

**BUSSEL 484  
FEIS**

**APPENDIX E: GLOSSARY**

## GLOSSARY

### A

**ACCESS MANAGEMENT OBJECTIVES.** Objectives that describe the extent and form of access needed to accomplish the management area direction, including how access to and within National Forest lands will be provided, whether by foot, horse, motorized vehicle, or aircraft; over water, roads, or trails; or through the air. (FSH 7709.55 section 06).

**ACTIVITY AREA.** Area within the project area where activities are proposed.

**ACTIVITY FUELS.** See Slash

**AFFECTED ENVIRONMENT.** The natural, physical, and human-related environment that is sensitive to changes due to proposed actions.

**AGE CLASSES.** A distinct group of trees, or portion of growing stock recognized on the basis of age (i.e., seedling, pole, mature.)

**AGGRADATION.** The process of building up a surface by deposition; a long-term or geologic trend in sedimentation. The build up of sediment when more sediment enters a stream reach than leaves it.

**AIR QUALITY.** Refers to standards for various classes of land as designated by the Clean Air Act, P.L. 88-206: Jan. 1978

**AIRSHED.** A geographical area that, because of topography, meteorology, and climate, shares the same air.

**ALTERNATIVE.** A mix of management prescriptions applied to specific land areas to achieve a set of goals and objectives. Each alternative represents a different way of achieving a set of similar management objectives. Sometimes the term "action alternative" is used when it is desirable to recognize that there is a "no action" alternative under which the proposed activity would not take place.

**ANALYSIS AREA.** The geographic area defining the scope of analysis for a particular resource. This area may be larger than the project area when effects have potential to extend beyond the boundaries of the proposed action.

**APPEAL.** A request by any party dissatisfied with a decision of a forest officer to have that decision reviewed at a higher organizational level within the Forest Service and, where appropriate, by the Secretary.

### B

**BANKFULL.** The level water reaches in the stream that is at or near the lowest terrace.

**BASIC INDUSTRY.** These are fundamental manufacturing industries which serve as the basis of the economy. They do not include the service side. These are business and government activities that produce raw materials, products made from those materials, and which transport those materials or products.

**BEST MANAGEMENT PRACTICES.** A set of practices in the Forest Plan which, when applied during implementation of a project, ensures that water related beneficial uses are protected and that State water quality standards are met.

**BIG GAME.** Those species of large mammals normally managed as a sport hunting resource.

**BIOLOGICAL ASSESSMENT.** Information (document) prepared by or under the direction of the Federal agency concerning listed and proposed threatened and endangered species and proposed critical habitat that may be present in the action area and the evaluation of potential effects of the action on such species and habitats.

**BIOLOGICAL EVALUATION.** A documented Forest Service review of programs or activities in sufficient detail to determine how an action or proposed action may affect any sensitive species.

**BLIND DRAIN.** A drainage structure installed in the subgrade of a road which intercepts, collects, and redirects subsurface water.

**BLOWDOWN.** See windthrow.

**BOARD FOOT (BF).** A unit of measurement equal to an unfinished board one foot square by one inch thick. Timber volumes are often expressed in terms of thousands of board feet.

**BOGS.** Perennially saturated areas that usually have wetland and riparian plants surrounding them.

**BOLE.** The trunk or main stem of the above ground part of a tree.

**BROADCAST BURN.** See prescribed burning.

## C

**CANOPY.** The more or less continuous cover of branches and foliage formed collectively by the crowns of adjacent trees and other woody growth. Layers of canopy may be called stories.

**CANOPY CLOSURE.** The progressive reduction of space between tree crowns as they spread laterally; a measure of the percent of potential open space occupied by the collective tree crowns in a stand.

**CAVE.** A natural underground chamber that is open to the surface.

**CAVITY.** The hollow, excavated in snags by birds; used for roosting and reproduction by many birds and mammals.

**CAVITY HABITAT.** Snags, broken-topped live trees and down logs used by wildlife species that excavate and/or occupy cavities in these trees.

**CAVITY NESTERS.** Wildlife species that nest in cavities.

### CHANNEL FORM

Channel form consists of the channel slope, shape of the channel cross-section and the channel pattern (as viewed on a map or from the sky). The form of any stream channel is related to both hydraulic and physical features. There are eight interrelated variables involved in the downstream changes in river slope and channel form: width, depth, velocity, slope, sediment load, size of sediment debris, hydraulic roughness, and discharge (Leopold and others 1964 p. 268).

**CHANNEL CROSS-SECTION** (*width, depth, hydraulic roughness*).

The shape of a cross-section of a river channel is a function of the flow, the quantity and character of the sediment in movement through the section, and the character or composition of the materials making up the bed and banks of the channel (Leopold and others 1964 p. 198).

**CHANNEL PATTERN** (*slope, discharge, sediment yield; Beechie and other, 2006 p. 130, Fig. 4. p. 137*).

Rivers display a continuum of patterns from straight to highly sinuous (Schumm 1977 p. 113). Beechie and others (2006) identify four channel patterns in forested mountainous areas: straight, meandering, island-braided, and braided; for interpreting the dynamics of river-floodplain ecosystems.

Channel Pattern	Definition
Straight	Primarily single thread channel, sinuosity <1.5
Meandering	Primarily single thread channel, sinuosity >1.5
Island-braided	Multiple channels, mainly separated by vegetated islands
Braided	Multiple channels, mainly separated by unvegetated gravel bars

Table from: Beechie and others 2006 p. 128

**CHANNEL PROCESSES** (physical). A channel's physical process is to convey the water, sediment (Schumm 1977 p. 104-105) and wood (Montgomery and others 2003 p. 21) delivered to it from adjacent areas. Also, wood may be stored (Grunell 2003 p. 75) and sediment deposited (Gordon and others 1992 p. 319) or stored (Gregory 2003 p. 2) in the stream system. Stream morphology (dimensions (width, depth), patterns and profile (slope); Rosgen 1996 p. xvi) both responds to and develops under the amount of water, sediment and wood delivered to it. "[T]he upland channel is formed and maintained by the flow of water and sediment that it carries and is thus the creator of its own geometrical properties" (Leopold and others 1964 p. 272). "The ability of flowing water to carve a channel, transport debris, and thus ultimately to degrade [to lower a land surface by erosion] the landscape, depends on these forces – gravitational impelling force, and the resistances offered it. The effects of lithology [the structure and composition of rock formations] and topography on the ability of flowing water to carve and transport are exerted principally through their relation to the resisting forces" (Leopold and others 1964 p. 153).

**CLEARCUT HARVEST.** A regeneration method under which the entire mature stand is cut. Some snags and potential snags may be left to benefit snag-dependent wildlife species.

**CLEARCUT WITH RESERVES.** A variation of the clearcutting method where reserve trees are left for all or part of a stand rotation and serve a specific function that is consistent with management objectives.

**CLOSED CANOPY.** The condition that exists when the canopy created by trees or shrubs or both is dense enough to exclude most of the direct sunlight from the forest floor.

**CODE OF FEDERAL REGULATIONS (CFR).** The official, legal tabulation or regulations directing Federal Government activities.

**COMMUNITY.** A group of one or more populations of plants and animals in a common spatial arrangement; an ecological term used in a broad sense to include groups of various sizes and degrees of integration.

**COMPARTMENTS.** A geographic area delineated by a watershed drainage for management planning purposes.

**CONIFER.** Any of a group of needle and cone bearing evergreen trees.

**CONNECTORS.** Strips or patches of vegetation used by wildlife to move between habitats.

**CORE SAMPLE.** Stream bed material removed from the stream for analysis.

**CORRIDORS.** Areas of vegetation (may be linear or patch-like) available to wildlife to facilitate movement between habitats. Corridors may vary in size by species need. For big-game, forested areas of at least 600 feet in width is generally acceptable.

**COVER.** Vegetation used by wildlife for protection from predators, breeding and rearing of young (hiding cover), or to ameliorate conditions of weather (thermal cover).

**COVER/FORAGE RATIO.** The ratio, in percent, of the amount of area in cover conditions to that in forage conditions.

**COVER TYPE.** See forest cover type

**CROWN FIRE.** A fire burning into the crowns of the vegetation, generally associated with an intense understory fire.

**CULTURAL RESOURCES.** The physical remains of human activity (artifacts, ruins, burial mounds, petroglyphs, etc.) having scientific, prehistoric, or social values.

**CUMULATIVE EFFECT.** The impact on the environment which results from the incremental impact of the action when added to other actions. Cumulative impacts can also result from individually minor but collectively significant actions taking place over a period of time.

## D

**DEADFALL.** Previously dead trees that have fallen.

**DEBRIS.** The scattered remains of some things broken or destroyed; ruins; rubble; fragments.

**DECADENT.** Deteriorating; when used in reference to stand condition there are inferences of the loss of trees from the overstory and of the presence of disease, or indications of loss of vigor in dominant trees so that the mean annual increment is negative.

**DECISION AREA.** The geographic area defining the scope of this document and the alternatives proposed by it.

**DEGRADATION.** This occurs when a stream has excess energy and more sediment leaves a reach than enters it. This is associated with channel scouring.

**DENNING SITE.** A place of shelter for an animal; also where an animal gives birth and raises young.

**DETRIMENTAL SOIL DISTURBANCE.** The condition where established threshold values for soil properties exceed and result in significant change. (FSH 2509.18, section 2.05, 9).

**DESIGN CRITERIA.** The requirements derived from management area direction such as safety requirements and traffic characteristics that govern the selection of elements and standards for a road or section of a road. (FSM 7721.05. Also see FSH 7709.56, section 4.05)

**DESIGN STANDARDS.** The definitive lengths, widths, and depths of individual elements, such as a 12-foot traveled way, 2-foot shoulders, 3/4:1 cut slopes, 3-foot curve widening, and 6 inches of crushed aggregate, that define a road template. (FSM 7721.05 and FSH 7709.56, section 4.05)

**DESIRED FUTURE CONDITION.** A portrayal of the land or resource conditions which are expected to result if goals and objectives are fully achieved.

**DISPERSED RECREATION.** Outdoor recreation in which visitors are diffused over relatively large areas. Where facilities or developments are provided, they are more for access and protection of the environment than for the comfort or convenience of the people.

**DISPLACEMENT AREA.** An area of suitable habitat reserved for use by a local population of a wildlife species while that population is displaced from, or caused to vacate, its former habitat by disturbance from human activities.

**DISTURBANCE.** Any event which affects the successional development of a plant community (examples: fire, insect attack, windthrow, timber harvest).

**DIVERSITY.** The relative distribution and abundance of different plant and animal communities and species within an area.

**DOWN WOODY COMPONENT.** A component of forest habitats used by wildlife for feeding, denning, and shelter. (See Old Growth Habitat.)

**DRAINAGE EFFICIENCY.** The net runoff for a given amount of precipitation in a drainage.

**DUFF.** An organic surface soil layer, below the litter layer, in which the original form of plant and animal matter cannot be identified with the unaided eye.

## E

**ECOLOGICAL NICHE.** The set of habitat conditions that are favorable for the growth and reproduction of a given species.

**ECOSYSTEM.** The complete system formed by the interaction of a group of organisms and their environment. In this context of activities on National Forest lands, humans are considered a part of the ecosystem.

**EFFECTS** (or impacts). Environmental consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable, or cumulative.

**ENDANGERED SPECIES.** Any plant or animal species which is in danger of extinction throughout all or a significant portion of its range. (Endangered Species Act of 1973).

**ENDEMIC.** Plant or animal species occurring only in a restricted geographic area.

**ENVIRONMENT.** The aggregate of physical, biological, economic, and social factors affecting organisms in an area.

**ENVIRONMENTAL ANALYSIS.** An analysis of alternative actions and their predictable environmental effects, including physical, biological, economic, and social consequences and their interactions; short- and long-term effects; direct, indirect, and cumulative effects.

**ENVIRONMENTAL ASSESSMENT (EA).** A concise public document which serves to: (a) Briefly provide sufficient evidence and analysis for determining whether to prepare an EIS or a Finding of No Significant Impact; (b) Aid an agency's compliance with NEPA when no EIS is necessary; (c) Facilitate preparation of an EIS when necessary.

**ENVIRONMENTAL IMPACT STATEMENT (EIS).** A detailed statement prepared by the responsible official in which a major Federal action which significantly affects the quality of the human environment is described, alternatives to the proposed action provided, and effects analyzed.

**EPHEMERAL STREAMS.** Streams that flow only as a direct response to rainfall or snowmelt events. They have no baseflow.

**EPIDEMIC.** The populations of plants, animals, and diseases that buildup, often rapidly, to highly abnormal and generally injurious levels .

**EQUIVALENT CLEARCUT AREA (ECA).** Equivalent Clearcut Area is an indicator of basin condition and is calculated from the total amount of crown removal that has occurred from harvesting, road building, and other activities based on the current state of vegetative recovery.

**EROSION.** Detachment or movement of soil or rock fragments by water, wind, ice, or gravity. Accelerated erosion is much more rapid than normal, natural, or geologic erosion, primarily as a result of the influence of activities of people animals, or natural catastrophes.

**EVEN-AGED MANAGEMENT.** Deliberate planned actions that result in stands of trees of essentially the same age, growing together. Clearcut, shelterwood, or seed tree cutting methods produce even-aged stands.

**EXTIRPATION .** Complete loss.

## F

**FEDERAL REGISTER.** A daily publication which reports Presidential and Federal Agency documents.

**FLOODPLAIN.** The lowland and relatively flat areas adjoining inland and coastal waters, including, at a minimum, that area subject to a 1 percent or greater chance of flooding in any given year.

**FIRE PERIMETER.** The outer edge limits of a fire-burned area.

**FIRE REGIME.** The combination of fire frequency characteristics, predictability, intensity, seasonality and extent in an ecosystem.

**FIRE TOLERANT.** A plant which has properties or charistics which enable it to survive fire.

**FORAGE.** Vegetation used for food by wildlife, particularly big game wildlife and domestic livestock.

**FORAGE AREAS.** Vegetated areas with less than 60 percent combined canopy closure of tree and tall shrub (greater than 7 feet in height).

**FOREST COVER TYPE.** A descriptive classification of forestland based on the present vegetative species composition and/or locality (ie: lodgepole pine, mixed conifer). Most stands are given a classification (stratum label), based on aerial photo interpretation, that includes the forest cover type, the size class, density class, and stand development phase. For example: a stand with the stratum label of LP2W would be considered a lodgepole pine cover type (LP) that is of a pole/small sawtimber size class (2) and is well stocked with coniferous trees (W).

**FOREST HEALTH.** An ecological perspective that looks at the resiliency of an ecosystem and its ability to be sustainable.

**FOREST LAND.** Land at least 10 percent occupied by forest trees or formerly having had such tree cover and not currently developed for nonforest use.

**FROST HEAVING.** Occurs when moist or saturated soils are frozen, causing seedlings which are not yet deeply rooted to be ejected from the soil. This occurs mostly in low elevation areas that have frost before there is a cover of snow.

**FUELS.** Combustible materials present in the forest which potentially contribute a significant fire hazard.

**FUEL LOADING.** The amount of available fuels, usually expressed in tons per acre.

**FUELBED.** The arrangement of available fuels, continuity and amount.

**FUELS MANAGEMENT.** Manipulation or reduction of fuels to meet Forest protection and management objectives while preserving and enhancing environmental quality.

## G

**GAP.** An opening in the stand or canopy caused by some disturbance.

**GENETIC INTROGRESSION .** The entry or introduction of genetic material from one gene complex to another.

**GRADIENT.** The rise or fall of a ground surface expressed in degrees of slope.

## H

**HABITAT.** The sum total of environmental conditions of a specific place occupied by a wildlife species or a population of such species.

**HABITAT COMPONENT.** A simple part, or a relatively complex entity regarded as a part, or an area or type of environment in which an organism or biological population normally lives or occurs.

**HABITAT DIVERSITY.** The variation in types, sizes, and shapes of landscape elements or vegetation types.

**HABITAT EFFECTIVENESS.** The ability of an area to support a species (individual or population) based on a potential of 100%.

**HABITAT TYPE.** An aggregation of all land areas potentially capable of producing similar plant communities at climax. Within the analysis area the following habitat types are present: western redcedar/queencup beadlily (531), western hemlock/queencup beadlily (571), western hemlock/menziesia (579), subalpine fir/queencup beadlily (620), subalpine fir/menziesia (670), subalpine fir/beargrass (690), subalpine fir/beargrass, grouse whortleberry (692), subalpine fir/grouse whortleberry, pinegrass (731), subalpine fir/alder (740).

**HABITAT TYPE GROUP.** A category of habitat types with similar ecological amplitudes and environmental conditions. Combined with information on stand conditions, habitat type groups can be used to develop silvicultural stand treatment priorities during the IDT process.

**HARDWOODS.** A conventional term for the wood of broadleaf trees. In the decision area these trees are generally confined to areas near water.

**HIDING COVER.** Vegetation capable of hiding 90 percent of a standing adult deer or elk at 200 feet or less. Includes some shrub stands and all forested stand conditions with adequate tree stem density or shrub layer to hide animals. In some cases, topographic features also can provide hiding cover.

**HIGH RISK.** Individual or groups of trees that are live (green) but have the physical characteristics favorable to insect infestation. Trees in this category are subject to mortality and loss of economic value.

**HOST TREE.** A tree in which other organisms, parasites, or insects live for part of their life cycle.

**HYDROLOGIC CONNECTIVITY.**

Hydrologic connectivity is: 1) longitudinal – up and downstream; 2) Lateral – riverine and floodplain

interactions; 3) vertical – riverine and subsurface or groundwater interactions (Kondolf and others 2006 p. 1; Beechie and others 2006 p. 125; Ward and others 2001 pp. 312-314).

## I

**INDICATOR SPECIES.** See management indicator species.

**INDIRECT EFFECTS.** Secondary effects which occur in locations other than the initial action or significantly later in time.

**INFISH.** (Inland Native Fish Strategy) On July 31, 1995, the Decision Notice for Inland Native Fish Strategy Environmental Assessment (INFISH) was signed. This strategy was developed to provide interim (approximately 18 months) direction to protect habitat and populations of native resident fish and supersedes the Idaho Panhandle Riparian Guidelines previously used.

**INSTREAM FLOWS.** The minimum water volume (cubic feet/second) in each stream necessary to meet seasonal streamflow requirements for maintaining aquatic ecosystems, visual quality, recreational opportunities and other uses.

**INTERAGENCY GUIDELINES.** A document which was originally developed in the Yellowstone grizzly bear ecosystem and later applied to all grizzly habitat through congressional mandate. Previously known as the "Yellowstone Guidelines", it identifies important, specific management measures regarding the conduct of multiple use activities in grizzly bear habitat and parameters for identifying the sensitivity of grizzly bear habitat to human activities.

**INTERDISCIPLINARY TEAM (IDT).** A group of resource professionals with different expertise that collaborate to develop and evaluate resource management decisions.

**INTERMEDIATE HARVEST.** Any harvest in an even-age stand rotation which retains the major stand components and does not regenerate the stand.

**INTERMITTENT STREAM.** A stream which flows only at certain times of the year when it receives water from springs or from some surface source such as melting snow.

**INVENTORIED ROADLESS AREAS.** Areas identified in a set of inventoried roadless area maps, contained in *Forest Service Roadless Area Conservation, Draft Environmental Impact Statement, Volume 2*, dated May 2000, which are held at the National headquarters office of the Forest Service, or any update or revision of those maps (FSM 1920.5).

**IRREVERSIBLE.** A term that describes the loss of future options. Applies primarily to the effects of use of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity that are renewable only over long periods of time.

**IRRETRIEVABLE.** A term that applies to the loss of production, harvest, or use of natural resources. For example, some or all of the timber production from an area is lost irretrievably while an area is serving as a winter sports site. The production lost is irretrievable, but the action is not irreversible. If the use changes, it is possible to resume timber production.

## L

**LADDER FUELS.** Small trees and understory shrubs that allow fire to burn up into the canopy of larger trees.

**LANDSCAPE.** The aspect of the land that is characteristic of a particular region or area.

**LANDTYPE.** A unit of land with similar designated soil, vegetation, geology, topography, climate and drainage. The basis for mapping units in the land systems inventory.

**LARGE WOODY MATERIAL.** (Also large woody debris; LWD)- Branches and/or tree trunks located within a stream channel, originating from trees growing in or near the channel. Such material is considered "large" if it is of sufficient size that it remains at least partially submerged during all but major flood events. These materials are important in stream systems because they serve a variety of functions related to channel hydraulics and morphology. Functions would include flow energy reduction due to friction and turbulence on downstream side of debris, and sediment storage on upstream side of materials. LWD is delivered to stream channels by decay and/or windfall of trees in close proximity to stream channels.

**LETHAL FIRES** A descriptor of fire response and effect in forested ecosystems of high-severity or severe fire that burns through the overstory and understory which consumes large woody surface fuels and may consume entire duff layer. Stand is essentially destroyed and will be replaced as stand is set back to initiation stage.

**LIMITING FACTOR.** The environmental influence through which the toleration limit of an organism is first reached, which acts, therefore, as the immediate restriction in one or more of its functions or activities or in its geographic distribution.

**LODGEPOLE PINE.** See explanation under timber type.

## M

**MANAGEMENT AREA.** Geographic areas, not necessarily contiguous, which have common management direction, consistent with the Forest Plan allocations.

**MANAGEMENT DIRECTION.** A statement of multiple use and other goals and objectives, along with the associated management prescriptions and standards and guidelines to direct resource management.

**MANAGEMENT INDICATOR SPECIES (MIS).** A species of wildlife, fish, or plant whose health and vigor are believed to accurately reflect the health and vigor of other species having similar habitat and protection needs to those of the selected indicator species.

**MASS FAILURE.**

Mass failure or slope debris movement is the transport of material in a coherent mass as opposed to movement of individual soil particles. There are three primary types of mass failure: slides, flows and heaves. Mass failures will only occur when driving forces (shear stress) exceed resisting forces (shear strength) (Ritter 1978 pp.143-144).

**MATURE.** On lands allocated for timber harvest, mature is defined as trees or stands that have reached rotation age, generally around 100 years. In the context of wildlife - Mature forest habitat with characteristics needed to provide habitat for species such as pine marten and pileated woodpecker (generally occurs around age 100).

**MID-SERIAL.** A middle transitory stage in forest succession.

**MITIGATION.** Actions to avoid, minimize, reduce, eliminate, replace, or rectify the impact of a management practice.

**MIXED CONIFER.** See explanation under timber type.

**MIXED LETHAL FIRES** A descriptor of fire response and effect in forested ecosystems of moderate fire, burns in surface fuels but may involve a tree understory. It consumes litter, upper duff, understory plants and

foliage on understory trees. Individual and groups of overstory trees may torch out if fuel ladders exist. Enough of the stand's overstory survives to provide for the major portion of the regeneration that results.

**MONITORING AND EVALUATION.** The evaluation, on a sample basis, of Forest Plan management practices to determine how well objectives are being met, as well as the effects of those management practices on the land and environment.

**MONOCULTURE.** A pure stand of a single species.

**MOSAIC.** The intermingling of plant communities and their successional stages in such a manner as to give the impression of an interwoven design.

**MOUNTAIN PINE BEETLE.** The common name for the bark beetle (*Dendroctonus ponderosae*, Hopkins) which is an insect pest that has caused more tree mortality in the intermountain west than any other

**MULTI-STORY.** A forest stand or plant community having more than two main canopy layers or "stories".

## N

**NATIONAL FOREST SYSTEM ROAD.** A classified forest road under the jurisdiction of the Forest Service. The term "National Forest System roads" is synonymous with the term "forest development roads" as used in 23 U.S.C. 205. (FSM 7705).

**NEPA PROCESS.** An interdisciplinary process, mandated by the National Environmental Policy Act, which concentrates decisionmaking around issues, concerns, alternatives and the effects of alternatives on the environment.

**NO ACTION ALTERNATIVE.** The No Action alternative is required by regulations implementing the National Environmental Policy Act (NEPA) (40 CFR 1502.14). The no action alternative provides a baseline for estimating the effects of other alternatives. Where a project activity is being evaluated, the no action alternative is defined as one where no action or activity would take place.

**NONGAME SPECIES.** All wild animals not subject to sport hunting, trapping or fishing regulations.

**NON-LETHAL FIRES** A descriptor of fire response and effect in forested ecosystems of low-severity or cool fire. Has minimal impact on the site. It burns in surface fuels consuming only the litter, herbaceous fuels, and foliage and small twigs on woody undergrowth. Little heat travels downward through the duff. None of the large (commercial size) trees are killed.

**NONSTOCKED.** A stand of trees or aggregation of stands that have a stocking level below the minimum specified for meeting the prescribed management objectives.

**NOXIOUS WEEDS.** Rapidly spreading plants which can cause a variety of major ecological impacts to both agricultural and wild lands.

**NUTRIENT.** An element found in the soil that is needed for plant growth.

## O

**OBLITERATION.** The reclamation and/or restoration of land to resource production from that of a transportation facility. This may include, but is not limited to, one or more of the following: ripping, seeding, pulling culverts, or recontouring. The term "obliteration" is often used in place of "road decommissioning" as defined in 36 CFR 212.1.

**OLD GROWTH HABITAT.** Old growth is a distinct successional stage in the development of a timber stand that has special significance for wildlife, generally characterized by: (1) large diameter trees (often exceeding 19" dbh) with a relatively dense, often multilayer canopy. (2) the presence of large, standing dead or dying trees. (3) down and dead trees, (4) stand decadence associated with the presence of various fungi and heartrots, (5) and an average age often in excess of 200 years.

**OPEN ROAD DENSITY.** A measure of the amount of open roads per area of land, usually expressed as miles per square mile

**OUTBREAK.** Sudden occurrence of a disease or insect pest.

**OUTSLOPE.** When the slope from inside of shoulder to outside of shoulder exceeds the alignment grade.

**OVERMATURE.** The condition that exists after an even-aged stand reaches maturity and decline in vigor, health and soundness.

**OVERSTOCKED.** Stands exceeding a prescribed standard or expected number of trees or basal area per acre.

**OVERSTORY.** The portion of trees in a forest which forms the uppermost layer of foliage.

## P

**PATCH.** An area of vegetation that is relatively homogeneous internally with respect to composition and successional stage and that differs from what surrounds it.

**PATHOGEN** An organism which causes disease in another organism.

**PAYMENTS TO STATES (or Payments to Counties)** The portion of receipts derived from Forest Service resource management that is distributed to State and county governments as the Forest Service 25 percent fund payments.

**PEAK FLOW.** The greatest flow attained during the melting of the winter snowpack.

**PERENNIAL STREAMS.** Streams that flow continuously throughout the year.

**PLANT ASSOCIATION.** A potential natural plant community of definite floristic composition and uniform appearance.

**PLANTATIONS.** Areas in the forest where trees have been planted.

**POPULATION.** In statistics, the aggregate of all units forming the subject of study; otherwise, a community of individuals that share a common gene pool.

**PRE-COMMERCIAL THINNING** A felling made in an immature stand in order primarily to accelerate diameter increment but also, by suitable selection, to improve the average form of the trees that remain. Usually occurs in crowded (by crown competition or stems per acre) stands to give remaining trees (a prescribed desired number of trees) a competitive advantage for full development.

**PREFERRED ALTERNATIVE.** The agency's preferred alternative, one or more, that is identified in the impact statement (40 CFR 1502.14).

**PRESCRIBED BURNING.** The intentional application of fire to wildland fuels in either their natural or modified state under such conditions as to allow the fire to be confined to a predetermined area and at the same time to

produce the intensity of heat and rate of spread required to further certain planned objectives (ie: silviculture, wildlife management, reduction of fuel hazard, etc.)

**PRESCRIBED FIRE.** A wildland fire burning under preplanned specified conditions to accomplish specific planned objectives. It may result from either a planned or unplanned ignition.

**PRESCRIPTION.** Management practices selected and scheduled for application on a designated area to attain specific goals and objectives.

**PROJECT AREA.** The geographic area defining the scope of this document and the alternatives proposed by it.

**PROJECT FILE.** An assemblage of documents that contains all the information developed or used during an environmental analysis. This information may be summarized in an Environmental Assessment or an Environmental Impact Statement. The project file becomes part of the administrative record for judicial review in case of legal action.

## R

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

**REBURN.** Re-ignition and burning on incompletely burned fuels.

**RECONDITIONING.** Road maintenance consisting of cleaning ditches and culverts, including inlets and outlets; removing slide material; scarifying and blading the road surface including turnouts, and approach road connections.

**RECONTOUR.** A form of road decommissioning or obliteration where fill material is pulled back onto the road surface to a more natural sideslope.

**RECORD OF DECISION.** A concise public document disclosing the decision made following preparation of an EIS and the rationale used by the deciding officer to reach that decision.

**RECREATION OPPORTUNITY SPECTRUM (ROS).** A range of possible combinations or recreation activities, settings, and experience opportunities, from Primitive to Urban, arranged along a continuum. Classes used herein are:

**Roaded Natural Appearing (RNA)**- Area is characterized by predominantly natural appearing environment with moderate evidences of the sights and sounds of man. Such evidences usually harmonize with the natural environment. Interaction between users may be low to moderate, but with evidence of other users prevalent. Resource modification and utilization practices are evident, but harmonize with the natural environment. Conventional motorized use is provided for in the construction standards and design facilities.

**Roaded Modified** – is a subclass of roaded natural that is less located along less used forest roads where the user will likely encounter large clear cuts and areas where management activities may be present.

**Rural (R)**- Area is characterized by substantially modified natural environment. Resource modification and utilization practices are primarily to enhance specific recreation activities and to maintain vegetative cover and soil. Sights and sounds of man are readily evident, and the interaction between users is often moderate to high. A considerable number of facilities are designed for use by a large number of people. Facilities are often provided for special activities. Moderate densities are provided far away from developed sites. Facilities for intensified motorized use and parking are available.

**RECURRENCE INTERVAL.**

The recurrence interval is the average time interval between actual occurrences of an event at a given or greater magnitude (SCSA 1982 p.132).

**REFORESTATION.** The natural or artificial restocking of an area with forest trees. It may include tree planting and seeding measures to obtain natural regeneration.

**REGENERATION.** The renewal of a tree crop, whether by natural or artificial means. This term may also refer to the crop (seedlings, saplings) itself.

**REGENERATION HARVEST.** Used in reference to clearcut, seedtree and shelterwood harvest methods which remove an existing stand to prepare a site for regeneration.

**REHABILITATION.** Returning of land to farm use or to productivity in conformity with a prior land use plan, including a stable ecological state that does not contribute substantially to environmental deterioration and is consistent with surrounding aesthetic values.

**RELIC.** A tree that has survived several stand replacing events.

**RESERVE TREE.** Trees retained after the regeneration period (pole sized or larger) under the clearcutting, seed tree, or shelterwood methods.

**RESIDUAL TREE.** Trees remaining after any harvest.

**RESTOCKING.** The process of adding additional trees by planting or seeding to bring the stocking up to prescribed conditions.

**RESTORATION.** The act of returning to historic site conditions or ecological processes that existed before the disruption or interruption of these processes.

**RESTRICTED ROAD.** A National Forest road or segment which is restricted from a certain type of use or all uses during certain seasons of the year or yearlong. The use being restricted and the time period must be specified. The closure is legal when the Forest Supervisor has issued an Order and posted that Order in accordance with 36 CFR 261.

**RHIZOME.** A rootlike stem under or on top of the ground, ordinarily in a horizontal position, which usually sends out roots from its lower surface and leafy shoots from its upper surface.

**RIFFLE STABILITY INDEX (RSI).** A system of measure that predicts channel substrate stability.

**RIPARIAN AREAS/HABITATS.** Land areas where the vegetation and microclimate are influenced by perennial and/or intermittent water.

**RIPARIAN MANAGEMENT OBJECTIVES (RMOs).** Quantifiable measures of stream and streamside conditions that define good fish habitat and serve as indicators against which attainment or progress toward attainment of goals will be measured.

**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 the stream's water, sediment, woody debris, and nutrient delivery systems.

**RIPPING.** A form of road surface treatment; a method of aerating the surface and subsurface material of a road, landing, and/or skid trail to allow water infiltration by tilling the soil with a piece of machinery equipped with ripper bars.

**ROAD.** A motor vehicle travelway over 50 inches wide, unless designated and managed as a trail. A road may be classified, unclassified or temporary (36 CFR 212.1).

**Classified Road.** Roads wholly or partially within or adjacent to National Forest System lands that are 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).

**Temporary Road.** Roads authorized by contract, permit, lease, or other written authorization, or emergency operation, not intended to be a part of the forest transportation system and not necessary for long-term resource management (36 CFR 212.1).

**Unclassified Road.** Roads on National Forest System lands that are not managed as part of the forest transportation system, such as unplanned roads, abandoned travelways, and off-road 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 termination of the authorization (36 CFR 212.1).

**ROAD DECOMMISSIONING.** Activities that result in the stabilization and restoration of unneeded roads to a more natural state (36 CFR 212.1), (FSM 7703).

**ROAD MAINTENANCE.** The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective (FSM 7712.3)

**ROAD MANAGEMENT OBJECTIVE.** Defines the intended purpose of an individual road based on management area direction and access management objectives. Road management objectives contain design criteria, operation criteria, and maintenance criteria. (FSM 7721.31 and FSH 7790.55--33).

**ROAD RECONSTRUCTION.** Activity that results in improvement or realignment of an existing classified road as defined below:

**Road Improvement.** Activity that results in an increase of an existing road's traffic service level, expansion of its capacity, or a change in its original design function.

**Road Realignment** – Activity that results in a new location of an existing road or portions of an existing road and treatment of the old roadway (36 CFR 212.1).

**ROOT CROWNS.** The point at or just below the surface of the ground where the stem and root join.

**ROOT DISEASE.** A fungal organism which lives in organic matter in the soil and invades the living roots systems of trees.

**ROSGEN CHANNEL CLASSIFICATION.** A system of measure that utilizes various channel features to rate a stream or river into reproducible classes.

**ROTATION.** The planned number of years required to establish (including the regeneration period) and grow timber crops to a specified condition or maturity for regeneration harvest.

## S

**SALMONIDS .** Members of the family of elongate soft-finned fishes Salmonidae - the trout and salmon family.

**SALVAGE HARVEST.** The cutting of trees that are dead, dying, or deteriorating before they lose commercial value as sawtimber. The removed trees are generally overmature, damaged by fire, wind, insects, fungi or other injurious agencies.

**SCOPING.** The procedures by which the Forest Service determines the extent of analysis necessary for a proposed action, i.e., the range of actions, alternatives, and impacts to be addressed, identification of significant issues related to a proposed action, and establishing the depth of environmental analysis, data, and task assignments needed.

**SCREE** Refers to slopes covered with loose rock fragments, including the accumulation of rock at a cliff or slope base (talus) as well as loose, unstable material lying on slopes without cliffs.

**SEDIMENT.** Any material carried in suspension by water, which will ultimately settle to the bottom. Sediment has two main sources: from the channel area itself and from disturbed sites.

**SEDIMENT TRAP.** Any natural or man-made feature in a stream that traps sediment.

**SEDIMENT YIELD (SEDIMENT LOAD, SIZE OF SEDIMENT DEBRIS).**

Sediment yield is defined as the total sediment outflow from a catchment over some unit of time (Gordon and others 1992 p. 336). Sediment load is the amount of sediment moving in stream channels (Leopold and others 1964 p. 169). Simply put, sediment is material from bedrock or from the earth's soil mantle that is displaced and then deposited on slopes or in stream channels. Sediment, as defined by SCSA (1982 p. 142), [is] solid material, both mineral and organic, that is in suspension, is being transported, or has been moved from its site of origin by the forces of air, water, gravity or ice and has come to rest on the earth's surface either above or below sea level. Sediment can range in size from fine sand, silt and clay (0.002 mm to 2.0 mm, (SCSA 1982 p. 159)) to very large boulders (4096 mm (Gordon and others 1992 p. 195)). Typically there is a differentiation between finer-grained material that is suspended in the water column (suspended solids) and larger material that is not usually suspended (bedload) (Leopold and others 1964 p. 180).

**SEED TREE.** A tree selected as a natural seed source within a shelterwood or seedtree harvest cut; sometimes also reserved for seed collection.

**SEEDTREE HARVEST.** A regeneration method under an even-aged silvicultural system. A portion of the mature stand, usually 10-15 trees/acre, is retained as a source of seed for regeneration of the stand. The seed trees are intended for removal after regeneration is considered to be established. Note: where there is no intention of removing the seed trees once the stand is regenerated, a seedtree seed cut with reserves is the appropriate silvicultural system.

**SEEDLINGS AND SAPLINGS.** Non-commercial-size young trees, generally occurring in plantations.

**SELECTION HARVEST.** The periodic removal of trees, usually at 10-20 year intervals, individually or in small groups, from an uneven-aged forest in order to realize yield and establish regeneration of irregular constitution.

**SENSITIVE SPECIES.** Those species identified by the Regional Forester for which population viability is a concern as evidenced by significant current or predicted downward trends in (a) population numbers or density, or (b) habitat capability that would reduce a species' existing distribution.

**SENSITIVITY LEVEL.** A particular degree or measure of viewer interest in the scenic qualities of the landscape.

**SERIAL STAGE.** A transitory or developmental stage of a biotic community in an ecological succession (does not include climax successional stage or pioneer stage).

**SEROTINOUS** Late in developing; particularly applied to plants that flower or fruit late in the season and to fruit and cones that remain closed for a year or more after the seeds mature, but also to bud opening, leaf

shedding etc. Applies to the nature of lodgepole pine cones, as a positive adaptive trait for fire dependent ecosystems.

**SHELTERWOOD HARVEST.** A regeneration method under an even-aged silvicultural system. A portion of the mature stand is retained as a source of seed and site protection during the regeneration period.

**SHRUB.** A plant with persistent woody stems and relatively low growth form; usually produces several basal shoots as opposed to a single bole; differs from a tree by its low stature and nonarborescent form.

**SIGNIFICANT.** As used in NEPA, requires consideration of both context and intensity. Context means that the significance of an action must be analyzed in several contexts such as society as a whole, and the affected region, interests, and locality. Intensity refers to the severity of impacts (40 CFR 1508.27).

**SILVICULTURE.** The art and science of growing and tending forest vegetation, i.e., controlling the establishment, composition, and growth of forests, for specific management goals.

**SILVICULTURAL DIAGNOSIS.** The process of comparing existing stand conditions to a desired condition or "target stand", and determining a need for treatment to bring the stand to the desired condition.

**SILVICULTURAL SYSTEM.** A management process whereby forests are tended, harvested, and replaced, resulting in a forest of distinctive form. Systems are classified according to the method of carrying out the cuttings that remove the mature crop and provide for regeneration, and according to the type of forest thereby produced.

**SINUOSITY.**

Sinuosity is defined as the ratio of channel length to valley length (Rosgen 1996 p. 2-8). A straight channel pattern has low sinuosity compared to a meandering channel, which has higher sinuosity.

**SITE PREPARATION.** A general term for a variety of activities that remove or treat competing vegetation, slash, and other debris that may inhibit the establishment of regeneration.

**SIZE CLASS.** A classification of forest stands based on live trees in the stand. The classification uses a four letter acronym based on descriptive adjectives. For example, a stand that is designated as a size class MLRS is a mature stand (M) that is considered low risk to damaging insects or disease (LR) and is stocked with sawtimber sized trees of a specified diameter and stocking level (S).

**SLASH.** The residue left on the ground after felling and other silvicultural operations and/or accumulating there as a result of storm, fire, girdling, or poisoning of trees.

**SLASH BURNING.** The treatment or burning of slash so as to reduce fire or insect hazards.

**SNAG.** A standing dead tree usually without merchantable value for timber products, but may have characteristics of benefit to some cavity nesting wildlife species.

**SNAG DEPENDENT WILDLIFE.** Wildlife species that are dependent on snags for nesting or roosting habitat or for food.

**SOIL PRODUCTIVITY.**

Soil productivity is the capacity of a soil in its normal environment to produce a specified plant or sequence of plants under a specified system of management (SCSA 1982).

**SPECIAL USE PERMIT.** A permit issued under established laws and regulations to an individual, organization, or company for occupancy or use of National Forest land for some special purpose.

**SPECIES.** A unit of classification of plants and animals consisting of the largest and most inclusive array of sexually reproducing and cross-fertilizing individuals which share a common gene pool.

**STAGNATION** Refers to stand growth, implying that there is a failure to express dominance due to poor site conditions, competition of other trees that limit development of the crowns which suppresses individual tree growth and over all stand development. Usually diameter growth is severely limited and height growth still occurs but slowly.

**STAND.** A community of trees or other vegetation uniform in composition, constitution, spatial arrangement, or condition to be distinguishable from adjacent communities.

**STAND COMPOSITION.** The representation of tree species in a forest stand, expressed by some measure of dominance (ie % volume, number, basal area).

**STAND DENSITY** A measure of the degree of crowding of trees within stocked areas, commonly expressed by various growing-space ratios such as crown length to tree height, crown diameter to diameter at breast height, crown diameter to tree height, or of stem spacing to tree height.

**STAND REPLACING FIRE.** A fire that kills most or all of a stand, and causes a new stand to be started.

**STAND STRUCTURE.** The horizontal and vertical arrangement of the vegetation in a stand.

**STANDARD.** A particular action, level of performance, or threshold specified by the Forest Plan for resource protection or accomplishment of management objectives. Unlike "guidelines" which are optional, standards specified in the Forest Plan are mandatory.

**STOCKED.** Stands falling within a prescribed standard or expected number of trees or basal area per acre.

**STOCKING.** The degree to which trees occupy the land, measured by basal area and/or number of trees by size and spacing, compared with a stocking standard; that is, the basal area and/or number of trees required to fully utilize the land's growth potential.

**STREAM CHANNEL STABILITY.** A classification system that utilizes ocular estimates of various channel, bank, and riparian area features to evaluate channel health.

**STREAM CHEMISTRY.**

Stream chemistry is the chemical make-up of water flowing in a stream.

**STREAM ORDER.** It is often convenient to classify streams within a drainage basin by systematically defining the network of branches. Each nonbranching channel segment (smallest size) is designated a first-order stream. A stream which receives only first-order segments is termed a second-order stream, and so on. The order of a particular drainage basin is determined by the order of the principle or largest segment.

**STREAM TEMPERATURE.**

Stream temperature is the temperature of water flowing in a stream.

**STRUCTURAL DIVERSITY.** The variation in sizes and shapes of landscape elements, as well as diversity of pattern (ie: heterogeneity).

**SUCCESSION.** The changes in vegetation and in animal life that take place as the plant community evolves from bare ground to climax.

**SUCCESSIONAL STAGE.** A stage or recognizable condition of a plant community which occurs during its development from bare ground to climax.

**SUMMER RANGE.** A range, usually at higher elevation, used by deer and elk during the summer; a summer range is usually much more extensive than a winter range.

**SUITABLE FOREST LAND.** Forest land (as defined in CFR 219.3, 219.14) for which technology is available that will insure timber production without irreversible resource damage to soils, productivity, or watershed conditions; for which there is reasonable assurance that such lands can be adequately restocked (as provided in CFR 219.4); and for which there is management direction that indicates that timber production is an appropriate use of that area.

**SUPPRESSED** Refers to individual trees, very slowly growing trees with crowns entirely below the general level of the crown cover, receiving no direct light either from above or from the sides, common in stands that are considered overstocked.

**SURFACE EROSION.** Downslope movement of individual particles of soil by water transport. Surface erosion includes sheet erosion, riling and gullyng.

## T

**TARGET STAND.** A classification of individual forest stands that reflects the desired attributes within a range of stand conditions that have the potential in meeting timber management objectives as described in the Kootenai Forest Plan. Target stands are generally described for each habitat type group based on site productivity for even-aged, multi-storied, and uneven-aged silvicultural systems. The reference to site productivity is differentiated between Mixed Conifer 1 (MC 1), Mixed Conifer 2 (MC 2), and Lodgepole Pine (LP). For example, an MC 1 designation refers to the productivity group made up of commercial conifer (other than LP) that have the potential to produce >85 cubic feet/acre/year at the culmination of mean annual increment. An MC 2 designation includes the group that encompasses all stands not meeting the above conditions. The LP group includes lodgepole pine stands that have a full range of productivity.

**THERMAL COVER.** Vegetation used by animals to modify the adverse effects of weather. A forest stand that is at least 40 feet in height with tree canopy cover of at least 70 percent provides thermal cover. These stand conditions are achieved in closed sapling-pole stands and by all older stands unless the canopy cover is reduced below 70 percent. Deciduous stands may serve as thermal cover in summer, but not in winter.

**THINNING.** A cutting made to reduce stand density of trees primarily to improve growth, enhance forest health, or recover potential mortality.

**THREATENED SPECIES.** Any species of plant or animal which is likely to become endangered within the foreseeable future throughout all or a significant portion of its range.

**TIERING.** The use of a previously written environmental document with a broad scope to cover discussion of issues common to both.

**TIMBER TYPES.** A descriptive classification of forestland based on present occupancy of an area by tree species (ie: lodgepole, mixed conifer). More appropriately called forest cover types, this category is further defined by the composition of its vegetation and/or environmental factors that influence its locality. See Appendix A (Silvicultural Prescriptions) for more information.

**TRAMPLING.** A method of treating fuels by knocking down by walking over or through small trees with a piece of machinery.

**TURBIDITY.** An optical measure of how fine sediment inhibits the transmission light in a given water sample due to scattering and absorption by suspended particles.

**TWO-STORIED.** A forest stand or plant community having two main canopy layers or "stories".

## U

**UNDERBURN.** Understory fuels treatment.

**UNDERSTORY.** Vegetation (trees or shrubs) growing under the canopy formed by taller trees.

**UNSUITABLE FOREST LAND.** Lands not selected for timber production in Step II and III of the suitability analysis during the development of the Forest Plan due to: (1) the multiple-use objectives for the alternative preclude timber production, (2) other management objectives for the alternative limit timber production activities to the point where management requirements set forth in 36 CFR 219.27 cannot be met, and (3) the lands are not cost-efficient over the planning horizon in meeting forest objectives that include timber production. Land not appropriate for timber production shall be designated as unsuitable in the Forest Plan.

**UNROADED AREAS.** Any area without the presence of a classified road, that is of a size and configuration sufficient to protect the inherent characteristics associated with its roadless condition. Unroaded areas are distinct from and do not overlap with inventoried roadless areas (FSM 1920.5).

## V

**VERTICAL DIVERSITY.** The diversity in an area that results from the complexity of the above ground structure of the vegetation; the more tiers of vegetation or the more diverse the species makeup is, the higher the degree of vertical diversity

**VIALBE POPULATION.** A wildlife population of sufficient size to maintain its existence over time in spite of normal fluctuations in population levels.

**VIEWSHED.** Sub-units of the landscape where the visitor's view is contained by topography similar to a watershed.

**VISUAL QUALITY OBJECTIVE (VQO).** A system of indicating the potential expectations of the visual resource by considering the frequency an area is viewed and the type of landscape.

Maximum Modification: A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but should appear as a natural occurrence when viewed as background.

Modification: A Visual Quality Objective meaning man's activity may dominate the characteristic landscape but must, at the same time, utilize naturally established form, line, color, and texture. It should appear as a natural occurrence when viewed in foreground or middleground.

Partial Retention: A Visual Quality Objective which in general means man's activities may be evident but must remain subordinate to the characteristic landscape.

Retention: A Visual Quality Objective which in general means man's activities are not evident to the casual forest visitor.

Preservation: A Visual Quality Objective that provides for ecological change only.

Variety Class: Diversity of landscape character

Sensitivity Level: A particular degree or measure of viewer interest in the scenic qualities of the landscape.

**VARIETY CLASS.** A particular level of visual variety or diversity of landscape character.

**VISUAL RESOURCE.** The composite of landforms, water features, vegetative patterns and cultural features which create the visual environment.

## W

**WATER ROUTING.** Spring snowmelt and storm runoff intercepted and redirected by roads, ditches, and trails.

**WATER QUALITY.**

Water quality addresses the chemical, physical and biologic components of a water body (lakes, streams, groundwater aquifers) as it relates to human assigned values or beneficial uses. Typically water quality includes components like sediment, temperature, turbidity, dissolved oxygen, pH, other chemical constituents, streamflow, etc.

**WATER YIELD.**

Water yield is the amount of water that is delivered from a landscape. Typically the landscape is a watershed or some contributing area of a watershed. A watershed is all land and water within a drainage divide (SCSA, 1982, p. 186).

Water yield is measured in various ways: an acre-foot is the amount of water that would cover an acre one-foot deep; a miner's inch is the flow required to place an inch of water into a miner's sluice. Discharge is the rate of flow in terms of volume of fluid passing a given cross section per unit time (Leopold and others, 1964, p. 155). Discharge is typically expressed in cubic feet per second (cfs) or cubic meters per second ( $m^3 s^{-1}$ ).

Water yield can also be discussed as instantaneous peak flow (maximum flow) or base flow (how much water during low flow periods). Water yield can also be measured as water stage (the elevation of the water surface above an arbitrary datum at a designated point or area). Water stage is typically used for identifying and predicting flood conditions, and for estimating discharge (using a rating curve, which is measured discharge plotted against the corresponding elevation of the water surface (Dunne and Leopold, 1978, p. 594)).

Instantaneous peak flow is analyzed as water yield for the Bussel 484 project.

**WILDERNESS.** All lands included in the National Wilderness Preservation System by public law; generally defined as undeveloped Federal land retaining its primeval character and influence without permanent improvements or human habitation.

**WILDFIRE.** Any fire not designated and managed as a prescribed fire with an approved prescription.

**WINDTHROW.** The action of wind uprooting trees.

**WINTER RANGE.** A range, usually at lower elevation, used by migratory deer and elk during the winter months; usually better defined and smaller than summer ranges.

## Y

**YARDING.** A method of bringing logs in to a roadside area or landing, for truck transport. Methods may include forms of skyline cable logging systems, ground-based skidding, balloon, helicopter, etc.

## ABBREVIATIONS AND ACRONYMS

ABIS	Aquatic Biota Information System	MBF	Thousand Board Feet
AIRFA	American Indian Religious Freedom Act of 1978	MMBF	Million Board Feet
ALT	Alternative	MOU	Memorandum of Understanding
ANILCA	Alaska National Interest Lands Conservation Act	MS	Management Situation
BA	Biological Assessment	NEPA	National Environmental Policy Act
BE	Biological Evaluation	NFMA	National Forest Management Act
BLM	Bureau of Land Management	NFS	National Forest System
BMP	Best Management Practices	NRT	National Recreation Trail
CCE	Clearcut Equivalent Acres	ORD	Open Road Density (mi/sq. mi.)
CCF	Hundred Cubic Feet	PL	Public Law
CEQ	Council on Environmental Quality	PFI	Peak Flow Increase
CFR	Code of Federal Regulation	PNF	Present Net Value
CFS	Cubic Feet Per Second	RHCA	Riparian Habitat Conservation Area
CT	Commercial Thin	RMO	Road Management Objective
CWA	Clean Water Act	ROD	Record of Decision
CWD	Coarse Woody Debris	ROS	Recreation Opportunity Spectrum
DBH	Diameter Breast Height	RSI	Riffle Stability Index
DEIS	Draft Environmental Impact Statement	SCS	Stream Channel Stability
DEQ	Department of Environmental Quality	SHPO	State Historic Preservation Officer
EA	Environmental Assessment	SW	Shelterwood
ECA	Equivalent Clearcut Acres	SWCP	Soil and Water Conservation Practices
EIS	Environmental Impact Statement	T&E	Threatened and Endangered Species
EMU	Elk Management Unit	TES	Threatened and Endangered Species
EPA	United States Environmental Protection Agency	USC	United States Code
ESA	Endangered Species Act	USDA	United States Department of Agriculture
FDR	Forest Development Road	USDI	United States Department of the Interior
FEIS	Final Environmental Impact Statement	USFS	United States Forest Service
FP	Forest Plan	USGS	United States Geological Survey
FRTA	Forest Roads and Trail Act	USFWS	USDI-Fish & Wildlife Service
FSH	Forest Service Handbook	VQO	Visual Quality Objectives
FSM	Forest Service Manual	VMS	Visual Management system
GIS	Global Information Systems	WQLS	Water Quality Limited Segments
GSW	Group Shelterwood		
HE	Habitat Effectiveness		
IDT	Interdisciplinary Team		
INFish	Inland Native Fish Strategy		
INFS	Inland Native Fish Strategy		
IPNF	Idaho Panhandle National Forest		
IRA	Inventoried Roadless Area		
KV	Knutson-Vandenberg Act of 1924		
LWD	Large Woody Debris		
MA	Management Area		
MIS	Management Indicator Species		