

Glossary

Aboveground Carbon Stocks: Carbon stocks refer to a distinct pool or reservoir capable of accumulating and releasing carbon. Aboveground carbon stocks refers to the amount of carbon stored in the living biomass of forest trees and plants, and dead wood and litter.

Acquisition: Parcels of land changing ownership through title transfer. It can refer to the purchase of land parcels by a public agency or non-profit organization for the purpose of providing a higher level of protection against threats.

Afforestation: The establishment of a forest in an area where preceding vegetation or land was not forest.

Age Class: An interval into which a tree is classified based on its age, often in ten year increments.

Agriculture: A Management Landscape class where the primary use is agriculture (crops, orchards, vineyards, irrigated pastures, and other farming activities). Human impact on natural ecological processes is significant, but presumed to retain some habitat value for some native species.

Air Pollution: The introduction of chemicals, particulate matter, or biological materials that cause harm or discomfort to humans or other living organisms, or damages the natural environment, into the atmosphere.

Anadromous Fish Watersheds: These are watersheds that coincide with the current range of anadromous salmonids. These watersheds provide important habitat for salmonids.

Assets: Items of commercial and non-commercial value, both natural and human-made. Examples are areas of buildings, commercial standing timber, and production of water.

Belowground Carbon Stocks: This includes living and dead roots, soil mesofauna, and the microbial community. In addition to this is the larger pool of soil organic carbon (see Soil Organic Carbon, SOC).

Biological Diversity: The variety of life over some spatial unit, used to describe all aspects of the broadly diverse forms into which organisms have evolved especially including species richness, ecosystem complexity and genetic variation.

Biological Legacy: A biologically derived structure or component inherent from a previous ecosystem including large trees, snags, or down logs.

Biomass: Plant material that can be converted into fuel. Harvested vegetation is taken to a biomass energy facility, a process which typically results in an improved vegetation condition in terms of potential fire threat, wildlife habitat capability, timber growth, or forage production.

Bioregion: An area that includes a rational ecological community with characteristic physical (climate, geology), biological (vegetation, animal), and environmental conditions.

Bioswales: Landscape elements designed to remove pollution from surface run-off water. Commonly placed in parking lots where substantial automotive pollution is collected by the paving and then flushed by rain.

California Wildlife Habitat Relationship System (CWHR): A state-of-the-art classification system for California's wildlife, containing life history, management, and habitat relationships information on 675 species of amphibians, reptiles, birds, and mammals known to occur in the state.

Carbon Dioxide: A colorless, odorless, non-combustible gas, present in low concentrations in the atmosphere (about three hundredths of one percent by volume). Carbon dioxide is produced when any substance

containing carbon is burned. It is also a product of breathing and fermentation. Plants absorb carbon dioxide through photosynthesis.

Carbon Sequestration: The ability of forests or other natural systems to store carbon as biomass, thereby preventing it from collecting in the atmosphere as carbon dioxide. Forests absorb carbon dioxide from the atmosphere through photosynthesis. Carbon sequestration in forests is potentially reversible, however, because carbon contained in terrestrial ecosystems is vulnerable to disturbances such as wildfires or pest outbreaks, as well as land use conversions and other losses of carbon from management actions.

Carbon Sink: A carbon pool, such as a forest, that has more carbon flowing into it than flowing out. Forests are the good sinks because they are the most efficient means of taking carbon out of the atmosphere and storing it for long periods of time.

Carbon Storage: The process of storing carbon in leaves, woody tissue, roots, and soil nutrients.

Climate Change: Any long-term significant change in the “average weather” that a given region experiences. Average weather may include average temperature, precipitation and wind patterns.

Condition Class: A measurement of the degree to which a vegetation community has departed from its historical fire regime resulting in alterations of key ecosystem components such as species composition, structural stage, stand age, and canopy closure.

Conifer Forest: A land cover class with greater than 10 percent total tree canopy and of which 50 percent or more are conifers (30 percent or more for the CWHR type Montane-Hardwood Conifer). Conifer Forests are generally located in higher elevation mountainous areas and have commonly recognized evergreen tree species such as ponderosa pine (*Pinus ponderosa*) and redwood (*Sequoia sempervirens*).

Conifer Woodland: A land cover class where the overstory canopy occupied by trees is composed of 10 percent or more conifers and dominated by small, brushy tree species such as California juniper (*Juniperus californica*) and pinyon pine (*Pinus edulis*). Conifer Woodlands are generally located on the east side of the Sierra Nevada mountains and the southern regions of the state and characterized by an open canopy with intervening lower vegetation such as grasses and shrubs.

Conifer: Trees belonging to the order Gymnospermae, comprising a wide range of trees that are mostly evergreens. Conifers bear cones and have needle-shaped or scalelike leaves. In the wood products industry the term “softwoods” refers to conifers.

Conservation Easement: A restriction deeded to a qualified third party that permanently limits certain activities on real property in order to protect conservation values such as biodiversity, water quality, wildlife habitat, or carbon sequestration. The restriction stays with the property through successive owners. The restriction reduces the “highest and best” economic use of the property so that the property’s value reflects only the allowed uses. If the landowner donates the easement as a gift, this reduction becomes a charitable tax deduction. An easement also can be sold to nonprofit or government agencies to provide revenue.

Corridors: Any space that improves the ability of a species to move among patches of their habitat.

CWPP (Community Wildfire Protection Plan): Authorized and defined in Title 1 of the Healthy Forests Restoration Act of 2003, the CWPP must be collaboratively developed (with agreement among local government, local fire departments and the state agency responsible for forest management), identify and prioritize areas for hazardous fuel reduction treatments, and recommend measures that homeowners and communities can take to reduce the ignitability of structures. In communities where a CWPP does not exist, first the capital

must be developed to create a plan. This involves forming a local or county Firesafe Council, or going through the process to become a Firewise community. Once a CWPP is created, implementation requires specific actions and funding to conduct various projects and activities. Finally, a CWPP must be periodically evaluated and updated to reflect changing conditions.

Developed Land: A Natural Resource Inventory definition comprising large urban and small built-up areas, as well as roads and railroads not included in urban/built-up areas.

Development: A human settlement pattern measured by housing density. Includes “conversion”, where natural landscapes are assumed to lose virtually all of their ecological processes, and “parcelization”, where ecosystem processes are impacted but not completely lost. It is assumed that conversion occurs at an average housing density of five housing units per acre, and parcelization at 20 per acre.

Disturbance Regime: The characteristic pattern of natural or human caused events that disrupt the current physical and biological conditions of an area, such as floods, fires, storms and human activity that shape vegetative composition and seral stage.

Drought: A protracted deficiency of precipitation over an extended period of time, usually a season or more. This deficiency results in a water shortage for some activity, group, or environmental sector. Drought occurs in most all climatic zones, but its characteristics can vary from one region to another.

Easement: A right, such as a right of way, to make limited use of another’s real property. legal title to the underlying land is retained by the original owner for all other purposes. Easements are a tool for protecting lands against threats such as development, without the costs of actually acquiring and managing the land.

Ecological Integrity: The degree to which the components (types of species, soil etc.), structures (arrangement of components), and processes (flows of energy and nutrients) of an ecosystem, or natural community are present and functioning intact. Lands with high ecological integrity generally have not been subjected to significant human influences or disruption of natural processes, such as fire, floods, and nutrient and hydrological cycling.

Ecosystem Function: The operational role of ecosystem components, structure, and processes.

Ecosystem Health: The degree to which a biological community and its nonliving environmental surroundings function within a normal range of variability; the capacity to maintain ecosystems structures, functions and capabilities to provide for human need.

Ecosystem Processes: The flow or cycling of energy, materials, and nutrients through space and time.

Ecosystem Services: The beneficial outcomes, for the natural environment, or for people, that result from ecosystem functions. Some examples of ecosystem services are support of the food chain, harvesting of animals or plants, clean water, or scenic views. In order for an ecosystem to provide services to humans, some interaction with, or at least some appreciation by, humans is required.

Ecosystem Structure: Spatial distribution or pattern of ecosystem components.

Ecosystem: The interacting system of a biological community and its nonliving environmental surroundings.

Endangered Species: Any species, including subspecies or qualifying distinct population segment, which is in danger of extinction throughout all or a significant portion of its range.

Endemic Plant Richness: The total number of native plant species based on species range overlap as found in CalJep.

Endemic: Found only in a specified geographic region.

Energy Consumption: This threat represents the conditions that exist in some areas that lead to higher rates of electricity consumption. This includes climate, which is represented by average annual days over 90 degrees, and the presence of impervious surfaces such as parking lots which create “heat islands.”

Exotic Invasive Species: Plants, animals, and microbes not native to a region which, when introduced either accidentally or intentionally, out-compete native species for available resources, reproduce prolifically, and dominate regions and ecosystems. Because they often arrive in new areas unaccompanied by their native predators, invasive species can be difficult to control. Left unchecked, many invasives have the potential to transform entire ecosystems, as native species and those that depend on them for food, shelter, and habitat, disappear (<http://mdc.mo.gov/nathis/exotic/>).

Fire Frequency: A broad measure of the rate of fire occurrence in a particular area. For historical analyses, fire frequency is often expressed using the fire return interval calculation. For modern-era analysis, where data on timing and size of fires are recorded, fire frequency is often best expressed using fire rotation.

Fire Prevention: This includes various precautions that are taken to prevent or reduce the likelihood of a fire (Wikipedia). Specific fire prevention tools include education, law enforcement, inspections, etc.

Fire Regime: A measure of the general pattern of fire frequency and severity typical to a particular area or type of landscape: The regime can include other metrics of the fire, including seasonality and typical fire size, as well as a measure of the pattern of variability in characteristics.

Fire Rotation: An area-based average estimate of fire frequency, calculated as the length of time necessary for an area equal to the total area of interest to burn. Fire rotation is often applied to regionally stratified land grouping where individual fire-return intervals across the variability of the strata (i.e., the fine scale pattern of variation in timing of fires) is unknown, but detailed information on fire size is known. Hence, fire rotation is a common estimate of fire frequency during periods of recorded fire sizes.

Fire Suppression: This is the act of extinguishing destructive fires (Wikipedia). In areas that burn too frequently, fire suppression infrastructure (engines, personnel, etc.) may be augmented in order to increase the effectiveness of extinguishing ignitions before they can spread.

Fire Threat: An index of expected fire frequency and physical ability to cause impacts. Components include surface fuels, topography, fire history, and weather conditions.

Forage: Browse and herbage that is available and acceptable to grazing animals.

Forb: A broad-leafed herb other than a grass, especially one growing in a field, prairie, or meadow.

Forest Health: The capacity of a forest for renewal, for recovery from a wide range of disturbances, and for retention of ecological function, while meeting the current and future needs of people for desired levels of values, uses, products, and services.

Forest Inventory and Analysis (FIA): A plot-based survey and statistical analysis with representative field based plots of all forest lands outside the National Forest System. Every decade, the Pacific Resource Inventory, Monitoring and Evaluation program (PRIME) of the Pacific Northwest Research Station (PNW)

conducts the FIA, a national mandate authorized by the Forest and Rangeland Renewable Resource Research Act of 1978.

Forest Management: The processes of planning and implementing practices for the stewardship and use of forests and other wooded land aimed at achieving specific environmental, economic, social and /or cultural objectives.

Forest Management (Climate Change): In the context of climate change forest management refers to management actions that are taken to either reduce the potential loss of carbon from wildfire and associated emissions, or actions that are taken to increase carbon sequestration. This can cover a broad range of actions that includes: forest thinning, fuel reduction project, reforestation and afforestation projects.

Forest Management (Water Quality): Potential water resource impacts from forest management can be evaluated using the ERA (Equivalent Roaded Acres) calculation. The ERA calculation estimates potential sediment related impacts from forest management (timber harvesting, roads, and fuel treatments).

Forest Meadows: Wet and dry grassland vegetation in montane areas. Impacts to meadow systems from forest encroachment, grazing, and other land management practices can degrade montane meadows.

Forest Pests: Organisms (insects and diseases) capable of causing injury or damage to forests (particularly trees).

Forest Structure: The horizontal and vertical distribution of components of a forest stand including height, diameter, crown layers, and stems of trees, shrubs, herbaceous understory, and down woody debris (Helms,1998).

Forest/Forests: A biological community of plants and animals that is dominated by trees and other woody plants; by definition in the Assessment, all lands with greater than 10 percent tree canopy cover and including all CWHR types in the Conifer Forest, Conifer Woodland, Hardwood Forest and Hardwood Woodland land cover classes.

Forests and Rangelands: All CWHR types in the Conifer Forest, Conifer Woodland, Hardwood Forest, Hardwood Woodland, Shrub, Grassland, Desert Shrub, and Desert Woodland land cover classes plus the Wetland CWHR type Wet Meadow, excludes Urban, Agriculture, Barren, and Water.

Fragmentation: The process by which a contiguous land cover, vegetative community, or habitat is broken into smaller patches within a mosaic of other forms of land use/land cover, e.g., islands of an older forest age class immersed within areas of younger aged forest (Helms, 1998), or patches of oak woodlands surrounded by housing development.

Fuels Reduction Projects: The harvest of vegetation in order to reduce potential fire threat, and often resulting in improved wildlife habitat capability, timber growth, or forage production. Some projects create revenue through the sale of wood products or biomass for energy.

Geographic Information System (GIS): A computer based system used to store and manipulate geographical (spatial) information.

Geothermal: Natural heat from within the earth, captured for production of electric power, space heating, or industrial steam.

Grassland: A land cover class with greater than two percent grass cover but less than ten percent tree or shrub cover. Grasslands are dominated by grasses, grasslike plants, and forbs. For the Assessment, the CWHR type Non-irrigated Pasture is included in the Annual Grassland type.

Green Infrastructure (Unprotected): The portion of green infrastructure that is available for development (e.g., conversion and parcelization). Typically this includes all privately owned lands that are not restricted by easements that preclude development.

Green Infrastructure: An interconnected network of waterways, wetlands, woodlands, wildlife habitats, and other natural areas; greenways, parks and other conservation lands; working farms, ranches and forests; and wilderness and other open spaces that support native species, maintain natural ecological processes, sustain air and water resources and contribute to the health and quality of life for America's communities and people.

Gross State Product: Gross economic output (sales, receipts and other operating income, commodity taxes, and inventory changes) minus intermediate inputs (consumption of goods and services purchased from other U.S. industries or other nations).

Groundwater Basins: A groundwater basin is defined as an area underlain by permeable materials capable of furnishing a significant supply of groundwater to wells or storing a significant amount of water. Groundwater basins in California have been delineated by the Department of Water Resources (Bulletin 118).

Habitat: The living place of an organism, natural or otherwise, characterized by its physical or biological properties; a specific classification of vegetation in the California Wildlife Habitat Relationship System.

Hardwood Forest: Land cover class with greater than 10 percent total tree canopy and of which 50 percent or more are hardwoods. Typical species include black oak (*Quercus kelloggii*), canyon live oak (*Quercus chrysolepis*), tanoak (*Lithocarpus densiflorus*) and madrone (*Arbutus menziesii*). Hardwood Forests are usually located in the mountainous elevations above the Hardwood Woodlands and are often associated with Conifer Forest tree species.

Hardwood Woodland: A land cover class with greater than 10 percent total tree cover and of which 50 percent or more are hardwoods (70 percent or more for mixed hardwood-conifer stands, except the CWHR type Blue Oak-Foothill Pine, which for the Assessment, is considered Hardwood Woodland); different from Hardwood Forest in species composition and in that trees are widely spaced, of shorter stature and often found in lower elevations in the transition between Grassland/Shrub and Conifer Forest. In the foothills of the Sierra Nevada and the eastside of the northern coast ranges, tree species typically include blue oak (*Quercus douglasii*) and interior live oak (*Quercus wislizenii*). In the mid to southern coast range, species include coast live oak (*Quercus agrifolia*) and California bay (*Umbrellula californica*) and further south, Englemann oak (*Quercus englemannii*). Typical understory is composed of extensive annual grass vegetation.

Hardwoods: Dicotyledonous trees; generally deciduous, broad-leafed species such as oak, alder, or maple.

Herbaceous: Having characteristics of an herb, i.e., a non-woody stem such as forbs, grasses and ferns, or the non-woody tissues of a branch or stem.

HUC 8 (Hydrologic Unit Code): A medium size watershed unit represented by an 8 digit code. California has 142 HUC 8 watersheds that are 825,000 acres average.

Hydroelectric: Of or relating to production of electricity from falling water that turns a turbine generator, referred to also as "hydro".

Impaired Water Bodies (303d): Section 303(d) of the federal Clean Water Act, requires States to identify waters that do not meet water quality standards (called “impaired water bodies”) after the technology-based effluent limits or other required pollution control mechanisms are put into place. States are then required to prioritize waters/watersheds for total maximum daily loads (TMDL) development.

Impaired: Condition of the quality of an ecosystem or habitat that has been adversely affected for a specific use by contamination or pollution.

Invasive Species: A species of plant or animal that is able to proliferate and alter native biological communities and ecosystem function.

Land Cover: Predominant vegetation life forms, natural features, or land uses of an area.

Land Trust: A private, nonprofit organization formed to protect natural resources such as wildlife habitat, prime farmland, and recreational lands. It accomplishes this through a variety of means, including outright purchase, securing donations, and receiving conservation easements.

Landscape-Level Development Threat: The potential for development to have a significant impact on a habitat type over an entire bioregion. It is measured as the percentage of each vegetation type in each bioregion that has a Localized Development Threat rank of medium or high, meaning that these areas will experience conversion by 2030 or parcelization by 2020.

Landscape-Level Insect and Disease Threat: When a large proportion of a vegetation type is “unhealthy” in terms of having overstocked stands that are stressed by drought, there is the potential that an insect or disease outbreak could damage the entire broad ecosystem. To measure health of existing tree stands, we use current tree mortality. To project future health, we use expected tree mortality which estimates future tree mortality based on current stand conditions.

Landscape-Level Wildfire Threat: When a large proportion of a vegetation type is “unhealthy” in terms of having not experienced a normal fire regime, there is the potential that an extreme fire event could damage the entire broad ecosystem. To measure health, we apply the notion of “condition class.” Areas where fire has been excluded beyond historical frequencies, or areas where fire has occurred much more often than historical frequencies, with associated significant changes in ecosystem and fuel components and structure, are unhealthy (e.g., have a large proportion of their acreage in the most extreme condition class).

Litter: The uppermost layer of the forest floor consisting chiefly of fallen leaves and other decaying organic matter.

Livestock: Domestic animals, such as cattle or horses, raised for home use or for profit, especially on a farm.

Localized Development Threat: The direct threat from development occurring on a specific site. This includes “conversion”, where natural landscapes are assumed to lose virtually all of their ecological processes, and “parcelization”, where ecosystem processes are impacted but not completely lost. It is assumed that conversion occurs at an average housing density of five housing units per acre, and parcelization at 20 per acre.

Major Roads: An important component of human infrastructure including interstate highways, U.S. highways, and state highways.

Management Landscape: A conceptual framework which classifies lands based on the primary land use objective, ownership status, and housing density.

Meadow Restoration: Montane meadows consist of wet and dry grassland vegetation. Impacts to meadow systems from forest encroachment, grazing, and other land management practices can degrade montane meadows. The restoration of these meadow systems can enhance water quality, water quantity, and improve wildlife habitat.

Megawatt: One thousand kilowatts; one megawatt is approximately the amount of power required to meet the peak demand of a large hotel.

Mitigation Banking: The restoration, creation, enhancement, or preservation of a habitat conservation area which offsets expected adverse impacts to similar nearby ecosystems. In the United States, the federal government as well as many state and local governments, require mitigation for the disturbance or destruction of wetland, stream, or endangered wildlife habitat. Once approved by regulatory agencies the mitigation bank may sell credits to developers whose projects will impact these various ecosystems.

National Forest: Federal lands that have been designated by Executive Order or statute as national forest or purchased units and other lands under the administration of the U.S. Forest Service (U.S. Department of Agriculture).

Native Species: A species of plant or animal present prior to European settlement.

Natural Community Conservation Plan (NCCP): A cooperative effort to protect habitats and species, between private landowners, the California Department of Fish and Game (DFG) and other interested parties. The primary objective of NCCPs is to conserve natural communities at the ecosystem scale while accommodating compatible land use. The DFG seeks to anticipate and prevent the controversies and gridlock caused by species' listings by focusing on the long-term stability of wildlife and plant communities and including key interests in the process.

Non-Point: Pollution whose source cannot be ascertained including runoff from storm water and agricultural, range, and forestry operations, as well as dust and air pollution that contaminate waterbodies.

Nutrient Cycling: The exchange or transformation of elements (nutrients) among the living and nonliving components of an ecosystem.

Old Growth Forest: A stand or stands of forest trees that exhibit large tree sizes, relatively old age, and decay characteristics common with over-mature trees; As defined by USDA FS ecologists, specific forest structure characteristics, by forest type and site class, such as size of trees, number of trees per acre, multiple canopies, degree of decay, and size and number of snags and down woody debris.

Open Space: Land free from intensive residential or commercial uses.

Ozone (O₃): An unstable, poisonous allotrope of oxygen that is formed naturally from atmospheric oxygen by electric discharge or exposure to ultraviolet radiation. It is also produced in the lower atmosphere by the photochemical reaction of certain pollutants.

Parcelization: The process of land ownership being broken into increasingly smaller tracts; by definition in the Assessment, housing density of one or more units per 20 acres and less than one unit per acre.

Perennial: 1. A plant which lives or continues over two years, whether it retains its leaves in winter or not; 2. a stream or water body that persists year round in normal weather years.

Population: The number of individuals of a particular taxon in a defined area.

Post-Fire Erosion: This is the accelerated soil loss that can occur after a large fire event. The rate of loss is a function of factors such as slope, soil type, geology, burn severity, vegetation, and rainfall.

Prescribed Fire: A deliberate burn of wildland fuels in either their natural or modified setting and under specific environmental conditions which allow the fire to be confined to a predetermined area and intensity to attain a planned resource management objective (Helm, 1998).

Public Water Supply: Water supplied to a group through a public or private water system. This can include residential, commercial, and industrial uses.

Rangeland Productivity: This asset ranks areas based on their potential to grow forage for livestock grazing. Since it only measures potential, it does not capture whether the forage is actually utilized for livestock production.

Rangelands: Any expanse of land not fertilized, cultivated or irrigated that is suitable, and predominately used for grazing by domestic livestock and wildlife. These include the Conifer Woodland, Hardwood Woodland, Shrub, Grassland, Desert Woodland and Desert Shrub land cover classes along with and some habitats within the Wetland and Hardwood Forest land cover classes.

Recreation Areas: Lands that support human outdoor activities such as hiking, bird-watching, camping, hunting, off-road vehicle use, etc. This can also include lands used for educational purposes that also serve to connect people to the green infrastructure.

Reforestation: The establishment of forests on land that had recent (less than 10 years) tree cover.

Renewable Energy: A power source other than a conventional power source within the meaning of Section 2805 of the Public Utilities Code, provided that a power source utilizing more than 25 percent fossil fuel may not be included.

Reserve: A Management Landscape class where lands are permanently protected from conversion of natural land cover and have a mandated management plan in operation to maintain a primarily natural state, but which may receive management practices; lands managed consistent with statutory designation such as wilderness, wild and scenic, national park, and nation monument. Commodity production is prohibited or greatly restricted.

Riparian Area: Transition zone between a stream's edge and the dryer uplands.

Riparian Vegetation: Vegetation found on the interface between land and a stream or water body. Plant communities that develop along the banks of streams are referred to as riparian vegetation. Riparian vegetation is characterized, but not exclusively defined, by hydrophytic (water adapted) plants. This asset is represented using vegetation data to capture the Wildlife Habitat Relationships (WHR) types Montane Riparian, Valley Riparian, and Desert Riparian. In addition, other vegetation types within a 30 meter buffer zone from hydrologic features is represented with a lower ranking.

Riparian: Relating to or located on the banks of a river or stream.

Salmonids: Any of the family Salmonidae, some of which are freshwater species, such as golden trout (*Salmo aquabonita*) and Lahontan cutthroat trout (*Salmo clarki henshawi*), and some of which are anadromous (spending part of their life cycle at sea and returning to freshwater to reproduce), such as coho (*Oncorhynchus kisutch*) and chinook (*Oncorhynchus tshawytscha* Walbaum).

Seed Tree: A silvicultural method in which all trees are removed except for a small number of seed bearers left singly or in small groups, maybe 10 per acre. The seed trees are generally harvested after regeneration is established. An evenaged stand results.

Shelterwood: A silvicultural method to establish seedling regeneration via a series of partial harvests, followed by the almost complete removal of overstory trees in a removal harvest once adequate numbers of seedlings are in place to permit the seedlings to grow in full sunlight.

Shrub: A land cover class with greater than ten percent non-Desert shrub cover and less than ten percent tree cover. Typical species include sagebrush (*Artemisia* sp.), chamise (*Adenostoma fasciculatum*), and manzanita (*Arctostaphylos* sp.).

Silviculture: Generally, the science and art of cultivating (such as with growing and tending) forest crops, based on the knowledge of silvics. More explicitly, silviculture is the theory and practice of controlling the establishment, composition, constitution, and growth of forests.

Site Class: A species-specific classification of forest land in terms of inherent capacity to grow crops of industrial, commercial wood (Helms, 1998).

Size Class: An interval into which a tree is classified based on its trunk diameter at breast height (DBH), often in two-inch size classes.

Small Hydro/Hydroelectric: A facility employing one or more hydroelectric turbine generators, the sum capacity of which does not exceed 30 megawatts.

Snags: Standing dead trees with a minimum DBH of 10 inches and a height of 10 feet.

Soil Organic Carbon: Organic carbon in mineral soils to a specified depth and applied consistently through a time series. This is a generic term referring to all organic material in soil that is not part of a root system.

Soil Productivity: The capacity of a soil, in its normal environment, to support plant growth. This capacity can be diminished by large wildfire events, due to post-fire soil erosion.

Species of Special Concern: An administrative designation given to animals that were not listed under the federal Endangered Species Act or the California Endangered Species Act at the time of designation but are declining at a rate that could, and sometimes does, result in listing.

Species Recovery Plans: A program to develop protocols for protecting and enhancing federally rare and endangered species populations. A recovery plan is a non-regulatory document that may apply to one species or an ecosystem.

Species Richness: The total number of species, based on species range overlap and taken from "A GAP Analysis of California."

Stand: A group of trees sufficiently uniform in composition, age, and/or condition forming a management entity and distinguishable from adjoining tree groups.

Stand-Level Insect and Disease Threat: The insect and disease threat unique to a small area as a result of its current tree stocking and drought index. This is identical to the "Insect /Disease" threat referred to in subthemes where there is no associated landscape level threat.

Stand-Level Wildfire Damage: Areas that have recently burned in large wildfires, where stress is measured based on burn severity. These areas often require restoration in order to restore important public benefits and ecosystem services, and to prevent potential future impacts such as soil erosion, regeneration failures, etc.

Stand-Level Wildfire Threat: The fire threat unique to a small area as a result of its current fuel conditions, weather, and historic fire frequency. This is identical to the “Wildfire” threat referred to in subthemes where there is no associated landscape level threat.

Stocking Level: A measure of the quantity of wood fiber growing in a standing timber acre.

Stressor: Pressure that directly or indirectly influence the quality and quantity of habitat used by terrestrial and aquatic wildlife, mainly from human-induced changes in the landscape. Stressors include agricultural and urban land use, introduced invasive and exotic species, nutrient enrichment, direct human disturbance, water management conflicts, climate change and toxic chemicals.

Structures: Residential and commercial development, which is measured using housing density classes applied to census blocks from the 2000 U.S. Census, and commercial areas mapped in National Land Cover data.

Succession: The gradual, either in response to an environmental change or induced by the organisms themselves.

Sudden Oak Death (SOD): A brown algae species, *Phytophthora ramorum*, that infects a variety of host plant species, including several coastal oak species.

Sustainability: Meeting the needs of the present without compromising the ability of future generations to meet their own needs.

Take: To hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.

Taxon: The name that is applied to a group in biological classification, for example, species, subspecies, variety, or evolutionarily significant unit (ESU). The plural is taxa.

Threatened and Endangered Species: Federal and State legally protected plants and animals. Data sources include U.S. Fish and Wildlife Service designated critical habitat and occurrence data from California Natural Diversity Database (by quad).

Threats: Agents that can trigger major negative impacts on assets. Examples include wildfire, future development, and forest insect outbreaks.

Timber: Standing trees which will be used for lumber and other wood products. The value depends on tree species present, tree size, and stocking.

Timberland: Forest land capable of growing 20 cubic feet or more of industrial wood/acre/year (mean increment at culmination in fully stocked, natural stands). Timberland does not include lands placed in a reserved status through removal of the area from timber utilization by statute, ordinance, or administrative order and is not in a withdrawn status pending consideration for reserved.

Timberland Production Zone (TPZ): A statutory designation for lands assessed for taxes based on growing and harvesting timber as the highest and best use of the land.

Total Maximum Daily Load (TMDL): A calculation of the maximum amount of a pollutant that a waterbody can receive and still meet water quality standards, as well as an estimation of the percentage originating from each pollution source. A TMDL is the sum of the allowable loads of a single pollutant from all contributing point and nonpoint sources. The calculation must include a margin of safety to ensure that the waterbody can be used for State-designated purposes. The calculation must also account for seasonal variation in water quality.

Transfer Payments: Income payments to persons for which no current services have been performed. They consist of payments to individuals and to nonprofit institutions by businesses and federal, state, and local governments.

Transmission Lines: Electrical power lines that move electricity over long distances (69 kilovolts or higher).

Tree Canopy: This asset is ranked based on the density of tree cover as determined by satellite imagery. This recognizes that communities with more tree cover merit consideration for prioritization for urban forest management to maintain existing tree cover.

Turbidity: The relative clarity of water that may be affected by material in suspension in the water.

Understory: The trees and other woody species growing under a relatively continuous cover of branches and foliage formed by the overstory trees.

Unevenaged: A silvicultural system in which individual trees originate at different times and result in a forest with trees of many ages and sizes; stands where less than 70 percent of the tree stocking falls in three adjacent 10 year age classes.

Unsuitable: Lands that are not in a reserved status through removal of the area from timber utilization by statute, ordinance, or administrative order, but in practice or as prescribed in management plans or regulatory rules, are not primarily managed for timber production.

Urban Forest Carbon Stocks: Refers to the carbon stocks associated with trees planted within the urban area. It can include both the above and below ground carbon stocks. See aboveground carbon stocks.

Urban Forest Expansion: The planting of trees and associated vegetation in urban areas that is additional to a baseline measurement and will increase economic, environmental, and social benefits to urban residents. Often the tree planting is a cooperative venture with the community and is completed with citizen participation and labor.

Urban Forest Management: The care and management of urban forests (i.e., tree populations in urban settings) for the purpose of improving the urban environment. Urban forestry advocates the role of trees as a critical part of the urban infrastructure. Urban foresters plant and maintain trees, support appropriate tree and forest preservation, conduct research and promote the many benefits trees provide. Urban forestry is practiced by municipal and commercial arborists, municipal and utility foresters, environmental policymakers, city planners, consultants, educators, researchers and community activists (Urban forestry: Definition from Answers.com)

Urban Heat: A measure for ranking areas within urban landscapes based on relative presence of urban heat islands as calculated by percent tree canopy and impervious surfaces; and climatic conditions as measured by average annual days over 90 degrees. This measure will be a proxy for energy use. Urban Heat results in areas that are significantly warmer than the surrounding rural areas.

Urban Population (Public Health and Energy Conservation): Identified asset and proxy variable to measure public health and energy conservation in urban areas. Urban population is measured by the proxy variable housing density combined with commercial development. Generally, it can be assumed that more densely populated areas, and areas where people work or do business, have a higher rate of energy use and more people potentially at risk from pollutants.

Urban Tree Maintenance: The systematic technical care of trees in urban areas that conforms to currently accepted national standards. Such standards currently are the ANSI A-300 tree care standards in association with the International Society of Arboriculture Best Management Practices. Such activities include tree inventory (measurement), young tree care, root management, tree pruning, tree removal, stump removal, and pest and disease assessment and treatment utilizing Integrated Pest Management techniques.

Urban Tree Planting: This involves expanding or augmenting the urban forest through tree planting. Often the tree planting is a cooperative venture with the community, and is completed with citizen participation and labor.

Urban: A land cover class and Management Landscape class dedicated to high density residential (one or more housing units per acre) and commercial/industrial/transportation uses. Human impact on natural ecological processes is significant and areas are not assumed to have value for habitat.

Value-Added: Of or relating to the estimated value that is added to a product or material at each stage of its manufacture or distribution.

Variable Retention: A silvicultural approach to harvesting based on retention of structural elements or biological legacies from the harvested stand for integration into a new stand to achieve various ecological objectives (Helms, 1998).

Viewshed: The total area visible from a point or series of points along a linear transportation facility. Viewshed is typically evaluated both from the roadway and conversely of the roadway as viewed from the adjacent area.

Water Conservation: This refers to reducing the use of water and reducing the waste of water.

Water Demand: The desired quantity of water that would be used if the water is available and a number of other factors such as price do not change. Demand is not static. Water demand is assessed as part of the California Water Plan.

Water Supply Watersheds: Those areas that contribute to public water supply. These are watersheds that drain downstream to a reservoir or major water storage facility.

Watershed Groups: Community based groups that conduct planning and restoration projects to protect and enhance the broad range of natural resources found within California watersheds.

Watershed Management Plan: The goal of watershed management is to plan and work toward an environmentally healthy watershed that provides a broad range of ecosystem services and benefits to all who live in the watershed. Typically, watershed management plans bring together stakeholders to develop solutions to address environmental issues of concern.

Watershed Restoration: Restoration of a watershed returns the ecosystem to as close an approximation as possible of its state prior to impairment. This typically benefits water quality that has been degraded by non-point source pollution.

Watershed: The land area drained by a single stream, river, or drainage network (Helms, 1998).

Wetland: An aquatic (water dominated) land cover class having greater than two percent vegetation cover and having less than 10 percent of the over story canopy occupied by trees or shrubs.

Wild and Scenic Rivers: The National Wild and Scenic Rivers System was created by Congress in 1968 (Public Law 90-542; 16 U.S.C. 1271 et seq.) to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection. Rivers are classified as wild, scenic, or recreational.

Wildfire Threat to Communities: The direct impact of wildfire on houses and other human infrastructure in the wildland-urban interface. This is a result of fire spread into developed areas, as well as fire starts caused by flying burning embers.

Wildfire: Any fire occurring on undeveloped land; the term specifies a fire occurring on a wildland area that does not meet management objectives and thus requires a suppression response. Wildland fire protection agencies use this term generally to indicate a vegetation fire. Wildfire often replaces such terms as forest fire, brush fire, range fire, and grass fire.

Wildland Urban Interface (WUI): The geographical intersection of two disparate systems, wildland and structures. At this interface, structures and vegetation are close enough that a wildland fire could spread to structures or fire could spread from structures to ignite vegetation.

Wildland: A region with minimal development as evidenced by few structures; transportation networks may traverse region. Region typically contains natural vegetation and may be used for recreational or agricultural purposes.

Wildlife Habitat: This asset ranks areas based on their relative importance for sustaining wildlife populations. Rankings were derived by merging data related to vertebrate species richness, endemic plant richness, rare natural communities, old-growth forests, riparian vegetation, and threatened and endangered species.

Woody Debris: Fallen dead wood or large branches; Woody debris is an important source of nutrients and habitat as well as a source of fuel for fire.

Woody Plant: A plant having hard lignified tissues or woody parts, especially stems.

Working: A component of Management Landscape classes where land is held or managed for some degree of commodity output, usually range or forested lands. Human impact is measurable and definite yet there remains considerable habitat value for species.

Zoning: Assigning a legal status to land that defines permitted uses. Zoning can be a tool for keeping lands as working landscapes for a set period of time. Examples of state-level zoning mechanisms include Timberland Production Zones (TPZ) that designate lands for timber production, and Williamson Act lands that are designated for livestock grazing. Local governments also define zoning which can include timber zones, agriculture preserve zones, etc.

Acronyms

ACE	Areas of Conservation Emphasis	Agency
ARB	Air Resources Board	Eastside Pine
BAER	Burned Area Emergency Recovery	Evolutionary Significant Units
BAFC	Border Area Fire Council	Forest Area Safety Taskforce
BLM	Bureau of Land Management	Federal Emergency Management Agency
BOF	Board of Forestry and Fire Protection	Forest Health Protection
CADC	California Desert Council	Fire Hazard Severity Zone
CAL FIRE	California Department of Forestry and Fire Protection	Forest Inventory and Analysis
CAL-IPC	California Invasive Plant Council	Fire and Resource Assessment Program
CAR	Climate Action Reserve	Forest Stewardship Council
CAS	Climate Adaptation Strategy	Geophysical Fluid Dynamics Laboratory
CBC	California Biodiversity Council	Greenhouse Gas
CCSM	Community Climate System Model	Geographic Information Systems
CEC	California Energy Commission	Global Climate Models
CEHCP	California Essential Habitat Connectivity Project	Goldspotted Oak Borer
CEQA	California Environmental Quality Act	Hadley Centre Model
ESA	U.S. Endangered Species Act	Health Forests Restoration Act
CESA	California Endangered Species Act	High Plus Medium Priority Landscape
CFPC	California Forest Pest Control	High Priority Landscape
CFR	Code of Federal Regulations	Hydrologic Unit Codes
CNPS	California Native Plant Society	Integrating Climate and Land Use
CO	Carbon Monoxide	Intrinsic Potential
CO ₂	Carbon Dioxide	Intergovernmental Panel on Climate Change
CO ₂ e	Carbon Dioxide Equivalent	Integrated Pest Management
CORP	California Outdoor Recreation Plan	Integrated Regional Water Management
CPAD	California Protected Areas Database	Leadership in Energy and Environmental Design
CROP	Coordinated Resource Offering Protocols	Lodgepole Pine
CWAP	California Wildlife Action Plan	Local Responsibility Areas
CWPP	Community Wildfire Protection Plan	Mountain Area Safety Taskforce
DFG	Department of Fish and Game	Montane Hardwood
DFR	Douglas-Fir	Monitoring Study Group
DFTM	Douglas-Fir Tussock Moth	Megawatt
DGVM	Dynamic Global Vegetation Model	National Council for Air and Stream Improvement
DOD	Department of Defense	Natural Community Conservation Planning Program
DOE	U.S. Department of Energy	Natural Communities Conservation
DPR	Department of Pesticide Regulation	
DWR	Department of Water Resources	
EIR	Environmental Impact Report	
EPA	U.S. Environmental Protection	
		EPN
		ESU
		FAST
		FEMA
		FHP
		FHSZ
		FIA
		FRAP
		FSC
		GFDL
		GHG
		GIS
		GCM
		GSOB
		HAD
		HFRA
		HMPL
		HPL
		HUC
		ICLUS
		IP
		IPCC
		IPM
		IRWM
		LEED
		LPN
		LRA
		MAST
		MHW
		MSG
		MW
		NCASI
		NCCP
		NCCPA

	Planning Act
NEPA	National Environmental Policy Act
NGO	Non Government Organization
NMFS	National Marine Fisheries Service
NO ₂	Nitrogen Dioxide
NO _x	Nitrogen Oxides
NPS	National Park Service
O/E	Observed/Expected
OPR	Office of Planning and Research
PG&E	Pacific Gas and Electric
PL	Priority Landscapes
PM	Particulate Matter
PPN	Ponderosa Pine
PRC	Public Resources Code
RCD	Resource Conservation District
RETI	Renewable Energy Transmission Initiative
RFR	Red Fir
ROGs	Reactive Organic Gases
RPS	Renewable Portfolio Standard
RWQCB	Regional Water Quality Control Board
S&PF	State and Private Forestry Program
SCAG	Southern California Association of Governments
SDM	Species Distribution Model
SFI	Sustainable Forest Initiative
SGC	Strategic Growth Council
SMC	Sierran Mixed Conifer
SOD	Sudden Oak Death
SOs	Sulfate
SRA	State Responsibility Areas
SVRA	State Vehicular Recreation Area
SWRCB	State Water Resources Control Board
TMDL	Total Maximum Daily Load
TPZ	Timberland Production Zones
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
VOCs	Volatile Organic Compounds
WBD	Watershed Boundaries Database
WCI	Western Climate Initiative
WFR	White Fir
WHR	Wildlife Habitat Relationships
WND	Western Wind Energy Corporation
WUI	Wildland Urban Interface
ZOI	Zone of Infestations