

Appendix F – Glossary

Adaptive Management - A type of natural resource management that implies making decisions as part of an on-going process. Monitoring the results of actions will provide a flow of information that may indicate the need to change a course of action. Scientific findings and the needs of society may also indicate the need to adapt resource management to new information.

Anadromous Fish - Species of fish that mature in the sea and migrate into streams to spawn. Salmon is an example.

Annual Maintenance - Work performed to maintain serviceability or repair failures during the year in which they occur. Includes preventive and/or cyclic maintenance performed in the year in which it is scheduled to occur. Unscheduled or catastrophic failures of components or assets may need to be repaired as a part of annual maintenance (Financial Health - Common Definitions for Maintenance and Construction Terms, July 22, 1998).

ATV and Motorcycle Trail (ATVMT) - A trail designed for use by ATVs and motorcycles

Aquatic - Growing or living in or frequenting water; taking place in or on water.

Aquatic Ecosystem - A stream channel, lake or estuary bed, the water itself, and the biotic (living) communities that occur therein.

ARC/GIS - The name of a Geographic Information System software program.

Area - A discrete, specifically delineated space that is smaller, and in most cases much smaller, than a Ranger District.

Area of Potential Effects (APE) - This is the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

Arterial roads - NFS roads that provide service to large land areas; arterial roads are usually developed and operated for long-term land and resource management purposes and constant service.

Aspect - The direction a slope faces. For example, a hillside facing east has an eastern aspect.

Biota - The plant and animal life of a particular region.

Blue Oak Woodlands - An ecosystem dominated by blue oak, valley oak, interior live oak (tree form), or Oregon white oak.

Best Management Practices (BMPs) - A practice, or combination of practices, that is determined to be the most effective practicable means of preventing or reducing pollution generated by nonpoint sources. (Nonpoint sources are sources of water pollution that originate at multiple, indefinable sources, such as result from vegetation management or recreational activities, rather than from a single specific source location, such as a sewage discharge pipe.)

Buffer - Used in the context of GIS; a buffer is a zone of a specified distance around a feature in a coverage.

Canopy - The part of any stand of trees represented by the tree crowns. It usually refers to the uppermost layer of foliage, but it can be used to describe lower layers in a multi-storied forest.

Central Valley Regional Water Quality Control Board (CVRWQCB) - This Regional Board, operating under the SWQCB, is responsible for the Sierra National Forest area. The primary duty

of the Regional Board is to "protect the quality of waters within the Region for all beneficial uses, by formulating and adopting water quality plans for specific water basins and by prescribing and enforcing requirements on all agricultural, domestic and industrial waste discharges". For more information about the CVRWQCB, go to <http://www.waterboards.ca.gov/centralvalley/> .

Collaboration - Managers, scientists and citizens working together to plan, implement and monitor national forest management. The intention is to engage people who have information, knowledge, expertise and an interest in the health of national forest ecosystems and nearby communities.

Connectivity (of Habitats) - The linkage of similar but separated vegetation stands by patches, corridors, or "stepping stones" of like vegetation. This term can also refer to the degree to which similar habitats are linked.

Coverage - A digital map or layer of data in the ARC/INFO software program.

Critical Aquatic Refuge (CAR) - A relatively small watershed, ranging in size from about 3,000 to 85,000 acres, that has localized populations of rare and/or at-risk populations of native fish and/or amphibians.

Critical Habitat - Areas designated for the survival and recovery of federally listed threatened or endangered species.

Cumulative Watershed Effects (CWE) - Cumulative impacts are a change in beneficial water uses caused by the accumulation of individual impacts over time and space. They can result from multiple disturbances over time, or from the downstream accumulation of the impacts of simultaneous disturbances. Examples of potential cumulative effects include: 1) excess sediment production that may reduce fish habitat and other beneficial uses; 2) compacted or disturbed soils that may cause site productivity loss and increased soil erosion; and 3) increased water yields and peak flows that may destabilize stream channel equilibrium.

Deferred Maintenance - Maintenance that was not performed when it should have been or when it was scheduled and which, therefore, was put off or delayed for a future period. When allowed to accumulate without limits or consideration of useful life, deferred maintenance leads to deterioration of performance, increased costs to repair, and decrease in asset value. Deferred maintenance needs may be categorized as critical or non-critical at any point in time. Continued deferral of non-critical maintenance will normally result in an increase in critical deferred maintenance. Code compliance (e.g. life safety, ADA, OSHA, environmental, etc.), Forest Plan Direction, Best Management Practices, Biological Evaluations other regulatory or Executive Order compliance requirements, or applicable standards not met on schedule are considered deferred maintenance (Financial Health - Common Definitions for Maintenance and Construction Terms, July 22, 1998).

Degradation – 1) Reduction in quality; 2) The process whereby the water quality and chemical, physical or biological integrity of a water body is decreased. 3) Habitat quality can be changed by certain management activities. If the quality is reduced then habitat degradation has occurred.

Draft Environmental Impact Statement (DEIS) - A working document that is released to governmental agencies and the general public for review and comment.

Designated Road, Trail or Area - A National Forest System road, a National Forest System trail, or an area on National Forest System lands that is designated for motor vehicle use pursuant to § 212.51 on a motor vehicle use map.

Desired Future Conditions; Desired Condition (DC) - Land or resource conditions that are expected to result if goals and objectives are fully achieved.

Dissolved oxygen (DO) - Dissolved oxygen expresses the amount of gaseous oxygen (O₂) in the water. Oxygen gets into water by diffusion from the surrounding air, by aeration (such as turbulence from water flowing over and around rocks), and as a waste product of photosynthesis. Dissolved oxygen (DO) is an important water quality parameter because aquatic organisms need oxygen. DO is related to water temperature; generally, cooler water has higher DO.

Ecology - The interrelationships of living things to one another and to their environment, or the study of these interrelationships.

Ecosystem - An arrangement of living and non-living things and the forces that move them. Living things include plants and animals. Non-living parts of ecosystems may be rocks and minerals. Weather and wildfire are two of the forces that act within ecosystems.

Endangered Species - Those plant or animal species that are in danger of extinction throughout all or a significant portion of their range. Endangered species are identified by the Secretary of the Interior in accordance with the Endangered Species Act of 1973.

Endemic - An organism that evolved in and is restricted to a particular locality. The Little Kern golden trout found only in the Sierra Nevada region is an example.

Ephemeral Stream - Streams that flow only as the direct result of rainfall or snowmelt. They have no permanent flow.

Equivalent Roaded Acres (ERA) - The unit used to express disturbance for the Cumulative Watershed Effects analysis. Each disturbance type (fires, timber harvest using tractor, etc) is assigned a coefficient for each soil type to express it in terms of acres of road. Because roads are the disturbance used for the measurement, they have a coefficient of one, so one acre of road is one Equivalent Roaded Acre. Other disturbances that are less intensive than roads have lower coefficients and must cover more acres to count as one ERA. For example, a timber stand thinning treatment using a tractor on Soil Map Unit 104 has a coefficient of 0.25, so 4 acres of this treatment on this soil type is one ERA (4acres x .25 = 1.0 ERA). Other soil types could have a lower or a higher coefficient for the same disturbance. The ERAs are calculated for all disturbances that occurred in the last 30 years in each HUC8, adjusted for recovery since the time of the disturbance, summed, and then normalized by the size of the HUC8 so they are expressed in terms of 'percent ERA'. This percent ERA is then compared to the lower and upper Threshold of Concern as an indicator for CWEs.

Fauna - The animal life of an area.

Flora - The plant life of an area.

Forest Road or Trail - A road or trail wholly or partly within or adjacent to and serving the National Forest System that the Forest Service determines is necessary for the protection, administration, and utilization of the National Forest System and the use and development of its resources. This may include adjacent State or County roads.

Forest Transportation Atlas - A display of the system of roads, trails, and airfields of an administrative unit.

Forest Transportation Facility - A forest road or trail or an airfield that is displayed in a forest transportation atlas, including bridges, culverts, parking lots, marine access facilities, safety devices, and other improvements appurtenant to the forest transportation system.

Fuels - Plants and woody vegetation, both living and dead, that are capable of burning.

Fuels Management - The planned manipulation and/or reduction of living and dead forest fuels for forest management and other land use objectives.

Fuels Treatment - The treatment of fuels that left untreated, would otherwise interfere with effective fire management or control. For example, prescribed fire can reduce the amount of fuels that accumulate on the forest floor.

Functional Classification - A Forest Service designation regarding the mobility and the area served by a road (see arterial, collector, local).

General Forest - National Forest System lands that do not carry a specific designation, i.e., protected activity center, wilderness area, etc.

Geographic Information Systems (GIS) - A computer system capable of storing, manipulating, analyzing, and displaying geographic information.

Great Gray Owl PACs - See Protected Activity Centers.

Habitat - The area where a plant or animal lives and grows under natural conditions.

High Clearance Vehicle Trail (HCVT) - A trail designated for use by high clearance vehicles

Highway Licensed Vehicles and Non-Highway Licensed Vehicles (HCVHL) - A road or trail designated for use by licensed vehicles (highway and non-highway legal)

Heritage Program - The comprehensive Forest Service program of responsibilities with regard to historic preservation. A pro-active program to manage prehistoric and historic cultural resources and cultural traditions for the benefit of the public through preservation, public use, and research.

Historic Properties - Any prehistoric or historic district, site, building, structure, or object, and its associated artifacts, remains, features, settings, and records, that is either listed in or determined eligible for inclusion in the National Register of Historic Places; or any feature that contributes to National Register eligibility; or any property, and its features, not yet evaluated to determine whether it is eligible for the National Register, but that, for purposes of this undertaking, may be assumed by the Forest to be National Register eligible.

Hydrologic Unit Code (HUC) - The United States is divided and sub-divided into successively smaller hydrologic units which are classified into eight levels: regions (level 1), sub-regions (level 2), accounting units (level 3), river basins (level 4), watersheds (level 5), subwatersheds (level 6), drainages (level 7), and subdrainages (level 8). Each hydrologic unit is identified by a unique hydrologic unit code (HUC) consisting of 2 digits for each level. For example, a river basin is level 4 and the codes for level 4 hydrologic units (HUC4s) have 8 digits.

Image - A graphic representation of a person or thing, typically produced by an electronic device. Common examples include remotely sensed data and photographs.

Indigenous (Species) - Any species of plant or animals native to a given land or water area by natural occurrence.

Infrastructure (INFRA) Database - Forest Service corporate database that stores data on real property and constructed features.

Interdisciplinary Team - A diverse group of professional resource specialists who analyze the effects of Alternatives on natural and other resources. Through interaction, participants bring different points of view and a broader range of expertise.

Intermittent Stream - A stream that flows only at certain times of the year when it receives water from streams or from some surface, such as melting snow.

Inventoried Roadless Area - Areas identified in a set of inventoried roadless area maps, contained in Forest Service Roadless Area Conservation, Final Environmental Impact Statement,

Volume 2, dated November 2000, which are held at the National headquarters office of the Forest Service, or any subsequent update or revision of those maps. 36CFR 294.11

Landscape - A large land area composed of interacting ecosystems that are repeated due to factors such as geology, soils, climate, and human impacts.

Local Road - A Forest Service System road which serves a small area or a specific project, often maintained by the project.

Maintained for Public Use - A Memorandum of Understanding with the Federal Highway Administration defines National Forest System roads open to the public as those roads open to unrestricted use by the general public in standard passenger cars, including those roads open on a seasonal basis or for emergencies.

Maintenance - The upkeep of the entire forest 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 (36 CFR 212.1).

Management Action - Any activity undertaken as part of the administration of the national forest.

Meadow - Tracts of moist low lying and usually level grasslands. Generally, the water table is just below the surface of the soil and the most abundant vegetation is usually favored by wet but not constantly flooded soil.

Mesic - 1.) Moderately moist climates or environments. 2.) Vegetation: generally refers to vegetation found in moist environments. 3.) Soils: refers specifically to soils with mean annual temperatures of 8 to 15 degrees centigrade.

Mosaic - Areas with a variety of plant communities over a landscape. For example, areas with trees and areas without trees occurring over a landscape.

Motor Vehicle - Any vehicle which is self-propelled, other than: (1) A vehicle operated on rails; and (2) Any wheelchair or mobility device, including one that is battery powered, that is designed solely for use by a mobility-impaired person for locomotion, and that is suitable for use in an indoor pedestrian area.

Motor Vehicle Use Map (MVUM) - A map reflecting designated roads, trails, and areas on an administrative unit or a Ranger District of the National Forest System.

MT (Motorcycles only trail) - A trail designated for motorcycle use

National Forest System Road - A forest road other than a road which has been authorized by a legally documented right-of-way held by a State, county or other local public road authority.

National Forest System Trail - A forest trail other than a trail which has been authorized by a legally documented right-of-way held by a State, county, or other local public road authority.

National Forest Transportation System (NFTS) - The system of National Forest System roads, National Forest System trails, and airfields on National Forest System lands

Natural Resource - A feature of the natural environment that is of value in serving human needs.

Nephelometric Turbidity Unit (NTU) - A unit measuring the lack of clarity of water, used by the Central Valley Regional Water Quality Control Board to express the water quality objective for turbidity. Water containing 1 milligram of finely divided silica per liter has a turbidity of 1 NTU.

Noxious Weeds - Aggressive, non-native plant species that have been introduced. They can be difficult to manage, poisonous, toxic, parasitic, or carrier of insects or disease. Examples of noxious weeds would be scotch broom, yellow star thistle, and cheatgrass.

Off-highway vehicle - Any motor vehicle designed for or capable of crosscountry travel on or immediately over land, water, sand, snow, ice, marsh, swampland, or other natural terrain.

Old Forest (Old Growth) - Areas that contain large, old trees relative to the species-specific, environmentally-constrained growth capacity of the site.

Open to Public Travel - Except during scheduled periods, extreme weather conditions, or emergencies, open to the general public for use with a standard passenger auto, without restrictive gates or prohibitive signs or regulations, other than for general traffic control or restrictions based on size, weight, or class of registration (23 CFR 660.103).

Owl and Goshawk PACs - See Protected Activity Centers.

Particulates - The term “particulate” is used to describe dispersed solid and liquid airborne particles that are suspended in the atmosphere for a period of time. Particulate matter less than 10 microns in diameter (PM10) are those which can enter the human respiratory system.

Patch - An area of vegetation, similar in structure and composition.

Perennial Stream - A stream that typically has running water on a year-round basis.

Polygon - Used in a GIS to represent an area, a polygon is a digital feature class defined by arcs, or lines, that make up its boundary. A polygon would be used to represent areas such as lakes and land parcels on a map.

Protected Activity Centers (PACs) - Designated areas that are afforded protection to specific species by restricting certain management activities. For example, California spotted owl PACs protect owl habitat and breeding areas by restricting timber harvest.

Public Involvement - The use of appropriate procedures to: inform the public, obtain early and continuing public participation, and consider the views of interested parties in planning and decision-making.

Public Land - Land for which title and control rests with a government – Federal, state, regional, county, or municipal.

Public road - Roads under the jurisdiction of and maintained by a public authority that are open to public travel (23 U.S.C 101(a)).

Remote Sensing - Acquiring information about a geographic feature without contacting it physically. Methods include aerial photography and satellite imaging.

Resilience - The ability of an ecosystem to maintain diversity, integrity, and ecological processes following a disturbance.

Riparian Area - The area along a watercourse or around a lake or pond.

Riparian Conservation Areas (RCAs) - A land allocation established by the Sierra Nevada Forest Plan Amendment in order to: 1) preserve, enhance, and restore habitat for riparian and aquatic-dependent species; 2) ensure water quality is maintained or restored; 3) enhance habitat for species associated with the transition zone between upslope and riparian areas; and 4) provide greater connectivity of riparian habitats within watersheds. RCAs have their own established Goals, Desired Conditions, and Standards and Guidelines that are contained in the SNFPA ROD (USDA-FS 2004a).

Riparian Ecosystem - The ecosystem around or next to water areas that support unique vegetation and animal communities as a result of the influence of water.

Road - A motor vehicle route over 50 inches wide, unless identified and managed as a trail.

Road construction or reconstruction - Supervising, inspecting, actual building, and incurrence of all costs incidental to the construction or reconstruction of a road.

Road decommissioning - Activities that result in the stabilization and restoration of unneeded roads to a more natural state (FSM 7703.2(1)).

Road improvement - Activities that result in an increase of an existing road's traffic service level, expand its capacity, or change its original design function.

Road maintenance - The ongoing upkeep of a road necessary to retain or restore the road to the approved road management objective.

Road obliteration - A form of road decommissioning that re-contours and restores natural slopes.

Road realignment - Activities that result in a new location for an existing road or portions of an existing road, including treatment of the old roadway.

Road reconstruction - Activities that result in road realignment or road improvement, as defined below:

ROD (Record of Decision) - An official document in which a deciding official states the alternative that will be implemented from a prepared EIS.

Sensitive Species - Plant or animal species which are susceptible to habitat changes or impacts from activities. The official designation is made by the USDA Forest Service at the regional level and is not part of the designation of threatened or endangered species made by the U.S. Fish And Wildlife Service.

Silviculture - The art and science that promotes the growth of single trees and the forest as a biological unit.

Snag - A standing dead tree. Snags are important as habitat for a variety of wildlife species and their prey.

Soil Map Unit - An area occupied by different kinds of soil, each of which has a unique set of interrelated properties characteristic of the material from which it formed, its environment, and its history.

Spatial Analysis – See Spatial Data.

Spatial Data - A GIS contains spatial data. The spatial data represents geographic features associated with real-world locations.

Species - A class of individuals having common attributes and designated by a common name; a category of biological classification ranking immediately below the genus or subgenus; comprising related organisms or populations potentially capable of interbreeding.

Stand - A group of trees that occupies a specific area and is similar in species, age, and condition.

Standards and Guidelines (S&Gs) - The primary instructions for land managers. Standards address mandatory actions, while guidelines are recommended actions necessary to a land management decision.

State Water Quality Control Board (California) (SWQCB) - State Water Quality Control Board (SWQCB) - A California State agency whose mission is "to preserve, enhance and restore

the quality of California's water resources, and ensure their proper allocation and efficient use for the benefit of present and future generations." The SWQCB has designated the Forest Service as the agency formally responsible for managing water quality on National Forest Lands. As part of this responsibility, the Forest Service is required to perform annual monitoring of the implementation and effectiveness of Best Management Practices, and report the results to the Board. For more information about the SWQCB, go to <http://www.waterboards.ca.gov>

Stewardship - Caring for the land and its resources in order to pass healthy ecosystems on to future generations.

Suitability - The appropriateness of certain resource management to an area of land. Suitability can be determined by environmental and economic analysis of management practices.

Sustainability - The ability of an ecosystem to maintain ecological processes and functions, biological diversity, and productivity over time.

Sustainable - The yield of a natural resource that can be produced continually at a given intensity of management is said to be sustainable.

Temporary road or trail - A road or trail necessary for emergency operations or authorized by contract, permit, lease, or other written authorization that is not a forest road or trail and that is not included in a forest transportation atlas.

Threatened Species - Those plant or animal species likely to become endangered throughout all or a specific portion of their range within the foreseeable future as designated by the U.S. Fish and Wildlife Service under the Endangered Species Act of 1973.

Threshold of Concern (TOC) - Threshold of Concern for cumulative watershed effects. There are two TOCs established for each HUC8 on the Sierra NF: a lower TOC which is either 4%, 5%, or 6%, based on the natural sensitivity of the subdrainage; and an upper TOC which is 14% for all subdrainages.

Trail - A route 50 inches or less in width or a route over 50 inches wide that is identified and managed as a trail.

Travel Management Atlas - An atlas that consists of a forest transportation atlas and a motor vehicle use map or maps.

Traffic Rules - The rules National Forest System roads are operated under to provide traveler safety. See Appendix I for a detailed description

Unauthorized road or trail - A road or trail that is not a forest road or trail or a temporary road or trail and that is not included in a forest transportation atlas.

Understory - The trees and woody shrubs growing beneath branches and foliage formed collectively by the upper portions of adjacent trees.

Undertaking - Any project, activity or program under the jurisdiction of the Forest Service, including those carried out by or on behalf of the agency, and those requiring a Special Use Authorization, Special Use Permit, or Forest Service approval (see 36 CFR 800.16(y)).

V* - (Pronounced 'V-star') a measurement of the amount of fine sediment deposited in pools. Fine sediment deposited in pools has been shown to correlate to sediment supply, and is used as an indicator of elevated sediment supply. V* is the ratio of the residual pool volume to the total (if there was no fine sediment present) pool volume. The Desired Condition for V* in streams on the Sierra is 30% for stream types that naturally have abundant fine sediment, and 20% for stream types where abundant fine sediment is not expected to occur naturally.

Visual Quality - The forest visual resources; terrain, geological features, or vegetation that determines the landscape's scenic attractiveness and the public's visual expectations.

Watershed (WS) - The entire region drained by a waterway, lake, or reservoir. More specifically, a watershed is an area of land above a given point on a stream that contributes water to the streamflows at that point.

Water Quality (WQ) - Water Quality (WQ) - The physical, chemical and biological characteristics of water. Water quality is usually discussed by reference to compliance with a set of standards. The most common standards used to assess water quality relate to drinking water, safety of human contact, and health of ecosystems.

Wilderness and Wild and Scenic River - Wilderness and Wild and Scenic Rivers are Congressionally mandated areas withdrawn from location and entry under the US mining laws.

Wildland - An area in which development is essentially non-existent, except for roads, railroads, powerlines, and similar transportation facilities