

# GLOSSARY

## Abbreviations and Acronyms

ALT	Alternative	INFISH	Inland Native Fish Strategy
AMO	Access Management Objective	IRA	Inventoried Roadless Area
ATV	All-terrain Vehicle	LAU	Lynx Analysis Unit
BA	Biological Assessment	LWD	Large Woody Debris
BAER	Burned Area Emergency Rehabilitation Plan	MA	Management Area
BF	Board Feet	MBF	Thousand Board Feet
BMP	Best Management Practices	MIS	Management Indicator Species
CEQ	Council on Environmental Quality	MMBF	Million Board Feet
CCF	One Hundred Cubic Feet	NEPA	National Environmental Policy Act
CF	Cubic Feet	NFMA	National Forest Management Act
CFR	Code of Federal Regulation	NHPA	National Historic Preservation Act
CFS	Cubic feet per second	NRCS	Natural Resource Conservation Service
CWA	Clean Water Act	OHV	Off-highway Vehicle
CWD	Coarse Woody Debris	ORV	Off-road Vehicle
DBH	Diameter at Breast Height	PNV	Present Net Value
DEIS	Draft Environmental Impact Statement	RARE II	Roadless Area Review and Evaluation
ECA	Equivalent Clearcut Acres	RHCA	Riparian Habitat Conservation Area
EIS	Environmental Impact Statement	RMO	Riparian Management Objective
EMB	Ecosystem Maintenance Burn	ROD	Record of Decision
EPA	Environmental Protection Agency	ROS	Recreation Opportunity Spectrum
ESA	Endangered Species Act	SHPO	State Historic Preservation Officer
FEIS	Final Environmental Impact Statement	TES	Threatened, Endangered and Sensitive Species
FP	Forest Plan	UDWR	Utah Department of Wildlife Resources
FSH	Forest Service Handbook	USC	United States Code
FSM	Forest Service Manual	USDA	United States Department of Agriculture
GIS	Geographic Information Systems	USDI	United States Department of the Interior
IDT	Interdisciplinary Team	USFWS	USDI-Fish & Wildlife Service
		VQO	Visual Quality Objectives

## TERMS

**ACTIVITY.** A measure, course of action, or treatment that is undertaken to directly or indirectly produce, enhance, or maintain forest and range land outputs or achieve administrative or environmental quality objectives.

**ACTIVITY AREA.** A land area affected by a management activity to which soil quality standards are applied. Activity areas must be feasible to monitor and include harvest units within timber sale areas, prescribed burn areas, grazing areas or pastures within range allotments, riparian areas, recreation areas, and alpine areas. All temporary roads, skid trails and landings are considered to be part of an activity area. (FSM 2500-WATERSHED AND AIR MANAGEMENT R-1 Supplement No. 2500-99-1 Effective November 12, 1999).

**ACTIVITY FUELS.** Debris left on the ground after timber harvest or silvicultural operations. This would include unused parts of the tree such as limbs, needles, tops or boles; or portions of other woody vegetation required to be cut.

**AFFECTED ENVIRONMENT.** The biological and physical environment that will or may be changed by actions proposed and the relationship of people to that environment.

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

**ALTERNATIVE.** A mix of management prescriptions applied to specific land areas to achieve a set of

goals and objectives. One of several policies, plans, or projects proposed for decision making. Each alternative represents a different way of achieving a set of similar management objectives, but an alternative need not substitute for another in all respects.

**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 a 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 of Agriculture.

**AQUATIC ECOSYSTEM.** A stream channel, lake or estuary bed, the water itself, and the biotic communities that live in it.

**ARTERIAL ROADS.** A Forest road that provides service to a large land area and usually connects with other arterial roads or public highways.

**BEDLOAD.** The sediment in a stream channel that mainly moves by jumping, sliding or rolling on or very near the bottom of the stream.

**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.** Species of large mammals normally managed as a sport hunting resource.

**BIG GAME SUMMER RANGE.** Land used by big game during summer months.

**BIG GAME WINTER RANGE.** The area available to and used by big game through the winter season.

**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. These are required for major actions involving an EIS.

**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. These are usually associated with an EA.

**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 (MBF).

**BROADCAST BURN.** Allowing a controlled fire to burn over a designated area within well-defined boundaries, for reduction of fuel hazard, as a silvicultural treatment, or both.

**BROWSE.** Twigs, leaves, and young shoots of trees and shrubs on which animals feed; in particular, those shrubs which are used by big game animals for food.

**BUFFER.** A designated land or water area, along the perimeter of some land use, whose own use is regulated to resist, absorb or otherwise preclude unwanted development or other intrusions into areas beyond the buffer.

**BURN PERIOD.** The part of a 24-hour period (usually from 10 AM to sundown) during which fires spread most rapidly.

**BURN SEVERITY.** Burn severity on vegetation was mapped by RSAC (Remote Sensing Application Center) using Landsat imagery.

#### **High Severity**

- Standing trees have no surviving branch pattern and no residual needles. Branches over 1 inch in diameter survive as short nubbins next to the trunk. Less than 25% of the standing trees have a discernable branch pattern.

- Ground fuels less than 10 inches in diameter are completely consumed.

- Duff and organic layers are burned to unrecognizable char and ash. Hydrophobic soil conditions occur over much of the area and are indicated when drops of water do not infiltrate after 40 seconds.

Hydrophobicity was determined based upon field monitoring transects by the BAER team. Two types of transects were used: random length surveys of large burn areas with mixed severity, and random step transects stratified to select for high severity. Mapping of effects on vegetation by remote sensing indicated 40% high, 28% medium, and 32% low severity. Results on the monitoring transects indicated 16% high, 52% moderate, and 32% low severity. Within the high severity class (transects), hydrophobic soil conditions varied based upon aspect and pre-existing duff layer thickness. Aspects within 90 degrees of

due north saw high hydrophobic conditions on 25% of the high severity burn while aspects within 90 degrees of due south saw high hydrophobic conditions on 90%.

- Viable regeneration seed source is not present.

#### **Moderate Severity**

- Standing trees have a surviving branch pattern and some residual burned needles. Less than 25% of the standing trees were burned to where branch patterns are absent and have only branches over 1 inch in diameter that survive as short nubbins next to the trunk.
- Ground fuels less than 4 inches in diameter are completely consumed.
- Duff and organic layers are burned but retain much recognizable litter on all aspects. Hydrophobic soil conditions occur on less than 10% of the area and are recognized when a drop of water on the soil infiltrates between 10 to 40 seconds.
- Viable regeneration seed source is present.

#### **Low Severity**

- Standing trees have a surviving branch pattern and residual burned or scorched needles. Less than 25% of the standing trees are burned to where needles are completely absent. Areas frequently contain unburned trees.
- Ground fuels less than 1 inch in diameter are completely consumed.
- Duff and organic layers are scorched but retain much recognizable litter on all aspects. Hydrophobic soil conditions do not occur in the area. This can be confirmed when a drop of water infiltrates under 10 seconds.
- Viable regeneration seed source is present.

**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.

**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.

**CAVITY NESTERS.** Wildlife species that nest in cavities such as woodpeckers and blue birds.

**CAVITY.** A hollow in a tree that is used for roosting and reproduction by many birds and mammals.

**CLEARCUT HARVEST.** Removal of virtually all the trees, large or small, in a stand in one cutting operation. Some snags and potential snags may be left to benefit snag-dependent wildlife species.

**CLIMATE.** The average course or condition of the weather at a particular place over a period of many years as exhibited in absolute extremes, means, ranges and seasonal distribution of air temperature, wind velocity and direction, precipitation type, duration and amount, humidity and other weather elements.

**CLIMAX COMMUNITY.** The final or stable biotic community in a developmental series. At that point, changes that normally occur in ecological succession cease, the main components are not overthrown by new invaders, and no new species become dominant Unless the environment changes, the community remains relatively unchanged.

**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.

**CLOSED ROAD.** A national forest road or segment which is restricted from certain specified uses during specified seasons of the year. The closure is legal when the Forest Supervisor has issued an order and posted it in accordance with Chapter 36 of CFR section 261.

**COARSE WOODY DEBRIS.** Sound and rotting dead woody plant material, standing or fallen, generally greater than 3 inches in diameter. It provides habitat for wildlife and plants and is a source of nutrients and structures for soil protection and development.

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

**COLLECTOR ROAD.** A Forest road that serves smaller land areas than an arterial road, and usually connects Forest arterial roads to local Forest roads or terminal facilities.

**COMMERCIAL THINNING.** A partial cut in stands where the timber removed is sold; conducted in even-aged stands, which provides an interim timber harvest during a stand rotation.

**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.

**COMPACTION.** A physical change in soil properties from compression, vibration, or shearing that increases soil bulk density and decreases porosity, air exchange, root penetration, infiltration, and permeability.

- CONIFER.** Any of a group of needle and cone bearing evergreen trees.
- CONTAIN (FIRES).** To keep a fire within established boundaries under prevailing conditions and reasonable constraints.
- 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.
- COVER.** Vegetation used by wildlife for protection from predators, breeding and rearing of young (hiding cover), or to ameliorate conditions of weather (thermal cover).
- CROWN.** The upper part of a tree or other woody plant carrying the main branch system and foliage above a more or less clean stem(s).
- CROWN FIRE.** A fire burning into the crowns of the vegetation generally associated with an intense understory fire.
- CUBIC FEET PER SECOND (CFS).** The amount of water, measured in cubic feet, which flows by a point in a channel (or is discharged from a discharge point) in one second.
- CUBIC FOOT.** The amount of wood volume equal to a cube 1 foot by 1 foot by 1 foot.
- 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 that 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.
- CUTTING (FELLING).** The cutting down of standing trees. "Cutting" is not a synonym for logging or harvesting. These latter terms also include removal of felled trees and some initial processing of the timber prior to removal.
- DBH (DIAMETER BREAST HIGH).** The diameter of a tree measured 4 ½ feet above the ground.
- DEADFALL.** Dead trees that have fallen.
- DECIDING OFFICER.** The Forest Service employee who has the authority to select and/or carry out a specific planning action. Also known as the "Responsible Official".
- DECOMMISSIONING.** Various treatments leading to stabilization and restoration of transportation facilities that are no longer needed.
- DECOMPOSER.** Organisms, usually bacteria or fungi, that break down the bodies or parts of dead plants and animals into simpler compounds.
- DEMOGRAPHIC.** Related to the vital statistics of human populations (size, density, growth, distribution, etc.) and the effect of these on social and economic conditions.
- DENNING HABITAT.** Habitat used during birth or rearing of young until they are mobile. With lynx, for example, the common component appears to be large amounts of coarse woody debris, either down logs or root wads. Denning habitat may be found in either mature forests of conifer or mixed/deciduous types, or in regenerating stands (< 20 years since disturbance). It must be located within daily travel distance of foraging habitat (3-6 miles, typically).
- DENNING SITE.** A place of shelter for an animal; also, where an animal gives birth and raises young.
- DESIRED FUTURE CONDITION.** A portrayal of the land or resource conditions which are desired to result in the future with or without active management.
- DETRIMENTAL SOIL CONDITION.** The condition where established soils quality standards are not met and the result is a significant change in soil quality. Disturbances include the effects of compaction, displacement, rutting, severe burning, surface erosion, loss of surface organic matter and soil mass movement.
- DISPLACEMENT.** Detrimental displacement is the removal of 1 or more inches (depth) of any surface soil horizon, usually the A horizon.
- 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.
- 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.
- DOZER LINE.** A fireline constructed using a bulldozer or similar tracked machinery. The area disturbed

may range from 5 feet to 20 feet wide.

**DRAINAGE.** Any area of land that drains to a common point.

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

**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 (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.

**ELK HIDING COVER.** Vegetation capable of hiding 90 percent of a standing adult 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.

**ELK SECURITY AREA.** A contiguous block of cover larger than 250 acres and at least ½ mile from an open road.

**ELK SECURITY COVER.** The cover component of an elk security area.

**ENDANGERED SPECIES.** Any plant or animal species in danger of extinction throughout all or a significant portion of its range. Endangered species are identified by the Secretary of the Interior (Endangered Species Act of 1973).

**ENVIRONMENT.** The total 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 IMPACT STATEMENT (EIS).** A detailed statement prepared by the responsible official in which a major Federal action that 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.

**EQUIVALENT CLEARCUT ACRES/AREA (ECA).** Equivalent Clearcut Acres/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 where regenerating trees are still small enough that from a hydrological standpoint the area has not recovered to its former water use/water yield balance.

**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.

**FINE (LIGHT) FUELS.** Fast-drying fuels less than ¼-inch in diameter with a time lag of one hour or less. They ignite readily and are rapidly consumed by fire when dry.

**FINE ORGANIC MATTER.** Organic materials such as plant litter, duff, and woody material less than 3 inches in diameter in contact with the soil.

**FIRE BEHAVIOR.** The manner in which a fire reacts to the influences of fuel, weather, and topography.

**FIRE CYCLE (FIRE RETURN INTERVAL).** The average time between fires in a given area.

**FIRE DEPENDENT ECOSYSTEM.** A community of plants and animals that must experience recurring disturbances by fire, in order to sustain its natural plant succession, structure and composition of vegetation, and maintain appropriate fuel loading and nutrient cycling to ensure proper ecosystem function. Historically, they are composed of species that evolved with and are maintained by periodic fire.

**FIRE INTENSITY.** This term describes the rate at which a fire produces thermal energy. A common way of expressing fire intensity is by fireline intensity, because of its relation to flame length, which is easily measured.

**FIRE LINE.** A linear fire barrier that is scraped or dug to mineral soil.

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

**FIRE REGIME.** The characteristics of fire in a given ecosystem, such as the frequency, predictability, intensity, seasonally, and extent in an ecosystem.

**FIRE SEVERITY.** (See Burn Severity)

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

**FISH HABITAT.** The place where a population of fish species lives and its surroundings. The habitat

provides life requirements such as food and cover.

**FISHERY.** The total population of fish in a stream or body of water and the physical, chemical, and biological factors affecting that population.

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

**FORAGE.** All browse and nonwoody plants that are available to livestock or wildlife, particularly big game wildlife, and used for grazing or harvested for feeding.

**FORAGING HABITAT.** (Canada lynx). Habitat that supports primary prey (snowshoe hare) and/or important alternate prey (e.g., red-squirrels). Highest quality foraging habitats for hares support high densities of young trees and shrubs, tall enough to protrude above snow levels.

**FORB.** Any herbaceous plant other than true grasses, sedges or rushes.

**FOREST DEVELOPMENT ROAD.** A forest road under the jurisdiction of the Forest Service. (PL 95-599), section 106 and FSM 7705. Also see 36 CFR 2161.2) These roads are not public roads. (FSM 7700)

**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.

**FOREST PLAN.** (National Forest land use plan). A plan that gathers and coordinates the direction to be followed in the overall management of a National Forest. Included are applicable national and regional management direction. Specifically, the Wasatch-Cache National Forest Plan.

**FOREST SYSTEM ROADS.** Roads wholly or partly within or adjacent to and serving the National Forest System and necessary for the protection, administration and utilization of the National Forest System and its resources.

**FRAGMENTATION.** The process of removing links between areas of habitat suitable for a species, or the reduction of contiguous blocks of vegetation with similar structure and form into smaller isolated parts. Fragmentation may occur naturally through processes such as wildfire or through habitat alteration such as timber harvest or road construction.

**FUEL BREAK.** A zone where fuels have been reduced or altered to provide a position for suppression forces to make a stand against wildfire. They are designated or constructed before fire outbreak and may consist of one or more of the following: natural barriers, constructed fuel breaks, manmade barriers.

**FUEL LOADING.** The amount of living plants, dead woody vegetative materials, and other vegetative materials which are capable of burning, usually measured in tons per acre.

**FUEL MODEL.** Simulated fuel complex (or combination of vegetation types) for which all fuel descriptors required for the solution of a mathematical rate of spread model have been specified.

**FUEL REDUCTION.** Manipulation, including combustion, or removal of fuels to reduce the likelihood of ignition and/or to lessen potential damage and resistance to control.

**FUELS.** Combustible materials present in the forest that potentially contribute a significant fire hazard, such as grass, trees, shrubs, limbs, branches, duff, and stumps.

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

**GIS (GEOGRAPHIC INFORMATION SYSTEM).** A system of computer hardware, software, data, and personnel used to visualize, manipulate, analyze and display information that is tied to a spatial location.

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

**GROUND COVER.** Ground cover consists of vegetation, fine organic matter, coarse woody material, and rock fragments larger than ¾ inch in diameter in contact with the soil surface.

**HABITAT.** The sum total of environmental conditions of a specific place occupied by a plant or animal 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 occurs.

**HABITAT CONNECTIVITY.** Vegetative cover in sufficient quantity and arrangement to allow for the movement of the species being analyzed.

**HEAVY FUELS.** Fuels of large diameter such as snags, logs and large limb wood, that ignite and are consumed more slowly than light fuels.

**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.

**HYDROGRAPH.** A graph showing variation in the water depth in a stream or the volume of water flowing past a point in a stream over a period of time.

**HYDROLOGIC FUNCTION.** Soil hydrologic function is the ability of the soil to absorb, store, and transmit water, both vertically and horizontally. Changes in soil properties and ground cover can alter the hydrologic function of the soil.

**HYDROLOGY.** A science dealing with the properties, distribution and circulation of water, specifically the study of water on the surface of land, in the soil and underlying rocks, and in the atmosphere, particularly with respect to evaporation and precipitation.

**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 direction to protect habitat and populations of native resident fish until longer-term conservation strategies replaced it.

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

**INTERDISCIPLINARY TEAM (IDT).** A group of resource professionals with different expertise that collaborate to develop and evaluate resource management decisions. Teams are used because no one scientific discipline is sufficiently broad to address resource management activities adequately.

**INTERMITTENT STREAM.** A stream which flows only at certain times of the year in direct response to precipitation or some surface source such as melting snow. It is dry for a large part of the year, ordinarily more than 3 months. Gullies washed out during flood events are not considered intermittent streams.

**INVADER (PLANT SPECIES).** Plant species (weeds) that were absent in undisturbed portions of the original vegetation and will invade under disturbance or continued overuse.

**INVENTORIED ROADLESS AREA.** Areas are 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 subsequent update or revision of those maps.

**IRRETRIEVABLE.** A term that applies to the loss of production, harvest, or use of natural resources.

**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 factors such as soil productivity, that are renewable only over long periods of time.

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

**LANDING.** A location where harvested trees or logs are gathered for loading on trucks.

**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. It is important to fish habitat, as hiding cover and in forming pools. 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

**LITTER.** (Forest litter, leaf litter). The uppermost layer of organic debris on the ground under a vegetation cover—i.e., essentially the freshly fallen or only slightly decomposed vegetable material, mainly from foliage but also bark fragments, twigs, flowers, fruits, etc.

**LOCAL ROAD.** A Forest road that connects terminal facilities with Forest collector or Forest arterial roads or public highways. They are usually single purpose transportation facilities.

**LOGGING.** The cutting and extraction of timber, particularly logs.

**LYNX ANALYSIS UNIT (LAU).** The LAU is a project analysis unit upon which direct, indirect, and cumulative effects analyses are performed. It is an area of at least the size used by an individual lynx, about 25-50 square miles.

**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 wildlife, fish, or plant species selected for monitoring because their population changes are believed to indicate the effects of management activities on other species of selected major biological communities or on water quality.

**MINERAL SOIL.** A soil consisting predominantly of inorganic matter; usually containing less than 20 percent organic matter but sometimes containing an organic surface layer up to 30 centimeters thick.

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

**MODEL.** A representation of the relationships that define a situation under study. A model may be a set of mathematical equations, a computer program, or any other type of representation.

**MONITORING AND EVALUATION.** The periodic evaluation, on a sample basis, of Forest Plan management practices to determine how well objectives are being met and how closely management standards have been applied.

**NEPA (NATIONAL ENVIRONMENTAL POLICY ACT).** An act to declare a National policy which will encourage productive and enjoyable harmony between man and his environment, to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man, to enrich the understanding of the ecological systems and natural resources important to the Nation and to establish a Council on Environmental Quality (CEQ).

**NEPA PROCESS.** An interdisciplinary process, mandated by the National Environmental Policy Act, which concentrates decision making 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. It displays the management direction, activities, outputs, and effects most likely to exist in the future if the current plan would continue unchanged.

**NOXIOUS WEEDS.** Rapidly spreading plants which can cause a variety of major ecological impacts to both agricultural and wild lands. They possess one or more of the following characteristics: aggressive and difficult to manage; parasitic; a carrier or host of serious insects or disease; nonnative, new or not common the United States.

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

**OBLITERATION.** The reclamation and/or restoration of land to resource production from that of a transportation facility. Typically, the road cuts and fills are recontoured to match what was there before the road was built.

**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 heart rots, (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.

**ORGANIC SOIL.** A soil containing a high percentage (greater than 20 or 30 percent) of organic matter in the upper layers (where living roots are primarily found).

**OVERLAND FLOW.** The rainstorm or snowmelt runoff water which flows over the ground surface as a thin layer—as opposed to the channelized (concentrated) runoff which occurs in rills and gulleys.

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

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

**PEDESTALING.** The accumulation of soil particles on the up-slope side of rocks, grass, shrubs and other

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

**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.

**PRECOMMERCIAL THINNING.** The removal of excess and undesirable trees from a stand before the thinnings have any commercial value. The purpose is to allow selected leave trees to grow freely of competition from other trees and plants.

**PREDATOR.** An animal (and a few plants) that kills and eats other animals.

**PREFERRED ALTERNATIVE.** The set of actions that the agency believes would best fulfill its statutory mission and responsibilities, considering environmental, social, economic and other factors disclosed in an environmental impact statement.

**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 (i.e.: silviculture, wildlife management, reduction of fuel hazard, etc.). A written, approved prescribed fire plan must exist and NEPA requirements must be met prior to ignition.

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

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

**PROPOSED ACTION.** An alternative developed early in the NEPA planning process to accomplish stated purposes, needs, and goals based on the best information available at the time. It is the first alternative offered and is used to identify issues and develop other alternatives for further study.

**PUBLIC ISSUE.** A subject or question of widespread public interest identified through public participation relating to management of National Forest System lands.

**RANGE ALLOTMENT.** A designated area of land available for livestock grazing, upon which a specified number and kind of livestock may be grazed under a range allotment management plan.

**REACH.** A segment of stream that contains similar physical characteristics (e.g., gradient, width, stream bottom materials). In general, most reaches are between 1 and 3 miles long.

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

**RECONTOUR.** A form of obliteration where the road prism is eliminated by pulling back fill material to re-establish the 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.

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

**RESTORATION.** The act of returning to historic site conditions (structure and composition) or ecological processes that existed before the disruption or interruption of these processes. It restores vital soil functions to their inherent range of variability and may include tillage, ripping, seeding, mulching, recontouring of temporary roads, and water barring.

**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.

**RHCA (RIPARIAN HABITAT CONSERVATION AREA).** As established by INFISH, RHCAs are portions of watersheds where riparian-dependent resources receive primary emphasis and management activities are subject to specific standards and guidelines. Examples of RHCAs include traditional riparian corridors, wetlands, intermittent streams and other areas that help maintain the integrity of aquatic ecosystems.

**RILL EROSION** – A type of surface erosion. It is a loss of soil in a fairly uniform layer across the land surface in the form of a rill.

**RIPARIAN AREAS/HABITATS.** Land areas where the vegetation and microclimate are influenced by perennial and/or intermittent water. Comprised of an aquatic ecosystem and adjacent upland areas that have direct relationships with the aquatic system, including floodplains, wetlands, and all areas within a horizontal distance of approximately 100 feet from the normal high water line of a stream channel, or from the shoreline of a standing body of water.

**RIPARIAN MANAGEMENT OBJECTIVES (RMOs).** Fish habitat objectives established by INFISH for pool frequency, large woody debris, water temperature, and width-to-depth ratios on all streams in the project area. They specify how RHCAs are to be managed.

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

**Classified** – 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.

**Unclassified** – 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 the termination of the authorization.

**Temporary** – Roads authorized by contract, permit, lease, 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.

**ROAD DECOMMISSIONING.** Activities that stabilize and restore unneeded roads to a more natural state. These are roads that won't be needed in the future.

**ROAD MAINTENANCE.** The upkeep of the entire Forest Development Transportation Facility including surface and shoulders, parking and side areas, structures, and such traffic-control devices as are necessary for its safe and efficient utilization

**ROAD RECONSTRUCTION.** The investment in construction activities that result in betterment, restoration, or in realignment of a road.

**RUTTING.** Deformation of the soil under saturated conditions resulting in detrimental changes to soil structure and reduced porosity.

**SALMONIDS.** Salmonidae - the trout and salmon family (includes cutthroat trout)

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

**SANITATION HARVEST.** The removal of dead, damaged or susceptible trees, essentially to prevent the spread of pests or pathogens and so promote forest hygiene.

**SAWTIMBER.** Trees containing at least one 12-foot sawlog or two noncontiguous 8-foot logs, and meeting regional specifications for freedom from defect. Softwood trees must be at least 8 inches in diameter.

**SCOPING.** The procedures by which the Forest Service collects input in the environmental analysis process. This information is used to determine: the range of actions, alternatives, and impacts to be addressed, significant issues related to a proposed action, and the depth of environmental analysis, data, and task assignments needed.

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

**SEDIMENT LOAD (SEDIMENT DISCHARGE).** The quantity of sediment, measured in dry weight or by volume, transported through a stream cross-section in a given time. It consists of both suspended load and bedload.

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

**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.

**SERAL STAGE (SUCCESSIONAL STAGE).** A biotic community that is a developmental, transitory stage in an ecologic succession.

**SEROTINOUS.** Applies to the nature of lodgepole pine cones, which are closed until heated during fire, at which time they open and the seed can be released. This is an adaptive trait for fire-dependent ecosystems.

**SHADE INTOLERANCE.** A characteristic of plants that describes their propensity to establish and grow in direct or full sunlight conditions.

**SHADE TOLERANCE.** A characteristic of plants that describes their propensity to establish and grow under indirect or reduced light conditions most often in the shade of other plants growing around or above them.

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

**SILT.** Soil particles which are between 0.05 and 0.002 millimeters in diameter; a soil texture type consisting of 80 percent or more of silt particles and less than 12 percent clay particles.

**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.

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

**SITE SPECIFIC.** Something only valid for, or confined to, a certain given area of land and/or water. The term may apply to data, studies to obtain information, environmental impacts, use restrictions, etc. Site specific implies limitations on transferring or extrapolating observations beyond a specific area of land and/or water.

**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 to reduce fire or insect hazards.

**SLOPE STEEPNESS.** The degree of deviation of a land surface from the horizontal, usually expressed in percent (i.e., amount of elevation change per 100 feet, expressed as a percentage) or degrees.

**SNAG.** A standing dead or partially dead tree that wildlife species use for nesting, roosting or foraging.

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

**SOIL.** The unconsolidated mineral and organic matter on the surface of the earth that has been produced as a result of interactions of the parent materials, climate (including moisture and temperature effects), macro- and micro-organisms, and topography, all acting over a period of time. They respond to environmental changes and to alterations in topography and can be improved or destroyed.

**SOIL FOOD WEB.** The community of organisms living all or part of their lives in the soil. This includes, but is not limited to, bacteria, fungi, protozoa, nematodes and many others.

**SOIL PRODUCTIVITY.** The inherent capacity of a soil to support the growth of specified plants, plant communities, or a sequence of plant communities. Soil productivity may be expressed in terms of volume or weight/unit area/year, percent plant cover, or other measures of biomass accumulation. (FSH 2509.18 - SOIL MANAGEMENT HANDBOOK WO AMENDMENT 2509.18-91-1 EFFECTIVE 9/3/91).

**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.

**SPOT FIRE.** A fire ignited outside the perimeter of the main fire by flying sparks or embers.

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

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

**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.

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

**SUITABLE TIMBER LAND.** Land producing, or capable of producing, industrial wood and that hasn't been withdrawn by Congress, Secretary of Agriculture or the Forest Service Chief. Existing technology and knowledge is available to ensure timber production without irreversible damage to soils productivity and watershed conditions. Current research and experience provide reasonable assurance that adequate restocking can be obtained within 5 years after final harvesting.

**SUPPRESSION (FIRE).** Any action taken to slow, stop or extinguish a fire. Examples of suppression activities include fireline construction, backfiring, and applying water or chemical fire retardants.

**SURFACE EROSION.** Rills, gullies, pedestals, and soil deposition are all indicators of detrimental surface erosion.

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

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

**TRACTOR LOGGING.** Any logging method which uses a tractor as the motive power for transporting

logs from the stumps to a collecting point, either by dragging or carrying the logs.

**TRANSPORTATION PLANNING.** The process by which new transportation facilities and improvements to old ones are designed, their adequacy tested and their future construction programmed. It considers all modes of transportation (automobile, truck, walking, airplane) in or adjacent to the planning area.

**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.

**UNDERBURN.** Understory fuels treatment in which surface fuels are ignited under controlled conditions and allowed to burn within specified parameters. They are usually conducted where the fuel bed is fairly continuous and conditions such that fire will spread predictably and consistently.

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

**UNDERTAKING.** Under the National Historic Preservation Act (NHPA), a Federal activity that is subject to Section 106 requirements. The term 'undertaking' is intended to include any project, activity, or program—and any of its elements—that has the potential to have an effect on a historical property and that is under the direct or indirect jurisdiction of a Federal agency or is licensed or assisted by a Federal agency. Included are construction, rehabilitation, repair projects, demolition, planning, licenses, permits, loans, loan guarantees, grants, Federal property transfers, and many other Federal activities.

**UNIT.** A treatment area with specified boundaries that may undergo activity such as harvest, salvage, burning, or other purposes.

**UNSUITABLE FOREST LAND.** Lands not selected for timber production 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.

**VEGETATION TREATMENT.** Any activities undertaken to modify the existing condition of the vegetation.

**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.

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

**WATER YIELD.** The measured output of the Forest's streams

**WATERSHED.** The total area of land that drains into a stream.

**WETLANDS.** Areas inundated by surface or ground water frequently enough to support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. They include marshes, bogs, sloughs, potholes, river overflows, mud flats, wet meadows, seeps and springs.

**WILDFIRE, WILDLAND FIRE.** Any non-structure fire that is not a prescribed fire in the wildlands. Ignition may be natural or arson.

**WILDLAND/URBAN INTERFACE.** The area where humans and their development meet or intermix with undeveloped wild areas. They may be vulnerable to forest or rangeland fires.

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

**WINTER RANGE.** A range, usually at lower elevation, used by deer and elk during the winter months.

**WOODY DEBRIS RECRUITMENT.** The process of trees naturally falling over and landing in stream channels.

**YARDING.** The operation of hauling timber from the stump to a collecting point.