reclamation Phase.

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	Re-establishment of slope and surface stability and recontouring.	4x4 trucks, dump trucks, front-end loaders, motor graders, bulldozers	Monitoring of new ground disturbance is anticipated and/or if work takes place near the boundary of a known cultural resource subject to EFSC standards.
Topsoil Replacement	Reclamation of construction disturbance to pre-construction landscape conditions: replacement of soils, re-contouring, etc.	4x4 trucks, front loader, motor grader	Monitoring of new ground disturbance is anticipated and/or if the work takes place near the boundary of a known cultural resource subject to the EFSC standards.
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.

Reclamation Activity	Description of Activity	Possible Equipment	Monitoring Requirements
Visual Composition	Enhancement restoration to mitigate visual impacts. Plan to be developed.	4x4 trucks, front loader, motor grader	May require monitoring if activity is near a known cultural resource subject to EFSC standards.

NOTE: Resource-specific measures, including monitoring where needed, will be developed in coordination with the ODOE, SHPO, and tribe(s), as applicable, for cultural resources subject to the EFSC standards. The measures will be provided in the final Reclamation Plan included in the ASC.

3.3.3 Operation and Maintenance Activities

Routine O&M activities will be conducted within the Project Site Boundary as defined in the Project Order. They will range from routine equipment inspections (no new ground disturbance outside of the Project's permitted area as defined by site certification) performed by relatively small crews to ground-disturbing activities such as pole replacement or access road maintenance performed by larger crews with heavy equipment. Activities that result in new ground disturbance have the potential to cultural resources subject to the EFSC standards. Table 3-2 below lists some of the typical routine O&M activities and generalized monitoring requirements, but is not a comprehensive list of mitigation measures that may be required for O&M activities. Resource-specific measures will be provided in future resource-specific mitigations and treatment plans. Measures to be applied to resources of concern to tribes will be determined through consultation with those tribes. Such measures may include avoidance of reclamation activities during tribal use of cultural resources subject to the EFSC standards. Additional detail of routine O&M activities is contained in Exhibit B of the ASC.

Table 3-2. Operation and Maintenance Activities

Operation and Maintenance 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 3 to 4, aerial inspection uses helicopter, ground crew uses 4x4 trucks or all-terrain vehicles.	None.
Hardware Maintenance Repairs	Repair or replacement of individual components (no new ground disturbance outside of right-of-way [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.

Operation and Maintenance Activity	Description of Activity	Schedule, Crew, Equipment	Monitoring Requirements
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 of new ground disturbance is anticipated and/or if the work takes place near the boundary of a known cultural resource subject to EFSC standards.
Vegetation Management	Within the ROW under the wires and 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 of new ground disturbance is anticipated and/or if the work takes place near the boundary of a known cultural resource subject to EFSC standards.
Station and Communicati on 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 2-4 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 conducting routine maintenance, with use of similar equipment to complete repairs (e.g., helicopters for quick response)	Monitoring of new ground disturbance is anticipated and/or if the work takes place near the boundary of a known cultural resource subject to EFSC standards.

Operation and Maintenance Activity	Description of Activity	Schedule, Crew, Equipment	Monitoring Requirements
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 of new ground disturbance is anticipated and/or if the work takes place near the boundary of a known cultural resource subject to EFSC standards.

Note: Resource-specific measures, including monitoring where needed, will be developed in coordination with the ODOE, SHPO, and tribe(s), as applicable, for cultural resources subject to EFSC standards. The measures will be amended to the HPMP.

4.0 PREVIOUS RESEARCH AND CULTURAL RESOURCE TYPES IDENTIFIED WITHIN THE PROJECT AREA

This section discusses the identification of cultural resources during the Project's planning and permitting phase. It also summarizes the cultural resource types identified within the Project area. Studies completed include a literature and records review, cultural resources pedestrian survey of the Project Site Boundary, a Visual Assessment of Historic Properties (VAHP), and ethnographic studies completed by the CTUIR and Shoshone-Paiute tribes. (At the time of this publication, the ethnographic studies are considered confidential and are unavailable to IPC.) The cultural resources pedestrian survey (Anderson et al. 2018) and the VAHP study (AECOM 2018) both include extensive cultural and historic contexts for the Project. Both studies are included as confidential attachments to Exhibit S of the ASC. An Enhanced Archaeological Survey, consisting of survey of inaccessible parcels, shovel probing, and testing, will occur after publication of this HPMP and receipt of the Site Certificate, but prior to construction activities.

4.1 Literature Review and Cultural Resources Pedestrian Survey

Prior to the initiation of cultural resource pedestrian surveys, a literature and records review was conducted of the analysis area. Available existing records of previously conducted surveys and recorded sites were retrieved from the Oregon SHPO's inventory and site database, the CTUIR, THPO, the USFS, and applicable BLM field offices. The literature review presented in the technical report (confidential Attachment S-6) for the Project provides an in-depth discussion of the environmental and cultural contexts of the analysis area, including an overview of prehistory, ethnography, and history.

A series of cultural resource pedestrian surveys were conducted in an effort to field check and examine previously recorded resources and identify any unrecorded cultural resources within the Site Boundary. The entire Project Site Boundary has been inventoried except for areas to

which access has been denied, or with development precluding ground surface visibility (e.g., paved roads and highways, parking lots, and lawns), areas deemed hazardous (e.g., loose talus slopes, slippery bedrock exposures, deep streams, and electrical substations), or excessively steep (35 degree and greater) slopes. The latter areas (hazardous and steep areas) were examined visually from a safe distance, however, particularly for resources such as rock art, rock shelters, cairns, and any other apparent cultural resource or feature. Six pedestrian survey sessions of accessible private and public lands were conducted between the spring of 2011 and the summer of 2016. Areas of denied access will be subject to complete pedestrian survey during the Enhanced Archaeological Survey to be conducted after receipt of the site certificate, prior to facility construction.

4.2 Ethnographic Studies

To identify and protect contemporary and ongoing tribal use of culturally significant areas and/or sites, general information about sacred sites and other places of traditional cultural or religious importance to Native Americans or other cultural groups has been researched as part of the completion of the cultural context for the Project as well as the VAHP. The BLM has completed separate ethnographic studies of the direct analysis area in coordination with the CTUIR and Shoshone-Paiute Tribes of the Duck Valley Indian Reservation. The Burns Paiute Tribe is in the process of conducting a third ethnographic study. The confidential traditional use study completed by CTUIR in 2014 through the Section 106 process was provided to IPC on May 3, 2018 during an in-person meeting between ODOE, SHPO, CTUIR, and IPC regarding the EFSC site certificate process. The study (Engum 2014a, 2014b) has been incorporated, as appropriate, into the assessment of Project impacts. Additional formal and informal phone conversations have occurred between CTUIR and IPC since the May 3, 2018 meeting to further IPC's coordination efforts.

Many HPRCSITs and other cultural resources that could potentially be HPRCSITs were identified by Project studies as being crossed by the direct analysis area. Two formally evaluated HPRCSITs crossed by the direct analysis area are Sand Hollow Battleground and Sisupa (Engum 2014a, 2014b). Sand Hollow Battleground is the site of the largest battle of the Cayuse War, involving the First Oregon Rifle Regiment and the Umatilla, Cayuse, Palouse, and Walla Walla tribes and holds other aspects of significant to the CTUIR that are unrelated to the battle that occurred there (Engum 2014a, 2014b; Minthorn 2006; Mitchell 2003). Sisupa is the site of a campsite between the Columbia River and Ione (Engum 2014a, 2014b; Hunn et al. 2015). These two resources were determined eligible for the NRHP by the U.S. Department of Defense (DOD 2015) and are historic properties subject to the EFSC standards.

Nisxt is a third formally evaluated HPRCSIT located on the Columbia River east of the Port of Morrow. This site was identified in a Traditional Use Study completed by the Yakama Nation under contract to the U.S. Army Corps of Engineers (Meninick, et al. 2014). The site is identified as a permanent winter village named for the greasewood found there. The U.S. Army Corps of Engineers determined that one component of the site is NRHP eligible. The site is located within the indirect analysis area.

IPC will continue to coordinate with interested tribes to determine any necessity to address conflicts with HPRCSITs or other traditional use sites that are subject to EFSC standards.

4.3 Visual Assessment of Historic Properties

A VAHP study was completed in a phased approach, including a reconnaissance level survey (RLS), completed in September 2015, and an intensive level survey (ILS), completed in

February 2018. The RLS and ILS are primarily designed to identify potential effects to built environment or aboveground resources. Fieldwork for the ILS was conducted between October 2014 and October 2016. Additional RLS and ILS work remains on CTUIR lands. The entire Project Site Boundary and viewshed have been inventoried except for areas to which access has been denied and CTUIR lands. Areas of denied access and the CTUIR lands will be subject to complete survey after receipt of the site certificate, but prior to facility construction and only if access is granted from the applicable property owners. The ILS analyzes those properties from the RLS that have sufficient integrity, for which an NRHP criterion might apply, and that have the potential to be affected by the Project (i.e. the Project would be visible from the resource). The history of each property in the ILS was documented and then comparatively analyzed against the historic context of the Project. This provides a framework for determining whether the resource meets any of the NRHP Criteria for Evaluation.

The RLS fieldwork identified 764 built environment resources in Oregon, including multiple crossings of historic trails and pre-contact resources, such as quarries and cairns. The ILS study addressed 229 of these resources. These resources included NRHP-listed resources as well as resources that were recommended for additional study or NRHP evaluation, or were unevaluated resources, archaeological sites with aboveground features, or were newly identified following an updated literature search and data gap analysis to cover portions of the Project that were not previously identified in the RLS. Of the 229 resources, potential adverse effects are anticipated for 39 resources. Fourteen of the 39 resources require further consultation and research before making a recommendation on Project effect avoidance, minimization, and/or mitigation strategies The Project will cross three historic properties with the potential for direct adverse effects. A list of sites with potential adverse effects is provided in Table 4-1. The majority of potential adverse effects could occur to stacked rock features/cairns. Due to the difficulty in dating and attributing cultural origin, additional consultation with ODOE, SHPO, and tribes will be conducted as an interim step towards determining if mitigation would be appropriate. Resource-specific management and/or treatment plans will be developed as needed as a result of consultations.

Table 4-1. Project Effects to Aboveground Resources

ID Number	Resource Name	Effect
CFR 1064	Vey Ranch	Potential Adverse Effect
35MW1	Midden	Further research and consultation necessary with Tribes and/or Federal Agency
35MW2	Camp, shell midden, lithic scatter	Further research and consultation necessary with Tribes and/or Federal Agency
35MW11	Midden	Further research and consultation necessary with Tribes and/or Federal Agency
SL-MO-001, SL-MO-005	Sand Hollow Battle Ground - (Associated Report #26196)	Further research and consultation with CTUIR; off-site mitigation
35MW248	Rock Cairns	Potential Adverse Effect

ID Number	Resource Name	Effect
SL-MO-003	Map A2: Nisxt (Associated Report #26592)	Further research and consultation with Confederated Tribes of Yakam Nation necessary
SL-MO-004	Map B2, C2, C3: Sisupa (Associated Report #26196)	Further research and consultation with CTUIR necessary
UP-102	Two Log Cabins	Further research and consultation with CTUIR necessary
UP-103	Buckhorn Cabin	Further research and consultation with CTUIR necessary
UP-106	Historic Cabin	Further research and consultation with CTUIR necessary
SL-UM-010	Historic Lookout Tower	Further research and consultation with CTUIR necessary
Range Unit 12 Site 1	Rock Cairn	Further research and consultation with CTUIR necessary
Range Unit 12 Site 2	Rock Cairn	Further research and consultation with CTUIR necessary
B2H-UM-006	Daly Wagon Road	Potential Adverse Effect
35UN459	Rock Cairn	Potential Adverse Effect
35UN493	Rock Cairn	Potential Adverse Effect
B2H-BA-282	Oregon Trail ACEC - Virtue Flat segment and Flagstaff Hill	Potential Adverse Effect
B2H-BA-285 (3B2H-CH-05)	Oregon Trail ACEC - Straw Ranch 1 and 2	Potential Adverse Effect
3B2H-CH-05	Oregon Trail Segment	Potential Adverse Effect
B2H-BA-327	Goodale's/Sparta Trail	Potential Adverse Effect
0503050334SI	Rock cairn, rock alignment	Potential Adverse Effect
14S44E14-2	Rock cairns, rock alignment, lithic scatter; Three Stone Rock Stacks	Potential Adverse Effect
35BA372	Rock Cairn	Potential Adverse Effect
35BA388	Rock Alignment	Potential Adverse Effect
35BA1423	Hunting blind rock stacks. Identified by CTUIR informant near ODOT borrow pit	Potential Adverse Effect
B2H-MA-041	Oregon Trail ACEC - Alkali Springs Segment	Potential Adverse Effect
B2H-MA-042	Oregon Trail ACEC-Birch Creek segment	Potential Adverse Effect
4B2H-EK-31	Benson Reservoir	Potential Adverse Effect
4B2H-EK-41	Oregon Trail Segment	Potential Adverse Effect
6B2H-RP-09	Oregon Trail Segment	Potential Adverse Effect
35ML550	Ali-Alk Rock shelter	Potential Adverse Effect
35ML1549	SM Site-2 (Stacked Rock Feature)	Potential Adverse Effect

ID Number	Resource Name	Effect
35ML1550	SM Site-3 (Stacked Rock Feature)	Potential Adverse Effect
35ML1552	SM Site-5 (Stacked Rock Feature)	Potential Adverse Effect
35ML1553	SM Site-6 (Stacked Rock Feature)	Potential Adverse Effect
35ML552	Ali-Alk Stacked Stone Rings	Potential Adverse Effect
35ML1959	Rock Cairn	Potential Adverse Effect
35ML1960	Rock Cairn	Potential Adverse Effect

4.3.1.1 Oregon Trail

This section provides an overview of resources identified by the ILS as associated with the Oregon Trail. Some of the resources discussed in this section are also mentioned in the VAHP section above, but are presented in summary form here to provide a unified discussion of this significant resource.

The evaluation of segments, sites, and side trails associated with the Oregon Trail was performed consistent with the currently proposed Multiple Property Documentation Form (MPDF) for the Oregon Trail, Oregon 1840-1880 as well as *Guidance for Recording and Evaluating Linear Cultural Resources* (Oregon SHPO 2013). The MPDF has been approved by the Oregon State Advisory Commission on Historic Preservation, but has yet to be approved by the Keeper of the National Register. The draft MPDF provides a framework for evaluating the various property types associated with the Oregon Trail in the State of Oregon that could be buildings, structures, objects, or sites, as well as districts. The MPDF also considers the Oregon Trail a linear historic district (in its totality) that contains contributing and non-contributing resources located within its historic boundaries. The Oregon Trail is also considered to be significant at the national level and has been designated as a National Historic Trail (NHT).

The MPDF discusses several Property Types associated with the Oregon Trail and specifically discusses the associated resources that fall under this typology. The following is a list of MPDF Property Types and associated resources located within the Visual Assessment analysis area: river crossings, fords, and ferries; intersecting routes; Indian agencies/reservations; Euro-American towns; springs; mountain ascents and descents; valleys; landmarks; battle sites; and important camping sites.

A total of 37 resources associated with the Oregon Trail were assessed during the VAHP studies. Of the 37 Oregon Trail resources, eleven were identified as being within the Project Site Boundary (3B2H-CH-05, 4B2H-EK-02, 4B2H-EK-41, 6B2H-RP-09 , 5B2H-SA-01, B2H-UN-005, B2H-BA-282, 35MW227, 35UN74, B2H-MA-003, B2H-MA-007). Twenty-eight NRHP-eligible Oregon Trail-related resources were recommended for the visual impacts assessment and following that analysis eight had the potential to be adversely affected by the Project. Table 4-2 summarizes the adversely impacted resources. Resource-specific mitigation and/or treatment plans will be determined, as necessary, in consultation with ODOE and SHPO.

Table 4-2. Project Impacts to Oregon Trail Resources

Temporary Resource Number	Resource Name	Effect
SL-MO-001, SL-MO-005	Sand Hollow Battle Ground (Associated SHPO Report #26196) (for its associations with Oregon Trail)	Potential Adverse Effect

Temporary Resource Number	Resource Name	Effect
B2H-BA-282	Oregon Trail ACEC - Virtue Flat segment and Flagstaff Hill (Flagstaff Hill component affected)	Potential Adverse Effect
3B2H-CH-05	Oregon Trail ACEC - Straw Ranch 1 and 2	Potential Adverse Effect
B2H-BA-285	Oregon Trail Segment (near Straw Ranch)	Potential Adverse Effect (Project Site Boundary)
B2H-BA-327	Goodale's/Sparta Trail	Potential Adverse Effect
B2H-MA-041	Oregon Trail ACEC - Alkali Springs Segment	Potential Adverse Effect
6B2H-RP-09	Oregon Trail Segment	Potential Adverse Effect (Project Site Boundary)
B2H-MA-042	Oregon Trail ACEC - Birch Creek segment	Potential Adverse Effect
4B2H-EK-41	Oregon Trail Segment	Potential Adverse Effect (Project Site Boundary)

In addition to considering the potential for resourced-specific impacts, an analysis that considers the potential cumulative impacts to Oregon Trail resources was prepared.

As an overview of the cumulative impacts analysis, of the 177.97 miles of the Congressionally Designated Route of the Oregon NHT, 43.89 miles would have a potential view that is within 0.5 mile of the Project Site Boundary. For “Contributing Trail Segments” or segments of the Oregon Trail that have been previously identified by surveys or listed on the NRHP, approximately 89.35 miles of these segments lies within the 5 miles of the Project centerline and about 27.43 miles would have a potential view that is within 0.5 mile of the Project Site Boundary.

While the cumulative effect data provide a general indication of the magnitude for indirect impacts, the resource-specific analysis performed during the ILS is more precise in its assessment of impacts to contributing resources associated with the Oregon Trail and informs Project planning in an effort to avoid, reduce, or mitigate impacts.

4.4 Cultural Resources Types Identified by Surveys

Table 4-3 provides a summary of the different cultural resources found by the Project’s surveys in Oregon. These definitions have been developed in coordination with the BLM as part of the Project’s Section 106 process and conform to the agency’s GIS requirements. Studies conducted under the Project’s Section 106 compliance efforts have been used to support analyses for the EFSC process.

Table 4-3. Cultural Resources Identified within the Direct Analysis Area

Resource Type	#	Resource Type	#
Pre-Contact Archaeological Sites		**Historic/Aboveground Sites**	
Cairn(s)	16	Railroad – UPRR (3 segments) [2]	1
Cairn(s) & Hunting Blind	3	Ranching	1
Cairn(s) & Lithic Scatter	1	Road	1
Cairn(s) & Lithic/Tool Scatter	1	Survey Marker	3
Hunting Blind	1	Utility Line	1
Lithic Scatter	9	Utility Line & Water Conveyance	1
Lithic/Tool Scatter	23	Water Conveyance	7
Quarry	7	Water Conveyance – South Canal (1 segment) [3]	1
Temporary Camp	1	Water Conveyance – Vale Oregon Main Canal (2 segments) [3]	1
Multicomponent Archaeological Sites		**Undetermined Archaeological Sites**	
Cairn(s), Quarry, & Homestead	1	Cairn(s)	1
Lithic Scatter & Refuse Scatter	2	Rock Alignment	1
Lithic/Tool Scatter & Refuse Scatter	1	**Pre-Contact Archaeological Objects**	
Lithic/Tool Scatter, Homestead, & Refuse Scatter	1	Biface(s)	4
Lithic/Tool Scatter, Ranching, Water Conveyance	1	Biface(s) & Debitage	3
Quarry & Refuse Scatter	1	Core(s)	6
Quarry, Refuse Scatter, & Water Conveyance	1	Core(s) & Debitage	2
Temporary Camp & Ranching	1	Core(s), Debitage, & Tested Cobble(s)	1
Historic Archaeological Sites		Core(s), Debitage, & Utilized Flake(s)	2
Agriculture	6	Debitage	40
Agriculture & Other	1	Debitage & Tested Cobble(s)	1
Agriculture, Ranching	1	Debitage & Tool(s)	2
Cairn(s)	1	Debitage & Utilized Flake(s)	2
Cairn(s) & Trail	1	Other	1
Farmstead (in Ruin)	1	Projectile Point(s)	7
Homestead (in Ruin)	4	Utilized Flake(s)	6
Logging/Railroad (Abandoned)	1	**Multicomponent Archaeological Objects**	
Mining	9	Debitage & Refuse	2
Railroad – UPRR (2 segments) (in Ruin)[2]	1	Debitage, Preform(s), & Refuse	1
Ranching	5	Debitage, Tested Cobble(s), & Refuse	1
Refuse Scatter	14	**Historic Archaeological Objects**	
Refuse Scatter & Structure (in Ruin)	1	Agriculture	5
Road (Abandoned)	6	Other	1
Structure (in Ruin)	1	Refuse	22
Trail – Oregon Trail (5 segments) [3]	1		
Utility Line	3		
Water Conveyance (Abandoned)	5		

5.0 METHODS FOR DETERMINATION OF NRHP ELIGIBILITY AND EFFECTS

This section discusses the methods to be used to determine NRHP-eligibility and Project effects to resources. Per EFSC standards, significant effects may occur as a result of impacts on historic properties (NRHP-listed or -eligible resources), archaeological sites on private or state lands, or archaeological objects (also referred to here as isolated finds) on private lands. These same methods will be used if any previously unidentified cultural resources are discovered within the Project Site Boundary.

5.1 Determination of NRHP Eligibility

The cultural resources studies completed to date by IPC contain recommendations for NRHP eligibility for resources in the Project Site Boundary and Visual Assessment analysis area. These recommendations will be reviewed and accepted or modified by SHPO. For each resource that is within the Project Site Boundary and Visual Assessment analysis area, the SHPO will determine NRHP eligibility based on the recommendations. It should be noted that for sites that may be significant to tribes, IPC will coordinate with the affiliated tribe to make an appropriate NRHP eligibility recommendation. IPC will treat all unevaluated cultural resources as though they are NRHP-eligible and will try to avoid all unevaluated sites. If avoidance is not feasible, resource eligibility will be evaluated, which may require subsurface testing, additional research, and/or consultation with tribes or historic preservation groups to determine the significance of the site.

The CRT will make NRHP-eligibility recommendations for cultural resources identified during the construction or post-construction phases using the same criteria outlined in the Project's studies (Anderson et al. 2018; AECOM 2018).

5.2 Determination of Effects

Each historic property, archaeological site, and archaeological object subject to the EFSC standards has been or will be evaluated to determine if the Project will have a significant impact on the resource. Direct impacts may occur as a result of direct disturbance of NRHP-listed or -eligible cultural resources or archaeological sites within the direct analysis area or archaeological objects on private lands within the direct analysis area. Given the non-renewable nature of cultural resources, these impacts that occur through ground disturbance would be permanent. Indirect impacts may occur as a result of new construction within the viewshed of NRHP-listed or –eligible cultural resources with aboveground component or cultural resources where the surrounding viewshed plays an integral role in the expressing the resource's significance or in its use. This includes resources such as trails, buildings, and cairns, as well as TCPs. Impacts will only occur for those resources where the viewshed, setting, and landscape contributes to the significance or quality of use of the resource.

While IPC may make recommendations of NRHP eligibility and impact significance, the SHPO will make such determinations. For resources that may have significance to tribes, the CRT and IPC will coordinate with the appropriate tribe(s) to make eligibility and impact significance recommendations. IPC will provide consulted parties with the results of the finding. In addition, the ODOE will utilize the impact methodologies discussed in Attachments S-2, S-7, and S-10 to Exhibit S to determine the indirect visual effects of the proposed Project on cultural resources meeting the EFSC standards and with aboveground features or are of traditional significance to tribes. In addition, IPC in coordination with appropriate tribes will broadly assess cumulative effects in order to identify reasonably foreseeable, potentially adverse effects as a result of the proposed Project.

The determinations of effects to cultural resources subject to the EFSC standards will serve as the basis for IPC's development of resource-specific avoidance, minimization, or mitigation measures presented for review and approval in future resource-specific treatment and/or mitigation plans.

6.0 AVOIDANCE AND PROPOSED MITIGATION PLAN

Cultural resources meeting the EFSC standards (historic properties, archaeological sites on state or private lands, and archaeological objects on private lands) will be avoided, protected, and/or mitigated if avoidance is not possible. Justification for not avoiding any such resources will be provided to ODOE. If impacts are unavoidable, efforts will be aimed at reducing or compensating for those impacts. Impacted resources will require mitigation to reduce impacts to less than significant. The appropriate mitigation measure(s) depends on a number of factors, including the applicable criteria for NRHP eligibility and significance to a tribe(s). Following the identification of impacts and the development of appropriate mitigation measures, resource-specific mitigation plans will be prepared and included as Appendix B to this HPMP.

This section provides a generalized framework and approach IPC will assume for minimizing and mitigating significant impacts to cultural resources subject to the EFSC standards.

6.1 Avoidance

IPC has designed the Project to avoid significant cultural resources to the extent feasible. Cultural resources were identified within or near the Project area early in Project planning through literature reviews and Project-specific surveys. The Project design has been altered where feasible to avoid effects to significant cultural resources identified by the studies completed for the Project, and IPC is committed to a similar process for unanticipated or inadvertent discoveries during construction. Resource-specific treatment and mitigation plans will be developed in consultation with the ODOE and SHPO, and in coordination with appropriate tribe(s), so as to reduce the impacts to less than significant (see Appendix B).

In many cases, direct effects to significant cultural resources identified during the Project planning phase were avoided by relocating a Project facility, but the proposed facility may be installed near the resource. In order to avoid physical damage to the resource during construction, it and a buffer will be marked for avoidance by flagging, fencing, or staking. The buffer will be established on a resource-specific and basis determined through consultation with ODOE and SHPO, and when necessary, the appropriate tribes. In some cases, with large sites, complexes of sites, or districts/landscapes, only that part of the site near the construction activities will need to be marked for avoidance.

Construction monitoring to ensure successful site avoidance as planned and to watch for subsurface discoveries during grading, blading, excavation, and other initial mechanical ground-disturbing activities, will be conducted 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 pedestrian surveys, could be discovered. Section 8, the IDP, details the required response to such a discovery.

6.2 General Recommended Mitigation Measures for Cultural Resources Subject to the EFSC Standards

Based on the results of the archaeological and above ground resource surveys and avoidance efforts, it is unlikely that significant impacts to NRHP-eligible and listed historic properties can be entirely avoided by this Project. Even if the Project could be redesigned to avoid all direct effects

through ground disturbance, the substantial change in the setting of some important resources where setting is an aspect of integrity, including NHTs, cannot be entirely avoided and has already been identified in the survey reports. In addition, there may be resources that due to their critical location or size cannot be entirely avoided. The mitigation measures discussed in this section offer general guidance but do not hinder alternative approaches, site-specific mitigation for historic properties will be developed in coordination with the ODOE, SHPO, the tribe(s), and/or historic preservation societies (as applicable).

6.2.1 General Recommended Mitigation for Direct Significant Impacts

The Project has been designed to avoid direct effects to resources recommended eligible for or listed on the NRHP, including significant archaeological sites, historic buildings, and trails. Resource-specific mitigation measures for significant impacts will be addressed through resource-specific treatment and/or mitigation plans (Appendix B). However, this section provides a generalized approach to mitigate for direct significant impacts. These mitigation measures may or may not be appropriate for all directly impacted resources. Appropriate resource-specific mitigation will be determined through consultation with ODOE and SHPO, as well as tribes and historic preservation societies as appropriate.

The most common anticipated direct impact on cultural resources subject to the EFSC standards consists of direct disturbance of archaeological resources within the construction footprint. After all reasonable avoidance and minimization measures have been implemented and a significant impact is still considered probable, mitigation would likely include data recovery. This may include excavation, research, and analysis, as summarized in Table 6-1. Appropriate alternative methods may be developed in coordination with ODOE, SHPO, tribe(s), and/or historic preservation societies.

Table 6-1. Example Data Recovery Methods for Unavoidable Direct Impacts*

Time Period of Resource	Example Resource Types	Potential Data Recovery for Resources without a Subsurface Component	Potential Data Recovery for Resources with Subsurface Component(s)
Pre-contact	Lithic scatters, campsites, hearths, and quarries	• Surface collection or in-field artifact analysis and recording • Detailed surface mapping • Geomorphological studies • Photo documentation • Curation	• Surface collection or in-field artifact analysis and recording • Detailed surface mapping • Geomorphological studies • Controlled excavation • Laboratory analysis • Photo documentation • Curation
Historic Era	Refuse scatters, mining sites, homesteads	• Archival research • Surface collection or in-field artifact analysis • Detailed surface mapping • Photo documentation	• Archival research • Surface collection or in-field artifact analysis • Detailed surface mapping • Controlled scientific excavation • Laboratory analysis • Photo documentation

* Table intended as starting point for consultations to determine appropriate mitigation measures to reduce impacts. Resource types listed are not exhaustive.

When data recovery through excavation is the only feasible mitigation, a data recovery plan, which makes provisions for adequately recovering scientific information from and about the resource, will be prepared. Such plans will be drafted in coordination with ODOE, SHPO, and appropriate tribe(s). Planning for data recovery excavation to mitigate the loss of substantial and significant archaeological resources will be guided by data gathered during the test investigations and by the research design. Data recovery activities as management for

unavoidable direct impacts on cultural resources subject to the EFSC standards would be confined to the construction footprint. The appropriate state permits will be acquired to conduct all field work.

The data recovery plan will also include excavation, analysis, collection, and cataloging methods. Once data recovery and analysis are completed, the results will be provided in a report prepared by the Cultural Resources Specialist (CRS; see Section 7.1.1 for reporting and review).

In addition to data recovery, off-site mitigation may also be proposed and approved. Typical off-site mitigation measures can include methods described below for indirect effects (see Section 6.2.2).

6.2.1.1 General Recommended Mitigation Measures for Direct Impacts to Specific Resource Types

Based on the cultural resource pedestrian survey conducted for the Project (Anderson et al. 2018), the following site types (Table 6-2) have been identified within the construction footprint or Project Site Boundary. If avoidance is not feasible, minimization and/or mitigation measures will be implemented. This section presents a general framework for such strategies by cultural resource site type. Resource-specific mitigation or treatment plans will be guided by the *Oregon* SHPO's *Guidelines for Conducting Field Archaeology in Oregon* (2013) and developed in coordination with ODOE, SHPO, tribe(s), and/or historic preservation societies, as applicable. Table 6-2 lists potential minimization and mitigation measures for direct effects to the specific resource site types identified by Anderson et al. (2018). This list is not all-inclusive and other resource-specific mitigation measures may be appropriate. The example mitigation measures noted in this table would be deployed for direct significant impacts to cultural resources subject to the EFSC standard.

Table 6-2. Framework for Potential Minimization and Mitigation of Direct Impacts to Specific Cultural Resource Site Types Identified within the Direct Analysis Area

Site Type	Potential Minimization/Mitigation Measure
Pre-Contact Sites	
Lithic Scatter	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.).
Lithic/Tool Scatter	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.).
Quarry	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.).
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.).
Multicomponent Sites	
Lithic Scatter & Refuse Scatter	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.).
Lithic/Tool Scatter & Refuse Scatter	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.).

Site Type	Potential Minimization/Mitigation Measure
Lithic/Tool Scatter, Ranching Complex, Water Conveyance	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.).
Possible Rock Art, Utility Line, and Water Conveyance	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.).
Quarry & Refuse Scatter	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.).
Quarry, Water Conveyance, & Refuse Scatter	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.).
Temporary Camp & Water Conveyance	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.).
Temporary Camp, Lithic/Tool Scatter, Refuse Scatter, and Ranching	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.).
Historic-Era Sites	
Agriculture	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.).
Bridge	Update recordation (if necessary). Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Homestead	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.).
Homestead/Ranching	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.).
Logging/Railroad	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Mining	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.).
Railroad	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Railroad & Utility Line	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.).
Ranching	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.).
Refuse Scatter	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.).

Site Type	Potential Minimization/Mitigation Measure
Road	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Structure	Update recordation (if necessary, HABS/HAER/HALS documentation, repair, rehabilitation, or restoration (if applicable). Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Survey Marker	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Survey Marker & Refuse	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.).
Trail Segment	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.
Trail Segment & Utility Line	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.
Utility Line	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Utility Line & Water Conveyance	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Water Conveyance	Update recordation (if necessary. Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Water Conveyance & Bridge	Update recordation (if necessary, HABS/HAER/HALS documentation, repair, rehabilitation, or restoration (if applicable). Off-Site: publish research focus article or professional society presentation, or public education and outreach (e.g., website, kiosk, etc.).
Undetermined Sites	
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.).

6.2.2 General Recommended Mitigation for Indirect Significant Impacts

Mitigation of cultural resources subject to the EFSC standards that are significantly indirectly impacted by the construction, reclamation, or O&M of the Project may include historic documentation, photographic documentation (modern and historic), collection of oral histories, or architectural, landscape, or engineering documentation. As with significant direct impacts, resource-specific mitigation measures for significant indirect impacts will be addressed through resource-specific treatment and/or mitigation plans (Appendix B). However, this section provides a generalized approach to mitigate for significant indirect impacts. These mitigations may or may not be appropriate to all indirectly impacted resources. Appropriate resource-specific mitigation will be determined through consultation with ODOE and SHPO, as well as tribes and historic preservation societies as appropriate.

The most common anticipated indirect impact on cultural resources subject to the EFSC standards consists of visual intrusion in a resource's landscape (where that landscape or view contributes to resource's significance). Table 6-3 lists potential management methods for

unavoidable indirect effects to cultural resources subject to the EFSC standards. Table 6-4 lists potential minimization and mitigation measures for indirect effects to the specific aboveground resource site types identified by AECOM (2017). Actual management will be determined through coordination with ODOE, SHPO, appropriate tribe(s), and/or historic preservation societies.

Table 6-3. Example Management Methods for Significant Indirect Impacts

Resource Category*	Example Resource Types*	Potential Management Methods for Significant Indirect Impacts
Trails (NHT, stage trails, freight roads, etc.)	• Trail remnants/ segments • Associated trail sites or features (stations, burials, inscriptions)	• 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
Historic Buildings and Structures	• Farm and ranch sites/homesteads • Historic districts • Utility lines • Water conveyance systems • Mining sites • Bridges, etc.	• 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 • Public interpretation (with owner permission)
Historic Property of Religious or Cultural Significance to Indian Tribes (TCPs; limited to those subject to EFSC standards)	• Ceremonial areas • Vision quest sites • Hunting and gathering areas	• Additional literature/archival review • Ethnographic documentation • Oral histories • Public archaeology funding • As recommended by impacted tribes

* Resource categories and types listed is not an exhaustive list.
HABS – Historic American Building Survey; HAER – Historic American Engineering Record; HALS – Historic American Landscape Survey

Table 6-4. Framework for Potential Minimization and Mitigation for Indirect and Direct Impacts to Specific Aboveground Site Types Identified within the Analysis Area

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
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

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
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
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)
Traditional Cultural Properties (Ceremonial areas, vision quest, or gathering areas, etc.)	Ethnographic documentation; resource management plan; recordation; oral histories, etc.

Note: Resource-specific mitigation will be developed as appropriate in coordination with tribe(s), ODOE, and SHPO to resolve adverse impacts to sites that may not fall under the categories above.
HABS – Historic American Building Survey; HAER – Historic American Engineering Record; HALS – Historic American Landscape Survey

7.0 MONITORING PLAN

This Monitoring Plan (MP) specifically addresses monitoring of cultural resources subject to the EFSC standards and provides details regarding roles and responsibilities of various personnel in the field. OAR 345-021-0010(1)(s)(E) requires the development of this MP as part of the HPMP for implementation during the Project phases. This section presents the roles and responsibilities of the CRT and specifies the monitoring procedures to be followed during construction activities.

The purpose of this MP is to specify:

- How avoidance of known resources will be ensured and documented;
- How monitors will interact with other environmental compliance staff and construction personnel; and
- How monitors will employ the IDP.

This MP, as part of the Project-wide HPMP, will be supplemented with a set of confidential Project maps of the selected route and design (Appendix C – Confidential Project Maps) that will illustrate resource-specific avoidance details, including monitoring of areas determined to have a high probability for buried cultural deposits.

7.1 Cultural Resources Team

The CRT is a part of IPC's environmental inspection team and will report to and coordinate with the Construction Contractor's Environmental Manager (CCEM).

The CRT will conduct cultural resource field monitoring, ensure compliance with requirements within the HPMP, and implement treatments, as applicable. Such activities will be inspected and coordinated by IPC and reported to ODOE, SHPO, and, as necessary, appropriate tribe(s) and/or historical societies.

The following sections describe the qualifications, roles, and responsibilities of each member of the CRT.

7.1.1 Cultural Resources Specialist (Principal Investigator)

Qualifications—The Cultural Resources Specialist (CRS) must have a graduate degree in anthropology/archaeology or a closely related field, and meet the Secretary of the Interior's Professional Qualifications Standards for archaeology, history, or architectural history as published in Title 36 Code of Federal Regulations 61. In addition, the CRS 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 experience to knowledgably make recommendations regarding the significance of cultural resources.

IPC will provide written documentation, such as a resume, on the qualifications of the CRS to the SHPO, ODOE, Compliance Inspection Contractor (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 to the CIC naming Cultural Resource Monitors (CRMs), 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 ODOE and CCEM and with the CIC. The CIC will act as the conduit to the ODOE. The CRS will be responsible for cultural resource-related notifications to the ODOE and CCEM, who will be responsible for notifying IPC. IPC will coordinate with the appropriate tribe(s) regarding applicable finds (i.e., pre-contact resources, Native American burials). 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 prior to and during the Project construction.

The CRS will be responsible for obtaining construction plans and schedules from the Construction Contractor, for tasking field personnel to monitor construction, and for evaluation or conduct of data recovery (e.g., excavations) for any unanticipated or inadvertent discoveries 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). Cultural resource training, developed in consultation with the ODOE and in coordination with the tribe(s), will include the proper procedures to follow if cultural resources are encountered during Project ground disturbance. The environmental training program may include an approved video, training pamphlets, and/or other media resources.
- Direct the CRM(s) 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 ODOE and, if requested, affiliated tribes. The summary will include any new

cultural resource forms for any finds identified under the monitoring program (see Appendix D).

- Notify the CCEM, the CIC, ODOE, and, as requested, affiliated tribes by telephone or email of unanticipated or inadvertent discoveries of cultural resources within 24 hours of becoming aware of the situation.
- Notify the CCEM, the CIC, ODOE, and, as requested, affiliated tribes by telephone or email of any incidents of noncompliance related to cultural resources within 24 hours of becoming aware of the situation, and recommend corrective action to resolve the problem or achieve compliance.
- Obtain additional technical specialists or additional monitors, if warranted or required.
- Oversee the implementation and/or implement the IDP (Section 8).
- Oversee the completion of resource forms and other appropriate documentation of discoveries by members of the CRT.
- If a discovered cultural resource is determined eligible for the NRHP, the CRS will consult with the ODOE 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. The ODOE will be responsible for coordinating with SHPO. IPC will be responsible for coordinating with the appropriate tribe if the resource is determined to be associated with Native Americans (pre-contact or historic).
- Determine the scope, methods, and techniques to be used for test investigations or data recovery and analysis of artifacts and other materials, as applicable.
- Oversee the completion of any required test excavations or data recovery excavations, and any curation.
- Oversee the completion of field analysis, curation, and reports of tests excavations, data recovery excavations, and ensure that the reports meet state 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

A Lead CRM will be assigned by the CRS to direct daily monitoring activities of other CRMs. CRMs will conduct the daily cultural resource construction monitoring as specified in the HPMP. 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 a graduate degree in anthropology/archaeology or a closely related field; at least 2 years of experience conducting archaeological fieldwork under direction of a Professional Archaeologist with at least 3 months of archaeological construction field and monitoring experience in the region. Other CRMs will have an undergraduate degree, 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 field 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 will watch ground-disturbing construction activities and inspect cleared ground and excavation areas for signs of previously undiscovered cultural resources during construction as indicated in the HPMP or until monitoring reduction has been approved by the ODOE.

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 historic trails (e.g., Oregon NHT) and other local resource types within the Project region.

The CRM will provide daily documentation of construction activities and any findings. The monitor will prepare a daily monitoring log (see Appendix E) briefly describing the field conditions, construction progress and activities, non-compliance activities, and record of any finds of archaeological material.

The CRM will be responsible for implementing the requirements outlined in the environmental training program, HPMP, and IDP. If the CRM or other construction personnel discover cultural resource finds during construction, the CRM will have authority to halt construction in the vicinity of the find and will notify the CRS.

7.2 Potential Additional Cultural Support Staff

If the CRS and/or CRM(s) are needed in other areas where construction is continuing and ongoing, and/or in an effort to complete the work within a scheduled amount of time, it may be necessary for IPC to acquire additional field staff in the event of an unexpected data recovery effort or resource-specific treatment. The following additional staff may be acquired, so as to avoid removing CRMs from their monitoring duties. All field crews will work under the supervision of the CRS.

7.2.1 Field Director

Qualifications—The Field Director will have a graduate degree in Anthropology/Archaeology, or a closely related field, and meet the requirements of the appropriate Oregon state permit for Qualified Archaeologists. Additionally, the Field Director should have at least 1 year of experience directing field work with at least 3 months of experience in the region and 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 day-to-day activities of the 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 on a daily basis. Additionally, the Field Director will coordinate the work of any sub-consultants or other contractors participating in the cultural resources field investigations, and will be responsible for implementing the requirements of the environmental training for the crew, including daily safety briefings.

7.2.2 Crew Chiefs

Qualifications—The Crew Chief(s) will have an undergraduate degree in anthropology/archaeology, or a related field, and at least 1 year of experience as an archaeological crew chief with at least 3 months of experience in the region and 4 months of experience with comparable cultural resources in similar cultural contexts and environmental settings.

Responsibilities—The Crew Chief(s), in consultation with the Field Director, will be responsible for implementing the field strategies at individual resources. The Crew Chief will direct the field crew, lay out excavations, and compile collections and field documentation on a daily basis. Additionally, the Crew Chief will be responsible for implementing on-site safety procedures and/or environmental training.

7.2.3 Field Crew

Qualifications—Field crew members for any field recording or excavation activities will have an undergraduate degree in anthropology/archaeology, or a related field, and/or have attended a field school.

Responsibilities—Field crew members will conduct surface examinations and hand excavations, and monitor mechanical test investigation 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 an undergraduate degree in anthropology/archaeology, or a closely related field, and field school experience.

Responsibilities—The Laboratory Director will be responsible for directing all phases of laboratory processing of the data recovery and/or monitoring 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. Resource-specific monitoring and avoidance procedures will be included in resource-specific mitigation and/or treatment plans. The objectives of monitoring are to ensure and document avoidance of cultural resources subject to EFSC standards, to identify at the time of discovery any cultural resources exposed during ground disturbance, and to protect such resources from damage while recommendations of likely NRHP-eligibility are reviewed and approved by the SHPO (in consultation with ODOE and other appropriate parties, including appropriate tribes).

7.3.1 Cultural Resource Construction Monitoring

Cultural resource monitoring for the Project will be conducted Project-wide, unless otherwise specified by the ODOE or SHPO. For the purposes of this HPMP, cultural resource construction monitoring is defined as on-the-ground, close-up observation by a CRS or CRM meeting the qualifications prescribed in Section 7.1.

The CRS and/or CRM will be present during mechanical scraping, grading, excavating, and other ground disturbing activities (as applicable). Cultural resource monitoring will not be required once all surface and subsurface ground disturbance in a construction area is completed or if equipment or vehicles are traveling over previously disturbed surfaces. 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 cultural resources subject to EFSC standards. 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.

The CRM will maintain daily monitoring logs (Appendix E – Monitoring Log) of Project-related construction monitoring activities. Logs will reflect the daily monitoring activities and will include:

- Date, time of work, and amount of time spent at a construction monitoring location;
- Area of work (defined by segment, tower structure number, and or milepost);

- 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, non-compliances, or other concerns;
- Identification of an unanticipated discovery, steps taken to protect the discovery, and documentation of notifications (name, agency, time, and notes); and/or
- 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 via e-mail (original hard copies for Project records will be provided to the CRS in bulk at intervals determined by the CRS). The CRS will prepare and provide IPC monthly summary reports on the progress or status of cultural resources-related activities during active construction. The monthly reports will summarize construction progress, monitoring (monitor name, dates worked, finds, issues, etc.), and status of cultural resource-related issues. These reports will also include the appropriate state cultural resource forms for finds identified under the monitoring program (see Section 8). IPC will submit the reports to the ODOE to ensure compliance with the Site Certificate.

The CRS will direct the preparation and distribution of a Cultural Resources Monitoring Results report, or any other outstanding report actions (e.g., mitigation) under the HPMP, no later than 3 years after the completion of the relevant Project work element. All reports will be submitted to the ODOE, SHPO, and tribes. For additional survey reporting and review times during construction, see Section 7.4.1 below.

7.3.2 Change in Full-Time Monitoring Status

If the CRS determines that full-time monitoring is not necessary in certain construction locations or that monitoring will be conducted on an “as needed” intermittent schedule, the CRS will provide in writing (via email) to the ODOE, SHPO, and, if requested, tribes, explaining the decision to reduce the level of monitoring. Notification must be provided at least 14 days prior to implementing any change. The ODOE will provide written approval to the CRS and CIC via email within 10 days of receiving notice to reduce monitoring.

7.3.3 Inadvertent Discoveries

If a discovery is made in Oregon, the notification procedures found in the IDP (see Section 8) shall be followed.

The CRS will send the requesting tribes a notification (via letter or email) following the discovery of Native American cultural materials other than those considered isolated finds or archaeological objects (unless otherwise specified).

The CRS and the CRM(s) will have the authority to temporarily halt construction operations within a 200-foot radius of a find or exposed resource to determine if cultural resources subject to EFSC standards are present and if they will be significantly impacted by continuing construction operations. The CRS or CRM will be responsible for delineating the area within which construction will halt using flagging tape, rope, or some other means as necessary.

7.3.4 Flagging, Fencing, and Signage Measures

For Project construction activities, the CRM will flag, fence, or provide signage for previously recorded and newly identified culturally sensitive areas (i.e., significant cultural resources) that are within 200 feet of Project construction, to ensure such resources are avoided and that ground-disturbing construction activities do not impact flagged resource boundaries or

inadvertent discoveries. “Environmentally Sensitive Area” signage will be used for such areas during construction. The signage will be posted, with a buffer, around the cultural resource by the CRM one day prior (as practical) to construction in the area, to avoid drawing attention to the area prior to construction.

The CRS and/or a CRM will field check and maintain signage and ensure that it remains in place while construction activities in the vicinity are active. The CRS or CRM will remove the flagging and/or signs following the completion of Project-related construction activities in the vicinity.

7.3.5 Monitoring Locations and Schedule

The CRS and/or Lead CRM and CRM(s) will observe ground disturbance as specified in Section 7.3.1. 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 and confirm monitoring locations. The CRS and/or Lead CRM will then establish a schedule for the CRM(s) to follow and a protocol for communication 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 problem areas and any non-compliance issues to the ODOE. The CRS will then notify the CCEM, who will notify IPC’s Environmental Manager(s).

Non-compliance procedures will be specified in the Conditions of Site Certification and will be followed. If the non-compliance includes unauthorized or unmonitored ground disturbance, cultural resource surveys to determine presence of or damage to cultural resources will be required. An effects determination and mitigation may also be required. A written notice from the SHPO and ODOE will be required before construction will be allowed to continue in the non-compliance area. It should be noted that non-compliance regarding cultural resources can result in criminal and civil penalties. Disturbance of human remains or associated objects is considered a Class C Felony with fines (ORS 91.740-9760), and disturbance to archaeological sites can result in a Class B misdemeanor and fines (ORS 358.905-358.961).

7.4.1 Construction Change Management-Site Certificate Amendment

During the construction and O&M phases of the Project, unforeseen or unavoidable site conditions can 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 and certified Project Site Boundary may arise (e.g., to avoid an inadvertent discovery), resulting in the need to prepare an amendment to the Site Certificate (see Section 3.2). The CIC will consult with the CRS for any amendment(s) requested by IPC to ensure cultural resource compliance. All applicable procedures as specified in this HPMP and Conditions of Site Certification will be followed.

If a new area outside the previously surveyed Project Site Boundary is proposed for ground disturbance, a survey for cultural resources must be conducted and a report documenting presence or lack of surface resources submitted as part of the amendment approval process. If cultural resources are found, NRHP eligibility, effects determinations, and any applicable mitigation must be completed before ground disturbance can be permitted. Mitigation is only necessary for resources subject to EFSC standards.

IPC will submit copies of the draft inventory report to ODOE, SHPO, and requesting tribes for a review and comment period to be determined between IPC and ODOE. If the SHPO accepts the findings of the report, the ODOE can assume concurrence and issue the amendment or other applicable authorization to proceed with construction. If not, the report will be revised by the CRS and resubmitted to the same parties.

8.0 INADVERTENT DISCOVERY PLAN

This section provides guidance on the process that will be followed if previously undocumented cultural material or human remains are discovered during the construction and O&M phases of the Project. Inadvertent discovery procedures as presented below are designed to ensure compliance with the following:

- 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 OAR 736-051-0080 to 0090; and
- ORS Chapter 91.740 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 Executive Order 96-30.

8.1 Inadvertent Discovery Procedures

This section provides detailed guidance for Project personnel to follow if cultural resource materials are inadvertently discovered. The procedures differ depending on whether unanticipated cultural materials (Section 8.1.1) or human remains (Section 8.1.2) are encountered. Key contacts are provided in Section 8.2.

8.1.1 Inadvertent Discovery of Cultural Materials

In the case of an inadvertent discovery of general cultural materials (i.e., archaeological sites), the following procedures will be followed and all notification will occur within 24 hours:

- The CRS or CRM(s) will have the authority to halt construction operations within a 200-foot radius of a find or exposed resource to access the find and determine whether the find is likely significant and would be affected by continuing construction operations, or if the find is non-cultural. Construction activities can continue outside the established 200-foot radius exclusion zone/no-work zone once the CRS or CRM(s) have determined the full horizontal extent of the resource either through surface observations or subsurface probes (as determined by the CRS).
- The CRM will inspect the area for additional resources. The CRM will use flagging tape, rope, or some other means necessary to delineate the area of the find within which construction will halt. This may also include off-site dirt or rock spoil from that area.
- The CRM will immediately notify the CRS (if not present) of the discovery, and provide the CRS with the Global Positioning System coordinates, photographs, and description of the observed cultural material.
- If an inadvertent discovery is identified by construction personnel, and a CRS or CRM is not present, the individual that identified the find must halt construction in the area of the find and contact the CRS immediately.

- The CRS will notify the ODOE, Oregon SHPO State Archaeologist or Assistant State Archaeologist, CCEM, IPC, the CIC, and any tribes that have requested notification, as appropriate, of the discovery. IPC will contact the appropriate landowner.
- ODOE will coordinate and consult with the SHPO State Archaeologist or Assistant State Archaeologist, landowner, and the appropriate tribe(s).
- The CRS will be responsible to notify and coordinate with the IPC's Environmental Manager(s) of the find and of the stop work activity, as applicable.
- The CRS will prepare a preliminary summary report containing detailed information regarding the observed cultural material, type (e.g., isolated find/archaeological object or site), period, Universal Transverse Mercator coordinates, legal description and location map, photographs, and recommendations regarding likely NRHP eligibility.
- The SHPO, in consultation with the ODOE and tribe(s), as appropriate, will determine the likely NRHP eligibility, the Project effects on the discovery, and the treatment of the discovery, based on the recommendations contained in the summary report provided by the CRS. Landowner approval will be required for any determined treatment.
  - If the discovery cannot be avoided, and more data are required to make a determination of NRHP-eligibility, IPC will direct the CRS to prepare and submit a testing plan to the SHPO, ODOE, landowner, and tribe(s), as appropriate, for review. Upon SHPO and landowner approval (and as applicable, the appropriate tribe(s)), IPC's CRS will execute the testing plan. Any excavation will be conducted under a state archaeological permit granted under ORS 390.235.
  - If the discovery is determined to be subject to the EFSC standards and the Project will have a significant impact on the resource, IPC will direct the CRS to prepare a treatment plan for review and approval by the SHPO (in consultation with ODOE and in coordination with the parties noted above), in an effort to reduce impacts to less than significant. The treatment plan will include (but not be limited to) a resource-specific research design, methods, analysis, disposition of any collected artifacts and curation (as applicable), and a schedule for completing work and report submittals.
  - Once the treatment plan is approved by the SHPO in writing (via email), IPC can direct the CRS to execute the treatment plan. Any excavation (testing/data recovery) on state lands will be conducted under a state archaeological permit granted by the State Parks and Recreation Department under ORS 390.235 (includes approval by state agency and the appropriate Native American tribe(s)) and OAR 736-051-0080, and on private land under OAR 736-051-0090 (includes ORS 390.235, and landowner's written permission).
  - Within one week of completion of mitigation, IPC will submit a preliminary report containing the results of the mitigation. A final mitigation report will be prepared and submitted to SHPO, ODOE, landowner, and tribe(s), as appropriate, within the timeframe as specified in the treatment plan.
- If the SHPO, in consultation with the ODOE and tribe(s), as applicable, determines the discovery will not be significantly impacted, the SHPO will contact IPC by telephone and in writing (via email) indicating that construction may resume. No further consultation will be necessary.
- No archaeological testing/excavation will occur and no artifacts will be collected without approval from ODOE, SHPO, landowner, and tribe(s), as applicable, and acquisition of appropriate state permit(s).

8.1.2 Inadvertent Discovery of Human Remains

In Oregon, the treatment of human remains will follow the protocol developed by the State of Oregon's Tribal/State Agency Government to Government Cultural Resource Cluster Group in 2006 (updated August 2014): *Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Public, State-Owned Lands In Oregon* (see Appendix F). Native American ancestral remains, funerary objects, sacred objects and objects of cultural patrimony associated with Oregon Tribes are protected under Oregon state law, including criminal penalties (ORS 97.740-.994 and 358.905-.961)

If human remains (including physical remains-bones, teeth, hair, ashes, or mummified or otherwise preserved soft issues of a human), burial, funerary objects, sacred objects, or objects of cultural patrimony are inadvertently discovered during Project construction, **ALL** human remains and associated burial associated material will be treated with dignity and respect, and the following procedures will apply:

PROTOCOL FOR THE IDENTIFICATION OF HUMAN REMAINS:

- **STOP CONSTRUCTION ACTIVITES**
  - Immediately halt construction within 200 feet radius of the remains.
  - Ensure the area is protected from additional disturbance with flagging, fencing, or by posting a CRM or other project personnel.
  - Ensure that the remains will be treated respectfully, and are not touched, moved, photographed, discussed on social media sources (e.g., Instagram, Facebook, Twitter, etc.), or further disturbed.
  - Stop Construction will remain in effect and construction will not proceed within a 200-foot radius around the discovery until the appropriate approvals are obtained.
- **NOTIFICATION:** Immediately notify the Oregon State Police and the CRS (if not on site). The CRS will immediately notify the SHPO, Legislative Commission on Indian Services (LCIS), ODOE, landowner, and IPC via telephone and in writing. The LCIS will determine the appropriate Native American tribe(s) to notify. Once identified by the LCIS, the appropriate Native American tribe(s) will be notified immediately by the CRS. See Section 8.2 below for contact information.
- For any human remains discovered on state or private lands in Oregon, ORS Section 97.740 through 97.760 will apply. Oregon laws (ORS 146.090 and .095) outline the types of deaths that require investigation and the accompanying responsibilities for that investigation. The law enforcement official, district medical examiner, and the district attorney for the county where the death occurs are responsible for deaths requiring investigation. Deaths that require investigation include those occurring under suspicious or unknown circumstances.
- If the human remains **are not clearly modern**, then there is a high potential that the remains are Native American and therefore ORS 97.745(4) applies, which requires immediate notification of State Police, SHPO, LCIS, and appropriate Native American Tribe(s) (as noted above).
- As noted above, human remains will be treated with respect, protected, and secured from further disturbance. The human remains and any associated artifacts should not be disturbed, manipulated, or transported from the original location until a plan is developed in consultation with the above named parties. These actions will help ensure compliance with Oregon state law that prohibits any person willfully removing human remains and/or objects of cultural significance from its original location, as defined in ORS 97.745.

- If the human remains are found to be Native American, the State Police, SHPO, ODOE, landowner, LCIS, CRS, and appropriate Native American Tribe(s) will consult and implement a culturally sensitive plan for reburial (if the remains cannot be avoided by the Project and/or if desired by the tribe(s)).
- If the human remains are found not to be of Native American descent, historic in nature, and are not part of a crime investigation, IPC will consult with the SHPO, ODOE, CRS, and landowner to develop and implement a plan for removal and reburial (if the remains cannot be avoided by the Project and/or if desired by the landowner).
- For all human remains, reburial plans (and any type of excavation) will follow Oregon state laws and will be developed and approved by the appropriate parties. Reburial plan(s) will be specific to each inadvertent discovery of human remains.
  - Per ORS 97.750, excavation by a Professional Archaeologist of a Native American cairn or burial [human remains] and associated material shall be initiated only after prior written notification to the SHPO and State Police, as defined in ORS 358.905, and with the prior written consent of the appropriate Indian (Native American) tribe(s) in the vicinity of the intended action. Failure of a tribe(s) to respond to a request for permission [to excavate] within 30 days of its mailing shall be deemed consent.
  - Per ORS 97.750 and 97.745, and as noted above, the LCIS will designate the appropriate tribe(s).

8.2 Key Contacts

Contact information for key state agency, tribal, IPC, and CRT members in the event of an unanticipated or inadvertent discovery is provided in Table 8-1.

Table 8-1. Key Project Contacts

Organization	Name	Role	Phone Numbers	Email
Oregon State Police	Chris Allori	Sergeant: identification of human remains	503-731-4717 (o) 503-708-6461 (c) 503-731-3030 (d)	TBD
ODOE	Kellen Tardaewether	Senior Siting Analyst; Lead state agency	503-373-0214 (o) 503-586-6551 (c)	Kellen.Tardaewether@oregon.gov
Oregon SHPO	Dennis Griffin	State Archaeologist	503-986-0674 (o) 503-881-5038 (c)	Dennis.griffin@state.or.us
Oregon SHPO	John Pouley	Assistant Archaeologist	503-986-0675 (o) 503-480-9164 (c)	John.pouley@state.or.us
Oregon SHPO	Jessica Gabriel	Historian	503.986.0677	Jessica.Gabriel@oregon.gov
LCIS	Karen Quigley	Executive Director; Identifies appropriate Native American Tribe(s) for Project.	503-986-1067 (o)	karen.m.quigley@state.or.us
IPC	Shane Baker	Senior Archaeologist	208-388-2925 (o)	sbaker@idahopower.com
IPC	Dave Valentine	Project Archaeologist	208-388-2855 (o)	dvalentine@idahopower.com
Project CRS	TBD	TBD	TBD	TBD
Project CCEM	TBD	TBD	TBD	TBD
CTUIR	Carey Miller	THPO	541-429-7234 (o)	careymiller@CTUIR.org
Burns Paiute Tribal Council	TBD			
Confederated Tribes of the Colville Reservation	TBD			
Confederated Tribes of the Warm Springs Reservation	TBD			
Fort McDermitt Shoshone-Paiute Tribes	TBD			
Klamath Tribes	TBD			
Nez Perce Tribe	TBD			
Shoshone-Bannock Tribes of the Fort Hall Indian Reservation	TBD			

c=cell, o=office, d=dispatch; TBD=to be determined.

9.0 REFERENCES CITED

Anderson, Stephen, Erin King, and Jenna Farrell
2018 *Boardman to Hemingway Transmission Line Project, Cultural Resource Technical Report, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon*. Prepared by Tetra Tech, Inc. Golden, CO. Submitted to Idaho Power Company, Boise, ID and Oregon Energy Facility Siting Commission. Contract No. CM-3901.

AECOM (AECOM, Inc.)
2018 Intensive Level Survey – Visual Assessment of Historic Properties Report, Boardman to Hemingway Transmission Line Project. Prepared by AECOM, Inc., Portland, OR. Submitted to Idaho Power Company, Boise, ID,

APPENDIX A
BLM HPMP FRAMEWORK

Appendix B5
Historic Properties Management Plan Framework

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Acronyms and Abbreviations

APE	Areas of Potential Effect
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
HPMP	Historic Properties Management Plan
NAGPRA	Native American Graves Protection and Repatriation Act
NRHP	National Register of Historic Places
Project	Boardman to Hemingway Transmission Line Project
PSMP	Property-specific Mitigation Plans
SHPO	State Historic Preservation Officers
THPO	Tribal Historic Preservation Officers

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APPENDIX B5 – HISTORIC PROPERTIES MANAGEMENT PLAN FRAMEWORK

HISTORIC PROPERTIES MANAGEMENT PLAN DRAFT ANNOTATED OUTLINE

1.0 INTRODUCTION

1.1 Purpose of the Historic Properties Management Plan (HPMP)
This section addresses the purpose of the HPMP, which is to provide a project-wide set of plans and procedures to avoid, minimize, or mitigate adverse effects on historic properties.

1.2 Property-specific Mitigation Plans (PSMPs)
This section addresses the intent and purpose of the PSMPs, which is to specify the general terms of avoidance, monitoring, and a framework for mitigating adverse effects. The purpose of each PSMP is to supplement this HPMP with property-specific information, including treatment and mitigation for unavoidable direct and indirect effects.

1.3 Laws and Regulations
This section briefly addresses the federal and state laws and regulations applicable to the project with regard to cultural resources.
- 1.3.1 Federal
- 1.3.2 State
- 1.3.3 Tribal

1.4 Organization
This section briefly outlines the organization and structure of the HPMP by section.

2.0 PROJECT AND AREA OF POTENTIAL EFFECTS DESCRIPTION

This section provides a project description and defines the areas of potential effect (APE) as established in the Programmatic Agreement for the project.

2.1 Project Description
This section provides a brief project description.

2.2 Area of Potential Effect
This section provides a definition of the APE as a baseline for survey and inventory.
- 2.2.1 Direct Effects
  This section discusses the direct-effects APE
- 2.2.2 Indirect Effects
  This section discusses the indirect-effects APE

3.0 SEQUENCE OF PROJECT-RELATED TASKS

This section addresses the various tasks that will be completed to ensure that historic properties eligible for or listed on the National Register of Historic Places (NRHP) are avoided or project impacts are minimized or mitigated and the sequence in which these tasks will occur during each phase of the project as listed below.

3.1 Pre-construction
Tasks include completion, submittal, and approval of the HPMP and resource specific monitoring plans.

3.2 Construction
Tasks include ongoing environmental training of construction staff, construction monitoring, mitigation of inadvertent discoveries, completion of work associated with PSMPs required during construction.

3.3 Post-construction
Tasks include completion of test investigation or data recovery analysis, preparation of artifacts for curation, transfer of materials to curation facility or appropriate land owner, and preparation of final reports

3.4 Reclamation
Tasks include monitoring of various reclamation treatments applied to reclaim temporary use areas.

3.5 Operation and Maintenance
Tasks include transmission line patrols, climbing inspections, structure and wire maintenance, insulator washing, inspection and maintenance of stations and communication facilities, access road repairs, and vegetation management activities.

4.0 PREVIOUS RESEARCH AND CULTURAL RESOURCE TYPES IDENTIFIED WITHIN THE PROJECT AREA

This section addresses the identification of resources and previous literature review, pedestrian field surveys, and research conducted for the project and identifies known cultural resource types within the project area.

4.1 Identification and Evaluation of Historic Properties
This section addresses the identification and evaluation of historic properties for the project. The HPMP is based on the results of cultural resource inventories consisting of background records and literature research, and pedestrian surveys. The Programmatic Agreement outlines the requirements for cultural resources inventory and identification of historic properties for the project

4.1.1 Archival Research and Results
This section addresses the parameters and results of the archival research conducted for the project.

4.1.2 Field Survey Methods and Results
This section addresses the parameters and results of the field surveys conducted for the project.

4.2 Ethnographic Studies
This section addresses the ethnographic studies prepared for the project.

4.3 Definition of Cultural Resources Site Types
This section provides a summary of the different cultural resource site types found in Oregon and Idaho in table format.

4.3.1 Pre-contact Resources

4.3.2 Historic Resources

4.3.3 Multicomponent Resources

5.0 METHODS FOR DETERMINATION OF ELIGIBILITY AND EFFECTS

This section addresses the methods to be used to determine eligibility and project effects on sites within the project APEs.

5.1 Determination of Eligibility
This section addresses how determination of eligibility will be established by BLM, in consultation with tribes, Tribal Historic Preservation Officers (THPOs), State Historic Preservation Officers (SHPOs), and appropriate Concurring Parties to the

Programmatic Agreement, for sites within the project APEs based upon criteria contained in 36 CFR 60.4.

5.2 Determinations of Effects
This section addresses how historic properties will be evaluated to determine if the project has an adverse effect.

6.0 AVOIDANCE AND PROPOSED MITIGATION PLAN

This section presents a general framework for resolution of adverse effects from the project on historic properties.

6.1 Avoidance

6.2 General Mitigation Measures
Due to the scale of the project, it is unlikely that adverse effects to historic properties can be avoided entirely. This section provides mitigation options for unavoidable impacts.

6.2.1 Mitigation for Direct Adverse Effects

6.2.2 Mitigation for Indirect Effects

7.0 MONITORING PLAN

This section addresses monitoring for cultural resources during construction of the project. This plan provides details regarding roles and responsibilities of various personnel in the field in coordination with the project-wide Environmental Compliance Monitoring Plan that will be prepared as a part of the project Plan of Development.

7.1 Cultural Resources Team
This section addresses the role and responsibilities of the Cultural Resources Team as part of the Construction Contractors environmental inspection team.

7.2 Construction Compliance

7.2.1 Monitoring and Avoidance Procedures
This section addresses the monitoring procedures that will be applied project-wide including cultural resource construction monitoring, intermittent monitoring, inadvertent discoveries, and flagging, fencing, and signage measures.

7.2.2 Variances and Amendments
This section addresses the procedure to be followed when a variance or amendment is required due to changes in the project footprint.

8.0 REFERENCES CITED

APPENDICES

A Inadvertent Discovery Plan

B NAGPRA Plan of Action

C Subsurface Investigation Strategy

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APPENDIX B
RESOURCE-SPECIFIC MITIGATION PLANS
(TO BE DETERMINED)

APPENDIX B – RESOURCE-SPECIFIC MITIGATION PLANS

To be completed following selection of final route and implemented Spring 2021.

APPENDIX C
CONFIDENTIAL PROJECT MAPS
(TO BE DETERMINED)

APPENDIX C – CONFIDENTIAL PROJECT MAPS

To be completed following selection of final route.

APPENDIX D
OREGON CULTURAL RESOURCE FORMS

Site Identification

Enter New Site Identifying information

* = Required Field

Smithsonian Trinomial To be assigned

Agency/Field ID *

Site Name

Recording Date *

Administrative Information

* = Required Field

Managing Office

Owners

Owner **Former Owner?**

Site Ownership/Management Notes

National Register Status Statements
Each Reviewing organization - including the field organization - can enter a status statement

Status	Role	Date	Statement Author

Site Type

* = Required Field

Dimensions

Length * Width * Units

Calculated Area

Depth of cultural deposit *

Site Type *

Features

Cultural Periods *

General Age *

Location

* = Required Field

County *

For sites in urban setting, give appropriate address in access description

Cadastral Locations

Township * Range * Sec * 1/4 1/4 1/4 DLC# Meridian

Map References

Map Name * Revision Year *

UTM Coordinates *

Type * East * North * Method * Zone * Datum *

Describe access to site from permanent feature and how to find primary datum:

Environmental Information

* = Required Field

Depositional Environment

Soil Description:

Culturally Signifigant Vegetation:

Culturally Signifigant Vegetation Description:

Water Sources

Name of Water Body	Type	Stream Type	Stream Class	Distance	Direction

Site Setting

Discuss environmental setting of site relevant to site location, including on-site vegetation, topography, dated landforms and formation processes):

Province/Basin

Province	Elev From (ft) *	Elev to (ft) *	Aspect
Basin	Subbasin		
Drainage Name			

Site Description

* = Required Field

Site Description and Site Function *
Include discussion of site condition, found artifacts and other relevant information

Date(s) of use
(Be as specific as possible. 0 if unknown, may not leave blank.)

From * To * BC/AD/BP * Dating Method *

Site Observations
The following were observed:

Artifacts Present * Quantity *

Estimated Counts

Historic Prehistoric

Rock Art

Rock Art Present

Rock Art

* = Required Field

Number of Loci: *

Number of Panels: *

Panels are Situated on:

Panel Description

Panel Aspects

Type of Rock:

Formation name if known and additional information

Degree of Patination

Category and Techniques

Petroglyphs

Pictographs

Colors

Color Description

Rock Art Superimposed?

Superimposed art description

Natural Destructive Agents

Natural Destructive Agents Description

Other Destructive Agents

Other Destructive Agents Description

Detailed Description

Site Condition

* = Required Field Visit Date *
Site Condition *
Recorder *(Name and Organization)*
Artifacts or Samples Collected?
Activities/Work Performed *
Impacts and Impact Agents
Protective Measures Recommended/Present Use & Expected

Bibliographic References

Bibliographic References

Author	Publication Year	Title	Agency	Primary Reference?

OREGON STATE CULTURAL RESOURCE ISOLATE FORM

ADMINISTRATIVE DATA

CR_ISOLATE NUMBER:
OWNER: COUNTY:

LOCATIONAL DATA

LEGAL DESCRIPTION: ___1/4 ___1/4 ___1/4 of SECTION ____ TOWNSHIP ____ RANGE _____
DLC_____ UTM **ZONE:** **EASTING:** **NORTHING:** GPS (Y/N):
USGS QUAD(S) NAME: SERIES: DATE:

ENVIRONMENAL DATA

ELEVATION: SLOPE: ASPECT:
ITEM DESCRIPTION (Narrative, drawings, sketch map, photo):

Collected? Yes___ No____
Recorder: Date:

ATTACH USGS TOPOGRAPHIC MAP:

APPENDIX E
MONITORING LOG

Report #_____

Boardman to Hemingway Transmission Line
Cultural Resource Monitor Daily Report

Date ____ /____ /____

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: ☐ Inadvertent Discovery: ☐ Non-Compliance Issue: ☐ Incident Reports: ☐ (attached form as appropriate) Variances: ☐ (attach to variance form)

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)
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.				
Native American Monitor present, as applicable?				

Photographs	
Filename:	Filename:
Direction:	Direction:
Description:	Description:
Filename:	Filename:
Direction:	Direction:
Description:	Description:

Daily Field Comments/Notes:

APPENDIX F
TREATMENT OF NATIVE AMERICAN HUMAN REMAINS DISCOVERED INADVERTENTLY OR THROUGH CRIMINAL INVESTIGATIONS ON PRIVATE AND PUBLIC, STATE-OWNED LANDS IN OREGON

Treatment of Native American Human Remains Discovered Inadvertently or Through Criminal Investigations on Private and Public, State-Owned Lands in Oregon

Native American burial sites are not simply artifacts of the tribe's cultural past, but are considered sacred and represent a continuing connection with their ancestors. Native American ancestral remains, funerary objects, sacred objects and objects of cultural patrimony associated with Oregon Tribes are protected under state law, including criminal penalties (ORS 97.740-.994 and 358.905-.961). The laws recognize and codify the Tribes' rights in the decision-making process regarding ancestral remains and associated objects. Therefore both the discovered ancestral remains and their associated objects should be treated in a sensitive and respectful manner by all parties involved.

Identification of Human Remains

- Oregon laws (ORS 146.090 & .095) outline the types of deaths that require investigation and the accompanying responsibilities for that investigation. The law enforcement official, district medical examiner, and the district attorney for the county where the death occurs are responsible for deaths requiring investigation. Deaths that require investigation include those *occurring under suspicious or unknown circumstances*.
- If human remains that are inadvertently discovered or discovered through criminal investigations **are not clearly modern**, then there is high probability that the remains are Native American and therefore ORS 97.745(4) applies, which requires immediate notification with State Police, State Historic Preservation Office, Commission on Indian Services, and all appropriate Native American Tribes. To determine who the "appropriate Native American Tribe" is, the responsible parties should contact the Legislative Commission on Indian Services (CIS). To determine whether the human remains are Native American, the responsible parties should contact the appropriate Native American Tribes at the initial discovery. It should be noted that there may be more than one appropriate Native American Tribe to be contacted.
- If the human remains are possibly Native American then the area should be secured from further disturbance. The human remains and associated objects **should not be disturbed**, **manipulated, or transported from the original location until a plan is developed in consultation with the above named parties.** These actions will help ensure compliance with Oregon state law that prohibits any person willfully removing human remains and/or objects of cultural significance from its original location (ORS 97.745).
- All parties involved and the appropriate Native American Tribes shall implement a culturally sensitive plan for reburial.

Notification

- State law [ORS 97.745 (4)] requires that any discovered human remains suspected to be Native American shall be reported to -
    1. State Police
        - Sgt. Chris Allori, Office (503) 731-4717, Cell (503) 708-6461, Dispatch (503) 731-3030

*Note: This document was created by the Government to Government Cultural Resource Cluster Group in September, 2006. Last updated: August 2014

2. State Historic Preservation Office (SHPO)
    - Primary contact = Dennis Griffin, State Archaeologist, office phone (503) 986-0674, cell phone (503) 881-5038

3. Legislative Commission on Indian Services (LCIS)
    - Contact = Karen Quigley, Director, office phone (503) 986-1067. Karen will provide the list of appropriate Native American Tribes

4. All appropriate Native American Tribes provided by LCIS

    - Burns Paiute Tribe - Agnes Castronuevo (541) 573-8089

    - Confederated Tribes of Coos, Lower Umpqua and Siuslaw - Stacy Scott, M.A. (541) 888-7513, Cell (541) 297-5543

    - Confederated Tribes of Grand Ronde - David Harrelson (503) 879-1630

    - Confederated Tribes of Siletz - Robert Kentta (541) 444-8244

    - Confederated Tribes of the Umatilla Indian Reservation - Teara Farrow Ferman (541) 276-3447; secondary contact Catherine Dickson (541) 966-2338 or (541) 429-7231

    - Confederated Tribes of Warm Springs - Sally Bird (541) 553-3555

    - Coquille Indian Tribe – Bridgett Wheeler (541) 756-0904

    - Cow Creek Band of Umpqua Indians - Jessie Plueard (541) 677-5575 ext. 5577

    - Klamath Tribes - Perry Chocktoot, Culture & Heritage Director (541) 783-2219

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CONFIDENTIAL ATTACHMENT S-10
INTENSIVE LEVEL SURVEY – VISUAL ASSESSMENT OF HISTORIC PROPERTIES REPORT

This attachment is not included here because it contains confidential information.

CONFIDENTIAL ATTACHMENT S-11
ANALYSIS AREA, CONSTRUCTION FOOTPRINT, AND RESOURCE LOCATION

This attachment is not included here because it contains confidential information.

CONFIDENTIAL ATTACHMENT S-12
CTUIR TRADITIONAL USE STUDY FOR THE B2H PROJECT

This attachment is not included here because it contains confidential information.