Chapter 10 — Glossary and Acronyms

This chapter contains a list of acronyms, abbreviations, and technical terms used in this EIS. Words that would be defined in a desk-size dictionary (for example, the College Edition of the American Heritage Dictionary) are not included.

Acronyms and Abbreviations

Ac	acre
Army Corps	U.S. Army Corps of Engineers
ACEC	Areas of Critical Environmental Concern
ALE	Fitzner-Eberhardt Arid Lands Ecology Reserve
ARPA	Archeological Resources Protection Act
APE	Area of Potential Effect
ATV	all terrain vehicle
BA	Biological Assessment
BIA	Bureau of Indian Affairs
B&O	Business & Occupation Tax
BLM	U.S. Bureau of Land Management
BMP	Best Management Practices
BOR	U.S. Bureau of Reclamation
BPA	Bonneville Power Administration
CCT	Confederated Tribes of the Colville Reservation
CEQ	Council of Environmental Quality
CFR	Code of Federal Regulations
CLUP	Comprehensive Land Use Plan
cm	centimeter
CNRMP	Cultural and Natural Resources Management Plan
CO	carbon monoxide
CO_2	carbon dioxide
COE	U.S. Corps of Engineers
CRP	Federal Conservation Reserve Program
CWA	Clean Water Act
CZMA	Coastal Zone Management Act
dBA	decibels (A-weighted)
DDE	(1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene)
DDT	(1,1,1-trichloro-2,2-bis(p-chlorophenyl)ethane)
DEIS	Draft Environmental Impact Statement
DNR	Washington State Department of Natural Resources
DOD	U.S. Department of Defense
DOE	U.S. Department of Energy
DOR	Washington State Department of Revenue
DPS	Distinct Population Segment
EDNA	Environmental Designation for Noise Abatement
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement

EMF	Electric and magnetic fields
EMI	Electromagnetic interference
EPA	Environmental Protection Agency
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FAA	Federal Aviation Administration
FAR	Federal Aviation Regulations
FCC	Federal Communications Commission
FEIS	Final Environmental Impact Statement
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FIFRA	Federal Insecticide, Fungicide, and Rodenticide Act
FIRM	Flood Insurance Rate Maps
FPPA	Farmland Policy Act
ft	feet
GIS	Geographic Information System
GMA	Washington State Growth Management Act
GPS	Global Positioning Systems
ha	hectares
HPA	Hydraulic Project Approval
IPM	integrated pest management
JARPA	Joint Aquatic Resources Permit Application
kHz	kilohertz
kV	kilovolt
kV/m	kilovolt per meter
m	meter
mA	milliampere
mG	milligauss
MOU	Memorandum of Understanding
MW	megawatt
NAAQS	National Ambient Air Quality Standards
NAGPRA	Native American Graves Protection and Repatriation Act
NERC	North American Electric Reliability Council
NESC	National Electrical Safety Code
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHRP	National Register of Historic Places
NMFS	National Marine Fisheries Service
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
NWP	Nationwide Permit
NWR	National Wildlife Refuge
OAHP	Washington State Office of Archaeology and Historic Preservation
ORV	off-road vehicle

PCB	polychlorinated biphenyl
PHS	Priority Habitats and Species
PT	Potential Transformer
RAS	Remedial Action Scheme
RCRA	Resource Conservation and Recovery Act
REA	Rural Electric Association
REO	Real Estate Officer
RI	Radio Interference
RL	Richland Operations Office
ROD	Record of Decision
ROW	Right-of-Way
RMP	Resource Management Plan
RTO	Regional Transmission Organization
RV	Recreational Vehicle
SEPA	Washington State Environmental Policy Act
SGCA	Western Sage Grouse Conservation Agreement
SHPO	Washington State Historic Preservation Officer
SMA	Shoreline Management Act
SPAB	Site Planning Advisory Board
SWPP	Storm Water Pollution Prevention Plan
TCP	Traditional Cultural Property
TNC	The Nature Conservancy
TSCA	Toxic Substances Control Act
TSD	Treatment, storage, and disposal
TVI	Television Interference
USDOA	U.S. Department of Army
USDOE	U.S. Department of Energy
USDOI	U.S. Department of the Interior
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geologic Survey
V/m	volts per meter
WAC	Washington Administrative Code
WDOE	Washington Department of Ecology
WDNR	Washington Department of Natural Resources
WNHP	Washington Natural Heritage Program
WDFW	Washington Department of Fish and Wildlife
WSA	Wilderness Study Area
WQL	Water Quality Limited
YTC	Yakima Training Center

TECHNICAL TERMS

Alevin: a recently hatched juvenile fish still residing in the gravel of a stream.

Alluvium: sedimentary material deposited by flowing water as in a delta or riverbed.

Alternating current: an electric current that reverses directions at regular intervals.

Ambient noise: noise levels of the surrounding area.

Anadromous: fish that migrate up rivers from the sea to breed in fresh water.

Anticline/Anticlinal: an arching fold in layered rocks.

Aquifer: a layer of underground sand, gravel, or spongy rock in which water collects.

Aspect: when referring to vegetation, the direction a slope is facing.

Background: over five miles from the viewer

Basalt lithosols: soils with very high rock content.

Bay: an area set aside in a substation for special equipment.

Best Management Practices: a practice or combination of practices that are the most effective and practical means of preventing or reducing the amount of pollution generated by non-point sources to a level compatible with water quality goals.

Biodiversity: different species of plants and animals in an environment.

Biological crust: groups of living organisms that coat the soil or live just below the soil surface. Some components of biological crusts include algae, blue-green algae, bacteria, lichens, mosses, liverworts, and fungi. These organisms give the soil surface a crunchy texture and a bumpy appearance, making the soil appear darker than soils without crusts. Biological crusts are beneficial because they stabilize soil, prevent wind erosion, increase soil fertility, and inhibit germination, which helps decrease invasion by non-native species.

Blackout: the disconnection of the source of electricity from all electrical loads in a certain geographical area.

Breaker: a switching device that can automatically interrupt power flow on a transmission line at the time of a fault, such as a lightning strike.

Brownout: a partial reduction of electrical voltages that causes lights to dim and motor-driven devices to lose efficiency.

Buffer area: a strip of vegetation surrounding a stream or wetland that provides habitat for wildlife, reduces or traps sediments, and slows runoff velocity.

Buswork: a generic term to describe all equipment associated with the bus tubing. Bus tubing is rigid aluminum pipes used within a substation to move electricity. The tubing is supported and vertically elevated by pedestals called bus pedestals.

Class 1 areas: Section 160 of the federal Clean Air Act requires the preservation, protection, and enhancement of the air quality in national parks, national wilderness areas, national monuments, national seashores, and other areas of special national or regional natural, recreational, scenic or historic value. The 1977 Clean Air Act amendments called for a list of existing areas to be protected under section 160.

Class A Weeds: weeds that have a limited distribution in the state, and state law requires eradication of these species.

Class B Weeds: noxious weeds that are not native to the state and are of limited distribution or are unrecorded in a region of the state and that pose a serious threat to that region.

Class C Weeds: widely established and have interest to the agricultural industry. Some of these weeds are controlled on a local basis, depending on local threats and the feasibility of control.

Clean Water Act (CWA): regulates discharges into waters of the United States. Also known as the federal Water Pollution Control Act.

Colluvium: soil and/or rock fragments moved by creep, slide, local wash and deposited at the base of steep slopes.

Columbia River Basalt Group: composed of the Grand Ronde Basalt and the overlying Wanapuma and Saddle Mountain Basalt. Comprises most of the aquifer system (USGS 1994).

Complex: a specific watershed area within the YTC. The YTC is divided into ten complexes.

Congestion pricing: pricing that works to reduce congestion by allowing generation on the surplus side of the constraint to shut down and purchase replacement power on the deficit side.

Corona: the partial electrical breakdown of the insulating properties of air around the conductors of a transmission line. In a small volume near the surface of the conductors, energy and heat are dissipated. Part of this energy is in the form of small local pressure changes that result in audible noise. Corona-generated audible noise can be characterized as a hissing, crackling sound.

Cultural resources: those historic and archaeological properties, properties of traditional and cultural significance, sacred sites, Native American human remains and associated objects, and cultural landscapes which are entitled to special consideration under federal statute, regulations, and/or executive orders.

Cumulative impacts: impacts created by the incremental effect of a specific action when added to other past, present, or reasonably foreseeable future actions.

Current: the amount of electrical charge flowing through a conductor.

DDE: product of the metabolic breakdown of DDT by an organism.

Dead-end structure: transmission line towers that equalize stresses on the conductors and are made of heavier gauge steel. Normally located at angle points and large spans.

Debitage: the flaking by-products that result from working rough stone into tools.

Dedicated Recreation: recreation activities that are limited to a finite geographic location and are supported by improvements that commit the resource to a specific recreational activity.

Dedicated Recreationalist: those who participate in recreational activities within the study area and are limited to a finite geographic location.

Demographic: information relating to the dynamic balance of a population, especially with regard to density and the capacity for expansion or decline.

Direct Service Industries: This group of high-electricity use manufacturers includes 10 aluminum plants, a chlorine manufacturer, and a couple of smaller metal producers. The DSI's purchase their power directly from BPA, rather than from utilities.

Dispersed Recreation: recreation activities that are not limited to a finite location. These types of activities do not require improvements that commit resources to a particular type of recreation.

Distinct Population Segment (DPS): a portion of a species or subspecies that occurs in a certain area.

Double-circuit: towers that hold conductors for two transmission lines.

Electric and magnetic fields (EMF): the two kinds of fields produced around the electric wire or conductor when an electric transmission line or any electric wiring is in operation.

Electromagnetic interference (EMI): a high-frequency noise caused by corona that can cause radio and television interference.

Emergent wetlands: wetlands dominated by herbaceous plants.

Endemic: a naturally occurring species that is limited to a particular geographic area.

Energization date: when the project has been built and is operational.

Environmental Impact Statement (EIS): a document that discloses the environmental impacts of a proposed action and alternatives.

Ephemeral wetlands: wetlands that are only filled with water for a brief time during the spring.

Evolutionarily Significant Unit (ESU): a set of populations with a distinct evolutionary history.

Excise taxes: internal taxes imposed on the production, sale, or consumption of a commodity or the use of a service.

Executive Order on Environmental Justice (Executive Order 12898): enacted in February 1994 to ensure that federal agencies do not unfairly inflict environmental harm on economically disadvantaged and minority groups within the United States or any of its territories.

Extirpated: no longer existing or living in a given geographic area.

Federal actions: can include projects that receive federal funding or require a federal permit.

Federal species of concern: species that may be rare or declining, but are not formally listed under the Endangered Species Act.

Federally listed, proposed, or candidate species: species designated or in the process of being designated under the Endangered Species Act as endangered or threatened.

Floodplain: areas that have a one-percent chance of being flooded in a given year are designated as 100-year floodplains.

Flyway: a path of migration for many different species of birds.

Forage: food for domestic animals, e.g., cattle, sheep, etc.

Forbs: any herb other than grass.

Foreground: within 0.25 to 0.5 miles of the viewer

Forested wetlands: wetlands with a tree canopy.

Full-bench road construction: cutting into the hillside to accommodate the whole road prism.

Gauss: a unit of magnetic induction.

Greenhouse gases: gases contributing to global warming. Greenhouse gases include: water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), ground level ozone (and the pollutants which generate ground level ozone), and stratospheric ozone depleting substances such as chlorofluorocarbons and carbon tetrafluoride. CO_2 is the most common greenhouse gas in the atmosphere. Greenhouse gases warm the atmosphere by absorbing infrared radiation given off by the earth, preventing heat loss to outer space.

Gully erosion: rapid erosion, usually in brief time periods, that creates a narrow channel which may exceed 100 feet in depth.

Harm: defined by the U.S. Fish and Wildlife Service as including significant habitat modification or degradation resulting in death or injury by significantly impairing behavioral patterns to the extent that normal behavior patterns (e.g., breeding, feeding, and sheltering) are disrupted.

Headwater: the source of the river.

High quality plant community: areas of native vegetation with little or no disturbance or exotic species.

High quality terrestrial ecosystem: an area must be dominated by native species, with little to no disturbance to vegetation, and have high ecological value, both in condition and viability, the ability to persist on a site.

High Visual Sensitivity: residential viewers who own property within 500 feet of the proposed corridors and are concerned about transmission structures and how they impact the view of the natural environment.

Incised: rivers that have carved a path through the bedrock of an area.

Intermittent stream: water flows only seasonally.

Interstitial spaces: spaces or openings in substrates that provide cover and habitat for bottom-dwelling plants and animals.

In-water work windows: times of year, determined by WDFW, when instream work is least likely to harm listed species.

Kilovolt (kV): one thousand volts.

kV/m: kilovolt per meter

Lacustrine: pertaining to lakes, wetlands or any standing water body with a total surface area exceeding 20 acres.

Large woody debris recruitment potential: the potential for large trees to fall into the stream and provide fish habitat.

Lek: an open area where sage grouse gather in the spring to perform courtship dances.

Lithic: relating to stones.

Lithosols: rocky soils that usually develop in areas underlain by basalt.

Location pricing: a method of establishing prices that is discriminatory with respect to location and the characteristics of a location (e.g., greater demand).

Loess: a windblown deposit of fine-grained silt or clay.

Long-term socioeconomic impacts: the value of any agricultural crops taken out of production, interference with agricultural practices, reductions in the taxable land base, and the perceived effects on property values from new transmission and substation facilities.

Low Visual Sensitivity: most motorists who will only see the proposed transmission lines at limited locations from the roads that they are traversing.

Megawatt (MW): a unit of electrical power equal to 1 million watts.

Middleground: from the foreground to about five miles from the viewer

Milliampere (mA): one thousandth of an ampere, a measure of electric current

Milligauss (MG): one thousandth of a gauss.

Miocene: a period in the Neogene lasting from 23 million years ago to 5 million years ago.

Mitigation: describes measures that could be taken to lessen the impacts predicted for each resource. These measures may include reducing or minimizing a specific impact, avoiding it completely, or rectifying or compensating for the impact.

Moderate Visual Sensitivity: some recreationalists, such as some bird watchers, some hikers and/or those whose recreational activity is specific to a finite geographic location, who are sensitive to man-made structures and how they impact the view of the natural environment.

Monoculture: the cultivation or growth of a single crop or organism, especially on agricultural or forest land.

Motorists: those traveling by automobile on an Interstate, State or local road within the study area.

Native American traditional cultural practices: can include gathering plants and roots for medicinal use and religious ceremonies.

Neogene: the geological period lasting from 23 million years ago to present day.

Neotropical: the biogeographic region that extends south, east, and west from the central plateau of Mexico.

Non-anadromous: fish that do not migrate to the sea and back during their life cycle.

Nonattainment area: a geographic region designated by EPA in which federal air quality standards are not or were not met by a certain date. There are six air pollutants that are monitored; particulate matter (PM), carbon monoxide (CO), ozone (O_3), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), and lead (Pb).

North of Hanford: a designated area on the BPA transmission system, north of the Hanford Substation, that is used in transmission system studies.

Notice of Intent: for this project was included in the Federal Register (65 FR 77352). This publication publishes regulations and legal notices issued by federal agencies.

Noxious weeds: particularly troublesome weeds designated by Washington State law. The list of noxious weed species is divided into three classes (A, B, and C) within each county, based on the state of invasion.

Outage: a transmission line that is not in service, either planned or unplanned.

PCB: a family of industrial chemical compounds, noted as an environmental pollutant that accumulates in animal tissue.

Pacific Flyway: The path of migration for many different species of birds.

perennial stream: flows throughout the year.

Physiography: the study of the structure and phenomena of the earth's surface.

Plant communities (also known as plant associations): assemblages of species that grow together in similar habitats and are found repeated across the landscape.

PM-10: particulate matter having a nominal aerodynamic diameter less than or equal to 10 microns.

Potential transformer (PT): a type of transformer that uses low-voltage to monitor the high-voltage system. The low-voltage output of this transformer is used for relaying and metering.

Power Circuit Breaks: a breaker is a switch device that can interrupt a circuit in a power system during overload or fault conditions.

Prime Farmland: land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, livestock, timber, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and/or labor. It does not include land already in or committed to urban development or water storage. (USDA, NRCS web page)

Proposed RTO West: a proposed future Regional Transmission Organization.

Reconductor: take the existing conductors off of the towers and replace them with new conductors.

Regime: refers to the pattern and direction of the flow of the river.

Regional power transfers: within this EIS, this refers to the exchange of electricity between the Pacific Northwest and California or Canada. The transfer occurs when one region has a surplus of energy and demand is high in another. Typically, the Pacific Northwest transfers power to California during the summer when their demand is highest.

Regional Transmission Organization (RTO): an organization comprised of public and private entities that coordinates the sales and purchases of electricity.

Residents: those whose primary residence is located within the study area.

Residuum: unconsolidated weathered mineral material that accumulated as consolidated rock and disintegrated in place.

Rill erosion: mild water erosion, caused by overland flow, producing very small and numerous channels.

Riparian: areas of land that occur along watercourses and water bodies. Typical examples include floodplains and streambanks. They are distinctly different from surrounding lands because of unique soil and vegetation characteristics that are strongly influenced by the presence of water.

Rock Hounder: recreationalist in search of rocks, including petrified wood.

Salmonid: belonging to the family Salmonidea, including salmon, trout, and whitefish.

Scree: a loose rock slope, similar to a tallus slope.

Scrub-shrub wetlands: wetlands dominated by shrubby plants.

Section 303(d): under this section of the Federal Clean Water Act, certain streams are listed that do not meet current water quality standards.

Section 404: Section 404 of the Federal Clean Water Act regulates the discharge of solid materials, including building materials, into US waters.

Section 404 Removal/Fill permit: federal permit issued by the U.S. Army Corps of Engineers that regulates wetland areas.

Sedge: any number of grasslike plants of the family Cyperaceae, having solid stems and leaves in three vertical rows.

Sediment deposition: sediment deposited on a streambank or streambed.

Sediment load: the amount of sediment moved by stream

Short-term socioeconomic impacts: those created by an influx of construction workers into a local area and the additional tax monies generated.

Shrub-steppe: habitat is a shrub and grass dominated community found in arid areas.

Single-circuit: towers that hold conductors for one transmission line.

Snag: a dead tree.

Southern Intertie: a collective group of transmission lines that move power north and south between Oregon and California.

Spilling: when dam gates are opened and water flows out. The water does not go through the turbines, which would injure fish.

Spring run-off: water from the snow melting in the spring adds to the amount of water flowing in the Columbia River.

Spur road: short road segments branching off the trunk roads that go to each structure if the structure is not located on a trunk road.

Steppe: habitat is a grass-dominated community found in arid areas.

Sub soiling: plowing or turning up the layer of soil beneath the topsoil.

Substation Dead-ends: structures within the confines of the substation where incoming and outgoing transmission lines end. Dead-ends are typically the tallest structures in a substation.

Suspension structure: transmission line towers that are used to elevate wires a safe distance above the ground on relatively straight stretches of a line without sharp angles.

Switches: devices used to mechanically disconnect or isolate equipment; found on both sides of circuit breakers.

System reliability: the ability of a power system to provide uninterrupted service, even while that system is under stress.

Tailrace: the part of the millrace below the turbine through which the spent water flows.

Take: to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct.

Talus Slope: slope with numerous loosely aggregated rocks.

Time-of-use rates: rates that are discriminatory with respect to time of use (e.g., higher rates for peak use times).

Traditional cultural property (TCP): one that is eligible for inclusion in the NRHP because of its association with cultural practices or beliefs (e.g., traditions, beliefs, practices, lifeways, arts, crafts, and social institutions) of a living community that are rooted in that community's history, and are important in maintaining the continuing cultural identity of the community.

Transmission capacity: the maximum load that a transmission line or network of transmission lines can carry under existing conditions.

Transmission line dead-end: the last transmission line structure on both the incoming and outgoing sides of the substation are called dead-end structures. These structures are built with extra strength to reduce conductor tension on substation dead-ends and provide additional reliability to the substation. Dead-end structures use more insulators and heavier steel than the other kind of structure, which makes them more visible. Dead-end structures also are more expensive than suspension structures.

Turbidity: a reduction in the clarity of water from suspended materials such as clay, mud, organic material, or other materials.

Viewshed: the area that is visible within the topographic horizon from a particular location.

Vision quest: a ceremonial rite for people seeking spiritual guidance; also a rite of passage for young men.

Visual resources: the physical features that make up the visible landscape, including land, water, vegetative, and man-made elements (Guidance Material, USDOT, undated).

Wasteway: a drainage carrying irrigation return flow.

Waterbar: smooth, shallow ditches excavated at an angle across a road to decrease water velocity and divert water off and away from the road surface.

Water quality limited: under Section 303(d) of the Federal Clean Water Act refers to streams that do not meet current water quality standards.

This Page Left Blank Intentionally