

GLOSSARY AND ACRONYMS

Glossary

Adaptive Management Areas (AMAs): areas especially designated by the U.S. Forest Service under the Northwest Forest Plan [Final supplemental environmental impact statement on management of habitat for late-successional and old-growth forest related species within the range of the northern spotted owl; April 1994]

Adjuvants: wetting agents, sticking agents, stabilizers or enhancers, thickening agents, and so on, used to enhance the usefulness of herbicides.

Allelopathic: used to describe an interaction between plants, one of which produces a chemical that keeps other plant(s) from establishing themselves nearby.

Backline: the line painted on trees (on or off the right-of-way) that encompasses most of the trees that could fall or bend into a transmission line or that the line could swing into. The line is placed where most of the trees inside the line are dangerous to the transmission line and most of the trees outside the line are safe. All the trees inside the backline would be cut (including safe trees). Individual "danger trees" would then be marked and cut outside of the back line. A "full safe" backline is a line that encompasses all the trees mentioned above. In this case the line would be painted around all the "danger trees" and all trees within the line (including safe trees) would be cut.

Best Management Practices (BMPs): a practice or combination of practices that is 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.

Bioaccumulation: the accumulation of a substance in a living organism.

Biodiversity: a measure of the number of different species in a given area' species richness.

Biological methods: control of vegetation through the planned release of insects that like to feed on undesirable vegetation,

and/or through promoting the growth of low-growing vegetation. Also, release of **plant-eating insects or pathogens** (agents such as bacteria or fungus that can cause diseases in target plants) and fostering of low-growing plant communities¹.

Blading: using a steel blade or steel fork attachment on a tracked or rubber-tired vehicle that removes vegetation through a combination of pushing and/uplifting motions.

Compaction: the result of rolling, tamping, or use of heavy equipment on soil. Soils becomes hardened, difficult to cultivate, and impermeable to air and water.

Corrective action: the vegetation management needed on a right-of-way where the target vegetation is tall and dense

Corridor: a strip of land forming a passageway for transportation or utility facilities.

Critical habitat: an area with the physical or biological features essential to the conservation of a threatened or endangered species and that may require special management consideration or protection

Cultural resources: a general term frequently used to refer to a wide range of archeological sites, historic structures, museum objects, and traditional cultural places.

Cumulative impact: according to the Council on Environmental Quality Regulations, "cumulative impact" is the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of who or what undertakes such actions.

Danger trees: trees that could potentially grow, fall, or bend into the lines from the area next to the right-of-way. They are picked for removal based on the tree's overall condition; the ground around it; the tree species; and any other defect that might cause the tree to be "unstable" and more likely to fall into our transmission line.

Diversity (species): See **Biodiversity**.

Edge effect: a place where two differing habitats meet, in this case as created when a transmission line is built and maintained over time. This 'edged effect" is beneficial for those animals that live in the forest but like to use adjacent open areas such as a right-of-way for foraging and hunting.

¹ Promoting low-growing plant communities is classified as a "biological" method in this EIS. It can also be considered a "cultural" method or a "prevention" method.

Endangered species: (see Threatened and endangered species)

Fault: an unintentional short-circuit in a power system, due to a breakdown in insulation and causing abnormal current flow.

Flashover: a disruptive discharge through the air around or over the surface of an insulator. Can result from a lightning surge on a conductor.

Floodplain: that portion of a river valley adjacent to the stream channel that is covered with water when the stream overflows its banks during flood stage.

Girdling: cutting a ring around the trunk of the tree deep into the cambium layer, killing the tree but leaving it standing (see also **Snag**)

Ground mat: a metal grid is buried under substation soil; it protects people from being shocked or injured by electricity "attracted" to a body by the difference in electric potential.

Growth regulator(s): substances that slow or stop the growth of plants (as compared to herbicides, which kill plants)

Herbicide: a chemical substance used to kill, slow, or suppress the growth of plants

Herbicide uses/application:

Aerial spray aerial herbicide applications treat large areas that usually have heavy, dense vegetation needing control, steep slopes that make other methods unsafe, or poor road access. This would frequently include rights-of-way thick with tall-growing vegetation and/or noxious weeds. Aerial applications are always made during the growing season. Herbicide drift is controlled by immediate shut-off devices, close monitoring of weather conditions, and the use of adjuvants to enlarge and weight the herbicide droplet size. Spray may be made by fixed-wing aircraft or by helicopter.

Backpack spray an herbicide spray device worn as a backpack by a worker. Used where localized or spot treatment is needed (not for broadcast application).

Bare-ground (treatment) (1) as a localized treatment, via backpack sprayer, ATV or tractor with a handgun, treats the *ground or soil* to keep any vegetation from growing, rather than treating the vegetation itself. The herbicide used can be in liquid or granular formulations. This technique is used in places like substations and around wooden poles. **(2)** as a broadcast treatment, herbicide is sprayed by ATV or tractor with a handgun, or by trucks with mounted booms. As with

bare-ground localized treatments, this application treats the ground or soil to keep vegetation from growing.

Basal (treatment) a method of localized treatment. Using a squirt bottle or backpack, workers apply herbicides at the base of the plant (the bark or stem from the ground) up to knee height. The herbicide is usually mixed with an oil carrier to enhance penetration through the bark, and applied to the point short of run-off. These treatments can be done during the dormant season or active growing season.

Broadcast this category of herbicide applications treats an area, rather than individual plants. It is used on rights-of-way with heavy density of stems, for noxious weeds, and in electrical yards.

Cut-stubble treatment a broadcast treatment method. Herbicide is sprayed from a truck with a mounted boom over large swaths of freshly mechanically cut areas. It is intended to keep plants from resprouting.

Foliar (1) “low-volume” foliar is a localized treatment method. using a backpack sprayer, all terrain vehicle or tractor with a handgun, workers apply herbicide to the foliage of individual or clumps of plants during the growing season, just enough to wet them lightly. A relatively high percentage of herbicide is used mixed with water. Thickening agents are added where necessary to control drift. Dyes may also be added to see easily what areas have been treated. **(2)** “high-volume” (broadcast) treatments are applied by truck, ATV, or tractor with handgun, broadcast nozzle, or boom. Foliage and stems of target vegetation are sprayed with a mixture of water and a low percentage of herbicide.

Granular (1) “localized” granular application means that granular or pellet forms of herbicide are hand-applied to the soil surface beneath the driplines of an individual plant, or as close to a tree trunk or stem bases as possible. Herbicide is applied when there is enough moisture to dissolve and carry the herbicide to the root zone—but not so much water that it washes the granules off-site. **(2)** “broadcast” granular herbicide is spread by hand, belly grinder, truck or tractor over a large area, such as in an electrical yard, or around tower legs.

Injection treatment a method of spot treatment. Herbicide is injected into the tree around the base.

Localized treatment the treatment of individual or small groupings of plants, normally used only in areas of low to

medium target-plant density. See **basal, foliar, granular, and bare-ground** applications.

Notch treatment a method of spot treatment. Herbicide is squirted or sprayed into notches or cups chopped around the base of individual trees or shrubs.

Spot a spot application treats plants using the smallest amount of herbicide possible. The two methods are (1) stump treatment and (2) injection and notch treatment.

Stump (treatment) a method of spot treatment. Herbicide is applied by hand (squirt bottle) or backpack to freshly cut stumps of broadleaf trees and shrubs to prevent resprouting.

Host-specific: insects that feed *only* on a target plant and will not switch to crops, native flora, or endangered plant species when the target vegetation becomes scarce.

Integrated Vegetation Management (IVM): a strategy to control unwanted vegetation by considering the use of all suitable control methods within the context of the whole environment (ecosystem). An array of control methods is used, and methods are chosen based on the vegetation needing control and the environmental conditions present. The goal is to have the most benign overall long-term effect on the ecosystem.

Late successional (reserves) (areas): areas set aside for long-term protection as old-growth forest

Leaching: for this EIS, to move through or from one medium (such as the ground) by the percolating action of water

Lop and scatter: this method cuts (*or lops*) off the branches on two sides of a fallen tree by ax or chainsaw, so the tree trunk lies flat on the ground. The trunks are usually cut in sections. The cut branches are then scattered on the ground, laid flat, and left to decompose.

Low-growing plant communities: a dense population of relatively short plants (e.g., grasses, shrubs, forbs, herbs) that can “out-compete” trees and tall-growing brush for sunlight and nutrients, thereby reducing the presence of trees. Low-growing plants shade the ground and absorb available moisture, making it harder for the trees to germinate underneath the shrubs or to grow up through the low-growing plant cover. This is essentially vegetation “self-management.”

Managing vegetation: cutting or killing vegetation, disposing of vegetative debris, and reseeding or replanting vegetation.

Manual methods: the removal or cutting of vegetation using the hand or hand-held tools such as saws, or by burning or steaming it, or by girdling a tree (see **Girdling**)

Mechanical methods: the removal or cutting of vegetation using larger mowing-type equipment on rubber-tired or –tracked tractors.

Microbes : a minute life form; a microorganism.

Mitigation: steps taken to lessen the effects predicted for each resource as potentially caused by a vegetation management program. They may include reducing the impact, avoiding it completely, or compensating for the impact.

Native plant/Native species: species of plants, animals, or birds that originated in a given ecological area. Native plants or species are often best adapted to a given area.

Non-native species: species that have migrated or been imported into an ecological area. Non-native plants or species may compete for space and nutrients with a (more desirable) native species.

Noxious weeds: plants that are injurious to public health, crops, livestock, land, or other property.

Outage: interruption of the power flow such that electric facilities stop operating.

Pathogen: agents such as bacteria or fungus that can cause diseases in target plants

Program E: the alternative vegetation management program that focuses on electrical facilities

Program NE: the alternative vegetation management program that focuses on non-electrical facilities

Program R: the alternative vegetation management program that focuses on transmission line rights-of-way

Pruning: the removal of selected branches from tree trunks, without felling the whole tree.

Residual/ Non-residual: used to describe herbicides. *Residual* herbicides are soil active products that provide total vegetation control. Some residual herbicides are active for 6 to 8 weeks; others are active for 2 to 3 years. These herbicide are often used to treat the ground in electrical yards and create a constant impact on any vegetation that attempts to grow. By contrast, *non-residual* herbicides do not stay active very long, and are used to kill vegetation that is present when it is applied.

Restricted/non-restricted: Environmental Protection Agency terms applied to herbicides or pesticides. “Non-restricted” pesticide products can be purchased at the local hardware store and used by the general public. “Restricted” products are those that cannot be bought by or used by an untrained person.

Resprouting: the sending out of new, often multiple, branches from the cut surface of the stump of a tree or bush.

Right(s)-of-way (ROW)

an easement for a certain purpose over the land of another, such as a strip of land used for a road, electric transmission line, pipeline, and so on.

Riparian: of, or pertaining to, the bank of a river, stream, lake, or other watercourses. Often applied to the characteristic water-loving vegetation of such an area.

Scoping: an early opportunity for the public to tell a federal agency what issues they think are important and should be considered in the environmental analysis of a proposed federal action.

Sensitive species: those plants and animals identified by the Regional Forester for which population viability is a concern, as evidenced by significant current or predicted downward trend in populations or density and significant or predicted downward trend in habitat capability.

Slash: woody debris left after a tree or trees have been felled.

Snag: a tree, or part of a tree, usually dead, that remains upright. Wildlife and birds often use snags as perches, nesting places, and food sources (insects).

Supplement Analysis: an environmental analysis to help determine if there are substantial changes to the proposal in an EIS or significant new circumstances or information relevant to environmental concerns. Department of Energy Regulations 1021.314(a)

Threatened and endangered species [birds/animals/plants]: the Endangered Species Act provided a means to identify, list, and protect certain species whose low population numbers made them vulnerable to extinction. Endangered species are those species officially designated by the U.S. Fish and Wildlife Service that are in danger of extinction through all or a significant portion of their range; threatened species are those so designated that are likely to become endangered within the foreseeable future through all or a significant portion of their range. Both species are protected by Federal law.

Glossary and Acronyms

Tier/tiering: as used here, to establish a relationship between a broader environmental investigation and a (usually subsequent) more narrowly focused one, so that the focused statement can reference the previous broad study and not repeat material that has already been discussed.

Topping: removing the top one-third or less of an evergreen tree

Toxicity: The quality of potential of a substance to cause injury, illness, or other undesirable effects.

Traditional use plants: native plants associated with traditional cultural practices including sustenance, ceremony, medicine, tools, garments, or other uses.

Turbidity: the extent to which a body of water is muddy or cloudy with particles of sediment stirred up or suspended in it.

Unstable (trees): trees that are diseased, dying, or likely to fail into the transmission line. See **Danger tree**

Volatilization: the evaporation of a (usually liquid) substance into a gaseous form

Wetlands: an area where the soil experiences anaerobic (no oxygen) characteristics because water inundates the area during the growing season. Indicators of a wetland includes types of plants, soil characteristics, and hydrology of the area

Woody debris: materials left over from cutting or harvesting, such as limbs of branches of a tree. Woody debris may be placed in stream channels to slow and divert water flow and improve habitat for fish.

Acronyms

Units of Measure

ac.	acre 1 ac.	[metric equivalent: = 0.4 ha]
cm	centimeter 1 cm	[English equivalent: = 0.4 in.]
ft.	foot/feet 1 ft.	[metric equivalent: = 0.3 m]
ha	hectare 1 ha	[English equivalent: = 2.5 ac.]
in.	inch 1 in.	[metric equivalent: = 2.5cm.]
kg	kilogram 1 kg.	[English equivalent: = 2.2 lbs.]
km	kilometer 1 km	[English equivalent: = 0.6 mi.]
kV	kilovolts	
LC50	lethal concentration 50	
LD50	lethal dose 50	
lb.	pound 1 lb.	[metric equivalent: = 0.45 kg]
m	meter 1 m	[English equivalent: = 3.3 ft.]
mg	milligram 1 mg.	[English equivalent: = 0.015432 grains]
mi.	mile 1 mi.	[metric equivalent: = 1.8 km]
mph	miles per hour	
ppm	parts per million	
yr.	year	

Terms and Titles

AMA	Adaptive Management Area
ATV	All-terrain-vehicle
BLM	Bureau of Land Management

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BMP	Best Management Practices
Bonneville	Bonneville Power Administration
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
Corps	US Army Corps of Engineers
CWA	Clean Water Act
CX	categorical exclusion
DEIS	draft environmental impact statement
DOE	U.S. Department of Energy
e.g.	Latin, common shorthand meaning "for instance"
EA	environmental assessment
EIS	environmental impact statement
EPA	U.S. Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-to-Know Act
ESA	Endangered Species Act
et al.	" <i>et alia</i> " - Latin for "and the others" in cases where a list of authors is too long to put in the text
et seq.	" <i>et sequens</i> " - Latin for "and following"
EXTOXNET	Extension Toxicology Network
FACT	Food, Agriculture, Conservation, and Trade Act
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
GAP	Government Agency Plan
i.e.	Latin, common shorthand meaning "that is"
IPM	Integrated Pest Management
IVM	Integrated Vegetation Management
LS/OG	Late Successional/Old Growth
MA	Management Area
MAD	minimum approach distance
MSDS	Material Safety Data Sheet
NEPA	National Environmental Policy Act
NESC	National Electric Safety Code

NF	National Forest
NMFS	National Marine Fisheries Service
NPDES	National Pollutant Discharge Elimination System
NSA	National Scenic Area
OSHA	Occupational Safety and Health Administration
PFS	(Bonneville Power Administration) Pesticide Fact Sheets
PLS	pure live seed
PNW	Pacific Northwest
RCRA	Resource Conservation and Recovery Act
RED	[Environmental Protection Agency] Reregistration Eligibility Decision
RMP	Resource Management Plan
ROD	Record of Decision
ROW	Right-of-way
SARA	Superfund Amendments and Reauthorizations Act
SHPO	State Historic Preservation Office
SMZ	Streamside Management Zone
SWPP	Storm Water Pollution Prevention plan
T&E	Threatened and Endangered (species)
TES	Threatened, Endangered, and Sensitive [plants]
TSCA	Toxic Substance Control Act
USFS	U.S. Forest Service [also: USDAFS]
USFWS	U.S. Fish and Wildlife Service
WSSA	Weed Science Society of America

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