3.14 CULTURAL RESOURCES

3.14.1 Introduction

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 if 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 effected 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 PSE and BPA feeder lines, and existing power line rights-of-way as indicated on the site survey map included in Exhibit 1-B. 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.

3.14.1.1 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.

3.14.2 Existing Conditions

3.14.2.1 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 nine 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 are 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, 2,000,000 to 10,000 years ago, further carved the Project area, helping to create the narrow, rocky ridges upon which the proposed Wind Turbine Generator Strings will be erected. Section 3.1.1, 'Earth' contains a detailed discussion concerning the geology of the Project area.

3.14.2.2 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. But, 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 are 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 seven to eight meters across, circular to rectangular in plan view, and one to two meters 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 semisedentism. 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 12 meters) 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 house, 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. 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 are 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. A.D. 1 to 1720. This subperiod marks the appearance of the ethnograhically defined winter village pattern. By A.D. 1, pithouses are found among most salmon-bearing rivers and streams, and upland camps and use areas occur 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 nondwelling 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).

3.14.2.3 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 Northwestern 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.

Chief Moses claimed the area which includes the Project as part of Columbia traditional territory when negotiating with the U.S. Government for a reservation in 1872 (Ruby and Brown (1965). The Columbias utilized lands east and south of the Big Bend in the Columbia River. There was a distinct subgroup at Quilomene Bar on the Columbia east of the Project area (Miller 1989). Early trails led up the Quilomene from the Columbia River to cross over to the Kittitas Valley. The Moses Columbia utilized the area in what is now eastern Kittitas County, and often participated with the Kittitas in local root gathering (Anastasio 1972, Ruby and Brown 1965), thus accounting for some overlapping between Yakama and Colville traditional territory. Columbia territory was centrally located and villages were often located along the borders of their territory, providing them with continued contact with other Salishan as well as Sahaptin speakers. The Columbias had an extensive network and were known to travel east to the bison grounds. They also traded with formal partnerships involving the Kittitas and Snoqualmie (Miller 1989) and other coast tribes.

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 Che-lo-han 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).

Celilo Falls and The Dalles, great fishing and trading centers, were located down river on the Columbia. Celilo Falls was the principal fishing area for the entire region. There were many other Columbia River fisheries up and down the river—one at Priest Rapids, for example. Trading and fishing at The Dalles attracted not only Plateau groups, but people from as far away as the Northwest Coast, with trade items available from the Great Plains

and Northern California. The Kittitas, the Moses Columbia and others followed the trails from the Upper Yakima River through Union Gap and on south to Celilo. Other fisheries utilized by the Kittitas during the summer and early fall were located to the northwest at the outlets of Lakes Cle Elum, Keechelus, and Kachess—Lake Cle Elum being the largest (Schuster 1990). In addition, fishing sites are found along the entire length of the Yakima River, and it is likely that campsites along many stretches in the Kittitas Valley were used for plant gathering and processing as well (DePuydt 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 eleven 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 ten 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, which translate to "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 [KCCC] 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 (KCCC 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 Interstate 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 Highway, Vantage Highway, and Ryegrass Coulee, which became Interstate 90 in Eastern Kittitas County, both were originally trail access from the Columbia River. In addition, the Kittitas and other Yakima 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 road is still in use today as a dirt road (KCCC 1986). It was inventoried by the OAHP as historical site #19-132.

The horse arrived in the Kittitas Valley around 1740, after being traded by the Shoshone to other Plateau Indians, and then to the Kittitas. With the resulting increase in mobility, they could then travel greater distances, often to the Great Plains in pursuit of buffalo, or to inter-tribal trade centers and social gatherings.

Indians have always enjoyed competition in horsemanship. Skill in handling became a source of prestige. Status measurements changed and wealth was counted in horses, which thrived on upland grasses on the Plateau. Plateau people were thus influenced by the plains culture and adopted many of their practices, such as dress, dancing style, housing style, decorative beaded horse garments, European trade goods, and changes in inheritance patterns (Meinig 1995, Schuster 1990). Even so, riverine environments remained important and most groups retained their previous subsistence customs. Although horses and European trade items were acquired in the early part of the 18th Century, consistent Euro-American contact began with the Lewis and Clark Expedition in fall 1805, well south of the Project area.

3.14.2.4 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 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, lead by David Stuart. Among Stuart's crew was a clerk by the name of 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 six miles. It was here that he counted over 3,000

Indians, not including women and children, and a vast herd of horses. Ross likely exaggerated his population count to intrigue Eastern audiences:

> *It was a grand and imposing sight in the wilderness, covering more than six miles in every direction. Councils, root-gathering, hunting, horse-racing, foot-racing, gambling, singing, dancing, drumming, yelling and a thousand other things, which I cannot mention, were going on around us* (Glauert and Kunz 1976).

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 though, 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 their best asset, the horse, 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. Some time 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, Leiutenant Charles Wilkes of the United States Exploring Expedition sent Robert Johnson from Puget Sound overland to assess the navigability of the Columbia River and explore the interior of the Columbia (Anglin 1995). On his way, Lt. 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 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. Once 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 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).

In 1853, James Longmire brought the first wagon train of settlers through the territory and across Naches Pass to the Puget Sound region (Glauert and Kunz 1976, Schuster 1982). McClellan discovered gold in the Kittitas Valley in 1853, but attention was not paid until larger mines were discovered in the Colville area in 1855. Tensions increased as miners crossed through the Upper Yakima Valley to reach the Colville, precipitating a closure of the area by military order. Despite that, soldiers continued to look for gold, eventually discovering several nuggets on Peshastin Creek (Glauert and Kunz 1976).

As a result of these events, Plateau bands began moving toward unification and confederation though they did not succeed. Yakima tribal leadership began to emerge through Ow-hi and Te-i-was of the Upper Yakima and their nephews Kamiakin, Showaway, and Skloom of the Lower Yakima (Schuster 1982). In the fall of 1854, Kamiakin called a council of all tribal groups on middle Plateau to meet at the Grand Ronde in Eastern Oregon. The purpose was to form a confederacy and organize resistance, but an agreement could not be reached (Meinig 1995).

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, Yakama, 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." Euro-Americans were not permitted to reside on the reservation without permission of the tribe (Hunn 1990). This proved not to be the case.

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 Yakamas attacked a group of trespassing miners who had molested Yakama 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 Yakama 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 Yakama lands. Lt. Jesse Allen retaliated and attacked a village at dawn in the Teanaway-Swauk area, killing three Indians. Lt. 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 one month, resulting in the loss of the Colville Valley. Chief Moses did not want to live among the Yakama, 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 Chilllileetsah, 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. But in 1881, the reservation was reduced in size when the U.S. Government claimed a 15-mile strip along the Canadian border, which contained silver mines.

However, Moses and others subsequently relinquished this reservation to move to the Colville in 1883. Some were allowed allotments on the former Moses Reservation, but the Chelans were moved to the Colville Reservation at gunpoint. Some were able to return to Lake Chelan allotments. Many others were given allotments, but those were often lost through treachery. The balance of the allotment remained part of the reservation. Chief Joseph of the Nez Perce moved to the Colville Reservation not long after in 1885. After gold was discovered on reservation land in 1890, the northern half of the reservation was relinquished and returned to public domain. The size of the reservation was further reduced after another allotment in 1905. The twelve tribes of the

Colville Reservation unified in 1938 and became the Confederated Tribes of the Colville Reservation (Miller 1998, Ruby and Brown 1965).

Frederick Ludi and John Goller were the first permanent Euro-American settlers in the Kittitas Valley. They came from Montana Territory in 1867 after the area was opened up for homesteading. Tillman Houser was the first settler to come into the Kittitas Valley from Puget Sound. He built a cabin for his family and planted wheat in 1868 north of present-day Ellensburg, then returned to Puget Sound to get his wife and children via the new Snoqualmie Wagon road. Fielding Mortimer Thorp and his father-in-law Charles Splawn soon followed from east of Yakima (Prater 1981). They raised a herd of Durhams (Glauert and Kunz 1976). They homesteaded at the mouth of Taneum Creek, near present-day Interstate 90 and the ancient Kittitas village site. Thorp and Splawn opened a small trading post, and started the first mail route over Snoqualmie Pass, paying an Indian named Washington $10 per round-trip delivery. The first school in the Kittitas Valley was started by Charles Splawn. The first students were local Kittitas Indians (Prater 1981).

Robbers Roost, the well-known trading post, was established in 1870 by Charles Splawn's brother Andrew Jackson Splawn and Ben Burch, who Splawn later bought out (Prater 1981). They got their supplies from The Dalles, and traded mostly with the local Indians and drovers on their way over Snoqualmie Pass because there were not many Euro-American families yet in the area. John Shoudy purchased Robbers Roost one year later and platted the town of Ellensburg (Kirk and Alexander 1990).

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 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, 2nd and 3rd rate, with occasional good grass. A trail extends from the northwest to the southeast, crossing very near the corner of Sections 14, 15, 22, and 23, approximately where Interstate 90 now is located and outside the proposed Project area.

Township 17 North, Range 21 East (GLO 1884b) contains land generally rolling, 2nd rate with good grass, bunch grass and some sagebrush. Trails were not noted during the current pedestrian survey in Sections 4, 9, 17, or 18, which is 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 2nd class soil and good bunch grass. Many trails crossed Sections 22, 23, and 24. However, trails were not noted during the present 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 we 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 at the Washington State Office of Archaeology and Historic Preservation (OAHP).

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. They also noted a trail bearing east-west in Sections 15, 16, and 17 just north and outside of the proposed Project area.

According to OAHP 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-Lan, or to travel from the Kittitas Valley to the mountains in the north and west.

In 1887, the Northern Pacific Railroad was completed from the Kittitas Valley through Stampede Pass and onto Tacoma, a definite advantage for Ellensburg as the headquarters for the Cascade Division. This provided an opportunity to exploit the timber and coal resources along the route. Ellensburg became a hub for transportation of goods to Wenatchee and the surrounding areas and could then provide supplies to markets in Puget Sound (Meinig 1995). Hundreds of men were employed to cut and lay timber for railroad ties (Prater 1981) and later bridges across the Columbia River. The population of Ellensburg doubled from 600 to 1,200 in two years after completion of the railroad (Kirk and Alexander 1990, Oliphant 1976).

The Chicago, Milwaukee and St. Paul (C.M.&St.P) railroad opened for service in 1909, with service connecting the Midwest from the Missouri River in South Dakota to Seattle. It followed a direct route to the Pacific Northwest and cut across the Palouse to Lower Crab Creek, then directly west to Ellensburg, over Snoqualmie pass and finally ending in Tacoma-Seattle. Freight service was opened in August 1909, and passenger service in 1911 (Luttrell 1999). The primary service was "across rather than within the region" (Meinig 1995) and profits were derived from "transcontinental movement of freight". Thus, only limited industrial development occurred in Kittitas County. However, agriculture benefited greatly. Hay, cattle, butter, potatoes, wool and later lamb were shipped by rail (Luttrell 1999, KCCC 1989). The C.M.&St.P Coast Division between

Othello and Tacoma-Seattle operated from 1909 until the 1970s. The abandoned railroad grade is now the John Wayne Pioneer Trail, operated by the Washington State Parks and Recreation Commission (Luttrell 1999). A portion of the trail passes immediately south of the proposed Project PSE Interconnect Substation, but the Project will have no impact on the trail.

Cattle grazing became increasingly important in the Kittitas Valley as settlement opened and ranchers took advantage of the open range. Known as "Cattleman's Paradise" (KCCC 1989), the Kittitas Valley became a gathering place for cattle drives and summer grazing. Along with plentiful grass and water, the Kittitas Valley was centrally located. Snoqualmie Pass and Colockum Pass provided quick access to markets west of the mountains and the minefields in the north. By 1870, more and more stockmen were filing homesteads. The Daverin, Cooke, and Olmstead families settled in the eastern portion of the county (Glauert and Kunz 1976). In particular to the Project area, David Dorse Schnebly moved to the area in 1871. David became the publisher of the "Localizer" newspaper in Ellensburg, the forerunner to "The Daily Record." His son, Philip Henry, became one of the "most prominent stockmen in the state." Philip ran over 2,000 head of cattle with his six sons on over 40,000 acres of land. (Ellensburg Public Library, n.d.). Much of the present-day Project area lies within land once owned by the Schnebly Brothers Livestock Company (Metsker Map Company 1956). Cattle wintered on the ranches in the valley then were driven to spring pastures around Whiskey Dick Mountain in April. Their summer range was near Colockum Pass, which is higher than Snoqualmie. Once the new calves were branded, the cattle were then driven to Colockum Pass. The whole drive took two days, with an over night stop at the corral located at The Pines (Squire 1956). The Schnebly Bar Baloon livestock brand is the oldest in the state, dating from the 1840s. The Schnebly family brought it from Missouri to the Oregon Territory and then on to Ellensburg by 1862 (Ellensburg Public Library, n.d).

David Dorse Schnebly was elected Sheriff of Kittitas County in 1878, for two terms. He served at the time of the murder of the Perkins family by hostile Indians. Schnebly's daughter-in-law, Eliza, recalled that during that time people "lived in dread, but there was no real attack". Chief Moses camped near her home during that time, and took his meals at the "officers' camp" (Ellensburg Public Library n.d.). David Schnebly was part of five men who rode out from the Kittitas to Crab Creek to help the posse find the murderers, and was likely present when A.J. Splawn arrested Moses the first time. Later as Sheriff, Schnebly's posse captured an unarmed Moses the second time prior to his Washington DC trip, despite promising Indian Agent Wilbur that he would do no such thing (Ruby and Brown 1965).

Sheepherding is another industry with its roots in Kittitas County in the late 1800s. By the 1870s, there were large herds of Rambouillets whose wool was shipped elsewhere. Lambs were not shipped until the arrival of the railroad. After that, lambs were shipped to the coast, and east to Chicago or St. Paul. Sheep wintered in pastures near the Columbia River and summered in the Cascade Range near Colockum Pass. Shearing stations were located along the Old Vantage Highway and Caribou Canyon as well as many other

places in eastern Kittitas County. Sheep herding still exists in the county, but on a much smaller scale, and the bands of sheep do not migrate as in the old days (KCCC 1989).

Lumber was also provided for the ever-increasing number of settlers' homes in the Kittitas Valley. Sawmills were established in the Kittitas Valley as early as the 1870's and the annual spring log drives continued until 1915, transporting logs from upland sources to the mills in Ellensburg and Yakima. The drive was a site to see. Schools and even businesses closed during this spectacular event, so that everyone could go to the river and watch. Once the dams were completed at the lake outlets near Snoqualmie Pass, restricting spring run-off, the logs could no longer be floated in the Yakima River. Also, more bridges and more irrigation canals were constructed along the way, further inhibiting access. Once railroad lines were connected from high mountain logging areas to the Northern Pacific Railroad, floating was no longer necessary (Henderson 1990). Logging today is still an economic resource for upland areas and mills in the Northwest.

However, once the railroad was complete, the Snoqualmie Wagon Road was used less and less as a conduit for cattle. The construction of the railroad stimulated settlement of the Kittitas Valley and other areas of eastern Washington. Small towns sprang up in many places along the lines, including Kittitas, which was platted by the Chicago, Milwaukee and St. Paul Railroad in 1908. Farming was on the increase and cattle were no longer king. However, improvements continued on the Snoqualmie Wagon Road until the arrival of the automobile. Through continuous use over the years, the road has evolved into what it is today, a major east-west thoroughfare connecting Kittitas Valley with Puget Sound and all parts east of Kittitas Valley.

Once the automobile was introduced, large-scale changes began to occur in the transportation system. Supported by federal highway legislation and funding, state road construction increased dramatically. Portions of old trails and wagon roads were gradually superceded. The Snoqualmie Wagon Road is now Interstate 90, and the wagon road from Ellensburg to Yakima through the Yakima River canyon is now Canyon Road, Highway 821.

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 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 to 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 (KCCC 1989). The North Central Highway is now Vantage Highway. As upgrading occurred on the Vantage Highway, 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 intersect with the PSE 230 kV feeder line for about four 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 Interstate 90 was completed. 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.

Irrigation began in the region in the early 1800s with Dr. Marcus Whitman at Walla Walla. By 1852, the Oblate Fathers were irrigating their garden at Ahtanum Creek. Chief Kamiakin irrigated his gardens nearby in the same manner about the same time. Small-scale, privately owned and operated irrigation canals and ditches soon sprang up throughout the Yakima Valley. One such canal, the Town Canal, was completed in 1890 by the Ellensburg Water Company to carry water to over 2,000 acres of land east of town. Eventually demand for water outstripped the capacity of these small projects and often disputes arose. In response, the territorial government passed the Water Act in 1882 regulating water rights in Yakima and Kittitas Counties (Pfaff 2001).

Interest in large-scale irrigation began in the early 1890s in the Kittitas Valley. Finally, the U.S. Reclamation Act was passed in 1902, and the U.S. Reclamation Service completed preliminary water surveys in 1905 for the Yakima Project. Today, irrigation canals of the Yakima Project are located at Sunnyside, Tieton, Kittitas, Roze and Kennewick, with storage facilities at Bumping Lake Dam, Kachess Dam, Keechelus Dam, Clear Creek Dam, Tieton Dam and Cle Elum Dam. The first of these projects, however, were constructed in the lower Yakima River Valley. Actual construction didn't begin in the Kittitas Valley until about 20 years later. The Kittitas Reclamation District organized in 1911 under state law so that landowners could try to secure financing. Water was to come from the Yakima River and be supplemented by storage facilities or reservoirs at Kachess and Keechelus Lakes. World War I, coupled with lack of money, delayed plans until the federal government provided assistance beginning in 1925. Canal construction finally began in early 1926 and was completed in 1929. Final completion of the Kittitas District occured in 1932, with the construction of the Wippel Pumping Plant (Pfaff 2001, Soderberg 1985).

Irrigation water is diverted to the main canal at the Easton Diversion Dam. The main canal divides into two near Thorp. The North Branch (now the Highline) is the larger of

the two branches, at 36 miles. It flows in a general southeast direction and eventually swings south to the Wippel Pumping Plant, where three laterals branch around Badger Pocket. The canal returns to the Yakima River about eight miles southeast of Ellensburg (Pfaff 2001). Water from this canal irrigates approximately 70,000 acres in the Kittitas Valley. The Washington State OAHP inventoried this irrigation system in 1985 (Soderberg 1985). Once the irrigation system was completed, population increased more rapidly in the Kittitas Valley than anywhere in the Yakima Project (Pfaff 2002). Cattleman Philip Schnebly and his son, Fred, were among the local citizens involved in developing the reclamation district. Fred served on the board from 1922-1927 (Ellensburg Public Library, n.d.).

Hydroelectric dams on the Columbia River were constructed in the 1940s and 1950s. These dams transformed the once raging river into a series of slack-water lakes and monumental power plants to provide irrigation and electricity to the homes and business of the Northwest. In spite of the great benefits, there have been many losses, particularly to native fisheries. Irrigation ended open stock ranges, though farming became progressively more important. The command center at Wanapum Dam, the nearest to the Project area, is connected by computer to all other dams on the Columbia River, and tracks by the day how much water is released and held behind each dam. An average of 6.5 million gallons of water per minute pass through its turbines to manufacture electricity to be used as far away as Los Angeles. Bonneville Power Administration transmission lines bisect the whole of the Kittitas Valley, delivering power from dams on the Columbia River (Rocky Reach, Wanapum, and Grand Coulee) to Western Washington.

3.14.3 Cultural Resource Assessment

3.14.3.1 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.

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 conduced 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 OAHP literature search, six 17 previously recorded sites were located within ½ mile (0.8 kilometer) from the Project area (Table 3.14.3-1). All sites are outside the area of potential effect (APE), and will not be impacted by any aspect of this Project.

Table 3.14.3-1. Summary of Recorded Archaeological Sites within ½ Mile (0.8 Km) 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 ½ mile (0.8 kilometer) 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 consists of a basalt projectile point and one flake. Site 45KY359, located downstream from 45KT358, is somewhat larger consisting of 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 Project 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 ten-mile climb from the Columbia River to the crest (2800 feet) and then another seven-mile hike to descend to the Kittitas Valley below (1500 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 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 ¼ of Section 14 (T 17N, R 20E) as shown in Ehxibit 1-B, "Project

Site Layout'. 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 Ehxibit 1-B. 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.

3.14.3.2`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 30 meter (100 feet) intervals. All existing access roads, new access roads, and underground electrical lines were covered by three surface investigators employing 10 meter (35 feet) meandering transects. The areas proposed for the Project substations were also surveyed by 10 meter (35 feet) 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 10 meter (35 feet) meandering transects.

This area of Washington is interesting in that the Gingko 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, to manufacture projectile points and other stone tools, can be found in abundance. While the Gingko 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. While surveying 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 is located near where a wind turbine will be placed. This site measures approximately 100 meters (350 feet) northwest/southeast by 50 meters (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 this 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 was located in small saddle. This feature measured 1.2 meters (east/west) wide by 2.4 meters (north/south) long (4 x 8 feet), and was constructed by placing small to medium size, angular boulders in a rectangular pile approximately .6 meters (2 feet) high. The feature is obviously human-constructed.

WHWPP #3 was located on the flat top ridge (elevation 982 m/3220 feet) between two drainages. This feature measured 1.2 meters (northeast/southwest) wide by 2.4 meters (northwest/southeast) long (4 x 8 feet), and was also constructed by placing small to medium size, angular boulders in a rectangular pile approximately 6 meters (2 feet) high. The rocks in this feature had settled somewhat, but the feature is obviously human-constructed.

WHWPP #4 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 .6 meter (2 feet) high. The other, a rock feature, consists of angular basalt cobbles and pebbles arranged in an oval pile about .3 meter (1 feet) high. The rock feature is located on the flat above the hunting blind.

WHWPP #5 is a series of three hunting blinds 22 meters apart and made of angular basalt cobbles and medium size boulders arranged in U-shaped piles approximately .6 meter (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 22 meters apart. Hunting Blind #1 is 2.5 meters long (northeast/southwest) and 3.0 meters wide (northwest/southeast) and faces northwest. Hunting Blind #2 is 3.0 meters long (northeast/southwest) and 4.0 meters wide (northwest/southeast) and overlooks the valley below. Hunting Blind #3 is 2.5 meters long (northeast/southwest) and 2.5 meters wide (northwest/southeast) and is on the edge of steep hillside.

WHWPP #6 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 .6 meter (2 feet) high. It is 3.0 meters long (north/south) and 3.0 meter wide (east/west).

WHWPP # 7 consists of two rock features located near each other on a high ridge running northwest/southeast. These rock features are 1.3 meters apart and contain angular basalt cobbles and medium size boulders arranged in round piles approximately .6 meter (2 feet) high. Both features are 1.6 meters in diameter, each and are located 1.3 meters apart

WHWPP #8 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, 1 meter in diameter, and approximately .65 meter 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 four 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, personal communication 2003) stated that a man named Scammon 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 be have been constructed by Native Americans, or they could have been constructed by methods discussed by Schnebly. Nevertheless, these sites will be avoided during construction.

3.14.4 Impacts of the 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 OAHP 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, 1994d) 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-Lan, 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 (OAHP 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" (OAHP 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 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. 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 the Washington State Office of Archaeology and Historic Preservation has informed the Applicant that there is no set standard for set-backs, but recommended that a 100 feet would be adequate for avoidance. Applicant intends to maintain 100 foot setbacks from these sites.

If prehistoric or historic artifacts are encountered during ground-altering activities, work associated with those ground-altering activities should be halted immediately and a professional archaeologist should be notified immediately to inspect the artifacts and their subsurface context(s). A copy of the Cultural Resource Report has been forwarded to the Washington State Office of Archaeology and Historic Preservation in Olympia.

3.14.4.1 Construction

As recommended by the Assistant Archaeologist at the Washington State Office of Archaeology and Historic Preservation, 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.

Additionally, a qualified archaeological monitor will be present when earth-disturbing activities are conducted during construction near known archaeological sites to prevent destruction of unanticipated buried cultural materials and/or human remains. The monitor will record and report cultural materials encountered during ground disturbing activities. If human remains are discovered, construction will stop in the immediate area. EFSEC, the Washington State Office of Archaeology and Historic Preservation and appropriate Native American Tribes will be notified immediately. At that time, appropriate treatment and mitigation measures will be developed and implemented.

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

3.14.4.2 Operation

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

3.14.5 Comparison of Impacts of Proposed Scenarios

The cultural resource 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. It is anticipated that by following this guideline, no impacts to culturally sensitive areas will occur under any of the proposed scenarios.

3.14.6 Impacts of the 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. According to the County's zoning code, the Commercial Agriculture zone is dominated by farming, ranching, and rural lifestyles, and permitted uses include residential, green houses and agricultural practices. Permitted uses in the Forest and Range zone include logging, mining, quarrying, and agricultural practices, as well as residential uses (Kittitas County 1991). However, if the proposed Project is not constructed, it is likely that the region's need for power would be addressed by user-end energy efficiency and conservation measures, by existing power generation sources, or by the development of new renewable and non-renewable generation sources. Baseload demand would likely be filled through expansion of existing, or development of new, thermal generation such as gas-fired combustion turbine technology. Such development could occur at conducive locations throughout the state of Washington.

A baseload natural gas-fired combustion turbine would have to generate 67 average MW of energy to replace an equivalent amount of power generated by the Project (204 MW at 33% net capacity). (An average MW or "aMW" is the average amount of energy supplied over a specified period of time, in contrast to "MW," which indicates the maximum or peak output [capacity] that can be supplied for a short period.) See Section 2.3, 'Alternatives'.

3.14.7 Significant Unavoidable Adverse Impacts

There are no anticipated significant unavoidable adverse impacts to cultural resources as a result of the construction and operation of the Project.