EFSEC
WASHINGTON

Appendix 3.15-1

Archaeological and Historical Context

This Page Intentionally Left Blank

A3.15-1 Archaeological and Historic Context

A3.15-1.1 Description of Area

The State of Washington, located in the Pacific Northwest region of the United States, is home to a diverse range of landscapes, including forests, coastlines, mountains, and plateaus (Birdsall and Florin 1998). Two physiographic regions are commonly used to characterize the cultural history of the state: the Northwest Coast and the Southern Plateau. Cultural and historic resources in the entire state would be affected by the actions considered in this Programmatic Environmental Impact Statement (EIS).

The Northwest Coast encompasses portions of Alaska, Canada, Washington, Oregon, and California. Washington, located in the southern part of the Northwest Coast region, reaches east to the Cascade Mountains and includes the state's entire coastline. Here, the climate is moderate adjacent to the Pacific Ocean (Ames 2003).

The Southern Plateau encompasses portions of Washington, Idaho, and Oregon. In Washington, it is bordered to the north by the Okanogan Highlands at the International border with Canada, to the west by the crest of the Cascade Mountains, to the east by Idaho, and to the south by Oregon (Ames et al. 2003). Here, the climate is drier than the coastal region, with prairie and a mix of grass and desert vegetation.

A3.15-1.2 Settlement Patterns

In the western coastal region, settlements are concentrated in lowland belts along rivers and within the fjords and channels in the Puget Sound Basin, comprising over 1,000 miles of coastline. The inland areas of this region provided a wealth of forests with a wide variety of plant and animal resources, resulting in large and socially ranked populations (Suttles 1989). Key resources included cedar and salmon, once in great abundance in the region and central to the coast's subsistence economy (Ames 2003).

In the eastern plateau region, settlement was largely characterized by linear riverine patterns based on a reliance on fish, game, and root resources. Villages comprised

semipermanent longhouses with associated camps established at higher elevations. This pattern persisted until around 1700, when the horse was adopted in the region. Villages then grew at locations near rivers with access to grasslands with permanent winter villages at main rivers and temporary summer lodges at higher elevations (Walker 1998).

A3.15-1.3 Prehistoric Context

3.15-1.3.1 The Northwest Coast Cultural Chronology

The Northwest Coast extends from the southern coast of Oregon to the Gulf of Alaska and east to include the Cascade Crest. According to Carlson (1990), the cultural chronology of the region can be broadly split into four categories: Paleo Period, Early Period, Middle Period, and Late Period. Early researchers have suggested that the first human inhabitants along the northwest coast arrived around 12,000 years B.P., nearly 2,000 years after the Cordilleran Ice Sheet retreated north (Carlson 1990). However, the earliest northwest coast sites in the Southern Coast Salish region generally date between 12,000 and 5,000 years B.P. (Carlson 1990). This suggests that the peopling of North America, and the northwest coast in general, likely occurred due to the melting of the Cordilleran ice sheet. Carlson (1990) does not provide an in-depth synthesis of the cultural materials associated with the Middle and Late Phases. Stein (2000) does provide an assessment of these two periods, but also provides an alternate chronology based on San Juan Island and general northwest coast research. According to Stein (2000), who cites King (1950) and Borden (1950), four distinct phases characterize the southern Northwest Coast Chronology:

- The Paleo Period includes the Paleoindian Phase (13,500–11,500 years B.P.), the Fluted Point Tradition (12,000–8,500 years B.P.), and the Cascade Phase (11,000–9,000 years B.P.).
- The Early Period includes the stemmed Point Tradition (8,500–6,000 years B.P.), the Pebble Tool Tradition (8,000–2,000 years B.P.), and the Olcott complex (8,000–5,000 years B.P.) (Carlson 1990).
- The Middle Period spans from 5,000 to 2,500 years B.P. and is marked by major changes in tool typology.

- The Late Period lasted from approximately 2,500–200 years B.P.

3.15-1.3.2 Paleo Period (12,000–8,000 years B.P.)

The Fluted Point Tradition spans between 12,000 and 8,500 years B.P. and includes finely fluted knives and blade tools that are bifacially flaked (Carlson and Dalla Bona 1996). The bifacially flaked tools had a long, thin flake removed from both sides, starting from the base and up through the center of the blade towards the distal end (Carlson and Dalla Bona 1996).

The Paleoindian Phase (King did not have a term for this) consisted of Clovis points or fluted points consistent with the Fluted Point Tradition (Stein 2000). The Paleoindian Phase lasted between 13,500 and 11,500 years B.P.

The Cascade Phase (also known as the Island Phase by King [1950]) lasted between 11,000 and 9,000 years B.P. This phase is characterized by an absence of shell material, the presence of terrestrial mammal remains, and leaf-shaped points (Stein 2000).

3.15-1.3.3 The Early Tradition (8,000 – 2,000 years B.P.)

The Pebble Tool Tradition spans between 8,000 and 2,000 years B.P. and appears to potentially predate the Fluted Point and Intermontane Stemmed Point Traditions, according to Carlson (1990). Grabert (1979) demonstrates that Pebble Tools have been identified at early sites like South Yale Site (11,400 B.P.) and late sites like Cherry Point (900 B.P.). Despite the potentially wide date range associated with the tradition, the Pebble Tool Tradition is found throughout the Northwest Coast, including parts of the Columbia Plateau. The Pebble Tool Tradition includes cobble-sized stones that exhibit flaked edges, end battering, worked surfaces, and overlapping flakes (Grabert 1979). The Pebble Tool Tradition includes stone points or knives with a foliate shape without flutes or stems (Carlson and Dalla Bona 1996). The tradition is also characterized by numerous choppers and scrapers made from river cobbles, which appear to be ubiquitous through time (Carlson and Dalla Bona 1996).

The Olcott Complex in Washington ranges in age from 8,000 to 4,500 years B.P. The term “Olcott” is a catch-all term used to describe biface tools that are broadly bi-pointed, or willow-leaf shaped lanceolate points (Kenady et al. 2002). These tools are

found throughout Washington, but variations in shape and age range from eastern Washington to western Washington (Kenady et al. 2002). In general, Olcott tools have a pointed tip on one end and a rounded base on the other, and weakly sloped shoulders (Kenady et al. 2002). Typical tool assemblages of the Olcott, or western stemmed tradition, include lanceolate blades with wide shoulders, prominent stems, and pressure flake removal during the final stages of tool manufacturing (Kenady et al. 2002). Olcott tools are thought to have been hafted into sockets that were hollowed out of wood shafts (Kenady et al. 2002).

The Microblade Tradition overlaps with the Olcott Tradition, ranging between 8,000 and 6,000 years B.P. (Carlson 1990). Early researchers suggest that microblade technology was introduced to the northern Northwest Coast by marine-oriented cultures as early as 8,000 years B.P., and the tradition spread further south over time (Carlson 1990). Microblades are characterized as small, parallel-sided blades and the associated cores, where the segments were possibly inset into wood hafts (Carlson 1990). These tools would then be used for cutting edges or piercing (Carlson 1990).

The Locarno Beach/Mayne/St. Mungo Phases (also known as the Developmental Phase by King [1950]) lasted between 6,500 and 4,500 years B.P. This phase is characterized by the presence of shell material; fish, bird, and terrestrial mammal remains; bone tools; and stemmed points (Stein 2000).

3.15-1.3.4 Middle Period (3,500–2,500 years B.P.)

The Marpole Phase, known as the Maritime Phase by King (1950) and the Middle Period by Carlson (1990), lasted between 3,500 and 2,500 years B.P. The Marpole Phase is characterized by an abundance of shell and shell artifacts, a variety of artifact types, and triangular and stemmed points (Stein 2000). Stein (2000) suggests that the Marpole Phase in the Southern Coast Salish region is marked by a major change in tool typology and assemblage (Stein 2000). Stein (2000) suggests that the Marpole Phase saw a heavy reliance on wood materials that created a shift toward woodworking stone tools and bone artifacts.

3.15-1.3.5 Late Period (2,000–200 years B.P.)

The San Juan Phase, also known as the Late Phase by King (1950) and Carlson (1990), ranged between 2,000 years B.P. and the present (Stein 2000). The Late Period is characterized by shell material but much fewer artifacts (Stein 2000).

A3.15-1.4 The Plateau Culture Region Cultural Chronology

The Plateau culture area extends from the border of Northern California to the Fraser River Basin, and from the foothills of the Cascades in the west to the Rocky Mountains in the east. The Plateau culture region is broadly broken up into three chronological periods: Early (11,000 to 8,000 B.P.), Middle (8,000 B.P. to 4,000 B.P.), and Late (4,000 B.P. to contact). While subregions recognize variations in this cultural chronology, and significantly older sites (Cooper's Ferry, 15,700 B.P.; East Wenatchee Clovis Cache, 13,000 B.P.) are present in the Plateau culture area, the generalized Early, Middle, and Late periods are sufficient to broadly discuss chronological sequences in the Plateau culture area.

3.15-1.4.1 Early Period (11,000+ to 8,000 B.P.)

As the Cordilleran Ice Sheet retreated, the Plateau region was catastrophically flooded and the rivers and gorges that extend throughout the Plateau became readily accessible to indigenous settlement. Early inhabitants of the Plateau region predominantly relied on large, fluted blades, microblade technology, leaf-shaped and stemmed dart points, ovate bifaces, crescents, and scraper tools (Chatters and Pokotylo 1998). Sites during this time period range from small debris scatters indicative of short-term visits to dense collections of tools, faunal materials, and possible burials which may represent continued interaction with those sites (Chatters and Pokotylo 1998). Cooper's Ferry, located on the Salmon River, is an extensive site exhibiting several storage cache features containing large, stemmed points, unifaces, hammerstones, bifaces, mussel shells, faunal remains, and charcoal dating anywhere from 16,000 B.P. to 8,000 B.P. (Davis et al. 2019). The results of this study demonstrate that cultural chronology likely starts much earlier in the Plateau region than previously thought, and that Early Period archaeological sites may include long-term habitation or continued generational use locations.

3.15-1.4.2 Middle Period (8,000 to 4,000 B.P.)

The Middle Period was a period of climatic change that resulted in cooler and wetter temperatures, while the south became warmer and drier (Chatters and Pokotylo 1998). Chatters and Pokotylo (1998) highlight that ungulate hunting would have been widespread, and that the earlier portion of the Middle Period would not look particularly distinct from Early Period tool assemblages. The earlier portion of the Middle Period was characterized by the continued use of microblade technology and wide, side-notched projectile points, but tool kits generally appear to contain more expedient tools (Chatters and Pokotylo 1998). Beyond the tool kit, researchers note that this period is marked by more elaborate burial practices and caches containing large bifaces, projectile points, pipes, and beads (Chatters and Pokotylo 1998). In the later portion of the Middle Period, Chatters and Pokotylo (1998) note that settlement patterns shift towards less mobility and the establishment of larger, aggregate villages. Housepits were generally round or oval, semi-subterranean homes that ranged in shape and size (Chatters and Pokotylo 1998).

3.15-1.4.3 Late Period (4,000 B.P. to contact)

Chatters and Pokotylo (1998) present three potential sub-periods: the Early-Late (4,000 to 2,000 B.P.), the Middle-Late (2,000 to 500 B.P.), and the Late-Late (500 B.P. to contact). In the Early-Late period, temperatures lowered significantly, which may have led to cooler river temperatures and higher spawning salmon runs (Chatters and Pokotylo 1998). Salmon abundance, ungulate decline, and expansion of sub-alpine conditions are presented as possible drivers toward a storage-dependent system (Chatters and Pokotylo 1998). The tool kit shifted to include root processing technology, net weight sinkers, harpoon parts, and more localized projectile point styles (Chatters and Pokotylo 1998).

In the Middle-Late period, Chatters and Pokotylo (1998) suggest that warming conditions led to more open forest conditions, floodplain activity increased on the Columbia and Snake Rivers, and frequent flooding events were common. Root harvesting and processing sites in the uplands became more frequent, and hopper mortars were predominantly located in these root camp locations (Chatters and Pokotylo 1998; Capuder 2023). Root processing sites, bison kill sites, larger village sizes, continued reliance on salmon, and earth oven features have all been proposed to indicate a larger reliance on upland resources and environments (Chatters and Pokotylo 1998; Fulkerson and Tushingham 2021).

In the Late-Late subperiod, Chatters and Pokotylo (1998) suggest that environmental conditions did not change dramatically between the Middle-Late and Late-Late subperiods. The authors suggest that population sizes decreased, as evidenced by decreasing village size and lack of social inequality in burials, particularly in the lower Columbia River area (Chatters and Pokotylo 1998). In the upper Columbia and its tributaries, population sizes increased, villages grew, and camas harvesting and processing saw a resurgence in the Calispell Valley (Chatters and Pokotylo 1998). No major changes are reported in the toolkit for the Late-Late subperiod.

A3.15-1.5 Historic Period Context

The historic period in Washington dates to the late 1700s, when the British and Spanish began routinely visiting the region (Caster 1970). In 1805, the Lewis and Clark expedition reached what would become Idaho, which sparked further exploration into the plateau region by fur traders and other explorers. By 1848, with the establishment of the Oregon Territory, Native American populations had been reduced, fur-bearing animals had been exhausted, and many people had begun to move west along the Oregon Trail. In the mid-19th century, nonnative settlements were further developed through the arrival of Presbyterian missionaries, continuing into the 1880s.

Along the coast, settlement in northern Washington was minimal prior to 1851, when a sawmill was established near present-day Seattle and lumbering emerged as a major industry. Shortly after, Washington territory was divided from the Oregon Territory in 1853, and Washington was on the path to statehood (DOE and BLM 2008). The impact of these newly arrived emigrants on the Indigenous population and their settlement of Native American land was a cause of tension, resulting in U.S. government-prepared treaties to provide land for consolidated Tribal populations and expand the areas of nonnative settlement.

Following territorial establishment, Governor Isaac Stevens, on behalf of the United States, negotiated with various Tribes throughout Washington to cede 64 million acres of land to the United States for non-Indian settlement. These negotiations took place under 10 treaties: the Treaty of Medicine Creek (1854), Treaty of Point Elliott (1855), Walla Walla Treaty (1855), Treaty of Hell Gate (1855), Treaty of Point No Point (1855), Treaty of Neah Bay (1855), Treaty with the Yakama (1855), Chehalis River Treaty Council (1855), Treaty with the Nez Perce (1855), and the Quinault Treaty (also known as the Treaty of Olympia, 1856).

Several of these treaties created reservations for signatory tribes. Tribes were relocated from their homelands to reservations outside of their traditional territories. In many cases, several Tribes were grouped together onto reservations, regardless of their previous ties to the land or historical relationships with people they would be sharing it with. As part of the treaties, Tribes were able to maintain their rights to fish and harvest resources in their usual and accustomed territories. However, settler encroachment led to the destruction and reduction of access to these territories' usual and accustomed places where Tribal members could enact their treaty rights.

Nonnative settlers also had devastating impacts on the local Tribal population in the Columbia River Valley area through the transmission of new diseases. Spurred by the lack of treaty enforcement (and treaty violations), native groups throughout the Plateau region began to fight against outside intrusion, resulting in the Indian Wars of 1855 to 1858. Conflicts between native people, settlers, and the U.S. government lasted until the 1870s in the American West and were confined, for the most part, to the years 1855 to 1858 in the region.

Prior to statehood, the discovery of gold in the Fraser River Valley and construction of the Northern Pacific Railroad motivated a surge in settlement and improved connections to the national economy in Washington. Industries such as agriculture, fishing, and timber were historically and remain foundations of the economy in the state.

In eastern Washington, grain proved to be the most significant agricultural product produced in the Columbia Plateau. Lindeman and Holstine (1988) authored a National Register of Historic Places (NRHP) Multiple Property Documentation (MPD) for architectural resources related to grain production in eastern Washington. The MPD defines the period of significance and the property types, eligibility requirements, and integrity considerations for resources evaluated as part of the history of eastern Washington grain production. Research demonstrates that a large collection of significant property types (such as farmsteads, barns, conveyance systems, and storage facilities) from the area's agricultural history remain in the landscape (Lindeman and Holstine 1988).

Native American Tribes first began fishing in Washington using harpoons, spears, small traps, and weirs. White fur traders and settlers bought fish from Native Americans or utilized similar fishing methods; however, a lack of quality means of commercial canning prevented growth of a broad market. By the mid-19th century, the Hudson Bay Company exported salted salmon to Hawaii, Asia, and England, and William Hume had opened a salmon cannery about 40 miles above the mouth of the

Columbia River. Hume and his family operated more than 30 canneries on the Columbia, the center of the fishing industry until the 1890s, and two on Puget Sound. In the 1890s, as the salmon supply decreased in the Columbia and increased in Puget Sound, the center of industry shifted to the sound. Salmon production in the sound peaked in 1913 before again shifting to Alaskan fishing grounds. In addition to salmon and other similar fish, shellfish also contributed to the industry's success in the state in the early twentieth century (Avery 1965:260–261).

Commercial lumbering in Washington began with the construction of a sawmill at Fort Vancouver in 1827, which the Hudson Bay Company operated in the mid-19th century. Between 1847 and 1851, three more sawmills were built to meet demand from California, spurred by the arrival of gold miners. The number of sawmills in Washington Territory grew from 32 in 1860 to 310 in 1889, and 419 in 1934. Lumbering centers in the 1870s included Tacoma, Seattle, Port Gamble, Port Discovery, and Port Madison (Avery 1965:265).

In addition to the railroad, transportation networks developed in the latter half of the 19th and early 20th centuries, including roads, often following Native American trails, with a system of ferries connecting roads across waterways. Washington's northwestern ports became increasingly important for trade within the Pacific Rim and also played a crucial role in war efforts, supplying timber, ships, and soldiers.

In 1937, the Bonneville Power Administration (BPA) was created, and public power was provided to residents in the Pacific Northwest. The BPA Transmission Network is considered eligible for the NRHP and includes historic transmission lines and other related resources across Washington. Kramer (2012) developed an NRHP MPD for architectural resources related to the BPA Pacific Northwest Transmission System. The MPD defines the period of significance, property types, eligibility requirements, and integrity considerations for resources evaluated as part of the BPA Pacific Northwest Transmission System.

In the mid- to late 20th century, nonnative settlement increased dramatically in the Plateau region in response to the development of the Hanford nuclear facility. The nuclear production site was built in 1943, comprising nine former plutonium reactors in the vicinity of Hanford, a small farming community. People from all over the United States came to Hanford, forming a 51,000-person workforce. The reactors ceased in 1987, with large-scale land remediation ongoing to the present day (Gerber 1993). Other major 20th-century developments in the state included the construction of the Grand Coulee and Bonneville Dams in the 1930s and later industrial development of

the state, growth of the aerospace industry, and agricultural diversification, including expanded global markets to countries like China, Japan, and Mexico (BPA 2010).

References

Ames, Kenneth M. 2003. The Northwest Coast. Evolutionary Anthropology (12):19–33.

Ames, Kenneth M., Don E. Dumond, Jerry R. Galm, and Rick Minor. 1998. Prehistory of the Southern Plateau. Handbook of North American Indians, Volume 9, The Plateau. Edited by Deward Walker. Smithsonian Institution Press, Washington, D.C., 103-119.

Avery, Mary W. (Mary Williamson). 1965. Washington: a history of the evergreen state. Revised version of History and Government of the State of Washington, 1961. University of Washington Press, Seattle. Accessed January 30, 2025. https://archive.org/details/washingtonhistor00aver/page/n7/mode/2up

Birdsall, Stephen S. and John Florin. 1998. Chapter 15: The North Pacific Coast in An Outline of American Geography. *United States Information Agency.* Accessed September 2024. https://usa.usembassy.de/etexts/outgeogr/geog15.htm#map14.

Borden, C.E. 1950. Notes on the Prehistory of the Southern Northwest Coast. British Columbia Historical Quarterly XIV: 241–246.

BPA (Bonneville Power Administration). 2010. Corridors of Power: The Bonneville Power Administration Transmission Network Historic Context Statement. Kramer & Company, Ashland, Oregon. Accessed September 2024. https://www.bpa.gov/-/media/Aep/environmental-initiatives/cultural-resources/transmission-projects/corridors-of-power.pdf

Capuder, Karen. 2023. Ethnographic, Ethnohistoric, and Contemporary Cultural Context for the Duffy Meadow Restoration Project. Department of Archaeology and Historic Preservation, Olympia, Washington.

Carlson, Roy L. 1990. Cultural Antecedents. In Handbook of North American Indians, ed. William C. Sturtevant, Volume 7. Smithsonian Institution, Washington, 1990.

Carlson, Roy L. and Luke R. Dalla Bona. 1996. Early Human Occupation in British Columbia. Edited by Roy L. Carlson and Luke Dalla Bona. UBC Press, Vancouver, British Columbia.

Caster, James. 1970. The Earliest Spanish Explorations to the Pacific Northwest. Dissertation, University of New Mexico, Albuquerque.

Chatters, James C. and David L. Pokotylo. 1998. Prehistory: Introduction in Handbook of North American Indians, Volume 12, ed. Deward E. Walker Jr. Smithsonian Institution, Washington, D.C.

Davis, Loren G., David B. Madsen, Lorena Becerra-Valdivia, Thomas Higham, David A. Sisson, Sara M. Skinner, Daniel Stueber, Alexander J. Nyers, Amanda Keen-Zebert, and Ian Buvit. 2019. Late Upper Paleolithic Occupation at Cooper's Ferry. Idaho, USA, ~ 16,000 years ago. Science, 365(6456):891–897. Accessed March 2025. https://pubmed.ncbi.nlm.nih.gov/31467216/

DOE (U.S. Department of Energy) and BLM (U.S. Department of the Interior, Bureau of Land Management). 2008. Appendix U: Archaeological, Historic, and Ethnographic Context in Programmatic Environmental Impact Statement, Designation of Energy Corridors on Federal Land in the 11 Western States (DOE/EIS-0386). Accessed March 2025. https://corridoreis.anl.gov/eis/documents/fpeis/vol2/WWEC_FPEIS_App_U.pdf

Fulkerson, Tiffany and Shannon Tushingham. 2021. Geophyte Field Processing, Storage, and Women's Decision-Making in Hunter-Gatherer Societies: An Archaeological Case Study from Western North America. Journal of California and Great Basin Anthropology 62. Accessed March 2025. https://doi.org/10.1016/j.jaa.2021.101299

Gerber, M. S. 1993. The Hanford Site: An Anthology of Early Histories. October 1993. Prepared for the U.S. Department of Energy office of Environmental Restoration and Waste management. Westinghouse Hanford Company. Richland, Washington. Accessed September 7, 2024. https://inis.iaea.org/collection/NCLCollectionStore/_Public/25/041/25041030.pdf

Grabert, Garland F. 1979. Pebble Tools and Time Factoring. Canadian Journal of Archaeology. 3:165–175. Accessed March 2025. https://www.jstor.org/stable/41102204

Kenady, Stephen M., Robert R. Mierendorf, and Randall F. Schalk. 2002. An Early Lithic Site in the San Juan Islands: Its Description and Research Implications. National Park Service, Seattle, Washington. Accessed March 2025. https://npshistory.com/publications/sajh/early-lithic-site.pdf

King, Arden. 1950. Cattle Point: A Stratified Site in the Southern Northwest Coast Region. Memoirs of the Society for American Archaeology. 7:1–94. Accessed February 2025. https://www.jstor.org/stable/25146607

Kramer, George. 2012. National Register of Historic Places Multiple Property Documentation Form for the Bonneville Power Administration (BPA) Pacific Northwest Transmission System. NADB 1682502. On File, Washington State Department of Archaeology and Historic Preservation, Olympia, Washington.

Lindeman, G. and C. Holstine. 1988. Grain Production Properties in Eastern Washington. National Register of Historic Places, Multiple Property Documentation Form. On File at the Department of Archaeology and Historic Preservation, Olympia, Washington. Accessed March 2025. https://npgallery.nps.gov/NRHP/GetAsset/NRHP/64500700_text

Stein, Julie K. 2000. Exploring Coast Salish Prehistory. University of Washington Press, Seattle. Accessed February 2025. https://www.jstor.org/stable/j.ctvcwn8ww

Suttles, Wayne. 1989. They Recognize No Superior Chief: The Strait of Juan de Fuca in the 1790s. In *Culturas de la Costa Noroeste de America*, ed. J. Peset, 251–64.

Walker, Deward E., Jr. (ed). 1998. Handbook of North American Indians: Volume 12, Plateau. Smithsonian Institution, Washington, D.C. Accessed February 2025. https://www.jstor.org/stable/3631226

This Page Intentionally Left Blank