

Section 3.13

CULTURAL RESOURCES

This section describes the existing cultural resources in the area of the proposed Wild Horse Wind Power Project (WHWPP) in Kittitas County near the City of Kittitas. It evaluates the potential impacts on the cultural resources and identifies mitigation measures to limit those impacts.

A cultural resources evaluation was performed to identify and assess any potential impact on cultural resources located within the project area. These resources may include previously documented or undocumented historic, cultural and archaeological resources as well as traditional cultural properties (TCPs). To determine whether the project area contains any significant cultural deposits, Lithic Analysts was contacted to conduct an extensive and systematic on-ground cultural resource survey of the proposed project area. The survey areas (areas affected by actual as well as potential ground-altering activities) included locations of all turbine strings, on-site step-up substations, off-site interconnect substations, new roads, existing two-track roads, gravel roads, proposed Puget Sound Energy (PSE) and Bonneville Power Administration (BPA) feeder lines, and existing power line rights-of-way as indicated on the site survey map included in an early chapter (see Figure 1-2). The pedestrian survey for the project area was conducted in April, May and October 2003. The weather for most of the survey was clear, and access to all areas was unobstructed.

3.13.1 Affected Environment

3.13.1.1 Regulatory Framework

Federal

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. No federal action is anticipated in relation to the proposed project. If the project ultimately interconnects with the BPA transmission system, BPA would be responsible for implementation of the NHPA.

State

RCW 27.53.060 further provides protection of cultural resources on private and public lands in the State of Washington.

3.13.1.2 Regional Context

The project area is located approximately 11 miles east of Kittitas, Washington, and 10 miles west of the Columbia River near Vantage, Washington, on a series of ridge tops that separate the Kittitas Valley from the Columbia River and mark the beginning of the Cascade foothills. The Wenatchee National Forest is northwest of the project area, the Quilomene Wildlife Area is northeast, and the Whiskey Dick Wildlife Area is southeast of the project area.

The project area receives an annual effective precipitation rate of less than 9 inches. The area lies within the *Artemisia tridentata/Agropyron spicatum* association of the shrub-steppe vegetation environmental zone. This zone occupies the center of the Columbia Basin Province and extends west to the foothills of the Cascade Range. Most of the project area, particularly the higher elevations, is situated within lithosols or regoliths; thus, the sediments are extremely rocky.

The Columbia River Basalt formation dominates the underlying geology of this project area. This formation was the result of an outpouring of a long sequence of Miocene lava flows covering an area of over 500,000 square miles. Individual lava flows were approximately 27 feet to 100 feet thick, with a total thickness of 2,000 feet to 5,000 feet (Franklin and Dyrness 1988:29). Interspersed between layers of basalt are interbeds of sedimentary deposits called the Ellensburg Formation. It is within these layers that opal, chalcedony, jasper, and chert are found. Prehistoric knappers utilized these lithic materials for flaked stone tool manufacture. Glaciers further carved the project area 2,000,000 to 10,000 years ago, helping to create the narrow, rocky ridges upon which the proposed Wind Turbine Generator Strings would be erected. Section 3.1, "Earth," contains a detailed discussion concerning the geology of the project area.

3.13.1.3 Prehistory

Culturally, the area is referred to as the Southern Plateau, which stretches from the Okanogan Highlands in the north to the Bitterroots in the east, the southern edges of the Deschutes and John Day Rivers (in Oregon) in the south, and the crest of the Cascade Mountains in the west. Within the Southern Plateau, the Kittitas or Upper Yakima and others occupied the subregion called the South-central Plateau (Ames et al. 1998). During ethnographic times, the predominant language of the Southern Plateau was Sahaptin, of which the Kittitas spoke the NW dialect along with the Yakima, the Klickitat, the Upper Cowlitz or Taitnapam, and the Upper Nisqually. However, nearly half the languages of the Plateau cultural area belong to the Salishan family group. Salishan is also spoken on the Northwest coast. There are seven languages of the Interior branch spoken on the Plateau. The southeastern group of these seven includes the Columbian spoken by the Sinkayuse, the Wenatchee, and the Chelan (Kincade et al. 1998).

There are numerous chronological sequences or phases that have been proposed for the archaeological record on the Columbia Plateau. These assigned phases generally reflect an effort to place documented cultural material remains within a certain framework. Chronologies usually rely heavily on projectile point characteristics or morphology—instead of technology—to place an archaeological site with a particular prescribed phase. No attempt has been made here to discuss Plateau cultural history within such a context. Rather, the many archaeological studies for the area have been synthesized to arrange Plateau cultural history into three general periods ranging from about 11,500 years ago to A.D. 1720 (Adapted from Ames et al. 1998, unless

otherwise noted). Following is a brief summary of these time frames. They are strictly academic and do not reflect tribal viewpoints.

Period I. 11,500 years ago to 5000/4400 B.C.

Period IA dates from 11,500 to 11,000 years ago. The Richey-Roberts Clovis Cache is the only known site on the Southern Plateau containing intact deposits of this age. Other evidence of these earliest occupations consists entirely of surface finds. There is little available evidence of cultural continuity from Clovis to later-dating periods, though a strong connection with other regions to the south and east is implied. Period IA sites have not been identified in the South-central Plateau.

Period IB dates from 11,000 years ago to 5000/4400 B.C. Post Clovis cultures practiced a broad-spectrum hunter-gatherer subsistence strategy consisting of high seasonal and annual mobility, low population densities, and a technology suited for maximum flexibility. In that economy, wide ranges of foods were exploited. People moved frequently and left no evidence of dwellings or structures.

The great majority of Period IB sites, particularly those dating prior to 7000 B.C., are concentrated in the central and eastern portions of the region. Most major sites are located along the Columbia and Snake Rivers and tributaries; sites are also documented in the surrounding plateaus and mountainous uplands, indicating that all regional environments were used. A documented Period IB archaeological site is located at Ryegrass Coulee near Vantage, east of the project area on the Columbia River.

Period II. 5000/4400 to 1900 B.C.

Semi-subterranean pit houses appear in the archaeological record for the first time along with evidence of increased exploitation of certain nutritious roots and salmon. Less investment is made in the manufacture of stone tools as judged by their decline in quality. Semi-subterranean pit houses are 21 to 24 feet across, circular to rectangular in plan view, and 3 to 6 feet deep. The houses generally lack evidence of superstructures, and their contents include clusters of large hopper mortar bases and anvils resting on their floors. The presence of semi-subterranean pit houses likely represents a region-wide shift in settlement patterns to some form of semi-sedentism. However, there are few dated dwellings in the region 2000 to 1800 B.C.

Period III. 1900 B.C. to A.D. 1700.

The beginning of this period is marked by the widespread reappearance of pit houses, increasing heavy reliance on fishing and storage of salmon, intensive exploitation of camas, and evidence of land use patterns that persisted into the 19th century. These land use patterns include seasonal (usually winter-early spring) villages in the canyons and exploitation of uplands and mountains from special use camps during the summer and fall.

By 500 B.C., pit houses were common and highly variable in size with evidence of superstructures. Large pit houses (diameters greater than 36 feet) became more common after A.D. 1000. Large concentrations of houses—towns and villages—also appeared in the record by A.D. 500; longhouses entered the archaeological record after A.D. 500. Like pit houses, net weights became quite common, suggesting greater use of fishing nets. While there is very little

evidence of food storage pits in Periods I and II, storage pits with salmon remains are seen at the beginning of Period III. Period III is the only period in Plateau prehistory that is also represented by fiber and wood artifacts and other perishables.

Pit house sites are found along the Columbia and its tributaries, and clusters of house pits have been located on terraces of very small streams that flow into larger rivers and in totally unexpected places.

Sub-period IIIA dates from 1900 B.C. to A.D. 1. This sub-period in the west-central Plateau reveals increased population and sedentism, changes in subsistence patterns, large riverine villages and the appearance of communal villages, larger and more functional artifact assemblages, and an increase in trading of non-local items utilizing pre-existing trade networks. A greater diversity in the physical styles of housing and the larger numbers of dwellings documented during this period likely reflect an expanding regional population base.

Artifact assemblages are dominated by expedient tools, and salmon is a dominant component of faunal assemblages. Large mammals are also a principal source of food. Seasonal root and vegetable food gathering and raw material extraction were among the prominent activities pursued from upland camps.

Sub-period IIIB dates from A.D. 1 to 1720. This sub-period marks the appearance of the ethnographically defined winter village pattern. By A.D. 1, pithouses are found among most salmon-bearing rivers and streams, and upland camps and use areas appear in expanded numbers. Hunting and hunting-related activities, plant gathering and processing, and lithic quarries and collection areas are among the most common of site occurrences in these areas. The first documented examples of longhouses appear during Sub-period IIIB.

The longhouse at Avy's Orchard (East Wenatchee), dated to A.D. 889, was a semi-subterranean structure, implying an evolution to a surface structure found later. This change was most likely linked to the adoption of an equestrian lifeway over most of the region after A.D. 1720. Even though there were some changes in housing during sub-period IIIB, the circular, semi-subterranean pit house or mat lodge remained the dominant form of housing. These were easily adapted to a surface structure with the introduction of the horse and increase in settlement mobility. The number and diversity of non-dwelling structures, such as sweatlodges, also increased during this period.

Hunn (1990) states that the Plateau way of life remained "fundamentally the same" throughout prehistory until the rapid changes brought about by European American influences during the 1700s and later. Any changes noted represent subtle shifts of emphasis rather than profound redesign of Plateau economic and social patterns. As stated by Kirk and Daugherty (1978), culture change proceeded at a modest pace through the ages into the historic period. Events that drastically altered the subsistence patterns in Plateau life included the introduction of the horse, the spread of diseases, the fur trade and European American emigration onto native land (Hunn 1990).

Ethnography/Ethnohistory

The project area is situated within the Yakama Nation ceded territory. The Kittitas Indians are one of five closely related but independent bands that today make up the Yakama Nation—the Yakima, the Kittitas, the Klickitat, the Taitnapam and the Wanapum. The Kittitas lived,

generally, in the Yakima River valley drainage from Selah Creek south of Ellensburg, north to the area near Keechelus Lake at Snoquamie Pass (Schuster 1998). This area is often referred to as the Kittitas Valley.

The Confederated Tribes of the Colville Reservation (CTCR) also have an interest in the project area. CTCR ceded territory includes Northeastern Washington. The tribes of the CTCR are the Sinkayuse or Moses-Columbia, Wenatchee, Entiat, Chelan, Methow, Okanogan, Nespelem, Lakes, Colville, Palus, Sanpoil and the Chief Joseph Nez Perce.

As part of the Plateau cultural group, the Kittitas and the Moses-Columbia utilized a riverine settlement pattern, based upon sharing of diverse resources among bands of related and extended family groups. Beginning in April with root gathering—before the spring Chinook run at the Dalles—they followed a subsistence cycle referred to as the seasonal round, traveling to and from resource procurement grounds (Hunn 1990). Regional trading centers were located at Chelohan near Kittitas, Soap Lake, Waterville, Kettle Falls and the mouths of the Wenatchee and Okanogan Rivers and Icicle Creek (Miller 1989). Through spring, summer and fall, they gathered and processed various foods contained within the surrounding areas, including camas, bitterroot, lomatium and other roots, berries, fish, deer, elk, medicinal herbs and other plants and animals (Hunn 1990).

During ethnographic times, the Kittitas maintained close ties to both Sahaptin and Salish-speaking tribes (Ray 1936, Prater 1981, Miller and Lentz 2002), particularly the Moses-Columbia, the Wenatchee and the Snoqualmie. They were expert traders and maintained particularly strong trade relations with the Snoqualmie, and were known to winter with them at their village below Snoqualmie Falls (Prater 1981).

The Kittitas resided along the upper Yakima River from Cle Elum Lake to the Yakima Canyon. There were at least 11 known Kittitas villages located in this portion of the Yakima River valley. Most were near the Yakima River, and the others were near creeks flowing into the Yakima River (Schuster 1998; Ray 1936).

Nearest to the project area, Ray (1936) noted the village of Na'nam, with about 400 people located on present-day Naneum Creek, which is about 10 miles to the west. Two villages were also located at the present site of the town of Kittitas. These villages were close to the near-by root-gathering grounds, and contained the highest concentration of people in May and June. Both villages had Salish names, translated as “grasshopper creek” and “standing by the side of your arm” (Ray 1936). The Sinkayuse or Moses-Columbia Indians spoke Salish (Miller 1998), and this is part of the traditional use area claimed by Chief Moses (Ruby and Brown 1965). The famed horse racing area was located just to the north, where Caribou Creek enters the Kittitas Valley (Kittitas County Centennial Committee 1989). Visited by Alexander Ross in 1814, it was used regularly in the spring and fall by native people until as late as 1912 (Paul 1996). This area of the Kittitas Valley with tall bunch grass and plentiful water supported vast herds of horses (Kittitas County Centennial Committee 1989).

Many trails once dotted the local landscape, connecting the villages located at the head of Yakima Canyon with the area west of the Cascades and the Columbia Plateau to the east. Ray (1936) reported several Indian trails in the Kittitas Valley. One followed the southern bank of the Upper Yakima River west to the upper reaches of the Cle Elum River. Trails extended north from the Yakima River trail into the mountains and to Wenatchee. Another crossed from the mouth of Naneum Creek to Reecer Canyon and then to Swauk Creek. Portions of present-day

I-90 (Prater 1981) west of Thorp were literally constructed over the ancient Indian trail leading westward across the mountains through Snoqualmie Pass. Schnebly Coulee, which became Vantage Highway, and Ryegrass Coulee, which became I-90 in Eastern Kittitas County, both were originally trail access from the Columbia River. In addition, the Kittitas and other Yakamas used Naches Pass to reach Puget Sound to trade at Fort Nisqually (Glauert and Kunz 1976). The trail up Naneum Creek over Colockum Pass to the Columbia River and the Wenatchee area was steep and dangerous. Residents of Wenatchee and Ellensburg upgraded it to a rough road in 1883. It was used as a stagecoach road until the advent of railroads and later the automobile. The Colockum Pass, inventoried as historical site #19-132 by the Washington State Office of Archaeology and Historic Preservation (OAHP), is still in use today as a dirt road (Kittitas County Centennial Committee 1986).

3.13.1.4 Historic Setting

Euro-American influence in the Kittitas Valley began with early explorers. British fur traders for the North West Company, such as David Thompson and Alexander Henry the Younger, descended the Columbia past the junction of the Yakima River in the summer of 1811 and fall of 1813, respectively. David Thompson, of the Montreal-based Northwest Company, traveled the length of the Columbia River from Kettle Falls to the mouth in his efforts to map a route from the Interior to the Pacific Ocean (Meinig 1995) and to claim the land for Great Britain. Along the way, he established fur trade contacts among the native peoples of the valley. He and his crew of French Canadians and Indians camped the night of July 8th at the mouth of Crab Creek, where they were ravaged by mosquitoes and high winds. Thompson arrived at the mouth of the Columbia, only to discover the Americans constructing a fur trade post under John Jacob Astor's Pacific Fur Company. His return trip up the Columbia was partially shared with a team from the Pacific Fur company, led by David Stuart. Among Stuart's crew was a clerk named Alexander Ross. Once he reached the mouth of the Snake, Thompson traveled from there to the mouth of the Palouse, then left his water route to return overland (Anglin 1995). Stuart and his men, lagging behind, kept to the water route.

Alexander Ross, who kept excellent notes, was the first known Euro-American to enter the Kittitas Valley near the project area later in 1814. He came to the valley to purchase much needed horses at the Che-lo-han encampment, otherwise known as the Council Gathering Grounds, located near the present-day town of Kittitas. Ross estimated that Che-lo-han stretched for more than 6 miles. It was here that he counted over 3,000 Indians, not including women and children, and a vast herd of horses.

Fur traders, trappers, and explorers—both American and British—soon followed, though fur trading did not have the early impact on the Kittitas Valley that it did elsewhere. Generally, however, construction of Fort Vancouver by the Hudson's Bay Company in 1825 greatly increased contact with fur traders. Trading was also brisk with Fort Nisqually on Puget Sound. Rather than furs, the Yakima used the horse, their best asset, as a trading commodity to acquire all nature of trade items, such as guns, ammunition, beads, blankets, axes, knives and projectile points. Beef gradually became a staple in Indian diet. Sometime after 1840, the Kittitas under Ow-hi and later Kamiakin began grazing their own herds in the valley (Schuster 1990). They imported Black Spanish or Sandwich Island cattle from the Hudson's Bay Company at Fort Vancouver (Glauert and Kunz 1976). As with fur trading, initial European American settlement

did not influence the Kittitas Valley as much as elsewhere because the land was not considered good for farming (Schuster 1990).

In May 1841, Lieutenant Charles Wilkes of the United States Exploring Expedition sent Robert Johnson from Puget Sound overland to assess the navigability of the Columbia River and to explore the interior of the Columbia (Anglin 1995). On his way, Lieutenant Johnson stopped in the Kittitas Valley to purchase fresh horses. His negotiations were not without difficulty because the Kittitas chief, Te-i-was, was reluctant to part with his best mounts. While there, Johnson learned that game was scarce and that the beaver had all but disappeared. Johnson observed and recorded camas and other roots being dug by the women, as well as the method of preparation by drying, pounding them into a mass between two stones, and then baking them in an oven. Johnson also observed a patch of potatoes being cultivated near the Columbia River within a small square of land surrounded by turf walls (Wilkes 1845).

The Kittitas Valley, as part of the Oregon Territory, was governed under joint occupancy between the British and Americans until 1846. After that time, Euro-American settlements increased throughout the region. Catholic missions were established in the Yakima River Valley in 1847 (Schuster 1982) at the invitation of Ow-hi (Ricard 1976). Most missions were located a distance away from the project area at Ahtanum and on Manastash Creek (Glauert and Kunz 1976). There was possibly one, however, at the mouth of the Taneum on the Yakima River (Olmstead-Smith in Miller and Lentz 2002). Few, if any, adult Indians were baptized or attended mass on a regular basis (Ricard 1976). However, the Catholic fathers had good relationship with the Indians, particularly Kamiakin, Ow-hi, and Te-i-as. Father Pandosy often served as an interpreter and trusted counsel for them during negotiations with the U.S. Government (Glauert and Kunz 1976). Tensions and fears were high throughout the region after the deadly attack on the Whitman Mission near Walla Walla. In addition, the Protestant settlers did not trust the Catholic priests. After hostilities actually occurred in 1855, the Catholic mission at Ahtanum was sacked and burned by vigilantes (Hunn 1990, Schuster 1982).

The relative isolation of the Yakima Valley began to disintegrate in the 1850s as events proceeded rapidly. The Donation Land Act was passed, and Indian lands in the Northwest were opened for settlement. Euro-American settlers began moving into areas on both sides of the mountains. Washington Territory was formed in 1853, and Isaac Stevens was appointed governor and Indian agent. Besides surveying a railroad route across the territory, Stevens's primary motivation was to gain legal and undisputed title to Indian land so settlement could proceed unobstructed (Hunn 1990). At Stevens's direction, Captain George B. McClellan conducted a preliminary survey to construct a military wagon trail over Naches Pass and surveyed the Kittitas Valley. Even though he mapped much of the interior Cascade Range, he was unsuccessful in his efforts to get his men over Snoqualmie Pass because of heavy snow. This was left to army engineer Tinkham, who succeeded in 1854 (Glauert and Kunz 1976).

It was McClellan who first introduced the word "Kittitas" into the geographic lexicon, though it was later misspelled by Stevens's staff when they drew the maps. McClellan reported that his base camp was at Kittitas, the name of a nearby Indian encampment. In addition, the priest Father Pandosy had baptized his first convert at that location and had spelled it in his records as "Ki-tatash." Many meanings have been ascribed to the name, but the early frontiersman Charles Splawn said that *kittit* means white chalk and *tash* means place of existence. There are many places in the area where white chalk can be found. One in particular is located on the Yakima

River just south of Ellensburg. Chalk was used by the Indians to paint their faces and their horses (Glauert and Kunz 1976).

Once the treaty negotiation process started, Governor Stevens was relentless in pursuit of his goals. He organized a series of grand treaty councils to be held at various locations around the territory. In June 1855, approximately 1,000 Yakimas led by Kamiakin, Ow-hi, and Skloom along with other Plateau groups, attended negotiations at the Walla Walla treaty grounds, at a place where they had often gathered in the past to trade. In return for ceding their territories, Indians were promised payment in goods, cash, and other compensation and exclusive rights to bounded areas called reservations. In reality, their traditional ties were severed, and they were denied access to hunting territories and resource procurement areas (Hunn 1990, Schuster 1982).

After lengthy discussions and negotiations in which most Indians just gave up so they could go home (Schuster 1990), the treaty was signed at Walla Walla on June 9, 1855. It established a formal relationship between the U.S. government and the Yakima people. The treaty created the Consolidated Tribes and Bands of the Yakima Nation, now the Yakama Nation. Inadvertently, this formal relationship served to bind together formerly politically autonomous local bands—the Kittitas, Wanapum, Yakima, Taitnapam, and Klickitat—into a nation with a formal sense of tribal unity (Schuster 1982). Together they ceded almost 11 million acres (29,000 square miles) more than one fourth of the State of Washington, and were moved to the reservation at present-day Toppenish (Schuster 1998). In lieu of those lands, they retained approximately 1,200,000 acres (2,000 square miles) of land for their “exclusive use and benefit.”

Within months after the signing of the treaties, Stevens announced that the Washington Territory was once again open for settlement. A veritable land rush began. The discovery of gold on the Colville River further increased tensions, as miners swarmed across the landscape. In September of 1855, some Yakimas attacked a group of trespassing miners who had molested Yakima women (Schuster 1990). When the Indian agent came from The Dalles to investigate, he was attacked and killed by Showaway’s son. Soldiers sent to avenge the agent’s death were attacked and routed at Toppenish Creek by Kamiakin. Full-scale warfare resulted. In November of 1855, the Oregon Mounted Volunteers, in pursuit of the Yakima out of Union Gap, looted and burned the Catholic mission at Ahtanum (Glauert and Kunz 1976, Schuster 1982).

Colonel George Wright constructed a fort on the Naches and a base camp in the Kittitas Valley as a show of force, believing that the Indians would be persuaded to negotiate for peace. Even though he met with Ow-hi, a settlement was not reached. Wright then rounded up about 400 Kittitas and Wenatchee and transported them to Fort Simcoe to keep them away from other, more hostile bands. Hostilities continued throughout the Washington Territory until about September 1856. But in 1858, gold was again discovered, this time in British Columbia. Yet another group of miners was attacked while trespassing in Yakima lands. Lieutenant Jesse Allen retaliated and attacked a village at dawn in the Teanaway-Swauk area, killing three Indians. Lieutenant Allen also lost his life by friendly fire (Glauert and Kunz 1976). The war in 1858 continued until a final surrender in September. Ow-hi turned himself in. His son Qualchon was hanged in the mistaken belief that he was responsible for the earlier death of the Indian agent. Ow-hi was killed while trying to escape. Skloom did not regain his lost prestige. Kamiakin fled to Canada where he lived to be 73 (Schuster 1990). But, the will of the Indians was finally broken, and they were gradually moved onto their reservations.

Congress ratified the treaty on March 8, 1859, and settlement of the Kittitas Valley continued. By the 1860s, cattle were being driven from the Yakima Valley to the mines in Canada, and open range became the norm for the Columbia Plateau. Ranchers in the Kittitas Valley followed the example set earlier by Ow-hi and Kamiakin, and took advantage of the abundant grass for feed. The area around Thorp was the most active ranching locale in the Kittitas Valley by the end of the decade, and homesteading as well as ranching began to increase. After the Snoqualmie Wagon Road was completed in 1867, ranchers in the Kittitas Valley began to use it to drive cattle to Puget Sound (Prater 1981).

Salishan tribes along the Big Bend of the Columbia River also ceded their lands as part of the treaty signed on June 9, 1855, in Walla Walla. The original plan was for them to live on the Yakima Reservation. The Upper River Colville Reservation was set aside by Executive Order in 1872. Boundaries were redrawn within 1 month, resulting in the loss of the Colville Valley. Chief Moses did not want to live among the Yakima, and remained free while petitioning the U.S. government for his own reservation. Tensions in the area remained high between settlers and Indians, particularly after the murder of the Perkins family near White Bluffs. Many erroneously held Moses responsible or felt that he was protecting the murderers. In fact, Moses was instrumental in calming the fears of restless natives. Moses was arrested in 1878 at Crab Creek on orders from the Indian agent and held at Fort Simcoe for a time, in an effort to force him to live on the Yakama Reservation. Through the efforts of General Howard, Moses was granted permission to travel to Washington, DC. He was again arrested in an attempt to incarcerate him so that he could not make the trip. However, Indian Agent Wilbur posted bond. Moses finally departed for Washington, DC, in 1879 with his nephew Chillileetsah, Chief Homily of the Walla Wallas and Chief Hiachenie of the Cayuses. Moses effectively pleaded his case and was granted the Columbia Reservation by a Memorandum of an Agreement signed by President Rutherford B. Hayes (Ruby and Brown 1965). This reservation was expanded in 1880 to include Lake Chelan. In 1881, however, the reservation was reduced in size when the U.S. Government claimed a 15-mile strip along the Canadian border, which contained silver mines.

Specifically concerning the project area, the U.S. Department of Interior, General Land Office (GLO) surveyed Township 17 North, Range 20 East (GLO 1884a); Township 17 North, Range 21 East (GLO 1884b); Township 18 North, Range 20 East (GLO 1884c); and Township 18 North, Range 21 East (GLO 1884d) in 1869 and certified them in 1884. The surveyors noted many trails throughout the current proposed project area.

The surveyor recorded Township 17 North, Range 20 East (GLO 1884a) as generally rolling, second and third rate, with occasional good grass. A trail extended from the northwest to the southeast, crossing very near the corner of Sections 14, 15, 22, and 23, approximately where I-90 now is located and outside the proposed project area.

Township 17 North, Range 21 East (GLO 1884b) contained land generally rolling, second rate with good grass, bunch grass and some sagebrush. No trails were noted during the current pedestrian survey in Sections 4, 9, 17, or 18, the location of the proposed PSE 230 kV interconnect.

The land in Township 18 North, Range 20 East (GLO 1884c) was recorded as usually rolling, with second class soil and good bunch grass. Many trails crossed Sections 22, 23, and 24. However, no trails were noted during the current pedestrian survey. By now, with over 130 years of grazing and other uses, any sign of old trails has been obliterated. The GLO surveyors

also observed “four Indian houses and a scattering of timber” in Section 22. The houses appeared to the surveyors to be the “winter quarters of a large number of Indians.” These houses were located outside the proposed project area on private land, to which the current survey did not have access except through the public right-of-way near Parke Creek. These houses were at one time located in what is now an aspen grove near the confluence of Parke Creek and Whiskey Jim Creek. The land, especially near the confluence, has been altered over the years. The location of the Indian houses has never been recorded as an archaeological site with OAHF.

For Township 18 North, Range 21 East (GLO 1884d), the surveyors generally noted that the land was rolling or hilly and broken, the soil was first rate with some second rate, and the grass was good to rich. Land was noted as level at the corner of Sections 15, 16, 21, and 22. On the line between Sections 14 and 15, they noted a creek (present-day Skookumchuck Creek) flowing northeast. Between Sections 22 and 27, they observed a “spring of good water” flowing south in a dry creek bed, sinking a short distance below this point. Today this is named Reynolds Spring. Pine trees were noted on the line between Sections 27 and 28. The surveyors also noted a trail bearing east-west in Sections 15, 16, and 17 just north and outside of the proposed project area.

According to OAHF files, segments of old trails or historic roads in the vicinity of the project have not been recorded or evaluated for national register significance. Even though remaining segments of the GLO-mapped trail were not noted by the current pedestrian survey, it is evident that native peoples utilized areas surrounding the proposed project turbine strings, access roads, and power lines in the past. These trails were used to gain access from the Columbia River to root gathering places, such as Che-lo-han, or to travel from the Kittitas Valley to the mountains in the north and west.

The proposed PSE 230 kV feeder line will run south from the project site and will cross the Vantage Highway and a remnant of the vacated Old Vantage Highway in Section 9, T17N, R21E, as the feeder line travels from the project area to the proposed PSE interconnect substation. The Vantage Highway originally connected Ellensburg to the Vantage Ferry at the Columbia River. It was formerly part of the Sunset Highway and was established as a primary state highway in 1913. The Sunset Highway was to travel across Washington from the Pacific Highway in Renton, over Snoqualmie Pass, southeasterly through Ellensburg, by the most feasible route to the Columbia River near Vantage, then to Wenatchee, through Waterville and then end in Spokane. Before 1913, the highway was State Route No. 7. By April 1917, the entire route was passable and much, but not all, of it was graded with gravel or crushed rock surfacing (Washington State Department of Highways 1918). Once the Blewett Pass Highway to Wenatchee was completed in 1920, the section of the Sunset Highway from the connection at Ellensburg to Vantage and beyond to Davenport in Lincoln County became known as the North Central Highway, State Road No. 7. The Sunset Highway was then State Road No. 2 (Washington State Department of Highways 1922; 1928).

The Vantage ferry was in operation until the Vantage Bridge was constructed in 1927 (Paul 1996). The bridge was relocated to the south after Wanapum Dam was constructed. The new bridge opened in November 1962 (Kittitas County Centennial Committee 1989). The North Central Highway is now Vantage Highway. As the Vantage Highway was upgraded, various portions were paved and corners straightened. Unneeded sections of the road were then vacated and turned over to private ownership. This remnant of the Old Vantage Highway extends west and northwest from the intersection with the PSE 230 kV feeder line for about 4 miles on private property. It then becomes the Sunset Road for another mile as a county road to access private

dwellings. The Sunset Road connects with the Vantage Highway near Parke Creek Road in Section 3, Township 17 North, Range 20 East. Vantage Highway was transferred to Kittitas County on December 19, 1968, when I-90 was completed. The project's PSE 230 kV feeder line would span over the top of the old vacated road and the Vantage Highway right-of-way. Pole spans would be constructed so that poles would not impact either highway.

3.13.1.5 Cultural Resource Assessment

Previous Work and Background Research

A literature search of the recorded archaeological sites and archaeological information was conducted at OAHP in Olympia, Washington. All pertinent files concerning investigations of historic and prehistoric resources were reviewed for archaeological information regarding the immediate project area and the surrounding area. Consultation between OAHP and EFSEC resulted in a letter from OAHP dated April 27, 2004. In the letter, OAHP sites general mitigation measures on how to treat previously unrecorded archaeological and historic resources if they are discovered during construction. OAHP stated that buffers around known cultural resources should be set at 100 feet. Other mitigating items include the establishment of a written monitoring plan for construction associated with the project, a more detailed project map detailing new site location in relation to the various project components, and a survey to determine the presence of any cultural landscapes in the project. For a review of the OAHP letter and the other cultural resource correspondence, please go to Appendix A.

Cultural resource surveys have not been conducted within the project area prior to this investigation. However, four archaeological surveys were identified as peripheral to the project area. In 1985, a small archaeological survey, with negative results, was conducted for the microwave towers located on top of Cribb Butte in Township 18 N, Range 21 East, Section 34 (Galm 1985). In 1996, a large cultural resource survey was conducted for the Olympic Pipeline Company (Historical Research Associates 1996). This survey paralleled Johnson Canyon at the southern end of the proposed PSE feeder line, but archaeological sites were not located within the project area. In 1999, an archaeological survey was conducted for the John Wayne Trail that also passes through Johnson Canyon near the termination of the proposed PSE feeder line. Again, archaeological sites were not recorded within the project area (Luttrell et al. 1999). In 2002, an archaeological survey was conducted for the Schultz-Wautoma transmission line right-of-way, which passes through the central portion of the proposed PSE feeder line. The proposed BPA feeder line will intersect with the right-of-way for the existing BPA 500 kV transmission lines (Schultz to Vantage and Schultz to Wautoma). Prehistoric and historic sites were not located within the project area or the paths of the proposed transmission feeder lines (BPA and PSE) during this survey (Griffin and Churchill 2002).

Previously Recorded Archaeological Sites

During the OAHF literature search, six 17 previously recorded sites were located within 0.5 mile from the project area (Table 3.13-1). All sites are outside the project area of potential effect (APE), and will not be impacted by any aspect of this project.

Table 3.13-1. Summary of Recorded Archaeological Sites within 0.5 Mile of Project Area

Site Number	Site Type	Setting
45KT0353	Prehistoric	Near spring
45KT0354	Prehistoric	Near spring
45KT0355	Prehistoric	Near spring
45KT0356	Prehistoric	Near spring
45KT0357	Prehistoric	Near spring
45KT0358	Prehistoric	Spring-fed drainage
45KT0409	Prehistoric	Near spring
45KT0359	Prehistoric	Base of hillside, along creek
45KT0360	Prehistoric	Base of hillside, along creek
45KT0831	Prehistoric	Slope of hillside
45KT1081	Prehistoric	Slope of hillside
45KT1082	Prehistoric	Slope of hillside
45KT1514	Prehistoric	Slope of ridge
45KT1515	Prehistoric	Top of ridge
45KT2037	Prehistoric	Ridge bench terrace
45KT2126	Historic	Slope

The 17 sites previously recorded within 0.5 mile from the project area included 16 prehistoric sites and one historic site. Site 45KT353 exhibited flakes, bifacial tools, as well as fire cracked rocks on the surface. Site 45KT354 at the time of recording had debitage, bifacial tool fragments, and metate fragments on the surface. Mussel shell fragments, debitage, and bifacial tool fragments were noted on the surface of the 45KT355. Debitage was the main artifact class noted on the surface of 45KT356, a large prehistoric site located on a ridge overlooking several springs. The large site, 45KT357/45KT409, provided debitage, bifacial tools fragments, and river cobbles as a surface assemblage. Site 45KT358 artifacts consist of a basalt projectile point and one flake. Site 45KY359, located downstream from 45KT358, is somewhat larger, yielding mussel shell debitage, faunal remains, and pits/cairns in local talus slopes. Site 45KT360 contains talus pits and debitage. Site 45KT2037 is a series of small rock piles. Sites 45KT831, 45KT1081, and 45KT1082 are recorded localities near the proposed PSE interconnect substation situated at the southern end of the PSE feeder line. Sites 45KT1514 and 45KT1515, both small scatters of debitage, 45KT2033, a single flake, and 45KT2126, a historic can dump, are well outside the southern leg of the PSE feeder line. All of these recorded areas are all well outside the APE, and are in no danger of disturbance by this project.

Prehistoric archaeological sites 45KT357 and 45 KT409 together are on the National Register of Historic Places (NRHP) as Government Springs and The Pines (OAHP 1975). The sites are situated in two parallel gullies that gradually curve and join as Whiskey Dick Canyon. Government Springs is located at the head of one of the gullies. These sites are significant because early people used the area to travel between the Columbia River and the Kittitas Valley. Three valleys, the Quilomene, the Skookumchuck, and Whiskey Dick Canyon served as trails between the two. It is a 10-mile climb from the Columbia River to the crest (2,800 feet) and then another 7-mile hike to descend to the Kittitas Valley below (1,500 feet). It appears that the sites were heavily used as a campsite for travelers and hunters, and that “the area was home to the Yakima and Columbia Indians” (OAHP 1975).

There has not been a request for an OAHP Determination of Eligibility for other sites located near the project area. The prehistoric sites are generally associated with creeks or springs. The historic site is possibly associated with historic construction such as railroad or irrigation systems. Within the project area, historic sites were expected in a wide variety of locales, while prehistoric sites were expected to be found associated with springs.

In addition, the proposed PSE interconnect substation will be situated above the Highline Canal. This canal is the main branch of the Kittitas Reclamation District Main Canal irrigation system, constructed between 1926 and 1932. The water from this canal irrigates approximately 70,000 acres in the Kittitas Valley.

The OAHP inventoried this irrigation system in 1985 (Soderberg 1985). The Highline Canal has not been determined eligible for inclusion in NRHP, nor has there been a request made for an OAHP Determination of Eligibility. There are several canals, storage dams, and ditches in Kittitas County that have been determined eligible, but are not listed on NRHP. In 1999, Chapman and Fagan (1999) surveyed the irrigation features in Kittitas and Yakima Counties for the Proposed Level 3 Fiber Optic Line Project. A total of 19 large, named irrigation canals were included. Chapman and Fagan (1999) recommended that the major canal crossings, smaller ditches, and their associated irrigation features were potentially eligible to be included in NRHP, though formal determination has not been made. It was recommended the features be avoided or repaired and replaced in kind during construction of the fiber optic line.

The proposed PSE interconnect substation is situated on high ground above the Highline Canal in the southwest quarter of Section 14 (T 17N, R 20E), as shown in Figure 1-2, “Proposed Layout of Most Likely Scenario (136 Turbines/1.5 MW).” The project will not be using roads or bridges crossing over the open waterway of the Canal during construction or operations. Access to the PSE interconnect substation will be achieved either through an existing driveway off of Stevens Road to the east or along a new access driveway from Stevens Road to the north. The existing driveway runs west from Stevens Road uphill toward the Canal and parallels the Canal for approximately 600 feet. Near the existing Canal spillway and siphon, a new section of roadway will be constructed which will run up the hill and provide access to the PSE interconnection substation. The driveway from the north that accesses the PSE interconnection substation would run parallel to the Section lines between Sections 14 and 15 (T 17N, R 20E) as shown in Figure 1-2. Project access and road upgrades will be constructed so that they do not impact the Highline Canal.

Traditional Cultural Properties

Traditional Cultural Properties (TCPs) are a historic property type recognized under the National Historic Preservation Act. Two criteria for TCPs include:

- a location associated with the traditional beliefs of a Native American group about its origins, its cultural history, or the nature of the world; and
- a location where Native American religious practitioners have historically gone, and are known or thought to go today, to perform ceremonial activities in accordance with traditional cultural rules of practice (National Register Bulletin 38).

The literature search revealed that recorded TCPs are not located within the project area or vicinity (Clark 1953, Relander 1956, Smith 1983). Plants found in the project area (Taylor 1992) indicate that the land could have been used in prehistory for plant resource procurement, but the project area has not been specifically documented as such.

Consultation with the affected Native American tribes to date indicated that no field survey for Traditional Cultural Properties has been conducted. According to the Confederated Tribes of the Colville Reservation, TCPs were identified 3 miles west of the proposed project area for a separate project.

The Yakama Nation stated in a letter dated January 14, 2004 that they are particularly concerned that the regional effects of the wind farms on flora and fauna. They are also concerned about impacts to important food resources and medicines in a letter sent January 5, 2004. The Yakama Nation, in a letter dated April 6, 2004, reiterated the Colville Tribe's concern that TCPs have not been adequately researched to date. Please refer to Appendix A for the tribal correspondence letters described above.

Field Survey and Results

Most portions of the project area that would be affected by ground-altering activities are linear in nature, not large surface parcels. All affected areas were walked in meandering transects by two or three surface investigators. Ground visibility was excellent in all areas of this project.

All turbine strings were covered by three meandering transects each at 100 feet intervals. All existing access roads, new access roads, and underground electrical lines were covered by three surface investigators employing 35-foot meandering transects. The areas proposed for the project substations were also surveyed by 35-foot meandering transects. In addition, the two transmission feeder lines, one BPA feeder line (230/287 kV) leaving the northwestern end of the project area at the BPA step-up substation, and the PSE feeder line (230 kV) leaving the southern end of the project area at the PSE step-up substation were surveyed by two surface investigators using 35-foot meandering transects.

This area of Washington is interesting in that Ginkgo Petrified Forest State Park, located just east of the project area and immediately west of the Columbia River, is the home of the petrified forest where flakeable stone, suitable for manufacturing projectile points and other stone tools, can be found in abundance. While the Ginkgo Petrified Forest State Park area has abundant toolstone materials, the project area, 10 miles to the west, was literally devoid of flakeable stone of useable size and quality.

However, checked and/or small pieces of poor quality opal were located at two different locations during this survey. Poor quality opal was noted while surveying the BPA feeder line. This material was found in some quantity, especially where the feeder line intersects with the right-of-way of the main BPA Schultz-Wautoma 500 kV line in Section 22, Township 18 North, Range 20 East. During survey of the PSE feeder line, opal was also noted downslope from the PSE step-up substation. Artifacts were not identified at either of these two locations.

Four “isolated finds” of prehistoric artifacts, eight prehistoric archaeological sites, and one historic site were located and recorded during this archaeological survey. The archaeological sites are in good condition, but provided only minimal cultural information.

Archaeological Historical Sites

Eight archaeological sites, seven non-natural (culturally modified) rock piles, and one open site were located during this survey.

WHWPP Site #1 (Smithsonian # 45KT2485) is located near the proposed site of a wind turbine. This site measures approximately 350 feet northwest/southeast by 175 feet northeast/southwest, and contained 31 surface artifacts of chalcedony (n=17) and chert (n=14). Fifteen technologically diagnostic flakes were identified. Based upon the meager flaked-stone assemblage identified at this site, prehistoric knappers selected chalcedony and chert toolstones to reduce into bifacial tools. WHWPP Site #1 is defined as a diffuse segregated reduction location. This site is situated on extremely rocky sediments. Subsurface cultural deposits are not likely to exist at this location.

WHWPP #2 (45KT2486) is located in a small saddle. This feature measures 4 feet (east/west) wide by 8 feet (north/south) long, and was constructed by placing small to medium size, angular boulders in a rectangular pile approximately 2 feet high. The feature is obviously human-constructed.

WHWPP #3 (45KT2487) is located on the flat top ridge (elevation 3,220 feet) between two drainages. This feature measures 4 feet (northeast/southwest) wide by 8 feet (northwest/southeast) long, and was also constructed by placing small to medium size, angular boulders in a rectangular pile approximately 2 feet high. The rocks in this feature had settled somewhat, but the feature is obviously human-constructed.

WHWPP #4 (45KT2484) consists of two rock features located near each other, one on a small flat basalt outcrop and the other just below the outcrop. One is a probable hunting blind that contains angular basalt cobbles and medium size boulders arranged in a U-shaped pile approximately 2 feet high. The other, a rock feature, consists of angular basalt cobbles and pebbles arranged in an oval pile about 1 foot high. The rock feature is located on the flat above the hunting blind.

WHWPP #5 (45KT2483) is a series of three hunting blinds 72 feet apart and made of angular basalt cobbles and medium size boulders arranged in U-shaped piles approximately 2 feet high. The blinds are located on the edge of a steep hillside above an unnamed spring and situated generally in a southwesterly line, approximately 72 feet apart. Hunting Blind #1 is 8 feet long (northeast/southwest) and 10 feet wide (northwest/southeast) and faces northwest. Hunting Blind #2 is 10 feet long (northeast/southwest) and 13 feet wide (northwest/southeast) and

overlooks the valley below. Hunting Blind #3 is 8 feet long (northeast/southwest) and 8 feet wide (northwest/southeast) and is on the edge of steep hillside.

WHWPP #6 (45KT2480) is a rock feature located on a northwest/southeast ridge high above Whiskey Dick Creek on the southwest side of the creek. This rock feature contains angular basalt cobbles and medium size boulders arranged in a circular-shaped pile approximately 2 feet high. It is 10 feet long (north/south) and 10 feet wide (east/west).

WHWPP #7 (45KT2481) consists of two rock features located near each other on a high ridge running northwest/southeast. These rock features are 4 feet apart and contain angular basalt cobbles and medium size boulders arranged in round piles approximately 2 feet high. Both features are 5 feet in diameter and are located 4 feet apart.

WHWPP #8 (45KT2482) is rock feature located on a high northwest/southeast ridge. This rock feature contains angular basalt cobbles and medium size boulders arranged in circular-shaped pile 3 feet in diameter, and approximately 2 feet tall.

In addition, one historical period site, a remnant of the Old Vantage Highway, formerly known as North Central Highway, was located during the current pedestrian survey. This remnant of the Old Vantage Highway extends west and northwest from the intersection with the PSE 230 kV feeder line for about 4 miles on private property. It then becomes the Sunset Road for another mile as a county road to access private dwellings. The Sunset Road connects with the Vantage Highway near the Parke Creek Road. The road is in very poor condition. There are many potholes and vegetation is gradually reclaiming the right-of-way.

Regarding the rock features, particularly those found in mounds or heaps, a local resident (Henry Schnebly pers. comm.) stated that a man named Scammon had spent lots of time as a kid hunting the project area and surrounding environs for petrified wood. During the 1950s, Scammon constructed a series of cribs for fence lines for the Schnebly family. According to Schnebly, Scammon was a "...real ambitious kid, but didn't get the cribs in the right place." There are residues of Scammon's cribs remaining today. Nevertheless, the nature of the features recorded by the present archaeological survey remains unknown. Some could have been constructed by Native Americans, or they could have been constructed by methods discussed by Schnebly. Regardless, these sites will be avoided during construction.

3.13.1.6 Kittitas Valley Alternative

The project area is located in the Columbia Plateau physiographic region or the Southern Plateau culture region. During late historic times, the Kittitas Indians occupied the upper Yakima River drainage. Neighboring groups included the Wanapum to the east, the Yakama immediately to the south, and the Mishnapam, Taitnapam, and Klickitat farther south. The proposed project is situated in an area ceded by the Kittitas, which is now a part of the Yakama Nation. The Applicant and the Washington Energy Facility Site Evaluation Council (EFSEC) have been actively coordinating with the Yakama Nation on this project.

Archaeologists and ethnographers have recorded at least nine villages and a network of trails in the Kittitas Valley. Two villages were near the project area. The largest, *Klakla*, had a population of 500 people and was located about 1 mile north of Thorp, opposite the mouth of Taneum Creek, which is about 5 miles south of the project site. *Ti'plas* had a population of 50 and was located at the mouth of Swauk Creek, approximately 2 miles southwest of the project

site. Archaeological survey work for the project recorded two prehistoric stone tool and flake sites.

3.13.1.7 Desert Claim Alternative

The Desert Claim Draft EIS identified that Prehistoric archaeological materials have been found in Caribou and Little Caribou Creeks draining the foothills north of Kittitas Valley, in the Trail Creek system, and at Grissom's Ranch within the valley proper. The limited amount of excavation in the upper Yakima River valley currently precludes a complete understanding of prehistoric land use systems in the valley, but a Clovis point found near Lake Cle Elum and later-period Cascade-like points (Vantage phase) found in the Keechelus-Cle Elum area indicates use of the upper basin beginning soon after deglaciation and persisting to at least the mid-Holocene (summarized in DePuydt 1990). Cultural resources investigations passing through the valley have also identified archaeological and historical sites related to settlement, mining in the Cle Elum vicinity, stock raising, logging, railroads, and the development of irrigation.

The Desert Claim Draft EIS also documented that individuals were known to still exercise their reserved treaty hunting rights within the vicinity of the project area and groups still gathered to harvest roots on the fan where Naneum Creek emerges from the Wenatchee Mountains northeast of the Project. The lands within the project area are privately owned, however, and reserved treaty rights for off-reservation activities apply to open and unclaimed lands. Archival research revealed that no TCPs had been documented within the project boundaries.

Thirteen prehistoric sites, 19 historic site, and 28 historic isolates were identified in the Desert Claim 5,237 acre project area. Thirteen of the prehistoric sites are newly recorded, as are 18 of the historic sites. A previously recorded historic site, the Springfield Farm was revisited. Two lithic scatters produced by rockhound testing for agate-bearing nodules were also identified, but are not considered historic because they are less than 50 years old.

3.13.1.8 Springwood Ranch Alternative

Six cultural resources (two prehistoric and four historic) and one potential trail have been identified within Springwood Ranch (Boas Inc. 1989; DePuydt 1990; Para 1990, Nelson et al. 1996). Both of the prehistoric cultural resources may be associated with burial activities in the area. The reported prehistoric/historic trail is supposed to have crossed through the center of the property. Identified historic resources include two sites associated with railroad activities, one historic burial area, and one area associated with early irrigation activities. Fourteen prehistoric cultural resources, 16 historic cultural resources and the documentation of two ethnographic villages were discovered when portions of the surrounding areas were surveyed (Boas Inc. 1989; DePuydt 1990; Nelson et al. 1996; Goetz 1996; Miller 1996).

3.13.1.9 Swauk Valley Ranch Alternative

No recorded archaeological sites are located within the boundaries of the Swauk Valley Ranch site; however, eleven recorded sites are known to exist within a 1-mile radius of the site. Ground-disturbing activity during construction could potentially uncover prehistoric archaeological sites. Mitigation measures would ensure that potential impact on cultural resources in the project area during construction activities would be minimized.

3.13.2 Impacts of Proposed Action

The archaeological survey covered the entire areas within the project where ground-altering activities are proposed. Eight previously unrecorded prehistoric archaeological sites and one previously unrecorded historical site were identified during this survey.

In addition, the proposed PSE interconnect substation will be situated above the Highline Canal project access roads, and road upgrades will be made so that they do not impact the Highline Canal.

According to OAHF files, segments of old trails or historic roads in the vicinity of the project area have not been recorded or evaluated for national register significance. Government Land Office (GLO 1884a, 1884b, 1884c, 1884d) surveyors noted trails in the project area during their 1869 reconnaissance. Even though remaining segments of the GLO-mapped trail were not noted by the current pedestrian survey, it is evident that native peoples utilized areas surrounding the project area in the past. Trails were used to gain access from the Columbia River to root gathering places, such as Che-lo-han, or to travel from the Kittitas Valley to the mountains in the north and west. Three valleys, the Quilomene, the Skookumchuck and Whiskey Dick Canyon, served as trails between the Columbia River and the Kittitas Valley (OAHF 1975). Government Springs and The Pines are listed on the National Register of Historic Places. They were heavily used as a campsite for travelers and hunters, and “that the area was home to the Yakima and Columbia Indians” (OAHF 1975). It is evident that the area was used for travel in the past. The presence of edible plants in some portions of the project area is important. Though plants alone do not constitute an archaeological site, the metate recorded at 45KT354, Wild Horse Spring, indicates the site was used as plant procurement area. TCPs have not been identified or recorded in the project area.

In addition, a remnant of the Old Vantage Highway was also identified. The proposed PSE 230 kV feeder line will run south from the project site and cross the Vantage Highway and a remnant of the vacated Old Vantage Highway in Section 9, T17N, R21E, as the feeder line travels from the project area to the proposed PSE interconnect substation. The project’s PSE 230 kV feeder line will span over the top of the old vacated road and the Vantage Highway right-of-way. Pole spans will be constructed so that poles will not impact either highway.

RCW 27.53.060 provides for the protection of cultural resources on private and public lands in the state of Washington. In addition, Section 106 of the 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. However, no federal agency action is anticipated as part of the proposed project. An historic site or property may include a prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, NRHP maintained by the U.S. Secretary of the Interior. When evaluating resources, NRHP criteria for evaluation of significance of cultural resources properties must be applied. According to the National Register Criteria for Evaluation:

The quality of significance in American history, architecture, archeology, engineering 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 our history; or
- B. That are associated with the lives of significant persons in our 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 history or prehistory.

The archaeological and historical sites identified during this current cultural resource survey likely do not meet the standard qualifications for NRHP. Nevertheless, it has been recommended that the newly recorded archaeological sites be avoided to prevent any damage. The Assistant Archaeologist at OAHP has informed the Applicant that there is no set standard for setbacks, but recommended that 100 feet would be adequate for avoidance. A copy of the cultural resource discipline report has been forwarded to OAHP and the affected tribes.

The cultural resources study area includes impacted areas for all design scenarios under consideration. Project design will implement the recommended 100-foot setback around culturally sensitive areas for all design scenarios. As described below, it is anticipated that by following this guideline, no impacts on culturally sensitive areas would occur under any of the proposed scenarios.

3.13.2.1 Construction Impacts

As recommended by the Assistant Archaeologist at OAHP, 100-foot design and construction buffers would be maintained around the archaeological and historical sites identified during this current cultural resource survey, even though they do not meet the standard qualifications for NRHP. OAHP requested the project archaeologist should flag off or otherwise delineate the archaeological sites with a 100-foot buffer. Ground disturbing actions within a specified radius of any archaeological sites, either recorded during the initial survey or previously documented, would be monitored by a professional archaeologist to prevent damage or destruction to both known and unanticipated archaeological resources. If any archaeological materials, including but not limited to human remains, are observed, excavation in that area would cease, and OAHP, EFSEC, the affected tribes, and the Applicant would be notified. At that time, appropriate treatment and mitigation measures will be developed and implemented. If the project could not be moved or rerouted to avoid resources, the resources would have to be tested for eligibility for listing in the NRHP. Any excavation or disturbance to the archaeological sites would require an excavation permit from OAHP per RCW 27.53.060. The archaeologist would remove any flagging tape or pin flags at the end of the construction-monitoring phase of the project.

If a tribe requested to have one of their representatives present during earth-disturbing construction activities, the Applicant would comply with their wishes.

3.13.2.2 Operation and Maintenance Impacts

Operation of the project would not impact any of the archaeological or historical sites identified during this current cultural resource survey.

3.13.2.3 Decommissioning Impacts

Impacts associated with the decommissioning of the WHWPP would be similar to those described above for construction impacts. Potential impacts to archaeological or historic sites would be mitigated as described for construction activities.

3.13.3 Impacts of Alternatives

3.13.3.1 Impacts of Off-Site Alternatives

Kittitas Valley Alternative

Ground-disturbing activity during construction could potentially affect the two prehistoric archaeological sites within the project area. These archaeological sites should be avoided during construction to prevent any damage to either of them. Mitigation measures would ensure that potential impact on cultural resources in the project area during construction activities would be minimized, and that appropriate state and Tribal agencies would be contacted if any sites were uncovered during construction, and the sites and artifacts adequately protected. No direct impacts to any known cultural resources would occur during normal operation and maintenance of the project.

Tribal consultation is ongoing to determine whether significant resources, such as areas important in Yakama or Colville history or cultural and religious practices, would be indirectly affected by the project. Tribal Nations would be contacted prior to all ground-disturbing activities and invited to have representatives present during these activities.

Decommissioning the project at the end of its useful life also poses the potential for further impacts if decommissioning activities stray beyond the perimeters of the pre-existing disturbance zones used during construction.

Desert Claim Alternative

Potential direct impacts to documented cultural resources have been identified based on the proposed layout of project facilities relative to the locations of the known resources. Any cultural resources within or very close to the area of temporary construction disturbance around the various project facilities would presumably be subject to direct impacts. A map analysis (which is not documented in the EIS because the locations of the cultural sites are confidential and not appropriate for disclosure) indicates that six identified cultural resource sites would experience unavoidable adverse impacts associated with turbine, access road and collection system construction if the project facilities were sited according to the current design. Of these six sites, four are historic sites with either standing structures or structural remains. The fifth site, Springfield Farm, is a dual-component site that includes standing historical structures as well as a prehistoric component with archaeological materials indicating that the site functioned

as a residential base. The sixth site is a large prehistoric lithic procurement site located at the northwest periphery of the project. Destruction of or damage to these resources would represent a significant adverse impact.

Measures such as clearly marking areas that need to be avoided to protect sensitive resources and ensuring that project personnel observe those markings and their associated restrictions could minimize the potential for indirect impacts such as increased opportunities for removal of artifacts.

The proposed project is not expected to cause access-related indirect impacts to cultural resources because the degree of public accessibility to cultural resources within the project area would be less with the project than it is at present.

The prospects for avoiding cultural sites would be addressed in the final micro-siting of wind turbines and other project facilities, which would occur during final design and prior to construction.

No additional mitigation would be necessary if all identified cultural resource sites were avoided in the final layout and construction of project facilities. If final placement of the project elements resulted in unavoidable adverse impacts to a significant resource, then mitigation would be required to retrieve the scientific and historical information that makes the site significant. Appropriate mitigation measures should be tailored to the specific circumstances of the resource and developed in consultation with the Washington State Historic Preservation Officer (SHPO). If the affected resource is prehistoric, then the SHPO would require consultation with all affected Native American tribes of the Mid-Columbia River Basin.

Decommissioning the project at the end of its useful life also poses the potential for further impacts if decommissioning activities strayed beyond the perimeters of the pre-existing disturbance zones used during construction.

Springwood Ranch Alternative

Construction activities could destroy artifacts or structures or disturb relationships among artifacts and their context; however, it is not known how many of the seven identified resources would be subject to direct impacts from project construction. Because one of the cultural resources is a prehistoric trail that reportedly crossed through the middle of the property, it is possible the trail route would intersect multiple elements of a wind energy project on this site. The two prehistoric resources and the historic resources associated with railroad and irrigation activities are likely to be located near the Yakima River and would not likely be subject to direct impacts. Indirect impacts to cultural resources would primarily involve changes to the visual context of the resources and to a number of the 30 cultural resources that have been identified in the area surrounding the Springwood Ranch. In this hypothetical scenario, any affected Tribal Nation would be notified prior to ground disturbing activities, and would be invited to have representatives present during such activities.

Decommissioning the project at the end of its useful life also poses the potential for further impacts if decommissioning activities stray beyond the perimeters of the pre-existing disturbance zones used during construction.

Swauk Valley Ranch Alternative

No recorded archaeological sites are located within the boundaries of the Swauk Valley Ranch site; however, eleven recorded sites are known to exist within a 1-mile radius of the site. Ground-disturbing activity during construction could potentially uncover prehistoric archaeological sites. Mitigation measures would ensure that potential impact on cultural resources in the project area during construction activities would be minimized. No direct impacts to any known cultural resources would occur during normal operation and maintenance of the project. In this hypothetical scenario, any affected Tribal Nation would be notified prior to ground disturbing activities, and would be invited to have representatives present during such activities.

Decommissioning the project at the end of its useful life also poses the potential for further impacts if decommissioning activities stray beyond the perimeters of the pre-existing disturbance zones used during construction.

3.13.3.2 Impacts of No Action Alternative

Under the No Action Alternative, the project would not be constructed or operated, and the environmental impacts described in this section would not occur. The No Action Alternative assumes that future development would comply with existing zoning requirements for the project area, which is zoned Commercial Agriculture and Forest and Range.

If the project were not constructed, the region's power needs could be delivered through development of other generation facilities. Impacts to cultural resources would depend on the land area impacted, and density of cultural resources on the facility sites.

3.13.4 Mitigation Measures

The Applicant has identified the mitigation measures described below.

As recommended by the Assistant Archaeologist at OAHP, 100-foot design and construction buffers will be maintained around the archaeological and historical sites identified during this current cultural resource survey, even though they do not meet the standard qualifications for NRHP. OAHP requested that the project archaeologist flag off or otherwise delineate the archaeological sites with a 100-foot buffer. Ground disturbing actions within a specified radius of any archaeological sites, either recorded during the initial survey or previously documented, will be monitored by a professional archaeologist to prevent damage or destruction to both known and unanticipated archaeological resources.

If any archaeological materials, including but not limited to human remains, are observed, excavation in that area will cease, and OAHP, EFSEC, the affected tribes and the Applicant will be notified. At that time, appropriate treatment and mitigation measures will be developed and implemented. If the project cannot be moved or re-routed to avoid resources, the resources will be tested for eligibility for listing in the NRHP. Any excavation or disturbance to the archaeological sites will require an excavation permit from OAHP per RCW 27.53.060. The archaeologist will remove any flagging tape or pin flags at the end of the construction-monitoring phase of the project.

If a tribe requests to have one of their representatives present during earth-disturbing construction activities, the Applicant will comply with their wishes.

3.13.5 Significant Unavoidable Adverse Impacts

With mitigation, there are no anticipated significant unavoidable adverse impacts to cultural resources as a result of the construction and operation of the project.