

GLOSSARY

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303(d) list— State of Oregon, Department of Environmental Quality’s 1998 Section 303 (d) for stream temperature and minimum flow requirements. The 1972 Federal Clean Water Act (CWA) in Section 303 (d) requires each State to identify those waters for which existing required pollution controls are not stringent enough to achieve that State’s water quality standards. Within the Southeast Galena project area this section of the Middle Fork John Day River is currently listed in Oregon’s 1998 Section 303(d) list for exceeding both stream temperature standards and summer flow minimums.

A

accelerated erosion: Erosion much more rapid than normal, natural, or geologic. Erosion primarily as a result of the influence of the activities of man, or, in some cases, of other animals or natural catastrophes that expose base surfaces.

adit: A horizontal passage driven from the surface for working or un-watering a mine (Noble and Spude, 1992).

affected environment: The biological, social, economic, and physical aspects of the environment that will or may be changed by recommended actions.

air quality: The composition of air with respect to quantities of pollution therein; used most frequently in connection with “standards” of maximum acceptable pollutant concentrations.

allotment (grazing): Area designated for the use of a certain number and kind of livestock for a prescribed period of time.

alpine meadows: Meadows that occur above timberline.

archaeological Site: A type of cultural resource property (CRP) that has the potential to yield information important to scientific or scholarly studies of history or prehistory.

Area of Potential Effect (APE): The area that contains cultural resource properties (CRP’s) that may reasonably be expected to be impacted by an undertaking. Effects may be physical, visual, auditory, or socio-cultural. (cf. King 1998)

anadromous fish: Fish that hatch in fresh water, migrate to the ocean, mature there, and return to fresh water to reproduce; for example, salmon and steelhead.

ash (recent volcanic ash): Silt and very fine sand-size volcanic ejecta as used in this report. The volcanic ash that is the surface soil material of some of the land types are considered to have been laid down in recent geologic times.

ATV: All Terrain Vehicle

B

bankful stage: The elevation of the water surface of a stream flowing at channel capacity. Occurs about every 5 years average.

bankfull width/depth ratio: The ratio of stream width to deepest stream depth at bankful stage. A measure used with others to classify streams. A higher ratio is normally associated with lower gradient, more meandering streams. A lower ratio is associated with steeper, naturally straighter streams.

basal area: (1) In forests, the cross-sectional area of a tree trunk measured at breast height (4.5 feet), usually expressed in square feet per acre. (2) On rangeland, the cross-sectional area of the stem or stems of a plant or of all plants in a stand. Herbaceous and small woody plants are measured at or near the ground level; larger woody plants are measured at breast or other designated height.

Best Management Practices (BMPs): Practices designed to prevent or reduce water pollution.

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biodiversity or biological diversity: The variety and variability among living organisms and the ecological complexes in which they occur.

biophysical environment or bioenvironment: The interaction of climatic factors (moisture and temperature) and soil conditions on the expression of vegetation types and associated habitats. Climatic and soil conditions that result in similar successional pathways, disturbance processes and associated vegetative/habitat characteristics are referred to as a biophysical environment

board foot (bd ft or bf): The amount of wood contained in an unfinished board 1 in. thick, 12 in. long, and 12 in. wide (2.54 x 30.5x 30.5 cm), abbreviated bd ft—*note*, in trees or logs, board foot volume is a measure of merchantability, and therefore the number of board feet in a cubic foot depends on tree diameter, amount of slab, and saw kerfs; commonly, 1,000 bd ft is written as 1MBF and 1,000,000 BF is written as 1MMBF..

broadcast burn: Burning forest fuels as they are, with no piling or mechanical treatment.

C

canopy: In a forest, the branches from the upper-most layer of trees; on rangeland, the vertical projection downward of the aerial portion of vegetation.

canopy closure: The ground area covered by the crowns of trees or woody vegetation as delimited by the vertical projection of crown perimeters and commonly expressed as a percent of total ground area. *Synonym*-crown cover. (*Dictionary of Forestry*, Society of American Foresters, 1998.)

claro soil type: Clayey surface soils from ancient volcanic ash deposits that range in depth from 4-15 in. generally with higher erosion risk, absorbs less water, and holds water longer increasing road, trail and ground-based skidding problems.

channel (stream): The deepest part of a stream or riverbed through which the main current of water flows.

channelize/ channelization: Human-caused alterations to a stream channel that cause the channel to be fixed in place, such as levees, dikes, trenching, and riprap.

channel degradation or down cut: Extension of the drainage network by headward migration of head cuts by which the channel is lowered, thereby creating a terrace. (Leopold et al. 1992)

compaction: Making soil hard and dense, decreasing soil pore space which decreases the soil's ability to support vegetation. The soil can hold less water and air and roots have trouble penetrating the soil when pore space is decreased.

connectivity: The arrangement of habitats that allows organisms and ecological processes to move across the landscape; patches of similar habitats are either close together or linked by corridors of appropriate vegetation or unbarred streams. The opposite of fragmentation.

corridor (landscape): Landscape elements that connect similar patches of habitat through an area with different characteristics. For example, streamside vegetation may create a corridor of willows and hardwoods between meadows or through a forest.

cover: (1) Trees, shrubs, rocks, or other landscape features that allow an animal to partly or fully conceal itself. (2) The area of ground covered by plants of one or more species.

crown: The part of a tree containing live foliage; tree tops.

crown fire: A forest fire that burns in the crowns of trees.

Cultural Resource Property (CRP): A specific place on the physical landscape, natural or built, that has significant cultural value to a particular socio-cultural group. (cf. Lipe 1984)

culturally significant vegetation: Species of vegetation that are traditionally significant to regional tribes such as, alliums, bitterroot, and chokecherry.

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cumulative effects: Impacts on the environment that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable future actions. Cumulative effects can result from individually minor but collectively significant actions taking place over a period of time. In this EIS, potential cumulative effects include those that were assessed for all ownerships, including lands administered by other federal agencies and non-federal lands, especially regarding terrestrial and aquatic species.

D

dbh or DBH: see diameter breast height

decommissioned roads: Roads that are considered permanently removed from service and the Forest Transportation System, either because there is no reasonably foreseeable need for the road, or because its continued use is not compatible with other resource protection needs. The goal is to leave them in a condition that will not require custodial maintenance. All stream crossing structures are removed and the stream crossing areas are reshaped to resemble a natural condition. All culverts, roadside ditches, and ruts are removed. The road surface is shaped so that no segments provide a continuous surface flow path to a stream channel. This is typically accomplished by out sloping the road surface, constructing frequent cross ditches, or a combination of both. Revegetation of decommissioned roads can occur naturally or may be accomplished by other methods to get cover within ten years after the last activity, as required by the *National Forest Management Act*.

density (stand): The number of trees growing in a given area, usually expressed in terms of trees per acre or square feet of basal area per acre.

developed recreation: Recreation that requires facilities that in turn result in concentrated use of an area; for example, a campground.

direct effects: Impacts on the environment that are caused by an action and occur at the same time and place.

dispersed recreation: Recreation that does not occur in a developed recreation site; for example, hunting or backpacking.

disturbance: Events that alter the structure, composition, or function of terrestrial or aquatic habitats. Natural disturbances include, among others, drought, floods, wind, fires, wildlife grazing, and insects and diseases. Human-caused disturbances include, among others, actions such as timber harvest, livestock grazing, roads, and the introduction of exotic species

dominant:: A group of plants that by their collective size, mass, or number exert a primary influence on other ecosystem components.

downed wood: A tree or part of a tree that is dead and laying on the ground.

duff: The partially decomposed organic material of the forest floor that lies beneath freshly fallen leaves, needles, twigs, stems, bark, and fruit.

diameter breast height:: The diameter of these stem of a tee measured at breast height (4.5 ft. or 1.37 m) from the ground—*note 1.* on sloping ground the measure is taken from the upper hillside—*note 2.* (DBH) usually implies diameter outside bark (DOB) but can be measured as inside bark (DIB).

E

ecofact: Biological specimens that are constituents of archaeological sites, usually modified by human behavior, such as the remains of plants and animals.

ecology: the science of the interrelationships between organisms and their environment; from the Greek *Oikos* meaning “house” or “place to live.”

ecosystem: A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

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- ecosystem health:** A condition where the parts and functions of an ecosystem are sustained over time, and where the system's capacity for self-repair is maintained, such that goals for uses, values, and services of the ecosystem are met.
- endangered species:** An animal or plant species listed under the Endangered Species Act (1973) that is in danger of extinction throughout all or a significant portion of its range.
- endemic:** (1) Indigenous to (native) or characteristic of a particular restricted geographical area. (2) A disease constantly infecting a few plants throughout an area. (3) a population of potentially injurious plants, animals, insects, or viruses that are at low levels. (*Dictionary of Forestry*, Society of American Foresters, 1998.)
- environment:** The combination of external physical, biological, social, and cultural conditions affecting the growth and development of organisms and the nature of an individual or community.
- ephemeral draw:** Draw bottoms that carry stream flow only as a direct response to rainfall or snowmelt events. They generally have no base flow or defined channel with evidence of annual scour or deposition.
- ephemeral draw (mapped):** Mapped ephemeral draws are those that are generally at least one-quarter mile in length, or possess another feature that would contribute to the concentration of ephemeral flows.
- epidemic (outbreak):** The rapid spread, growth, and development of diseases or insect populations that affect large numbers of a host population throughout an area at the same time.
- erosion:** The wearing away of the land surface by running water, wind, ice, gravity, or other geological activities; can be accelerated or intensified by human activities that reduce the stability of slopes or soils.
- evaluation:** Transforming data into useable knowledge, which measures progress toward achievement of desired conditions.

F

- finer (sediment):** Sediment particles smaller than 0.2 inch. Excessive fines can trap newly hatched fish and decrease the amount of water percolating through spawning gravels. High fine sediment loads slow plant growth and reduce available food, oxygen, and light.
- fire regime:** The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, and seasonality of fire.
- fire return interval:** The average time between fires in a given area.
- fire:** See uncharacteristically severe wildfire (dry forest):
- fire-intolerant:** Species of plants that do not grow well with or die from the effects of too much fire. Generally these are shade-tolerant species
- fire-tolerant:** Species of plants that can withstand certain frequency and intensity of fire. Generally these are shade-intolerant species.
- Fish Bearing Streams:** Stream segments that support fish during all or a portion of a typical year (Cat. 1 on MNF PACFISH).
- Floodplain:** The portion of river valley or level lowland next to streams that is covered with water when the river or stream overflows its banks at flood stage. Dissipates stream energy.
- Fluvial:** Relating to, or inhabiting a river or stream.
- Fluvial fish:** Fish that live and migrate throughout streams of various sizes and then rearing in larger rivers in winter and spring.; rearing and spawning in smaller tributary streams in fall and summer.. (As opposed to resident or anadromous fish.)
- Forage:** Vegetation (both woody and non-woody) eaten by animals, especially grazing and

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browsing animals.

Forbs: Broad-leafed plants; includes plants that commonly are called weeds or wildflowers.

Forest health: The condition in which forest ecosystems sustain their complexity, diversity, resiliency, and productivity to provide for specified human needs and values. It is a useful way to communicate about the current condition of the forest, especially with regard to resiliency, a part of forest health that describes the ability of the ecosystem to respond to disturbances. Forest health and resiliency can be described, in part, by species composition, density, and structure

Forest Plan (*Land and Resource Management Plan*) Amendment No. 2: Interim Management Direction Establishing Riparian, Ecosystem and Wildlife Standards for Timber Sales, Also referred to as *Regional Forester's Eastside Forest Plan Amendment No. 2 Alternative 2, as adopted.*

Forest Plan or LRMP: Malheur National Forest Land and Resource Management Plan, 1990.

forest stand/edge: A community of trees occupying a specific area and sufficiently uniform in composition (species), age, spatial arrangement, and conditions as to be distinguishable from the other growth on adjoining lands, so forming a silvicultural or management entity. Place where two different forest stands come together.

forest type: A descriptive term used to group stands of similar character of development and species composition (due to given ecological factors) by which they may be differentiated from other groups of stands.

fragmentation (habitat): The break-up of a large land area (such as a forest) into smaller patches isolated by areas converted to a different land type. The opposite of connectivity.

fuel (fire): Live or dead vegetation..

fuel, ladder: Vegetative structures or conditions such as low-growing tree branches, shrubs, or smaller trees that allow fire to move vertically from a surface fire to a crown fire.

fuel load: The dry weight of combustible materials per unit area; usually expressed as tons per acre.

G

geologic time: Implies extremely long duration.

gradient: A rate of vertical elevation change per unit of horizontal distance; also called slope.

granitic soils: Shorter name for soils developing from granodiorite, a coarse grained, acidic, intrusive rock similar to granite. (SRI p. 173)

grazing pressure: The ratio of forage demand to forage available, for any specified forage, at any point in time. (Thus, as forage demand increases relative to forage available, grazing pressure increases, and vice-versa.)

groundstone: A stone artifact that has been shaped by pecking and/or grinding. This type of artifact is often considered a marker of prehistoric plant processing.

H

habitat: A place that provides seasonal or year-round food, water, shelter, and other environmental conditions for an organism, community, or population of plants or animals.

Habitat Effectiveness Index (HEI): An index of a Rocky Mountain elk habitat model.

Habitat Effectiveness Index is the relative value of habitat conditions based on the potential of the habitat type to provide cover, the quality of existing cover, and the miles of road open to vehicular traffic.

habitat type: A group of plant communities having similar habitat relationships.

hand line: A strip of land cleared or treated to control a fire's spread. That portion of a control line from which flammable materials have been removed by scraping or digging to

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mineral soil.

harvest: (1) Felling and removal of trees from the forest; (2) removal of game animals or fish from a population, typically by hunting or fishing.

hazard trees: Trees identified as a potential risk to a person or damage to property.

headwaters: Beginning of a drainage; un-branched tributaries of a stream, generally at higher elevations of watershed.

heritage resources: A structure, building, object, site or aggregation of sites that has one or more of the following: historic or natural significance, cultural, educational, scientific or artistic importance, significant architectural characteristics or an entity being managed for indefinite preservation.

high grading: The removal of the most commercially valuable trees (high-grade trees), often leaving a residual stand composed of trees of poor condition or species composition.

(*Dictionary of Forestry*, Society of American Foresters, 1998.)

Historical Range of Variability (HRV): The natural fluctuation of ecological and physical processes and functions that would have occurred during a specified period of time. This document refers to the range of conditions that are likely to have occurred prior to settlement of the project area by Euro-Americans (approximately the mid 1800s), which would have varied within certain limits over time. HRV is discussed in this document only as a reference point, to establish a baseline set of conditions for which sufficient scientific or historical information is available to enable comparison to current conditions. From *Interior Columbia Basin Ecosystem Management Project Supplemental Draft EIS* glossary definition.

historic Site: A type of cultural resource property (CRP) associated with the historic-era that may possess archeological values; or may be valued in light of its ability to convey its association with important historic events, people, or architectural/engineering techniques (Hardesty and Little 2000). Historic sites usually must be 50 years of age or more.

HSH (Shelterwood): A mature stand is partially cut, leaving some of the better trees of desired species to grow, cast seed, and provide shade and perhaps other shelter for the new stand. These shelter trees will be harvested after seedlings have become established and no longer need protection.

HSV (Salvage): Removal of dead or dying trees.

HTH1: Commercial thin in connectivity corridors.

HTH (Commercial Thin): Thinning is an intermediate step in even-aged management. It is a cutting made in an immature stand to remove excess merchantable timber in order to accelerate diameter growth and to improve the average form of the trees that remain.

HUR (Understory Removal): Removal or thinning of the understory to promote growth, health, and sustainability of the overstory.

hydrologic: Refers to the properties, distribution, and effects of water. “Hydrology” refers to the broad science of the waters of the earth—their occurrence, circulation, distribution, chemical, and physical properties, and their reaction with the environment.

hydrophobic (soil): A condition in which soil becomes water-repellant, the capacity of soil to hold water is reduced, and chances for erosion are increased.

I

impermeable: Said of a rock, sediment, or soil that is incapable of transmitting fluids under pressure. (Bates, Robert L. & Jackson, Julia A, editors. 1984 *Dictionary of Geological Terms* 3rd edition, Anchor Books).

indirect effects: Impacts on the environment that are caused by the action and are later in time or farther removed in distance but are still reasonably foreseeable

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infiltration: The movement of water through soil pores and spaces

initial attack: A fire-suppression action in which the aggressiveness of the attack is made consistent with the safety of the fire fighters and the public and with the values to be protected. (*Dictionary of Forestry*, Society of American Foresters 1998)

intermittent Stream: 1) A stream that flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow (ICBMP) 2) PACFISH definition

issue: A matter of controversy, dispute, or general concern over resource management activities or land uses. To be considered a “significant” environmental impact statement issue, it must be well defined, relevant to the recommended action, and within the ability of the agency to address through alternative management strategies.

J**K**

Key Linkage Areas (KLAs): Sufficient habitat in the form of cover vegetation, in quantity and arrangement that provides linkage between geographically isolated habitat areas throughout the Blue Mountains giving large, wide-ranging carnivores, such as Canada lynx, California wolverine, and gray wolf the ability of dispersal and movement across the landscape.

L

landscape: All the natural features such as grass-lands, hills, forest, and water, which distinguish one part of the earth’s surface from another part; usually that portion of land which the eye can comprehend in a single view, including all its natural characteristics.

large downed wood (for wildlife habitat and site productivity): Large down sound logs. When determining leave log criteria:

- (1) In ponderosa pine sites large downed wood should be at least 12 inches in diameter at the small end and greater than 6 feet in length. Leaving 3-6 pieces per acre for a total of 20-40 lineal feet.
- (2) In mixed conifer sites large downed wood should be at least 12 inches in diameter at the small end and greater than 6 feet in length. Leaving 15-20 pieces per acre for a total of 100-140 lineal feet.
- (3) In lodgepole pine should be at least 8 inches in diameter at the small end and greater than 8 feet in length. Leaving 15-20 pieces per acre for a total of 120-160 lineal feet. (Appendix B, page 12 of the *Revised Interim Direction of Regional Foresters Forest Plan Amendment #2*)

large snag: A standing dead tree with a diameter at breast height of at least 21 inches.

Large Woody Debris (LWD): Pieces of wood that are of a large enough size to affect stream channel morphology

lethal (stand-replacing) fires: In forests, fires in which less than 20 percent of the basal area or less than 10 percent of the canopy cover remains; in rangelands, fires in which most of the shrub overstory or encroaching trees are killed.

lithic scatter: A type of archaeological site that consists of surface or buried concentrations of stone waste flakes and tools. (Keyser et al. 1988)

litter: The uppermost layer of organic debris on the soil surface, which is essentially the freshly fallen or slightly decomposed vegetation material such as stems, leaves, twigs, and fruits

LRMP or Forest Plan: Malheur National Forest Land and Resource Management Plan, 1990.

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M

- MBF:** Thousand board feet of wood in saw logs or non sawlogs— *see* board foot.
- MMBF:** Million board feet of wood in saw logs or non-sawlogs— *see* board foot.
- mainstem:** The main channel of the river in a river basin, as opposed to the streams and smaller rivers that feed into it.
- Management Area (MA):** An area with similar management objectives and a common management prescription. (*LRMP, VIII-19*)
- management direction:** A statement of multiple use and other goals and objectives, the associated management prescriptions, and standards for obtaining them. (*LRMP, VIII-19*)
- Management Indicator Species (MIS):** A species identified to monitor the effects of planned management activities on viable populations of wildlife that are socially or economically important (i.e., pileated woodpecker, elk and pine marten for the Malheur *National Forest Land and Resource Management Plan*).
- microclimate** — The climate of a small area, such as under a plant or other cover.
- migration corridor:** The habitat pathway an animal uses to move from one place to another.
- mitigation** : Avoiding or minimizing impacts by limiting the degree or magnitude of the action and its implementation; rectifying the impact by repairing, rehabilitating, or restoring the affected environment; reducing or eliminating the impact by preservation and maintenance operations during the life of the action. (*LRMP, VIII-20*)
- monitoring:** A process of collecting information to evaluate whether or not objectives of a project and its mitigation plan are being realized. Monitoring allows detection of undesirable and desirable changes so that management actions can be modified or designed to achieve desired goals and objectives while avoiding adverse effects to ecosystems.
- Multiple Use Sustained-Yield Act of 1960, (the):** This act confirms the principle that all forest uses are of equal importance and should not damage the ability of the land to serve future generations. This act requires that National Forests be administered for “multiple use and sustained yield of the several products and services obtained there from,” (16 USC 531).
- mycorrhizae:** The symbiotic relationship between certain fungi and the roots of certain plants, especially trees; important for plants to take nutrients from soil.

N

- National Environmental Policy Act (NEPA):** An act of Congress passed in 1969 declaring a national policy to encourage productive and enjoyable harmony between people and the environment, to promote efforts that will prevent or eliminate damage to the environment and the biosphere and stimulate the health and welfare of people, and to enrich the understanding of the ecological systems and natural resources important to the nation, among other purposes.
- National Forest Management Act (NFMA):** A law passed in 1976 requiring the preparation of Forest Service regional guides and forest plans and the preparation of regulations to guide that development.
- National Register of Historic Places (NRHP):** A list of significant CRP’s that is maintained by the National Park Service. A “significant” site is a site that has been evaluated as eligible for inclusion to the National Register of Historic Places, or its eligibility status is undetermined.
- native species:** Species that normally live and thrive in a particular ecosystem.
- no-action alternative:** The most likely condition expected to exist in the future if current management direction were to continue unchanged.
- noxious weed:** A plant species designated by federal or state law as generally possessing one

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or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; or non-native, new, or not common to the United States. According to the Federal Noxious Weed Act (PL 93-639), a noxious weed is one that causes disease or has other adverse effects on man or his environment and therefore is detrimental to the agriculture and commerce of the United States and to the public health.

O

obliterated Roads: Are a type of decommissioned road, on which the restoration work includes pulling back the fill materials and reshaping the roadway to restore natural contours.

Old Forest Multi Strata (OFMS): Large trees are frequent along with multiple canopy levels, often developing in absence of disturbances to the understory. (See also, structural stages.)

Old Forest Single Stratum (OFSS): Large trees are frequent with only one high canopy level, often developing in areas of frequent, low intensity ground fires.

Old Growth: A forest stand composed of mature/over mature trees (150 years or older) that provides habitat for wild life species dependant upon mature/over mature trees. LRMP IV-105.

P

PACFISH: Interim Fish-producing Watersheds Strategies for Managing Pacific Anadromous Salmonids in Eastern Oregon and Washington, Idaho, and Portions of California.

peak flows: The highest value of the stage of discharge attained by a flood, peak stage or peak discharge.

perennial stream: Streams that flow continuously throughout most of the year (Malheur National Forest Plan).

permanently flowing, non-fish bearing streams: Stream segments that contain running water throughout a typical year, but do not support fish during any portion of a typical year (PACFISH, Category 2 MNF Plan).

physiographic province: A region of which all parts are similar in geologic structure and climate and which has had a unified geomorphic history.

pool: Portion of a stream where the current is slow, often with deeper water than surrounding areas and with a smooth surface texture. Often occur above and below riffles and generally are formed around stream bends or obstructions such as logs, root wads, or boulders. Pools provide important feeding and resting areas for fish.

Potential Vegetation Group (PVG): Vegetation classification using similar moisture and temperature environments resulting in similar fire regimes. (Discussed in detail in the Affected Environment portion of this document.)

Precommercial Thinning (PCT): The selective felling, killing, or removal of trees in a young stand primarily to accelerate diameter increment on the remaining stems, maintain a specific stocking or stand density range, and improve the vigor and quality of the trees that remain.

prescribed fire: A fire burning under specified conditions which will accomplish specified objectives in strict compliance with an approved plan and the conditions under which the burning takes place, and the expected results are specific, predicted, and measurable. (LRMP, VIII-24)

prescription: A management pathway to achieve a desired objective(s).

primary range: That part of suitable range that livestock naturally graze first under current management practice; it usually includes the readily accessible areas that have available water and which will be overused before livestock significantly graze other parts of the

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allotment.

private land interface: Privately owned land in close proximity to public lands.

productivity: (1) *Soil productivity:* the capacity of a soil to produce plant growth, due to the soil's chemical, physical, and biological properties (such as depth, temperature, water-holding capacity, and mineral, nutrient, and organic matter content). (2) *Vegetative productivity:* the rate of production of vegetation within a given period. (3) *General:* the innate capacity of an environment to support plant and animal life over time

programmatic planning documents: The document discloses the environmental consequences of a program or plan that guides or prescribes the use of resources, allocates resources, or establishes rules and policies in contrast to disclosure of the environmental consequences of a site-specific project.

Proper Functioning Condition (Pritchard et al 1993-4) when adequate vegetation, landform, or large woody debris is present to: Dissipate steam energy associated with high water flows, thereby reducing erosion and improving water quantity; filter sediment, capture bedload, and aid floodplain development; Improve flood-water retention and ground-water recharge; develop root masses that stabilize stream banks against cutting action; develop diverse ponding and channel characteristics to provide the habitat and water depth, duration, and temperature necessary for fish production, waterfowl breeding, and other uses; and support greater biodiversity.

recommended action: A proposal by a federal agency to authorize, recommend, or implement an action.

Q

quaking aspen: A North American deciduous tree (*Populus tremuloides*) having broadly ovate, finely toothed leaves with a truncate base.

R

rangeland: Land on which the native vegetation is predominantly grasses, grass-like plants, forbs, or shrubs; not forest

Recreation Opportunity Spectrum (ROS): A framework for stratifying and defining classes of outdoor recreation environment, activities, and experience opportunities. The settings, activities, and opportunities for obtaining experiences have been arranged along a continuum or spectrum divided into seven classes: Primitive, Semi-primitive Nonmotorized, Semi-primitive Motorized, Roaded Modified, Roaded Natural, Rural, Urban.

redd: Spawning nest made by salmon, steelhead, or other salmonids in the gravel bed of a river.

reforestation: Treatments or activities that help to regenerate stands of trees after disturbances such as harvest or wildfire. Typically, reforestation activities include preparing soil, controlling pests, and planting seeds or seedlings.

refugia: Areas that have not been exposed to great environmental changes and disturbances undergone by the region as a whole; refugia provide conditions suitable for survival of species that may be declining elsewhere.

regeneration: The process of establishing new plant seedlings, whether by natural means or artificial measures (planting).

Replacement Old Growth Stands (ROGs): Stands that will replace old growth stands when old growth stands no longer meet old growth requirements.

reserve tree protection: Measure taken during slash disposal burning to maintain live trees left in regeneration units.

resident fish: Fish that live their entire life cycle in close proximity to where they are

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hatched, usually the same stream. (As opposed to fluvial or anadromous.)

resilient/resiliency: The ability of a system to respond to disturbances. Resiliency is one of the properties that enable the system to persist in many different states or successional stages. (From Interior Columbia Basin Ecosystem Management Project Supplemental Draft EIS glossary definition.)

restoration: Holistic actions taken to modify an ecosystem to achieve desired, healthy, and functioning conditions and processes. Generally refers to the process of enabling the system to resume acting or continue to act following disturbance as if the disturbances were absent. Restoration management activities can be either active (such as control of noxious weeds, thinning of over-dense stands of trees, or redistributing roads) or more passive (more restrictive, hands-off management direction that is primarily conservation oriented).

revegetation: Establishing or re-establishing desirable plants on areas where desirable plants are absent or of inadequate density, by management alone (natural revegetation) or by seeding or trans-planting (artificial revegetation).

riffle: Relatively shallow section of a stream or river with rapid current and a surface broken by gravel, rubble, or boulders

riparian area: Area with distinctive soil and vegetation between a stream or other body of water and the adjacent upland; includes wetlands and those portions of floodplains and valley bottoms that support riparian vegetation.

Riparian Habitat Conservation Areas (RHCAS): Portions of watersheds where riparian dependent resources receive primary emphasis, and management activities are subject to specific standards and guidelines. RHCAs include traditional riparian corridors, wetlands, intermittent headwater streams, and other areas where proper ecological functioning is crucial to maintenance of stream's water, sediment, woody debris and nutrient delivery systems. (*PACFISH*, decision notice, Glossary-6)

Riparian Management Objectives (RMO): Implementation of Interim strategies for managing anadromous fish-producing watersheds in eastern Oregon and Washington, Idaho and Portions of California. (Also referred to as PAC Fish)

road: A motor vehicle travel way over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified, or temporary. (**36 CFR 212-1**).

road closure: A road management term indicating the road cannot be used by motorized traffic. This limitation can be accomplished by regulation, barricade, or blockage device. The road may be available for emergency use or permitted use such as firewood cutting during dry periods.

road decommissioning: Activities that result in the stabilization and restoration of unneeded roads to a more natural state (**36 CFR 212-1**), *FSM 7703*). See also, *Decommissioned Roads*.

road work levels

reconstruction, minor: Roads where the typical work activities needed include brushing out of encroaching vegetation, blading and shaping the existing roadbed, turnouts, and turnarounds, hazard tree removal, cleaning and repair of existing drainage structures, and spot rocking.

reconstruction, major: Roads which need the same type of work listed for minor reconstruction, and additional work items, including one or more of the following: substantial removal of brush and trees from the roadbed, adding new drainage structures, adding new turnouts or turnarounds, widening of the roadbed, and substantial surface rock placement or replacement

decommission/Inactivation, minor: Roads that do not require brushing out for access, but

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- do require one or more of the following work activities: spot blading, ripping, or reshaping, removal of a few ditch relief culverts, and other work that can be accomplished with hand tools and manual labor.
- decommission/Inactivation, major** — Roads that require the same type of work listed for minor decommissioning, as well as additional work items including one or more of the following: brush or tree removal to permit access with large motorized equipment, large culvert or bridge removal, and substantial blading, ripping, or reshaping of the roadbed.
- road, classified:** A road wholly or partially within or adjacent to National Forest System lands that is determined to be needed for long-term motor vehicle access, including State roads, County roads, privately owned roads, National Forest System roads, and other roads authorized by the Forest Service (*36 CFR 212-1*). If a system road is no longer necessary for long-term resource management it is considered a candidate for decommissioning.
- road, inactivated:** Are a class of closed roads where a management decision has determined the road is not needed for an interval of at least ten years. Motorized traffic is excluded for an indefinite period of time by regulation, barricade blockage, or by obscuring the entrance. All stream crossing structures are removed, and the stream crossing areas are reshaped to resemble a natural condition. All culverts, roadside ditches, and ruts are removed. The road surface is shaped so that no segments provide a continuous surface flow path to a stream channel. This is typically accomplished by out sloping the road surface, constructing frequent cross ditches, or a combination of both. An inactivated road remains on the Forest Road Transportation System, but is left in a condition where basic custodial maintenance is not necessary. If a later decision determines the road should be decommissioned, no additional work would be usually be needed.
- road, maintenance:** The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective (*FSM 7712.3*). Typical activities might include surface road and ditch blading, drainage structure cleaning and repair, minor brushing, minor rocking, and adding cross ditches.
- road, new construction:** Activity that results in the addition of forest classified or temporary road miles (*36 CFR 212-1*). For the purposes of this document, road relocation is also considered road construction; while it may or may not result in addition of classified road miles, the short term impacts of relocation on natural resources is the same as construction.
- road, open:** A road, or segment thereof, that is open to the general public without restrictions other than general traffic control or restrictions based on size, weight, or class of vehicle. An otherwise open road may be closed during scheduled periods, extreme weather conditions, or emergencies.
- road, reconstruction:** Activity that results in improvement or restoration of an existing classified road. Typical reconstruction activities can include adding or repair of drainage structures such as culverts, drain dips, grade sags, rocked fords, and cross ditches, surface and ditch blading, spot rocking, aggregate surfacing or surface rock replacement, brushing, constructing additional turnouts, and other work needed for either safety or resource protection.
- road, temporary:** A road authorized by contract, permit, lease, other written authorization, or emergency operation, not intended to be part of the forest transportation system and not necessary for long-term resource management (*36 CFR 212-1*).
- road, total density:** Includes open and closed roads use for hydrologic/fish analysis.
- road, unclassified:** A road on National Forest System lands that is not managed as part of the forest transportation system, such as unplanned roads, abandoned travel ways, and off-road

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vehicle tracks that have not been designated and managed as a trail; and those roads that were once under permit or other authorization and were not decommissioned upon the termination of the authorization (*36 CFR 212-1*).

- roaded, modified (RM):** A natural environment substantially modified, particularly by vegetation and landform alterations. There is strong evidence of roads and/or highways. Frequency of contact is low to moderate.
- roaded, natural (RN):** A natural appearing environment with moderate evidence of the sights and sounds of humans. Such evidence usually harmonizes with the natural environment. Interaction between users may be moderate to high with evidence of other users prevalent. Motorized use is allowed.
- roadless area** — A National Forest area that (1) is larger than 5,000 acres, or, if smaller than 5,000 acres, is contiguous to a designated wilderness or primitive area; (2) contains no roads; and (3) has been inventoried by the Forest Service for possible inclusion in the Wilderness Preservation System.
- roads, closed:** Are roads on which motorized traffic has been excluded by regulation, barricade blockage, or by obscuring the entrance. A closed road remains on the Forest Road Transportation System, and is still an operating facility, but one on which motorized traffic has been removed (year-long or seasonal). Closed roads are expected to be needed on an occasional or intermittent basis, and require periodic monitoring and basic custodial maintenance.
- runoff (surface):** Fresh water from precipitation and melting ice that flows on the earth's surface into nearby streams, lakes, wetlands, and reservoirs.

S

- salmonids:** Fishes of the family Salmonidae, including salmon, trout, chars, whitefish, ciscoes, and grayling.
- satisfactory cover:** For elk, a stand of coniferous trees 40 or more feet tall with an average canopy closure equal to or more than 50 percent for ponderosa pine, and 60 percent for mixed conifer. Satisfactory cover typically exists as a multi-storied stand and will meet elk hiding cover criteria.
- scenic Area:** An area which has been designated by the Forest Service as containing outstanding natural beauty that requires special management to preserve this beauty.
- scoping:** The early stages of preparation of an environmental impact statement, used to solicit public opinion, receive comments and suggestions, and determine the issues to be considered in the development and analysis of a range of alternatives. Scoping may involve public meetings, telephone conversations, mailings, letters, or other contacts.
- secondary Range:** That part of the suitable range that, under the existing management and improvement level, is grazed significantly only after the primary range has been over used. Secondary range can be changed to primary range by changing management systems or practices or by constructing range improvements.
- sediment:** Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle to the bottom.
- Semi-Primitive Motorized (SPM):** A natural or natural-appearing environment of moderate to large size. Interaction between users is low, but there is often evidence of other users. The opportunity exists to use motorized equipment.
- Semi-Primitive Non-Motorized (SPNM):** A natural or natural-appearing environment of moderate to large size. Concentration of users is low, but there is often evidence of other

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users. Use of local roads for recreational purposes is not allowed.

sensitive species: Species identified by a Forest Service regional forester for which species viability is a concern either a) because of significant current or predicted downward trends in population numbers or density, or b) because of significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

seral: Refers to the stages that plant communities go through during succession.

Developmental stages have characteristic structure and plant species composition. Early seral refers to plants that establish soon after a disturbance, or at the beginning of a new successional process (such as seedling or sapling growth stages in a forest). Seral refers to plants that become established during later stages of plant community succession (such as the young and old forest stages).

seral stage: The developmental phase of a forest stand or rangeland with characteristic structure and plant species composition.

seral vegetation, early: The vegetation that occupies a site after a disturbance. This vegetation will not reproduce itself without continued disturbance. (*LRMP*, VIII-31)

seral vegetation, late: Vegetation that can become established during later seral stage underneath shade.

shade-intolerant: Species of plants that do not grow well in or die from the effects of too much shade. Generally these are fire-tolerant species

shade-tolerant: Species of plants that can develop and grow in the shade of other plants. Generally these are fire-intolerant species

silviculture: The art and science of controlling the establishment, growth, composition health and quality of forests and woodlands to meet the diverse needs and values of society on a sustainable basis.

site potential: A measure of resource availability based on interactions among soils, climate, hydrology, and vegetation. Site potential represents the highest ecological status an area can attain given no political, social, or economic constraints. It defines the capability of an area, its potential, and how it functions.

slope movement: A general term for a variety of processes by which large masses of earth material are moved by gravity either slowly or quickly from one place to another. Equivalent to "mass wasting."

smolt: Young salmon or trout migrating to the ocean and undergoing biological changes to enable them to move from freshwater streams to saltwater.

snag: A standing dead tree, usually larger than forty feet tall and twelve inches in diameter at breast height. Snags are important as habitat for a variety of wildlife species and their prey.

Soil Resource Inventory (SRI): Publication in which solid, landforms, and bedrock characteristics are described at intensity sufficient to help develop resource management policies and basic plans. (SRI p.1)

soil structure: Refers to the physical structure of soils that enables air and water to move or be stored.

soil texture: Relative amounts of sand, silt, and clay in a soil. Coarse-textured soils are generally sandy and often contain gravel of various sizes; fine-textured soils are very fine, sandy, silty, or clayey.

spawning habitat: Areas used by adult fish for laying and fertilizing eggs (riffles and pool tailouts) with appropriate substrate composition.

Species of Interest (SOI): A species of high public interest or demand.

stand: A group of trees in a specific area that is sufficiently alike in composition, age,

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- arrangement, and condition so as to be distinguishable from the forest in adjoining areas.
- stand density:** Refers to the number of trees growing in a given area, usually expressed in trees per acre.
- Stand Initiation (SI):** A single canopy stratum of seedlings and saplings, often established after a stand-replacing disturbance.
- stand-replacing fire:** In forests, fire in which less than 20 percent of the basal area or less than 10 percent of the canopy cover remains; in rangelands, fires in which most of the shrub overstory or encroaching trees are killed. (see also, lethal)
- State Historic Preservation Office (SHPO):** The agency that represents the interests of the state in historic preservation and cultural resources. Federal land managers are required by the National Historic Preservation Act of 1966 to consult with the SHPO during land management planning.
- Stem Exclusion Closed Canopy (SECC):** A single canopy stratum of pole to small saw sized timber where shade excludes the development of an understory.
- Stem Exclusion Open Canopy (SEOC):** A single canopy stratum of pole to small saw sized timber where a lack of water excludes the development of an understory
- stewardship contracting: A cost-share program administered by the USDA that funds forestry practices.**
- stocking surveys:** Surveys taken after planting to determine the number of seedling currently living.
- stream channel:** The deepest part of a stream or riverbed through which the main current of water flows.
- stream morphology:** The form and structure of streams and their study.
- structural stage:** A stage of development of a vegetation community that is classified on the dominant processes of growth, development, competition, and mortality.
- structural stages:**
- Stand Initiation (SI):** A single canopy stratum of seedlings and saplings, often established after a stand-replacing disturbance.
 - Stem Exclusion Closed Canopy (SECC):** A single canopy stratum of pole to small saw sized timber where shade excludes the development of an understory.
 - Stem Exclusion Open Canopy (SEOC):** A single canopy stratum of pole to small saw sized timber where a lack of water excludes the development of an understory.
 - Old Forest Multi Strata (OFMS):** Large trees are frequent along with multiple canopy levels, often developing in absence of disturbances to the understory.
 - Old Forest Single Stratum (OFSS):** Large trees are frequent with only one high canopy level, often developing in areas of frequent, low intensity ground fires.
 - Understory Reinitiation (UI):** The overstory has been opened up by natural mortality or thinning, allowing establishment of an understory.
 - Young Forest Multi Strata (YFMS):** Multiple canopy layers provide vertical and horizontal diversity with a mix of tree sizes. Large trees are absent or at low stocking levels.
- Note:* Interior Columbia Basin Ecosystem Management Project Supplemental Draft EIS (ICBEMP) document uses the term “story” rather than “strata” in structural stage definitions.
- subwatershed:** A drainage area of approximately 20,000 acres, equivalent to a 6th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained

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within watershed (5th-field HUC), which in turn contained within a subbasin (4th-field HUC).
suckers (aspen): Shoots of new growth arising from the roots of aspens, vitally important in aspen proliferation, as these trees do not reproduce in any other manner.

suitable range: Land which produces or has the inherent capability to produce 50 pounds or more of palatable forage per acre, can be grazed on a sustained-yield basis, and is or can be feasibly made accessible for use. It is classified as either primary or secondary range.

surface fire: Fires that burn live or dead material in close proximity to the ground or on the ground surface.

T

thermal cover: Cover provided by vegetation and used by animals to protect them against weather.

thinning: An operation to remove stems from a forest for the purpose of reducing fuel, maintaining stand vigor, regulating stand density/composition, or for other resource benefits. Although thinning can result in commercial products, thinning generally refers to non-commercial operations.

threatened species: An animal or plant species listed under the Endangered Species Act that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

Threatened, Endangered and Sensitive Species (TES): A species or subspecies of animal or plant whose prospects of survival and reproduction are in immediate jeopardy or likely to become so within the foreseeable future. The 1973 Endangered Species Act protects Threatened and Endangered species, while Sensitive species are managed by direction of the Regional Forester.

Threshold of Concern (TOC): The TOC is an index of watershed sensitivity to certain human and naturally caused disturbances. It is based on soil characteristics such as erosion potential or infiltration rate.

topography: Physical features of the ground surface such as hills, plains, mountains, steepness of slope, and other features.

trail: A linear corridor on land or water with protected status and public access for recreation or transportation.

trailhead: The parking, signing, and other facilities available at the terminus of a trail.

transitory range: Suitable range, which becomes available as a result of partial or total removal of overstory cover by events such as timber harvest, fire, insects or disease.

tribe: Term used to designate any Indian tribe, band, nation, or other organized group or community (including any Alaska Native village or regional or village corporation as defined in or established pursuant to the Alaska Native Claims Settlement Act) which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

true firs: Coniferous trees of the genus *Abies*. Grand fir (*Abies grandis*) and Subalpine fir (*A. lasiocarpa*) are examples of true firs found in the analysis area. Douglas-fir (*Pseudotsuga menziesii*) is in a different genus and is not closely related to true firs.

U

under burn: A burn by a surface fire that can consume ground vegetation and ladder fuels.

undesirable tree removal: cutting of small trees that are not desirable due to damage, disease, or are a species that is not desired due to lack of resiliency to forest disturbances.

uncharacteristically severe wildfire: A large stand replacing fire which enters the crowns of trees and burns the area of a subwatershed or greater.

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Understory Reinitiation (UI): The overstory has been opened up by natural mortality or thinning, allowing establishment of an understory.

unroaded characteristics, areas: Portion of the National Forest lands that does not contain roads. (Not to be confused with roadless areas.)

upland: The portion of the landscape above the valley floor or stream.

V

vegetative condition, outside of historical range of variability: Current vegetation condition which is different than the historic range of vegetative conditions. (see HRV)

viability: In general, viability means the ability of a population of a plant or animal species to persist for some specified time into the future. For planning purposes, a *viable population* is one that has the estimated numbers and distribution of reproductive individuals to ensure that its continued existence will be well distributed in the planning area.

visual resources — The visible physical features of a landscape.

W

water quality limited: A classification by the State under the Federal Clean Water Act for waters where application of best management practices or technology-based controls are not sufficient to achieve designated water quality standards.

watershed: (1) The region draining into a river, river system, or body of water. (2) a watershed also refers specifically to a drainage area of approximately 50,000 to 100,000 acres, which is equivalent to a 5th-field Hydrologic Unit Code (HUC). Hierarchically, subwatersheds (6th-field HUC) are contained within a watershed (5th-field HUC), which in turn is contained within a subbasin (4th-field HUC).

weed: A plant considered undesirable, unattractive, or troublesome, usually introduced and growing without intentional cultivation.

wetland: In general, an area soaked by surface or groundwater frequently enough to support vegetation that requires saturated soil conditions for growth and reproduction; generally includes swamps, marshes, springs, seeps, bogs, wet meadows, mudflats, natural ponds, and other similar areas. Legally, federal agencies define wetlands as possessing three essential characteristics: (1) hydrophytic vegetation (*Hydrophytic vegetation* is defined as plant life growing in water, soil, or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content.), (2) hydric soils (*Hydric soils* are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic, without oxygen, conditions in the upper part of the soil profile. Generally, to be considered a hydric soil, there must be saturation at temperatures above freezing for at least seven days.), and (3) wetland hydrology (*Wetland hydrology* is defined as permanent or periodic inundation, or soil saturation to the surface, at least seasonally). The three technical characteristics specified are mandatory and must all be met for an area to be identified as a wetland.

wetted width-to-depth ratio: Stream channel wetted width-to-depth ratio. A low width-to-depth ratio indicates there is less water surface area to the volume of water. Thus, in areas of low width to depth ratios, stream temperatures may be cooler as less water is influenced by exposure to sunlight present on the water surface.

wildfire: A human or naturally caused fire that does not meet land management objectives. Malheur National Forest Plan standard as part of Amendment 29. Ratio must be <10 to meet standards and guidelines.

wildfire risk, high: Measure of frequency of at least one wildfire expected in 0 to 10 years per 1000 acres.

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wildfire risk, low: Measure of frequency of at least one wildfire expected every 20 or more years per 1000 acres.

wildfire risk, moderate: Measure of frequency of at least one wildfire expected in 11 to 20 years per 1000 acres.

wildlife corridors: Cover vegetation provided in quantity and arrangement to provide Old Growth species sufficient habitat for free movement between distinct old Growth areas, interaction of adults and dispersal of young. *Also known as* connectivity corridors, Old Growth Corridors, LRMP 2 Corridors

wildlife emphasis area: Areas managed to provide high quality fish and wildlife habitat and water quality. Timber harvest is permitted if it will meet a wildlife and/or fish habitat objective.

wind throw: Trees blown over by the wind.

X

Y

Yard tops: Transporting the crown attached to the last log. The last log is trimmed and bunched at the landing. This is done to trees that are too large for whole tree yarding.

Young Forest Multi Strata (YFMS): Multiple canopy layers provide vertical and horizontal diversity with a mix of tree sizes. Large trees are absent or at low stocking levels. (See also, structural stages.)

Z

