

CHAPTER 4 – CONSULTATION AND COORDINATION

The Forest Service consulted with the following individuals, Federal, State, and local agencies, tribes and non-Forest Service persons during the development of this environmental assessment:

FEDERAL, STATE, AND LOCAL AGENCIES:

National Marine Fisheries Service (NMFS)
US Fish and Wildlife Service
Oregon State Historic Preservation Officer
Oregon Department of Fish and Wildlife, Mid-Columbia Field Office
The Dalles Municipal Watershed
Oregon Department of Environmental Quality
Wasco County Court
Hood River County Board of Commissioners

Consultation with the National Marine Fisheries Service (NMFS)

No consultation was necessary.

Consultation with the US Fish and Wildlife Service (USFWS)

The effects to spotted owls for this project were consulted with US Fish and Wildlife Service through formal and informal consultation and included in the 2005-2006 projects within the Willamette Province which may modify habitats for bald eagles and northern spotted owls. The Biological Opinion issued for the projects has been subsequently withdrawn. A decision on this fuelbreak project will not be made until a new BO is received from USFWS.

Consultation with the Oregon State Historic Preservation Officer (SHPO)

The National Historic Preservation Act requires consideration be given to the potential effect of federal undertakings on historic resources. This includes historic and prehistoric cultural resource sites. The guidelines for assessing effects and for consultation are provided in 36 CFR 800. To implement these guidelines, Region 6 of the Forest Service entered into an agreement in 2003 with the Oregon State Historic Preservation Office and the Advisory Council on Historic Preservation. In accordance with the agreement, surveys of The Dalles Watershed Fuelbreak project area have been conducted. Based on the results of the surveys, **No Adverse Effect** and **No Effect** determinations have been made for the Proposed Action (Alternative 2). The SHPO has been consulted as to the determinations made and had no objections with this finding.

Cultural resource surveys were conducted on a planning area scale and documented in Heritage Resource Reports 2006/060601/0001 and 2006/060601/0002. Survey methodology was conducted in accordance with the 2004 agreement between Region 6 of the Forest Service, the State Historic Preservation Office (SHPO), and the Advisory Council on Historic Preservation (ACHP).

INDIAN TRIBES:

Confederated Tribes of the Warm Springs Indian Reservation

OTHERS:

Hood River Watershed Council
The Dalles Watershed Council
Hood River Soil and Water Conservation District
Wasco County Soil and Water Conservation District
Mill Creek Collaborative Group

A complete list of those individuals and interest groups who received information regarding this proposal can be found in the project file.

List of Preparers

The following is a list of Interdisciplinary Team (IDT) members who assisted in the development of the Environmental Assessment.

Role

IDT Leader

Writer/Editor

Wildlife Biologist

Fire/Fuels Specialist

Silviculturist

Recreation

Roads Engineer

Invasive Species/ Range
Conservationist

Fish Biologist

Soil Scientist

Hydrologist

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REFERENCES

- Agee, J.K. 1993. Fire ecology of Pacific Northwest Forests. Washington, DC: Island Press. 493 pp.
- Anderson, H.W. 1976. Fire effects on water supply, floods, and sedimentation. Tall Timbers Fire Ecol. Conf. Proc. 15:249-260.
- Anthony, R. G., E.D. Forsman, A.B. Franklin, D.R. Anderson, K. P. Burnham, G.C. White, C. J. Schwartz, J. Nichols, J. E. Hines, G. S. Olson, S. H. Ackers, S. Andrews, B. L. Biswell, P.C. Carlson, L. V. Diller, K. M. Dugger, K. E. Fehring, T. L. Fleming, R. P. Gerhardt, S. A. Gremel, R.J. Gutierrez, P.J. Happe, D. R. Herter, J. M. Higley, R.B. Horn, L. L. Irwin, P. J. Loschl, J. A. Reid, S. G. Sovern. Status and Trends in Demography of the Northern Spotted Owls, 1985-2003. 179pp.
- Aulerich, D.E., K.N. Johnson, and H. Froehlich. 1974. Tractors or skylines: what's best for thinning young-growth Douglas-fir? Forest Industries 10 1:42-45.
- Apps, C. D. 2000. Space-use, diet, demographics, and topographic associations of lynx in southern Canadian Rocky Mountains: a study. Pages 351-371 In Ruggiero, L.F., K. B. Aubry, S. McKelvey, and J. R. Squires. (Tech. Eds.). Ecology and conservation of lynx in the United States. Univ. Press of Colorado. Boulder, CO. 480 pp.
- Axelsson-Lindgren, C.; Sorte, G. 1987. Public response to difference between visually distinguishable forest stands in a recreation area. Landscape and Urban Planning. 14:211-217
- Bjornn, T.C. and Rieser, D.W. 1991. Habitat requirements of salmonids in streams. American Fisheries Society Special Publication 19: 83-183.
- Bradshaw, G. 1979. Preplanned skid trails and winching versus conventional harvesting on a partial cut. Research Note 62. Forest Research Lab, School of Forestry, Oregon State University. Corvallis, Oregon. 4 pp.
- Brand, C. J., L.B. Keith, and C. A. Fischer. 1976. Lynx responses to changing snowshoe hare densities in Alberta. J. Wildl. Manage. 40:416-428.
- Brown, G.W. 1972. The Alsea Watershed Study. Pac. Logging Cong. Loggers Hbk. Vol. 32. 6 pp.
- Brunson, M. W. (1991) Effects of traditional and "new forestry" practice on recreational and scenic quality of managed forests. PhD dissertation. Oregon State University, Corvallis, Oregon
- Buchanan, D.V., M.L. Hanson, and R.M. Hooton. 1997. Status of Oregon's bull trout. Oregon Department of Fish and Wildlife, Portland, Oregon.
- Burke, Thomas E., Applegarth, John S., and Weasma, Ted R. 1999. Management Recommendations for Survey and Manage Terrestrial Mollusks. Version 2.0
- Burroughs, E.R., Jr., John G. King. 1989. Reduction of soil erosion on forest roads. General Technical Report INT-264. USDA Forest Service, Intermountain Research Station. Ogden, Utah. 21 pp.
- Burt, William H. and Richard P. Grossenheider. 1976. Field Guide to Mammals. Houghton Mifflin Company. Boston, MA. 289 pp.
- Bull, E. L. (and others). 1997. Trees and logs important to wildlife in the interior Columbia River basin. Gen. Tech. Rep. PNW-GTR-391. Portland, OR: US Department of Agriculture, Forest Service, Pacific Northwest Research Station.

- Christner, J. and R. D. Harr. 1982. Peak streamflows from the transient snow zone, Western Cascades, Oregon. Proceedings of the 50th Western Snow Conference, Colorado State University, Fort Collins, Colorado, pp. 27-38.
- Clark, William S. and Brian K. Wheeler. 1987. Peterson Field Guide Series Hawks. Houghton Mifflin Company. Boston, MA. 195 pp.
- Conklin, David A. and William A. Armstrong. 2005. Effects of three prescribed fires on dwarf mistletoe infection in southwestern ponderosa pine. USDA Forest Service. Southwestern Region. Forestry & Forest Health. R3-01-02.
- Corkran, Charlotte C. and Chris Thoms. 1996. Amphibians of Oregon, Washington and British Columbia. Lone Pine Publishing. British Columbia. 175 pp.
- Courtney, S.P., J.A. Blakesley, R.E. Bigley, M.L. Cody, J.P. Dumbacher, R.C. Fleischer, A.B. Franklin, J.K. Franklin, R.J. Gutierrez, J.M. Marzluff, L. Sztukowski. 2004. Scientific evaluation of the status of the Northern Spotted Owl. Sustainable Ecosystems Institute. Portland, Oregon.
- DeBano, L.F., D.G. Neary, and P.F. Ffolliott. 1998. Fire's Effects on Ecosystems. New York: John Wiley & Sons. 333 pp.
- Dolbeer, R.A., and W.C. Clark. 1975. Population ecology of snowshoe hares in central Colorado Rocky Mountains. J.Wildl. Manage. 39:535-549. in Reudiger, Bill, Jim Claar, Steve Gnaidek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Ann Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000. Canada Lynx Conservation Assessment and Strategy. USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Forest Service Publication # R1-00-53, Missoula, MT. 142 pp.
- Drever, C. Ronnie: Garry Peterson; Christian Messier; Yves Bergeron; and Mike Flannigan. 2006. Can forest management based on natural disturbances maintain ecological resilience? Can. J. For. Res. 36. 2285-2299.
- Fellin, David G. and Jerald E. Dewey. 1986. Western Spruce Budworm. Forest Insect and Disease Leaflet 53. USDA Forest Service.
- Foster, Susan A. 1992. Studies of Ecological Factors that Affect the Population and Distribution of the Western Gray Squirrel in Northcentral Oregon. PhD These, Portland State University. 154pp.
- Froehlich, H.A., D.E. Aulerich, and R.Curtis. 1981. Designing skid trail systems to reduce soil impacts from tractive logging machines. Research Paper 44. Forest Research Lab, School of Forestry, Oregon State University. Corvallis, Oregon. 15pp.
- Gregg, R. and F. W. Allendorf. 1995. Systematics of *Oncorhynchus* species in the vicinity of Mt. Hood: preliminary report to Oregon Department of Fish and Wildlife. Division of Biological Sciences, University of Montana, Missoula, Montana.
- Harr, R. D., Warren C. Harper, James T. Kregier, and Frederic S. Hsieh. 1975. Changes in storm hydrographs after road building and clear cutting in the Oregon Coast Range. Water Resource Research 11(3):436-444.
- Harr, R. D., Richard Fredriksen, and Jack S. Rothacher. 1979. Changes in stream flow following timber harvest in southwestern Oregon. Research Paper PNW-249. USDA Forest Service, Pacific Northwest Forest and Range Experiment Station. Portland, Oregon. 22pp.
- Harr, R. D. 1979. Effects of timber harvest on stream flow in the rain-dominated portion of the Pacific Northwest. In: Process Workshop on Scheduling Timber Harvest for Hydrologic Concerns, Portland, Oregon, November 27-29, 1979. USDA Forest Service, Pacific Northwest Region. Portland, Oregon. 45pp.

- Harr, R. D. 1981. Some characteristics and consequences of snowmelt during rainfall in western Oregon. *Journal of Hydrology* 53:277-304.
- Hatler, D.F. 1989. A wolverine management strategy for British Columbia. Wildlife Bulletin No. B-60. Victoria, BC: Ministry of Environment; 135p.
- Hawksworth, Frank G. and Delbert Wiens. 1996. Dwarf Mistletoes: Biology, Pathology, and Systematics. Agriculture Hand book 709. USDA Forest Service. Washington, DC.
- Helvey, J.D. 1980. Effects of a north central Washington wildfire on runoff and sediment production. *Water Resour. Bull.* 16:627-634.
- Helvey, J.D., A.R. Tiedemann, and T.D. Anderson. 1985. Plant nutrient losses by soil movement after wildfire. *J. Soil Water Conserv.* 40:168-173.
- Hessburg, P.F.; R.G. Mitchell; G.M. Filip. 1994. Historical and current roles and pathogens in Eastern Oregon and Washington forested landscapes. Gen. Tech. Rep. PNW-GTR-327. Portland, OR: USDA Forest Service, Pacific Northwest Research Station. 72 p.
- Holgen, P.; Mattsson, L.; LI, C.Z. 2000. Recreation values of boreal forest stand types and landscapes resulting from different silviculture systems: an economic analysis. *Journal of Environmental Management.* 60: 173-180.
- Hood River Soil and Water Conservation District. 1999. Hood River Watershed Assessment. Hood River, Oregon.
- Jones, J. A., Gordon E. Grant. 1996. Peak flow response to clear-cutting and roads in small and large basins, Western Cascades, Oregon. *Water Resources Research* 32 (4): 959-974.
- Koehler, G. M. and K. B. Aubry. 1994. Pages 74-98 in Ruggiero and others 1994. The scientific basis for conserving forest carnivores: American marten, fisher, lynx and wolverine in western United States.
- Levno, A., and J. Rothacher. 1969. Increases in maximum stream temperatures after slash burning in a small experimental watershed. USDA For. Serv., Pac. Northwest For. Rge. Exp. Sta., Portland, OR. Res. Note PNW-110. 7p.
- MacCleery, Douglas W. 1998. When is a landscape natural? *Forest History Today*. Forest History Society. Durham, NC.
- Magill, A.W. 1992. Managed and natural landscapes: What do people like? Res. Pap. PSW-RP-213. Albany, CA: U.S. Department of Agriculture, Forest Service, Pacific Southwest Region. 28p.
- Mellen, Kim, Bruce G. Marcot, Janet L. Ohmann, Karen Waddell, Susan A. Livingston, Elizabeth A. Willhite, Bruce B. Hostetler, Catherine Ogden, and Tina Dreisbach. 2003. DecAID, the decayed wood advisor for managing snags, partially dead trees, and down wood for biodiversity in forests of Washington and Oregon. Version 1.10. USDA Forest Service, Pacific Northwest Research Station; USDI Fish and Wildlife Service, Oregon State Office; Portland, Oregon. <http://www.notes.fs.fed.us:81/pnw/DecAID/DecAID.nsf>
- National Marine Fisheries Service. 2005. Critical habitat for 12 Evolutionarily Significant Units (ESUs) of salmon and steelhead (*Oncorhynchus* spp.) in Washington, Oregon, and Idaho. Federal Register, Vol. 20, No. 170, Friday, September 2, 2005, Rules and Regulations.
- Nussbaum, R.A., E.D. Brodie, Jr, and R.M. Storm. 1983. Amphibians and Reptiles of the Pacific Northwest. University Press of Idaho. Moscow, ID. 332 pp.
- O'Donoghue, M. 1997. Responses of coyotes and lynx to snowshoe hare cycle. Ph.D. Diss., Univ. of British Columbia. Vancouver B.C. *in* Reudiger, Bill, Jim Claar, Steve Gnaidek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Ann Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000.

- O'Donoghue, M., S. Boutin, C. J. Krebs, G. Zuleta, D. L. Murray, and E.J. Hofer. 1998. Functional responses of coyotes and lynx to the snowshoe hare cycle. *Ecology* 79(4):1193-1208. *in* Reudiger, Bill, Jim Claar, Steve Gnaidek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Ann Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000.
- Oregon Natural Heritage Data Base. 1989. Rare, Threatened, and Endangered Plants and Animals of Oregon. Natural Heritage Advisory Council. Salem, OR. 40 pp.
- Packer, P.E. 1967. Criteria for designing and locating logging roads to control sediment. *Forest Science* 13 (1). 18pp.
- Peterson, R.T. 1961. A Field Guide to Western Birds. Houghton Mifflin Co., Boston, Mass. 309 pp.
- Powell, R. A. 1981. *Martes pennanti*. *Mammalian Species*, 156:1-6.
- Powell, R.A. 1993. The fisher: life history, ecology and behavior. Minn. Univ. Press. Minneapolis, Minn. 237pp.
- Reid, L.M., T. Dunne, 1984. Sediment production from road surfaces. *Water Resources Research* 20:1753-1761.
- Robichaud, P. R. and R. E. Brown. 1999. What happened after the smoke cleared: onsite erosion rates after a wildfire in Eastern Oregon. Presented at the Wildland Hydrology Conference, Bozeman, MT. American Water Resources Assoc. 419- 426.
- Rosgen, D. 1996. Applied River Morphology. Wildland Hydrology, Pagosa Springs, CO: 343 pp.
- Stebbins, R.C. 1985 A Field Guide to Western Reptiles and Amphibians. Houghton Mifflin Co., Boston, Mass. 336 p.
- StreamNet. 2005.
- Thomas, Jack Ward. 1979. Wildlife Habitats in Managed Forests the Blue Mountains of Oregon and Washington. USDA Forest Service Agriculture Handbook No. 553. 512pp.
- Tollefson, Jennifer E.; Swanson, Frederick J.; Cissel, John H. 2004. Fire severity in intermittent stream drainages, western Cascade Range, Oregon. *Northwest Science*. 78(3): 186-191.
- USDA, Forest Service. 1977. National Forest Landscape Management Volume 2, Chapter 5 Timber. Handbook No. 559. 223 p.
- USDA, Forest Service, Pacific Northwest Region. 2000. Mill Creek Watershed Analysis. 200p.
- USDA Forest Service. 1985. Managing trees and stands susceptible to western spruce budworm. Cooperative State Research Service. Technical Bulletin No. 1695. Martha Brookes, JJ. Colbert, Russell Mitchell, R.W. Stark, Technical Coordinators. Canada United States Spruce Budworms Program – West.
- USDA Forest Service, et al. 1994. Record of Decision for amendments to Forest Service and Bureau of Land Management Planning Documents Within the Range of the Northern Spotted Owl, and Standards and Guidelines for Management of Habitat for Late-Successional and Old-Growth Forest Related Species Within the Range of the Northern Spotted Owl. Portland, OR.
- USDA Forest Service. 1995. Upper Lewis River Watershed Analysis, Gifford Pinchot National Forest, Mount St. Helens National Volcanic Monument, Amboy, WA.
- USFS. 1998a. Stream survey report for Alder Creek. Mt. Hood National Forest, Sandy, Oregon.
- USFS. 1998b. Stream survey report for Crow Creek. Mt. Hood National Forest, Sandy, Oregon.
- USFS. 1999a. Stream survey report for South Fork Mill Creek. Mt. Hood National Forest, Sandy, Oregon.

- USFS. 1999b. Stream survey report for West Fork Neal Creek. Mt. Hood National Forest, Sandy, Oregon.
- USFS. 2000a. Mill Creek watershed analysis. Mt. Hood National Forest, Sandy, Oregon.
- USFS. 2000b. Forest-wide culvert survey. Mt. Hood National Forest, Sandy, Oregon.
- USFS and BLM. 2001. Record of Decision and Standards and Guidelines for Amendments to the Survey and Manage Protection Buffer, and other Mitigation Measures Standards and Guidelines. Portland, Oregon.
- USDA and USDI. 2000. Canada lynx conservation assessment and strategy. 120 pp.
- USDA Forest Service, Rocky Mountain Forest and Range Experiment Station. General Technical Report RM-254. 184pp. *in* Reudiger, Bill, Jim Claar, Steve Gnaidek, Bryon Holt, Lyle Lewis, Steve Mighton, Bob Naney, Gary Patton, Tony Rinaldi, Joel Trick, Ann Vandehey, Fred Wahl, Nancy Warren, Dick Wenger, and Al Williamson. 2000.
- USDA Forest Service, USDI Fish and Wildlife Service, USDI Bureau of Land Management, and USDI National Park Service. Canada Lynx Conservation Assessment and Strategy. Forest Service Publication # R1-00-53, Missoula, MT. 142 pp.
- Verts, B. J. and Leslie N. Carraway. 1984. Oregon State University Press. Corvallis, OR. 178 pp.
- Verts, B. J. and Leslie N. Carraway. 1998. Land Mammals of Oregon. University of California Press. 668 pp.
- Wemple, B.C., Julia A. Jones, Gordon E. Grant. 1996. Channel network extension by logging roads in two basins, Western Cascades, Oregon. Water Resources Bulletin 32 (6):1195-1207.

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Glossary

Anadromous Fish: Those species of fish that mature in the sea and migrate into streams to spawn.

Biological Assessment (BA): Information prepared to determine whether a proposed action is likely to: adversely affect listed species or designated critical habitat; jeopardize the continued existence of species that are proposed for listing; or destroy or adversely modify proposed critical habitat. Biological assessments must be prepared for “major construction activities.” The outcome of this BA determines whether formal consultation with regulatory agencies (USFWS and NMFS) is necessary.

Biological Opinion: Document containing the opinion and rationale of the USFWS or the NMFS as to whether or not a Federal action is likely to jeopardize the continued existence of listed species, or result in the destruction or adverse modification of designated critical habitat.

Code of Federal Regulations (CFR): The listing of various regulations pertaining to management and administration of the National Forest in the Federal Register.

Council on Environmental Quality (CEQ): An advisory council to the President established by the National Environmental Policy Act of 1969. It reviews Federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

Critical Habitat: For threatened or endangered species, the specific areas within the geographical area occupied by the species (at the time it is listed, in accordance with provisions of Section 4 of the Endangered Species Act) on which are found those physical or biological features essential to the conservation of the species. This habitat may require special management considerations or protecting. Protection may also be required for additional habitat areas outside the geographical area occupied by the species at the time it is listed based up on a determination of the Secretary of the Interior that such areas are essential for the conservation of the species.

Cumulative Effects: The combined effects of two or more management activities. The effects may be related to the number of individual activities, or to the number of repeated activities on the same piece of ground. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Effects: Environmental consequences as a result of a proposed action. Included are direct effects, which are caused by that action and occur at the same time and place, and indirect effects, which are caused by the action and are later in time or further removed in distance, but which are still reasonably foreseeable.

Endangered Species Act (ESA) of 1973: The purpose of ESA is to provide for conservation of ecosystems upon which threatened and endangered species of fish, wildlife, plants, and their habitats depend. Section 7 of ESA requires Federal agencies to ensure that any federal action is not likely to jeopardize the continued existence of listed species or modify their critical habitat.

Environmental Assessment (EA): A concise public document for which a federal agency is responsible. An EA serves (1) to briefly provide enough evidence and analysis for determining whether to prepare an environmental impact statement (EIS) or a finding of no significant impact; and to aid an agency's compliance with the National Environmental Policy Act when no EIS is needed; and (3) to facilitate preparation of an EIS when one is needed.

Environmental Impact Statement (EIS): An analytical document that portrays potential impacts on the human environment of a particular course of action and its possible alternatives. Required by the National Environmental Policy Act (NEPA), an EIS is prepared for use by decision makers to weight the environmental consequences of a potential decision.

Ephemeral Stream: A stream or portion of a stream that flows only in direct response to precipitation or snow melt. It receives little or no water from springs and no long-continued supply from snow or other sources.

Erosion: The wearing away or detachment of the land surface by running water, wind, ice, or other geological agents, including such processes as gravitation creep.

Evolutionarily Significant Unit (ESU): A set of populations that is morphologically and genetically distinct from other similar populations or a set of populations with a distinct evolutionary history.

Executive Order 12898—Environmental Justice: Under Executive Order 12898, Federal agencies are required to identify and address potential environmental effects, including human health, economic, and social effects of Federal actions, specifically on minority and low-income populations, and Indian tribes.

Forest Plan: Documents required by the National Forest Management Act and developed on each National Forest to define the kinds of use, goals and objectives, management practices, and activities that would be allowed to occur on an individual or group of parcels of land.

Grazing: Consumption of native forage from rangelands or pastures by livestock or wildlife.

Grazing Allotment: An area where one or more livestock operators graze their livestock. An allotment generally consists of federal land but may include parcels of private or state-owned land.

Interdisciplinary Team: A team of varied land use and resource specialists formed to provide a coordinated, integrated information base for overall land use planning and management.

Interested public: An individual, group or organization that is interested in being involved and informed in the decision-making process for the management of livestock grazing on specific grazing allotments, or has submitted written comments to the authorized officer regarding the management of livestock grazing on a specific allotment.

Intermittent stream: A stream that flows above ground at intervals or only flows periodically during the year. In contrast to ephemeral drainages, intermittent streams generally have well-defined channels.

Mitigation: Actions to avoid, minimize, reduce, eliminate, or rectify the impact of a management practice.

Monitoring: The orderly collection, analysis, and interpretation of resource data to evaluate progress toward meeting management objectives. This process must be conducted over time in order to determine whether or not management objectives are being met.

Multiple Use: A combination of balanced and diverse resource uses that considers long-term needs for renewable and nonrenewable resources, including recreation, rangeland, timber, minerals, watershed, and wildlife, along with scenic, scientific, and cultural values.

National Environmental Policy Act of 1969 (NEPA): NEPA requires federal agencies to consider environmentally sound decisions and to disclose their effects. This law details requirements for public participation, environmental analysis, and sound decision-making for all appropriate federal actions. In 1978, the Council on Environmental Quality wrote the regulations for implementing NEPA. They can be found at 40 Code of Federal Regulations, Parts 1500-1508.

National Forest Management Act (NFMA): An act passed in 1976 amending the Forest and Rangeland Renewable Resources Planning Act. NFMA requires the preparation of Regional and Forest Plans and the preparation of regulations to guide that development.

National Forest System Lands: All National Forest lands reserved or withdrawn from the public domain of the United States, acquired through purchase, exchange, donation, or other means which are administered by the Forest Service or are designated for administration through the Forest Service as a part of the system.

National Historic Preservation Act (NHPA) of 1966: NHPA requires Federal agencies to consult with American Indian Tribes, state and local groups before nonrenewable cultural resources, such as archaeological and historic structures, are damaged or destroyed. Section 106 of this act requires federal agencies to review the effects project proposals may have on the cultural resources in the analysis area.

Northwest Forest Plan (NWFP): The NWFP was a result of analysis included in the 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 (1994). This analysis established certain standards and guidelines to Forest Plan land allocations for protection of late-successional species.

Noxious Weeds: A plant species that is undesirable because it conflicts, restricts, or otherwise causes problems under management objectives.

Perennial Plant: A plant that has a life cycle of 3 or more years.

Perennial Stream: A stream that flows throughout the year.

Pool Habitat: That portion of the stream with reduced current velocity, often with water deeper than the surrounding areas, and which is frequently usable by fish for resting and cover.

Range Condition: The current productivity of a rangeland relative to what it could naturally produce.

Ranger District: An administrative subdivision of the Forest, supervised by a District Ranger who reports to the Forest Supervisor.

Riparian: Areas of wetland transition between permanently saturated wetlands and upland areas. These areas exhibit vegetation or physical characteristics reflective of permanent surface or subsurface water influence.

Riparian Reserves: A riparian reserve is a land designation from the Northwest Forest Plan which sets specific reserve widths for perennial and intermittent streams.

Sedimentation: Fragmentation material that originates from weathering of rocks and is transported by, suspended in, or deposited by water or air or is accumulated in beds by other natural agencies.

Sensitive Species: A species not formally listed as endangered or threatened, but listed by the Regional Forester as needing special management to prevent their being placed on Federal or State lists.

Seral: A biotic community which is a developmental, transitory stage in an ecological succession.

Seral (Successional) Community: One of a series of biotic communities that follow one another in time on any given ecological site.

State Historic Preservation Officer (SHPO): The State Historic Preservation Officer is the official appointed or designated pursuant to Section 101(b)(1) of the National Historic Preservation Act to administer the State historic preservation program or a representative designated to act for the SHPO.

Threatened Species: Any species of animal or plant which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range and which has been designated in the Federal Register by the Secretary of Interior as a threatened species.

Tier 1 Key Watersheds: Those watersheds to be managed for at-risk anadromous salmonids, bull trout, and resident fish.