Chapter 27 Consultation, Review, and Permit Requirements

This chapter addresses federal statutes, implementing regulations, and Executive Orders (EOs) and other consultation, review, and permit requirements that are potentially applicable to the project. This EIS is being sent to tribes; federal agencies; and regional, state, and local governments as part of the consultation process for this project.

Words in **bold** and acronyms are defined in Chapter 32, Glossary and Acronyms.

27.1 National Environmental Policy Act

This EIS has been prepared by BPA pursuant to regulations implementing the NEPA (42 USC 4321 et seq.), which requires federal agencies to assess, consider, and disclose the impacts that their actions may have on the environment. BPA has assessed the potential environmental impacts of the project in this EIS, has made this EIS available for public comment, and will consider the potential impacts and public comments when making decisions regarding the project.

27.2 Endangered Species Act of 1973

The ESA of 1973 (16 USC 1536) as amended in 1988, establishes a national program for the conservation of threatened and endangered species of fish, wildlife and plants, and the preservation of the ecosystems on which they depend. The ESA is administered by the USFWS for wildlife, plants, and freshwater and some marine species and by NOAA Fisheries for marine and anadromous species. The ESA defines procedures for listing species, designating critical habitat for listed species, and preparing recovery plans. It also specifies prohibited actions and exceptions. Section 7 of the ESA requires federal agencies to ensure that the actions they authorize, fund, and carry out do not jeopardize endangered or threatened species or their critical habitats. A federal agency also is required to consult with the USFWS and/or NOAA Fisheries if it is proposing an action that may affect listed species or their designated critical habitat. If listed species or designated critical habitat are present and could be affected by the Proposed Action, Section 7 requires that the federal agency prepare a biological assessment (BA) to analyze the potential effects of the action on listed species and critical habitat and make an effect determination for each species. USFWS or NOAA Fisheries review the BA and, if they conclude that the action may adversely affect a listed species or their habitat, issue a biological opinion, which includes a take statement and a list of reasonable and prudent alternatives to follow during construction. If USFWS or NOAA Fisheries find that the project may affect, but is not likely to adversely affect a listed species or their habitat, they will issue a letter of concurrence.

BPA reviewed the federal lists of the threatened and endangered plant, wildlife, and fish species that may occur in Cowlitz and Clark counties, Washington and Multnomah County, Oregon. From these lists and other database information provided by WDFW and WDNR, BPA determined that six federally protected threatened or endangered plant species could occur in the project area: golden paintbrush, Pacific fleabane, Willamette Valley daisy, water howellia, Bradshaw's lomatium, Nelson's checker-mallow, and Kincaid's lupine. BPA determined that seven federally protected threatened or endangered wildlife species could occur in the project area: marbled

murrelet, northern spotted owl, western yellow-billed cuckoo, streaked horned lark, Oregon spotted frog, gray wolf, and Columbian white-tailed deer. BPA also determined that seven federally protected fish species—bull trout, coho salmon, Chinook salmon, chum salmon, steelhead, eulachon, and sockeye salmon – could occur in the project area. Many evolutionary significant units of these species occur solely along their migration route in the Columbia River; others include spawning and rearing use in Columbia River tributaries.

The assessment of potential occurrences of threatened and endangered plant, animal, and fish species and their habitats, and potential impacts to these species from the project, are discussed in Chapter 17, Vegetation; Chapter 18, Wildlife; and Chapter 19, Fish. As discussed in these chapters, the proposed project could cause impacts to protected plant, wildlife, and fish species and their critical habitat.

Bradshaw's lomatium is the only plant species that currently has been documented to occur within a 2-mile-wide corridor of the West Alternative and Options and Crossover Option 1. If avoidance is not possible, impacts could occur to this species from project activities. No critical habitat for federally listed plant species is currently designated in the study area. Surveys for all federally listed plants were conducted in 2014 and 2015.

While suitable habitat may occur along all the action alternatives, the Columbian white-tailed deer, gray wolf, Oregon spotted frog, streaked horned lark, and yellow-billed cuckoo are not known to occur nor are they likely to occur in the study area. The northern spotted owl is the only wildlife species that currently has been documented to occur within a 2-mile-wide corridor of the West, Central, East, and Crossover alternatives. Impacts created by all action alternatives would be moderate since suitable habitat would be removed and noise disturbance impacts could occur. In addition, habitat would be removed from within documented northern spotted owl circles for the Central, East, and Crossover alternatives. While there is one documented occurrence of the marbled murrelet about 3 miles northeast of the Casey Road Substation site, and the northern portions of all four action alternatives cross through the Western Washington Coast Range Conservation Zone for marbled murrelet, the western-most portions of the action alternatives are at the furthest eastern edge of the species' range, where nesting is less likely to occur. In addition, only a small amount of the habitat that would be removed within the conservation zone is suitable old-growth/mature forest habitat. Impacts from loss of potential habitat within the conservation zone would be low. Surveys for marbled murrelets are in progress and will be completed in 2016. Similar to plants, no critical habitat for federally listed wildlife species is currently designated in the study area.

Project impacts to hydrology, sediment delivery, riparian areas, and floodplains in watersheds, including alteration of riparian habitat through loss of streambank stability, large woody debris recruitment, and stream shade affect the productivity of fish habitat. The project would clear forested vegetation along about 2 to 3 miles of fish-bearing streams, including critical habitat for fish. Loss of riparian function would be greatest along the Central Alternative and options and least along the West Alternative and options. The West Alternative and options also would have the lowest impact on fish compared to other alternatives. This alternative includes a high number of stream crossings, although impacts to fish habitat at many of these crossings would be low because riparian vegetation has already been removed. The Crossover Alternative and options would have the highest impact on fish. Many of the streams crossed would require clearing of highly - functional riparian zones and many of the streams crossed have high fish production potential. The net effect of any project route on anadromous fish populations would be on the order of 1 percent. None of the action alternatives would cause a substantial risk

to listed species. However, any additional impact would further degrade the status of ESA-listed species from current levels.

BPA is consulting with USFWS and NOAA Fisheries under Section 7 of the ESA regarding these species. Field surveys were conducted in 2014 and 2015 to confirm the presence and/or absence of listed species in the project area and to aid in Section 7 consultation.

27.3 Fish and Wildlife Conservation Act of 1980

This federal act (16 USC §§ 2901 et seq.) encourages federal agencies to conserve and promote the conservation of nongame fish and wildlife species and their habitats. A separate act, the Fish and Wildlife Coordination Act (16 USC 661 et seq.) requires federal agencies undertaking projects on water resources to consult with the USFWS and the state agency responsible for fish and wildlife resources.

The proposed project could cause impacts on nongame species (see Section 27.2, Endangered Species Act of 1973). BPA is consulting and coordinating with federal and state agencies responsible for the management of these species. Mitigation designed to avoid and minimize impacts to fish and wildlife and their habitats is identified in Chapter 18, Wildlife and Chapter 19, Fish.

27.4 Magnuson-Stevens Fishery Conservation and Management Act

Under Section 305(b)(4) of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the fisheries division of NOAA Fisheries is required to provide essential fish habitat (EFH) conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH. EFH includes all streams, lakes, ponds, wetlands, and other currently viable water bodies and most of the habitat historically accessible to salmon that has been designated EFH.

Wherever possible, NOAA Fisheries uses existing interagency coordination processes to fulfill EFH consultations with federal agencies. EFH occurs in the Columbia River and its tributaries throughout the project area. As discussed in Chapter 19, Fish, the proposed project could cause impacts on waters and substrate necessary to fish species covered under EFH—salmon stocks—for spawning, breeding, feeding, and growth to maturity. Mitigation designed to avoid and minimize impacts to fish and their habitats is identified in Chapter 19, Fish. BPA will continue to coordinate and consult with NOAA Fisheries to ensure appropriate mitigation measures would be used to minimize impacts to EFH.

27.5 Migratory Bird Treaty Act of 1918

This act implements various treaties and conventions between the United States and other countries, including Canada, Japan, Mexico, and the former Soviet Union, for the protection of migratory birds (16 USC 703-712, July 3, 1918, as amended through 1989). Under the act, taking, killing, or possessing migratory birds, their eggs, or nests is unlawful. Most species of birds are classified as migratory under the act, except for upland and non-native birds such as pheasant, chukar, gray partridge, house sparrow, and European starling.

The project may impact migratory birds through increased potential for power line collisions, loss of habitat, potential disruption of navigational mechanisms by EMF, and potential disruption of breeding if temporary construction activities occur during the breeding season. Potential impacts on migratory birds and mitigation measures are discussed in Chapter 18, Wildlife. In accordance with the Memorandum of Understanding signed in 2006 between the USFWS and the USDOE, BPA has consulted with the USFWS and worked with WDFW to ensure appropriate mitigation measures would be implemented to minimize the risk of bird mortality and help promote the conservation of migratory bird populations.

27.6 Bald and Golden Eagle Protection Act of 1940

The Bald and Golden Eagle Protection Act of 1940 prohibits the taking or possessing of and commerce in bald and golden eagles, with limited exceptions (16 USC 668-668d, June 8, 1940, as amended 1959, 1962, 1972, and 1978). The Act only covers intentional acts or acts in "wanton disregard" of the safety of bald or golden eagles. Because eagles use portions of the project area for foraging, perching, roosting, and nesting, there is a possibility some eagles could be killed. However, because the Bald Eagle and Golden Eagle Protection Act only covers intentional acts, or acts in "wanton disregard" of the safety of bald or golden eagles, this project is not subject to this act.

27.7 Federal Noxious Weed Act

This federal act, as amended in 2009, directs federal agencies to manage undesirable plant species on federal lands when management programs for those species are in place on state or private land in the same area (7 USC § 2814) (1990). Undesirable plant species are defined as those that are classified as undesirable, noxious, harmful, exotic, injurious, or poisonous, pursuant to state or federal law. A noxious weed list (7 CFR 360.200) is developed by the Secretary of Agriculture, which lists noxious weeds (as defined by the Plant Protection Act) that are subject to restrictions on interstate movement (7 USC § 7712).

Construction and maintenance activities would create some risk of spreading undesirable plant species in the project area in Cowlitz and Clark counties, Washington, and Multnomah County, Oregon. If privately or state-managed undesirable plant species are found or spread during project construction or maintenance, BPA would coordinate with the state, county, and landowners regarding their control or eradication (BPA 2000a). Pre- and post-construction surveys would also be conducted for undesirable plant species included on the federal noxious weed lists and included on Oregon and Washington state and county lists. See Chapter 17, Vegetation, for a discussion of species, impacts, and mitigation measures.

27.8 Clean Air Act

The Clean Air Act as revised in 1990 (PL 101-542, 42 USC §7401) requires EPA and the states to carry out programs intended to ensure attainment of National Ambient Air Quality Standards. The EPA is authorized to establish air quality standards for six "criteria" air pollutants: carbon monoxide, lead, nitrogen dioxide, ozone, particulate matter (PM2.5, PM10), and sulfur dioxide. The EPA uses these six criteria pollutants as indicators of air quality. The EPA has established NAAQS for each criteria pollutant, which defines the maximum legally allowable concentration. If the standard for a pollutant is exceeded, adverse effects on human health may occur. When

an area exceeds these standards, it is designated as a nonattainment area. Pollution control measures are mandated for federal actions in nonattainment areas.

A nonattainment area can be listed for any one, or more, of the criteria pollutants. An area that was once a nonattainment area, but has since improved its air quality enough so that it now meets the EPA established air quality standards, is upgraded to a maintenance area designation. Maintenance areas also have pollution controls imposed on them, but because the air quality is not as poor as in nonattainment areas, the control standards are not as strict. All other areas not listed by the EPA for air quality degradation are considered attainment areas. The General Conformity Requirements of the Code of Federal Regulations require that federal actions do not interfere with state programs to improve air quality in nonattainment areas. There are no nonattainment areas in the project area.

Of the six criteria air pollutants, particulate matter (PM) is the main concern for transmission line, substation, and access road construction activities. PM10 are particles with an aerodynamic diameter smaller than 10 micrometers (µm) and include: "dust, dirt, soot, smoke, and liquid droplets directly emitted into the air by sources such as factories, power plants, cars, construction activity, fires, and natural windblown dust" (EPA 2003). PM2.5 are "fine particles" with an aerodynamic diameter smaller than 2.5 µm. PM2.5 particles can be "directly emitted from sources such as forest fires or they can form when gases emitted from power plants, industry and automobiles react in the air" (EPA 2006).

In the project area, authority for ensuring compliance with the Clean Air Act is delegated to the Washington Department of Ecology, Southwest Region and the Oregon DEQ. Each agency has regulations requiring all industrial activities (including construction projects) to minimize windblown fugitive dust. RCW Chapter 70.94 (Washington Clean Air Act) and WAC Chapter 173 400 (general regulations for air pollution sources); and ORS Chapter 468a (Oregon air quality statutes) and OAR Divisions 200-268 (Oregon air quality rules) require owners and operators of fugitive dust sources to prevent fugitive dust from becoming airborne and to maintain and operate sources to minimize emissions. Air quality impacts from fugitive dust and emissions of the project are discussed in Chapter 21, Air Quality.

27.9 Greenhouse Gases

Various federal and state mandates address the need to reduce GHG emissions. The Clean Air Act (CAA) is a federal law that established regulations to control emissions from large generation sources such as power plants; limited regulations of GHG emissions occur through the New Source Review permitting program. In 2009, the EPA issued a rule on the Mandatory Reporting of Greenhouse Gases that requires reporting of GHG emissions from large sources. The rule requires suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons or more per year of CO_2e to submit annual emissions reports to the EPA. Likewise, Executive Orders 13423 and 13514 require federal agencies to estimate, manage, and reduce GHG emissions by agency-defined target amounts and dates.

BPA is currently developing a Sustainability Action Plan, which addresses managing and reducing greenhouse gas emissions by the agency. The project would remove carbon sequesters (trees and other vegetation) and generate emissions of gases (such as carbon dioxide) that contribute to global warming. Construction of the project would produce an estimated 39,600 metric tons in greenhouse gas emissions over the course of 60 months, and operation and maintenance of the line would produce an estimated 18,586 metric tons per year. The project is estimated to

produce an annualized average of 7,831 metric tons of greenhouse gas over the life of the project. See Chapter 22, Greenhouse Gases, for the complete analysis and discussion.

In the state of Washington, Executive Orders 07-02 and 09-05 issued by the governor direct state agencies to work with western states and Canadian provinces to develop a regional emissions reduction program designed to reduce GHG emissions to 1990 levels by 2020 (Ecology 2010b). Similarly, in Oregon, House Bill 3543 (codified at Oregon Revised Statutes [ORS] 468A.205), directs state and local governments, businesses, nonprofit organizations, and individual residents to reduce GHG emissions in Oregon; by 2010, arrest growth of GHG emissions; by 2020 begin to reduce GHG levels to 10 percent below 1990 levels; and by 2050 achieve GHG levels at least 75 percent below 1990 levels (Oregon Global Warming Commission 2010).

27.10 Clean Water Act

27.10.1 Section 404

Section 404 of the Federal Clean Water Act (CWA) (33 USC §§ 1251 et seq.) is administered by the U.S. Army Corps of Engineers (Corps), and regulates the discharge of dredged or fill material into waters of the United States, including wetlands and streams. Because BPA would be placing fill into wetlands and streams to construct the project, a Section 404 permit would be required.

As part of the project coordination, BPA is working with the Corps to comply with the CWA Section 404(b)(1) guidelines established by the EPA (40 CFR Part 230, Section 40(b)(1)). The purpose of the guidelines is to restore and maintain the chemical, physical and biological integrity of waters of the U.S. through the control of discharges of dredged or fill material. These guidelines prohibit discharges of dredged or fill material into waters of the U.S. if there is a practicable alternative to the proposed project that would have less adverse impact on the aquatic ecosystem, including wetlands, and that does not have other significant environmental consequences (40 CFR 230.10(a)). An alternative is considered "practicable" if it is "available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes" (40 CFR 230.10(a)(2)).

When an activity is proposed to occur in a special aquatic site (i.e., wetland fill) and it is not water dependent, the CWA regulations also presume that practicable alternatives that do not involve special aquatic sites are available, and that these alternatives would have less adverse impact on the aquatic ecosystem. Both of these presumptions must be clearly analyzed as a prerequisite to complying with the guidelines, and thus to potential permit issuance. BPA is preparing a Section 404(b)(1) alternatives analysis evaluation to provide the Corps with the necessary information regarding the availability of practicable alternatives to the proposed project and to identify the least environmentally damaging practicable alternative.

The CWA also requires that applicants take all appropriate and practicable steps to avoid and minimize adverse impacts to waters of the U.S. To offset impacts that are unavoidable, the Corps requires applicants to provide compensatory mitigation to ensure that an activity complies with Section 404(b)(1) guidelines. The process of incorporating all appropriate and practicable measures to avoid, minimize and, finally, compensate for impacts to aquatic resources caused by permit actions, is referred to as mitigation sequencing. Constructing towers, roads, and substations for the project would require the filling of wetlands (see Chapter 16, Wetlands). The amount of wetland fill would vary by alternative, ranging from approximately 3 acres for the Central Alternative to about 44 acres for the West Alternative. BPA is therefore coordinating

with the Corp to prepare a mitigation plan in accordance with the Federal Compensatory Mitigation for Losses of Aquatic Resources Final Rule (33 CFR Parts 332, April 10, 2008). In both Washington and Oregon, compensatory mitigation options, in order priority, include mitigation banks, in-lieu fee programs, and permittee-responsible compensatory mitigation. The Corps describes mitigation banking as "the restoration, creation, enhancement, or preservation of wetlands to compensate for unavoidable wetland losses in advance of development actions. Banking typically involves the consolidation of small, fragmented wetland mitigation projects into one large contiguous site. Units of restored, created, enhanced or preserved wetlands are expressed as 'credits,' which may subsequently be withdrawn to offset 'debits' incurred at a project development site."

The mitigation plan is intended to address requirements of both Section 401 and Section 404 of the CWA, and would be prepared in accordance with the EPA, Corps, and Ecology interagency guidance on wetland mitigation in Washington State, Wetland Mitigation in Washington State: Part 1—Agency Policies and Guidance (March 2006) and Wetland Mitigation in Washington State: Part 2—Developing Mitigation Plans (March 2006). Part 1 provides information on the agencies' permitting requirements and policies on wetland mitigation. Part 2 provides technical information for preparing appropriate mitigation plans. The interagency document provides guidance on determining appropriate and adequate compensatory mitigation through various considerations. These are summarized below.

Compensating for Wetland Losses: Wetland function loss should be taken into account in addition to wetland acreage lost. A minimum of a one-to-one functional replacement should be the goal of all compensatory mitigation in order to achieve a "no net loss" of function. Functions should be analyzed at the impact site and the mitigation site, both before and after impact, to show that mitigation has provided the "functional lift" required. The "lift" at the wetland mitigation site should at least be equal to the loss at the wetland impact site to be considered efficient.

Determining when Mitigation Should Occur: Though the agencies prefer mitigation to occur before wetland impacts occur, this is not always possible. Necessary hydroperiods or planting schemes may delay compensatory mitigation activities. If it is possible for successful mitigation to occur before wetland impacts do, mitigation ratios will be lower, since the temporal loss and risk of failure will be lower.

Choosing the Location and Type of Compensatory Mitigation: Mitigation sites should be selected using a "watershed approach" meaning the best areas for mitigation may not always be at the site of impact but within the same watershed. The "watershed approach" is based on understanding how ecological processes determine the characteristics and ecological functions in the watershed, and identifying areas where altered processes can be restored to improve the function of the watershed as a whole. Agencies may require on- or off-site mitigation based on the location of the impacted wetland in the landscape and the level of functions it provides to the watershed.

In-kind mitigation is compensatory mitigation that replaces the same wetland type and functions as the impacted wetland. Out-of-kind mitigation is when wetland type or functions replaced differ from type and functions lost. As with site location discussed above, agencies consider, and will prefer, what will provide for the larger ecological benefit for the landscape when comparing in- and out-of-kind compensatory mitigation.

Using Preservation: Preservation of wetlands with a high level of function may be considered if the wetland to be preserved is determined to be threatened by development; and if preservation

is considered to be the ecologically preferable option after restoration, creation, and enhancement options have been reviewed. Preservation as a sole means of compensatory mitigation is rare, and most often is in combination with other forms of mitigation.

Identifying the Amount of Compensation: In order to help ensure that "no net loss" of wetland function and area is achieved when performing compensatory mitigation. The agencies have developed wetland mitigation ratios that are adequate to offset unavoidable wetland impacts. Based on best available science, mitigation ratios must be greater than 1:1 (1 acre of mitigation for 1 acre of impact) due to the high risk of failure and temporal loss of wetland function.

Determining Adequate Buffers: Based on best available science, the agencies require that compensatory wetlands have a buffer, not included in the total compensation, which will protect the functions being performed. The agencies have developed buffer width standards for mitigation wetlands.

For the Preferred Alternative (Central Alternative using Central Option 1), wetland, stream, and buffer impacts would occur in both Cowlitz and Clark counties (see Table 27-1). The table summarizes potential project impacts to aquatic resources and riparian buffers by watershed and provides these data as relative percentages of the total estimated impacts for the Preferred Alternative. The intent of the table is to demonstrate which watersheds (defined at the HUC 10 level) would likely see the greatest effect from this project and therefore where mitigation for aquatic resources would likely occur. The impact percentages are based upon areas for clearing of forested/scrub shrub wetlands, stream buffers and wetland buffers within the proposed right-of-way, as well as fill/dredge in waters of the US, including wetlands. This table includes field survey information from properties where permission to access has been granted by the property owner.

Table 27-1 Relative Percentages of Wetland, Stream, and Buffer Impact by Watershed for the Preferred Alternative

Watershed (HUC 10)	Wetland/ Stream Fill Area	Wetland Clearing Area (forested & shrub)	Wetland/Stream Buffer Clearing Area[1,2]
Ostrander Creek-Cowlitz River	30%	32%	33%
Coweeman River	21%	15%	19%
Kalama River-Frontal Columbia River	11%	8%	15%
Lower Lewis River	4%	20%	14%
East Fork Lewis River	5%	5%	4%
Salmon Creek-Frontal Columbia River	1%	4%	6%
Washougal River	18%	10%	8%
City of Washougal- Columbia River	0%	0%	0%
Hayden Island-Columbia River	1%	6%	0%
Willamette River-Frontal Columbia River	10%	0%	0%
Lower Sandy River	0%	0%	0%
Totals	**100%**	**100%**	**100%**

Notes:
1. Wetland buffers were assumed to be: Category I and II wetlands – 225 feet; Category III – 110 feet; and Category IV – 40 feet.
2. Stream buffers were assumed to be: perennial streams – 200 feet and seasonal streams – 75 feet.

27.10.2 Section 401

CWA provisions relating to water quality are also implemented by state water quality agencies. Section 401 of the CWA requires applicants for Section 404 permits to obtain a Water Quality Certification from the certifying State agency, which is the Washington Department of Ecology in Washington, and the Oregon Department of Environmental Quality (ODEQ) in Oregon. Ecology reviews applications under the requirements of RCW 90.48, and ODEQ reviews applications under Oregon Administrative Rules (OAR) 340 Divisions 41, 42, and 45. Application for and granting of a construction stormwater permit fulfills many of the application requirements for a Section 401 certification. For Sections 404 and 401 verification and approval in Washington, project information would be submitted jointly to the Corps and Ecology using the Joint Aquatic Resources Permit Application. In Oregon, applications are submitted jointly to the Corps and ODEQ using the Joint Permit Application. The Corps Section 404 permit is issued only after the affected state certifies that existing water quality standards would not be violated.

27.10.3 Section 402

Section 402 of the CWA addresses requirements for National Pollutant Discharge Elimination System (NPDES) permits. Section 402 requires an entity to obtain a permit in advance of ground disturbing activities of 1 acre or more, where discharges of pollutants into waters of the state may occur. In Washington, the EPA has retained NPDES permitting and enforcement authority for federal facilities. For federal facilities in Oregon, the EPA has delegated NPDES enforcement and permitting authority to the state. BPA obtained and maintains an agency NPDES General Storm Water 1200-CA Permit (File No.: 111769; EPA No.: ORR10-4145) from Oregon Department of Environmental Quality (ODEQ).

The General NPDES permit requires Permittees to prepare and implement Stormwater Pollution Prevention Plans (SWPPP) to control stormwater pollution associated with construction activities. Stormwater controls must be developed to address during and post-construction erosion control, treatment and discharge of stormwater, and other construction-related activities that could affect receiving water quality.

The SWPPP using erosion and sediment control Best Management Practices (BMPs) is developed during final project design, adapted by the contractor before construction, and revised on site for the duration of the project as necessary. A copy of the SWPPP is maintained on-site during construction and is a basis for environmental compliance inspection during construction. The BMPs specified in the SWPPP must be inspected periodically by a qualified person and maintained to assure their effectiveness. Sampling and analysis of concentrated stormwater runoff points is required to demonstrate compliance with discharge limits.

As part of the SWPPP, spill prevention and response procedures are developed to address petroleum and hazardous materials handling and management. Where sufficient quantities of petroleum or other regulated liquids are maintained on site, a Spill Prevention Control and Countermeasures (SPCC) plan may also be required.

27.10.4 Section 303d

Section 303(d) of the CWA requires states, territories, and authorized Tribes to develop lists of impaired waters. These are waters where technology-based regulations and other required

controls are not stringent enough to meet the water quality standards set by states. Thirteen streams located in the Cowlitz, Lewis, and Salmon-Washougal Water Resource Inventory Areas (WRIAs) that would be crossed by or potentially impacted by the project are on the 303(d) list including Ostrander Creek, South Fork of Ostrander Creek, Riley Creek, Lockwood, East Fork Lewis River, Salmon Creek, Mason Creek, Dwyer Creek, Arkansas Creek, Monahan Creek, Delameter Creek, Lacamas Creek, and Coweeman River. Most of these streams are listed for elevated water temperature. Riley Creek and Lacamas Creek are listed for elevated levels of fecal coliform, and Dwyer Creek and Lacamas Creek are listed for low levels of dissolved oxygen. No streams listed as impaired on Oregon's 303(d) list are crossed by the project.

Section 303d requires that states establish priority rankings for waters on the lists and the development of Total Maximum Daily Loads (TMDLs) for streams. A TMDL is a calculation of the maximum amount of a pollutant that a water body can receive and still safely meet water quality standards. The TMDL implementation plans for three of these creeks are under development and one has EPA approval on the TMDL and implementation plan, as described below. There are no TMDLs currently under development for Ostrander Creek, South Fork of Ostrander Creek, Arkansas Creek, Delameter Creek, Monahan Creek, Riley Creek, Mason Creek, and Coweeman River (EPA 2011b).

The TMDL for the East Fork Lewis River is currently being developed by Ecology. Ecology is currently analyzing and modeling temperature data, developing fecal coliform and temperature load allocations, and drafting a study report to support development of the water cleanup plan (Ecology 2011b).

Dwyer Creek is within the study area of the Lacamas Creek TMDL, which is currently being developed by Ecology. The Lacamas Creek Quality Assurance Project Plan was prepared in February 2011 (Ecology 2011c). This technical study is part of the four- to five-year process of monitoring, determining required pollution reductions, and developing a detailed clean-up plan.

The TMDL and implementation plan for Salmon Creek have been approved by the EPA (Ecology 2011d).

If sufficient quantities of hydrocarbons or other regulated liquids are maintained on site, an SPCC plan could also be required according to state regulations (40 CFR 112). The plan must be adhered to during construction.

See Chapter 15, Water, and Chapter 16, Wetlands, for analysis and discussion of impacts and mitigation measures.

27.11 Floodplains and Wetlands (Executive Orders 11988 and 11990)

The U.S. Department of Energy mandates that impacts to floodplains and wetlands be assessed and alternatives for protection of these resources be evaluated in accordance with Executive Orders 11988 and 11990, along with the Compliance with Floodplain/Wetlands Environmental Review Requirements (10 CFR 1022.12).

There are 17 FEMA-designated 100-year flood inundation zones (or floodplains) crossed by the project, including Leckler Creek, Cowlitz River, Coweeman River, Kalama River, Little Kalama River, Lewis River, Tributary to Chelatchie Creek, East Fork of Lewis River, Salmon Creek, Burnt

Bridge Creek, Little Washougal River, Washougal River, Lacamas Creek, Ostrander Creek, Speelyai Creek, Canyon Creek, and Columbia River. Up to 10 towers and about a mile of new and improved access roads for the East Alternative to 32 towers and 6 miles of roads for the West Alternative would be constructed in these floodplains.

The action alternatives cross wetlands that could be permanently filled by the construction of substations, towers, and roads. Acres estimated to be filled would be 44 acres, West Alternative; 3 acres, Central Alternative; 22 acres, East Alternative; and 26 acres, Crossover Alternative. Additional clearing of scrub-shrub wetlands (but no fill) within the 150-foot right-of-way is estimated to be 62 acres for the West Alternative; 17 acres, Central Alternative; 23 acres, East Alternative; and 35 acres, Crossover Alternative. Clearing of forested wetlands is estimated to be about 54 acres for the West Alternative; 17 acres, Central Alternative; 61 acres, East Alternative; and 53 acres, Crossover Alternative. Clearing in scrub-shrub and forested wetlands would convert these wetlands to emergent wetlands.

As described above, BPA is working with the Corps in the Seattle and Portland Districts to develop appropriate compensatory mitigation. Ecology, DSL, and potentially affected counties and cities may also be involved to identify appropriate mitigation for impacted wetlands.

Impacts on and mitigation for streams, floodplains, and wetlands are discussed in Chapter 15, Water and Chapter 16, Wetlands. Mitigation included in the project design for these resources is also presented in Table 3-2.

27.12 Rivers and Harbors Act of 1899

Section 10 of the Rivers and Harbors Act of 1899 (33 USC § 403) regulates all work in or affecting navigable waters of the United States. This regulation is administered by the Corps, and addressed structures or work that affect the course, location, condition or capacity of navigable waterways. Several navigable waters are located within the project area, including the Cowlitz River, Columbia River, and select reaches of other rivers.

In-water work could be required for the construction of one tower to support the transmission line crossing at the Columbia River although construction during low flow periods would avoid in-water construction. The project also would require conductors that would span the navigable waters of the Columbia River, a "water of the United States" as defined in the Rivers and Harbors Act and a navigable water as described by the Corps. Pursuant to the implementing regulations for Section 10, Section 10 permits are required for power transmission lines crossing navigable waters of the United States unless those lines are part of a water power project subject to the regulatory authorities of the U.S. Department of Energy under the Federal Power Act of 1920 (33 CFR §322). Therefore, a Section 10 permit would be required for this project.

27.13 Coastal Zone Management Act

The Coastal Zone Management Act was passed in 1972 to encourage the appropriate development and protection of the nation’s coastal and shoreline resources. The Washington Coastal Zone Management Program defines the state’s coastal zone to include 15 counties with marine shorelines. Clark and Cowlitz counties are not considered part of the coastal zone. Oregon’s program generally defines the coastal zone to include those counties west of the

coastal mountain range, between the Washington and California borders. Multnomah County is not considered part of the coastal zone.

27.14 Hazardous Materials

27.14.1 Resource Conservation and Recovery Act

The Resource Conservation and Recovery Act (RCRA) (42 USC §6901 et seq. [1976], regulations under 40 CFR 240-271), as amended, provides a program for managing and controlling hazardous waste by regulating generators and transporters of hazardous waste, and owners and operators of hazardous waste treatment, storage, and disposal (TSD) facilities. Under RCRA regulations, hazardous waste is tracked by manifest from its point of generation until it reaches a TSD facility ("cradle to grave"). Generators, transporters, and operators of TSD facilities are required to notify the EPA or authorized state agency of hazardous waste activities and are each issued an EPA identification number. Each TSD facility owner or operator is required to have a permit issued by the EPA or the state. Both Washington and Oregon are authorized by the EPA to regulate hazardous waste activities in their respective states.

Paint from surfaces coated before 1978, such as on existing river crossing towers, would be assumed to contain lead or other heavy metals unless laboratory analysis proves otherwise. A lead abatement plan would be implemented that would cover removal and disposal of any paint chips in accordance with all federal, state and local environmental and safety standards.

Small amounts of hazardous wastes may be generated by the project (such as paint products, motor and lubricating oils, herbicides, or solvents) during construction or operation and maintenance. These materials would be transported and disposed according to RCRA and state regulations.

27.14.2 Toxic Substances Control Act

The Toxic Substances Control Act (TSCA) (15 USC §2601 et seq. [1976], regulations under 40 CFR 700-799) is intended to protect human health and the environment from toxic chemicals. Section 6 of the Act regulates the use, storage, and disposal of PCBs. BPA adopted guidelines to ensure that PCBs are not introduced into the environment. Equipment used for this project will not contain PCBs. Any equipment removed that may have PCBs will be handled according to the disposal provisions of the TSCA regulation.

27.14.3 Federal Insecticide, Fungicide and Rodenticide Act

The Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) (77 USC §136 et seq. [1996], and regulations under 40 CFR 162-180) registers and regulates pesticides. BPA limits it use of herbicides (a kind of pesticide) and uses herbicides only under controlled circumstances. Herbicides are used on transmission line rights-of-way and in substation yards to control vegetation, including noxious weeds. When BPA uses herbicides, the date, dose, and chemical used are recorded and reported to state regulatory agencies. Herbicide containers are disposed of according to RCRA and state regulations.

27.15 Cultural Resources

Preserving cultural resources allows Americans to have an understanding and appreciation of their origins and history. A cultural resource is an object, structure, building, site or district that provides irreplaceable evidence of natural or human history of national, state or local significance. Cultural resources include National Landmarks, archeological sites, properties of traditional religious and cultural importance to a Native American Tribe (also known as Traditional Cultural Properties), and other properties listed (or eligible for listing) on the National Register of Historic Places. American Indian Tribes have rights under specific laws, as well as the opportunity to voice concerns about issues under these laws when their aboriginal territory falls within a proposed project area.

Laws and other federal directives for the management of cultural resources include the following:

- National Historic Preservation Act (NHPA) of 1966 (54 USC 300101 et seq.), inclusive of Section 106
- Executive Order 13007 Indian Sacred Sites
- American Indian Religious Freedom Act of 1978 (PL 95-341, 92 Stat. 469, 42 USC 1996, 1996a)
- Antiquities Act of 1906 (16 USC 431-433)
- Historic Sites Act of 1935 (16 USC 461-467)
- Archaeological Data Preservation Act (ADPA) of 1974 (16 USC 469 a-c)
- Archaeological Resources Protection Act (ARPA) of 1979 (16 USC 470aa-47mm)
- Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC 3001 et seq.)

Section 106 of the NHPA requires federal agencies to take into account the effects of their undertakings on historic properties, and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment. Historic properties are properties that are included in the National Register of Historic Places or that meet the criteria for the National Register. If a federal agency plans to undertake a type of activity that could affect historic properties, it must consult with the appropriate State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO) to make an assessment of the property and to assess adverse effects on identified historic properties. The NHPA specifies that Traditional Cultural Properties (TCPs) may be determined to be eligible for inclusion on the National Register of Historic Places. In carrying out its responsibilities under Section 106, a federal agency is required to consult with any Native American Tribe that attaches religious or cultural significance to any such properties. NAGPRA requires consultation with appropriate Native American Tribal authorities before the excavation of human remains or cultural items (including funerary objects, sacred objects, and cultural patrimony) on federal or tribal lands. NAGPRA recognizes Native American ownership interests in some human remains and cultural items found on federal lands and makes illegal the sale or purchase of Native American human remains, whether or not they derive from federal or Indian land. Repatriation, on request, to the culturally affiliated Tribe is required for human remains.

Executive Order 13007 addresses "Indian sacred sites" on federal and tribal land. "Sacred site" means any specific, discrete, narrowly delineated location on federal land that is identified by a

Tribe, or a Tribal individual determined to be any appropriately authoritative representative of a Native American religion. The site is sacred by virtue of its established religious significance to, or ceremonial use by, a Native American religion, provided that the Tribe or appropriately authoritative representative of an Indian religion has informed the agency of the existence of such a site. This order calls on agencies to do what they can to avoid physical damage to such sites, accommodate access to and ceremonial use of Tribal sacred sites, facilitate consultation with appropriate Native American Tribes and religious leaders, and expedite resolution of disputes relating to agency action on federal lands. The American Indian Religious Freedom Act protects and preserves to American Indians their inherent right of freedom to believe, express, and exercise traditional religions.

Background research and a pedestrian survey of the Central Alternative and Central Option 1 within the project's area of potential effect identified the presence of historic and archaeological resources, and ethnographic resources that may be eligible. Cultural resources are discussed in Chapter 13, Cultural Resources. Ongoing surveys will identify cultural resources sites that could be impacted if they can't be avoided. If, during construction, previously unidentified cultural resources are found that would be adversely affected by the project, BPA would follow all applicable procedures set forth in the NHPA, NAGPRA, ARPA, and the American Indian Religious Freedom Act. Also, if some sites cannot be avoided, BPA will consult with federal and state agency landowners and the Washington or Oregon SHPO or the appropriate THPO, and interested parties and tribes to determine if those sites are eligible for a listing under the NRHP. BPA will consult with the appropriate parties on mitigation for adverse effects to eligible cultural resources that cannot be avoided.

27.16 Tribal Consultation

BPA's Tribal Policy follows the principles set forth in the Department of Energy's American Indian Policy (USDOE Order No. 1230.2—Apr. 8, 1992). BPA fully respects Tribal law, and recognizes Tribal governments as sovereigns. BPA will consult with Tribal governments to assure that Tribal rights and concerns are considered prior to BPA taking actions, making decisions, or implementing programs that may affect Tribal resources. BPA recognizes that Tribal interests are not limited to cultural resources but may also include fish, wildlife, water resources and wetlands, vegetation, health, socioeconomic impacts, noise, and visual resources. BPA also recognizes that Tribes may have specific rights reserved under treaties, such as fishing, hunting, gathering and grazing rights. The Corps, as a federal permitting agency, may also conduct tribal consultation as part of their permit review process.

Throughout the EIS process, BPA involved and consulted with eight Tribes with lands and interests in the project area. These included the Confederated Tribes of Chehalis, Cowlitz Indian Tribe, Quinault Tribe of Quinault Reservation, Confederated Tribes of Grande Ronde, Confederated Tribes of the Warm Springs Reservation, Confederated Tribes of the Umatilla Indian Reservation, Nez Perce Tribe, and the Confederated Tribes and Bands of the Yakama Nation. BPA has reached out to its tribal counterparts to share and gather information, to coordinate project activities where appropriate, to address tribal concerns, and to invite further consultation. No Tribe has requested formal government-to-government consultation meetings to date.

27.17 Federal Aviation Administration

As part of the transmission line design process, BPA would comply with FAA procedures. According to FAR 49 CFR Part 77.13, the FAA requires BPA to submit its designs for FAA approval if a proposed structure is taller than 200 feet from the ground or water surface where the line crosses a body of water, if a conductor is 200 feet above the ground or water surface where the line crosses a body of water, or if any part of the proposed transmission line or its structure are within a prescribed distance of an airport. According to FAR 49 CFR Part 77.17, BPA must submit Form 7460-1 (Notice of Proposed Construction or Alteration) for a preliminary transmission line design and receive conditional approval at least 30 days before construction. The FAA would then conduct its own study of the project and make recommendations to BPA for airway marking and lighting. General BPA policy is to follow FAA recommendations (see Chapter 12, Transportation). BPA is coordinating with the FAA concerning the proposed project and is providing information to the FAA to aid in its review process.

27.18 National Trails System Act

The National Trails System Act of 1968 (16 USC §§ 1241–1251) established a National Trails System with the purpose of promoting the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the nation. The Act and its subsequent amendments have created a network of national scenic, historic, and recreational trails throughout the United States. The project area contains two national trails: the Lewis and Clark National Historic Trail, and the Oregon National Historic Trail, both administered by the National Park Service (NPS). BPA has coordinated with the NPS to minimize impacts to these trails.

27.19 Lewis and Clark National Historic Trail

This approximately 3,700-mile-long trail was established under the National Trails System Act through an act of Congress in 1978, and is administered by the NPS as a component of the National Park System (NPS 2009). The primary purpose of this trail is to commemorate the Lewis and Clark Expedition of 1804-06. Generally tracing the courses of the Missouri and Columbia rivers, the Lewis and Clark National Historic Trail stretches through 11 states from a point near St. Louis, Missouri to where the Columbia River drains into the Pacific Ocean. From about Richland, Washington westward, the trail generally follows the Columbia River to the Pacific Ocean.

A Comprehensive Management Plan (CMP) was prepared for the Lewis and Clark National Historic Trail in 1982, and the NPS is currently in the process of developing a new CMP. The 1982 CMP recommends various trail sites, segments, and routes. In the project area, the Columbia River and its shores are considered a water trail, and U.S. Highway 197, Washington SR 14, and various local roads on the north side of the Columbia River are considered a motor route. The CMP also identifies various campsites and portage points of the Lewis and Clark Expedition along the Columbia River in the project area. All action alternatives would cross over the Columbia River and the trail.

27.20 Oregon National Historic Trail

This approximately 2,170-mile-long trail was established under the National Trails System Act through an act of Congress in 1978, and is administered by the NPS as a component of the National Park System (NPS 2006). The purposes of this trail are to (1) identify, preserve, and interpret the sites, route, and history of the trail, and (2) commemorate the westward movement of emigrants to the Oregon County. The Oregon National Historic Trail extends approximately from Kansas City, Missouri to the Portland, Oregon vicinity.

A CMP was prepared for the Oregon National Historic Trail in 1999, and a long-range interpretative plan was finalized for the trail in 2010. These plans cover not only the Oregon National Historic Trail, but also the California, Mormon Pioneer, and Pony Express National Historic Trails as well. The action alternatives cross the Columbia River and would likely be visible near the Oregon National Historic Trail mile marker at the Sandy River Bridge, south of the Columbia River near Troutdale, Oregon.

27.21 Noise Control Act

The Noise Control Act of 1972 as amended (42 USC §4901 et seq.) sets forth a broad goal of protecting all people from noise that jeopardizes their health or welfare. It places principal authority for regulating noise control with states and local governments. Noise standards applicable to the project are established under Chapter 70.107 RCW for the state of Washington, as described in WAC 173-60-049 and WAC 173-60-050; and ORS Chapter 467 (Noise Control) and the OAR Division 35 (Noise Control Regulations) for the state of Oregon. The regulations are administered by Ecology and ODEQ. Responsibility for enforcement of applicable regulations is assigned to local governments in both states.

The allowable noise levels under state law, potential noise impacts from the project, and proposed mitigation are described in Chapter 9, Noise.

27.22 Environmental Justice

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, states that each federal agency shall identify and address, as appropriate, disproportionately high and adverse human health or environmental effects of its programs, policies, and activities on minority and low-income populations. Minority populations are considered members of the following groups: American Indian or Alaska Native; Asian or Pacific Islander; Black, not of Hispanic Origin; or Hispanic if the minority population of the affected area exceeds 50 percent, or is 50 percent greater than the minority population in the county. Populations are considered low income if 20 percent or more of residents are below the poverty level, or are 50 percent more than the respective county poverty level's percentage.

The order further stipulates that the agencies conduct their programs and activities in a manner that does not exclude persons from participation in, deny persons the benefits of, or subject persons to discrimination because of their race, color, or national origin. An analysis of the project area shows that none of the action alternatives contain minority populations that are disproportionately impacted compared to populations living within in the affected counties. The Central Alternative does not cross any block groups reporting a minority population, and crosses one census tract reporting a low-income population. When compared to the populations of the

aggregated block groups, census tracts, or affected counties, none of the impacts from this project on low-income or minority populations would be disproportionate (see Chapter 11, Socioeconomics and Appendix H). BPA has considered all input from persons or groups regardless of race, income status, or other social and economic characteristics.

27.23 Federal Communications Commission Regulations

Federal Communications Commission regulations require that transmission lines be operated so that radio and televisions reception would not be seriously degraded or repeatedly interrupted. Further, Federal Communications Commission regulations require that the operators of these devices mitigate such interference.

BPA would comply with Federal Communications Commission requirements relating to radio and television interference from the proposed transmission line if any such interference occurs. None of the action alternatives are expected to increase electromagnetic interference above acceptable limits and applicable guidelines for avoiding interference or above those of other BPA 500-kV lines; however, complaints about electromagnetic interference would be investigated and measures would be taken under BPA's mitigation program to restore reception to the same or better quality (see Chapter 8, Electric and Magnetic Fields).

27.24 Farmland Protection Policy Act

The Farmland Protection Policy Act (7 USC §§ 4201 et seq.) directs federal agencies to identify the quantity of farmland converted by federal programs, to identify and consider the adverse impacts of federal programs on farmland preservation, to consider alternative actions that could lessen adverse impacts, and to assure that the federal programs are compatible with state and local plans and programs. The Act's purpose is to minimize the number of federal programs that contribute to the unnecessary and irreversible conversion of agricultural land to nonagricultural uses. Three types of farmland are recognized by the Act: prime farmlands, unique farmlands, and farmland of statewide or local importance.

The substations, towers, and new and improved access roads would permanently occupy about 203 acres of both prime farmland and farmland of statewide importance along the West Alternative, 245 acres along the Central Alternative, 277 acres along the East Alternative, and 232 acres along the Crossover Alternative. Comparisons among the action alternatives for impacts to agricultural lands, and mitigation measures to reduce impacts are discussed in Chapter 5, Land.

27.25 National Scenic Byways Program

The National Scenic Byways Program designates scenic and historic roads as All-American Roads and National Scenic Highways based on their scenic, historic, recreational, cultural, archeological, or natural intrinsic qualities (National Scenic Byways Program 2009). If these roadways no longer possess the intrinsic qualities that supported their designation or they are not maintained in accordance with their corridor management plan, they can be de-designated (Federal Highway Administration 1995). The management and protection of these scenic byways is carried out by

the state departments of transportation under the Washington Scenic and Recreational Highways Strategic Plan (RCW 47.39) and the Oregon Scenic Byway Program (OAR 734-032).

One highway in the project area, SR 14 in Washington, is designated as a National Scenic Byway according to the National Scenic Byways Program. It is also designated as a Washington State Scenic Byway. See Chapter 6, Recreation and Chapter 7, Visual Resources, for a discussion of visual impacts along this scenic byway.

27.26 State, Area-wide, and Local Plan and Program Consistency

The project would be located primarily in three counties in two states: Cowlitz and Clark counties in Washington, and Multnomah County in Oregon. Depending on the action alternative, from about 67 to 80 miles of the proposed project's rights-of-way are located in the state of Washington. In addition to unincorporated county areas, the rights-of-way for the action alternatives pass through the cities of Kelso, Vancouver, Camas, and Washougal. In addition, an about 0.7-mile portion of the proposed project would be located in the state of Oregon under all action alternatives. The Oregon portion would consist of the crossing of the Columbia River and the portion located in unincorporated Multnomah County and the cities of Troutdale and Fairview.

Council on Environmental Quality (CEQ) regulations for implementing NEPA require EISs to discuss possible conflicts and inconsistencies of a proposed action with approved state and local plans and laws. The project would be undertaken solely by BPA, which is a federal entity. Pursuant to the federal supremacy clause of the U.S. Constitution, BPA is not obligated to apply for local development or use permits in such circumstances. Therefore, BPA would not make formal application to any of the local jurisdictions for permits such as conditional use permits or shoreline development permits. However, BPA is committed to planning the project to meet or exceed the substantive standards and policies of state and local land use plans and programs to the extent practicable. See Chapter 28, Consistency with State Substantive Standards, for a discussion of state standards potentially applicable to the project.

The following sections discuss possible conflicts or inconsistencies of the proposed project with state, county, and city land use plans and programs. Washington State does not have a specific land use plan and the Oregon Statewide Planning Goals are accounted for in the Multnomah County Comprehensive Plan Goals.

27.26.1 Washington and Oregon Statewide Plans and Programs

27.26.1.1 Transportation Plans

According to RCW Chapter 46.44 (Size, Weight, Load) and the ORS Chapter 818 (Vehicle Limits), oversized or overweight vehicles would need transportation permits to travel on highways and local public roads in each state.

The construction contractors would consult with the WSDOT and the Oregon Department of Transportation (ODOT). Necessary transportation permits for oversized or overweight vehicles used for project construction and maintenance would be secured as required. Where oversized

or overweight loads would be transported on state roads or highways, construction contractors would consult with WSDOT and ODOT to obtain the necessary transportation permits. Where these loads would be transported on local roads, construction contractors would consult with the applicable county or city transportation agency to obtain any required transportation permits.

27.26.1.2 Washington State Shoreline Management Act

The Washington State Shoreline Management Act (the Act) establishes a planning program and regulatory permit process initiated at the local level under state guidance. Ecology is designated as the lead state agency, and local governments exercise primary authority for implementing the Act. Each local government's master program consists of a shoreline inventory and a "shoreline master program" (SMP) to regulate shoreline uses for Shorelines of the State, including Shorelines of Significance (Chapter 173-18 WAC). The SMP for Clark County, adopted in September 2012 as Chapter 13 of the Clark County Comprehensive Plan, and Cowlitz County, adopted in 1977, but currently under revision, regulate land uses affecting these shorelines within the county, but outside the jurisdictions of the local cities. Project facilities could impact state shorelines if they were located within 200 feet of the ordinary high water mark within the 100-year floodplain, or within associated wetlands.

Shoreline uses are regulated under Shoreline Management Districts designated as Natural, Conservancy, Rural and Urban Environments, each with its own goals and objectives. Policies set forth by Clark and Cowlitz counties in their SMPs to address utilities within the shoreline management districts are as follows:

Clark County

The goal for transportation, utilities, and institutional facilities is to provide for these facilities in shoreline areas without adverse effects on existing shoreline use and development or shoreline ecological functions and/or processes. The following Clark County policies address utilities:

- Locate institutional facilities, utilities and circulation systems that are not shoreline-dependent outside of the shoreline jurisdiction to the maximum extent possible to reduce interference with either natural shoreline ecological functions or other appropriate shoreline uses.
- Locate utility and transportation corridors to avoid creating barriers between adjacent uplands and the shoreline and to harmonize with the topography and other natural characteristics of the shoreline.
- When new utility and transportation facilities are developed in the shoreline jurisdiction, protect, enhance, and encourage development of physical and visual shoreline public access.
- Where feasible, relocate existing utility and transportation facilities, such as transmission lines, rail lines, or freeways that limit public shoreline access or other shoreline uses and convert such rights-of-way to new public access routes.
- Utilities and transportation facilities should be installed and facilities designed and located in a coordinated manner that protects the shorelands and water from contamination and degradation.

Cowlitz County

- NATURAL DISTRICT
    - Utility systems, such as permanent electric lines, pipelines, sewer trunk lines, water main lines, and similar facilities shall be prohibited on natural shorelines, except where unavoidably necessary to cross a body of water.
- CONSERVANCY DISTRICT
    - Utility systems, such as permanent electric lines, pipelines, sewer trunk lines, water main lines, and similar facilities shall be permitted on conservancy shorelines.
    - Any person proposing to install or construct a utility system shall apply for a permit.
    - A permit may be granted subject to the following regulations:
        - All such utility systems shall be underground unless such undergrounding would not be feasible.
        - Where such utility systems occupy shoreline areas, clearing necessary for installation or maintenance shall be kept to the minimum width necessary to prevent interference by trees and other vegetation with the proposed transmission facilities.
        - Upon completion of installation of such utility systems or of any maintenance project which disrupts the environment, the disturbed area shall be regraded to compatibility with the natural terrain and replanted to prevent erosion and provide an attractive, harmonious vegetation cover.
    - Utility hookup linkages to shoreline use facilities shall be underground where feasible.
- RURAL DISTRICT
    - Regulations Nos. 2, 3, and 4 under conservancy district shall apply to rural shorelines.
- URBAN DISTRICT
    - Regulations Nos. 2 and 3 under conservancy district shall apply to urban shorelines.
    - Utility hookup linkages to shoreline-use activities shall be underground where feasible

The action alternatives would also cross Kelso, Vancouver, Camas, and Washougal. Kelso has adopted the Cowlitz County SMP in its entirety (18.08.010). Vancouver, Camas, Washougal (and other cities in Washington), and Clark County have created a coalition to update their programs to become more consistent across the region. Although the project would cross Washougal, no alternative crosses a shoreline of the state under their jurisdiction.

Vancouver and Camas adopted updates to their respective SMPs in September 2012 and address transmission utilities within their shorelines as follows:

Vancouver

- Whenever feasible, all utility facilities shall be located outside shoreline jurisdiction. Where distribution and transmission lines (except electrical transmission lines) must be located in the shoreline jurisdiction they shall be located underground.
- Where overhead electrical transmission lines must parallel the shoreline, they shall be outside of the two hundred (200) foot shoreline environment unless topography or safety factors would make it unfeasible.
- Utilities, including limited utility extensions shall be designed, located and installed in such a way as to preserve the natural landscape, minimize impacts to scenic views, and minimize conflicts with present and planned land and shoreline uses.
- Transmission, distribution, and conveyance facilities shall be located in existing rights of way and corridors or shall cross shoreline jurisdictional areas by the shortest, most direct route feasible, unless such route would cause significant environmental damage.
- Utility production and processing facilities, such as power plants and wastewater treatment facilities, or parts of those facilities that are non-water-oriented shall not be allowed in the shoreline jurisdiction unless it can be demonstrated that no other feasible option is available.
- Where allowed under this program, construction of underwater utilities or those within the wetland perimeter shall be scheduled to avoid major fish migratory runs or use construction methods that do not cause disturbance to the habitat or migration.
- Upon completion of utility installation/maintenance projects on shorelines, banks shall, at a minimum, be restored to pre-project configuration, replanted and provided with maintenance care until the newly planted vegetation is fully established. Plantings shall be native species and/or be similar to vegetation in the surrounding area.

Camas

- Whenever feasible, all utility facilities shall be located outside shoreline jurisdiction. Where distribution and transmission lines (except electrical transmission lines) must be located in the shoreline jurisdiction they shall be located underground.
- Where overhead electrical transmission lines must parallel the shoreline, they shall be no closer than one hundred (100) feet from OHWM unless topography or safety factors would make it unfeasible, then a shoreline conditional use permit shall be required.
- Utilities shall be designed, located and installed in such a way as to preserve the natural landscape, minimize impacts to scenic views, and minimize conflicts with present and planned land and shoreline uses.
- Transmission, distribution, and conveyance facilities shall be located in existing rights of way and corridors or shall cross shoreline jurisdictional areas by the shortest, most direct route feasible, unless such route would cause significant environmental damage.
- Utility production and processing facilities, such as power plants and wastewater treatment facilities, or parts of those facilities that are non-water-oriented shall not be allowed in the shoreline jurisdiction unless it can be demonstrated that no other feasible option is available, and will be subject to a shoreline conditional use permit.

- Where allowed under this program, construction of underwater utilities or those within the wetland perimeter shall be scheduled to avoid major fish migratory runs or use construction methods that do not cause disturbance to the habitat or migration.
- Upon completion of utility installation/maintenance projects on shorelines, banks shall, at a minimum, be restored to pre-project configuration, replanted and provided with maintenance care until the newly planted vegetation is fully established. Plantings at installation shall be at least 2" minimum caliper at breast height if trees, 5-gallon size if shrubs, and ground cover shall be planted from flats at 12-inch spacing, unless other mitigation planting is recommended by a qualified biologist and approved by the Administrator.

The action alternatives would cross the Columbia River, Lewis River, East Fork Lewis River, Coweeman River, Cowlitz River, Washougal River, Kalama River, and many other creeks and streams, and wetlands identified in Chapter 15, Water and Chapter 16, Wetlands. Project facilities would be placed as far from the water's edge as feasible to avoid floodplains. Clearing would be kept to a minimum; however, all tall-growing vegetation in the right of way would need to be removed for safe operation of the line. Exceptions to this would be in deep canyons or draws. Disturbed areas would be reseeded. Chapters 15 and 16 discuss mitigation measures identified to reduce potential impacts on water and wetlands. BPA would use these measures to meet or exceed shoreline regulations to the extent practicable. Appendix O discusses substantive compliance with the Shoreline Management Act in more detail for the Preferred Alternative.

27.26.1.3 Oregon Removal-Fill Law

Oregon's Removal-Fill Law (ORS 196.795-990) protects "Waters of the state" which are defined as "natural waterways including all tidal and non-tidal bays, intermittent streams, constantly flowing streams, lakes, wetlands and other bodies of water in this state, navigable and non-navigable, including that portion of the Pacific Ocean that is in the boundaries of this state." The law applies to all landowners, whether private individuals or public agencies. In Oregon, the DSL also requires a permit for removal, fill, or alteration involving 50 cubic yards or more of material in any water of the state, including wetlands. For the portion of the project that would be located in Oregon, BPA would work with DSL to ensure consistency with these Oregon state requirements. See Chapter 15, Water, and Chapter 16, Wetlands, for analysis and discussion of impacts and mitigation measures related to these requirements.

27.26.1.4 Washington State Parks and Recreation Commission Land Use Plans

The project does not cross any state parks that have a comprehensive land use plan developed specifically for the park.

27.26.2 Washington Local Plans and Programs

27.26.2.1 Critical Area Ordinances

All cities and counties in Washington must adopt critical areas regulations, as defined by the Growth Management Act (RCW 36.70A.060). The Critical Area Ordinance (CAO) describes the categories of critical areas in the city or county, setback and buffer distances, mitigation

requirements for unavoidable impacts, and guidance for reducing or mitigating hazards to public health and safety in geologically hazardous areas. Critical areas include: wetlands, critical fish/wildlife habitat conservation areas, geologically hazardous areas, aquifer recharge areas, and frequently flooded areas.

Cowlitz County and the City of Kelso's CAOs exempt the "Installation, construction or replacement of utility lines in an improved right-of-way, not including electric substations." Other new construction would have to adhere to the provisions of the ordinance (Cowlitz County 2009, City of Kelso 2012).

Clark County most recently updated their CAO in July 2007. Utilities are not addressed in the aquifer recharge areas and frequently flooded areas sections of the CAO. Utilities are addressed in the following sections:

- Geologically Hazardous Areas: Exempt from provisions of ordinance if in an improved right-of-way.
- Habitat Conservation Areas: Allowed in any area if clearing is done as minimally as possible and the placement of the utilities are in a location where no practical alternative exists.
- Wetlands: Ordinance does not preclude or deny a development proposal for a linear facility provided that no practical alternative exists that has less impact to a wetland or buffer; or if the ordinance hinders providing utilities to the public.

The City of Vancouver and the City of Camas' CAOs do not address transmission lines or utility systems specifically. Project developers need to obtain permits and adhere to the provisions of the ordinance in all CAO categories.

The City of Washougal's CAO exempts the construction of new utility facilities and lines from the provisions of their CAO when they are located "within the improved portion of the public right of-way or recorded easement, or a city-authorized private roadway except those private activities that alter a wetland or watercourse, such as culverts or bridges" (City of Washougal, 2006).

BPA has incorporated some of the standards and guidance from the CAOs in analyzing and proposing mitigation for impacts on potentially critical areas. See Sections 14.2.8, 15.2.8, 16.2.8, 17.2.8, 18.2.8, and 19.2.8 for mitigation measures. BPA would use these measures to meet or exceed critical area ordinance requirements to the extent practicable. Appendix O discusses substantive compliance with CAOs in more detail for the Preferred Alternative.

27.26.2.2 Cowlitz County Comprehensive Plan

The County Comprehensive Plan was adopted by the Board of County Commissioners on November 1, 1976 and is a statement of policies and goals that guides growth and development throughout the county. The purpose of the Plan is to manage the county's growth in an orderly, positive, and constructive fashion. All other development ordinances, including land use, zoning, subdivision, and environmental regulations, must be in compliance with and consistent with the Comprehensive Plan. Applicable sections of Cowlitz County's Code are Title 18 Land Use and Development and Title 19 Environmental Protection. The Plan also provides guidelines for siting substations and utility corridors. The county is currently in the process of updating its

Comprehensive Plan, which is expected to be completed in spring 2016. The following goals and policies are relevant to the project.

Guidelines for Siting Power Substations

Power substations are facilities which are a necessary part of economic growth in the county. Since they are potential nuisances in terms of noise, aesthetics, and safety, they need to be carefully located. The following goals and policies insist on good design and proper location, in furtherance of the goals of this Plan.

Goal:

A. Power substation should be designed and located to minimize conflicts with adjacent land uses and the environment.

Policies:

1. Encourage the location of power substations in non-residential areas due to nuisances that are part of such facilities such as noises which interfere with home entertainment equipment.

2. Screening and landscaping are encouraged in power substation design in order to enhance their appearance and make them compatible with the community in which they are located.

3. Cowlitz PUD power substations planning should be coordinated with the County's long-range plans.

4. Power substations should be planned for location in industrial areas as much as possible.

In most cases, the design, construction, and placement of the proposed transmission line would be consistent with these goals. However, there are a few instances in which the project may be inconsistent.

Regarding Policies 1 and 4, the design, construction, and placement of substations for the project would be consistent with the Plan. BPA considers many factors when siting proposed new substations (see Chapter 2, Facility Siting, Route Segments, and Action Alternatives) and works to avoid or minimize potential impacts to the extent practicable. BPA would conduct its construction activities for the proposed line in conformance with EFSEC's standards concerning maximum permissible noise levels by using appropriate muffling devices on construction equipment and limiting construction to daytime and evening hours (see Chapter 9, Noise). Noise impacts during the operation of the proposed line would be negligible, and the substations would meet state noise standards (see Chapter 9).

Regarding Policy 2, the substations would not be screened or landscaped.

Regarding Policy 3, Cowlitz County is a cooperating agency in this NEPA process. They will provide knowledge, information and expertise to BPA about their long-range plans.

Guidelines for Siting Utility Corridors

Utility corridors in Cowlitz County already occupy 5,062 acres of valuable development and forest lands. Timber production is the backbone of the economy of Cowlitz County. As each new corridor is constructed through the county, more valuable timberland is taken out of production. Utility corridors are also ideal environments for the growth of noxious weeds. The following goals and policies provide planning and development guidelines for the construction of major utility lines in the county.

Goal:

A. Major intra-county and intra-state utility trunk lines should be designed and constructed to minimize environmental problems. Efficient use of existing utilities should be maximized before new utilities are constructed in new or expanded corridors.

Policies:

1. Encourage all required corridor expansion to minimize impact on adjacent land uses.

2. Encourage utilization of corridor areas for agriculture and small tree production.

3. All expansion of utility corridors should adhere to the County's long-range plans.

4. The design, construction, and maintenance of major utility lines should be developed in a manner that minimizes environment problems.

5. The following guidelines should be adhered to in the development of the new utility lines and pipelines in Cowlitz County:

    a. Establish double or triple deck lines on which small corridors would be used.

    b. Establish common or jointly used corridors and place utility lines closer together.

    c. Utility companies seeking new rights-of-way in Cowlitz County should make arrangements, where practical, to use existing rights-of-way.

6. Establish a noxious weed control program. All utility companies shall be responsible for the control of noxious weeds on their rights-of-way.

In most cases, the design, construction, and placement of the proposed transmission line would be consistent with these goals. However, there are a few instances in which the project may be inconsistent.

Regarding Policy 1, when siting the line, BPA considers impacts to people, plants and animals, land uses, farms and other businesses, and important local, cultural and regional features. BPA looks for ways to site new transmission facilities to avoid or minimize these potential impacts to the extent practicable.

The project would be consistent with Policy 2 because BPA would work with individual landowners to enter into a written agreement regarding compatible uses of the land in the right

of-way. Most crops less than 4 feet high could be grown safely under the transmission line. Small tree production would not be an allowable use within the proposed right-of-way.

Cowlitz County is a cooperating agency in this process. They will provide knowledge, information and expertise to BPA about their long-range plans.

Regarding Policy 4, BPA is required by NEPA to address the potential environmental consequences of its proposal and take action to protect, restore and enhance the environment during and after construction. Preparation of this EIS assists in meeting those requirements.

Regarding Policy 5, BPA has taken several steps to reduce congestion on the transmission system without building new lines. BPA has upgraded many facilities to maximize the use of existing transmission lines. A new 500-kV transmission line would increase the 500-kV transmission capacity in the southwest Washington/northwest Oregon area and allow BPA to provide for local load growth, maintain reliable power, and accommodate requests for long-term, firm transmission service. These new facilities would eliminate a transmission capacity constraint for this area, provide an additional electrical pathway, and increase system capacity (see Chapter 1, Purpose of and Need for Action).

BPA would be consistent with Policy 6 because noxious weed control is part of BPA's vegetation maintenance program. BPA works with the county weed boards and landowners on area-wide plans for noxious weed control.

City of Castle Rock Comprehensive Plan

The City of Castle Rock is in Cowlitz County. Both the East Alternative and the Central Alternative are outside the city limits, but within the Urban Growth Boundary described in the City of Castle Rock Comprehensive Plan (2006). The land within the Urban Growth Boundary crossed by the East Alternative and the Central Alternative is classified as low density residential area, and is within the City's Water System Plan (2013).

The Land Development/Subdivision Goal 3 of the City of Castle Rock Comprehensive Plan requires that growth or development includes adequate provisions of public utilities as an integral part of the land development process. The Capital Facilities section (Chapter VI) of the plan calls for the City and utility providers to coordinate future development plans. BPA collected public comments during the extensive scoping periods for this project, and has considered comments from the City of Castle Rock during planning and EIS development.

Project right-of-way (Segment F) would be more than 1,000 feet from the nearest proposed capital improvement project described in the City of Castle Rock Water System Plan, and would cross approximately five parcels of land zoned low-density residential (typically one to two residences, although subdivisions may be allowed) in the City of Castle Rock Comprehensive Plan. Under Section VI, Capital Facilities and Utilities, the plan acknowledges electrical facilities are provided by Cowlitz County Public Utility District No. 1 and that ample capacity to meet existing demand for both the incorporated city limits and urban service area is available. The plan does not address high voltage regional transmission lines or utility lines in general.

27.26.2.3 Cowlitz County Zoning Ordinance

The project area crosses 10 Cowlitz County zoning districts. Utility facilities are not expressly prohibited in any of the zoning districts that fall within the project area (see Table 27-2).

27.26.2.4 City of Kelso Comprehensive Plan

The City of Kelso is in Cowlitz County. The West Alternative crosses the City of Kelso on Segment 9. The City's Comprehensive Plan was last updated in 1994. It provides goals, objectives, and policies that will guide the city's future growth. Policy 9 states that "Utilities shall be placed underground where and when possible." Regarding this policy, BPA considered undergrounding the transmission line and eliminated it from further consideration (see Section 4.7.7, Undergrounding the Transmission Line).

27.26.2.5 City of Kelso Zoning Ordinance

The City of Kelso Municipal Code does not directly address transmission lines or corridors.

27.26.2.6 Clark County Comprehensive Plan

Clark County is subject to the planning provisions of the state GMA. The GMA requires Clark County and each city within the county to adopt a comprehensive plan, and includes 13 planning goals that guide the development of each jurisdiction's plan. Goal 12, Public Facilities and Services, is intended to ensure that those public facilities and services necessary to support development shall be adequate to serve the development, without decreasing current services levels. Each comprehensive plan must include eight mandatory elements, one of which is a utilities element addressing current and future availability of utilities and services. Clark County and each of the cities within the county have adopted a comprehensive plan as required by the GMA, and therefore each of these jurisdictions has policies in place generally supporting infrastructure development. These policies are intended to be general and to provide a vision and guidance for development of local regulations implementing these policies; therefore none of the jurisdictions affected by the project have comprehensive plan policies specific to transmission line corridors in place. Clark County and the City of Camas do have specific standards for development of electrical transmission infrastructure in their local codes (see Section 27.26.2.8, Clark County Zoning Code, and Section 27.26.2.12, City of Camas Zoning Code).

Clark County's 20-year Comprehensive Plan was last adopted in September 2007, and amended in 2010, and plans for growth from 2004 through 2024. The Plan also includes the Community Framework Plan.

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Table 27-2 Local Zoning Codes and Project Consistency

General Zoning Types	Zoning Codes by Jurisdiction[1] and Project Consistency							
	Cowlitz County	**Kelso**	**Clark County**	**Vancouver**	**Camas**	**Washougal**	**Troutdale**	**Fairview**
	Consistency: all zones allow with a special use permit[2]	**Consistency: code does not address utilities**	**Consistency: permitted in any zoning district**	**Consistency: see individual codes**	**Consistency: all zones allow with a conditional use permit[2] (see text for special provisions)**	**Consistency: code does not address utilities**	**Consistency: see individual codes[3]**	**Consistency: see individual codes**
Forest	FR	--	FR-80, FR-40, GLSA-80, GLSA-40, GSSA-20, GSFF, GSNFF, GSAG, GSW-40, GSW-20	--	--	--	--	--
Agricultural	AG-38, AG, AG-I	--	AG-WL, AG-20	--	--	--	--	--
Rural Undeveloped	UZ (unzoned)	--	GOS, GPR	--	--	--	--	--
Urban Reserve	--	--	UR-40, UR-20, UR-10	--	--	--	--	--
Preserved Open Space	--	OPN	GSOS, Water, P/WL	P, P/OS, GW, NA: not addressed	P/OS	P/OS	OS: minor, permitted; major, conditional	R/CSP: conditional
Single Family Residential	RR-1, RR-2, RR-5, UR, SR	RSF-5, RSF-10, RSF-15	RC-1, RC-2.5, R1-20, R1-10, R1-7.5, R1-6, R1-5, UH-10, Moratorium (with comprehensive plan designation of SFH, SFM, or SFL)	R-2 LDR, R-4 LDR, R-6 LDR, R-9 LDR-Utility corridor permitted	R-20, R-15, R-12, R-10, R-7.5, R-6, R-5	R1-5, R1-7.5, R1-10, R1-15	R-20, R-10, R-7, R-5, R-4: minor, permitted; major, conditional	R, R-7.5, R-10, R/MH, VSF: not addressed
Rural Residential	AG	--	R-20, R-10, R-5, GR-5	--	--	--	--	--
Multi-Family Residential	MF	RMF	R-12, R-18, R-22, R-30, R-43, Moratorium (with comprehensive plan designation of MFL)	R-10 MDR, R-12 MDR, R-18 MDR, R-22 MDR, R-30 HDR, R-35 HDR: basic utilities permitted; utility corridor conditional use	MF-10, MF-18, MF-24	AR-16, AR-22, TC-WV	A-2: minor, permitted; major, conditional	R/MF, R/TOZ, VTH, VA: not addressed
Neighborhood Commercial	C-1	CNH, CSR	C-2, CR-1	CN, CC: utility corridor conditional use	NC, CC	CC, CV	NC,CC: minor, permitted; major, conditional	NC, TCC, CC, R/MF, VC: not addressed
General Commercial	C-2	CTC, CWK, CMR	GC, CL, C-3, Moratorium (with comprehensive plan designation of COM)	CG: utility corridor permitted	RC, DC	CH	GC,CBD: minor, permitted; major, conditional	--
Mixed Use	--	--	MX, OR-15, OR-18, OR-22, OR-30, OR-43, U	CX, WX, MX: utility corridor conditional use	MX	MX, TC-EV, TC-C, IP	MO/H:minor, permitted; major, conditional	VMU: not addressed
Light Industrial	ML	ILM	ML, BP, OC, UH-40, UH-20, Moratorium (with comprehensive plan designation of LI/BP)	IL, OCI: utility corridor permitted	LI, LI/BP	LI	LI, IP: minor, permitted; major, conditional	LI, GI, VO, AH: permitted
Heavy Industrial	MH	IGM	MH, A	IH: utility corridor permitted	HI	HI	GI, UPAGI: permitted	--

Notes:

1. The project is located within an area designated as an urban reserve in Multnomah County. Therefore, the zoning districts for the City of Troutdale and City of Fairview apply within the area of analysis and Multnomah County's zoning districts do not apply.
2. As a federal entity, BPA is not obligated to apply for local development or use permits and would not make formal application to any local jurisdictions for permits. However, BPA is committed to planning the project to meet or exceed the substantive standards and policies of state and local land use plans and programs to the extent practicable.
3. Project elements may be covered by both the Utility Facility Major and Utility Facility Minor code categories.

Source: Golder 2011

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27.26.2.7 Clark County Zoning Code

Title 40 of the Clark County Code is the Unified Development Code. It includes Subtitle 40.2 of the County's Code that covers Land Use Districts, Chapter 40.46, which implements the policies and procedures set forth by the Shoreline Management Act of 1971, and Chapter 40.260.240, which regulates the development of transmission lines and substations.

Section 40.260.240 of the Clark County Code discusses utilities other than wireless communications facilities, as follows:

A. The erection, construction, reconstruction, alteration and maintenance of underground or aboveground transmission and distribution systems, including poles, towers, wires, mains, drains, sewers, in-ground sewage pumping facilities, pipes, conduits, cables, antennas, fire alarm boxes, police call boxes, traffic signals and other similar equipment, which does not require aboveground enclosed buildings as defined by Section 40.100.070, shall be permitted in any zoning district. Utility transmission lines, poles, and towers may exceed the height limitations otherwise provided for in this title. This section does not apply to wireless communications facilities as defined in Section 40.260.250(C).

B. The erection, construction, reconstruction or alteration of utility substation facilities, as defined in Section 40.100.070, shall be permitted in any zoning district, subject to site plan approval pursuant to Section 40.520.040.

C. Utilities installed under properties owned by Clark County and properties that are or will be dedicated to the county for road rights-of-way may require a utility permit pursuant to Chapter 12.20A and Chapter 13.12A.

The project is consistent with this section of the Clark County Code.

27.26.2.8 City of Vancouver Comprehensive Plan

The City of Vancouver is in Clark County. The West Alternative crosses Vancouver on portions of segments 9 and 25. The City's Comprehensive Plan was last updated in 2004 and plans for growth from 2003 through 2023. The plan contains policy direction relating to growth and development, environmentally sensitive areas, historic places, public services, and other issues. Plan policies are implemented through subarea plans and provisions of the Vancouver Municipal Code and other local standards.

27.26.2.9 City of Vancouver Zoning Code

Title 20 is the Land Use and Development Code, which became effective on March 11, 2004 and contains regulations to manage the community's growth in a manner that ensures efficient use of land, preserves natural resources, and encourages good design. The action alternatives cross eight zoning districts (see Table 27-2).

27.26.2.10 City of Camas Comprehensive Plan

The City of Camas is in Clark County. All action alternatives cross the city of Camas on Segment 52. The City's Comprehensive Plan was originally adopted in 1994 and was updated in March

2004 to guide development in Camas for the next 20 years. The Comprehensive Plan for the City of Camas provides policies to direct public and private decisions affecting future growth and development and provides guidelines for making decisions on growth, land use, transportation, public facilities and services, parks, and open space. Comprehensive Plan policies are implemented through the provisions of the City of Camas Municipal Code and other local regulations. Title 17 of the City's Municipal Code is the City of Camas Land Development Code, which provides the rules, regulations, requirements, and standards for development of land in the city. The City of Camas Comprehensive Plan does not specifically address power line utility corridors.

27.26.2.11 City of Camas Zoning Code

Title 18 is the zoning code of the City of Camas, which defines city zoning districts, permitted uses in those districts, and standards for those uses. The action alternatives cross eight zoning districts. While the City of Camas Comprehensive Plan does not specifically address power line utility corridors, the City of Camas Municipal Code provides standards for electrical transmission and distribution facilities in Title 8, Section 52. The applicable provisions are as follows:

8.52.050 Electrical transmission facilities—conditional use permit.

A. Permit Required. No person, firm, corporation, or other entity shall construct, install, erect or cause to be constructed, installed or erected any electrical transmission facility without first obtaining a conditional use permit from the city.

B. Application. An application for a conditional use permit under this chapter shall be on a form provided by the public works director, and shall include the name and address of the applicant, the nature of the proposed electrical transmission facility, the location of the proposed electrical transmission facility, the existing facility's boundary, the proposed method of construction, installation or erection of the electrical transmission facility, and such other information as may be required by the public works director.

C. Overhead Transmission Usage. All electrical transmission lines shall be installed underground in all zones except the manufacturing district and light industrial/country technical district, unless the city council finds that exposure to electrical magnetic fields and adverse impact to land value and aesthetics can be reasonably mitigated by prudent avoidance measures. Use of overhead power should consider, among other factors, facility size, location, setback, topography, scheduling, cost, sensitive lands, land value and proximity to children and schools.

D. SEPA. All applications shall be accompanied with a SEPA checklist and, to the extent required, any impact studies.

E. Fee. All applications shall be accompanied by a fee of four hundred dollars.

Regarding Provisions A, B, and E, BPA is not obligated to apply for conditional use permits, therefore BPA would not make a formal application to the county.

Regarding Provision C, BPA considered undergrounding the transmission line and eliminated it from further consideration (see Section 4.7.7, Undergrounding the Transmission Line). The project would not be consistent with Provision C.

Regarding Provision D, the project would be designed to meet the standards set forth by the City of Camas insofar as is feasible and is adoptable under SEPA. This EIS does analyze the significant impacts of the proposal to the SEPA-defined natural and built environment. The project would, therefore, be generally consistent with the municipal code 8.52.050.

8.52.060 Provisions applicable to all electrical transmission facilities.

A. Prudent Avoidance Measures. All electrical transmission facilities shall be designed, constructed, and operated using prudent avoidance measures to minimize exposure to electromagnetic fields, to preserve land values, and to satisfy the other requirements of this chapter. Further, the applicants shall identify the four mG magnetic field line associated with the proposed installation. The mG contour line shall be identified as the line coinciding with normal winter loading which shall be further defined as being eighty percent of the line's rated peak capacity.

B. Noise Levels. Noise levels generated by electric transmission facilities shall comply with Washington State law as set forth in WAC 173-60.

The project would be generally consistent with Provision A. When BPA builds new high-voltage 500-kV transmission lines, the agency uses “EMF-mitigation” techniques to keep EMF exposure as low as reasonably achievable while maintaining system reliability. See Chapter 8, Electric and Magnetic Fields, for expected average and maximum fields along the action alternatives.

Regarding Provision B, BPA would conduct its construction activities for the proposed line in conformance with EFSEC’s standards concerning maximum permissible noise levels through using appropriate muffling devices on construction equipment and limiting construction to daytime and evening hours (see Chapter 9, Noise). Noise impacts during the operation of the proposed line would be negligible, and the substations would meet state noise standards (see Chapter 9).

8.52.070 Setbacks for child intensive locations. Special consideration shall be given to facilities where children assemble. Such areas shall include but not be limited to schools, churches, day cares and playgrounds. Such areas shall be set back in accordance with the following:

A. One hundred feet from edge of easement for 50- to 133-kV line;

B. One hundred fifty feet from edge of easement for 220- to 230-kV line;

C. Three hundred fifty feet from edge of easement for 500- to 550-kV line.

Child-intensive locations are avoided if possible. Since structures are not allowed to be within the right-of-way for safety reasons, BPA looks to avoid structures in the siting process so they need not be removed.

27.26.2.12 City of Washougal Comprehensive Plan

The City of Washougal is in Clark County. All action alternatives cross the city of Washougal on Segment 52. The City adopted its Comprehensive Plan in 1994 and updated it in 2003. The City's Plan is intended to accommodate growth over the next 20 years and provide for future growth in a manner that is compatible with both the current character of Washougal and with the goals specified in the GMA. The City's Comprehensive Plan has one statement about power line utility corridors as follows: "A main BPA transmission line corridor runs north/south through the southernmost portion of the city…" The Comprehensive Plan has no goals, policies or objectives addressing power line utility corridors.

27.26.2.13 City of Washougal Zoning Code

Title 15 of the City's Municipal Code is the building code of the city. Title 16 contains environmental regulations, and Title 18 is the zoning code. Although the action alternatives cross several zoning districts, the zoning code does not address transmission lines or utilities.

27.26.3 Oregon Local Plans and Programs

27.26.3.1 Oregon Critical Areas Ordinance

Counties and cities in Oregon do not have critical areas ordinances that would address potential geologic hazards or other environmental concerns, such as wetlands, in the project area. There are no specific plans or program consistency requirements for floodplains and wetlands protection requirements, or guidelines. Current Oregon building codes are specified in ORS 455.010 through 455.895. Geologic hazard regulations are overseen by the Oregon Department of Land Conservation and Development, as defined in ORS 660.015.

27.26.3.2 Multnomah County Comprehensive Plan

All action alternatives cross a small portion of unincorporated Multnomah County after crossing the Columbia River into Oregon. The Multnomah County Comprehensive Framework Plan (MCCFP) Summary is the County's land-use mission statement. It describes the policies that guide decisions made by the Land Use Planning Division as well as the relationship between Multnomah County land use decisions and the policies adopted by the Metro Council and statewide planning agencies. The MCCFP does not address power line utility corridors or substations. Policy 37 simply states that adequate utilities must be available for proposed development.

27.26.3.3 Multnomah County Zoning Code

Chapter 29 of Volume 1 of the Multnomah County Code contains building regulations. Volume 2 of the Multnomah County Code contains Land Use Ordinances. The project is located within an area designated as an urban reserve in Multnomah County. Therefore, the zoning districts for the cities of Troutdale and Fairview apply within the area of analysis and Multnomah County's zoning districts do not apply (see Sections 27.26.3.5, City of Troutdale Zoning Code and 27.26.3.6, City of Fairview Comprehensive Plan).

27.26.3.4 City of Troutdale Comprehensive Plan

The City of Troutdale is in Multnomah County. All action alternatives cross the city of Troutdale at the Sundial substation site. The Troutdale Comprehensive Land Use Plan was adopted on September 27, 1990 and amended in December 1998. The Plan contains a set of maps, policies, and implementing measures affecting land use within city boundaries. Plan policies define the direction, quantity, and quality of future development and redevelopment. The policies serve as a guide for both public officials and the general public in the use of zoning powers, subdivision regulations, the design and construction of streets, and other improvements. Implementing measures, such as zoning and development ordinances, are specific approaches or techniques for implementing plan policies. They delineate criteria and standards for development addressed within the broad outlines of the Comprehensive Plan. The Comprehensive Plan does not address power line utility corridors or substations.

27.26.3.5 City of Troutdale Zoning Code

Chapter 3 of the Troutdale Development Code contains the zoning districts, Chapter 4 contains the zoning district overlays, and Chapter 6 covers conditional uses. The action alternatives cross nine zoning districts (see Table 27-2).

27.26.3.6 City of Fairview Comprehensive Plan

The City of Fairview is in Multnomah County. All action alternatives cross the city of Troutdale at the Sundial substation site. The City of Fairview Comprehensive Land Use Plan was revised in June 2004. Its contents were guided by the City of Fairview Visioning Document 2022 adopted in 2002. The Visioning Document creates an image of what the community should look like in 2022, and acts as a tool for planning future growth and ongoing development in the Fairview urban area. The City of Fairview Comprehensive Land Use Plan is a formally adopted plan that was structured to recognize guidance from the Visioning Document while meeting its obligations to the Statewide Land Use Goals and Regional Growth Management Plan. The Comprehensive Plan does not address power line utility corridors or substations.

27.26.3.7 City of Fairview Zoning Code

The City of Fairview's zoning code is found in Chapter 19 of its municipal code. The action alternatives cross six zoning districts (see Table 27-2).

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