

3.14 Cultural Resources

Cultural resources may include previously recorded or yet undocumented historic, cultural and archaeological resources as well as traditional cultural properties. Chapter 27.53.060 RCW provides protection of cultural resources on private and public lands in the state of Washington. In addition, Section 106 of the National Historic Preservation Act (NHPA) requires that any federal agency having direct or indirect jurisdiction over a proposed federal or federally assisted undertaking, or issuing licenses or permits, must consider the effect of the proposed undertaking on historic properties.

Two separate on-ground pedestrian cultural resource surveys were conducted for this project in 2001. The first survey was conducted by Lithic Analysts and covered the proposed power plant location, the proposed natural gas pipeline, and the makeup water supply pipeline. ENTRIX, Inc. later surveyed the interconnecting transmission line corridor (ENTRIX 2001). This section summarizes their fieldwork efforts and presents their findings. (See Appendix E for the ENTRIX Cultural Resources Technical Report.)

3.14.1 Existing Conditions

3.14.1.1 Introduction

The proposed power plant location, the proposed natural gas pipeline, and the makeup water supply pipeline are located just east of and above the Columbia River between the confluences of the Snake and Walla Walla Rivers. The site is east of U.S. Highway 12 and overlooks Wallula Gap to the southwest and Horse Heaven Hills directly across the Columbia River to the west. The transmission line component of the proposed project would be built in Walla Walla County, Washington and Umatilla County, Oregon covering approximately 33 miles between the project site and McNary Substation.

This section of the EIS provides a summary of the cultural resource investigation of the Project's Area of Potential Effects (APE), or "geographic area within which [the] undertaking may cause changes in the character of or use of historic properties" (36 CFR 8002(c)). The APE consists of the power plant footprint, the natural gas pipeline and makeup water supply pipelines and the 33-mile transmission line corridor that includes the structure locations, access corridors and staging areas.

The applicant contracted with the cultural resources consulting firm Lithic Analysts to conduct an archaeological investigation of the northern section of the project area including the gas-fired power plant location. Lithic Analysts also investigated the area extending 5.1 miles south from the proposed gas-fired Wallula Power Project to the proposed Smiths Harbor Switchyard (Flenniken et al. 2001). The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) Cultural Resources Protection Program conducted a Traditional Cultural Properties (TCP) assessment of the northern portion of the study area (Farrow 2001). The CTUIR documented the project area as a TCP but

decided not to nominate the project area to the National Register of Historic Places because of concerns of publicizing culturally sacred sites and/or areas.

Wallula Generation, LLC contracted with ENTRIX to conduct a cultural resource investigation of the remaining portions of the APE extending 28 miles from the Smiths Harbor Switchyard southwest to the McNary Substation (ENTRIX 2001). Cultural resource technicians of the CTUIR accompanied ENTRIX archaeologists on the field survey. The CTUIR prepared a TCP assessment of the southern 28 miles of the APE. This report identified two additional TCP areas within the southern 28 miles of the APE.

The archaeological survey associated with Lithic Analysts' study identified one previously unrecorded archaeological site and ENTRIX recorded three previously unrecorded archaeological sites and four isolated artifacts.

3.14.1.2 Historic Preservation Regulations

The following section has been prepared in accordance with NEPA, SEPA, and Section 106 of the NHPA. Each of these regulations requires consideration of impacts to historic properties for projects with federal, or in the case of SEPA, state involvement. Section 106 of the NHPA stipulates that projects with federal involvement take into consideration impacts to resources that are eligible for listing on the National Register of Historic Places (NRHP). The NRHP is the official list of properties of state and national significance in American history, architecture, archaeology, engineering, and culture that are worthy of preservation. Historically significant resources also include TCP. A TCP is defined as a location whose "significance is derived from the role the property plays in a community's historically rooted beliefs, customs and practices" (National Register Bulletin No. 38).

According to 36 CFR 60.4, the NRHP criteria serve as the basis for evaluating historical significance of a resource for listing at the national, state, and local levels. The quality of significance in American history, architecture, archaeology, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and:

- (a) That are associated with events that have made a significant contribution to the broad patterns of history; or
- (b) That are associated with the lives of persons significant in the past; or
- (c) That embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
- (d) That have yielded or may be likely to yield, information important in prehistory or history.

3.14.1.3 Methodology

Research for the proposed project assisted in the evaluation of the NRHP eligibility of resources that are over 50 years old and are located within the APE. Archival research encompassed a 0.5-mile area around all project areas and components.

ENTRIX obtained information regarding previously recorded archaeological and historic resources within the APE from established lists, such as the NRHP, the Washington Heritage Register, and the Oregon Historic Register. Research also included reviewing determinations of eligibility to the NRHP generated by prior Section 106 reviews within the study area. In addition, researchers consulted sources containing information regarding existing but not yet recorded historic resources. These sources included specialized histories, historic real estate atlases, historic photographs, aerial photographs, and historic maps. Below is a list of repositories utilized for this study.

- Whitman College Special Collections Library, Walla Walla, Washington
- University of Washington, Special Collections Library, Seattle, Washington
- University of Washington Maps Collection, Seattle, Washington
- Seattle Public Library, Seattle, Washington
- Pacific Northwest Branch of the National Archives, Seattle, Washington
- Office of Archaeology and Historic Preservation, Lacey, Washington
- State Historic Preservation Office, Salem, Oregon

Lithic Analysts archaeologists conducted a survey of the northernmost 5.1 miles of the APE on April 23 and April 24, 2001. Archaeologists used the Wallula Generation, LLC project maps and aerial photographs along with U.S. Geological Survey (USGS) quadrangles (Humorist, Washington—1992; Wallula, Washington – Oregon—1992; Zangar Junction, Washington – Oregon—1991) as base maps for the cultural resource survey. The project site was surveyed using 30-meter meandering east/west pedestrian transects. In addition, the proposed natural gas pipeline and makeup water supply pipeline were examined using 10- to 20-meter meandering pedestrian transects. The project site was covered with an agricultural crop circle of 18-inch high alfalfa, which obscured the ground.

The natural gas and makeup water supply pipeline sites were covered in grasses and brush. Ground visibility in these areas was poor to non-existent. Because of years of ground altering activities associated with agricultural practices, subsurface shovel testing was not conducted during this survey.

Lithic Analysts identified one previously unrecorded prehistoric archaeological site (recorded as temporary field site Newport No. 1) and no historic buildings or structures over 50 years old during the survey. The archaeological site consists of a small lithic scatter on a hillside overlooking the Columbia River and U.S. Highway 12, located near the proposed 20-inch makeup water supply pipeline just south of the Boise Cascade Corporation fiber farm road.

The only structure existing on the project site is an approximately 15-year-old wood frame residence currently used as a rental property. The structure does not have significance under the NHPA and similar state preservation acts. No structures exist along or adjacent to the proposed makeup water supply and natural gas pipelines.

From June 25 to 29, 2001, ENTRIX archaeologists and Cultural Resource Technicians for CTUIR conducted a systematic pedestrian survey of the proposed 200-foot transmission line APE. Wallula Generation's aerial photographs coupled with USGS quadrangles (Umatilla, Oregon-Washington, 1993; Hat Rock, Oregon-Washington, 1993; Juniper, Oregon-Washington, 1993; Juniper Canyon, Oregon-Washington, 1978; and Wallula, Washington-Oregon, 1992) served as base maps for the survey.

Cultural resource staff surveyed the project corridor by walking transects spaced at 30-meter intervals in a zigzag pattern. Surveyors avoided excessively steep areas where the site probability was low. The survey corridor was on the north side of the existing 500 kV line and in general walked west to east. On slopes exceeding 20 degrees, selected areas of moderate to high probability for cultural resources were surveyed. In the section of the corridor that runs through the Wallula wildlife refuge area, a 200-foot corridor was surveyed on both sides of the existing transmission line (between Bonneville structures 38/1 and 38/3).

The degree of ground surface exposure varied dramatically depending on the density of the vegetation. In some areas, the grass cover was over 1 foot deep and in other more wind-blown areas, the vegetation was quite sparse. Many areas of the survey corridor were cultivated with crops such as wheat and mint, which eliminated ground visibility. The area near Craig Road is known as the "pothole" district and consists of dense vegetation, marshes, and water filled potholes that impeded progress and obscured the ground surface.

The ENTRIX field investigation resulted in the identification of three archaeological sites, identified as temporary field numbers Wallula Site No. 1, Wallula Site No. 2, and Wallula Site No. 3. The ENTRIX field investigation did not identify any historic buildings or structures within the project APE. For each newly discovered archaeological site, field staff recorded specific information describing the location, site type, and associated features or artifacts on the relevant Washington or Oregon Archaeological Site Inventory Forms. Photographs and site maps were prepared to accompany the site forms submitted to the relevant state archaeologist.

Two of the four sites identified during the surveys conducted by Lithic Analysts and ENTRIX have been formally evaluated for eligibility to the NRHP as defined in 36 CFR 60.4. Wallula Site No. 1 and Wallula Site No. 2 have been determined eligible for the NRHP under Criterion d by the Washington State Archaeologist. A final determination of NRHP eligibility on the other two sites will be obtained from the Oregon State Archaeologist.

3.14.1.4 Archaeology and Ethnohistory

Prehistory

Studies of the archaeology and prehistory of the project area and surrounding environs divide the cultural sequence into three phases or periods from about 11,500 years ago to AD 1720. (These phases do not reflect tribal viewpoints; they are academic in nature.)

- Period I. 11,500 years ago to 5000 to 4400 BC – Period I includes Clovis Paleo-Indian occupations (Period IA, 11,500-11,000 years before present) and post-Clovis occupations (Period IB, 11,000-5,000/4,400 years before present).
- Period II. 5000/4400 to 1900 BC – This period is marked by a decline in quality of stone tools and the development of semi-subterranean pit houses with exploitation of nutritious roots and salmon.
- Period III. 1900 BC to AD 1700 – This period is marked by the widespread use of pit house, heavy reliance on fishing and camas root harvesting, and seasonal village development. This period ended with the appearance of the horse. Subperiod IIIA dates between 1900 to 500 BC and is clearly marked by an increased intensity of occupation and reoccupation of certain major sites along the Snake and Clearwater Rivers. Subperiod IIIB dates between 500 BC to AD 500/1000 and sites from this period are well represented on all the major drainages in the southeast Plateau. Subperiod IIIC dates between AD 500/1000 to 1720 when the horse appeared on the Plateau and the shift from pit houses to longhouses became apparent.

Ethnography/Ethnohistory

The Walla Walla, Umatilla, and Cayuse are part of the Plateau Cultural group and today comprise the CTUIR. Walker (1998) states that there are eight distinguishing features of Plateau culture:

- riverine (linear) settlement patterns;
- reliance on a diverse subsistence base of anadromous fish and extensive game and root resources;
- a complex fishing technology similar to that seen on the Northwest coast;
- mutual cross-utilization of subsistence resources among the various groups comprising the populations of the area;
- extension of kinship ties through extensive intermarriage throughout the area;
- extension of trade links throughout the area through institutionalized trading partnerships and regional trade fairs;
- limited political integration, primarily at the village and band levels, until adoption of the horse; and

- relatively uniform mythology, art styles, and religious beliefs and practices focused on the vision quest, shamanism, life-cycle observances, and seasonal celebrations of the annual subsistence cycle.

The project area falls within the ceded territory of the CTUIR. More specifically, the area lies within the area generally occupied by the Sahaptin-speaking Walla Walla Tribe, who at one time had a winter village at the mouth of the Walla Walla River, about 4 miles south of the project area. This village also extended along both banks of the Columbia River (now partially inundated by the McNary Dam). Celilo Falls and The Dalles, great fishing and trading centers, were located down river on the Columbia River. Trading at The Dalles attracted people from as far away as the Midwestern Plains and the Northwest Coast. The Cayuse and Umatilla Tribes and others cooperatively lived and hunted with the Walla Walla Tribe in the vicinity of the project area. Each group was autonomous and somewhat fluid.

History

The Cayuse Tribe acquired the horse in the early 1700s, followed by the Walla Walla and Umatilla Tribes. With the resulting increase in mobility, they could then travel greater distances, often to the Great Plains in pursuit of buffalo. Although horses and European trade items were acquired in the early part of the 18th Century, actual European-American contact began with the Lewis and Clark Expedition in fall 1805 (Stern 1998). Lewis and Clark noted 34 native villages as they traveled from the Snake River to the Long Narrows on the Columbia. At that time, the area was busy with the procurement of the fall salmon run.

On their return voyage, the Expedition camped just above Wallula Gap for two nights at the Walla Walla village of Chief Yellepit. Fur traders soon followed Lewis and Clark. In 1811 David Thompson placed a marker for the North West Company of Canada at the mouth of the Snake River to claim the territory for Great Britain. By 1818, the North West Company (later merged with Hudson's Bay Company in 1821) had erected Fort Nez Perce (later called Fort Walla Walla) about a half mile north of the mouth of the Walla Walla River. It was there that many important trails from the interior converged (Stratton and Lindeman 1976) including the Nez Perce Trail and later a branch of the Oregon Trail. The location of Fort Walla Walla is now inundated by the McNary Dam, and is probably about 1 mile west of the current shore.

Missionaries established a Catholic mission near Pendleton and the Presbyterian mission of Marcus and Narcissa Whitman at Waiilatpu near the present city of Walla Walla.

The flow of immigrants and their numbers increased with each passing year, increasing pressure to appropriate native land for farming. Washington Territorial Governor Isaac Stevens signed the treaty creating the CTUIR on June 9, 1855 at the Walla Walla Council. All rights, title and claim to the CTUIR's aboriginal territory (6,400,000 acres), excepting the reservation lands, were ceded. The Treaty recognized and expressly reserved for the Tribes the exclusive right of taking fish in the streams running through and bordering the reservation and at all other usual and accustomed fishing stations in

common with citizens of the United States. They were also guaranteed the right to erect suitable buildings for curing fish and to hunt, gather roots and berries and pasture their stock on unclaimed lands in common with other United States citizens. A mere 12 days after the Walla Walla Council met, Stevens violated the terms of the treaties by opening ceded lands to immediate non-Indian settlement (Zucker 1983). Not all tribal members agreed with the terms of the treaty and war soon broke out. Some Cayuse joined up with the Yakama and participated in the Yakama War of 1855-56. Congress ratified the treaty on March 8, 1859.

Increased immigrant population necessitated the need for better transportation, including railroads and river transportation. After the abandonment of Fort Walla Walla by the Hudson Bay Company, the buildings were raided and burned by Indians (Lavender 1958). The community of Wallula later replaced the old fort and some citizens appropriated portions of the old fort for themselves. What remained after that was swept away by floodwaters in 1894 (Stratton and Lindeman 1976). By 1860, the occupation date of the Umatilla reservation, overland routes were connected to the Columbia River by steamboat traffic at Wallula. The original town was platted and incorporated in 1862, by J.M. Vansycle, a local ferry operator, and S.W. Tatem. The community of Wallula moved to its present location when the McNary Dam was constructed in the 1950s.

Many historic roads and trails used Wallula as a trailhead (e.g., Colville Road, Mullan Road, and the Cariboo Trail). A horse-tread ferry also operated out of Wallula to cross the Columbia River.

The first transcontinental railroad, completed in 1883, traveled through the community of Wallula by a short spur and proceeded on to the city of Portland. Eventually the Northern Pacific from the west met the Oregon Railway and Navigation Company from the east at the community of Wallula. To accommodate railroads, the community of Wallula was moved 1 mile east of its original location in 1888.

Gold discoveries in Idaho, Montana and British Columbia led to the creation of cattle markets west of the Cascades and in Wyoming. The Mullan Road and the Oregon Trail became cattle trails. By the 1890s, open-range cattle ranching was being replaced by farming and wheat farming was becoming predominant. The Sunnyside Canal was constructed in 1892 bringing water from Yakima River to the community of Prosser. The Reclamation Act of 1902 marked the beginning of “planned, coordinated survey and development of the irrigation potentialities of the region” and larger irrigation districts began to form. The federal government purchased the Sunnyside Canal in 1906. The Columbia Basin Irrigation Project was founded and subsidized by the federal government after World War II. This project greatly enhanced the economy of the Plateau area and made it possible to grow many additional crops, including grapes for wine and many other fruits (Draper 1992).

Even though the community of Wallula offered amenities to travelers, the city of Walla Walla grew faster and to a larger size. Eventually, the community of Wallula was moved for the last time, along with a pioneer cemetery, about 2 miles to its present location at the completion of the McNary Dam in 1954 (Stratton and Lindeman 1976).

The ancient fisheries of the Umatilla, Walla Walla and Cayuse Tribes at Celilo Falls were destroyed by the completion of The Dalles Dam in 1958. The U.S. Government gave the Tribe a monetary award in an effort to compensate for their loss, but the damage was irreparable. The U.S. Army Corps of Engineers built fishing sites along some of the reservoirs in lieu of lost fishing locations (e.g., Celilo and near Hood River).

Agency and Tribal Consultation

The applicant identified the CTUIR and the Yakama Nation as the primary tribes with Ceded Lands and/or Usual and Accustomed Areas in which the Wallula Power Project is located. The applicant has maintained contact with the affected Tribes during the application development phase. The purpose of Tribal communication was to scope and address tribal concerns relative to cultural and natural resources (water, fisheries, wildlife and botanical) that could be impacted by the proposed project.

In mid-September 2000, applicant representatives initiated interactions with the affected treaty Indian Tribes. The purpose of these initial tribal communications was to

- notify them that EFSEC would be holding public meetings in the community of Burbank and the city of Walla Walla, Washington, respectively, on October 18, 2000 and October 19, 2000;
- provide the Tribes with an information packet that generally described the proposed Wallula Power Project; and
- set up meetings between the applicant and each Tribe in order to more specifically discuss project features, and to solicit and identify tribal concerns associated with sensitive areas and potential impacts to cultural and natural resources.

Following Section 106 regulations, Bonneville has notified the State Historic Preservation Officer (SHPO) that the project is an “undertaking” as defined in 36 CFR 800.16(Y), and that Bonneville as the lead federal agency has authorized Wallula Generation, LLC to initiate consultation with SHPO. ENTRIX obtained concurrence from the Washington SHPO regarding the APE for this project. Coordination with SHPO would continue throughout the environmental review process, and would include requests for concurrence on NRHP recommendations, determinations of adverse effects, and consultation on recommended measures to avoid or mitigate harm to historic resources. Section 3.14.2 provides recommendations for the archaeological sites identified during the survey for this project. These preliminary findings would be sent to the Office of Archaeology and Historic Preservation (OAHP) for review. Final determinations of eligibility would be completed after the OAHP review and would be included in the final technical report.

ENTRIX also consulted with interested parties, including local Indian Tribes. Bonneville initiated a number of meetings with interested Tribes, which ENTRIX staff attended. ENTRIX continued communications with four Tribes who showed an interest in participating in the project including the CTUIR, Wanapum, Yakama, and Nez Perce. ENTRIX entered into contractual agreements with the CTUIR to assist with

archaeological fieldwork and oral histories. The CTUIR oral history report was to be completed in fall 2001. The Yakama Nation showed an interest in participating in the oral histories, but has not signed a contract at this time. Though contracts for oral histories were sent to the other two Tribes, no agreements were signed.

3.14.2 Impacts of the Proposed Action

3.14.2.1 Construction

Two of the archaeological sites identified within the project APE have been determined eligible for the NRHP. The following measures would be used to minimize impacts to cultural resources during construction of the generation plant, transmission line, and associated facilities.

General Construction Measures

The applicant has committed to the CTUIR that a tribal cultural resource monitor would be present during ground disturbance associated with project construction. If a cultural resource feature was encountered, all construction would be halted temporarily in the area of the feature and appropriate staff from the CTUIR Cultural Resource Protection Program (CRPP) would be consulted. If human remains/burials were encountered, construction would cease immediately in the area of the burial and the area would be secured and placed off limits for anyone but authorized personnel.

The tribal monitor would notify the CRPP office immediately and the CTUIR Policies and Procedures Manual for the Handling of Ancestral Human Remains and Funerary Objects would be implemented. The CRPP office would notify any and all authorities concerned with such an inadvertent discovery, including Wallula Power Project personnel. The CTUIR would write a short report for the applicant, regarding all monitoring activities and their results.

Transmission Line Measures

Bonneville has included within the 33-mile transmission line corridor project design and project description the following measures to mitigate impacts to cultural resources within the project APE. The impacts of the transmission line construction, operation, and maintenance are assessed in the following section in light of these measures.

- The transmission corridor lies within the ceded lands of the CTUIR. Bonneville has consulted with CTUIR and other Native American Tribes within the region, including the Yakama Nation, the Nez Perce Tribe, the Confederated Tribes of the Colville Indian Reservation, the Warm Springs Tribe, and the Wanapum Band of Indians. Bonneville has requested information on the history and cultural significance of the transmission line corridor. A ground survey for cultural and historical artifacts has been conducted in conjunction with the CTUIR along the transmission line corridor, as well as an inventory of known cultural and historical sites in the vicinity.

- Prior to construction, Bonneville would conduct site-specific cultural resource surveys at the proposed structure locations and along all access roads. Any identified cultural or historical sites would be avoided through relocation of structures or realignments of proposed access roads.
- Bonneville would have a tribal cultural resource monitor from the CTUIR present in agreed upon areas during construction-related ground disturbance.
- All known or identified cultural or historical sites along the proposed corridor would be avoided when setting structure foundations or access road locations. Should any previously unknown artifacts be identified during construction, all activities in the immediate area would stop until the resource can be evaluated by an archaeologist meeting the Secretary of the Interior's Qualifications Standards for Archaeology (48 Federal Register 44738-39). Prehistoric site indicators include chipped chert and obsidian tools and tool manufacture waste flakes, grinding implements such as mortars and pestles, and darkened soil that contains aboriginal dietary debris such as bone fragments and shellfish remains. Historic site indicators include, but are not limited to, ceramic, glass, wood, bone and metal remains. Representatives of the CTUIR would be contacted and the area would be surveyed and avoided if possible during further site construction.
- If human remains/burials were encountered, construction would cease immediately in the area of the burial and the area would be secured and placed off limits for anyone but authorized personnel. The Indian Tribal monitor would notify the CTUIR CRPP immediately and the CTUIR Policies and Procedures Manual for the Handling of Ancestral Human Remains and Funerary Objects would be implemented.
- Construction staging areas, access roads and structure locations were not defined at the time of the field survey and would require a field reconnaissance survey prior to construction.
- When transmission structures are located in archaeologically sensitive areas, shovel test probes (STP) would be placed at each of the four structure corners in advance of excavation for the structure footings.
- Depending on the type and significance of newly discovered resources, procedures may include testing the site with STPs to determine the site boundaries and any possible subsurface components. If results of the STPs determine the presence of an extensive subsurface component, the structure location would be moved. Alternatively, a full data recovery program for the site could be developed and implemented in consultation with the CTUIR and appropriate Washington or Oregon State Archaeologists.

Measures for Identified Cultural Sites

To eliminate impacts to cultural resources, archaeological sites would be avoided during the project's construction. Below is a summary of specific avoidance measures for each site.

Newport No. 1. Measures to avoid impact to the site identified during the Lithic Analysts survey of the northernmost portion of the APE would include staking and flagging the site boundary prior to construction activities. Should construction activities occur within or adjacent to the site's boundaries an archaeological monitor would be present to observe for cultural materials.

Wallula Site No. 1. Impact to prehistoric Wallula Site No. 1 would be avoided by locating the proposed transmission line on the west side of the existing 500 kV transmission line. Wallula Site No. 1 is located approximately 300 feet east of the existing transmission line and therefore would be completely avoided by limiting construction and operating activities to the west of the existing 500 kV line.

Wallula Site No. 2. Construction activities would not directly impact Wallula Site No. 2 due to its location on the side of a relatively steep hill where helicopters would be employed rather than ground-based vehicles to assist in the installation of structures. To ensure avoidance to prehistoric Wallula Site No. 2, the site boundary (as determined by visual components) would be staked and flagged prior to the start of construction activities.

Wallula Site No. 3. Measures to avoid impact to Wallula Site No. 3, which is located 200 feet north of the existing transmission line, would include staking and flagging the site boundary (as determined by visual examination) prior to nearby construction activities. An archaeological monitor would also be present for construction activities.

The Washington State Archaeologist has determined that Wallula Site No. 1 and No 2 are eligible for the NRHP under National Register Criterion d.

3.14.2.2 *Operation and Maintenance*

The continued operation and maintenance of the project would require the replacement of equipment, potential construction of roads, and other ongoing activities to ensure the project's efficient operation. Such activities are not anticipated to impact the four archaeological sites identified in the survey for this project. Should operation and maintenance activities result in ground disturbances in archaeologically sensitive areas, the procedures listed earlier for construction should be followed to ensure the protection of archaeological sites that may be eligible for listing in the NRHP.

Mitigation measures would be implemented to avoid impacting a lithic scatter located near the proposed makeup water supply pipeline. The archaeological site boundary would be staked before construction and monitored during construction to prevent impact. Daily operation of the project and auxiliary areas would not impact the archaeological site. If it becomes necessary to ascertain more information about the site, it would be tested by subsurface excavation in a Phase II survey. Such testing would likely include 10 STPs placed on a north/south baseline through the center of the site and 15 STPs placed on an east/west center baseline through the site. This technique would establish if concentrations of artifacts were located within the site. Two units 1 meter square would be excavated to culturally sterile sediments in areas where subsurface

artifacts are located by the STPs. If the results of a Phase II test excavation determine the presence of extensive subsurface cultural deposits, a Phase III data recovery effort may be necessary. A Phase III data recovery would be accomplished in consultation with the CTUIR.

Cumulative impacts on cultural resources resulting from construction and operation of this and other power projects in the region are discussed in Section 3.17, Cumulative Impacts.

3.14.3 Impacts of Alternatives

3.14.3.1 *Alternative Tower Height and Longer Span Design*

This alternative has longer spans between structures for a portion of the transmission line. Potential construction, operation, and maintenance impacts to cultural resources may be reduced due to flexibility in tower placement to avoid sensitive resources, 17 fewer tower locations, and building fewer miles of access road or spurs.

3.14.3.2 *Alternative Alignment near McNary Substation*

There is no difference between the options in potential impacts to cultural resources.

3.14.3.3 *No Action Alternative*

Under the No Action Alternative, there would be no project-related cultural resource impacts.

3.14.4 Significant Unavoidable Adverse Impacts

There would be no significant unavoidable adverse impacts to cultural and historical resources that would result from the construction, operation, and maintenance of the proposed project.