

GLOSSARY

Adaptive Management - a dynamic approach to forest management in which effects of treatments and decisions are continually monitored and used, along with research results, to modify management on a continuing basis to ensure that objectives are being met

Additive – any solid or liquid substance contributing to the formulation of a pesticide

Adult – a fully grown, usually sexually mature individual

Age class – 1. one of the intervals into which the age range of trees is divided for classification or use 2. a distinct aggregation of trees originating from a single natural event or regeneration activity or a grouping of trees used in inventory of management

Airshed – a geographical area that shares the same air mass due to topography, meteorology, and climate

Analysis area – a collection of land area, not necessarily contiguous, sufficiently similar in character that they can be treated as if they were identical

APCD - Air Pollution Control District

Aspect – a position facing a particular direction, usually expressed as a compass direction in degrees or cardinal directions

Assessment – a procedure used by certifying organization to determine whether forestry operations meet certification standards,

Assumption – a judgmental decision used in planning to supply missing values, relationships, or societal preferences in order to proceed with the planning process toward a final decision

Attributes – a qualitative characteristics of an individual or group

Bark beetle – a member of the family Scolytidae (Coleoptera), particularly species in the genera *dendroctonus*, *ips*, and *Scolytus* whose adults and larvae tunnel in the cambial region (either in the bark only or in the bark and xylem) of living, dying, and recently dead or felled trees, note: bark beetles do immense damage to forests all over the world

Barrier – any obstruction to the spread of fire, typically an area or strip devoid of combustible material

Basal area – 1. The cross-sectional area of a single stem, including the bark, measured at breast height, 2. The cross-sectional area of all stems of a species or all stems in a stand measured at breast height and expressed per unit of land area

Baseline – *management* the starting point for analysis of environmental consequences – *note* a baseline may be the conditions at a point in time or the average of a set of data collected over a specified period of years

BehavePlus - BehavePlus is a software application to predict wildland fire behavior for fire management purposes. It is designed for use by fire and land managers who are familiar with fuels, weather, topography, wildfire situations and the associated terminology.

Best management practices – A practice or usually a combination of practices that are determined by a State or a designated planning agency to be the most effective and practicable means (including technological, economical, and institutional considerations) of controlling point and non-point source pollutants at levels compatible with environmental quality goals.

Biomass – *harvesting* the wood product obtained (usually) from in-woods chipping of all or some portion of trees including limbs, tops, and unmerchantable stems, usually for energy production

BDQ – Silviculture approach in which stocking is controlled by a basal area level (B), maximum diameter (D), and a q factor (Guldin 1991)

Breast height – a standard height from ground level, generally 4.5 ft for recording diameter, circumference or basal area of a tree

Broadcast Burn – a prescribed fire allowed to burn over a designated area within well defined boundaries to achieve some land management objective

Brush – shrubby vegetation that does not produce commercial timber

Buffer – a vegetation strip or management zone of varying size, shape, and character maintained along a stream, lake road, recreation site, or different vegetative zone to mitigate the impacts of actions on adjacent lands to enhance aesthetic values, or as a best management practice – *synonym* buffer strip, buffer zone, roadside strip, waterfront zone – *note*1. both constant-and variable width buffers can be generated for a set of features based on each features attribute values; the resulting buffer zones form polygons that are areas either inside or outside the specified buffer distance from each feature

Bulk density – the weight per unit of volume of a material *note* 1. bulk density of plants is measured at a specified moisture tension *note* 2. bulk density includes both solid material and pore space and in wood, generally serves as an indicator of the specific gravity

Bunch – *harvesting* to gather trees or logs into small piles for subsequent extraction

Burning index (BI) – a relative number indicating the contribution that fire behavior makes to the amount of effort needed to contain a fire in a specified fuel type –*note* doubling the BI indicates twice the effort will be required to contain a fire in that fuel type as was previously required providing all other parameters are constant

California Wildlife Habitat Relationship (CWHR) - a state-of-the-art information system for California's wildlife

Canopy – the foliar cover in the forest stand consisting of one or several layers

Canopy cover – the proportion of ground or water covered by vertical projection of the outermost perimeter of the natural spread of foliage or plants, including small openings within the canopy – *note* total canopy coverage may exceed 100 percent because layering of different vegetative strata

CAR - Critical Aquatic Refuge

Carbon Monoxide (CO) – A colorless, odorless, poisonous gas produced by incomplete fuel combustion. Carbon monoxide is a criteria pollutant and is measured in parts per million.

CFS – Cubic feet per second; measurement used for stream flow

Classified roads – Roads wholly or partially within or adjacent to National Forest System lands that are determined to be needed for motor vehicle access, such as State roads, County roads, privately owned roads, National Forest System roads, and roads authorized by the Forest Service that are intended for long term use.

Clump – as isolated, generally dense, group of trees

Codominant – tree species in a forest that are about equally numerous and exert the greatest influence see crown class

Cohesive strategy – A Forest Service strategic document, formally titled *Protecting People and Sustaining Resources in Fire-adapted Ecosystems: A Cohesive Strategy (USDA 2000a)*, which outlines how fire managers throughout the National Forest System are to prioritize their fire hazard reduction efforts. This strategy concentrates on short fire return interval forests (Fire Regimes 1 and 2).

Cohort – a group of trees developing after a single disturbance, commonly consisting of trees of similar age, although it can include a considerable range of tree ages of seedling or sprout origin and trees that predate the disturbance

Collector roads – Classified roads serving smaller land areas than arterial roads; collector roads collect traffic from local roads and usually connect to forest arterial roads or State and County highways. They are operated for either constant or intermittent service depending on land use and resource management objectives.

Commercial thinning – any type of thinning producing merchantable material at least equal to the value of the direct cost of harvesting

Community – 1. *ecology* an assemblage of plants and animals living together and occupying a given area 2. *societal* an urban or rural group of human families, as in towns

Competition – the extent to which each organism maximizes fitness by both appropriating contested resources from a pool not sufficient for all, and adapting to the environment altered by all participants

Composition – the proportion of each tree species in a stand expressed as a percentage of the total number, basal area, or volume of all tree species in the stand

Condition Class 1 – Low risk from uncharacteristic wildfire effects; Fire regimes within this class are within the historical range of variability for fire frequency and intensity.

Condition Class 2 – Moderate risk from uncharacteristic wildfire effects; Fire regimes are beginning to be altered since one or more wildfires have been suppressed allowing for forests to become noticeably denser especially with young saplings.

Condition Class 3 – High risk from uncharacteristic wildfire effects; Fire regimes are significantly altered having missed many natural fires. Forests that were once open and park like are now densely stocked.

Conifer – a cone-bearing tree

Corridor – 1. *management* a linear strip of land identified for the present or the future location of transportation or utility right of way within its boundary 2. *wildlife* a defined tract of land connecting two or more areas of similar management or habitat type that is reserved from substantial disturbance and through which species can travel to reach habitat suitable for reproduction and other life-sustaining needs

Cover – 1. an area occupied by vegetation or foliage 2. vegetation that protects the soil and provides shading to ground vegetation and regeneration 3. anything that provides protection for aquatic or terrestrial animals from predators, ameliorates adverse weather conditions, or provides shelter for reproduction

Criteria and Indicators – a measurement of an aspect of a criterion; a quantitative or qualitative variable that can be measured or described and that, when observed periodically, demonstrates trends

Criterion – a category, condition, or process by which sustainable forest management may be assessed

Crown – the part of a tree or woody plant bearing live branches and foliage

Crown class – a category of tree based on its crown position relative to those of adjacent trees

-codominant – a tree whose crown helps to form the general level of the main canopy of even-aged stands or, in uneven-aged stands, the main canopy of the tree's immediate neighbors, receiving full light from above and comparably little from the sides

-dominant – a tree whose crown extends above the general level of the main canopy of even-aged stands or, in uneven-aged stands, above the crowns of the tree's immediate neighbors and receiving full light from above and partial light from the sides

-emergent – a tree whose crown is completely above the general level of the main canopy, receiving full light from above and from all sides

-intermediate- a tree whose crown extends into the lower portion of the main canopy of even-aged stands or, in uneven-aged stands into the lower portion of the canopy formed by the tree's immediate neighbors, but shorter in height than the codominants and receiving little direct light from above and none from the sides

-overtopped (suppressed) – a tree whose crown is completely overtopped by the crowns of one or more neighboring trees

Crown closure – the point at which the vertical projections of crown perimeters within a canopy touch

Crown density – the amount and compactness of foliage of the crowns of trees or shrubs

Cumulative effects – the combine effects resulting from sequential actions on a given area

Cut-to-length – *harvesting* a system in which felled trees are processed into log lengths at the stump before they are carried to the road or landing

Database – a collection of data stored in a systematic manner such that the data can be readily retrieved, modified, and manipulated, usually computerized

Dbh – see diameter breast height

CWHR – California Wildlife Habitat Relationship

Decision maker – The Forest Service line officer with the authority and responsibility to make decisions regarding the KRP also referred to as the Forest Supervisor.

Decommission – to remove those elements of a road or buildings that reroute hill slope drainage and present slope stability hazards

DEIS - Draft environmental impact statement

Density – 1. the weight (mass), number, or size per unit of volume 2. *biology* the size of a population in relation to some unit of space

Den tree – a tree that contains a weather tight cavity for wildlife

Development – the advancement of the management and use of natural resources to satisfy human needs and improve the quality of human life

Deviation – the difference between any particular observation in a set of observations and the arithmetic mean of the set

DFPZ – Defensible fuel profile zone

Diameter (at) breast height (DBH, dbh) – the diameter of the stem of a tree measured at breast height (4.5 ft or 1.37 m) from the ground

Diameter class – any of the intervals into which a range of diameters of tree stems or logs may be divided for classification or use

Diameter limit – the diameter (minimum or maximum) to which trees or logs are measured, cut, felled, or used

Diminution - The act or process of diminishing; a lessening or reduction

Disease – a harmful deviation from normal functioning of physiological processes

Dispersal – the spread, on any time scale, of plants or animals from any point of origin or from one place to another

Disturbance – A natural or human event that causes a change in the existing condition of an ecological system.

Domestic water sources – Watersheds containing National Forest System lands that provide surface waters to facilities that treat and distribute water for domestic purposes. These purposes include normal household uses such as drinking, food preparation, bathing, washing clothes and dishes, watering lawns and gardens, and similar uses.

Ecosystem – A spatially explicit, relatively homogeneous unit of the earth that include all of the interacting organisms and components of the abiotic environment within its boundaries

Endangered species – any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register

EIS - Environmental impact statement

Elevation – Vertical distance of measure displayed in feet above sea level.

Endangered species – Any species of plant or animal defined through the Endangered Species Act of 1976 as being in danger of extinction throughout all or a significant portion of its range, and published in the Federal Register.

Endemic species – Plants or animals that occur naturally in a certain region and whose distribution is relatively limited to a particular locality. Endemism is the occurrence of endemic species in an area.

Environmental Impact Statement – a detailed statement of a federal project's environmental consequences, including adverse environmental effects that cannot be avoided, alternatives to the

proposed action, the relationship between short term and long term productivity, and any irreversible or irretrievable commitment of resources.

Ephemeral stream – a stream or portion of a stream that flows only in direct response to precipitation, receiving little or no water from springs and no long continued supply from snow or other sources and whose channel is at all times above the water table.

Epidemic – 1. *entomology* pertaining to populations of plants, animals, and viruses that build up, often rapidly, to unusually generally injuriously high levels.

Erosion – the wearing away of the lands surface by rain, running water, wind, ice, gravity, or other natural or anthropogenic agents including such processes such as creep or tillage; **accelerated erosion**- erosion much more rapid than normal, natural, or geologic erosion, primarily as a result of the influence of human activities or in some cases, of other animals or natural catastrophes that expose bare surfaces.

FARSITE - Version 4 of the fire behavior and growth simulator used by Fire Behavior Analysts from the USDA FS, USDI NPS, USDI BLM, and USDI BIA, and taught at S493. It is designed for use by users familiar with fuels, weather, topography, wildfire situations and the associated terminology.

Feasibility – the relative advantage of managing or improving a unit considering its capability and suitability for specific use under the existing and projected socioeconomic climate

Fire behavior -

- **Crown fire** – A fire that spreads across the tops of trees or shrubs more or less independently of a surface fire.
- **Extreme fire behavior** – a level of fire characteristics that ordinarily preclude methods of direct control, usually moving at a high rate of speed.
- **Spot fire** – a fire ignited beyond the zone of direct ignition from the main fire, caused by windborne sparks or embers
- **Underburn** – a fire that consumes surface fuels but not trees and shrubs.

Fire frequency – How often fires occur within a given time period in a specified area.

Fire hazard – the ease of ignition and resistance to control of the fuel complex.

Fire intensity – the rate of heat release for an entire fire at a specific point in time.

Fireline – any strip of land cleared or treated to control a fire's edge.

Fire regime – the characteristic frequency, extent, intensity, and seasonality of fires within an ecosystem.

Fire return interval – The average number of years between successive fires in designated areas.

Fire severity – Denotes the scale at which vegetation and a site are altered or disrupted by fire, from low to high. It is a combination of the degree of fire effects on vegetation and on soil properties.

Fire severity – the degree to which a site has been altered or disrupted by fire

Fire suppression – all work and activities connected with fire-extinguishing operations beginning with discovery and continuing until the fire is completely extinguished.

FlamMap - A Fire Behavior Mapping and Analysis program that computes potential fire behavior characteristics (ROS, flame length, etc.) over an entire FARSITE landscape for constant weather and fuel moisture conditions.

Flow – 1. the movement of a stream of water or other mobile substances from place to place 2. the movement of water, and the moving water itself; the volume of water passing a given point per unit of time

Forage – 1. browse and herbage that is available either naturally or produced seasonally or annually on a given area or range that can provide food for grazing animals or to be harvested for feeding

Forest – an ecosystem characterized by a more or less dense and extensive tree cover, often consisting stands varying in characteristics such as species composition, structure, age class, and associated processes, and commonly including meadows, streams, fish and wildlife.

Forest fire – an uncontrolled fire on lands covered wholly or in part by timber brush, grain, or other flammable vegetation.

Forest health – The perceived condition of a forest derived from concerns about such factors as its age, structure, composition, function, and vigor, presence of unusual levels of insects or disease, and resilience to disturbance. Individual and cultural viewpoints, land management objectives, spatial and temporal scales, the relative health of the stands that make up the forest, and the appearance of the forest at a point which influences the perception and interpretation of forest health.

Forest Management – the practical application of biological, physical, quantitative managerial, economic, social, and policy principles to the regeneration, management, utilization, and conservation of forests to meet specified goals and objectives while maintaining the productivity of the forest

Forest plan – *federal land management* a document that guides all natural resource management and establishes management standards and guidelines for a national forest, and that embodies the provisions of the National Forest Management Act of 1976.

Forestry – the profession embracing the science, art, and practice of creating, managing, using, and conserving forests and associated resources for human benefit and in a sustainable manner to meet desired goals, needs, and values.

Forest type – a category of forest usually defined by its vegetation, particularly its dominant vegetation as based on percentage cover of trees.

Fragmentation – The process by which a landscape is broken into small islands of forest within a mosaic of other forms of land use or ownership.

Frequency – 1. *biometrics* the number of occurrences of a given type of event of the number of members of a population falling into a specified class 2. *ecology* the number of individuals in a community

Frequency distribution – a graphical, tabular, or mathematical representation of the manner in which the occurrences of a continuous or discrete, random variable are distributed over the range of its possible values.

Fuelbreak – a generally wide strip of land on which native vegetation has been permanently modified so that a fire burning into it can be more readily controlled.

Fuel management – The act or practice of controlling flammability and reducing resistance to control of wildland fuels through mechanical, chemical, biological, or manual means, or by fire in support of land management decisions..

Fuel type – an identifiable association of wildland fuel elements of distinctive species, form, size, arrangement, or other characteristics that will cause a predictable rate of spread or resistance to control under specified weather conditions; kinds of fuels include the following:

- Activity fuel – the combustible material resulting from or altered by forestry practices such as timber harvest or thinning.

- Aerial fuel – the standing and supported live and dead combustibles not in direct contact with the ground and consisting mainly of shrub and tree crowns, stems, foliage, branches

- Fine fuel – fast-drying dead combustible material, generally characterized by a comparatively high surface area-to-volume ratio and diameters of less than 0.25 in that is consumed rapidly by fire when dry.

- Ground fuel – combustible material below the surface fuel layer such as peat duff and roots.

- Heavy fuel- combustible material of large diameter, usually > 3 in that ignites and burns more slowly than fine fuels

- Ladder fuel- combustible material that provides continuity between vegetation between vegetation strata and allows fire to climb into the crowns of trees or shrubs with relative ease.

- Natural fuel – combustible material resulting from natural processes and not directly generated or altered by land management practices.

-Surface fuel- the loose surface litter on the soil surface, e.g., fallen leaves or needles, twigs, bark, cones, branches, grasses, shrub and tree reproduction, downed logs, stumps, seedlings, and forbs interspersed with or partially replacing litter.

Fugitive Dust – Any solid particulate matter entrained in the ambient air which is caused by anthropogenic or natural activities which is emitted into the air without first passing through a stack or duct designed to control flow; including but not limited to, emissions caused by movement of soil, vehicles, equipment, and windblown dust. This excludes particulate matter emitted directly in the exhaust of motor vehicles, and from other fuel combustion devices.

Geographic information system (GIS) – an organized collection of computer hardware, software, geographic and descriptive data, personnel, knowledge, and procedures designed to efficiently capture, store, update, manipulate, analyze, report and display the forms of geographically referenced information and descriptive information.

Ground skidding - pulling logs along the ground without using an arch or fairlead to raise the forward ends.

Habitat – a unit area of environment, the place, natural or otherwise, where an animal, plant, or population naturally or normally lives and develops

Habitat capability - The ability of a land area or plant community to support a given species of wildlife.

Harvesting – the felling, skidding, on-site processing, and loading of trees or logs onto trucks.

Headwater – 1. the source of a stream 2. the upper tributaries of a drainage basin.

Herb – a non-woody, vascular such as a grass, a grass like plant, a fern, or a forb.

Herbaceous - a class of vegetation dominated by no-woody plants known as herbs.

Herbicide – a pesticide used for killing or controlling the growth of plants.

Horizon, soil – a layer of soil approximately parallel to the land surface and differing from adjacent genetically related layers in physical, chemical, and biological properties or characteristics such as color, structure, texture, consistency, kinds and number of organisms present, degree of acidity or alkalinity.

Host – an organism on or within which another organism develops and obtains all or part of its food.

Hydrolysis – the conversion, by reaction with water, of a complex substance into two or smaller molecules.

Indigenous – native to a specified area or region, not introduced.

Indirect effects – effects that are caused by an action and occur at a later time, or at another location, yet are reasonably foreseeable in the future.

Infestation – 1. the attack of macroscopic organisms in considerable concentration *note* examples are infestations of tree crowns by budworm, timber by termites, soil or other substrates by nematodes or weeds 2. the intermixing of one organism with another without establishing a food relationship.

Insect – a member of the class Insecta characterized by a body segmented into three distinct regions (head thorax abdomen), by a head with one pair of antennae, by a thorax with three segments each with a pair of legs, and usually one or two pairs of thoracic wings.

Insecticide – a pesticide employed against insects.

Interdisciplinary team - a group of specialists assembled as a cohesive team with frequent interactions to solve a problem or perform a task.

Intolerant – a plant requiring sunlight and exposure for establishment and growth.

Issue – A matter of controversy or dispute over resource management activities that is well defined or topically discrete and addressed in the design of a planning alternative.

Invasive Plants – see non-native invasive plants definition.

KRAS – Kings River Administrative Study (prior to 2002)

KREW – Kings River Experimental Watershed, research study area (lead by Carolyn Hunsaker of PSW Fresno)

KRP – Kings River Project (direction for the KRP is based on the Intra-agency agreement between the USDA Forest Service Pacific Southwest Region and Pacific Southwest Research Station for the jointly funded Kings River Project (signed by the PSW Regional Forester and PSW Research Station Director, August 6, 2002).

KRP uneven-aged silvicultural strategy – see Uneven-aged Silvicultural Strategy

Ladder fuel – see fuel type

Landing – a cleared area in the forest to which logs are yarded or skidded for loading onto trucks for transport.

Landscape – a spatial mosaic of several ecosystems, landforms, and plant communities across a defined area irrespective of ownership or other artificial boundaries and repeated in similar form throughout.

Leaf area index – the sum of all the upper or all-sided leaf surface areas projected downward per unit of area of ground beneath the canopy.

Legacy tree - a tree, usually mature or old growth, that is retained on a site after harvesting or natural disturbance to provide biological legacy.

Logging – the felling, skidding, on-site processing, and loading of trees or logs onto trucks.

Lop – to cut limbs from trees, whether standing, felled, or fallen.

Lop-and scatter – a hand method of removing the upward extending branches from tops of felled trees to keep slash low to the ground, to increase rate of decomposition, lower fire hazard, or as a pretreatment prior to burning.

LOP - Limited operating period

LRMP – Land and resource Management Plan

Management – kinds of management include the following:

-Area – an area for which a single management plan is developed and applied

-Goal – a broad general statement usually not quantifiable that expresses a desired state or process to be achieved.

-Indicator - a plant or animal species, community, or special habitat selected during planning and monitored during implementation because the effects of management on its condition and trend will suggest the condition and trend of the resource as a whole.

-Intensity - a management practice or combination of management practices and associated costs designed to obtain a specific level of goods and services.

-Objective - a concise, time-specific statement of measurable planned results that correspond to pre-established goals in achieving a desired outcome.

-Plan- a predetermined course of action and direction to achieve a set of results, usually specified as goals, objectives, and policies.

-Policy – a definite course or method of action to guide present and future decisions or to specify in detail the ways and means to achieve goals and objectives.

-Practice – a specific activity, measure, course of action, or treatment undertaken on a forest ownership.

-Prescription – a set of management practices and intensities scheduled for application on a specific area to satisfy multiple uses or other goals

-Units – groups of stands creating logical units for management implementation

Matrix – General forest area between reforestation groups and considered part of the regulated stand; the least fragmented, most continuous pattern element of a landscape; the vegetation type that is most continuous over a landscape.

Mbf – a thousand board feet.

Mechanical methods – Utilization of machinery such as bulldozers and rubber tire skidders for tractor logging; or helicopter logging, skyline cable logging, mechanical harvesters, and shredders/masticators.

Merchantable – having the size, quality, and condition suitable for marketing under a given economic condition.

MIS (management indicator species) - A wildlife species whose population will indicate the health of the ecosystem in which it lives and, consequently, the effects of forest management activities to that ecosystem; MIS species are selected by land management agencies.

Mitigation – action taken to alleviate potential adverse effects of natural or human-caused disturbances

Model – (modeling) an abstract representation of objects and events from the real world for the purpose of simulating a process, predicting an outcome, or characterizing a phenomenon

Mortality – trees dying from natural causes, usually by size class in relation to sequential inventories or subsequent to incidents such as storms, wildfire, or insect and disease epidemics

Mosaic – A pattern of vegetation in which two or more kinds of communities are interspersed in patches, such as clumps of shrubs with grassland between.

Native species – an indigenous species that is normally found as part of a particular ecosystem

Natural range – the geographic and elevational limits within which an organism occurs naturally

NEPA – National Environmental Policy Act; Congress passed NEPA in 1969 to encourage productive and enjoyable harmony between people and their environment. One of the major tenets of NEPA is its emphasis on public disclosure of possible environmental effects of any major action on public lands. Section 102 of NEPA requires a statement of possible environmental effects to be released to the public and other agencies for review and comment.

NEXUS - An Excel(tm) spreadsheet linking surface and crown fire prediction models, NEXUS is useful for evaluating alternative treatments for reducing crown fire risk and assessing the potential for crown fire activity.

NHPA – National Historic Preservation Act

Nitrogen fixation – the conversion of elemental nitrogen from the atmosphere to organic combinations or to forms readily utilizable in biological processes

Nitrogen Oxide[s] (NOx) - A class of compounds that are respiratory irritants and that react with volatile organic compounds (VOCs) to form ozone (O₃). The primary combustion product of nitrogen is nitrogen dioxide (NO₂). However, several other nitrogen compounds are usually emitted at the same time (nitric oxide [NO], nitrous oxide [NO], etc.), and these may or may not be distinguishable in available test data.

Nonnative invasive species – Plant species that are introduced into an area in which they did not evolve, and in which they usually have few or no natural enemies to limit their reproduction and spread. These species can cause environmental harm by significantly changing ecosystem composition, structure, or processes, and can cause economic harm or harm to human health.

Non-target species – a plant or animal against which a suppression measure or pesticide is not directed

Notice of intent – the first formal step in the environmental impact statement process, consisting of a notice with the following information: a description of the proposed action and alternatives; a description of the agency's proposed scoping process, including scoping meetings; and the name and address of the persons to contact within the lead agency.

Noxious plant (weed) – a plant specified by law as being especially undesirable, troublesome, and difficult to control

Objective – see management objective

Old growth (forest) – the (usually) late successional stage of forest development

Output – *planning*, any result, product, or service that a process or activity produces

Overstory – that portion of the trees, in a forest of more than one story, forming the upper or uppermost canopy layer

PM₁₀ – Particulate matter of mass median aerodynamic diameter (MMAD) less than or equal to 10 micrometers; a measure of small matter suspended in the atmosphere that can penetrate deeply into the lung where they can cause respiratory problems

PM_{2.5} - Particulate matter of mass median aerodynamic diameter (MMAD) less than or equal to 2.5 micrometers. A measure of fine particles of particulate matter that come from fuel combustion, agricultural burning, woodstoves, etc; Often called respirable particles, as they are more efficient at penetrating lungs and easily causing damage.

PNV – Potential Natural Vegetation

Paradigm – an acquired way of thinking about something that shapes thought and action in ways that are both conscious and unconscious

Patch – a small part of a stand or forest

Pathogen – a parasitic organism directly capable of causing disease

Perennial stream – a stream that has running water on a year-round basis under normal climatic conditions

Pesticide – a chemical preparation used to control individuals or populations of injurious organisms

Pre-commercial thinning – The removal of trees not for immediate financial return but to reduce stocking, to concentrate growth on the more desirable trees

Prescribed fire – to deliberately burn wildland fuels in either their natural or modified state and under specified environmental conditions, which allows the fire to be confined to a predetermined area and produces the fireline intensity and rate of spread required to attain planned resource management objectives.

- prescribed managed fire – a fire ignited by management to meet specific objectives

Prescription – 1. *fire*- A written statement defining the objectives to be attained as well as the conditions of temperature, humidity, wind direction and speed, fuel moisture, and soil moisture under which a fire will be allowed to burn, generally expressed as acceptable ranges of the prescription elements and the limits of the geographic area to be covered 2. *silviculture* a planned series of treatments designed to change current stand structure to one that meets management goals.

Primary Research Studies – these research studies are currently in progress and/or will most likely throughout the life of the KRP (KREW; Uneven-aged silvicultural system Study; California Spotted Owl Module; and Air Quality (Spatial distribution ozone, nitric acid, ammonia and N deposition))

Proposal – synonym for proposed action

Proposed Action – The proposal under consideration

PSW – Pacific Southwest Region (usually refers to the research station in Fresno)

Purpose – a desired or intended result or effect, the object towards which one strives, a goal

Rate of spread – the relative speed with which a fire increases in size

Record of decision (ROD)- a public document separate from but associated with an environmental impact statement that identifies all alternatives, provides the agency's final decision, the rationale behind the decision, and the agency's commitments to monitoring and mitigation

Reforestation – the reestablishment of forest cover either naturally or artificially

Regeneration – 1. seedlings or saplings existing in a stand 2. the act of renewing tree cover by establishing young trees naturally or artificially

Regeneration Method – a cutting procedure by which a new age class is created.

- **Uneven-aged** methods regenerate and retain and maintain a multi-aged structure by removing some trees in all size classes either singly, or in small groups

-**Regeneration Groups (Group Selection)** – Trees are removed and new age classes are established in small groups. Note Areas in the general forest where groups' three acres size and smaller are reforested using natural or planted seedlings and managed as plantations and considered part of the regulated stand.

Release – a treatment designed to free young trees from undesirable, usually overtopping, competing vegetation

Residual – a tree or snag remaining after an intermediate or partial cutting of a stand; the difference between an observed data point and that generated by a mathematical model

Resilience – the ecological capacity of a plant community or ecosystem to maintain or regain normal function and development following disturbance

Resistance – 1. *ecology* the ability of a community to avoid alteration of its present state by a disturbance 2. *entomology* the ability of plants to avoid, suppress, prevent, overcome, or tolerate insect or pathogen attack

Restoration – *ecology* the process of returning ecosystems or habitats to their original structure and species composition

Resources – the natural resources of an area

Restoration – the process of returning ecosystems or habitats to their original structure and species composition

Riparian –related to, living, or located in conjunction with a wetland, on the bank of a river or stream but also at the edge of a lake or tidewater

Riparian zone – a terrestrial area, other than a coastal area, of variable width adjacent to and influenced by a perennial or intermittent body of water

Risk – the relative probability of any of several alternative outcomes as determined or estimated by a decision maker when the outcome of an event or series of events is not known

Road construction – Activities that result in the addition of road miles to the forest transportation system.

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

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

ROD – Record of Decision (the decision document signed by the Decision Maker), this should be used in conjunction with a reference such as the 2001 Amendment to Forest Plans in the Sierra Nevada

Sample – a part of a population consisting of one or more sampling unit's selected and examined as a representative of the whole

Secondary Research Studies – the status of these research studies are in a state of flux and may or may not be funded or occur throughout the life of the KRP (Forest Birds; Fisher; and Goshawk/Great Grey Owl)

Sediment (sedimentation) – Solid materials, both mineral and organic, in suspension or transported by water, gravity, ice, or air; may be moved and deposited away from their original position and eventually will settle to the bottom.

SEIS – refers to the Supplemental Environmental Impact Statement for the Sierra Nevada Forest Plan Amendment (2004)

Sensitive species – Those species that (a) have appeared in the Federal Register as proposed for classification and are under consideration for official listing as endangered or threatened, (b) are on an official state list of endangered or threatened species, or (c) are recognized by a management agency as needing special management to prevent their being placed on federal or state lists

Shade Intolerant – having the capacity to compete for survival under direct sunlight conditions

Shade tolerant – having the capacity to compete for survival under shaded conditions

Silvicultural system – a planned series of treatments for tending, harvesting, and reestablishing a stand

Silviculture – the art and science of controlling the establishment, growth, composition, health and quality of forests and woodlands to meet the diverse needs and values of landowners and society on a sustainable basis

Simulation – an operations research technique that represents physical, natural, social and economic systems by models in order to study the factors affecting the system and to aid decision making

Site – the area in which a plant or a stand grows, considered in terms of its environment, particularly as this determines the type and quality of the vegetation the area can carry

Site preparation – hand or mechanized manipulation of a site, designed to enhance the success of regeneration

Slash – the residue left on the ground after logging or accumulating as a result of storm, fire, girdling, or delimiting

SNF – Sierra National Forest

Skid road (skid trail) – A road access cut through the woods for skidding.

Skidder – A self-propelled machine (cable, clam-bunk, or grapple) used for dragging trees or logs.

Snag – a standing, generally unmerchantable dead tree from which the leaves and most of the branches have fallen

SNFPA, SNFP - Sierra Nevada Forest Plan Amendment

Soil compaction – the process by which the soil grains are rearranged, resulting in a decrease in void space and causing closer contact with one another, thereby increasing bulk density

Species – the main category of taxonomic classification into which genera are subdivided, comprising a group of similar interbreeding, individuals sharing a common morphology, physiology, and reproductive process

Stand – 1. *ecology* a contiguous group of similar plants 2. *silviculture* a contiguous group of trees sufficiently uniform in age-class distribution, composition, and structure, and growing on a site of sufficiently uniform quality, to be a distinguishable unit

Stand density – 1. a quantitative measure of stocking expressed either absolutely in terms of number of trees, basal area, or volume per unit area or relative to some standard condition 2. a measure of the degree of crowding of trees within stocked areas commonly expressed by various growing space ratios

Stand Density Index (SDI) - relative measure of tree density based on the Self-Thinning Rule, also known as the $-3/2$ rule

Stand structure – 1. *ecology* the physical and temporal distribution of plants in a stand 2. *silviculture* the horizontal and vertical distribution of components of a forest stand including the height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, snags, and down woody material

State Implementation Plan (SIP) - Plans devised by states to carry out their responsibilities under the Clean Air Act. SIPs must be approved by the Environmental Protection Agency and include public review.

Stocking – an indication of growing-space occupancy relative to a preestablished standard

Structure – The sizes, shapes, and/or ages of the plants and animals in an area.

Succession – the gradual supplanting of one community of plants by another

Sulfur Dioxide (SO₂) - A gas consisting of one sulfur and two oxygen atoms; of interest because sulfur dioxide converts to an aerosol that is very efficient at scattering light. Also, it can convert into acid droplets consisting primarily of sulfuric acid.

Surfactant – an ingredient in a pesticide formulation that modifies the relationship between the surfaces of a liquid and another liquid or surface

Thinning – a cultural treatment made to reduce stand density of trees primarily to improve growth, enhance forest health, or to recover potential mortality

Threatened species – a plant or animal species likely to become endangered throughout all or a significant portion of its range within the foreseeable future

Timber – forest crops and stands containing timber

Tractor – a powered vehicle mounted on crawler tracks or wheels used for skidding or hauling

Tree – a woody perennial plant, typically large and with a well defined stem or stems carrying a more or less definite crown

Understory – all forest vegetation growing under an overstory

Understory burn (Underburn) – A management ignited fire that is used to consume surface fuels and forest residue but not overstory trees (in the case of forests or woodlands) and shrubs (in the case of shrublands). Used here to describe a low to moderate intensity surface fire in treated and untreated forested stands

Uneven-aged silvicultural strategy – Kings River Project has a unique silvicultural system designed upon a particular methodology which includes: Uneven-aged silvicultural management; regeneration in groups; and prescribed fire to maintain fuel distribution combined to create the pre-1850 forest conditions.

Uneven-aged stand – a stand with trees of three or more distinct age classes, either intimately mixed or in small groups

Uniform – *of a forest, crop, or stand* constituted of trees whose crowns form an ordered, even canopy; the trees are not necessarily even-aged

USDA - United States Department of Agriculture

USFS – United States Forest Service

USFWS – U.S.D.I. Fish and Wildlife Service, Sacramento Field Office

Vegetation polygons – criteria for each polygon are based on potential natural vegetation, aspect, slope, and site quality

Viability – The ability of a population of a plant or animal species to persist for some specified time into the future. Viable populations are populations that are regarded as having the estimated numbers and distribution of reproductive individuals to ensure that its continued existence is well distributed in a given area.

Volatile Organic Compounds (VOC) – Any compound of carbon, excluding carbon monoxide, carbon dioxide, metallic carbides or carbonates, and ammonium carbonate that participates in atmospheric photochemical reactions.

Watershed – a region or land area drained by a single stream, river, or drainage network

Weather – the short-term state of the atmosphere, mainly with respect to human activities

Weed – 1. a valueless troublesome, or noxious plant often exotic, growing wild, especially on growing profusely 2. a plant growing where it is not wanted

WIN – Watershed improvement needs sites (e.g. rehabilitation of skid trails). A part of the watershed restoration process that includes high and moderate WIN sites in watersheds where cumulative watershed effects are a concern.

Wildfire – any non-structure fire, other than prescribed fire, occurring on wildland

Wildland – Land other than that dedicated for other uses such as agriculture, urban, mining, or parks.

Wildland-urban interface (WUI) – The line, area, or zone where structures and other human development meet or intermingle with undeveloped wildland or vegetative fuels. Because of their location, these structures are extremely vulnerable to fire should an ignition occur in the surrounding area.

Wildlife – all non-domesticated animal life

Woodland – a forest area; a plant community in which, in contrast to a typical forest, the trees are often small, characteristically short-boled relative to their crown depth, and forming an open canopy with the intervening area being occupied by lower vegetation, commonly grass

Yard – *harvesting* 1. a place where logs are accumulated 2. to convey logs or trees to a landing, particularly by cable, balloon, or helicopter logging systems

Yarder – A machine for cable logging consisting of a system of power-operated winches and a tower used to haul logs from a stump to a landing.