

Exhibit S

Historic, Cultural, and Archaeological Resources

**Nolin Hills Wind Power Project
February 2020**



d/b/a Nolin Hills Wind, LLC

Prepared by



Tetra Tech, Inc.

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Acronyms and Abbreviations

Applicant	Nolin Hills Wind, LLC
BPA	Bonneville Power Administration
CTUIR	Confederated Tribes of the Umatilla Indian Reservation
EFSC	Energy Facility Siting Council
GLO	General Land Office
HPRCSIT	Historic Properties of Religious or Cultural Significance to Indian Tribes
NRHP	National Register of Historic Places
OAR	Oregon Administrative Rules
OCTA	Oregon-California Trails Association
ODOE	Oregon Department of Energy
ONHT	Oregon National Historic Trail
ORS	Oregon Revised Statutes
Project	Nolin Hills Wind Power Project
SHPO	State Historic Preservation Office
Tetra Tech	Tetra Tech, Inc.
TUS	Traditional Use Study
UEC	Umatilla Electric Cooperative

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1.0 Introduction

Nolin Hills Wind, LLC (the Applicant) proposes to construct the Nolin Hills Wind Power Project (Project), a wind energy project with a nominal generating capacity of approximately 350 megawatts and up to 117 average megawatts of energy, in Umatilla County, Oregon. The Project comprises up to 116 wind turbine generators, depending on the turbine model selected and the final layout determined during the micrositing process. If larger turbines are selected, fewer turbines will be installed. The Project will interconnect to the regional grid via either a transmission line leading from the northern Project substation northwest to Cottonwood Substation in Hermiston, or a new 230-kilovolt transmission line to the proposed Bonneville Power Administration Stanfield Substation, north of the town of Nolin. Other Project components include electrical collection lines, substations, site access roads, one operations and maintenance building, meteorological data collection towers, and temporary construction yards. These facilities are all described in greater detail in Exhibit B.

Exhibit S provides information on the historic, cultural, and archaeological resources that may potentially be impacted by the Project. The information in Exhibit S demonstrates that the Project will comply with the Oregon Energy Facility Siting Council's (EFSC) Historic, Cultural, and Archaeological Resources Standard, Oregon Administrative Rule (OAR) 345-022-0090. The exhibit shows that the construction and operation of the Project, taking into account mitigation, is unlikely to result in significant adverse impacts to historic and cultural resources that are listed or eligible for listing on the National Register of Historic Places (NRHP; historic properties); archaeological objects on private lands; or archaeological sites on private or state lands.

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

2.0 Analysis Area

The Analysis Area for Exhibit S includes all cultural resources survey corridors within the Project Site Boundary (as described in Exhibit B). The Analysis Area encompasses the surfaces that may be disturbed by construction and operation within the Project Site Boundary. The area is larger than the anticipated area of direct disturbance to allow for avoidance of resources. The Analysis Area is depicted on Figure S-1.

3.0 Cultural Resources Inventory – OAR 345-021-0010(1)(s)(A) through (C)

OAR 345-021-0010(1)(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 192.345(11). The applicant must 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 must 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

OAR 345-021-0010(1)(s)(A) Historic and cultural resources within the analysis area that have been listed, or would likely be eligible for listing, on the NRHP;

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;

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

Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090(1) provides the Applicant must demonstrate that the construction and operation of the Project, taking into account mitigation, is unlikely to result in significant adverse impacts to identified resources. Note that under Section (2) of this standard, the Council is not required to make a finding that the Project complies with OAR 345-022-0090(1). Nonetheless, the Applicant provides evidence here that the standard is met.

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 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) 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.

“Archaeological site” is defined at ORS 358.905(1)(c) as a geographic locality in Oregon, including but not limited to submerged and submersible lands and the bed of the sea within the state’s jurisdiction, that contains archaeological objects and the contextual associations of the archaeological objects with: (i) each other; or (ii) biotic or geological remains or deposits.

Examples of archaeological sites by this definition include, but are not limited to, shipwrecks, lithic quarries, house pit villages, camps, burials, lithic scatters, homesteads, and townsites.

“Archaeological objects” are defined at ORS 358.905(1)(a) as an object that: (A) is at least 75 years old; (B) is part of the physical record of an indigenous or other culture found in the state or waters of the state; and (C) is material remains of past human life or activity that are of archaeological significance including, but not limited to, monuments, symbols, tools, facilities, technological by-products, and dietary by-products. For the purposes of this analysis, isolated finds are considered archaeological objects.

3.1 Cultural Resources Inventory Methodology

The effort to complete the Applicant’s cultural resources inventory is guided by four main goals aimed at ensuring compliance with the EFSC standards. These goals include (1) identification of cultural resources within the Analysis Area (as defined in Section 2); (2) interpretation of those identified resources within a regional context; (3) evaluation of identified resources for protection under the Cultural Resources standard (OAR 345-022-0090); and (4) assessment of potential Project impacts on protected resources. In addition to tribal consultations, the Applicant has completed two primary studies of cultural resources within the proposed turbine area of the Analysis Area: a pedestrian cultural resources survey by Tetra Tech, Inc. (Tetra Tech) (King et al. 2019; King and Berger 2019) and a Traditional Use Study (TUS) by the Confederated Tribes of the Umatilla Indian Reservation (CTUIR; Engum 2018). These studies have focused on all accessible portions of the Analysis Area. They are supplemented in this exhibit with additional records reviews to address the portions of the transmission line corridors in the Analysis Area that were inaccessible at the time of survey. Completion of survey of the transmission line corridor will be conducted prior to construction. A description of the discovery measures, such as surveys and inventories, that the Applicant has undertaken is described in detail in the sections below. The cultural resources survey report and the TUS are confidential documents that are exempt from public disclosure under ORS 192.501(11) and are provided separately. At the request of CTUIR, only the executive summary of the TUS is available for public review.

3.1.1 Records Review

King et al. (2019) and King and Berger (2019) include records searches that focused on the overall Project Site Boundary and a 1-mile buffer. Both searches are described below in Section 5. Data were derived from the files and databases of the State Historic Preservation Office (SHPO; e.g., Oregon Archaeological Records Remote Access and Oregon Historic Sites Database), the Oregon Historic Trails website, and historic maps and aerial photographs. Efforts focused on collecting

information concerning previously recorded cultural resources within the overall Project Site Boundary, as well as previously conducted surveys within this area.

As part of research regarding some resources recorded as part of the field surveys, additional archival materials were reviewed. These materials included historic maps and aerial imagery, records available online through Ancestry.com (federal census records, Polk's local city and business directories, military records, marriage and death records, etc.), and, in some cases, historic newspaper articles available online through the University of Oregon's Historic Oregon Newspapers database.

3.1.2 Field Surveys

Tetra Tech conducted a "non-collection" Phase I pedestrian survey of the Analysis Area totaling 13,757.5 acres (7,080 acres between July 5 and 26, 2017, 4,322 acres between May 15 and 22, 2018, 606 acres between August 7 and 8, 2018, and 1,749.5 acres between July 8 and 13, 2019). The surveyed area is larger than the Analysis Area due to Project design modifications that occurred after completion of the surveys. A total of 251 acres within the transmission line portion of the Analysis Area was inaccessible at the time of survey due to landowner access restrictions and another 40 acres in those corridors was not surveyed due to safety concerns. A phased approach to the Project was taken. No subsurface probing of archaeological site boundaries, archaeological object localities, areas of high probability for buried archaeological resources, or areas of poor ground surface visibility was conducted. While these types of resources and areas were identified by the surveys, the Project design schedule allowed for conducting survey first and micrositeing to avoid resources. Probing of areas of high probability and/or poor ground surface visibility during survey will occur after the Project design is finalized and be limited to those construction corridors to avoid unnecessary disturbance of other areas.

The 2017 survey area included 35.7 miles of turbine strings, 66.5 miles of other linear components (e.g., collector lines, overhead transmission line), and 2 substation locations (36-acre area total). The 2018 surveys were designed to address areas where Project components may be located that were outside of the 2017 survey area. As a result, the entirety of the Analysis Area in the Project Site Boundary containing turbines has been subjected to pedestrian survey for cultural resources. Unsurveyed areas are limited to the inaccessible areas described above in the potential transmission line corridors. These areas will be surveyed using the same methodology described here prior to construction. The overall survey area is depicted on Figure S-2. For all surveys, a 500-foot buffer on either side of the centerline of turbine strings was examined to allow for micrositeing within a 1,000-foot corridor. The survey corridor for the Umatilla Electric Cooperative (UEC) Cottonwood transmission line alternative ranged between 150 to 1,200 feet wide. A 150-foot buffer was examined for the Bonneville Power Administration (BPA) Stanfield transmission line alternative and all other linear components to allow for micrositeing as well, within a 300-foot corridor. No buffer was examined for the substations.

The inventory was conducted in accordance with state standards for Oregon by Tetra Tech's professional archaeologists, under the supervision of a Principal Investigator who meets the Secretary

of Interior Standards. In addition, tribal representatives of the CTUIR accompanied the field crews during all of the 2017 and 2019 pedestrian surveys and for one day during the May 2018 survey.

Crews walked and observed the ground, spread out in line at 20-meter intervals (i.e., transects), working under the guidance of the Field Director and a Crew Chief. Ground surface visibility varied between poor (less than 30 percent) and excellent (greater than 75 percent) throughout the Analysis Area. Although an effort was made to survey through agricultural fields after they had been plowed, the harvest schedule for some of the fields did not allow for this. Weather conditions during surveys were warm to very warm and dry. Spatial control was maintained through the use of 1:24,000 scale maps and Global Positioning System units with sub-meter accuracy. The Field Director completed daily field notes, documenting beginning and ending survey locations, crew members, environmental conditions, findings, and any issues concerning landowners and health and safety. No part of the turbine survey area was inaccessible. As stated above, survey of inaccessible and unsurveyed portions of the alternative transmission line corridors will occur prior to construction.

3.1.3 Native American Consultations

The Applicant consulted with the Oregon State Legislative Commission on Indian Services by letter on June 12, 2017. Ms. Karen Quigley responded via e-mail on June 12, 2017, identifying the following Native American tribes with interest in the Project area:

- CTUIR;
- Confederated Tribes of the Warm Springs Reservation;
- Nez Perce Tribe (Idaho); and
- Confederated Tribes and Bands of the Yakama Nation (Washington).

The Applicant contacted these tribes by letter on June 19, 2017. CTUIR has taken an active role in the Project, providing site visits for interested parties, preparing a project-specific TUS, and participating in the cultural resources pedestrian surveys. A meeting between the Applicant and CTUIR staff (natural and cultural resources) was held at CTUIR offices on June 13, 2017 to introduce the Project and coordinate development of the TUS. Coordination calls and in-person meetings with the CTUIR have continued throughout the planning phases of the Project. Other tribes have not expressed interest in the Project.

Documentation of the Applicant's tribal coordination is included in Attachment S-1.

3.1.4 Traditional Use Study

The Applicant funded a TUS for the Project, completed by the CTUIR, that led to the identification of Historic Properties of Religious or Cultural Significance to Indian Tribes (HPRCSITs) and other traditional resources within and surrounding the Project Site Boundary. The TUS provides important context and informs the Applicant in identifying and protecting cultural resources pursuant to Council Standards. The TUS focused on the turbine portion of the Project Site

Boundary. As part of the TUS, the Cultural Resources Protection Program of the CTUIR conducted site visits to the Project Site Boundary with tribal elders. Oral histories regarding traditional use in and adjacent to the area were collected. Focus was placed on traditional and sacred areas traveled to by the elders’ families and for what purposes; identification of First Foods; information on the natural and cultural resources of the areas; and historic use of the Project Site Boundary. Prior to beginning the fieldwork with CTUIR staff and elders, previously gathered oral histories on file at CTUIR were reviewed.

3.2 Cultural Resources Inventory Results

The following sections describe results of the records reviews, the cultural resources pedestrian surveys conducted within the Analysis Area, and the TUS conducted by the CTUIR in the turbine area. The cultural resources pedestrian surveys of the Analysis Area around the turbines is included as confidential Attachment S-2. The executive summary of the TUS is in confidential Attachment S-3.

3.2.1 Records Review

The databases reviewed as part of the records search revealed that the Project Site Boundary and Analysis Area had been partially surveyed for cultural resources prior to the field surveys conducted for the Project. Table S-1 summarizes the previous survey coverage of the Project Site Boundary. This includes one survey conducted by Tetra Tech for a separate project, but this area of that project has not yet been reported to the SHPO. All portions of the Nolin Hills micro-siting corridor that were previously surveyed were surveyed for Nolin Hills and are included in the reports provided as Attachment S-2.

Table S-1. Previously Conducted Surveys within the Project Site Boundary

SHPO Report #	Agency Report #	Author	Year	Report Title
353	NADB 1293986	David V. Ellis (Archaeological Consultant)	(no date)	<i>Assessment of Impact on Cultural Resources of the Proposed Umatilla River 216 Project</i>
653	NADB 1294323	Julia A. Follansbee and Ellen B. Mays (Consultants)	1979	<i>A Preliminary Cultural Resource Overview for the Brownlee-Slatt and Buckley-Malin Corridors, Bonneville Power Administration</i>
1344	NADB 1295026	Richard D. Daugherty (Washington State University)	1960	<i>An Archaeological Survey of Pacific Gas Transmission Company's Alberta to California Pipeline System; Idaho, Oregon, Washington</i>
1345	NADB 1295027	John D. Combes	1961	<i>An Archaeological Survey of Pacific Gas Transmission Company's Alberta to California Pipeline System: MP 108.0 to MP 722.0 Phase II</i>
6496	NADB 1296295	R. M. Pettigrew (Oregon State Museum of Anthropology)	1985	<i>Letter Report: On the Archaeological Survey of the Proposed Old Oregon Trail Highway - Walker Road / I-82 Intersection Project, McNary Highway, Umatilla County, Oregon</i>

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SHPO Report #	Agency Report #	Author	Year	Report Title
9272	CX8000-3-0032	James H. Cleland, Michael S. Kelly, Clyde M. Woods, and J. Christina Smith (WIRTH Environmental Services)	1987	<i>An Archaeological Overview and Management Plan for the Umatilla Depot Activity, Umatilla, Oregon</i>
11705	N/A	John D. Combes	1961	<i>An Archaeological Survey of Pacific Gas Transmission Company's Alberta to California Pipeline System: MP108 To MP 722 Phase Ii</i>
11706	N/A	Richard D. Daugherty (Washington State University)	1961	<i>An Archaeological Survey Of Pacific Gas Transmission Company's Alberta To California Pipeline System: Mp108 To Mp 722</i>
14629	N/A	Barry A. Price (INFOTEC Research, Inc.)	1992	<i>PGT-PG&E Pipeline Expansion Project, Archaeological Survey of Gregory and Cook Warehouse Sites W-2, W-3 and W-4</i>
14775	N/A	Albert C. Oetting (Historical Research Associates, Inc.)	1992	<i>Cultural Resources Survey of Facilities for the Hermiston Generating Project (US Generating Company), Umatilla County, Oregon</i>
14776	Historical Research Associates Report #156	Albert C. Oetting (Historical Research Associates, Inc.)	1993	<i>Cultural Resources Survey of Facilities for the Hermiston Power Project, Umatilla County, Oregon</i>
15359	N/A	Gail C. Celmer (Seattle District Corps of Engineers)	1996	<i>Archaeological Reconnaissance Survey Chemical Stockpile Disposal Program Umatilla Army Depot Activity</i>
17888	N/A	Manfred Jaehnig (Confederated Tribes of the Umatilla Indian Reservation)	1997	<i>A Cultural Resource Inventory of the Proposed Co-Generation Facility Near Hermiston, Umatilla County, Oregon</i>
22161	AMEC project 8-915-16485-0	Lara C. Rooke (AMEC Earth & Environmental, Inc.)	2008	<i>Archaeological Survey for the Echo Wind Farm Hermiston, Oregon</i>
26075	N/A	Sarah L. Jenkins, Elizabeth O'Brien, and Terry L. Ozbun	2013	<i>Cultural Resource Survey for the Proposed Perennial Wind Chaser Station, Umatilla County, Oregon</i>
29355	OR-2017-008	Melissa Teoh (BPA Contract Archaeologist)	2017	<i>Cultural Resources Survey for FY17 - 2018 Construction Pasco District Wood Pole Replacement Project in Union, Morrow, Umatilla County, Oregon</i>
29588	N/A	John W. Jones (Native-X, Inc.)	2018	<i>Preliminary Letter Report for the Trident Project Archaeological Monitoring Near Hermiston, Oregon</i>

SHPO Report #	Agency Report #	Author	Year	Report Title
29885	A&H Services Short Report 1021	Unavailable	2018	<i>A Cultural Resources Survey of Bonneville Power Administration's Tri-Cities District FY09 Wood Pole Replacement Project, Benton, Franklin, and Walla Walla Counties, Washington, Umatilla County, Oregon</i>
N/A	N/A	Stephen Anderson, Erin King, and Jenna Farrell (Tetra Tech, Inc.)	TBD	<i>Boardman to Hemingway Transmission Line Project, 100% Cultural Resources Survey Report, Morrow, Umatilla, Union, Baker, and Malheur Counties, Oregon, and Owyhee County, Idaho (Working Title)</i>

Four previously recorded cultural resources were identified by the records review as within the Project Site Boundary, two of which are within the Analysis Area. Three of these, B2H-EE-19, B2H-SA-18, and 3B2H-CH-ISO-02, were recorded by Tetra Tech for a separate project but are not yet submitted to the SHPO. In addition to the previously recorded cultural resources, the records review identified that both transmission line alternatives cross the route of the Oregon National Historic Trail (ONHT). These resources are listed in Table S-2 and illustrated in confidential Attachment S-4.

Table S-2. Previously Recorded or Noted Cultural Resources within Project Site Boundary

Trinomial or Other ID	Description	Resource Category	NRHP-Eligibility	Project Component
Nolin Bridge	Historic Bridge	Historic Site	Eligible	Turbines (Project Site Boundary)
B2H-EE-19	Historic Refuse Scatter	Archaeological Site	Unevaluated	UEC Cottonwood Transmission Line (Analysis Area)
B2H-SA-18	Historic Stone Claim or Survey Marker	Archaeological Site	Unevaluated	Turbines (Project Site Boundary)
3B2H-CH-ISO-02	Pre-Contact Biface	Archaeological Isolated Find	Unevaluated	Turbines (Analysis Area)
Oregon National Historic Trail	NHT-designated route of the historic Oregon Trail.	Archaeological Site	Listed	UEC Cottonwood Transmission Line (Analysis Area); BPA Stanfield Transmission Line (Analysis Area)

Review of U.S. General Land Office (GLO) plats for Umatilla County indicates that historic roads and trails were common within the Project Site Boundary and surrounding areas during the late nineteenth and early twentieth centuries. Two wagon roads are depicted on the 1860 GLO plats of the southern and western portions of the Project Site Boundary around the turbines. Both pass through multiple segments of the Analysis Area. Additionally, two historic trails are depicted on the 1860 plat in the northwest corner of the Project Site Boundary around the turbines (both indicated as “Indian Trail” on the map). Combined with the historic wagon roads, they suggest a minimal to moderate level of early historic activity in the turbine area. As noted above, the Oregon Trail also

passed through the Project Site Boundary, extending from the northern bank of the Umatilla River through the transmission line alternatives.

3.2.2 Field Surveys

As described above in Section 3.1.2, the majority of the Analysis Area has been surveyed for cultural resources (Figure S-2). At this time, pedestrian field survey of unsurveyed portions of the Analysis Area along the transmission line alternative routes is planned to occur either in Spring 2020 or prior to construction. Those areas have not been surveyed due to access limitations and safety concerns. Once survey is completed in those areas, a supplemental report will be prepared to document survey findings.

Within the surveyed Analysis Area, a total of 43 sites (42 archaeological sites, 1 historic site) and 18 isolated finds have been identified. No evidence of the ONHT was identified within the survey corridor where the UEC Cottonwood transmission line alternative crosses the trail route. (Survey access was restricted where the ONHT crosses the BPA Stanfield transmission line alternative.) The previously recorded site (B2H-EE-19) and isolated find (3B2H-CH-ISO-02) in the Analysis Area were also not re-identified during surveys. All cultural resources identified by the surveys were preliminarily evaluated for NRHP eligibility based on the findings of the survey and with consideration of the TUS.

Cairns and various types of rock alignments (pre-contact and undetermined) dominate the inventory. While some of the cairns have been attributed to Native Americans, it is thought that the undetermined cairns may be related to historic Basque sheep herders. (CTUIR's TUS for the Project has noted that Basque cairns were commonly elaborations of existing Native American cairns.) The pre-contact era resources reflect the Native American use of the Project Site Boundary, which appears primarily related to hunting and possibly sacred uses. This is supported by the findings of the TUS. The historic period resources reflect the agricultural and ranching history of the area, as well early transportation networks.

Shovel probing has been recommended for areas of poor ground surface visibility and high probability for buried archaeological resources (King et al. 2019). Although some parts of the survey area had fair to excellent ground surface visibility (over 30 percent), such as along maintained roads and recently plowed agricultural fields, other parts had poor ground surface visibility (less than 30 percent) due to dense vegetation and crops. Other poor ground surface visibility areas were within unharvested agricultural fields. The Analysis Area also crosses areas with high rates of soils deposition, such as canyon bottoms, which may include buried archaeological sites. Shovel probing of areas of poor ground surface visibility and areas of high probability for buried resources is proposed to occur following final design, but prior to construction, to avoid unnecessary disturbance in the event that certain Project components are moved within the micro-siting corridor during the final design process.

3.2.3 Traditional Use Study

The CTUIR has completed a TUS of the Project Site Boundary around the turbines and surrounding vicinity (Engum 2018). The study included a field visit with elders in early November 2017, oral history interviews, and ethnographic research. Several significant sites were identified during the study, some of which were also identified by the pedestrian survey described above. Resources of concern as identified by the TUS include rock cairns, mud springs, a network of trails and travel corridors, and First Foods procurement areas. Informants also described the turbine area as possibly containing unmarked burials. Additionally, the Project is in close proximity to five place names, including Pišxuwiyípa (the native name for Nolin), the Umatilla River, Butter Creek, and the Sand Hollow Battlefield. The battlefield is identified as a HPRCSIT. As such, the Project and surrounding area are considered by the CTUIR to be a significant cultural landscape. The Project Site Boundary around the turbines is described as “a location where people traveled to for part of their subsistence, cultural endurance, and spiritual renewal” (Engum 2018).

3.3 Cultural Resources Subject to EFSC Standards

The following sections discuss those resources that are subject to the siting standards outlined at the beginning of this section: historic properties, archaeological sites on private or state lands, and archaeological objects (i.e., isolated finds) on private lands. (The entirety of the Analysis Area is on private lands; therefore, Standard C regarding public lands is not applicable.) Table S-3 lists the cultural resources identified by the field surveys as occurring within the Analysis Area. The table also demonstrates the extent of direct avoidance of identified resources by the Project.

Table S-3. Cultural Resources Identified in the Analysis Area

Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
Archaeological Sites										
Oregon NHT	N/A	Historic	Trail	Listed	0	0	0	0	No trail ruts identified by surveys at NHT crossing points in UEC route. Survey not yet conducted at BPA route crossing. Overhead crossing. No impact.	a) Historic Property; b) Archaeological site on private land.
TBD	NH-BB-01	Historic	Survey Marker	Not Eligible	183	56	186	57	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-BB-02	Historic	Refuse Scatter	Not Eligible	4,122	1,256	753	229	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-BB-03	Historic	Structural Remains	Unevaluated	281	86	281	86	Avoided. No further management.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-BB-04	Historic	Road	Not Eligible	569	173	569	173	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-DM-01	Pre-Contact	Lithic Scatter	Unevaluated	172	53	168	51	Avoided; Flag and monitor significant resources within 200 feet (61 meters) of disturbance. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-04	Pre-Contact	Lithic Scatter	Unevaluated	3,233	986	3,235	986	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-05	Historic	Road	Not Eligible	3,433	1,046	0	0	Turbine Option 1: Avoided. No further management. Turbine Option 2: No significant impact. No further management.	b) Archaeological site on private land.
TBD	NH-DM-06	Historic	Structure/Foundation	Unevaluated	390	119	395	120	Avoided. No further management.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-10	Undetermined	Cairn(s)	Unevaluated	2,284	696	1,900	579	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.

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Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
TBD	NH-DM-12	Undetermined	Cairn(s)	Unevaluated	2,519	768	798	243	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-13	Undetermined	Cairn(s)	Unevaluated	569	173	565	172	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-14	Undetermined	Rock Alignment(s)	Unevaluated	171	52	168	51	Avoided; Flag and monitor significant resources within 200 feet (61 meters) of disturbance. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-15	Undetermined	Rock Alignment(s)	Unevaluated	639	195	635	194	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-16	Historic	Utility Line	Not Eligible	2,107	642	854	260	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-DM-17	Historic	Agriculture	Not Eligible	3,264	995	866	264	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-DM-18	Undetermined	Cairn(s)	Unevaluated	3,424	1,043	1,379	420	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-19	Pre-Contact	Lithic Scatter	Unevaluated	1,307	398	1,303	397	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-20	Pre-Contact	Lithic Scatter	Unevaluated	7,853	2,394	430	131	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-DM-21	Undetermined	Rock Alignment(s)	Unevaluated	4,396	1,340	562	171	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-02	Pre-Contact	Rock Pile	Unevaluated	3,607	1,099	3,582	1,092	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.

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Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
TBD	NH-MC-03	Pre-Contact	Cairn(s)	Unevaluated	1,505	459	354	108	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-04	Pre-Contact	Cairn(s)	Unevaluated	329	100	325	99	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-05	Historic	Rock Pile	Not Eligible	255	78	251	76	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-MC-06	Pre-Contact	Cairn(s)	Unevaluated	1,440	439	324	99	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-08	Undetermined	Cairn(s)	Unevaluated	349	106	345	105	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-09	Pre-Contact	Cairn(s)	Unevaluated	617	188	613	187	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-10	Historic	Road	Not Eligible	574	175	571	174	Avoided. No further management.	b) Archaeological site on private land.
TBD	NH-MC-11	Pre-Contact/	Cairn(s)	Unevaluated	2,008	612	2,012	613	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-12	Pre-Contact	Cairn(s) & Rock Alignment	Unevaluated	141	43	141	43	Existing road less than 200 feet (61 meters) from site. Road expansion, if needed, will be on the side away from the resource. Flag and monitor significant resources within 200 feet (61 meters) of disturbance. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-14	Pre-Contact	Hunting Blind(s)	Unevaluated	9,159	2,792	462	141	Avoided. Native American consultation on-going to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.

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Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
TBD	NH-MC-16	Undetermined	Rock Pile	Unevaluated	1,071	327	1,074	328	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-20	Pre-Contact	Cairn(s)	Unevaluated	774	236	778	237	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-21	Pre-Contact	Cairn(s), Hunting Blind, Rock Concentration	Unevaluated	1,694	516	1,697	517	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-22	Undetermined	Rock Pile	Unevaluated	1,357	413	3,706	1,130	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-26	Pre-Contact	Cairn(s)	Unevaluated	9,632	2,936	1,012	308	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-27	Pre-Contact/Undetermined	Cairn(s)	Unevaluated	9,860	3,005	1,144	349	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH-MC-28	Undetermined	Cairn(s) & Rock Alignment	Unevaluated	9,908	3,020	1,503	458	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH2-DM-02	Pre-Contact	Cairn(s)	Unevaluated	402	123	403	123	Avoided. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH2-DM-04	Historic	Road	Not Eligible	0	0	0	0	No significant impact. No further management.	b) Archaeological site on private land.
TBD	NH2-MC-01	Undetermined	Cairn(s)	Unevaluated	186	57	189	58	Avoided; Flag and monitor significant resources within 200 feet (61 meters) of disturbance. Native American consultation ongoing to assess potential auditory and visual impacts.	a) Potential Historic Property; b) Archaeological site on private land.
TBD	NH3-DM-01	Historic	Road	Not Eligible	3,412	1,040	2,011	613	Avoided. No further management.	b) Archaeological site on private land.

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Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
TBD	NH3-DM-02	Historic	Road	Not Eligible	3,245	989	2,131	650	Avoided. No further management.	b) Archaeological site on private land.
Historic Sites/Historic Built Environment										
TBD	NH-DM-02	Historic	Homestead	Unevaluated	0	0	0	0	Standing buildings avoided. No further management.	a) Potential Historic Property
Isolated Finds/Archaeological Objects										
N/A	NH-BB-ISO-01	Historic	Refuse	Not Eligible	190	58	190	58	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-01	Pre-Contact	Debitage	Not Eligible	0	0	298	91	Turbine Option 1: Development within 50 meters (164 feet). Shovel probing needed to confirm isolated nature. Turbine Option 2: Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-02	Historic	Refuse	Not Eligible	445	135	383	117	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-03	Pre-Contact	Groundstone	Not Eligible	22	7	62	19	Development within 50 meters (164 feet). Shovel probing needed to confirm isolated nature.	b) Archaeological object on private land.
N/A	NH-DM-ISO-04	Historic	Refuse	Not Eligible	37	11	39	12	Development within 50 meters (164 feet). Shovel probing needed to confirm isolated nature.	b) Archaeological object on private land.
N/A	NH-DM-ISO-05	Historic	Agriculture	Not Eligible	8,312	2,533	1,198	365	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-06	Historic	Refuse	Not Eligible	2,032	619	935	285	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-07	Pre-Contact	Debitage	Not Eligible	3,296	1,005	3,299	1,006	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-DM-ISO-08	Pre-Contact	Debitage	Not Eligible	518	158	516	157	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-01	Historic	Refuse	Not Eligible	629	192	625	190	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-02	Pre-Contact	Core	Not Eligible	127	39	124	38	Development within 50 meters (164 feet). Shovel probing needed to confirm isolated nature.	b) Archaeological object on private land.
N/A	NH-MC-ISO-03	Pre-Contact	Debitage	Not Eligible	205	63	208	63	Avoided. No further management.	b) Archaeological object on private land.

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Trinomial	Temporary ID	Pre-Contact/ Historic	General Resource Description	NRHP Recommendation ¹	Nearest Distance to Temporary Disturbance (Turbine Option 1) ²		Nearest Distance to Temporary Disturbance (Turbine Option 2) ²		Project Effect ³	Applicable EFSC Siting Standard
					Feet	Meters	Feet	Meters		
N/A	NH-MC-ISO-04	Pre-Contact	Debitage	Not Eligible	9,174	2,796	96	29	Turbine Option 1: Avoided. No further management. Turbine Option 2: Development within 50 meters (164 feet). Shovel probing needed to confirm isolated nature.	b) Archaeological object on private land.
N/A	NH-MC-ISO-05	Historic	Refuse	Not Eligible	10,428	3,178	6,457	1,968	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-06	Historic	Refuse	Not Eligible	2,262	690	2,265	691	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-07	Historic	Refuse	Not Eligible	10,250	3,124	481	147	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-08	Pre-Contact	Core	Not Eligible	9,823	2,994	1,627	496	Avoided. No further management.	b) Archaeological object on private land.
N/A	NH-MC-ISO-09	Pre-Contact	Debitage	Not Eligible	9,799	2,987	1,785	544	Avoided. No further management.	b) Archaeological object on private land.

1. NRHP eligibility recommendations have not yet received concurrence from SHPO. Isolated finds within 30 meters (98 feet) of the Project's final design will be shovel probed to confirm the eligibility recommendations listed here.
2. Distances are rounded to the nearest whole foot or meter.
3. Unless specified, avoided impacts and Project effects are applicable to both potential turbine options.

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3.3.1 Historic and Cultural Resources Listed, or Likely Eligible for Listing, on the National Register of Historic Places (OAR 345-021-0010(1)(s)(A))

The identification efforts described above have identified one historic property listed on the NRHP: the Oregon Trail/ONHT. Another 31 archaeological sites and one historic site are unevaluated for NRHP eligibility and treated as potentially eligible for listing on the NRHP for the purposes of this analysis.

Table S-4 lists the known historic and cultural resources listed, or that are likely eligible for listing, on the NRHP within the Analysis Area. (Additional details of these resources can be obtained in Table S-3 above or in Attachment S-2.) Locations of these resources are illustrated in confidential Attachment S-4. Additional historic properties or potential historic properties may exist in unsurveyed portions of the Analysis Area, in areas of high probability for buried archaeological resources, or in areas where poor ground surface visibility was experienced during survey.

Table S-4. Historic and Cultural Resources Listed, or Likely Eligible for Listing, on the NRHP within the Analysis Area

Resource	Resource Type
NRHP-Listed Resources	
Oregon NHT	Archaeological Site
Unevaluated/Likely NRHP-Eligible Resources	
NH-BB-03	Archaeological Site
NH-DM-01	Archaeological Site
NH-DM-02	Historic Site
NH-DM-04	Archaeological Site
NH-DM-06	Archaeological Site
NH-DM-10	Archaeological Site
NH-DM-12	Archaeological Site
NH-DM-13	Archaeological Site
NH-DM-14	Archaeological Site
NH-DM-15	Archaeological Site
NH-DM-18	Archaeological Site
NH-DM-19	Archaeological Site
NH-DM-20	Archaeological Site
NH-DM-21	Archaeological Site
NH-MC-02	Archaeological Site

Resource	Resource Type
NH-MC-03	Archaeological Site
NH-MC-04	Archaeological Site
NH-MC-06	Archaeological Site
NH-MC-08	Archaeological Site
NH-MC-09	Archaeological Site
NH-MC-11	Archaeological Site
NH-MC-12	Archaeological Site
NH-MC-14	Archaeological Site
NH-MC-16	Archaeological Site
NH-MC-20	Archaeological Site
NH-MC-21	Archaeological Site
NH-MC-22	Archaeological Site
NH-MC-26	Archaeological Site
NH-MC-27	Archaeological Site
NH-MC-28	Archaeological Site
NH2-DM-02	Archaeological Site
NH2-MC-01	Archaeological Site

3.3.2 Archaeological Objects and Sites on Private Lands within the Analysis Area (OAR 345-021-0010(1)(s)(B))

The efforts described above have identified 43 archaeological sites and 18 archaeological objects on private lands.

Table S-5 lists the known archaeological sites on private lands within the Analysis Area. (Additional details of these resources can be obtained in Table S-3 above or in Attachment S-2.) Locations of these resources are illustrated in confidential Attachment S-4. Additional archaeological sites or objects may exist in unsurveyed portions of the Analysis Area, in areas of high probability for buried archaeological resources, or in areas where poor ground surface visibility was experienced during survey.

Table S-5. Archaeological Sites and Objects on Private Lands within the Analysis Area

Resource	NRHP Status
Archaeological Sites	
Oregon NHT	Listed
NH-BB-01	Not Eligible
NH-BB-02	Not Eligible
NH-BB-03	Unevaluated
NH-BB-04	Not Eligible
NH-DM-01	Unevaluated
NH-DM-04	Unevaluated
NH-DM-05	Not Eligible
NH-DM-06	Unevaluated
NH-DM-10	Unevaluated
NH-DM-12	Unevaluated
NH-DM-13	Unevaluated
NH-DM-14	Unevaluated
NH-DM-15	Unevaluated
NH-DM-16	Not Eligible
NH-DM-17	Not Eligible
NH-DM-18	Unevaluated
NH-DM-19	Unevaluated
NH-DM-20	Unevaluated
NH-DM-21	Unevaluated
NH-MC-02	Unevaluated
NH-MC-03	Unevaluated
NH-MC-04	Unevaluated
NH-MC-05	Not Eligible
NH-MC-06	Unevaluated
NH-MC-08	Unevaluated
NH-MC-09	Unevaluated
NH-MC-10	Not Eligible

Resource	NRHP Status
NH-MC-11	Unevaluated
NH-MC-12	Unevaluated
NH-MC-14	Unevaluated
NH-MC-16	Unevaluated
NH-MC-20	Unevaluated
NH-MC-21	Unevaluated
NH-MC-22	Unevaluated
NH-MC-26	Unevaluated
NH-MC-27	Unevaluated
NH-MC-28	Unevaluated
NH2-DM-02	Unevaluated
NH2-DM-04	Not Eligible
NH2-MC-01	Unevaluated
NH3-DM-01	Not Eligible
NH3-DM-02	Not Eligible
Isolated Finds/Archaeological Objects	
NH-BB-ISO-01	Not Eligible
NH-DM-ISO-01	Not Eligible
NH-DM-ISO-02	Not Eligible
NH-DM-ISO-03	Not Eligible
NH-DM-ISO-04	Not Eligible
NH-DM-ISO-05	Not Eligible
NH-DM-ISO-06	Not Eligible
NH-DM-ISO-07	Not Eligible
NH-DM-ISO-08	Not Eligible
NH-MC-ISO-01	Not Eligible
NH-MC-ISO-02	Not Eligible
NH-MC-ISO-03	Not Eligible
NH-MC-ISO-04	Not Eligible

Resource	NRHP Status
NH-MC-ISO-05	Not Eligible
NH-MC-ISO-06	Not Eligible
NH-MC-ISO-07	Not Eligible

Resource	NRHP Status
NH-MC-ISO-08	Not Eligible
NH-MC-ISO-09	Not Eligible

3.3.3 Archaeological Sites on Public Lands within the Analysis Area (OAR 345-021-0010(1)(s)(C))

There are no public lands within the Analysis Area.

4.0 Significant Potential Impacts of Construction and Operation, and Retirement of the Facility on Historic, Cultural, and Archaeological Resources – OAR 345-021-0010(1)(s)(D)

ORS 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:

- (i) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the SHPO 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;*

The Project, taking into account mitigation, has been designed to avoid significant impacts on historic, cultural, and archaeological resources identified within the Analysis Area. The majority of known resources have been avoided through Project design (see Table S-2). Avoidance has been achieved either through spanning overhead lines over the resource or through moving Project components. Avoidance of these resources will be ensured through monitoring during construction (see Sections 4.1 and 5). Despite this effort, some impacts may occur as a result of the Project. All impacts will be mitigated to less than significant.

All identified resources meeting siting standard A (NRHP-listed or likely eligible for listing on the NRHP) are avoided in both turbine option scenarios by a minimum of 50 meters (164 feet; see Table S-3 above) with three exceptions: the ONHT, one archaeological site (NH-MC-12), and one historic site (NH-DM-02).

- The ONHT crosses the potential UEC Cottonwood and BPA Stanfield transmission line routes. Only the UEC Cottonwood route crossing was accessible during surveys conducted for the Project, and no trail ruts were identified in the corridor. The conditions of the trail in the BPA transmission line corridor are unknown at this time. Survey of the BPA Stanfield transmission line corridor is anticipated to be completed in spring 2020. The Applicant will design the selected transmission line route to avoid direct impacts to any identified trail ruts as well as the National Park Service–designated ONHT route. Any indirect visual or auditory impacts will be determined and mitigated through consultation with SHPO and the Oregon-California Trails Association (OCTA). This additional work will occur on a continuing basis. Any indirect impacts on the ONHT and associated archaeological sites are anticipated to be mitigated to less than significant.
- The disturbance footprint associated with the BPA Stanfield transmission line is within 30 to 50 meters (98 to 164 feet) of pre-contact site NH-MC-12. The site will be monitored during construction to ensure significant impacts are avoided. The site will also be specifically addressed through consultations with the CTUIR.
- Although a disturbance area associated with a new access road is proposed within the site boundary of NH-DM-02 under each turbine option scenario, the site consists of a standing historic building and structure, which are set back farther from the disturbance footprint. The road avoids the aboveground features of the site, and the proximity of the road to the historic site boundary is therefore not anticipated to have a significant impact. As such, significant impacts on the site are not anticipated as a result of the Project.

In addition, all identified resources meeting siting standard B (archaeological sites and objects on private land) are avoided in both potential turbine option scenarios by a minimum of 50 meters (164 feet; see Table S-3 above), with the following exceptions: the ONHT, three archaeological sites (NH-DM-05, NH-MC-12, and NH2-DM-04), and five isolated finds/archaeological objects (NH-DM-ISO-01, NH-DM-ISO-03, NH-DM-ISO-04, NH-MC-ISO-02, and NH-MC-ISO-04).

- As noted above, the ONHT crosses the potential UEC Cottonwood and BPA Stanfield transmission line routes. No ruts were observed by the pedestrian survey where the UEC Cottonwood route crosses the ONHT. The BPA Stanfield route crossing of the ONHT has not yet been surveyed due to access restrictions but is planned to be surveyed for cultural resources in Spring 2020. Under either alternative, the selected transmission line will span the ONHT and associated archaeological sites to avoid any direct impacts to it. Additionally, the Applicant will consult SHPO and the OCTA to address indirect impacts.
- The disturbance area of a new access road in Turbine Option 2 intersects NH-DM-05, a historic road recommended as not eligible for listing on the NRHP. A new access road under

both turbine options intersects NH2-DM-04, another historic road segment that has been recommended as not eligible for listing on the NRHP. Any impacts to both sites are considered not significant given their NRHP eligibility recommendations.

- The disturbance area of the BPA Stanfield transmission line route is within 50 meters (164 feet) of NH-MC-12, a pre-contact cairn(s) and rock alignment, under both turbine options. The analysis area and survey corridors are of sufficient width to allow adjustment in final design as necessary. If this route is selected by the Applicant, the final route will be designed to avoid temporary disturbance within 50 meters (164 feet) of NH-MC-12. If temporary disturbance within the 50-meter buffer cannot be avoided, monitoring of the site is proposed in order to avoid significant impacts on the site.
- Under both turbine options, NH-DM-ISO-03 and NH-DM-ISO-04 are less than 30 meters (98 feet) from the disturbance area. Under turbine Option 1, a disturbance area intersects the location of NH-DM-ISO-01. These isolated finds/archaeological objects have been recommended as not eligible for listing on the NRHP, but will be shovel probed prior to construction to confirm the resources are isolated finds and not representative of archaeological sites. Additional mitigation, if necessary, will be identified following these efforts to reduce any identified significant impacts to less than significant.
- Under both turbine options, NH-MC-ISO-02 is less than 50 meters (164 feet) from the proposed disturbance areas. Under turbine Option 2, NH-MC-ISO-04 is within 50 meters (164 feet) of the proposed disturbance area. These locations will be monitored during construction.

A total of 29 archaeological sites within the Analysis Area may be indirectly impacted through visual or auditory impacts (Table S-6). All are subject to EFSC standards A (cultural resources potentially eligible for listing on the NRHP) and B (archaeological site on private land). These resources are of concern to the CTUIR as HPRCSITs. Combined with other traditional resource concerns identified in their TUS (Engum 2018), the CTUIR has concluded that the proposed Project could potentially have an adverse effect on the identified HPRCSITs (sites in Table S-6 and other confidential resources). The Applicant is continuing to coordinate with the CTUIR regarding Project effects and how to minimize or mitigate potentially significant impacts. Impacts are being mitigated through these consultations between the Applicant and CTUIR outside of the EFSC process. Any necessary additional work identified through these consultations will occur prior to construction.

Table S-6. Archaeological Resources That Require Continued Native American Consultation

• NH-DM-01	• NH-DM-21	• NH-MC-16
• NH-DM-04	• NH-MC-02	• NH-MC-20
• NH-DM-10	• NH-MC-03	• NH-MC-21
• NH-DM-12	• NH-MC-04	• NH-MC-22
• NH-DM-13	• NH-MC-06	• NH-MC-26
• NH-DM-14	• NH-MC-08	• NH-MC-27
• NH-DM-15	• NH-MC-09	• NH-MC-28
• NH-DM-18	• NH-MC-11	• NH2-DM-02
• NH-DM-19	• NH-MC-12	• NH2-MC-01
• NH-DM-20	• NH-MC-14	

In addition to the above resource-specific management recommendations, SHPO guidelines (SHPO 2013) require subsurface probing of poor ground surface visibility and areas of high probability for buried archaeological sites. Such areas within the Analysis Area are depicted in confidential Attachment S-4. Most of the areas of poor ground surface visibility are along the tops of ridgelines away from freshwater sources and on slopes. While stacked rock features, such as those that dominated the surveys in the Analysis Area, are typically found on ridgelines, this site type remains readily identifiable despite poor ground surface visibility. Ridgeline tops and slopes also experience higher rates of erosion and lower rates of soils deposition. As such, the likelihood of identifying additional archaeological sites, on the surface or subsurface, is considered low to moderate in those areas. An exception is made in areas where site distribution patterns suggest a higher likelihood for archaeological sites. General recommendations for subsurface probing in the Analysis Area are summarized in Table S-7 below (in Section 4.1). Shovel probing of high probability or poor ground surface visibility areas will be limited to the final siting corridor selected for the Project. These efforts and any resulting recommended mitigation measures will occur following issuance of the Site Certificate, but prior to construction.

As noted above, there are portions of the Analysis Area that have not been surveyed for cultural resources. These unsurveyed areas may include additional cultural resources not noted above, which may be subject to the EFSC standards. The buffered survey corridors that form the Analysis Area allow for the Project to be designed to avoid direct impacts to identified cultural resources. Impacts to any resources identified by future surveys in unsurveyed areas and subject to the EFSC standards that cannot be avoided by the Project will be mitigated to less than significant. This may include data recovery and/or consultations with CTUIR, SHPO, and/or OCTA, as appropriate. This additional work is anticipated to occur in Spring 2020 or after receipt of the Site Certificate, once access has been achieved, and prior to construction. Any indirect impacts are anticipated to be mitigated to less than significant.

4.1 Measures Designed to Prevent the Destruction of Historic, Cultural, and Archaeological Resources

As noted above, the Project has been designed to avoid significant impacts to cultural resources. Several measures to prevent the destruction of historic, cultural, and archaeological resources have been identified by the Applicant. These are outlined below in Table S-7 and are described in confidential Attachment S-5.

Table S-7. Cultural Resources Management Recommendations

Recommendation	Description
Complete Pedestrian Survey Coverage	Following receipt of the Site Certificate, once access to inaccessible and unsurveyed areas has been achieved, and prior to construction, the remainder of the Analysis Area that has not been surveyed for cultural resources for the Project will be surveyed. Methodologies employed will be the same as documented in confidential Attachment S-2. Results of the survey, including mitigation measures necessary to avoid significant impacts, will be documented in a supplemental survey report and submitted to ODOE, SHPO, and CTUIR for review and comment.
Shovel Probing Plan	For the isolated finds (IFs) within 50 meters (164 feet) of a Project component in the final design, as well as the high probability and poor ground surface visibility areas within the final Siting Corridor, a shovel probing plan should be drafted. The plan will provide area-specific methodologies for areas of poor ground surface visibility, areas of high probability for buried resources, and each IF where probing is necessary. Probing should occur following issuance of a site certificate by EFSC, but prior to construction. Results of probing should be documented in an Extended Phase I report and include any further management recommendations. The plan and report should be submitted to ODOE, SHPO, and interested tribes for review and comment. Results should also be amended into the Construction Monitoring Plan, as appropriate.
Implement Construction Monitoring and Inadvertent Discovery Plan	A plan outlining requirements for monitoring during construction and procedures for inadvertent discoveries during construction is being drafted in consultation with the CTUIR (Attachment S-5). The plan will include minimum avoidance buffers/markers around cultural resources, construction monitoring requirements, and procedures to follow in the event of a discovery of an archaeological resource during construction. It will be updated as necessary following completion of the above indirect impact assessment and shovel probing. Results of monitoring and any efforts conducted as a result of the inadvertent discovery protocols shall be documented in a Monitoring Report.
Continued Coordination with Native Americans	For the resources that may be indirectly impacted by visual and/or auditory effects of the Project, the Applicant should continue consultations with the CTUIR to assess any indirect Project impacts. The Applicant should continue their coordination and open communications with the CTUIR and other interested tribes throughout the Project to avoid impacting cultural resources, including HPRCSITs. Tribal consultation will occur outside of the EFSC process.

5.0 Proposed Monitoring Plan – OAR 345-021-0010(1)(s)(E)

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.

As stated above, a monitoring and inadvertent discovery plan for the Project is being drafted in consultation with the CTUIR. A working draft of the plan is provided as confidential Attachment S-5 to this exhibit.

6.0 Conclusion

Based on the evidence presented in this exhibit, in accordance with OAR 345-022-0090, the Council may find that the construction, operation, and retirement of the Project, taking into account mitigation, is not likely to result in significant adverse impacts to historic, cultural, or archaeological resources that are eligible or potentially eligible for listing on the NRHP.

7.0 References

- Engum, Jennifer Karson. 2018. *Traditional Use Study for the Proposed Nolin Hills Wind Project, Umatilla County, Oregon*. Confederated Tribes of the Umatilla Indian Reservation, Department of Natural Resources, Cultural Resources Protection Program, Pendleton, Oregon. Submitted to Tetra Tech, Inc., Portland, Oregon. Contract No. 1140031.
- King, Erin, Douglas Mitchell, and Tia Cody. 2019. *Cultural Resources Pedestrian Survey Report, Nolin Hills Wind Power Project, Umatilla County, Oregon*. Tetra Tech, Inc., Portland, California. Submitted to Nolin Hills Wind, LLC. SHPO Case No. 17-1679. Tetra Tech Project #194-6029.
- King, Erin, and Brady Berger. 2019. *Cultural Resources Pedestrian Survey Report Addendum 1, Nolin Hills Wind Power Project, Umatilla County, Oregon. (Draft)* Tetra Tech, Inc., Portland, California. Submitted to Nolin Hills Wind, LLC. SHPO Case No. 17-1679. Tetra Tech Project #194-6029.
- SHPO (Oregon State Historic Preservation Office). 2013. *Guidelines for Conducting Field Archaeology in Oregon*. Oregon State Historic Preservation Office, Salem, Oregon. November 2013, minor revision January 2016.

Figures

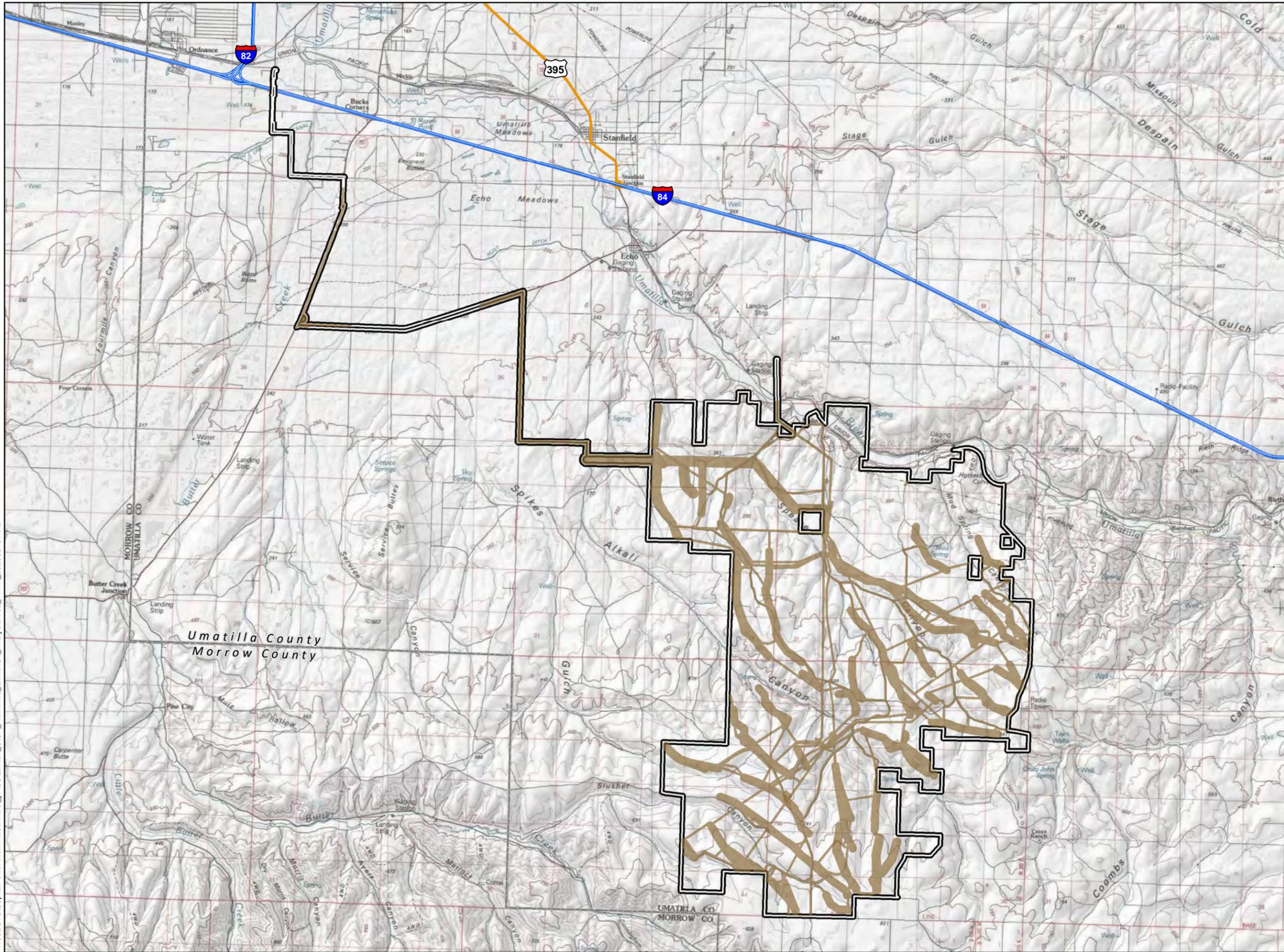
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Nolin Hills Wind Power Project

Figure S-1
Project Boundary and Analysis Area

UMATILLA COUNTY, OREGON

-  Proposed Site Boundary
-  Analysis Area
-  Interstate Highway
-  Secondary Highway
-  County Boundary



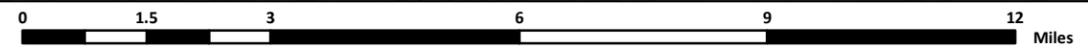
Data Sources

Capital Power-Project Infrastructure;
USDA-Aerial Imagery; ESRI-Roads;
Enterprise-State, County boundaries

Reference Map



1:140,000 WGS 1984 UTM Zone 11N



NOT FOR CONSTRUCTION

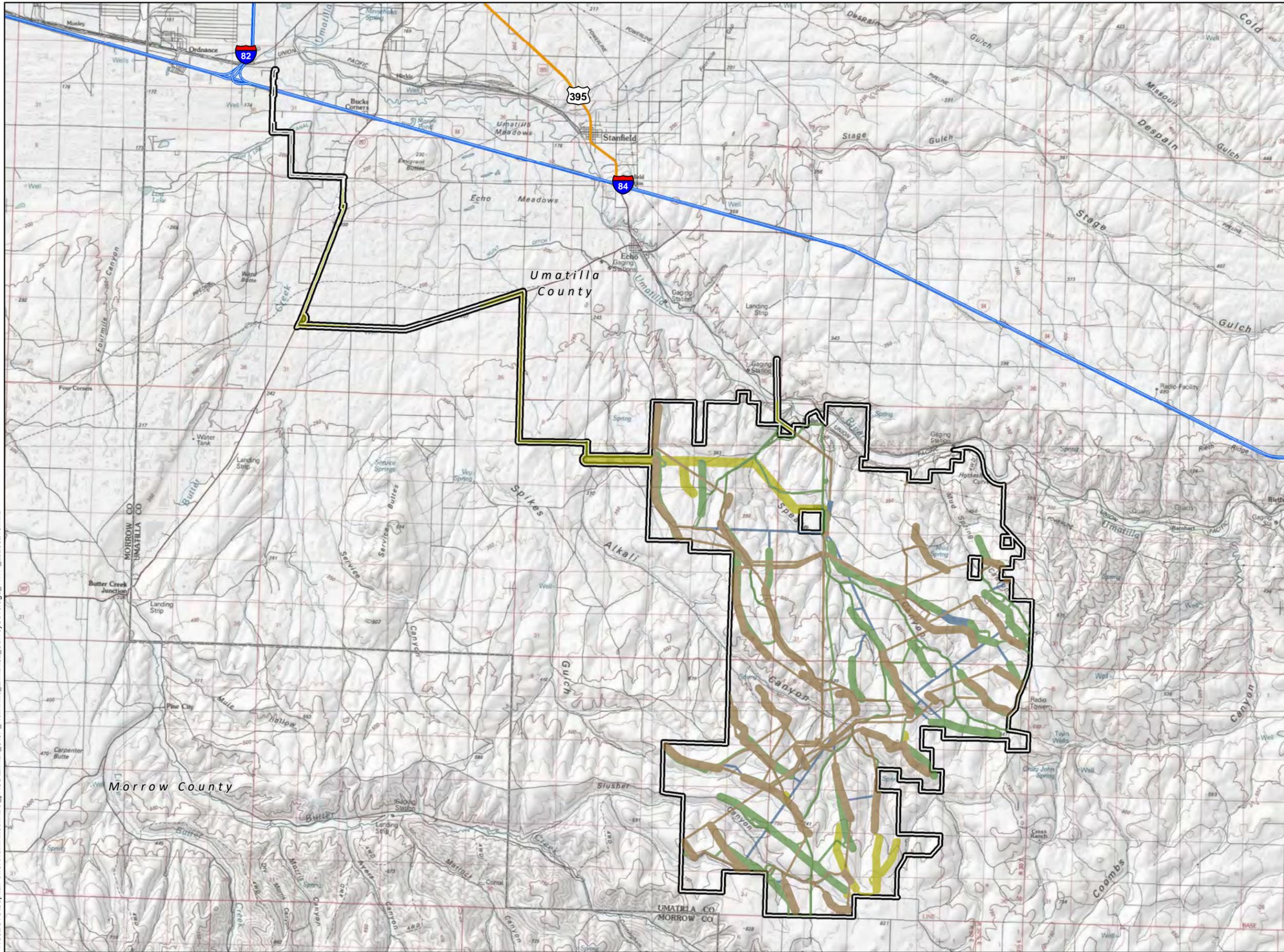
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Nolin Hills Wind Power Project

Figure S-2
Survey Coverage of Project Site
Boundary and Analysis Area

UMATILLA COUNTY, OREGON

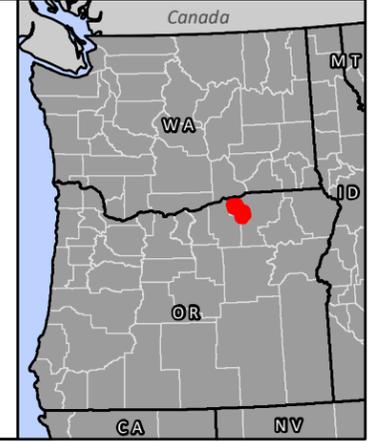
-  Proposed Site Boundary
-  2017 Survey Area
-  2018 May Survey Area
-  2018 August Survey Area
-  2019 Survey Area
-  Interstate Highway
-  Secondary Highway
-  County Boundary



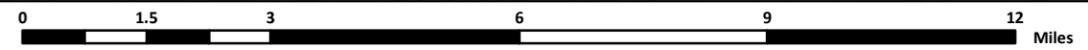
Data Sources

Capital Power-Project Infrastructure;
USDA-Aerial Imagery; ESRI-Roads;
Enterprise-State, County boundaries

Reference Map



1:140,000 WGS 1984 UTM Zone 11N



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Attachment S-1. Tribal Coordination

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Date	Tribe/Agency	Comment
6/12/2017	Oregon Legislative Commission on Indian Services	E-mail/Letter inquiry request for tribal contacts with an interest in the Project area.
6/12/2017	Oregon Legislative Commission on Indian Services	E-mail with list of tribes with interest in the Project area.
6/13/2017	CTUIR/Applicant	Meeting between CTUIR and Applicant to introduce Project and discuss CTUIR concerns.
6/19/2017	Confederated Tribes of the Warm Springs Reservation; Nez Perce Tribe; Confederated Tribes and Bands of the Yakama Nation	Inquiry letters sent by Applicant to tribes with Project information, records search results, and invitation for formal and informal comment on Project.
7/5/2017-7/26/2017	CTUIR	CTUIR monitors participated in pedestrian survey with Tetra Tech.
10/5/2017	ODOE	E-mail to Nez Perce tribe requesting comments on Notice of Intent.
10/6/2017	Nez Perce Tribe	E-mail to EFSC ODOE deferring comment to CTUIR.
5/15/2018	CTUIR	CTUIR monitor participated in pedestrian survey with Tetra Tech.
5/16/2018	CTUIR/Applicant	Meeting between CTUIR and Applicant to provide update on Project and schedule, EFSC process, First Foods/Ethnobotany study, and the TUS results and potential mitigation measures.
1/16/2019	CTUIR/Applicant	Draft original survey report for wind turbine area e-mailed to CTUIR by Applicant.
3/25/2019	Applicant	E-mail to CTUIR with details of potential transmission line routes for application.
4/30/2019	CTUIR/Applicant	Meeting between CTUIR and Applicant to provide update on Project and schedule, review of environmental surveys conducted to date, visual effects, introduce transmission line components of the Project, avoidance of stacked rock features by the Project, NRHP eligibility of the stacked rock features, developing a working draft monitoring and inadvertent discovery plan, and results of the First Foods/Ethnobotany study.
7/8/2019-7/13/2019	CTUIR	CTUIR monitor participated in pedestrian survey with Tetra Tech.
7/10/2019	CTUIR/Tetra Tech	Comments on draft original survey report for wind turbine area e-mailed to Tetra Tech from CTUIR.
8/22/2019	CTUIR/Applicant	First draft of monitoring and inadvertent discovery plan e-mailed to CTUIR from Applicant. A near distance analysis for resources and turbines is also included.
10/29/2019	CTUIR/Applicant	Meeting between CTUIR and Applicant to provide update on Project and schedule, EFSC process, pedestrian survey results, and discuss identified resources of tribal concern and the monitoring and inadvertent discovery plan.
2/1/2020	CTUIR/Applicant	Anticipated that revised draft of monitoring and inadvertent discovery plan will be provided to CTUIR from Applicant. A near distance analysis for resources and turbines and ground disturbance will also be included.

**Attachment S-2. Cultural Resources
Survey Reports
(CONFIDENTIAL)**

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Attachment S-3. CTUIR Traditional Use Study Executive Summary

(CONFIDENTIAL)

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**Attachment S-4. Cultural Resource
Locations within the Project Site
Boundary and Analysis Area
(CONFIDENTIAL)**

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**Attachment S-5. Working Draft
Monitoring and Inadvertent Discovery
Plan
(CONFIDENTIAL)**

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