Historic, Cultural and Archaeological Resources Exhibit

Cascade Renewable Transmission

Wasco, Hood River, and Multnomah Counties, Oregon

February 2026

Prepared for
Cascade Renewable Transmission, LLC

Submitted to
Oregon Energy Facility Siting Council

Contents

Tables

Attachment

Acronyms

AC	alternating current
APE	Area of Potential Effects
Applicant	Cascade Renewable Transmission, LLC (CRT)
ARPA	Archaeological Resources Protection Act
BPA	Bonneville Power Administration
BLM	Bureau of Land Management
CFR	Code of Federal Regulations
CRGNSA	Columbia River Gorge National Scenic Area
DEM	digital elevation model
GLO	General Land Office
GNSS	global navigation satellite system
HDR	HDR Engineering, Inc.
HPA	High Probability Area
HPRCSIT	Historic Properties of Religious and Cultural Significance to Indian Tribes
kV	kilovolt
NADB	National Archaeological Database
NHPA	National Historic Preservation Act
NRHP	National Register of Historic Places
MA	Master of Arts
OAR	Oregon Administrative Rules
OARRA	Oregon Archaeological Records Remote Access
OHSD	Oregon Historic Sites Database
OR EFSC	Oregon Energy Facility Siting Council
ORS	Oregon Revised Statutes
ROW	right-of-way
RPA	Register of Professional Archaeologists
SHPO	State Historic Preservation Office/Officer
SOI	Secretary of the Interior
SR 197	State Route 197
TCP	Traditional Cultural Place
UOMNCH	University of Oregon Museum of Natural and Cultural History
USACE	United States Army Corps of Engineers
U.S.C.	United States Code
USGS	U.S. Geological Survey
WISAARD	Washington Information System for Architectural and Archaeological Records Data

1 Introduction

Cascade Renewable Transmission, LLC (CRT, or Applicant) is proposing a (400-kilovolt [kV]) high-voltage direct current (HVDC) 1,100-megawatt electric transmission facility. The facility would connect the existing Bonneville Power Administration's (BPA) Big Eddy 500-kV alternating current (AC) substation located near The Dalles, Oregon, and the existing Portland General Electric Harborton 230-kV AC substation located in Portland, Oregon (the Project). The Project runs along the bed of the Columbia River (Oregon and Washington) from The Dalles, Wasco County, Oregon, to Portland, Multnomah County, Oregon.

The Project requires permits from the U.S. Army Corps of Engineers (USACE). Accordingly, the Project is considered a federal undertaking and subject to compliance with Section 106 of the National Historic Protection Act (NHPA; 54 United States Code [U.S.C.] § 306108) and implementing regulations 36 Code of Federal Regulations (CFR) Part 800. The USACE has assumed lead federal agency status for the undertaking.

To support Project siting and permitting, the Applicant's consultant, HDR Engineering, Inc. (HDR) conducted agency and Tribal coordination, cultural resources background review (e.g., archival and records search), cultural resources surveys within the inventory area, archaeological monitoring of sediment sampling in the Columbia Riverbed, and viewshed analyses for the proposed new eastern and western converter stations (Uldall et al. 2025a and 2025b; Uldall and Ferris 2025a and 2025b). Additionally, GeoVisions, Inc. performed cultural monitoring during HDR's survey on non-federal public lands in Oregon. The cultural resources inventory area is within the Project's area of potential effects (APE), which was determined by the USACE in consultation with the NHPA Section 106 parties[1] pursuant to 36 CFR Part 800.4.

The exhibit provides information on the historic, cultural, and archaeological resources that may potentially be impacted by the Project and demonstrates that the Project will comply with the Oregon Energy Facility Siting Council (OR EFSC) Historic, Cultural, and Archaeological Resources Standard, Oregon Administrative Rule (OAR) 345-022-0090. HDR is currently evaluating documented cultural resources for National Register of Historic Places (NRHP) eligibility and preliminarily assessing Project effects. HDR's recommendations will be presented in the forthcoming NHPA Section 106 cultural resources inventory report (Uldall et al. 2025a), which will be submitted to the USACE in support of its consultation under Section 106 of the NHPA. As of December 1, 2025, cultural resources fieldwork in Oregon was in progress, and completion of the forthcoming NHPA Section 106 cultural resources inventory report is anticipated in 2026. This exhibit will be updated and submitted to OR EFSC after all surveys are completed.

The USACE will consult with the NHPA Section 106 parties regarding its determinations of eligibility and Project effects, which will be provided to OR EFSC. Information concerning the location of archaeological sites or objects is exempt from public disclosure under Oregon Revised Statute

[1] The NHPA Section 106 consulting parties include Burns Paiute Tribe, Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Grand Ronde Community of Oregon, Confederated Tribes of Siletz, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Cowlitz Indian Tribe, Nez Perce Tribe, Oregon State Historic Preservation Office (SHPO), United States Forest Service Columbia River Gorge National Scenic Area (CRGNSA), and Washington Department of Archaeology and Historic Preservation (DAHP).

(ORS) 192.501(11). Therefore, such information, including archaeological survey reports, will be provided confidentially to the Oregon Department of Energy.

2 Analysis Area

Pursuant to the Project Order, the Analysis Area for this exhibit includes the area within the site boundary for all resources, the area extending 1 mile from portions of the site boundary containing aboveground facility components (for aboveground resources), and any downstream areas of impact. Desktop and field studies included areas that may be directly and indirectly impacted by the Project.

The cultural resources inventory area for archaeological and historic built environment resources is within the Analysis Area and comprises areas where Project-related ground disturbing activities are anticipated. The terrestrial portion of the inventory area in Oregon includes a 25-foot (8-meter) buffer on either side of the centerline for the proposed cable alignment for a total width of 50 feet (15 meters) in most areas. Proposed access roads also include a 50-foot (15-meter) buffer on either side of the road centerline for a total inventory area width of 100 feet (30 meters). A large portion of the terrestrial portion of the inventory area in Oregon comprises asphalt roadways and gravel road shoulders. The portion of the inventory area within the Columbia River includes a 50-foot (15-meter) buffer on either side of the proposed alignment centerline for a total width of 100 feet (30 meters).

In total, the cultural resources inventory area for archaeological and historic built environment resources encompasses approximately 1,223 acres, approximately 756 of which are in Oregon. Of the approximately 756 acres of the inventory area within Oregon, approximately 192 acres are terrestrial. Cultural resources surveys in these terrestrial areas are underway at the time of this exhibit's compilation. The remaining 564 acres are part of the in-river inventory area. Nineteen locations in the Columbia River in Oregon were monitored for archaeological resources during sediment sampling activities; no archaeological resources were identified during the sampling monitoring.

3 Historic, Cultural, and Archaeological Resources (OAR 345-022-0090(1) and (4))

(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 and cultural or archaeological resources that have been listed on, or would likely be eligible for listing, 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).

RESPONSE

Subsection (1) of the Historic, Cultural, and Archaeological Resources Standard at OAR 345-022-0090(1) requires that the Applicant demonstrate that construction and operation of the Project, taking into account mitigation, is unlikely to result in significant adverse impacts to identified resources. The Applicant is committed to meeting this standard and as demonstrated by the evidence provided here and in the forthcoming NHPA Section 106 cultural resources inventory report (Uldall et al. 2025a).

"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 byproducts, and dietary by-products. For the purposes of this analysis, isolated finds are considered archaeological objects.

3.1 Inventory Methodology

The effort to complete the Applicant's cultural resources inventory is guided by four main goals aimed at ensuring compliance with OR EFSC standards. These goals include (1) identification of cultural resources within the Analysis Area that could be impacted by the Project (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 standards (OAR 345-022-0090); and (4) assessment of potential Project impacts on protected resources. The methods used to perform

the background review, archaeological and historic built environment inventory, consultation and coordination with Indian Tribes, and Traditional Use Studies are described below.

HDR's cultural resources inventory consisted of the following components: background review of existing cultural resources data; cultural resources surveys of the terrestrial portion of the inventory area, including a reconnaissance-level historic built environment survey and pedestrian and subsurface archaeological surveys (in progress as of December 1, 2025); archaeological monitoring of sediment sampling in the Columbia River; and two viewshed analyses. All fieldwork and subsequent reporting were completed in accordance with the NHPA Section 106, the Archaeological Resources Protection Act (ARPA) for federal land portions, and applicable state guidelines, including the State of Oregon Guidelines for Historic Resource Surveys in Oregon (State Historic Preservation Office [SHPO] 2011), and Guidelines for Conducting Field Archaeology in Oregon (SHPO 2013).

The USACE initiated NHPA Section 106 consultation related to the Project on October 1, 2024. The Applicant and its consultant HDR have continued outreach with the NHPA Section 106 consulting parties, including the Indian Tribes listed in Table 1. The Applicant contracted with Warm Springs GeoVisions to perform tribal monitoring during the archaeological survey performed under an Oregon Archaeological Excavation and Collection Permit. Additionally, the Applicant has contracted with the following Indian Tribes for Tribal Use Studies: Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of Grand Ronde Community of Oregon, , and Nez Perce Tribe, and is coordinating with Warm Springs GeoVisions to contract a Traditional Use Study on behalf of the Confederated Tribes of the Warm Springs Reservation of Oregon. Results of these studies will be shared in the future with OR EFSC and USACE according to each participating Tribe's confidentiality protocols.

3.1.1 Background Review

HDR performed desktop review for the Project. The review was initially performed in November 2022 with additional reviews in 2023, 2024, and 2025, following changes to the Project alignment and during development of archaeological survey permit applications and drafting of the NHPA Section 106 technical report. The desktop review included the Oregon Archaeological Records Remote Access (OARRA) database, the Washington Information System for Architectural and Archaeological Records Data (WISAARD) database, the Archaeological Bibliographic Database, and the Oregon Historic Sites Database (OHSD). The review focused on previously conducted cultural resources surveys and previously recorded archaeological resources (i.e., sites and isolates), traditional cultural places (TCPs), and historic built-environment resources within 0.25 mile (0.4 kilometers) of the cultural resources inventory area.

In addition, HDR performed historic map reviews of General Land Office (GLO) plat maps from the Bureau of Land Management (BLM), U.S. Geological Survey (USGS) topographic maps, and other historic maps and aerial imagery created by agencies such as the USACE and early non-Native explorers of the region to assess the potential for encountering cultural resources. Other online and printed archival documents were reviewed for information related to the cultural history and potential cultural resources that may be within the inventory area.

HDR also performed in-person research at the Confederated Tribes of the Umatilla Indian Reservation in November 2025 regarding their prior Traditional Use Studies intersecting the Analysis Area.

3.1.2 Cultural Resources Surveys

HDR's cultural resources inventory consisted of multiple sessions of reconnaissance-level historic built environment survey, pedestrian and subsurface archaeological surveys, and archaeological monitoring of sediment sampling in the Columbia River. Email notifications were sent to the NHPA Section 106 consulting parties prior to archaeological field investigations to inform them of the fieldwork and invite them to observe (see Table 1 in Section 3.1.). Additionally, two viewshed desktop analyses were performed.

HDR performed the field surveys in all accessible areas of the terrestrial portion of the inventory area. A permit application for archaeological investigations under the authority of the ARPA of 1979 and the Antiquities Act of 1906 was required to perform pedestrian survey and subsurface survey on property owned by BPA. HDR cultural resources specialists submitted an archaeological permit application to the BPA on December 23, 2024. ARPA Permit No. 2025-005 was granted on March 14, 2025. A permit to perform subsurface surveys within non-federal public lands in Oregon (i.e., Port of Portland and the Oregon Department of Transportation) was required from the Oregon SHPO. On February 2, 2025, HDR cultural resources specialists submitted an Archaeological Excavation and Collection Permit application to the Oregon SHPO. Permit conditions and/or objections were received from the Confederated Tribes of Grand Ronde Community of Oregon, Confederated Tribes of the Warm Springs Reservation of Oregon, Port of Portland, and Metro. HDR updated its permit application to address the objections and resubmitted the application on May 22, 2025. The Oregon SHPO issued Archaeological Excavation and Collection Permit No. AP 4121 to HDR on July 1, 2025, with conditions from the Confederated Tribes of Grand Ronde Community of Oregon and Confederated Tribes of the Warm Springs Reservation of Oregon. HDR is currently preparing an amendment to its Oregon Archaeological Excavation and Collection Permit (AP 4121) because parcels were removed from the Project following the issuance of the permit that constituted a portion of the Permit Area in Portland.

In addition, rights-of-entry for private lands and conditional use permits for state and county road rights-of-way (ROWs) were obtained prior to commencing field surveys on applicable lands.

3.1.2.1 Archaeological Pedestrian Survey

The archaeological pedestrian survey consisted of a visual inspection of the inventory area. Transects were walked, as accessible, next to highways and roadways along the transmission line alignment, and in systematic (e.g., north-south or east-west) transects spaced no more than 20 meters (65 feet) apart within new converter station locations, horizontal directional drilling entry/exit point locations, and staging areas. The ground surface was visually inspected during the pedestrian survey for artifacts, features, and other evidence of cultural resources. Overview photographs were taken of the inventory area that include general conditions (e.g., ground surface visibility, slope, and vegetation), previous ground disturbance (e.g., road grade, agricultural, commercial, industrial, or residential development), and other features within or near the inventory area such as fences, culverts, and railroad grades. The field director kept a daily log of activities with photographs, including overviews of the areas surveyed during all fieldwork. An iPad with an external global navigation satellite system (GNSS) receiver that achieved submeter accuracy was used to document the pedestrian survey coverage and identified cultural resources.

3.1.2.2 Archaeological Subsurface Survey

Shovel Probe Excavation

Subsurface survey was performed in Oregon and consisted of shovel probe excavations. Shovel probes were placed at approximately 66-foot (20-meter) intervals, as accessible, in the inventory area, including High Probability Areas (HPAs) and non-HPA locations (see Section 3.2.1). The placement of shovel probes was adjusted accordingly to avoid obvious prior ground disturbances, existing utilities, infrastructure, filled areas, hazardous terrain and steep slopes, and/or dense vegetation. Shovel probes had a diameter of approximately 40 centimeters (16 inches) and were excavated stratigraphically in 20-centimeter (8-inch) intervals to a minimum depth of 50 centimeters (20 inches) according to Oregon SHPO guidelines (or to 100 centimeters [39 inches], when feasible), or until cultural sterile sediments (e.g., glacial sediments), impenetrable sediments, and/or cobbles were encountered. Excavated sediments were screened though an 1/8-inch or nested 1/4 and 1/8-inch hardware screen mesh onto a drop cloth while being examined for archaeological resources. Sediments encountered during survey were documented according to professional standards, including sediment type, color, compaction, gravel content, and depth of deposit. Sediment profiles and overviews of each shovel probe were photographed before backfilling. Shovel probe locations were recorded using the iPad with external GNSS receiver.

Auger Excavation

Manual bucket augers were implemented systematically in excavated shovel probes, typically in every third to fifth shovel probe, as accessible, to reach greater depths (up to 200 centimeters [79 inches]). Placement of the bucket augers focused on areas where there were significant deposits of modern fill or sedimentation and where examination of deeper sediments was warranted.

Artifact Collection

If located on private lands in Oregon, archaeological resources were recorded, photographed, measured, and backfilled in their respective shovel/auger probe. However, if artifacts were found during shovel probing in federal or non-federal public lands in Oregon, they were collected for subsequent laboratory analysis and curation in accordance with the respective permits (i.e., BPA ARPA and Oregon SHPO Archaeological Excavation and Collection permits). Archaeological resources that were identified during subsurface investigation that were associated with nearby previously recorded archaeological sites or that had potential to be within a newly recorded archaeological site preempted the termination of the shovel probe excavation to avoid further disturbance to the resource.

3.1.2.3 Resource Recordation and Delineation

Archaeological resources were recorded or re-recorded following the Secretary of the Interior's (SOI) Standards and Guidelines for Archaeology and Historic Preservation (NPS 1983) and Oregon SHPO guidelines (SHPO 2013).

If archaeological resources were observed during the pedestrian survey, they were photographed and recorded on an electronic tablet using the ArcGIS Field Maps application and a GNSS satellite receiver with sub-meter accuracy (e.g., EOS Arrow or Trimble DA2). Descriptive and metric attributes were documented following professional standards and artifacts were left in place.

If an archaeological isolated find was identified during the subsurface survey, radial shovel probes were excavated around subsurface isolated archaeological resources to delineate an isolate boundary according to Oregon SHPO guidelines (SHPO 2013). No radial shovel probes were placed closer than 30 meters from the observed boundary of an archaeological site and no excavation occurred within known site boundaries.

3.1.2.4 Laboratory Analysis and Curation

All artifacts found in Oregon under the BPA ARPA Permit No. 2025-005 or Oregon SHPO Archaeological Excavation and Collection Permit AP 4121 were transported to HDR's secure lab in Portland where they underwent descriptive and metric analyses. All analyses were overseen by SOI- and state-qualified archaeologists and conducted by qualified HDR staff with training in laboratory and curation procedures. Lab analysis, procedures, and reporting were conducted in accordance with Oregon SHPO guidelines (SHPO 2013). Specific analyses depended on the types of artifacts recovered and in general included the following considerations: artifact identification number/provenience; raw material; class; count; weight; dimensions; type; and noteworthy attributes. As feasible, precontact cultural materials were assessed to identify associated cultures or time periods and considered material and artifact type, function, reduction sequences, use wear, retouch, heat treatment, or other evidence of human use and/or modifications. Historic cultural materials were assessed to identify chronological association, category, material and artifact type, make/manufacturer, and function. Identified and analyzed artifacts informed overall site assessments.

Digital photographs with appropriate scales were taken of all artifacts, with formal and/or temporally diagnostic artifacts photographed separately. Representative photographs of lithic debitage or other artifacts of numerous quantities (e.g., glass fragments or ceramic shards) were taken.

The collected artifacts are being prepared for curation in accordance with the SOI's guidelines for archaeological curation. In general, all recovered artifacts were cleaned using the gentlest appropriate method, cataloged, labeled, and bagged individually or by type in appropriately sized, self-sealing polyethylene bags. The bags contain descriptive tags that include information regarding artifact provenience, description, and count. Diagnostic artifacts were bagged separately. HDR followed the guidelines of the University of Oregon Museum of Natural and Cultural History (UOMNCH), dated January 1, 2022, for labeling and packing artifacts found in Oregon. After reporting is complete, the assemblages and associated documents that were collected from sites in Oregon under the SHPO Archaeological Excavation and Collection and BPA ARPA permits will be permanently curated at the UOMNCH.

3.1.2.5 Archaeological Monitoring of Sediment Sampling

HDR monitored sediment sampling activities conducted at 26 locations within the inventory area in the Columbia River. Eighteen of these locations were in Oregon. Sediment sampling involved two sample collection methods: 1) Vibracore sampling was performed to assess sediment chemistry and physical characteristics; and 2) Grab sampling using a Ponar device was conducted for chemical and benthic analyses. Vibracore sampling was attempted at six locations from a 30-foot aluminum pontoon research vessel in areas where dredging is anticipated prior to cable placement. A second set of Vibracore samples were collected from these six locations for close inspection on the shore for archaeological materials by a SOI-qualified archaeologist. Ponar grab sampling was performed at 20

planned locations and at 2 additional locations where Vibracore sampling was attempted and was unsuccessful. Archaeological monitoring was conducted for all grab sampling activities on board the vessel and included close inspection of the retrieved samples for archaeological materials. Additional details on methodology employed for archaeological monitoring of sediment sampling activities can be found in the monitoring report (Uldall et al. 2025b).

3.1.2.6 Reconnaissance-Level Historic Built-Environment Survey

The reconnaissance-level historic built-environment survey involved photographic and written documentation (including taking notes regarding building materials, alterations, styles, form types, and setting features) of all built-environment resources 45 years of age and older within and immediately adjacent to the inventory area. The resulting data was used to produce maps for the cultural resources investigation report and Oregon Inventory of Historic Properties Section 106 Documentation Forms. HDR architectural historians photographed the inventory area, its vicinity, and the historic built-environment resource locations with a Canon digital camera with 12-megapixel resolution and 10x optical zoom. The digital photographs were stored on HDR's ProjectWise file server. The built-environment survey used an electronic tablet in the field during the reconnaissance-level survey to record and photograph the historic built-environment resources.

3.1.2.7 Viewshed Analyses

HDR performed a viewshed analysis for the proposed converter stations in Oregon in response to Tribal comments to support assessment of project effects as part of the NHPA Section 106 process. The analysis was performed using a National Elevation Dataset and Viewshed Analysis tool in ArcGIS pro. One Third Arc Second resolution digital elevation model (DEM) was downloaded from an open-source site to represent bare-earth conditions (USGS 2023). The DEM provided basic elevation information around the proposed western converter station location, which was used with estimated converter station elevation data.

The tallest structure at each converter station (each up to 60 feet tall) was used to calculate OFFSETB (i.e., the vertical distance to be added to the evaluated surface). The tallest structure at the proposed western converter station is the valve hall and the tallest structure at the eastern converter station is the lattice structure. OFFSETA, which is the vertical distance to be added to the observer location was taken as zero. AZIMUTH1 and AZIMUTH2, which are start and end angle of scan range, are considered as 0 to 360 degrees. The vertical upper angle and vertical lower angle were set to their default values of 90 and -90 degrees, respectively.

The visibility of the tallest structures of each converter station was evaluated against the surrounding topography based on the selected heights at two intervals to define the level of contrast anticipated between the existing environment and the new additions to the landscape. Intervals were set at 1 and 5 miles from the proposed converter station locations and with views toward the converter stations. Hence, RADIUS2, which is the ending distance from which visibility is determined, were set at 5 miles and 1 mile. All the elevation values in DEMs are in feet; therefore, all the other parameters in Viewshed Analysis were converted to feet as well. The resulting viewshed from the tool is a raster dataset, which was then converted to vector polygons and presented in 1-mile and 5-mile buffers from the converter station viewpoint.

3.1.3 Consultation and Fieldwork Outreach

The USACE initiated NHPA Section 106 consultation and determined the Project's APE on October 1, 2024, with the following parties (listed alphabetically): Columbia River Gorge National Scenic Area (CRGNSA), Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Grand Ronde Community of Oregon, Confederated Tribes of Siletz, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Cowlitz Indian Tribe, Nez Perce Tribe, Oregon SHPO, and Washington Department of Archaeology and Historic Preservation. On March 10, 2025, the USACE contacted the Burns Paiute Tribe to invite participation in the NHPA Section 106 consultation process for the Project as well.

In addition, on behalf of the Applicant, HDR senior cultural resources specialist and SOI-qualified archaeologist, Jennifer Ferris, Master of Arts (MA), Register of Professional Archaeologists (RPA), provided email notification to the NHPA Section 106 consulting parties prior to cultural resources field surveys and monitoring to inform them of the upcoming fieldwork and invite them to observe it. A summary of this NHPA Section 106 consultation and HDR's outreach is provided in Table 1. The Applicant is also coordinating with the following Tribes regarding Traditional Use Studies: the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of Grand Ronde Community of Oregon, Confederated Tribes of the Warm Springs Reservation of Oregon, and Nez Perce Tribe. Traditional Use Studies are described in Section 3.1.4.

3.1.4 Traditional Use Studies

The Applicant is funding three Traditional Use Studies for the Project. These three contracted studies have been or are being completed by the Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of Grand Ronde Community of Oregon, and Nez Perce Tribe. The Applicant is also coordinating to contract with Warm Springs GeoVisions to complete a Traditional Use Study on behalf of the Confederated Tribes of the Warm Springs Reservation of Oregon. Some of these studies are identifying Historic Properties of Religious or Cultural Significance to Indian Tribes (HPRCSITs) and TCPs within or intersecting the Analysis Area. The studies will provide important context and information for the identification and protection of cultural resources pursuant to Council Standards.

Table 1. Summary of NHPA Section 106 consultation and fieldwork outreach.

Type of Consultation	From	To	Date	Topic
Survey coordination	HDR	Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of Grand Ronde Community of Oregon, Confederated Tribes of Siletz, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, Cowlitz Indian Tribe, Nez Perce Tribe	6/30/2023	Notification of pedestrian survey and invitation to observe the fieldwork.
Survey coordination	Confederated Tribes of Siletz	HDR	6/30/2023	Automatic out of office reply to fieldwork notification.
Survey coordination	Confederated Tribes of Grand Ronde Community of Oregon	HDR	7/14/2023	Response to field work notification and request for meeting regarding fieldwork.
Survey coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	7/14/2023	Response to request for meeting regarding fieldwork.
Survey coordination	Confederated Tribes of Grand Ronde Community of Oregon	HDR	7/28/2023	Coordination to schedule meeting regarding fieldwork.
Survey coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	8/9/2023	Coordination to schedule meeting regarding fieldwork.
Survey coordination	Confederated Tribes of Grand Ronde Community of Oregon	HDR	12/4/2023	Notification of survey on USACE-managed lands and invitation to observe the fieldwork. Coordination to schedule meeting regarding fieldwork.
Survey coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	12/4/2023	Coordination to schedule meeting regarding fieldwork.
Survey coordination	Confederated Tribes of Grand Ronde Community of Oregon	HDR	12/5/2023	Coordination to schedule meeting regarding fieldwork.
Cultural Resources Inventory Area	Nez Perce Tribe	HDR	2/22/2024	Invitation to review the cultural resources inventory area shapefiles and parcels.
NHPA Section 106 initiation and APE consultation	USACE	Consulting Parties	10/1/2024	Invitation to consult on the APE.
Monitoring coordination	HDR	Consulting Parties	10/25/2024	Notification of cultural resources monitoring of sediment sampling in the Columbia River and invitation to observe the fieldwork.

Type of Consultation	From	To	Date	Topic
NHPA Section 106 APE consultation	Confederated Tribes of the Umatilla Reservation	USACE	11/26/2024	APE and survey plan comments.
NHPA Section 106 APE consultation	Confederated Tribes of Grand Ronde Community of Oregon	USACE	12/6/2024	APE and survey plan comments.
Cultural studies coordination	HDR	Cowlitz Indian Tribe	2/3/2025	Coordination to schedule meeting regarding Project cultural studies.
Cultural studies coordination	Cowlitz Indian Tribe	HDR	2/3/2025	Request for information regarding HDR's experience with TCPs.
Cultural studies coordination	HDR	Cowlitz Indian Tribe	2/3/2025	Response to request for information regarding HDR's experience with TCPs.
Survey coordination	HDR	Consulting Parties	3/6/2025	Notification of survey on private lands in Washington and invitation to observe the fieldwork.
NHPA Section 106 consultation request	USACE	Burns Paiute Tribe	3/10/2025	NHPA Section 106 consultation invitation for the Project.
Survey coordination	HDR	Consulting Parties	4/1/2025	Notification of survey on federal land in Washington and invitation to observe the fieldwork.
Survey coordination	USFS: CRGNSA	HDR	4/7/2025	Response to fieldwork notification stating no questions at this point and anticipation of hearing the results and reviewing the report.
Meeting coordination	Confederated Tribes of the Warm Springs Reservation of Oregon	HDR	4/16/2025	Follow-up on HDR's voicemail to coordinate meeting regarding the Oregon SHPO archaeological permit and surveys.
Oregon SHPO permit coordination meeting	HDR	Confederated Tribes of the Warm Springs Reservation of Oregon	4/18/2025	Virtual meeting to discuss the Oregon SHPO archaeological permit and archaeological survey.
Meeting coordination and survey/Tribal monitoring coordination	CRT	Confederated Tribes of the Warm Springs Reservation of Oregon	4/28/2025	Follow up to coordinate meeting to discuss the overall Project, concerns about impacts to cultural resources, and Tribal monitoring during future cultural resource surveys,
Survey findings	HDR	Consulting Parties	5/2/2025	Notification of findings following archaeological survey of federal lands in Washington.
Engagement/ outreach letter	CRT	Confederated Tribes of the Warm Springs Reservation of Oregon	5/5/2025	Consultation letter to coordinate in-person meeting to share Project information, address concerns, discuss a Traditional Land Use study, and offer additional engagement.

Type of Consultation	From	To	Date	Topic
Oregon SHPO permit and survey plan coordination	HDR	Confederated Tribes of the Warm Springs Reservation of Oregon	5/6/2025	Follow-up from meeting regarding the Oregon SHPO permit and surveys and to provide links to the cultural resources survey plan, inventory area shapefiles, and associated materials.
Survey findings and coordination	HDR	Consulting Parties	5/6/2025	Notification of findings following archaeological survey of federal lands in Oregon and of another survey session within these lands and invitation to observe the fieldwork.
Survey coordination	Cowlitz Indian Tribe	HDR	5/6/2025	Coordination for Tribal participation in upcoming survey in federal lands in Oregon.
Survey coordination	HDR	Consulting Parties	5/6/2025	Notification of survey on non-federal public land in Washington and invitation to observe the fieldwork.
Survey coordination	HDR	Cowlitz Indian Tribe	5/62025	Follow up regarding notification of survey on non-federal public land in Washington and invitation to observe the fieldwork.
Survey coordination	Cowlitz Indian Tribe	HDR	5/13/2025	Coordination for Tribal participation in upcoming survey in federal lands in Oregon.
Meeting coordination and survey/Tribal monitoring coordination	CRT	Confederated Tribes of the Warm Springs Reservation of Oregon	5/16/2025	Follow up to coordinate meeting to discuss the overall Project, concerns about impacts to cultural resources, and Tribal monitoring during future cultural resource surveys.
Survey coordination	HDR	Consulting Parties	5/30/2025	Notification of survey on private land in Washington and invitation to observe the fieldwork.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes and Bands of the Yakama Nation	7/4/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of Siletz Indians	7/4/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Nez Perce Tribe	7/4/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of the Warm Springs Reservation of Oregon	7/4/2025	Response to Oregon SHPO permit conditions and invitation to meet with HDR to discuss fieldwork, sensitive areas, and Tribal concerns and with CRT to discuss Tribal monitoring and study.

Type of Consultation	From	To	Date	Topic
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	7/4/2025	Response to Oregon SHPO permit conditions, invitation to meet with HDR to discuss fieldwork, sensitive areas, and Tribal concerns. Includes update om CRT's progress of contracting with an ethnographer for a HPRCSIT[1] study.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of the Umatilla Indian Reservation	7/4/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Burns Paiute Tribe	7/4/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Cowlitz Indian Tribe	7/21/2025	Coordination to schedule meeting regarding upcoming fieldwork under Oregon SHPO permit.
Survey coordination	HDR	Consulting Parties	7/21/2025	Notification of survey on private land (Portland General Electric parcels) in Portland, Oregon and invitation to observe the fieldwork.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of the Warm Springs Reservation of Oregon	7/21/2025	Follow up on HDR's response to Tribe's Oregon SHPO permit conditions and invitation to meet with HDR to discuss fieldwork, sensitive areas, and Tribal concerns and with CRT to discuss Tribal monitoring and Tribal study.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes and Bands of the Yakama Nation	7/21/2025	Follow-up to coordinate meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Confederated Tribes of Siletz Indians	7/21/2025	Follow-up to coordinate meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Nez Perce Tribe	7/21/2025	Follow-up to coordinate meeting regarding upcoming fieldwork under Oregon SHPO permit.
Oregon SHPO permit and survey coordination	HDR	Burns Paiute Tribe	7/21/2025	Follow-up to coordinate meeting regarding upcoming fieldwork under Oregon SHPO permit.
Survey results coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	7/24/2025	Coordination to schedule a meeting to go over cultural resources survey results thus far.
Survey coordination	HDR	Confederated Tribes of Grand Ronde Community of Oregon	7/24/2025	Coordination for Tribal participation in upcoming survey.

[1] HPRCSIT = Historic Properties of Religious and Cultural Significance to Indian Tribes

3.2 Inventory Results

The following sections describe results of the records reviews and the cultural resources inventories conducted within the inventory area. Section 8 includes a three-page map of the cultural resources surveys conducted within the terrestrial inventory area in Oregon as of December 1, 2025. Detailed reporting of the cultural resources surveys in the Analysis Area will be included as a confidential attachment in the future. Results of the Traditional Use Studies will be shared in the future with OR EFSC and USACE according to each participating Tribe's confidentiality protocols.

3.2.1 Background Review

3.2.1.1 Previously Conducted Cultural Resources Investigations

A review of the OARRA revealed that 187 cultural resources studies have been conducted within 0.25 mile (0.4 kilometer) of the inventory area in Oregon. Of these 186 studies, 49 overlap the inventory area in Oregon and are displayed in Table 2.

3.2.1.2 Previously Recorded Archaeological Resources

A review of OARRA revealed that 80 archaeological resources have been recorded within 0.25 mile (0.4 kilometer) of the inventory area in Oregon. None of these resources are located within or adjacent to the inventory area.

3.2.1.3 Previously Recorded Historic Built-Environment Resources

A review of OHSD revealed that there are 48 previously recorded historic built-environment resources located within 0.25 mile (0.4 kilometer) of the inventory area in Oregon. Of these 48 historic built-environment resources identified in OHSD, five overlap with the Project centerline and are located in the inventory area (Table 3). Of these five historic built-environment resources within the inventory area, one is listed in the NRHP and four have been previously determined as eligible for listing in the NRHP by SHPO.

Table 2. Previously conducted cultural resources survey within the inventory area in Oregon.

Count	Year	Author(s)	Report Title	Biblio and/or NADB No.	Report Type
1	1971	Cole and Southard	Archaeological Survey of the Bonneville Dam Reservoir – 1971	1336; 1295019	Cultural Resources Survey
2	1976	Dunnel and Campbell	Archaeological Investigations at Hamilton Island, Skamania County, Washington: 1974-1976	648; 1294246	Cultural Resources Survey; Archaeological Test Excavations/NRHP Evaluation
3	1979	Heineman	Letter: Site found at proposed Sanitary Landfill Columbia Slough	623; 1294230	Cultural Resources Survey
4	1979	Thomas	Draft Report: Portland Area Reconnaissance	4818; 1293194	Cultural Resources Survey
5	1980	Freed	Cultural Resources Investigations for the Lower Columbia River Maintenance Dredging Program	2102; 1290752	Cultural Resources Survey
6	1986	Ellis	A Cultural Resources Study of the Proposed Hayden Island Marine Industrial Park, Multnomah County, Oregon	7339; 1297093	Cultural Resources Survey
7	1987	Scott	Cultural Resource Report for the Ramsey Lake Project Area, Multnomah County, Oregon	8262; 1297945	Cultural Resources Survey
8	1987	Connolly	Archaeological Survey of North Marine Drive, I-5 to Rivergate Industrial District, Multnomah County	8441; 1298125	Cultural Resources Survey
9	1989	Cole	Archaeological Survey of the Proposed Phase II of Riverfront Park, The Dalles, Wasco County, Oregon	10312	Cultural Resources Survey
10	1992	Ames	Archaeological Context Statement: Portland Basin	20025	Research/Archaeological Context Statement
11	1992	Fagan and Reese	Archaeology and Cultural Resources Technical Memorandum: Sandy River Delta Study, Mount Hood National Forest, Multnomah County, Oregon	19832	Cultural Resources Survey
12	1994	Minor	Cultural Resource Assessment for the City of Portland's CBWTP Outfall Modifications, Project #5136, Portland, Multnomah County, Oregon	15353; 1308306	Cultural Resources Survey
13	1994	Donovan	Literature Search for the Expanded Project Area, Sandy River Delta Study, Mount Hood National Forest, Multnomah County, Oregon	14762	Cultural Resources Archival Review
14	1994	Ellis	Cultural Resources Survey of the Proposed St. Johns Separation and Ramsey Lake Projects, Bureau of Environmental Services, City of Portland, Oregon	14766	Cultural Resources Survey[1]
15	1995	Reese et al.	Results of Archaeological and Cultural Resources Survey of Proposed Trails and Wetland Enhancement Areas for the Sandy River Delta	19833	Cultural Resources Survey
16	1998	Ellis	Cultural Resource Survey and Archaeological Test Excavations for the Proposed Pacific Gateway Storm Sewer Extension Project, Portland Oregon	27353	Archaeological Test Pit Excavations; NRHP Evaluation

Count	Year	Author(s)	Report Title	Biblio and/or NADB No.	Report Type
17	1999	Ellis et al.	Cultural Resources Reconnaissance Survey and Inventory of the Portland Segment of Level 3's Proposed Fiber Optic Line from Portland, Oregon to Seattle, Washington	17115	Cultural Resources Survey
18	2000	Murphy et al.	Fiber Optic Line Between Portland and Seattle: Cultural Resources Assessment, Clark, Cowlitz, Lewis, Thurston, Pierce, and King Counties, Washington, and Multnomah County, Oregon	17215; 1310602	Cultural Resources Survey
19	2000	Iversen et al.	Field Reconnaissance of Alternate Routes for the Proposed Fiber Optic Line Between Portland and Seattle Project, Cowlitz County, Washington and Multnomah and Columbia Counties, Oregon	17257; 1345362	Cultural Resources Survey
20	2000	Griffen and Churchill	Prehistory and History of the Columbia Gorge Bonneville Pool Area – North Side: An Archival Review of Cultural Resource Potential	19292	Cultural Resources Archival Review
21	2001	Ellis et al.	A Cultural Resources Study for the Proposed Rivergate Fill Removal Project, Portland, Oregon	18128	Cultural Resources Survey
22	2005	Jenevein and Bird	2005 Cultural Resource Monitoring on the Bonneville Lock and Dam Project, South Side	21747	Archaeological Monitoring
23	2005	Clark	A Cultural Resources Survey for the Big Eddy 230k V Substation Current Limiting Reactor Addition Project, Wasco County, Oregon	19979	Cultural Resources Survey
24	2006	Cabebe et al.	Archaeological Survey of Sixty (60) Culverts and Two (2) Staging Areas in Region 4 for the Oregon Department of Transportation	20561	Cultural Resources Survey
25	2008	Buchanan and Fagan	Archaeological Survey of the Proposed North Leadbetter Extension Overcrossing Project in Portland, Multnomah County, Oregon	21869	Cultural Resources Survey
26	2009	Dasler	Hydrographic Survey of the Columbia River and Three Tree Point to Sellwood	22741	Cultural Resources Survey
27	2011	Minor	Interstate 5 Columbia River Crossing, NHPA Section 106 Archaeological Technical Report	23770; 1692645	Cultural Resources Survey
28	2012	Roulette and McDonald	Cultural Resources Study for the Proposed Celilo Ring Fiber Optic Project, Wasco County, Oregon	25080	Cultural Resources Survey
29	2012	Marcotte et al.	Bonneville Power Administration Submerged Cultural Resources Project, Lower Columbia River, Oregon and Washington	25436	Cultural Resources Archival Review
30	2012	Liz and Schmidt	A Cultural Resource Survey for the Seismic Harding Geotechnical Testing on the Columbia and Willamette Rivers	25179	Cultural Resources Survey

Count	Year	Author(s)	Report Title	Biblio and/or NADB No.	Report Type
31	2013	Ahlman et al.	Cultural Resources Survey of BPA's Celilo Converter Station, Wasco County, Oregon	25722	Cultural Resources Survey
32	2013	Becker and Butler	PGE-Harborton Project: Phase I Historic and Cultural Resources Investigation	25887	Cultural Resources Survey
33	2013	Jenevein	Historic Property Documentation for the Crates Point Area of the Bonneville Lock and Dam Project – South Side, Wasco County, Oregon	26723	Cultural Resources Survey and Monitoring
34	2013	Jenevein and Liebert	Federal Columbia River Power System (FCRPS) 2012 Site Condition Monitoring at the South Side of the Bonneville and The Dalles Projects	27273	Archaeological Monitoring
35	2014	Moret-Ferguson et al.	A Cultural Resources Survey of the Ross-John Day Fiber Replacement Project, Wasco and Sherman Counties, Oregon	26560	Cultural Resources Survey
36	2015	Ahlman et al.	Literature Review and Cultural Resource Survey for the Pacific Direct Current Intertie (PDCI) Uprate Project, Lake, Jefferson, Crook, Deschutes, and Wasco Counties, Oregon	26564	Cultural Resources Survey
37	2015	Jenevein	Federal Columbia River Power System (FCRPS) 2014 Site Condition Monitoring at the South Side of the Bonneville and The Dalles Projects	27352	Archaeological Monitoring
38	2015	Hylton and Nauer	Archaeological Inventory of Bonneville, The Dalles, and John Day Lock and Dam Projects, Washington and Oregon	27907	Cultural Resources Survey
39	2015	Becker and Butler	Cultural Resources Inventory Report for the PGE Harborton Restoration Project, Multnomah County, Oregon	28921	Cultural Resources Survey
40	2015	Teoh	Cultural Resource Survey for Danger Pole Replacements on Big Eddy-DeMoss No. 1 and Big Eddy-Redmond No. 1 Transmission Lines Project	27303	Cultural Resources Survey
41	2017	Steinkamp et al.	Archaeological Survey for the Bonneville Power Administration Quennett Creek Substation Project, Wasco County, Oregon	29368	Cultural Resources Survey
42	2017	Windler and Dinwiddie	Supplemental Cultural Resources Survey for the Harborton Restoration Project, Multnomah County, Oregon	29249	Cultural Resources Survey
43	2018	Windler et al.	Cultural Resource Investigations for BPA's John Day-Big Eddy No. 1 Re-Conductoring Project, Sherman and Wasco Counties, Oregon	30456	Cultural Resources Survey
44	2018	Ellis and Paraso	Cultural Resources Survey for the North Rivergate Overcrossing Union Pacific Railroad Bridge Project, Portland, Oregon	31321	Cultural Resources Survey

Count	Year	Author(s)	Report Title	Biblio and/or NADB No.	Report Type
45	2019	Hylton et al.	Federal Columbia River Power System (FCRPS) 2018 Site Condition Monitoring at the South Shore of the Bonneville and The Dalles Projects	30851	Archaeological Monitoring
46	2019	Nauer and Squiemphen III	Federal Columbia River Power System (FCRPS) 2016 Site Condition Monitoring at the South Shore of the Bonneville and The Dalles Projects	31894	Archaeological Monitoring
47	2019	Sarjeant and Fackler	Results of an Archaeological Survey for the Georgia-Pacific Rivergate Warehouse Expansion Project, Oregon	30408	Cultural Resources Survey
48	2020	Thomas et al.	Cultural Resources Survey for I-84: Cascade Locks-Pendleton & I-82 Sign Upgrades Project (ODOT Key Number 22355)	31386	Cultural Resources Survey
49	2023	Payne et al.	Cultural Resources Investigation Report: Ross-St Johns-1 and Ross-Rivergate-1 Insulator Replacement Project, Multnomah County, Oregon and Clark County, Washington	34128	Cultural Resources Survey

Note: NADB = National Archaeological Database; ODOT = Oregon Department of Transportation; PGE = Portland General Electric
[1]Previously conducted within Project alternative alignment: Western AC Alternative South

Table 3. Previously recorded historic built-environment resources within the inventory area in Oregon.

Count	Resource ID	Resource Name	Year Built	Site Type	NRHP Eligibility Determination	Recorded By (Date)
1	669005	BPA Celilo Converter Station	1967	Building	Previously Determined Eligible/Significant	BPA (2012)
2	659316	BPA Big Eddy Switchyard	1967	Structure	Previously Determined Eligible/Significant	George Kramer (2011)
3	674242	Columbia River Bridge – Hood River, OR to White Salmon, WA	1924	Structure	Previously Determined Eligible/Significant	Not Available
4	52461	Spokane, Portland & Seattle RR Bridge	1907	Structure	Previously Determined Eligible/Significant	City of Portland (Unknown)
5	49361	Portland-Vancouver Highway Bridge	1917	Structure	Previously NRHP-Listed	Unknown (1982)

3.2.1.4 Previously Recorded Traditional Cultural Places and Historic Properties of Religious and Cultural Significance to Indian Tribes

A review of OARRA revealed that there are at least two previously recorded TCPs within 0.25 mile (0.4 kilometer) of the inventory area, including one that is within the inventory area: a Nez Perce Tribe TCP encompasses the inventory area within the river northwest of The Dalles, Oregon. No additional information is provided in the OARRA database about this TCP.

Information regarding known TCPs and HPRCSITs is held by Indian Tribes whose traditional territories overlap the inventory area. These types of data are considered privileged and not typically available on OARRA. The Traditional Use Studies being performed for the Project are anticipated to contain information related to known and newly documented TCPs and HPRCSITs; these data will be shared with Oregon EFSEC and USACE in accordance with each participating Tribes confidentiality protocols.

3.2.1.5 Historic Map Review

HDR reviewed historic maps and aerial photographs that depict the inventory area to understand how historic and modern developments have altered the inventory area and assessed the changes to the historic Columbia River shoreline within the inventory area. The maps and imagery reviewed included BLM GLO plat maps (1852 to 1913), USGS topographic maps (1926 to 1979), aerial survey photographs (1930–1937), historic fishing charts/maps (1892 to circa early twentieth century), original and reproduced Lewis and Clark expedition sketch maps (1805–1814), and other historic maps dating to the late nineteenth to early twentieth century. Table 4 lists historic maps and photographs reviewed during the cultural resources background review and archival research that depict the inventory area in Oregon. Information found during the map and imagery review is also listed in Table 4.

Table 4. Historic maps of the inventory area in Oregon reviewed during background review and archival research.

Title	Year(s)	Source/Location	Information Found
BLM GLO Maps	1852-1913	U.S. Department of the Interior, Bureau of Land Management, General Land Office Records. Available online, https://glorecords.blm.gov/search/default.aspx	• Historic shoreline within and surrounding the inventory area. • Perennial creeks present prior to modern development and Bonneville Pool. • Historic roadways, trails, railroads, and other early development within and surrounding the inventory area.
Brubaker Aerial Survey	1934-37	WSU Archives, Pullman.	• Aerial photography of the Columbia River between Portland and North Bonneville. • Depiction of the early Bonneville Dam prior to construction of Powerhouse Two and creation of Cascade Island. • Depiction of the Bonneville area prior to the construction of the City of North Bonneville
Fairchild Aerial Photographs: Columba River Gorge	1930	Provided via email communication with Vanessa Litzenberg, USACE Portland District Archaeologist. On file, HDR Engineering, Bellevue.	• Aerial photographs of the inventory area between Hamilton Island and The Dalles prior to dam construction. • Photographs of the historic shoreline, historic railroads and roads, and areas that are now inundated (e.g., sandbars, river deltas, silt and sand beaches, and Cascade Falls).
No title. Historic Aerials of Bonneville Area to The Dalles (USACE).	1935	Provided via email communication with Vanessa Litzenberg, USACE Portland District Archaeologist. On file, HDR Engineering, Bellevue.	• Aerial photographs of the inventory area from North Bonneville to The Dalles. • Depiction of the early Bonneville Dam soon after its construction (only Powerhouse One is present). • Depiction of area prior to Bonneville Pool – Cascade Falls is present as are several sandbars and sandy/silty beach areas east of the dam that are now inundated. • Photographs of the eastern end of the inventory area at the eastern converter station that show no BPA development - only open fields.
Chart of the Lower Columbia River Showing the Location of Salmon Apparatus, Fishing Grounds, and Canneries in 1892	1892	Oregon Historical Society, Portland	• Map of Columbia River between mouth and Kalama and between Wind River (Home Valley, Washington) and The Dalles. Map pages in between these areas were not located. • Depiction of historic shoreline prior to dam construction. • Depiction of historic fishwheels and scows.
Locations of Salmon Wheels on the Columbia River – Nichols 1908	1908	Oregon Historical Society, Portland	• Undetailed sketch map of fishwheel locations between Washougal and Rabbit Island and Miller Island.
Fishwheels on the Columbia River, Bonneville-Cascade Locks Area	Early to mid-twentieth century (pre-1974)	Oregon Historical Society, Portland	• Sketch map of fishwheel and scow locations between Government Island and Stevenson. • Depiction of North Bonneville and Bonneville Dam site prior to Powerhouse Two and Cascade Island (pre-1974).

Title	Year(s)	Source/Location	Information Found
Fishwheels on the Columbia River, The Dalles-Celilo Area	Early-twentieth century (pre-1952)	Oregon Historical Society, Portland	• Sketch map of fishwheel locations on the Columbia River shoreline in The Dalles vicinity.
Map of The Dalles Military Road. Seth L. Pope, compiled from official surveys on file in the Survey General's Office.	1869	WSU Archives, Pullman	• Undetailed sketch map of a historic military road that starts in The Dalles near the riverbank, spans east across the town and to the Deschutes River then turns south. The precise location of road could not be ascertained due a lack of map detail and scale inaccuracies.
Chart of the Columbia River from the Ocean to Portland, Oregon, Illustrating the Condition of the Salmon Fishery, Season of 1888-9, Showing in detail the location of the Pound-Nets, Wiers, Seine-Hauls, Gill-Net Grounds, and Canneries. U.S. Commission of Fish and Fisheries, Marshall McDonald, Commissioner.	1891	WSU Digital Archives Available online, https://content.libraries.wsu.edu/digital/collection/maps/id/227/rec/24	• Detailed sketch map showing locations of pound-net, weir, seine-haul, and gill-net fishing locations and canneries between the mouth of the Columbia River and Kalama, with an additional superimposed map showing the same features along the Columbia and Willamette rivers between Deer Island (on the Columbia River) and Portland (on the Willamette River).
Map of Columbia River from The Dalles to Celilo, Oregon, USACE, A. Hoen & Co.	1888	WSU Digital Archives Available online, https://content.libraries.wsu.edu/digital/collection/maps/id/222/rec/2	• Detailed sketch map depicting towns, railroads, rapids, land features, etc., prior to dam construction between The Dalles and Celilo Falls. • The historic shoreline is well-represented, however much of the map is primarily outside of the inventory area.
The Columbia River from Celilo to the Mouth showing Location of the Salmon Fisheries, by W. A. Jones, U.S. Engineer Office (USACE)	1887	WSU Digital Archives Available online, https://content.libraries.wsu.edu/digital/collection/maps/id/1418/rec/4	• Detailed sketch map between mouth of the Columbia River to Celilo showing towns, water and land features, canneries, fish traps, and fish wheel locations. Locations are not precise due to lack of map details and scale inaccuracies.
Wappato Valley Map, Oregon Archaeological Society.	Unknown	Clark County Historical Museum Available online, WSU Vancouver Library Digital Collections, https://content.libraries.wsu.edu/digital/collection/vanhist/id/387/rec/34	• Sketch map between the Lewis River to Corbet areas showing some documented archaeological sites, village sites, various "old sites," Fort Vancouver, and other cultural resources. • Superimposed is a sketch map reproduction of William Clark's map showing village locations around Wappato (Sauvie) Island and along the shoreline near what is now the Portland airport.

Title	Year(s)	Source/Location	Information Found
USGS Topographic Map, Hillsboro, OR Quadrangle	1915, 1918, 1940	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development during the early-to-mid-twentieth century in northwest Portland within the western inventory area.
USGS Topographic Map, Vancouver, WA Quadrangle	1948, 1950, 1958, 1961, 1964	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development during the mid-twentieth century in northwest Portland within the western inland inventory area.
USGS Topographic Map, Linnton, OR Quadrangle	1954, 1961	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development during the mid-twentieth century in northwest Portland within the western inland inventory area.
USGS Topographic Map, Portland, OR Quadrangle	1897, 1905, 1940, 1961	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development during the late-nineteenth to mid-twentieth century in northwest Portland within the western inland inventory area.
USGS Topographic Map, Hood River, WA Quadrangle	1926, 1929	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development during the early-twentieth century within the terrestrial inventory area in North Bonneville and Skamania County.
USGS Topographic Map, Bonneville Dam, OR Quadrangle	1957	DOI: USGS topoView Available online, https://ngmdb.usgs.gov/topoview/viewer/	• Depiction of shoreline changes and development in the mid-twentieth century within the terrestrial inventory area in North Bonneville and Skamania County following the construction of the Bonneville Dam and Powerhouse One.

3.2.1.6 Archaeological Expectations

HDR's archival review supported an assessment of archaeological sensitivity during which HDR developed expectations and defined HPAs within the inventory area. HDR's archaeological expectations are based on the proximity and types of archaeological resources near or within the inventory area, geomorphology, topography, proximity to perennial water sources, modern soil disturbance, and previous cultural resources survey coverage. Additionally, HDR reviewed the CRGNSA probability models for the applicable terrestrial portion of the inventory area.

The U.S. Forest Service developed a probability model in 2002 for CRGNSA lands that correlates soils, slope, land types, vegetation, and proximity to water with probability for containing significant historic and precontact archaeological sites. According to HDR's review of the CRGNSA cultural resources probability model, the portion of the terrestrial inventory area within the CRGNSA (e.g., The Dalles vicinity, Wasco County) falls within four different probability categories: URB, H1, H4, and L1 (Boynton 2002). These categories are defined as follows:

- URB: Urban areas that are exempt from U.S. Forest Service regulation largely because of their existing state of high development and the necessity to promote residential and economic development. Urban areas are on high probability landforms, without exception.
    - The inventory area is within areas classified as URB in a large portion of The Dalles along I-84 and the northwest end of State Route 197 (SR 197), and in BPA fee-owned lands in Wasco County.
- H1: Areas of high probability that encompass lands with slopes of less than 20 percent, lands within 30 meters (100 feet) of streams or springs, and all islands. Probable precontact sites include occupational sites, primary or secondary camp sites, resource processing sites, lithic scatters, and cremations or burials. Probable historic sites include cabins, occupational/ habitation structures, sawmills, fish wheels, docks, ferries, canneries, and other water-dependent industrial sites.
    - The inventory area is within areas classified as H1 in The Dalles along a small section of SR 197 southeast of its intersection with North Columbia View Drive.
- H4: Areas of high probability that encompass ridge crests, intersects, and saddles with slopes less than 30 percent. Probable sites include both precontact and historic transportation sites (e.g., trails or roads), temporary occupation sites, and resource procurement and processing sites. Historic cemeteries may also be present in these areas.
    - The inventory area is within an area classified as H4 in Wasco County along a section of SR 197 near its intersection with Columbia View Drive.
- L1: Areas with low preference for use that cover steep, high slopes, rock areas, and areas that are difficult to access.
    - The inventory area is within an area classified as L1 in Wasco County along a short segment of SR 197.

Based on background review and the CRGNSA cultural resources probability model, HDR anticipated that the most likely types of precontact resources to occur in the terrestrial inventory area

would consist of isolated artifacts and/or artifacts from disturbed contexts representative of resource gathering, processing areas, and village sites. However, while the inventory area is within areas that are considered to have high risk for encountering precontact archaeological materials, due to prior extensive development from road construction, commercial and residential development, agriculture, construction of hydropower facilities, and fill deposition, HDR anticipated a moderate to low risk for encountering precontact archaeological materials that are within their primary context within the inventory area. Historic archaeological remnant features and debris scatters related to former industrial and commercial enterprises such as sawmills and timber product factories, railroad spurs, logging activities, and domestic occupations are likely to be encountered; however, these are expected to be within disturbed contexts due to demolition of historic buildings and repurposing of properties for modern development.

Six HPAs were identified within the terrestrial inventory area prior to survey where Project-related ground disturbance is anticipated in Oregon (Table 5). Two of the HPAs in Oregon were surveyed under an ARPA permit from BPA, and five are within the permit area for the Oregon SHPO Archaeological Excavation and Collection Permit, which was yet to be surveyed as of December 1, 2025.

Table 5. High-Probability Areas in the inventory area in Oregon.

HPA No.	TRS	Tax Lot/Parcel Numbers, Road ROWs	Landowner	Archaeological Permit Type	Reason for High Probability
HPA-1	T2N R1W Section 25	Multnomah County Tax Lot R518988	Port of Portland	SHPO (Permit No. AP 4121)	Primarily flat river terrace landscape, proximity to permanent water resources (e.g., Columbia Slough, Ramsey Lake, Columbia and Willamette Rivers) and proximity to previously recorded precontact archaeological sites.
HPA-4	T2N R1E Section 29	Multnomah County Tax Lots R323355 and R323358	Port of Portland	SHPO (Permit No. AP 4121)	Proximity to shoreline of Columbia River and lack of previous ground disturbance (high likelihood of intact sediments).
HPA-12	T2N R13E Section 2	Wasco County Tax Lot 1N 13E 2 600; I-84 ROW	Private; ODOT	ODOT ROW: SHPO (Permit No. AP 4121)	Primarily flat river terrace landscape, proximity to shoreline of Columbia River and to previously recorded precontact, multicomponent, and historic archaeological sites and resources.

HPA No.	TRS	Tax Lot/Parcel Numbers, Road ROWs	Landowner	Archaeological Permit Type	Reason for High Probability
HPA-13	T1N R13E Section 1	Hwy-30 ROW	ODOT	SHPO (Permit No. AP 4121)	Primarily flat river terrace landscape, proximity to perennial stream and to previously recorded precontact, multicomponent, and historic archaeological sites and resources
HPA-14	T1N R13E Section 1; T1N R14E Sections 6 and 7	Wasco County Tax Lots 1N 14E 6 300 and 1N 14E 7 300; Hwy-197 ROW	BPA; ODT	BPA lands: ARPA (Permit No. 2025-005) ODOT ROW: SHPO (Permit No. AP 4121)	Primarily flat river terrace landscape, proximity to perennial stream and to previously recorded precontact archaeological resources
HPA-15	T1N R14E Sections 5 and 6; T2N R14E Sections 31 and 32	Wasco County Tax Lots 2N 14E 31 D 1400, 2N 14E 31 900, 2N 14E 32 1200, 1N 14E 6 100, 1N 14E 6 300, 1N 14E 0 900	BPA	ARPA (Permit No. 2025-005)	Primarily flat/undulating river terrace landscape and viewshed, proximity to perennial streams (i.e., intermittent drainages, Fifteenmile Creek) and to a Nez Perce TCP

Notes: TRS = Township/Range/Section; ODOT = Oregon Department of Transportation;

3.2.2 Cultural Resources Surveys

3.2.2.1 Archaeological Pedestrian and Subsurface Surveys

As of December 1, 2025, approximately 102 of the 192 acres of the terrestrial portion of the inventory area in Oregon have been pedestrian surveyed and approximately 20 acres have been subsurface surveyed (Table 6; figure in Section 8). A total of 226 shovel probes were excavated on federal and private lands, one of which was positive for archaeological materials (Table 7). HDR is scheduling subsurface surveys within non-federal public lands under the SHPO Archaeological Excavation and Collection Permit (Permit No. AP 4121) at the time of this exhibit's compilation. Much of the terrestrial portion of the inventory area in Oregon was not feasible for subsurface survey for various reasons, including paved roadways, gravel road shoulders, parking lots and other features, landowner restrictions, buried utilities, steep slopes, inaccessibility due to densely vegetated and/or wetland areas, and human-made features such as levees, berms, and drainage ditches.

One precontact archaeological resource was newly documented during the subsurface survey in The Dalles within a BPA parcel (Table 8). NRHP evaluations of this resource and preliminary assessment of Project effects on it are in process as of December 1, 2025. This information as well as other detailed results of the archaeological pedestrian and subsurface surveys will be provided in the forthcoming NHPA Section 106 technical report (Uldall et al. 2025a) and updated exhibit.

Table 6. Summary of acres surveyed of the terrestrial portion of the inventory area in Oregon and counts of cultural resources documented.

Survey Type	Dates	Acres Surveyed	Number of Archaeological Resources Documented during Survey
Pedestrian	7/10-7/11/2023, 4/23/2025, 7/10/2025, 7/21-7/30/2025	102	0
Subsurface	4/23-4/30/2025, 5/14-5/19/2025, 7/29-7/30/2025	20	1
Total		**122**	**1**

Table 7. Summary of subsurface survey results in Oregon.

Land Ownership	Number of Shovel Probes Excavated	Number of Shovel Probes Positive for Archaeological Materials
Federal (BPA)	206	1
Non-Federal Public (ODOT, Port of Portland)	0	0
Private	20	0
Total	**226**	**1**

Table 8. Summary of archaeological resources identified within the inventory area in Oregon.

Count	Temporary Site Number	Location	Land Ownership	Site Type
1	BPA-SITE-1	Eastern Converter Station	Federal (BPA)	Precontact lithic material

3.2.2.2 Archaeological Monitoring of Sediment Sampling

HDR performed archaeological monitoring during sediment sampling at 26 locations within the cultural resources inventory area in the Columbia River between November 11-20, 2024, including 19 locations that were in Oregon. The archaeological monitors observed alluvial sediments indicative of high-energy fluvial conditions unfavorable for the presence or preservation of archaeological materials. No archaeological or other cultural materials were observed during the sampling activities or within the recovered samples. Detailed results are provided in the cultural resources monitoring report completed in March 2025, which was submitted to the USACE (Uldall et al. 2025b).

3.2.2.3 Reconnaissance-Level Historic Built Environment Survey

A total of 52 historic-age built-environment resources were identified for survey in the cultural resources inventory area in Oregon during background review. The 52 historic-age built-environment resources were surveyed at the reconnaissance level during field sessions on July 5-6, 2023; April 11 and 23, 2025; and July 30, 2025 (see figure in Section 8). Table 9 summarizes the survey activities conducted for the Project in Oregon to date. Historic built-environment resources surveyed include 28 transmission lines, 5 bridges, 5 railroad resources, 2 historic highways, 1 levee, 3 power generation facilities, and 8 buildings (Table 10). Twenty individual historic built-environment resources were previously determined eligible for listing in the NRHP and two historic built-environment resources were previously listed in the NRHP. The NRHP eligibility evaluations of the remaining resources, as well as preliminary Project effects analyses, are in process as of

December 1, 2025. This information will be provided in the forthcoming NHPA Section 106 technical report (Uldall et al. 2025a) and updated exhibit.

Table 9. Summary of historic built-environment surveys conducted within the inventory area in Oregon

Session	Dates	Activities	Number of Resources Surveyed
1	7/5-7/6/2023	Reconnaissance-level survey of federal and non-federal public and private lands in Multnomah, Hood River, and Wasco Counties	35
2	4/11/2025	Reconnaissance-level survey of federal lands in Wasco County.	12
3	4/23/2025	Reconnaissance-level survey of federal lands in Multnomah County	4
4	7/30/2025	Reconnaissance-level survey of private lands in Multnomah County.	1
		Total	**52**

Table 10. Reconnaissance-level historic built environment resources surveyed in Oregon.

Count	OHSD Resource ID	Resource Name	Resource Type	NRHP Eligibility Determination	Land Ownership
1	676588	BPA North Bonneville-Troutdale No. 1 Transmission Line	Structure	Unevaluated	Federal (BPA)
2	676591	BPA North Bonneville-Troutdale No. 2 Transmission Line	Structure	Unevaluated	Federal (BPA)
3	678524	Northwestern Electric Company Camas to Albina 66-kV Transmission Line	Structure	Unevaluated	Public Non-Federal (Clatskanie People's Utility District [CPUD])
4	678538	Georgia-Pacific West 69-kV Transmission Line	Structure	Unevaluated	Public Non-Federal (CPUD)
5	678542	PacifiCorp Troutdale-Lady Island-Camas Mill 69-kV Transmission Line	Structure	Unevaluated	Public Non-Federal (CPUD)
6	18782	SP&S Bridge (Vancouver-Hayden Island Railroad Bridge)	Structure	Previously Listed	Private
7	737188	Glenn Jackson Memorial Bridge	Structure	Unevaluated	Public Non-Federal (ODOT)
8	18781	Vancouver-Portland Bridge, Northbound Span	Structure	Previously Listed	Public Non-Federal (ODOT)
9	732664	Southbound Interstate 5 Columbia River Bridge (Vancouver-Portland Bridge, Southbound Span)	Structure	Previously Determined Eligible	Public Non-Federal (ODOT)
10	727069	BPA Knight-Ostrander No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
11	737192	BPA Bonneville PH 1-North Bonneville No.1 Transmission Line	Structure	Unevaluated	Federal (BPA)
12	737193	BPA Bonneville PH 1-North Bonneville No.2 Transmission Line	Structure	Unevaluated	Federal (BPA)
13	726562	BPA Bonneville PH 1-North Camas No. 1 Transmission Line	Structure	Unevaluated	Federal (BPA)
14	733666	BPA Bonneville PH 1- Alcoa 1 & 2 No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)

Count	OHSD Resource ID	Resource Name	Resource Type	NRHP Eligibility Determination	Land Ownership
15	726563	BPA Bonneville PH 1- Alcoa 1 & 2 No. 2 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
16	2122	Hood River Interstate Bridge	Structure	Previously Determined Eligible	Public Non-Federal (Port of Hood River)
17	126397	BPA Chenoweth-Goldendale No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
18	737197	BPA Big Eddy-Quenett Creek No. 1 Transmission Line	Structure	Unevaluated	Federal (BPA)
19	721437	BPA Big Eddy-Quenett Creek No. 2 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
20	115638	BPA Harvalum-Big Eddy No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
21	TBD	PGE Harborton Substation	Structure	Unevaluated	Private
22	TBD	Northern Pacific Railway – Gobel Line (NW Marina Way Segment)	Structure	Unevaluated	Private
23	TBD	BPA Rivergate-Keeler 1&2 No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
24	TBD	BPA Rivergate-Keeler 1&2 No. 2 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
25	TBD	BPA St. Johns-Keeler No. 2 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
26	TBD	BPA St. Johns-St. Helens No. 1 Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
27	TBD	13333 North Rivergate Blvd.	Building	Unevaluated	Private
28	TBD	14025 North Rivergate Blvd.	Building	Unevaluated	Private
29	TBD	9715 North Ramsey Blvd.	Building	Unevaluated	Private
30	TBD	Burlington Northern North Rivergate Drill Line	Structure	Unevaluated	Private
31	TBD	Union Pacific Railroad Segment (Time Oil Road)	Structure	Unevaluated	Private
32	TBD	Hayden Island Substation	Structure	Unevaluated	Private
33	TBD	Historic Columbia River Highway	Structure	Unevaluated	Public Non-Federal (ODOT)

Count	OHSD Resource ID	Resource Name	Resource Type	NRHP Eligibility Determination	Land Ownership
34	TBD	Interstate 84	Structure	Unevaluated	Public Non-Federal (ODOT)
35	TBD	The Dalles Levee	Structure	Unevaluated	Federal (USACE)
36	TBD	Union Pacific Tie Plant	District	Unevaluated	Public Non-Federal (ODOT)
37	TBD	Union Pacific Mainline – Tie Plant Segment	Structure	Unevaluated	Private
38	TBD	1201 Railview Drive	Building	Unevaluated	Private
39	TBD	3012 East 2nd Street	Building	Unevaluated	Private
40	TBD	3003 East 2nd Street	Building	Unevaluated	Private
41	TBD	3002 East 2nd Street	Building	Unevaluated	Private
42	TBD	3001 East 2nd Street	Building	Unevaluated	Private
43	TBD	The Dalles-California Highway (US 197)	Structure	Unevaluated	Public Non-Federal (ODOT)
44	TBD	BPA Eugene C. Starr Complex (TBD)	District	Previously Determined Not Eligible	Federal (BPA)
45	669005	BPA Celilo Converter Station	District	Previously Determined Eligible	Federal (BPA)
46	659316	Big Eddy 230 kV Substation	District	Previously Determined Eligible	Federal (BPA)
47	TBD	Big Eddy 500 kV Substation	District	Previously Determined Eligible	Federal (BPA)
48	TBD	Big Eddy 500 kV Substation - Big Eddy 500 kV Switchyard	Structure	Previously Determined Eligible	Federal (BPA)
49	TBD	Big Eddy 500 kV Substation - Big Eddy 500 kV Control House	Structure	Previously Determined Eligible	Federal (BPA)
50	TBD	Big Eddy-Celilo No.3 500kV Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
51	TBD	Big Eddy-Celilo No.4 500kV Transmission Line	Structure	Previously Determined Eligible	Federal (BPA)
52	TBD	BPA Big Eddy-Maupin No. 1	Structure	Unevaluated	Federal (BPA)
53	TBD	BPA Big Eddy-Ostrander No. 1	Structure	Unevaluated	Federal (BPA)
54	TBD	BPA Big Eddy-DeMoss No. 1	Structure	Unevaluated	Federal (BPA)
55	TBD	BPA Big Eddy-Quennett Creek No. 1 (Starr Complex Segment)	Structure	Unevaluated	Federal (BPA)
56	TBD	BPA Big Eddy-Troutdale No. 1	Structure	Unevaluated	Federal (BPA)

Count	OHSD Resource ID	Resource Name	Resource Type	NRHP Eligibility Determination	Land Ownership
57	TBD	BPA Big Eddy 500/230 kV Tie No. 1	Structure	Unevaluated	Federal (BPA)
58	TBD	BPA Big Eddy 500/230 kV Tie No. 2	Structure	Unevaluated	Federal (BPA)
59	TBD	BPA John Day-Big Eddy No. 1	Structure	Unevaluated	Federal (BPA)
60	TBD	BPA John Day-Big Eddy No. 2	Structure	Unevaluated	Federal (BPA)
61	661988	BPA Harvalum-Big Eddy No. 1	Structure	Previously Determined Eligible	Federal (BPA)

3.2.2.4 Viewshed Analyses

HDR completed two viewshed analyses for the Project: one for the proposed eastern converter station and one for the proposed western converter station in response to Tribal comments to support assessment of project effects as part of the NHPA Section 106 process. Although the addition of the new converter stations would contribute to the overall cumulative visual effects of the surrounding landscape, it would result in minimal changes to the landscape character due to existing infrastructure surrounding the proposed converter station locations. Detailed results of the viewshed analyses will be attached to the forthcoming NHPA Section 106 technical report; the USACE will consult with the NHPA Section 106 parties regarding the findings (Uldall and Ferris 2025a and 2025b).

3.2.3 Traditional Use Studies

The Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of Grand Ronde Community of Oregon, and Nez Perce Tribe contracted with the Applicant to perform Traditional Use Studies for the Project. As of December 1, 2025, the Nez Perce Tribe has completed its study and submitted its report to the USACE. The Confederated Tribes of Grand Ronde Community of Oregon and Confederated Tribes of the Umatilla Indian Reservation are under contract with the Applicant and have initiated their studies. The Applicant is coordinating to contract with Warm Springs GeoVisions to complete a Traditional Use Study on behalf of the Confederated Tribes of the Warm Springs Reservation of Oregon.

The Applicant anticipates that the USACE will include the Traditional Use Study reports in its NHPA Section 106 consultation, which will be provided to OR EFSC. The sharing of information for each report is subject to each participating Tribe's confidentiality protocols and federal and state laws (i.e., NHPA Section 304 [54 U.S.C. § 307103], 16 U.S.C. 470hh(a)), and ORS 192.345 [11]). The updated exhibit will provide a summary of the results of these studies in accordance with the confidentiality protocols and laws.

3.3 Subject to Oregon Energy Facility Siting Council Standards

(4) To assist the Council in determining whether the standard outlined in (1) through (3) has been met, the Applicant must submit 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 this exhibit 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;

(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;

RESPONSE

3.3.1 Historic and Cultural Resources Listed, or Likely Eligible for Listing, on the National Register of Historic Places (OAR 345-022-0090(4)(a))

As of December 1, 2025, HDR identified 20 previously recorded historic built-environment resources within the terrestrial inventory area in Oregon that were previously listed or determined eligible for listing in the NRHP (see Table 10 in Section 3.2.2.3). No previously recorded NRHP-listed or eligible archaeological resources have been identified within the inventory area in Oregon.

NRHP evaluations of archaeological and historic built-environment resources documented during cultural resources surveys conducted for the Project as of December 1, 2025, were still in progress at the time of this exhibit's compilation. This information will be provided in the forthcoming NHPA Section 106 technical report (Uldall et al. 2025a) and updated exhibit.

Traditional Use Studies are in progress at the time of this exhibit's compilation. This information will be provided in the updated exhibit in accordance with participating Tribes' confidentiality protocols and federal and state laws.

3.3.2 Archaeological Objects and Sites on Private lands within the Analysis Area (OAR 345-022-0090(4)(b))

As of December 1, 2025, no archaeological sites or objects have been observed within private lands within the inventory area. Any information about archaeological resources documented in private lands following this date will be provided to OR EFSC in the future and in the forthcoming NHPA Section 106 technical report (Uldall et al. 2025a) and updated exhibit.

3.3.3 Archaeological Sites on Public Lands within the Analysis Area (OAR 345-022-0090(4)(c))

One archaeological site comprising a precontact lithic scatter was documented within federal (BPA) lands within the terrestrial inventory area in Wasco County, Oregon. NRHP evaluation and preliminary assessment of Project effects of this resource was in process as of December 1, 2025. In addition, subsurface and pedestrian surveys of non-federal public lands in Oregon are in progress. This information as well as other detailed results of the archaeological pedestrian and subsurface surveys will be provided in the forthcoming NHPA Section 106 technical report (Uldall et al. 2025a) exhibit.

4 Significant Potential Impacts of Construction and Operation, and Retirement of the Facility on Historic, Cultural, and Archaeological Resources and Measures Designed to Prevent the Destruction of Historic, Cultural, and Archaeological Resources (OAR 345-022-0090(4)(d))

(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:

(A) A description of any discovery measures, such as surveys, inventories, and limited subsurface testing work, recommended by the State Historic Preservation Officers 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);

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

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

RESPONSE

As stated in the Background Information Exhibit, during the corridor selection assessment, the Project alignment was sited to avoid significant impacts on historic, cultural, and archaeological resources identified within the Analysis Area. The in-river corridor was sited to minimize use conflicts and potential impacts to inundated historic shorelines with historic, cultural, and archaeological resources.

As part of its NHPA Section 106 review, the USACE required inventories to identify historic properties within the Project APE consistent with 36 CFR Part 800.4. These inventories consist of pedestrian and subsurface archaeological surveys, historic built-environment surveys, archaeological monitoring, Traditional Use Studies, and viewshed analyses, which are being implemented in compliance with Section 106 of the NHPA and SHPO guidelines (SHPO 2013). Methods employed for the archaeological surveys meet SHPO guidelines that require subsurface probing of poor ground surface visibility and areas of high probability for buried archaeological sites.

As of December 1, 2025, the surveys have identified one precontact archaeological site (BPA-SITE-1) in Oregon, which the Project will avoid by 0.25 mile (0.4 kilometers). Additionally, 61 historic built-

environment resources were documented within the terrestrial inventory area in Oregon. Viewshed analyses, Traditional Use Studies, and evaluations of NRHP eligibility and preliminary Project effects are ongoing as of December 1, 2025. The USACE will consult with the NHPA Section 106 parties regarding its determinations of eligibility and Project effects, which will be provided to OR EFSC and summarized in the updated exhibit.

Additionally, the Project alignment was sited and designed to avoid significant impacts to federally reserved treaty rights of the Columbia River Treaty Tribes, including the Confederated Tribes and Bands of the Yakama Nation, Confederated Tribes of the Umatilla Indian Reservation, Confederated Tribes of the Warm Springs Reservation of Oregon, and Nez Perce Tribe. The USACE is consulting with the federally recognized Tribes who hold treaty rights in the Analysis Area regarding potential impacts to in-lieu fishing areas, usual and accustomed areas, and Tribal resources.

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

As noted above, the Project has been sited to avoid significant impacts to known historic, cultural, and archaeological resources, where feasible. The Applicant has identified several measures to prevent the destruction of historic, cultural, and archaeological resources; these measures are outlined in Table 11.

Additional minimization and potential mitigation measures for impacts to historic, cultural, and archaeological resources will be developed after the USACE consults on its determinations of NRHP eligibility and Project effects with the NHPA Section 106 parties, pursuant to 36 CFR Part 800.4 and 800.5. If Project effects are determined to be adverse, the USACE will consult further with the NHPA Section 106 parties to identify appropriate mitigation measures pursuant to 36 CFR Part 800.6.

Table 11. Historic, Cultural, and Archaeological Resources Management Recommendations.

Recommendation	Description
Complete Archaeological Subsurface Survey	For non-federal public lands, perform shovel probing in HPAs, poor ground surface visibility areas, and other areas, as appropriate, as outlined in the Oregon SHPO permit (AP 4121). Shovel probing will also occur at isolated finds to define/confirm isolate boundaries. This work is in progress and will be presented in the forthcoming NHPA Section 106 technical report and updated exhibit. The NHPA Section 106 technical report will be submitted to the USACE for its consultation with the NHPA Section 106 parties. Results will also be amended into the Construction Monitoring and Inadvertent Discovery Plan, as appropriate.
Complete Traditional Use Studies	The Applicant will continue to coordinate with the participating Tribes for their completion of Traditional Use Studies. The study reports will be submitted to the USACE for its NHPA Section 106 consultation and summarized in the updated exhibit. All report submittals and summaries will comply with each participating Tribe's confidentiality protocols.
Avoidance of Significant and Potentially Significant Resources in Final Design	Disturbance areas in the final design will avoid resources that are NRHP eligible or are unevaluated for NRHP eligibility by a minimum of 20 meters (65 feet). Avoidance includes spanning such resources or directionally drilling beneath a resource. Such avoidance measures and their feasibility will be agreed upon during the USACE's NHPA Section 106 consultation regarding Project effects with the NHPA Section 106 parties. If avoidance is infeasible, the USACE will consult further with the NHPA Section 106 parties to determine appropriate mitigation for significant impacts.
Implement Construction Monitoring and Inadvertent Discovery Plan	A plan outlining requirements for archaeological and Tribal monitoring during construction and procedures for inadvertent discoveries during construction is being drafted and will be attached to the forthcoming NHPA Section 106 technical report and included in the updated exhibit. The plan will include minimum avoidance buffers and markers around cultural resources, construction monitoring requirements, and procedures to follow in the event of a discovery of an archaeological resource or human remains during construction. Results of monitoring and any efforts conducted as a result of the inadvertent discovery protocols will be documented in a Monitoring Report at the completion of monitoring. The plan will be submitted to OR EFSC with the updated exhibit.
Continued Coordination with Indian Tribes	For the Tribal resources that may be indirectly impacted by visual and/or auditory effects of the Project, the USACE is consulting with the NHPA Section 106 parties, and affected Tribes specifically, to assess indirect Project impacts. The Applicant will continue its coordination with Indian Tribes throughout the Project to avoid impacting cultural resources, including TCPs and HPRCSITs.
Develop and Implement Resource-Specific Mitigation Plan	The Applicant will prepare a resource-specific mitigation plan for NRHP-eligible historic, cultural, and archaeological resources that will be impacted by the Project. This plan will be developed in coordination with the affected Tribes and submitted to the USACE for its NHPA Section 106 consultation with the NHPA Section 106 parties. The plan will be submitted to OR EFSC with the updated exhibit.

5 Proposed Monitoring Plan (OAR 345-022-0090(4)(e))

(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.

RESPONSE

A monitoring and inadvertent discovery plan for Project construction will be drafted. The plan will be attached to the forthcoming NHPA Section 106 technical report and included in the updated exhibit. The USACE will consult on the plan as part of its NHPA Section 106 consultation with the NHPA Section 106 parties.

6 Conclusion

In accordance with OAR 345-022-0090, evidence is still being developed regarding potential impacts to historic, cultural, and archaeological resources. This exhibit presents the information compiled as of December 1, 2025; however, subsurface archaeological survey, viewshed analyses, and Traditional Use Studies are in progress. Additionally, evaluations of resource NRHP-eligibility and assessment of preliminary Project effects are ongoing as of December 1, 2025. The USACE will consult with the NHPA Section 106 parties regarding its determinations of eligibility and Project effects. The results of these inventories and assessments will be presented in the updated exhibit to support OR EFSC's evaluation of Project construction, operation, and retirement impacts.

7 References

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8 Figure

AREAS SURVEYED FOR CULTURAL RESOURCES
PAGE 1 OF 8

FOR INFORMATION ONLY - CONCEPT DRAWING

- STATE BOUNDARY
- CULTURAL RESOURCES INVENTORY AREA
- SUBSURFACE SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- PEDESTRIAN SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

CASCADE RENEWABLE TRANSMISSION

0 500 Feet
0 150 Meters

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T02N, R01W S26, 34, 35
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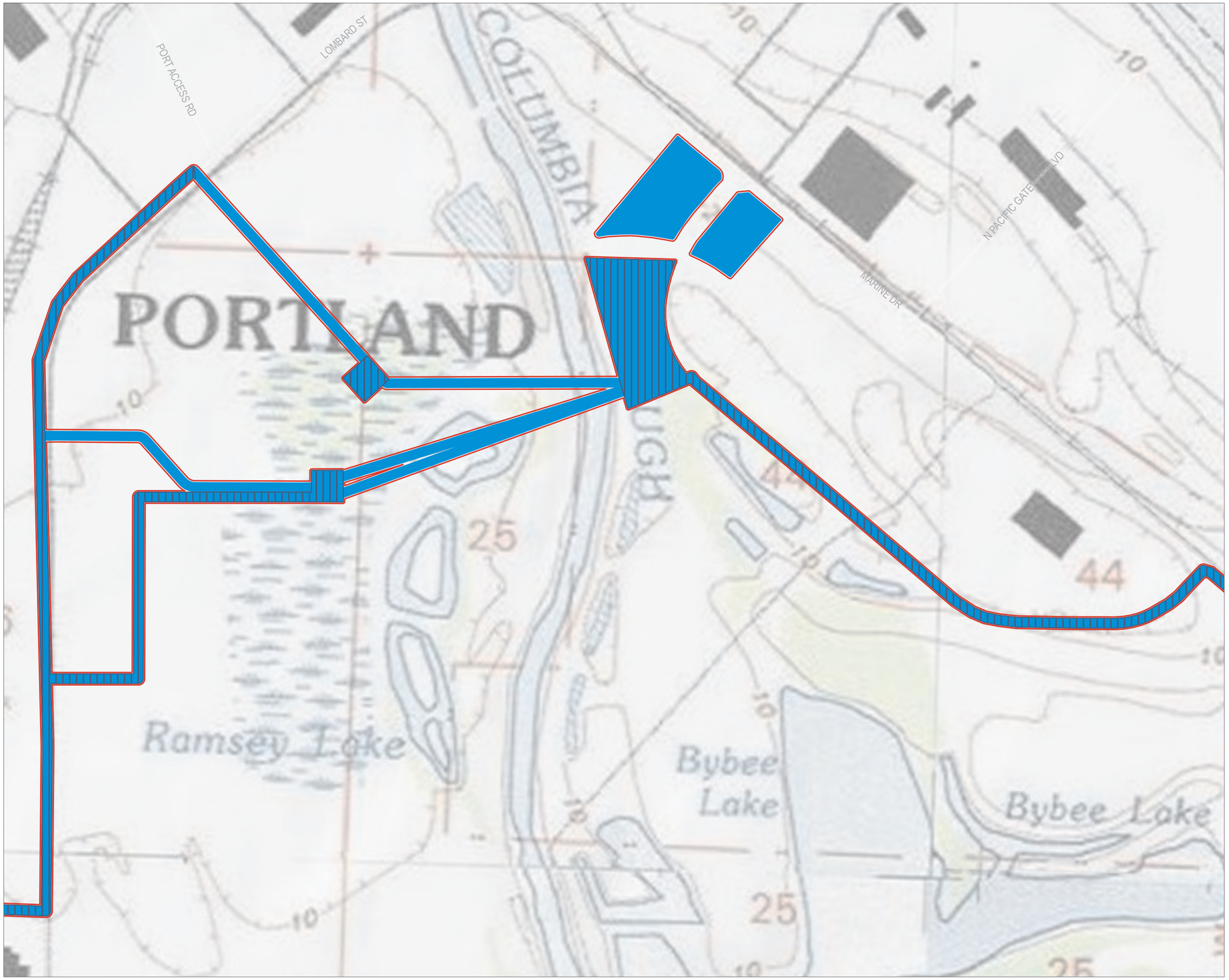

AREAS SURVEYED FOR CULTURAL RESOURCES PAGE 2 OF 8

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- STATE BOUNDARY
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CASCADE RENEWABLE TRANSMISSION

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0 150 Meters

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

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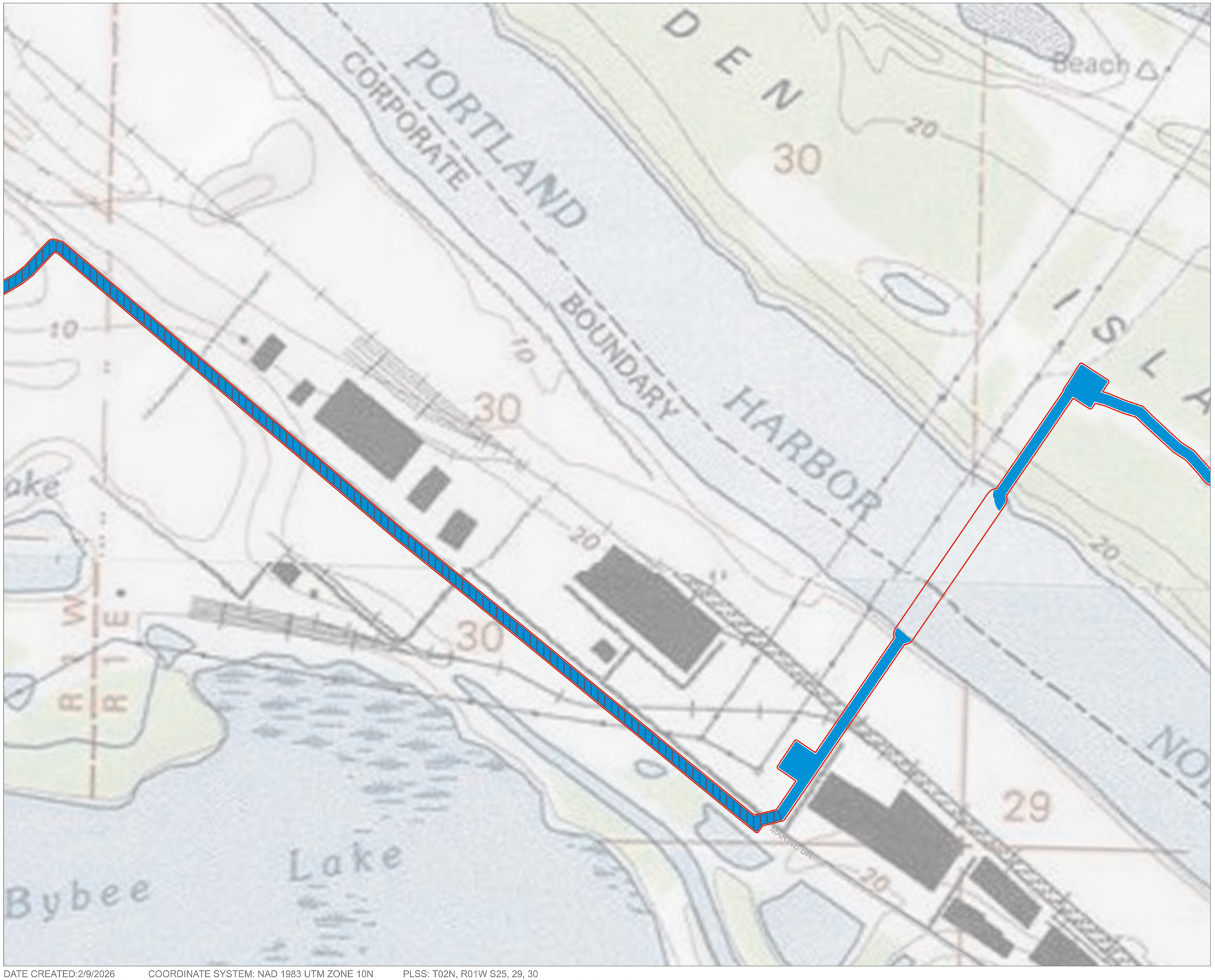

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- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

CASCADE RENEWABLE TRANSMISSION

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0 150 Meters

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T02N, R01W S25, 29, 30
USGS QUAD NAME: VANCOUVER AND PORTLAND

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T02N, R01W S28, 29, 32, 33
USGS QUAD NAME: VANCOUVER AND PORTLAND

AREAS SURVEYED FOR CULTURAL RESOURCES PAGE 4 OF 8

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- STATE BOUNDARY
- CULTURAL RESOURCES INVENTORY AREA
- SUBSURFACE SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- PEDESTRIAN SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

CASCADE RENEWABLE TRANSMISSION

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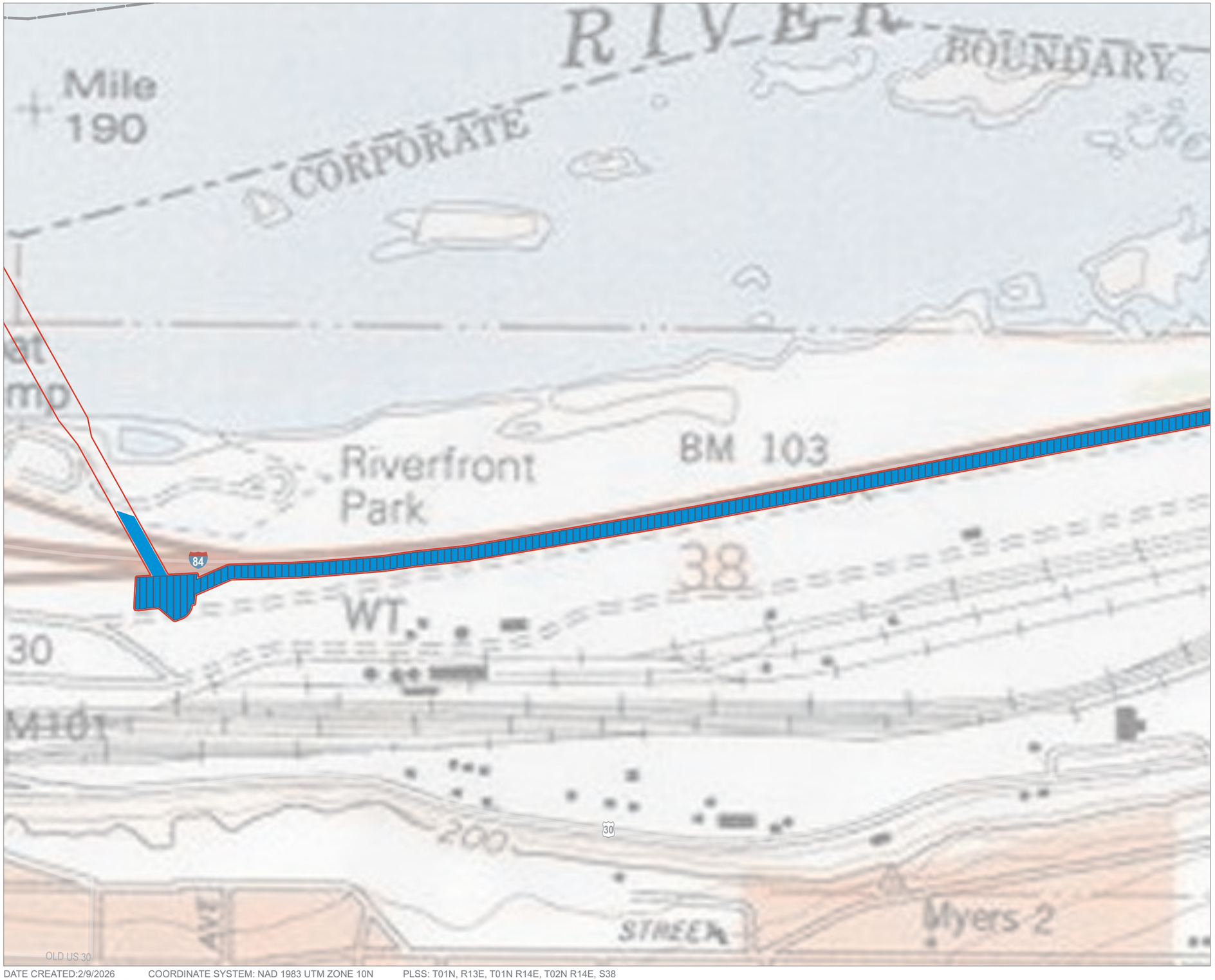
0 150 Meters



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DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T01N, R13E, T01N R14E, T02N R14E, S38
USGS QUAD NAME: THE DALLES SOUTH

AREAS SURVEYED FOR CULTURAL RESOURCES PAGE 5 OF 8

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- STATE BOUNDARY
- CULTURAL RESOURCES INVENTORY AREA
- SUBSURFACE SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- PEDESTRIAN SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

CASCADE RENEWABLE TRANSMISSION

0 500 Feet
0 150 Meters

AREAS SURVEYED FOR CULTURAL RESOURCES
PAGE 6 OF 8

FOR INFORMATION ONLY - CONCEPT DRAWING

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- PEDESTRIAN SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

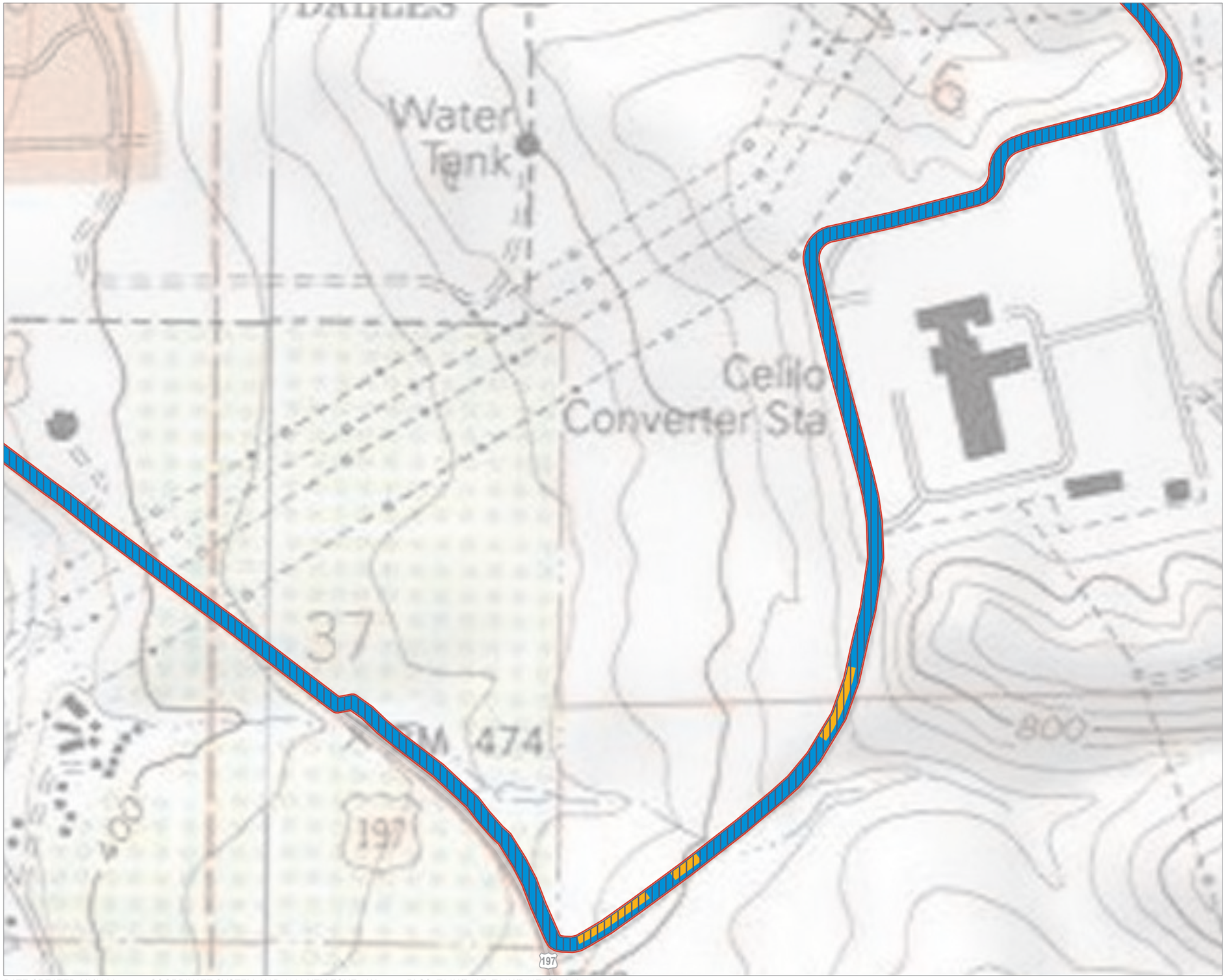
CASCADE RENEWABLE TRANSMISSION

0 500 Feet
0 150 Meters

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T01N, R13E, S1, S2
USGS QUAD NAME: THE DALLES SOUTH



AREAS SURVEYED FOR CULTURAL RESOURCES PAGE 7 OF 8

FOR INFORMATION ONLY - CONCEPT DRAWING

- STATE BOUNDARY
- CULTURAL RESOURCES INVENTORY AREA
- SUBSURFACE SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- PEDESTRIAN SURVEYED FOR ARCHAEOLOGICAL RESOURCES
- RECONNAISSANCE SURVEYED FOR HISTORIC BUILT ENVIRONMENT RESOURCES

CASCADE RENEWABLE TRANSMISSION

0 500 Feet
0 150 Meters

DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T01N/R13E, T01N/R14E, S1, 2, 6, 7
USGS QUAD NAME: THE DALLES SOUTH AND PETERSBURG

AREAS SURVEYED FOR CULTURAL RESOURCES
PAGE 8 OF 8

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- STATE BOUNDARY
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DATE CREATED:2/9/2026
DATA SOURCES: ESRI, HDR.

COORDINATE SYSTEM: NAD 1983 UTM ZONE 10N
PROJECTION: TRANVERSE MERCATOR
DATUM: NORTH AMERICAN 1983

PLSS: T01N/R14E, T02N/R14E, S5, 6, 31, 32
USGS QUAD NAME: PETERSBURG

CASCADE RENEWABLE TRANSMISSION

0 500 Feet
0 150 Meters

Attachments

(Will be included in future submittal)