

# Chapter VIII: Glossary

## Glossary of Terms

**100-year floodplain:** The area along the river corridor that would receive floodwaters during a 100-year flood event. A 100-year flood event has the probability of occurring 1% of the time during any given year. If a 100-year flood event occurs, the following year will still have the same probability for occurrence of a 100-year event. For the purposes of this plan, the 100-year floodplain also includes wetlands and meadows associated with the hydrologic and ecological processes of the river.

**1982 Secretarial Guidelines for Wild and Scenic Rivers:** The 1982 Interagency Guidelines on the Wild and Scenic Rivers Act (also referred to as Secretarial Guidelines) provide guidelines on the evaluation, classification, and management of rivers designated as Wild and Scenic within the U.S. Departments of Agriculture and the Interior. The section of the guidelines on management of Wild and Scenic Rivers addresses carrying capacity and public use, as well as development of facilities and other management issues.

**A-weighted scale (dBA):** Noise intensity as measured with devices that have the same sensitivity to sound frequencies as the human ear.

**Adaptive management:** A process that allows the development of a plan when some degree of biological and socioeconomic uncertainty exists. It requires a continual learning process, a reiterative evaluation of goals and approaches, and redirection based on an increased information base and changing public expectations.

**Affected environment:** Existing biological, physical, social, and economic conditions of an area that are subject to change, both directly and indirectly, as a result of a proposed human action.

**Alluvial:** An adjective referring to alluvium, which are sediments deposited by erosional processes, usually by streams.

**Alluvium:** A general term for clay, silt, sand, gravel, or similar unconsolidated rock fragments or particles deposited during comparatively recent geologic time by a stream or other body of running water.

**Alternatives:** Sets of management elements that represent a range of options for how, or whether to proceed with a proposed project. An environmental impact statement, such the one in this Merced River Plan, analyzes the potential environmental and social impacts of the range of alternatives presented.

**Annosus root disease:** Annosus root disease is a widespread native fungus. In pines, the fungus spreads through the root system, attacking and killing the inner bark and sapwood. Within two to six years after initial infection, the fungus reaches the root crown and girdles the tree. The tree dies, but the fungus remains active as a saprophytic wood-decaying organism within roots and the butt of the dead tree. Pines weakened by annosus root disease are often killed by bark beetles. Incense-cedars, however, are not affected by beetles and will stand green for many years, until the disease finally weakens the structure enough to cause failure. Cedars are thought to act as a

reservoir for annosus root disease because they take so long to die.

**Annual corridorwide visitation limit:** Represents the annual visitation limit for the entire Merced River corridor. The annual limits as proposed in Alternatives 3 and 4 of the Revised Merced River Plan/SEIS have been established to ensure that the daily segment and management zone limits are not reached on the majority of days in a year. Based on information gathered through the VERP program, the proposed annual corridorwide visitation limits can be increased or decreased based on the condition of the Outstandingly Remarkable Values.

**Aquifer:** A geologic formation that contains sufficient saturated permeable material to yield significant quantities of water to wells and springs.

**Bed and bank:** The area below the ordinary high water mark in a river or stream. The ordinary high water mark is defined as the 2.33-year flood by the U.S. Army Corps of Engineers. See also, “stream bank.”

**Base zone:** The zone reflecting the general desired condition for a segment of the river corridor. Localized exceptions to the base zone are indicated by smaller zones within the base zone and are shown on the alternatives maps.

**Baseline data:** Data collected on a resource or subject that reflects its current status and serves as a basis for future comparison.

**Basin:** Refers to a drainage basin. A region or area bounded by a drainage divide and occupied by a drainage system. Specifically, an area that gathers water originating as precipitation and contributes it to a particular stream channel or system of channels. Synonym: watershed.

**Batholith:** Refers to a very large body of plutonic rock. The Sierra Nevada batholith comprises several smaller plutons that represent the repeated intrusions of granitic magma. From the Greek *bathos*, deep, and *lithos*, rock.

**Bed:** Refers to the relatively flat or level bottom (substrate) of a body of water, as in a lakebed or riverbed.

**Best Management Practices:** Effective, feasible (including technological, economic, and institutional considerations) conservation practices and land- and water-management measures that avoid or minimize adverse impacts to natural and cultural resources. BMPs may include schedules for activities, prohibitions, maintenance guidelines, and other management practices.

**Biodiversity:** Biodiversity, or biological diversity, is generally accepted to include genetic diversity within species, species diversity, and a full range of biological community types. The concept is that a landscape is healthy when it includes stable populations of native species that are well distributed across the landscape.

**Bog:** Peat deposits in areas with a high water table and little to no significant inflow or outflow streams. Bogs support acid-loving vegetation, especially mosses but are generally exceedingly deficient in available plant nutrients.

**Boundaries:** The areas that receive protection under the Wild and Scenic Rivers Act. Boundaries include an average of not more than 320 acres of land per mile, measured from the ordinary high water mark on both sides of the river.

**Categorical Exclusion:** As described under the National Environmental Policy Act, these are a category of federal actions that do not individually or cumulatively have a significant effect on the human environment which therefore neither an Environmental Assessment nor an Environmental Impact Statement is required. The Council on Environmental Quality NEPA Regulations gives federal agencies the authority and discretion to determine which of their own activities should be categorically excluded from NEPA. The types of activities that can be categorically excluded vary between agencies. (*The NEPA Handbook*)

**CEQ Regulations:** The Council on Environmental Quality (CEQ) was established by the National Environmental Policy Act (see NEPA) and given the responsibility for developing federal environmental policy and overseeing the implementation of NEPA by federal agencies.

**Chert:** A dense sedimentary rock containing quartz, possibly opal, calcite, and remains of siliceous and other organisms. Ancient seafloor deposits.

**Cirque:** A deep-walled, half-bowl-like recess or hollow situated high on a mountain at the head of a valley, produced by erosion of a glacier.

**Classifications:** The status of rivers or river segments under the Wild and Scenic Rivers Act (“wild,” “scenic,” or “recreational”). Classification is based on the existing level of access and human alteration of the site.

**Comprehensive Management Plan (CMP):** A plan to protect and enhance a Wild and Scenic River. The Merced River Plan is the National Park Service’s comprehensive management plan for segments of the Merced River corridor under its jurisdiction.

**Concession Services Plan:** The plan that guides the management of the concession enterprises, such as lodging, food services, retail and other services in Yosemite National Park.

**Cryptogamic crust:** Cryptogams, or cryptogamic crusts, are a thin crust made up of mosses, lichens, algae, and bacteria. These organisms form a biotic layer over unvegetated areas between shrubs, grasses, and flowering plants in undisturbed arid and semi-arid lands of the world, including the alpine and subalpine zones of the upper Merced River. Cryptogams function as soil builders forming a spongy layer that protects against erosion, absorbs moisture, and provides nitrogen and other nutrients for plant growth. When frozen, the cryptogamic crust uplifts and cracks, providing seed germination sites.

**Day excursion visitor:** One of two categories of day visitors. These are visitors who do not spend the night in the park or in the surrounding local counties, spending only one day in Yosemite before leaving the region to spend the night at home or in lodging outside the area. The other category of day visitors stay overnight locally outside of the park (the surrounding region consisting of Madera, Mariposa, Merced, Mono, and Tuolumne Counties) as part of their visit to Yosemite (referred to as “local overnighter”).

**Day visitor:** Visitors that do not stay overnight in the park. Includes both local overnighters and

day excursion visitors.

**Decibel (dBA):** A unit of measure of sound intensity.

**Desired conditions:** A set of goals aimed to achieve certain levels and types of visitor experiences, resource conditions, facilities and uses in a specific or general area of the Merced River corridor. These goals are revealed in management zoning schemes within the corridor boundaries.

**Developed Zones:** These zones are prescribed within Recreational designated segments of the Merced Wild and Scenic River corridor and will be managed to direct high-impact activities and facilities to areas better able to withstand heavy use and/or already developed locations in order to further protect and enhance Outstandingly Remarkable Values within other parts of the corridor.

**Diverse Visitor Experience Zones:** These zones are prescribed within Scenic or Recreational designated segments of the Merced Wild and Scenic River corridor and will be managed based upon the principals to protect and enhance the natural functioning of Outstandingly Remarkable Values, while accommodating moderate levels of visitor use. This will be achieved by maintaining, wherever possible, the integrity of the overall ecological unit (such as meadow, woodland, or wetland), while allowing for some human alternation of the landscape.

**Ecological restoration:** Ecological restoration is the process of assisting the recovery of an ecosystem that has been degraded, damaged, or destroyed.

**Ecosystem:** An ecosystem can be defined as a geographically identifiable area that encompasses unique physical and biological characteristics. It is the sum of the plant community, animal community, and environment in a particular region or habitat.

**El Portal Administrative Site:** The area outside the western boundary of the park along Highway 140 under the jurisdiction of the National Park Service used to locate park operations and administrative facilities for Yosemite National Park.

**Emergent wetland:** A wetland characterized by frequent or continual inundation dominated by herbaceous species of plants typically rooted underwater and emerging into air (e.g., cattails, rushes). The emergent wetland class is characterized by erect, rooted, herbaceous hydrophytes (e.g., cattails, rushes), excluding mosses and lichens. This vegetation is present for most of the growing season in most years. Perennial plants usually dominate these wetlands. All water regimes are included, except sub-tidal and irregularly exposed.

**Environmental Assessment:** A public document required under the National Environmental Policy Act (NEPA) that identifies and analyzes activities that might affect the human and natural environment. An environmental assessment is a concise public document which provides sufficient evidence and analysis for determining whether to prepare an EIS, aids an agency's compliance with NEPA when no EIS is necessary, and it facilitates preparation of an EIS when one is necessary. s

**Environmental Impact Statement (EIS):** A public document required under the National Environmental Policy Act (NEPA) that identifies and analyzes activities that might affect the

human and natural environment.

**Environmentally Preferable Alternative:** The environmentally preferable alternative is the alternative within the range of alternatives presented in a Draft Environmental Impact Statement (EIS) that best promotes the goals of the National Environmental Policy Act (NEPA). In general, this is the alternative causes the least damage to the environment and best protects natural and cultural resources. In practice, one alternative may be more preferable for some environmental resources while another alternative may be preferable for other resources. (*The NEPA Handbook*)

**Erratic:** A rock fragment of any size carried by glacial ice, or by floating ice, deposited at some distance from the outcrop of origin.

**Facilities:** Buildings and the associated supporting infrastructure such as roads, trails, and utilities.

**Fen:** An open wetland system with very high nutrients and productivity that receives some drainage from surrounding mineral soils and usually supports marsh-like vegetation (sedge, rushes, reeds, horsetails, grasses).

**Finding of No Significant Impact (FONSI):** The public document describing the decision made on selecting the “preferred alternative” in an environmental assessment. See “environmental assessment.”

**Fire return interval:** The typical period of time between naturally occurring fires.

**Floodplain:** A nearly level alluvial plain that borders a stream and is subject to flooding unless protected artificially.

**Fluvial:** Of or pertaining to a river. Fluvial is a technical term used to indicate the presence or interaction of a river or stream within the landform.

**Fluvial geomorphic response:** The interaction of a flowing river with the surrounding landform.

**Frazil ice:** Stream ice with the consistency of slush, formed when small ice crystals develop in super-cooled stream water as air temperatures drop below freezing. These ice crystals join and are pressed together by newer crystals as they form. Frazil ice sometimes occurs at Yosemite Falls.

**Frazil ice flooding:** Downslope movement of accumulated frazil ice.

**Free-flowing river:** Existing or flowing in natural condition without impoundment, diversion, straightening, riprapping, or other modification of the waterway (as defined in the Wild and Scenic Rivers Act – 16 USC 1286 [b]).

**Glacial till:** Glacially transported and unconsolidated mixtures of clay, silt, sand, and gravel deposited directly by and underneath a glacier without being reworked by melt water.

**Glaciation:** Effects on landforms produced by the presence and movement of a glacier.

**Geomorphic:** Of or pertaining to the form of the Earth or of its surface features.

**Governing mandates:** The National Park Service is directed to address user capacity, resource protection, and public enjoyment of park resources through a number of pieces of legislation such as laws, regulations, policies, and programs referred to in the Revised Merced River Plan/SEIS as governing mandates. These mandates establish the authority and responsibility for management in Yosemite National Park.

**Granitic rocks:** Igneous rocks (intrusive magma) that have cooled slowly below the Earth's surface typically consisting of quartz, feldspar, and mica. In contrast to granitic rocks, if magma erupts at the Earth's surface, it is referred to as lava. Lava, when cooled, forms volcanic rocks.

**Groundwater:** All subsurface water (below soil/ground surface), distinct from surface water.

**Groundwater recharge:** The process involved in the absorption and addition of surface water to the zone of saturation or aquifer.

**Hazardous material:** A substance or combination of substances, that, because of quantity, concentration, or physical, chemical, or infectious characteristics, may either: (1) cause or significantly contribute to an increase in mortality or an increase in serious, irreversible, or incapacitating illness; or (2) pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, disposed of, or otherwise managed.

**Hazardous waste:** Hazardous wastes are hazardous materials that no longer have practical use, such as substances that have been discarded, spilled, or contaminated, or that are being stored temporarily prior to proper disposal.

**Headwaters:** The point or area of origin for a river or stream.

**High Sierra Camps:** Overnight lodging facilities operated by the concessioner in the wilderness areas that include tent cabins, food service, and other amenities. Merced Lake High Sierra Camp is one of the High Sierra Camps.

**Hydrophytes:** Any plant growing in water or in a substrate that is at least periodically deficient in oxygen as a result of excessive water. Plants typically found in wetland habitats.

**Hydrologic response:** The response of a watershed due to precipitation. Usually refers to the resulting streamflow from a precipitation event.

**Implementation plan:** Implementation plans, which tier off of programmatic plans (like the *General Management Plan*) focus on "how to implement an activity or project needed to achieve a long-term goal. Implementation plans may direct specific projects as well as ongoing management activities or programs. They provide a more extensive level of detail and analysis than do general management plans. Implementation plans are required to undergo NEPA review.

**Implementation project:** Implementation projects are specific actions identified in an implementation plan

**Indicators:** Indicators under the VERP framework are specific and measurable physical, ecological, or social variables that reflect the overall condition of a zone or area caused by visitor use and/or visitor use related impacts. Indicators serve as early warning signs that too much use is occurring, or that the types of use are having an adverse affect on Outstandingly Remarkable

Values. Resource indicators measure visitor impacts on the biological, physical and/or cultural resources of a park; social indicators measure impacts on the visitor experience.

**Interim facility limits:** Interim facility limits as described in the Revised Merced River Plan/SEIS are temporary limitations placed on the addition or reduction of facilities during the 5-year period of development of the Visitor Experience and Resource Protection Program in Alternative 2. Interim facility limits define the allowable number of lodging units, campsites, and parking spaces (including bus parking spaces) within each segment of the Merced River corridor. Upon completion of the 5-year VERP development period, or when park management determines VERP data has the ability to inform management decisions, the interim facility limits would be lifted.

**Interim period:** A 5 year period defined only in Alternative 2. This period begins the day the Record of Decision is signed (thereby placing the Revised Merced River Plan/SEIS into effect), during which the National Park Service will continue to monitor VERP indicators and standards to develop baseline data for resource and social conditions within areas of the Merced River corridor. As specified by the Ninth Circuit Court of Appeals, the Wild and Scenic River Act “require[s] that the VERP be implemented through the adoption of quantitative measures sufficient to ensure its effectiveness as a current measure of user capacities. If the National Park Service is correct in projecting that it will need five years fully to implement the VERP, it may be able to comply with the user capacity mandate in the interim by implementing preliminary or temporary limits of some kind.”

**Intrusive:** A body of magma that is injected or is intruded into the pre-existing rock.

**Impoundment:** A dam or other structure to obstruct the flow of water in a river or stream.

**Krummholz:** Krummholz is the name given to dwarfed and stunted trees that occupy environments characterized by intense solar radiation, high winds, excessive salts, and/or large diurnal temperature fluctuations.

**Ladder fuels:** Dead or otherwise flammable material that provides a nexus between surface (ground) fuel layers (e.g., grasses) and aerial or canopy (e.g., trees) fuel layers. Ladder fuels are typically composed of immature trees, shrubs, or dead or downed branches.

**Limits of Acceptable Change (LAC):** The Limits of Acceptable Change process focuses on human-induced impacts to the environment. Recreation researchers developed this process to determine how much human-induced change is acceptable. The objective of LAC is to address impacts of public use and to preserve the environmental setting and resources for future recreational use.

**Limnetic:** All deepwater habitats within a lacustrine system. Many small lacustrine systems have no limnetic subsystem. (See lacustrine.)

**Liquefaction:** A process by which water-saturated materials (including soil, sediment, and certain types of volcanic deposits) lose strength and may fail during strong groundshaking. The transformation of granular material from a solid state into a liquefied state as a consequence of increased pore-water pressure.

**Local overnighner:** One of two categories of day visitors. These are visitors who stay overnight locally outside of the park as part of their visit to Yosemite (the surrounding region consisting of Madera, Mariposa, Merced, Mono, and Tuolumne Counties). The other category of day visitors does not spend the night in the park or in the surrounding local counties, spending only one day in Yosemite before leaving the region to spend the night at home or in lodging outside the area (referred to as “day excursion visitor”).

**Lacustrine:** Of or relating to lakes.

**Main stem (Merced River):** The sections of the Merced River beginning at the headwaters near the Sierra Crest and continuing through Yosemite Valley, the Merced River gorge, El Portal, and further downstream.

**Management action:** Actions taken by park management to protect river values and return conditions to established standards based upon information gathered by the Visitor Experience & Resource Protection (VERP) monitoring program.

**Management Action Toolbox:** A range of potential management actions may be implemented when conditions for a particular VERP indicator are approaching or not meeting a set standard. The Revised Merced River Plan/SEIS has identified a list of potential management actions in Table II-3: Management Action Toolbox that illustrate types of management actions the park could choose to implement depending on what is appropriate. The actual management actions selected would depend upon the particular impact, setting, and situation encountered.

**Management zone:** A geographical area for which management directions or prescriptions have been developed to determine what can and cannot occur in terms of resource management, visitor use, access, facilities or development, and park operations.

**Management Zone Limits:** Represents the maximum number of users allowed within each management zone at any one time. These management zone limits would be based upon proposed capacity factors, which differ depending on the desired conditions for the area as defined by the management zoning and depending on specific conditions. These factors are largely based on the Recreational Opportunity Spectrum method of addressing user capacity.

**Metamorphic rock:** Metamorphic refers to rocks derived from pre-existing rocks by mineralogical, chemical, structural changes.

**Mitigation:** Activities that will avoid, reduce the severity of, or eliminate an adverse environmental impact.

**Moraine:** Debris, such as boulders, stones, or sediment deposited by a glacier.

**National Environmental Policy Act (NEPA):** The federal act that requires the development of an environmental impact statement (EIS) for federal actions that might have substantial environmental, social, or other impacts.

**National Park Service Organic Act:** In 1916, the National Park Service Organic Act established the National Park Service in order to “promote and regulate use of parks...” and defined the purpose of the national parks as “to conserve the scenery and natural and historic objects and



wild life therein and to provide for the enjoyment of the same in a manner and by such means as will leave them unimpaired for the enjoyment of future generations.” This law provides overall guidance for the management of Yosemite National Park.

**National Parks and Recreation Act:** The 1978 law that establishes National Parks, Monuments, Recreation Areas and other recreation lands under the jurisdiction of the Department of the Interior. This law continues to be amended as new lands are acquired or boundaries of existing lands are changed.

**Natural processes:** All processes such as hydrologic, geologic, ecosystemic that are not the result of human manipulation.

**No Action Alternative:** The alternative in a plan that proposes to continue current management direction. "No action" means the proposed activity would not take place, and the resulting environmental effects from taking no action would be compared with the effects of permitting the proposed activity or an alternative activity to go forward.

**Nonmotorized watercraft:** A class of boats that includes rafts, kayaks, innertubes, and inflatable air mattresses.

**Nonnative species:** Species of plants or wildlife that are not native to a particular area and often interfere with natural biological systems.

**Nonpoint pollution sources:** Pollutants that enter the environment from general non-contained locations. Examples of nonpoint sources are roadways, parking lots, and landscaped areas. Pollutants from these locations can include petrochemicals, heavy metals, and fertilizers.

**Nonwilderness:** Areas that have not been designated for special protection under the Wilderness Act.

**NO<sub>x</sub>:** Generic term for a group of highly reactive compounds, all of which have nitrogen and oxygen in varying amounts.

**National Park Service Management Policies:** A policy is a guiding principle or procedure that sets the framework and provides direction for management decisions. National Park Service (NPS) policies are guided by and consistent with the Constitution, public laws, Executive proclamations and orders, and regulations and directives from higher authorities. Policies translate these sources of guidance into cohesive directions. Policy direction may be general or specific. It may prescribe the process by which decisions are made, how an action is to be accomplished, or the results to be achieved. The primary source of National Park Service policy is the publication *Management Policies 2001*. The policies contained therein are applicable Service-wide. They reflect National Park Service management philosophy. Director's Orders supplement and may amend *Management Policies*. Unwritten or informal “policy” and people’s various understandings of National Park Service traditional practices are never relied on as official policy.

**Opportunity purchases:** The process of public entities purchasing land as it becomes available from willing sellers on the real estate market. This is in distinction to using nonvoluntary means to compel an owner to sell (e.g., eminent domain).

**Ordinary high water:** The area along the river corridor that would receive floodwaters during a ordinary precipitation year (based on a 2.33-year flood). A 2.33-year flood event has the probability of occurring roughly 50 percent of the time during any given year.

**Outstandingly Remarkable Values (ORVs):** Those resources in the corridor of a Wild and Scenic River that are of special value and warrant protection. ORVs are the “scenic, recreational, geologic, fish and wildlife, historic, cultural or other similar values...that shall be protected for the benefit and enjoyment of present and future generations” (16 USC 1272).

**Overnight capacity:** Refers to the actual number of visitors who can be accommodated each night in lodging, camping, and wilderness High Sierra Camp facilities within Yosemite National Park. Capacity is determined by counting the maximum number of people permitted in each campsite and/or the room occupancy within lodging units.

**Oxbow:** A closely looping stream meander or lake resembling the U-shaped frame embracing an ox’s neck, having an extreme curvature such that only a neck of land is left between two parts of land.

**Paleoenvironment:** Ancient environment.

**Palustrine:** The palustrine system was developed to group the vegetated wetlands traditionally called by such names as marsh, swamp, bog, fen, and prairie, which are found throughout the United States. It also includes the small, shallow, permanent, or intermittent waterbodies often called ponds. Palustrine wetlands may be situated shoreward of lakes, river channels, or estuaries; on river floodplains; in isolated catchments; or on slopes. They may also occur as islands in lakes or rivers. The Palustrine system includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5%. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 hectares (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2 meters at low water; and (4) salinity due to ocean-derived salts less than 0.5%.

**Park overnighiter:** Visitors who lodge or camp overnight within Yosemite National Park.

**Particulate matter (PM-10 and PM-2.5):** Fractions of particulate matter characterized by particles with diameters of 10 microns or less (PM-10) or 2.5 microns or less (PM-2.5). Such particles can be inhaled into the air passages and the lungs and can cause adverse health effects. High levels of PM-2.5 are also associated with regional haze and visibility impairment.

**Planning:** A dynamic, interdisciplinary, process for developing short- and long-term goals for visitor experience, resource conditions and facility placement.

**Pluton:** A general term applied to any body of intrusive igneous rock that originates deep in the earth. Named for Pluto, Greek god of the underworld.

**Point bars:** Depositional areas on the inside of a meander bend. The area where material is deposited along a river, usually on the inside of a meander along a river (e.g., west side of

Housekeeping Camp).

**Potential wilderness additions:** Areas in wilderness where an existing use precluded full designation under the California Wilderness Act.

**Preferred Alternative:** The preferred alternative is the alternative within the range of alternatives presented in a Draft Environmental Impact Statement (EIS) that the agency believes would best fulfill the purpose and need of the proposed action. While the preferred alternative is a different concept from the environmentally preferable alternative, they may also be one and the same for some EISs. (*The NEPA Handbook*)

**Prescription:** A guideline that directs the management of a specific area by describing the type and intensity of activities, facilities, and park operations that can and cannot occur. See “management zone.”

**Pristine:** Unaltered, unpolluted by humans.

**Programmatic plan:** Programmatic plans establish broad management direction for Yosemite National Park. The 1980 *General Management Plan* is a programmatic plan with a purpose to set a “clearly defined direction for resource preservation and visitor use” and provide general directions and policies to guide planning and management in the park. The Merced River Plan is also a programmatic plan that guides future activities in the Merced River corridor. Programmatic plans are required to undergo NEPA review.

**Protohistoric:** Immediately before written history.

**Public comment process:** The public comment process is a formalized process required by the National Environmental Policy Act (NEPA) in which the National Park Service must publish a Notice Of Availability in the *Federal Register* which provides public notice that a Draft Environmental Impact Statement (EIS) and associated information, including scoping comments and supporting documentation, is available for public review and input pursuant to the Freedom Of Information Act. In addition, the National Park Service must conduct formal public hearings on the Draft EIS when required by statute or the Council on Environmental Quality NEPA Regulations.

**Public scoping process:** Scoping is a formalized process used by the National Park Service to gather the public’s and other agencies’ ideas and concerns on a proposed action or project. A Notice Of Intent (NOI) is published in the *Federal Register* announcing the agency’s intent to prepare an Environmental Impact Statement and a request for written public/other agency scoping comments to further define the goals and data needs for the project. In addition, although not required by the National Environmental Policy Act (NEPA) nor the Council on Environmental Quality (CEQ) NEPA Regulations, public scoping meetings may be held and integrated with any other early planning meetings relating to the proposed project.

**Record of Decision:** The public document describing the decision made on selecting the “preferred alternative” in an environmental impact statement. See “environmental impact statement.”

**Recreation Opportunity Spectrum (ROS):** ROS was developed in the late 1970s by the U.S.

Forest Service in dealing with increasing demands for recreation and the need to provide for a variety of recreation opportunities on national forest lands. ROS establishes a system for designating areas based upon the factors that comprise the “recreation opportunity” and provides a method for classifying areas and identifying the desired resource, social and managerial conditions for each area. ROS classifications could be compared to management zoning as prescribed in the Merced River Plan.

**Riffle (riffle/pool):** A riffle is part of the natural sequence of a stream pattern as it alters between riffles and pools in the linear direction. Riffles are the steeper, shallower areas where turbulence is usually present due to shallow water flowing over the channel substrate. Pools are the calmer, less steep areas where deeper water is present, typically in a wider channel width. Additionally, there are glides that are linear stream areas where no turbulence is present due to sufficiently deep water but stream velocities are higher than typical of pool areas. Glides are usually not as wide across the stream channel as compared to pools.

**Riparian areas:** The land area and associated vegetation bordering a stream or river.

**Riprap:** A layer of large, durable fragments of broken rocks specially selected and graded, thrown together irregularly or fitted together to prevent erosion by waves or currents.

**Riverine:** Of or relating to a river. A riverine system includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts in excess of 0.5%. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

**River corridor:** The area within the boundaries of a Wild and Scenic River (e.g., the Merced River corridor).

**River Protection Overlay:** A buffer area within and adjacent to the river that allows for the protection and restoration of natural and aquatic ecosystem processes.

**Rockfall shadow zone:** The area extending out from the talus zone in which individual rocks may travel outward beyond the talus.

**Section 7 determination process:** Section 7 of the Wild and Scenic Rivers Act specifies restrictions on hydro and water resources development projects. Water resources projects are subject to Section 7 of the Wild Scenic Rivers Act (16 USC 1278). Section 7(a) states, “*no department or agency of the United States shall assist by loan, grant, license or otherwise in the construction of any water resources project that would have a direct and adverse effect on the values for which such river was established, as determined by the Secretary charged with its administration.*”

**Section 35:** The area on the South Fork of the Merced River, originally designated by the U.S. Geological Survey, that demarcates the “township of Wawona” and contains intermixed parcels of private and National Park Service lands.

**Sediment:** A particle of soil or rock that was dislodged, entrained, and deposited by surface

runoff or a stream. The particle can range in size from microscopic to cobble stones.

**Segment:** Section 2 of the Wild and Scenic Rivers Act requires that the Merced River be classified and administered as “wild”, “scenic”, or “recreational” river segments, based on the condition of the river corridor at the time of boundary designation. The classification of a river segment indicates the level of development on the shorelines, the level of development in the watershed, and the accessibility by road or trail. “Wild” segments are free of impoundments and generally inaccessible except by trail, with watersheds and/or shorelines essentially primitive and unpolluted; “Scenic” segments are free of impoundments, with watersheds and shorelines largely undeveloped, but accessible in places by roads; and, “Recreational” segments are readily accessible by road or railroad, may have some development along the shorelines, and may have undergone impoundment or diversion in the past. The Merced River is divided into eight segments.

**Segment Limits:** Represents the maximum number of users that would be allowed in a segment of the Merced River corridor on any single day during peak visitor periods.

**Site hardening:** Any development that creates an impervious ground surface. Usually used as a way to direct visitor use and reduce impacts to resources.

**Snag:** A standing dead tree.

**Social trails:** A social trail is an informal, nondesignated trail between two locations. Social trails often result in trampling stresses to sensitive vegetation types.

**South Fork (Merced River):** The segments of the Merced River passing through Wawona and entering the main stem west of El Portal.

**Standards:** Standards are the minimum acceptable conditions established for VERP indicators. They identify when management action should be taken to reduce or reverse visitor-use related impacts. A standard does *not* define an intolerable condition nor is it a condition that managers should strive to achieve, unless intolerable conditions already exist.

**Subalpine:** Designating or growing in mountain regions just below the timberline.

**Succession:** The process by which vegetation recovers following a disturbance or initially develops on an unvegetated site.

**Superintendent’s Compendium:** Under the authority of 16 U.S.C., Section 3, and Title 36 Code of Federal Regulations, Chapter 1, Parts 1-7; the Compendium of Superintendent’s Orders was established for Yosemite National Park, referred to as the “Superintendent’s Compendium” in the Revised Merced River Plan/SEIS. Each park superintendent has discretionary authority to regulate or limit certain uses, and/or require permits for specific activities within the boundaries of a national park. (See II-9 for text version of definition)

**Talus:** Rock fragments of any size or shape derived from and lying at the base of a cliff or very steep rocky slope. Also refers to outward sloping and accumulated heap of loose broken rock considered as a unit and formed primarily by falling, rolling, and sliding.

**Talus zone:** Area where the majority of rock materials are deposited during a mass movement

(rockfall) event.

**Threatened and Endangered Species:** Species of plants that receive special protection under state and/or federal laws. Also referred to as “listed species” or “endangered species.”

**User capacity:** As it applies to parks, user capacity is the type and level of use that can be accommodated while sustaining the desired resource and social conditions based on the purpose and objectives of a park unit.

**User:** Visitors, employees, and residents in the Merced River corridor.

**U-Shaped valley:** A glacially carved valley having a pronounced parabolic cross-sectional profile suggesting the form of a broad letter “U” and characterized by steep sides and a nearly flat bottom.

**Visitor Capacity Goals of General Management Plan:** The *General Management Plan* identifies maximum daily visitor capacities for major developed areas of the park based on planned future facility levels in these developed areas. These future visitor capacity goals were well below the actual capacities in 1980 when the *General Management Plan* was completed and called for a reduction and reallocation of visitor facilities to reach these goals. Although the *General Management Plan* identifies maximum daily visitor capacities for major developed areas of the park, it notes that park management does not directly limit overall visitation levels through entrance station limits or headcounts. Instead use levels are controlled through the provision of infrastructure and the specific activity restrictions described below.

**Visitor experience:** The perceptions, feelings, and reactions a park visitor has in relationship with the surrounding environment.

**Visitor Experience and Resource Protection (VERP):** A user capacity method developed for the National Park Service to measure and manage the impacts of use on the visitor experience and the resource conditions in national parks. VERP is an ongoing, iterative system that measures the type and level of visitor use that can be accommodated while sustaining the desired resource and social conditions that complement the purposes of the park units and their management objectives. The VERP framework contains nine elements, four of which are key to developing a user capacity program. The VERP user capacity model establishes (1) a management zoning designation, (2) indicators or measurable variables that reflect the overall condition of a zone, (3) standards that set the basis for judging whether or not conditions are being met, and (4) management actions that must be taken if monitoring reveals that conditions are not within standard.

**Visitor use:** Refers to the types of recreation activities visitors participate in, numbers of people in an area, their behavior, the timing of use, and distribution of use within a given area.

**Visitor use levels:** Refers to the quantity or amount of use an specific area receives, or the amount of parkwide visitation on a daily, monthly or annual basis.

**Walk-in campground:** A campground with consolidated parking areas separated from the individual campsites. Campers walk a short distance from the parking area to their campsites.

**Water resources project:** Non-FERC licensed projects such as dams, water diversions, fisheries

habitat and watershed restoration, bridges and other roadway construction/reconstruction, bank stabilization, channelization, levee, boat ramps and fishing piers that occur within the bed and banks of a designated Wild and Scenic River (IWSRCC 1999).

**Watershed:** The region drained by, or contributing water to, a stream, lake, or other body of water. Synonym: basin or drainage basin.

**Wetland:** Wetlands are defined by the U.S. Army Corps of Engineers (CFR, Section 328.3[b], 1986) as those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

**Wild and Scenic River:** A river receiving special protection under the Wild and Scenic Rivers Act.

**Wilderness:** Areas designated as Wilderness and protected by the provisions of the 1964 Wilderness Act. Designated Wilderness areas are characterized by a lack of human interference in natural processes.

**Wilderness Act of 1964:** The Wilderness Act restricts development and activities to maintain certain places where wilderness conditions predominate.

**Wilderness Impact Monitoring System (WIMS):** Wilderness monitoring is an integral part of Yosemite's wilderness management program. Visitor use patterns have been tracked since 1975 from wilderness permits and field reports by rangers. Monitoring of campsite and trail impacts began in the 1970s. A program now called the Wilderness Impact Monitoring System (WIMS) monitors and evaluates campsite conditions in the wilderness that ensure that the trailhead quotas and wilderness education about proper backcountry care are adequately protecting wilderness values. Using WIMS, visitor satisfaction information, patrol data, and a variety of other studies, the National Park Service conducts wilderness-wide inventory and monitoring. Data gathered from these studies are used to determine when, where, and why significant change occurs, to adjust management practices as appropriate to eliminate unacceptable impacts, and to provide a system for tracking those changes.

**Wilderness Trailhead Quota System:** The Wilderness Trailhead Quota System was established in the 1970s to protect wilderness areas within Yosemite National Park. This system assigns a daily quota for each wilderness trailhead in the park. The quotas are based on scientific studies that evaluated ecological condition and historic use patterns. Controlling use at the trailhead allows for maximum visitor freedom—considered a cornerstone in wilderness experience—while allowing the park to limit or disperse use as appropriate. The Wilderness Trailhead Quota System allows for a total of 1,280 overnight visitors to enter the wilderness each day. Day use in Wilderness is not currently limited or controlled.

**Wilderness Zones:** These zones within segments of the Merced Wild and Scenic River corridor flow through designated Wilderness and are managed under the guidance and requirements of the 1964 Wilderness Act and the California Wilderness Act of 1984. As such, these segments will continue to be managed to preserve the environment in which the natural world, along with the processes and events that shape it, are largely unchanged by human use, and to allow for various

forms of exploration in an environment primarily free of modification.

**Yosemite National Park Enabling Legislation:** Three separate legislative acts form the enabling statutes for the current Yosemite National Park. On Jun 30, 1864, Congress granted the State of California the Yosemite Valley and Mariposa Grove of Big Trees to “be held for public use, resort and recreation.” On October 1, 1890, Congress set aside Yosemite National Park as a “forest reservation” to preserve the “curiosities” and “wonders” in their natural condition. In 1906, the State of California granted the Mariposa Grove of Big Trees and Yosemite Valley back to the federal government.



## Acronyms and Abbreviations

ACHP	Advisory Council on Historic Preservation
BLM	Bureau of Land Management
CDFG	California Department of Fish and Game
CDMG	California Department of Mines and Geology
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
cfs	Cubic feet per second
CMP	Comprehensive Management Plan
Corps	U.S. Army Corps of Engineers
dB	Decibels
dBA	Decibels on the “A” weighted scale
DNC	Delaware North Company
EA	Environmental Assessment
EIS	Environmental Impact Statement
FEIR	Final Environmental Impact Report
FEIS	Final Environmental Impact Statement
FERC	Federal Energy Regulatory Commission
g	acceleration due to gravity
GMP	<i>General Management Plan</i>
GPS	Global Positioning System
gpd	Gallons per day
gpm	Gallons per minute
HVAC	Heating, Ventilation, and Air Conditioning
IWSRCC	Interagency Wild and Scenic Rivers Coordinating Council
kWh	Kilowatt hour
L <sub>eq</sub>	Energy equivalent level
LAC	Limits of Acceptable Change
MCAG	Merced County Area Government
mya	Million years ago
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NO <sub>x</sub>	See Glossary
NPS	National Park Service
ORVs	Outstandingly Remarkable Values
PG&E	Pacific Gas and Electric Company

<b>PM-10</b>	Particulate matter
<b>PSD</b>	Prevention of Significant Deterioration
<b>RV</b>	Recreational vehicle
<b>ROS</b>	Recreation Opportunity Spectrum
<b>SEIS</b>	Supplemental Environmental Impact Statement
<b>SHPO</b>	State Historic Preservation Officer
<b>SIP</b>	State Implementation Plan
<b>USC</b>	United States Code
<b>U.S. EPA</b>	United States Environmental Protection Agency
<b>USFS</b>	United States Forest Service
<b>USFWS</b>	United States Fish and Wildlife Service
<b>USGS</b>	United States Geological Survey
<b>VAMP</b>	Management Process for Visitor Activities
<b>VERP</b>	Visitor Experience and Resource Protection
<b>VIM</b>	Visitor Impact Monitoring
<b>VIMS</b>	Visitor Impact Monitoring System
<b>VOC</b>	Volatile Organic Compound
<b>WIMS</b>	Wilderness Impact Management System
<b>YARTS</b>	Yosemite Area Regional Transportation System