

3.12 Historic and Cultural Resources

This section describes historic and cultural resources in the study areas and potential impacts from implementation of the action alternatives, compared with the No Action Alternative. This section incorporates and relies on information related to historic and cultural resources presented in Appendix G, NERTS Cultural Resources Assessment.

This environmental review determined that there would be no significant unavoidable adverse impacts to earth during construction or operation of any of the alternatives.

3.12.1 Regulatory Context

Historic and cultural resources, which include archaeological, ethnographic, and historical resources, are protected by a variety of federal, state, and local laws and regulations.

3.12.1.1 Federal Regulations

Section 106 of the National Historic Preservation Act of 1966 (NHPA) is the federal law regulating projects with a federal nexus such as funding, licenses, or permits. The Washington State Department of Archaeology and Historic Preservation (DAHP) and affected Tribes must be consulted when projects are subject to review under the NHPA. This act requires that all federal agencies take into account the effect of their actions on historic properties. DAHP and affected Tribes are consulted to help determine if the Area of Potential Effects (APE) has been inventoried, if a cultural resource has been identified within or adjacent to the APE, and if the resource is listed or eligible for listing on the National Register of Historic Places (NRHP). If projects will adversely affect a property that meets NRHP criteria, DAHP will participate in finding acceptable ways to avoid or mitigate that adverse effect. The federal agency involved is responsible for initiating and completing the Section 106 review.

Under Section 106, inventories are designed to identify and evaluate any property (e.g., districts, archaeological sites, buildings, structures, and objects) that may be considered eligible for listing in the NRHP. To be eligible for the NRHP, properties must be 50 years old (unless they have special significance) and have national, state, or local significance in American history, architecture, archaeology, engineering, or culture. They also must possess integrity of location, design, setting, materials, workmanship, feeling, and association; and meet at least one of four criteria for evaluation listed in 36 C.F.R. § 60.4:

- Criterion A: association with important historical events or trends
- Criterion B: association with important people
- Criterion C: retain important characteristics of style, type or have artistic value
- Criterion D: have yielded or have the potential to yield important information

No federal funding or federal lands are anticipated for this project. Based on current information, the proposed NERTS project consists of the potential acquisition and development of private land and will not require compliance with federal cultural resources laws. However, a possible federal nexus would be for a

federal permit, such as a Clean Water Act Section 404 wetlands permit from the U.S. Army Corps of Engineers.

3.12.1.2 State Regulations

Because the project may, in the future, require compliance with Washington State cultural resources regulations, the cultural resources review will strive to follow guidelines that comply with Governor's Executive Order 21-02 and SEPA. Governor's Executive Order 21-02 mandates that all Executive Branch and small cabinet agencies in the State of Washington involving state-funded construction or acquisition projects (including grant or pass-through funding) consider project effects on cultural resources. These agencies are directed to consult with the Department of Archaeology and Historic Preservation (DAHP) and affected Tribes regarding the potential effects of the project.

SEPA (RCW 43 21C) and its implementing regulations (WAC 197-11, WAC 468-12) stipulate that a project must identify and evaluate any places or objects in or adjacent to the study area that are listed in, or eligible for, national, state, or local preservation registers as well as any sites of archaeological, scientific, or cultural importance in or adjacent to the study area. The development of mitigation measures to reduce or control impacts to those places, objects, and sites must also be addressed. Under SEPA, SWD is the lead agency tasked with obtaining technical expertise in regard to cultural resources, and providing that information to the public, Tribes, and appropriate agencies. SEPA rules recognize the DAHP as having special expertise in archaeological and historical matters (WAC 197-11-920(11)).

DAHP, however, only reviews eligibility determinations for state and national register listings. Because no SEPA-specific eligibility criteria exist, National Register of Historic Places (NRHP) eligibility criteria are often used as a standard for assessments. DAHP may provide SEPA comments to the lead state or local government agency on the identification and evaluation of probable significant adverse impacts of a proposal on archaeological resources and historic properties and mitigation measures that will reduce those adverse impacts.

Several Washington State laws specifically address archaeological sites and Native American burials. The Archaeological Sites and Resources Act (RCW 27.53) prohibits anyone from knowingly excavating or disturbing prehistoric or historical archaeological sites on public or private land without a permit from DAHP. The Indian Graves and Records Act (RCW 27.44) prohibits destruction of American Indian graves and requires re-interment under supervision of the appropriate Indian tribe following inadvertent disturbance by construction or other activity. RCW 42.56.300 states that records, maps, or other information identifying the location of archaeological sites are exempt from public disclosure laws in order to avoid the looting or depredation of such sites.

3.12.1.3 Local Laws, Plans, and Policies

At the local level, because the project is a King County undertaking, it is subject to King County Code Chapters 18.70.050-060, and King County Executive Procedures for Cultural Resources (Executive Policy LUD 16-1-1-EP, Cultural Resources Review and Protection), which require County agencies to consider

and protect cultural resources affected by County projects. The policy requires SWD to have the King County Historic Preservation Program (KCHPP) screen its projects for inventory, mitigation, or monitoring recommendations as soon as possible in the review process. KCHPP reviewed this project in March and April 2023 (Review #s 23-103, 23-105, 23-106). Per King County Code Chapter 20.62, KCHPP staff should review the King County Cultural Resources Protection Program (CRPP) database to determine if the project is within the boundaries of a recorded archaeological site, if it is in or adjacent to a parcel that contains a cultural resource that is recorded in the CRPP, or if the area is considered sensitive in terms of archaeological resources. If an inventory is recommended and there is a federal nexus, it must comply with Section 106 of the NHPA and KCHPP requirements. Alterations to identified features of significance of designated landmarks must be approved by the Landmarks Commission (KCC 20.62.080).

King County 2008 Budget Ordinance (Ordinance 15975), King County Ordinance 16271 (Stewardship of Historic Resources), and KCC 18.17.050 require King County agencies to submit an Historic Resources Action Plan for county stewardship of historic structures including, at a minimum, policies and procedures that ensure that either the historic preservation office or the landmarks commission, or both review and give technical expertise and guidance before proposed action of any County property over 40 years of age or that possesses archaeological or traditional cultural value take place.

The City of Kirkland regulates historic and cultural resources under Landmarks, Title 28 of the Kirkland Municipal Code. The City of Woodinville regulates historic and cultural resources under Landmark Protection and Preservation, Chapter 21.47 of the Woodinville Municipal Code.

3.12.2 Affected Environment

A search of records was conducted using the DAHP Washington Information System for Architectural and Archaeological Records Data (WISAARD) database in April 2023. This database serves as an online repository for cultural resources documentation, including previously recorded archaeological sites, cultural resource surveys conducted after 1995, historic registered properties, historic property inventories, and cemeteries. Only properties within the immediate study area (quarter-mile) of the alternative sites are described due to the extensive number of pre-1969 buildings and structures present in the general study area.

King County maintains its own database (CRPP) that has additional information on ethnographic site locations, above-ground historic properties, and reports of archaeological finds, including human remains. KCHPP reviewed its database and provided a preliminary review for both alternatives. The information provided in the KCHPP screening reports (KCHPP 23-105, 23-106) and that found on WISAARD are the primary sources of cultural resources information available.

The Natural Resources Conservation Service Soil Survey data were also consulted for this evaluation. No field inventory was conducted as part of this review.

3.12.2.1 Study Area

The study area for historic and cultural resources is a quarter-mile radius surrounding each of the alternative sites; this captures the potential historic and cultural resources that could be affected by construction or operation on each of the alternative sites.

3.12.2.2 No Action Alternative and Alternative 1

This section addresses the affected environment at the No Action Alternative and Alternative 1 site and study area, including options 1A and 1B. The site is located within the City of Kirkland at the existing Houghton RTS property at 11724 NE 60th Street.

The No Action Alternative and Alternative 1 site and study area are dominated by the existing Houghton RTS, the closed Houghton landfill, and surrounding residential, transportation and park land uses. Bridle Trails State Park is south of the site. The surface of the closed Houghton landfill is used as little league baseball fields (Taylor Fields), walking trails, and other recreation. The existing transfer station, scale house, and associated infrastructure was constructed in the 1960's and close to 60 years old.

The No Action Alternative and Alternative 1 site has not been previously surveyed for cultural resources. Nine cultural resources surveys have been undertaken within one mile of the site, and these surveys are presented in Table 3.12-1. King County Historic Records state that the existing Houghton transfer station building is eligible for the NRHP, and the closed Houghton landfill is considered an unrecorded historic archaeological site.

Table 3.12-1. Previous Cultural Resources Projects near the No Action Alternative and Action Alternative 1 Site.				
Project Name	Date	Author of Report	Cultural Materials	Distance from Alternative Location
A 1998 Inventory of 165 Historic Properties within the City of Redmond, King County, Washington	1998	Stephen Emerson and Barbara J. Gundy	Nine structures eligible and potentially eligible for the NRHP	0.97 mile
American Disabilities Act Improvements at Bridle Trails State Park, A Letter Report Evaluation	2009	Charles Luttrell	None	0.40 mile
Bridle Trails State Park – City of Kirkland Sewer Connection Project, King County, Washington Letter Report	2016	Charles Luttrell	None	0.33 mile
Cultural Resources Assessment of the 116th Avenue NE Project, Kirkland, King County, Washington	2005	Amber Earley	Historic refuse	630 feet
Cultural Resources Assessment of the Bridlestone Estates Project, King County, Washington	2018	Sarah M.H. Steinkraus	Twelve potentially eligible historic structures	0.65 mile
Cultural Resources Review of the Cross Kirkland Corridor Trail, King County, Washington	2014	Garth L. Baldwin	Rail line eligible for NRHP	0.90 mile

Table 3.12-1 (continued). Previous Cultural Resources Projects near the No Action Alternative and Action Alternative 1 Site.				
Project Name	Date	Author of Report	Cultural Materials	Distance from Alternative Location
Cultural Resources Survey for 116th Avenue Non-Motorized Improvement Project, City of Kirkland, King County, Washington	2010	Jason B. Cooper and James N. Greene	None	566 feet
I-405, SR 520 to SR 522, Kirkland Nickel Project: Historic, Cultural, and Archaeological Resources Discipline Report and Supplemental Analysis	2005	Washington State Department of Transportation	45KI00012, 45KI00072, Watershed Park, Spinney Homestead Park	0.55 mile
I-405 Corridor Survey: Phase III I-405, SR 520 to I-5 Improvement Project	2009	Barbara Bundy	None	830 feet

I = Interstate
 SR = state route

There has been one recorded historic isolated object within one mile of the No Action Alternative and Alternative 1 site, identified by WISAARD as 45KI00969. This is a historic isolate located within the Bridle Trails State Park trail system. The isolate is a single historic, clear glass Listerine bottle, likely dating from the 1930s to the 1940s. The bottle was produced in the Gas City, Indiana, production plant, which closed in 1966 (Table 3.12-2). Information for all archaeological sites and isolated objects located within one mile of Alternative 1 is presented in Table 3.12-2.

Table 3.12-2. Recorded Cultural Resources within One Mile of the No Action Alternative and Action Alternative 1 Site.					
Site No.	Description	NRHP Eligibility	Author of Report and Year	Alternative Location	Distance from Alternative Location
45KI00969	Historic Listerine isolate	N/A	James N. Greene and Jason B. Cooper 2009	Alternative 1	.30 mile

N/A = not applicable

3.12.2.3 Alternative 2

The Alternative 2 site is located in the 15000 block of Woodinville-Redmond Road NE in Woodinville on six King County tax parcels 1526059086, 5711600010, 5711600020, 5711600030, 1526059094, and 1526059095, and the study area includes the area within a quarter-mile of the site boundaries.

The Alternative 2 site consists of an undeveloped area with a wetland, grasses, and trees and a developed area consisting of several small businesses which includes buildings, parking areas, and laydown areas. There are three larger one- and two- story buildings and several smaller buildings on site. The date of when the existing buildings on site were constructed is not known.

Aerial photographs of the southern portion of the Alternative 2 site and surrounding area were examined to determine past land uses (Shockey 2013). These included photographs taken in 1936, 1944, 1954, 1970, 1978, 1995, and 2009. Since at least 1936, a ditch running north to south has bisected the southern parcels and the surrounding area between the BNSF railroad tracks and Woodinville-Redmond Road NE. This ditch originated at a farm located north of the property and curves east toward the Sammamish River south of the property. Another small ditch oriented perpendicular to this main ditch is located in the eastern half of the site. The area was originally covered in hay pastures, but it appears that the warehouses on both the north and south sides of the property were built sometime between 1983 and 1995.

The WISAARD review indicated that the location for Alternative 2 falls within an area previously surveyed for cultural resources as part of the Historic and Cultural Resources Eastside Rail Corridor Regional Trail Master Plan Project in 2015. It should be noted, however, that while Alternative 2 falls within the identified general survey boundaries, no cultural resources investigations were conducted on the specific parcels associated with Alternative 2. Cultural resources surveys within one mile of Alternative 2 have been conducted on 26 occasions (Table 3.12-3). Several of these cultural resources surveys covered large areas, with only a small portion falling within one mile of Alternative 2. There are three previously recorded archaeological sites within one mile of Alternative 2 (Table 3.12-3).

Project Name	Date	Author of Report	Cultural Materials	Distance from Alternative 2 Location
Archaeological Monitoring for the North Creek Force Main Condition Assessment, King County, Washington	2016	Chris Lockwood and Jeanette Hayman	None	100 feet
Archaeological Resource Damage Assessment for Site 45K111, Woodinville, King County	2008	Kate Shantry, Brandy Rinck, Michael V. Shong, and Christian J. Miss	Pre-contact village site	0.70 mile
Archaeological Survey for the Chateau Ste. Michelle Winery Road and Parking Improvements Project, Woodinville, Washington	2016	Jana Boersema	None	0.72 mile
BD Warehouse Project Cultural Resources Investigation	2013	Frank Stipe	None	200 feet
Cultural Resources Assessment for the Chateau Reach Drainage Improvements – Woodinville Vault, King County, Washington	2012	Kate Shantry	None	800 feet
Cultural Resources Survey for the Apple Farm Village Project	2014	Melissa Cascella	None	0.60 mile
Cultural Resources Assessment for the Gardens District Development, Woodinville, Washington	2022	Emily Peterson, Jack Johnson, and Eileen Heideman	None	0.97 mile

Table 3.12-3 (continued). Previous Cultural Resources Projects Near the Action Alternative 2 Site.				
Project Name	Date	Author of Report	Cultural Materials	Distance from Alternative 2 Location
Cultural Resources Assessment for the NE 171st Street Urban Parkway Project, Woodinville, King County, Washington	2015	Kate Shantry	None	0.95 mile
Cultural Resources Assessment for the Nordick Manufacturing Stormwater Treatment Improvements, Woodinville, King County, Washington	2012	Kate Shantry	None	900 feet
Cultural Resources Assessment, Woodin Creek Village Project, Woodinville, King County, Washington	2014	Margaret Berger	None	0.96 mile
Cultural Resources Inventory for Puget Sound Energy's Cottage Brook-Moorlands 115-kV Transmission Line Pole Replacement Project, Cities of Kenmore, Bothell, Kirkland, and Woodinville, King County, Washington	2012	Jennifer Gilpin, Jenny Dellert, and Gabe Frazier	None	0.28 mile
Cultural Resource Survey and Limited Subsurface Testing for the Vinterra Housing Development Project, King County, Washington	2013	Sarah M.H. Steinkraus	None	0.40 mile
Cultural Resources Survey for the Woodinville Community Facility Bedroom Addition Project, King County, Washington	2019	Amanda Carroll	None	1.00 mile
Derby Creek Enhancement Project, Cottage Lake, King County, Washington – Cultural Resources Assessment	2015	Alicia B. Valentino and Katherine F. Wilson	None	0.47 mile
Site 45K111 Boundary Determination within the Redmond Village Apartments Property, King County, Washington	2008	Kate Shantry	Buried midden deposit with lithic refuse	0.67 mile
Final 124th Avenue Northeast Roadway Improvement Project Archaeological Resources and Traditional Cultural Places Assessment, King County, Washington	2003	David R. Iverson, Leonard A. Forsman, Dennis E. Lewarch, and Lynn L. Larson	None	0.92 mile
Historic and Cultural Resources Eastside Rail Corridor Regional Trail Master Plan Project	2015	Environmental Science Associates	Multiple railway bridges and trestles	Within Alternative 2 boundary
Historic Resource Inventory of Railway MP 0.00 to 1.86 for the BNSF King County Abandonment Project, Washington	2008	Elizabeth O'Brien	BNSF Redmond Spur Railway recommended eligible for NRHP	1.00 mile
Additional Archaeological Testing at Site 45K111 Related to the Sammamish River Trail Repair and Widening Project	2005	Mike Shong and Lorelea Hudson	Lithic artifacts and debitage (stone tools or weapons, and material	0.72 mile

Project Name	Date	Author of Report	Cultural Materials	Distance from Alternative 2 Location
			produced during the process of production) related to 45KI11	
Woodinville Village 45KI11 Boundary Identification	2006	Amber Earley	Concentration of FMR possibly related to 45KI11	0.70 mile
Northshore Athletic Fields Project, King County, Washington, Cultural Resources Assessment	2014	Tom Ostrander, Erin Claussen, and Chris Lockwood	None	0.42 mile
Northshore Athletic Fields-Field Renovation Project, Cultural Resources Assessment, Woodinville, King County, Washington	2019	Chris Lockwood, Bryan Hoyt, Chanda R. Schneider, and Jenny Dellert	None	0.48 mile
Results of a Cultural Resources Assessment for the Tolt Pipeline No. 2, Phase IV Project, North King County, Washington	1997	Linda C. Naoi Goetz and John P. Warner	Bothell-Lake Forest Park rick highway	0.40 mile
Results of Archaeological Testing at 45KI11 for the Woodinville Village Development, King County, Washington	2007	Michael V. Shong, Christian J. Miss, Michele E. Parvey, Alexander E. Stevenson, and Sean Tallman	Cultural midden containing FMR and lithic assemblage	0.70 mile

FMR = fire-modified rock

kV = kilovolt(s)

Three previously recorded cultural resources are located within one mile of Alternative 2. These resources include a pre-contact camp site, a historical-period residential structure, and an abandoned historic railroad grade. Additional information on these resources is presented in Table 3.12-4.

Site No.	Description	NRHP Eligibility	Author of Report and Year	Alternative Location	Distance from Alternative Location
45KI00011	Pre-contact camp, lithic tools, and FMR concentration	Recommended eligible by consultant	Kate Shantry, Brandy Rinck, and Mike Shong 2008	Alternative 2	0.65 mile
45KI01097	Historic residential structure	N/A	Jennifer Gilpin 2012	Alternative 2	0.80 mile
45KI00451	Historic railroad grade, abandoned	Determined not eligible by agency	Lorelea Hudson and Margaret Nelson 1997	Alternative 2	0.37 mile

N/A = not applicable

3.12.3 Environmental Impacts

This section describes the potential historic and cultural resource impacts from the No Action and action alternatives and identifies mitigation measures that could avoid, minimize, or reduce the identified impacts below the level of significance or reduce impacts in general.

3.12.3.1 *No Action Alternative*

This section describes the potential historic and cultural resource impacts from the No Action Alternative located at the existing Houghton RTS property at 11724 NE 60th Street. Under the No Action Alternative, the existing Houghton RTS would continue to operate and no new NERTS facility would be developed.

All cultural resources and cultural resource surveys in the vicinity of the No Action Alternative and Alternative 1 site are discussed in Section 3.12.2.2 and presented in Table 3.12-1 and Table 3.12-2.

No construction activities are proposed for the No Action Alternative; therefore, there would be no impacts to historic and cultural resources.

Continued operation of the existing Houghton RTS would not pose impacts to any known or suspected cultural resources. The existing Houghton transfer station building meets the federal and state 50-year age threshold to be considered as an historic resource and is eligible as a Kirkland city landmark, and potentially eligible for listing in the National Register of Historic Places, where it would be recorded and evaluated for historic significance. However, under the No Action Alternative, no changes to the historic use of the transfer station would occur. Therefore, there would be no impacts to the existing Houghton RTS.

3.12.3.2 *Impacts Common to All Action Alternatives*

3.12.3.2.1 *Impacts from Construction*

3.12.3.2.1.1 *Direct Impacts*

Under all action alternatives, construction is anticipated to last approximately 30 months. Soil survey reports from the U.S. Department of Agriculture for both Alternatives 1 and 2 indicate that the soils in the area are classified as gravelly sandy loam and loamy sand (Soil Survey Staff 2023). These soils are consistent with glacial outwash. Members of the Coast Salish people may have seasonally occupied areas near the study areas during historic and ethnologic times.

Under all action alternatives, site grading and excavation for new structures will disturb existing landforms and subsurface conditions up to 30 feet below ground surface. These ground-disturbing construction activities could disturb existing, but undiscovered, historic and cultural artifacts or resources. When the project location is finalized and designed, site-specific archaeological field investigations and technical reporting that meets Section 106 standards will be performed. To address the possibility of encountering cultural materials during project construction, an Inadvertent Discovery Plan (IDP) and/or data recovery (if necessary) will be developed and implemented by SWD during construction of the project. BMPs would include the practice that if, during construction, any evidence of archeological or historic resources is found,

all work will be stopped, and a qualified professional will be consulted. The DAHP and/or affected Tribes will also be contacted and consulted to determine the correct course of action. With this mitigation in place, impacts to cultural resources would be minimized.

Under all action alternatives, construction could include pile drivers, bulldozers, drilling, jackhammers, and trucks. Pile driving is a unique construction activity that would be limited to a portion of the construction period, if used. (see Section 3.10, Noise). These construction activities could pose potential risk of damage to nearby historic structures if they exist. However, for a typical residential structure, vibration impacts from pile driving (the strongest potential vibration source) are not anticipated at distances beyond 100 feet, and therefore impacts on historic resources are not anticipated.

3.12.3.2.1 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project construction as a result of the action alternatives when BMPs are employed.

3.12.3.2.2 Impacts from Operation

3.12.3.2.2.1 Direct Impacts

For all action alternatives, there is potential for cultural resources impacts during operations, but they are expected to be minimal. With the implementation of operational source control BMPs as required by King County SWD, it is expected that there would be no significant unavoidable adverse impacts on historic and cultural resources from all proposed action alternatives and, therefore, additional mitigation measures would not be required.

3.12.3.2.2.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project operations as a result of the action alternatives when BMPs are employed.

3.12.3.2.3 Cumulative Impacts

Transfer station construction could contribute incrementally to the cumulative overall past and present impacts on historic and cultural resources in the region due to other ongoing development within King County. A survey for cultural resources would be undertaken as part of the facility design and development process.

3.12.3.3 Alternative 1A

This section describes impacts unique to Alternative 1A, along with applicable mitigation measures. Alternative 1A would construct the new NERTS facility at the existing Houghton RTS property at 11724 NE 60th ST in Kirkland after the existing transfer station building is closed and demolished.

3.12.3.3.1 Impacts from Construction

3.12.3.3.1.1 Direct Impacts

All project impacts, regulatory requirements, and cumulative impacts related to historic and cultural resources under Alternative 1A would include those described previously in Section 3.12.3.2.1, Impacts Common to All Action Alternatives.

Under Alternative 1A, the existing Houghton transfer station building has been determined eligible as a Kirkland city landmark, and potentially eligible for listing in the NRHP. Any adaptation, remodeling, or demolition of the existing station or changes to the existing property as proposed will require mitigation. The historic resource within one mile of the Alternative 1A site is a historical period isolated object that has received no recommendation of eligibility with the NRHP. In 2018, Twelve potentially eligible historic structures were identified near the Alternative 1A site, but their distance from construction activities (0.65 miles) minimizes any construction impacts. One historic resource within 1 mile of Alternative 1A site is a historical period isolated object that has received no recommendation of eligibility with the NRHP.

Also, for Alternative 1A, the WISAARD predictive model for archaeological sensitivity suggests that Alternative 1A is considered a “low risk” for the presence of archaeological resources. In addition, despite the closed Houghton landfill status as an unrecorded historical archaeological site, previous ground disturbance has been extensive throughout much of the site and study area. Impacts to cultural resources, while possible, are not anticipated.

Although construction has the potential to cause indirect impacts to above-ground historic properties, mitigation measures would minimize potential impacts to be negligible to minor.

Any necessary mitigation measures would be defined in consultation with the State Historic Preservation Officer (SHPO), King County Historic Preservation Officer, and other consulting parties. Mitigation measures may include:

- An above-ground historic property inventory would occur prior to construction in accordance with the Washington State Standards for Cultural Resources Reporting and any resources identified would be documented and evaluated for significance. The determination will guide whether further consultation with DAHP and KCHPP will be necessary, including potential mitigation of adverse effects.
- An Inadvertent Discovery Plan would be prepared by SWD and approved by SHPO prior to construction. If cultural resources are encountered during construction, work would stop immediately and DAHP would be consulted. Any resources encountered would be documented and evaluated for significance.
- If discovery of disturbed archaeological sites occurs, SWD will consult with DAHP and affected Tribes about the need to obtain a state archaeological excavation permit.
- SWD could hire a professional archaeologist to document the closed Houghton landfill archaeological site using coring, trenching, or other appropriate subsurface methods, and evaluate its eligibility for listing in the NRHP using approved methods.

- SWD should require contractors to train work crews in recognizing archaeological materials and in the appropriate procedures they should follow in the event any such materials are discovered during the project.

Under Alternative 1A with implementation of mitigation, minimal direct construction impacts on historic and cultural resources are anticipated on the site or in the study area.

3.12.3.3.1 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project construction as a result of Alternative 1A when BMPs are employed.

3.12.3.3.2 Impacts from Operation

3.12.3.3.2.1 Direct Impacts

Under Alternative 1A, no operational impacts to historic and cultural resources are anticipated as no further ground disturbance after construction is anticipated.

3.12.3.3.2.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project operations as a result of Alternative 1A when BMPs are employed.

3.12.3.3.3 Cumulative Impacts

Under Alternative 1A, no cumulative impacts to historic and cultural resources are anticipated because the alternative would not compel or make inevitable other actions that might impact these resources.

3.12.3.4 Alternative 1B

This section describes impacts unique to Alternative 1B, along with applicable mitigation measures. Alternative 1B would construct the new NERTS facility at the existing Houghton RTS property at 11724 NE 60th ST in Kirkland while the existing transfer station building is open and operating. The old transfer station building would then be closed and repurposed or replaced after the new station is open.

3.12.3.4.1 Impacts from Construction

3.12.3.4.1.1 Direct Impacts

All project impacts, regulatory requirements, and cumulative impacts related to historic and cultural resources under Alternative 1B would include those described previously in Section 3.12.3.2, Impacts Common to All Action Alternatives.

All construction impacts under Alternative 1B would be similar to those described under 1A.

3.12.3.4.1.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project construction as a result of Alternative 1B when BMPs are employed.

3.12.3.4.2 Impacts from Operation

3.12.3.4.2.1 Direct Impacts

Under Alternative 1B, no operational impacts to historic and cultural resources are anticipated as no further ground disturbance after construction is anticipated.

3.12.3.4.2.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project operations as a result of Alternative 1B when BMPs are employed.

3.12.3.4.3 Cumulative Impacts

Under Alternative 1B, no cumulative impacts to historic and cultural resources are anticipated because the alternative would not compel or make inevitable other actions that might impact these resources.

3.12.3.5 Alternative 2

This section describes impacts unique to Alternative 2, along with applicable mitigation measures. Alternative 2 would construct the new NERTS facility on six tax parcels in the 15000 block of Woodinville-Redmond Road NE in Woodinville.

3.12.3.5.1 Impacts from Construction

3.12.3.5.1.1 Direct Impacts

All project impacts, regulatory requirements, and cumulative impacts related to historic and cultural resources under Alternative 2 would include those described previously in Section 3.12.3.2, Impacts Common to All Action Alternatives.

All construction impacts under Alternative 2 would be similar to those described under 1A. There are two industrial buildings on the northern parcels at the site that are of sufficient age (constructed in 1980 and 1979) to be potentially eligible for landmark designation. According to KCHPP, neither are exceptional examples of their type or style, and they do not have significant architectural merit, so are likely not eligible for designation and may be demolished without additional documentation or mitigation.

Although there are no known archaeological sites in or adjacent to the Alternative 2 site, the WISAARD predictive model for archaeological sensitivity suggests that Alternative 2 study area is considered a high to very high risk for the presence of archaeological resources. KCHPP indicates it has a high probability of containing intact archaeological sites because ground disturbance from logging, farming, and commercial

development probably did not extend to the full depth (30 feet) of the project footprint. A 2008 cultural resource survey found evidence of one pre-contact village site approximately 0.70 miles from the Alternative 2 site. That site is a camp site with a cultural midden containing FMR, lithic debitage, faunal remains, and lithic tools. Two historical-period cultural sites have been identified within one mile of the Alternative 2 site. One is classified as a historical-period residential structure that has received no recommendation for the NRHP. The second historic site recorded in the area is an abandoned railroad line that was determined not eligible for the NRHP.

Because there is a potential for precontact and historic-period archaeological resources, there could be impacts to cultural resources during construction, particularly to those areas subject to ground-disturbing activities. Although construction has the potential to cause direct impacts to cultural resources, mitigation measures would reduce potential impacts to be less than significant. Any necessary mitigation measures would be defined in consultation with the State Historic Preservation Officer (SHPO), King County Historic Preservation Officer, affected Tribes, and other consulting parties. Mitigation measures may include:

- Additional cultural resource investigations would be conducted prior to construction to assess presence or absence of cultural resources.
- After facility design is complete and prior to construction, SWD should conduct field investigations (e.g., shovel probes) in all areas of planned ground disturbance, in accordance with approved standard archaeological survey methods. These investigations should be completed by a professional archaeologist meeting state standards and include completion of a survey report that meets the DAHP reporting standards.
- SWD, with KCHPP, should notify the affected Indian Tribes of potential field investigations and provide a draft of any survey reports to KCHPP and affected Indian Tribes for review. The archaeologist shall notify the affected Indian Tribes of their field schedule so that the Tribes can send staff to observe the field work.
- SWD may conduct monitoring during construction in areas that are inaccessible during survey or where excavation will exceed the reach of standard archaeological survey methods. Work would be accomplished with an approved archaeologist.
- An Inadvertent Discovery Plan would be prepared by SWD and approved by SHPO prior to construction. If cultural resources are encountered during construction, work will stop immediately and DAHP and affected Tribes would be consulted. Any resources encountered would be documented and evaluated for significance.
- If discovery of disturbed archaeological sites occurs, SWD will consult with DAHP and affected Tribes about the need to obtain a state archaeological excavation permit.
- SWD should require contractors to train work crews in recognizing archaeological materials and in the appropriate procedures they should follow in the event any such materials are discovered during the project.

Under Alternative 2 with implementation of mitigation, minimal direct construction impacts on historic and cultural resources are anticipated on the site or in the study area.

3.12.3.5.1.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project construction as a result of Alternative 2 when BMPs are employed.

3.12.3.5.2 Impacts from Operation

3.12.3.5.2.1 Direct Impacts

Under Alternative 2, no operational impacts to historic and cultural resources are anticipated as no further ground disturbance after construction is anticipated.

3.12.3.5.2.2 Indirect Impacts

No indirect historic and cultural impacts are anticipated during project operations as a result of Alternative 2 when BMPs are employed.

3.12.3.5.3 Cumulative Impacts

Under Alternative 2, no cumulative impacts to historic and cultural resources are anticipated because the alternative would not compel or make inevitable other actions that might impact these resources.

3.12.4 Mitigation Measures

3.12.4.1 No Action Alternative

No mitigation measures are required.

3.12.4.2 Alternative 1

3.12.4.2.1.1 During Construction

Mitigation measures would be defined in consultation with the SHPO, King County Historic Preservation Officer, and other consulting parties. Mitigation measures may include:

- Avoidance or data recovery prior to and monitoring during construction would occur in areas of the site that were previously undisturbed.
- An above-ground historic property inventory would occur prior to construction in accordance with the Washington State Standards for Cultural Resources Reporting and any resources identified would be documented and evaluated for significance. The determination will guide whether further consultation with DAHP and KCHPP will be necessary, including potential mitigation of adverse effects.
- A Historic American Buildings Survey (HABS)/Historic American Engineering Record (HAER) documentation or a historic context would be prepared for the existing Houghton RTS prior to demolition. An HAER also would be prepared for any significant above-ground historic properties identified.

- An inadvertent discovery plan would be prepared by SWD and approved by SHPO prior to construction. If cultural resources are encountered during construction, work would stop immediately and DAHP would be consulted. Any resources encountered would be documented and evaluated for significance.
- If discovery of disturbed archaeological sites occurs, SWD would consult with DAHP and Affected Tribes about the need to obtain a state archaeological excavation permit.
- SWD could hire a professional archaeologist to document the closed Houghton landfill archaeological site using coring, trenching, or other appropriate subsurface methods, and evaluate its eligibility for listing in the NRHP using approved methods.
- SWD should require contractors to train work crews in recognizing archaeological materials and in the appropriate procedures they should follow in the event any such materials are discovered during the project.

3.12.4.2.1.2 Duration Operation

No mitigation measures are required.

3.12.4.3 Alternative 2

3.12.4.3.1.1 During Construction

Mitigation measures would be defined in consultation with the SHPO, King County Historic Preservation Officer, and other consulting parties. Mitigation measures may include:

- Additional cultural resource investigations would be conducted prior to construction to assess presence or absence of cultural resources.
- After facility design is complete and prior to construction, SWD should conduct field investigations (e.g., shovel probes) in all areas of planned ground disturbance, in accordance with approved standard archaeological survey methods. These investigations should be completed by a professional archaeologist meeting state standards and include completion of a survey report that meets the Washington DAHP reporting standards.
- SWD, with KCHPP, should notify the affected Indian Tribes of potential field investigations and provide a draft of any survey reports to KCHPP and affected Indian Tribes for review. The archaeologist shall notify the affected Indian Tribes of their field schedule so that the Tribes can send staff to observe the field work.
- SWD may conduct monitoring during construction in areas that are inaccessible during survey or where excavation will exceed the reach of standard archaeological survey methods. Work would be accomplished with an approved archaeologist.
- An Inadvertent Discovery Plan would be prepared by SWD and approved by SHPO prior to construction. If cultural resources are encountered during construction, work will stop immediately and DAHP and would be consulted. Any resources encountered would be documented and evaluated for significance.

- If discovery of disturbed archaeological sites occurs, SWD would consult with DAHP and affected Tribes about the need to obtain a state archaeological excavation permit.
- SWD should require contractors to train work crews in recognizing archaeological materials and in the appropriate procedures they should follow in the event any such materials are discovered during the project.

3.12.4.3.1.2 During Operation

No mitigation measures are required.

3.12.5 Significant Unavoidable Adverse Impacts

With all alternatives and implementation of BMPs and mitigation identified, there would be no significant unavoidable adverse impacts to historic or cultural resources are anticipated.