

Chapter 10 Glossary

Adaptive Management – A decision process that promotes flexible decision making, which can be adjusted in the face of uncertainties as outcomes from management actions and other events are better understood. Careful monitoring of these outcomes advances scientific understanding and allows for the adjustment of policies and/or operations as part of an interactive learning process. Adaptive management also recognizes the importance of natural variability in contributing to ecological resilience and productivity.

Air/Vacuum Valve – A valve used to vent the air that can become trapped in any pipeline conveying fluid.

Biological Goals – Broad, guiding principles based on conservation needs of the Covered Species developed through the Habitat Conservation Plan (HCP) process.

Biological Objectives – Conservation targets or desired future conditions designed to achieve Biological Goals of an HCP.

Biological Opinion – The document stating the opinion of the U.S. Fish and Wildlife Service (USFWS) and/or the National Oceanic and Atmospheric Administration’s National Marine Fisheries Service as to whether or not a federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat (50 Code of Federal Regulations [CFR] 402.02). A Biological Opinion is one of the decision documents of a consultation under Section 7 of the federal Endangered Species Act (FESA).

Blow-Off – Dewatering of pipes that typically includes a point source of high velocity flow.

California Endangered Species Act – California Fish and Game Code Section 2050 et seq., including all regulations promulgated pursuant to that Act. The California Endangered Species Act (CESA) prohibits the California Department of Fish and Wildlife (CDFW) from authorizing any Incidental *take* of a State-listed threatened or endangered species if that take would jeopardize the continued existence of the species; all impacts on State-listed species must be fully mitigated.

California Environmental Quality Act – California Public Resources Code (PRC) 21000 21177 et seq., including all regulations promulgated pursuant to that Act. The California Environmental Quality Act (CEQA) requires State and local agencies to assess environmental impacts of proposed projects, to disclose those impacts to decision makers, and to reduce environmental impacts of a proposed project to the greatest extent practicable.

Changed Circumstances – Changes affecting a species or geographic area covered by an HCP that can reasonably be anticipated and planned for by HCP Permittees and USFWS.

Channel Pattern – Characterization of the geomorphic state of streams, including channel stability, texture and volume of sediment supply, stream gradient (sloe), and mode of sediment transport.

Clean Water Act – The Clean Water Act (33 United States Code [USC] Section 1251 et seq. [1972]) regulates discharges of pollutants into jurisdictional waters of the United States. Section 404 of the Clean Water Act regulates the discharge of dredged or fill material into jurisdictional waters,

including wetlands. Section 401 of the Clean Water Act requires certification that permits for discharge into Waters of the United States comply with water quality standards. Section 402 controls direct discharges into navigable waters through the issuance of National Pollutant Discharge Elimination System (NPDES) permits.

Clearing – The removal of natural vegetation by any means, including brushing and grubbing.

Conservation Actions – Any actions taken to preserve, manage, and monitor land for conservation of Covered Species that is suitable for the species and configured and connected such that the Covered Species can maintain sustainable populations within the HCP Preserve.

Conservation Easement – Any limitation in a deed, will, or other instrument in the form of an easement, restriction, covenant, or condition, which is or has been executed on behalf of the owner of the land subject to such easement, and is binding upon successive owners of such land, and the purpose of which is to retain land predominantly in its natural, scenic, historical, agricultural, forested, or open-space condition. (California Civil Code 815)

Conserve – The terms *conserve*, *conserving*, and *conservation* refer to the implementation of preservation, enhancement, management, and monitoring methods that are necessary to maintain and enhance natural resources to benefit a Covered Species habitat and population, and contribute to the species recovery as described by the biological goals and objectives, and the conservation actions of the HCP. The conservation actions are implemented within the HCP Preserve System.

Covered Activities – Activities in the *Planning Area* undertaken by the Permittees and covered by the authorizations for incidental take. Covered activities include projects and Operations and Maintenance (O&M). Projects are well-defined actions that occur once in a discrete location. O&M activities are actions that occur repeatedly in one area or over a wide area (e.g., bank stabilization, storm-damage repair, maintenance of roads and facilities).

Covered Species – Those species within the HCP that will be adequately conserved through implementation of the HCP.

Critical Habitat – An area designated by USFWS pursuant to FESA. Critical habitat are those areas, whether occupied by a listed species or not, that are determined to be essential for the conservation and management of the species.

Direct Effects – The direct or immediate effects of the project on the species or its habitats (FESA definition).

Disturbed Land – Land that has been significantly modified by previous, legally authorized human activity, but continues to retain a soil substrate is considered disturbed land. This includes areas that have been graded, repeatedly cleared for fuel management purposes, and/or have experienced recurring use resulting in compacted soils and minimal potential for natural revegetation (e.g., dirt parking lots, incised trails).

Dry-Weather Flows – The flow of water in streams during the dry season when it does not typically rain (May–October). This is characterized by the average September flow in the Planning Area, when streamflows are typically the lowest.

Emergency – An event or situation that poses considerable risk to human health and safety. This risk includes, but is not strictly limited to, loss of human life, property damage, or air and water contamination threatening human health and safety.

Endangered Species – A species listed as endangered under FESA or CESA. FESA defines an endangered species as any species which is in danger of extinction throughout all or a significant portion of its range (FESA Section 3(6)). CESA defines an endangered species as a native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease (California Fish and Game Code Section 2062)

Endangered Species Act – The Federal Endangered Species Act of 1973, as amended (16 USC 1531 et seq.), includes all regulations promulgated pursuant to FESA. The purpose of FESA is to “protect and recover imperiled species and the ecosystems upon which they depend.” The California Endangered Species Act (Fish and Game Code, Chapter 1.5, Sections 2050–2115.5) conserves and protects plant and animal species at risk of extinction as identified by the California Fish and Game Commission.

Enhancement – The modification of natural resources through management actions to improve their function. Enhancement actions include invasive species removal, removal of an identified threat to the resource, management of the water sources to support habitat function, sediment management, and management of human visitation. Enhancement results in a modest gain in habitat function

Establishment (Creation) – The manipulation of the physical, chemical, or biological characteristics present to develop a habitat type or aquatic resource that did not previously exist in that space. Establishment results in a gain in both area and function.

Existing Conditions – The current physical conditions (e.g., geographic location, topography, geology, soils, climate, hydrology, and geomorphology) and biological environment of the Planning Area.

Force Main – A principal conduit (as in a sewer system) through which water is pumped as distinguished from one through which it flows by gravity.

Fully Protected Species – Those species listed in Sections 3511 (Fully Protected Birds), 4700 (Fully Protected Mammals), 5050 (Fully Protected Reptiles and Amphibians), and 5515 (Fully Protected Fish) of the California Fish and Game Code that may not be taken or possessed at any time and for which no licenses or permits may be issued for their take except for collecting these species for necessary scientific research and relocation of the bird species for the protection of livestock or as permitted under the Natural Community Conservation Planning Act (NCCPA) (California Fish and Game Code Section 2800 et seq.).

Gabion – A rock-filled cage used for erosion control, bank stabilization, and other civil engineering applications. As part of Covered Activities described in the HCP, gabions would be installed in-stream to create localized areas of scour intended to expose gravel substrate.

Geographic Information Systems – Computer-based mapping technology that manipulates geographic data in digital layers and enables one to conduct a wide array of environmental analyses.

Grading – Any excavating or filling or combination thereof, including the land in its excavated or filled condition according to a county’s Grading Ordinance.

Groundwater Recharge – Activities related to construction of new structures associated with diversions, O&M of existing and new diversion structures for groundwater recharge, activities related to construction of new recharge basins, and O&M of existing and new recharge basins.

Grubbing – The removal of natural vegetation by any means, including removal of the root system.

Habitat Connectivity – The degree to which a landscape facilitates or impedes natural ecological processes, such as animal movement or seed dispersal.

Habitat Improvement, Management, and Monitoring – Activities that support the restoration and/or rehabilitation, and maintenance of habitat values in the Planning Area, including species surveys, monitoring, research, and adaptive management activities.

Harm – An act that actually kills or injures wildlife, which may include significant habitat modification.

HCP Preserve – The HCP Preserve is defined as that area that will be conserved, managed, and monitored under the direction and responsibility of the Upper SAR HCP Joint Powers Authority (JPA). It includes the areas acquired or established conservation easements for preservation and the areas restored to improve habitat conditions for Covered Species. The HCP Preserve System management and monitoring will be overseen by the JPA.

Hydrologic Period – The duration of time that a feature is inundated for in any given year.

Incidental Take Permit – The permit granting take of listed species provided such take is incidental to and not the purpose of the carrying out of an otherwise lawful activity. For purposes of the Section 10(a)(1)(B) permit, *incidental take* refers solely to species other than plant species.

Increasing Groundwater – See *Rising Groundwater*.

Indirect Effects – Those effects that are caused by or will result from the proposed action and are later in time, but are still reasonably certain to occur (FESA definition).

Joint Powers Authority – A legally created entity that allows two or more public agencies to jointly exercise common powers. The Joint Exercise of Powers Act (California Government Code Section 6500) governs Joint Powers Authorities.

Jurisdictional Waters – State and federally regulated wetlands and other waterbodies. Federally regulated waters are defined under the Clean Water Act as *waters of the United States*. Waters of the State are defined under the *Porter-Cologne Water Quality Control Act* to include any surface or groundwater within the State of California.

Lake or Streambed Alteration Agreement – Under California Fish and Game Code Section 1600 et seq. CDFW has the authority to regulate work that will “substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake.”

Linkage – An area of land that supports or contributes to the long-term movement of wildlife and genetic exchange by providing live-in habitat that connects to other habitat areas, including agricultural lands that contribute to wildlife movement.

Management Actions – Those actions taken to improve and maintain the suitability of the habitat for a Covered Species by restoring or enhancing the habitat, or by reducing, removing, or preventing threats that may degrade the habitat (e.g., invasive plant infestations or trespass).

Migratory Bird Treaty Act – The Federal Migratory Bird Treaty Act (MBTA) (16 USC 701 et seq.), including all regulations promulgated pursuant to the Act. The MBTA implements four international conservation treaties and is intended to ensure the sustainability of populations of migratory birds. The MBTA prohibits take of migratory birds, parts, nests, or eggs thereof. *Take*, as defined under the MBTA includes “pursue, hunt, shoot, would, kill, trap, capture, or collect.”

Mitigation – The conservation actions that offset the impacts of taking on the Covered Species.

Monitoring Actions – Those actions that are taken to track the status and trend of Covered Species populations and of their habitats within the HCP Preserve System. Monitoring actions will be conducted within an adaptive management context so that monitoring results can be linked to management actions to inform and improve the efficacy and efficiency of management actions through time.

National Environmental Policy Act – The National Environmental Policy Act of 1969 (NEPA) (42 USC Section 4321 et seq.) requires federal agencies to assess the environmental effects of federal actions and provide the public a mechanism for public participation in making decisions.

National Historic Preservation Act – The National Historic Preservation Act (NHPA) (16 USC 470 et seq.) is intended to preserve historic and archaeological sites. Section 106 of the NHPA requires federal agencies to consider the effects of proposed actions on properties eligible for inclusion in the National Register of Historic Places.

Nationwide Permit – Under Section 404(e) of the Clean Water Act, the U.S. Army Corps of Engineers can issue general permits, called Nationwide Permits, that authorize activities that have only minimal individual and cumulative adverse environmental effects.

No Surprises Rule – The purpose of USFWS’ No Surprises Rule is to provide assurances to non-Federal landowners participating in habitat conservation planning under FESA that no additional land restrictions or financial compensation will be required for species adequately covered by a properly implemented HCP, in light of unforeseen circumstances, without the consent of the Permittee.

Operations and Maintenance – Activities that occur repeatedly in one location and/or in many locations over a wide area periodically and include minor construction, earth moving, or vegetation clearing activities to infrastructure.

Permanent Impacts – Impacts that occur when existing habitat is permanently replaced by the construction or implementation of a Covered Activity.

Permit Area – The area covered by the Incidental Take Permit, which falls within but does not include the entire Planning Area, is referred to as the Permit Area. The Upper SAR HCP Permit Area is the geographic area where the impacts of the Covered Activities are expected to occur and is depicted as the ownership, easements, and areas of O&M where all Covered Activities are located within natural habitats. The Permit Area also includes the HCP Preserve System so that the Incidental Take Permits cover the potential take associated with habitat mitigation, management, and monitoring.

Permittee Agency – The agencies that will receive incidental take coverage through implementation of the HCP (also called the *Permittees*).

Physical and Biological Features – This term replaces “primary constituent elements” in the context of critical habitat. Physical and biological features of proposed or designated critical habitat are those features that are essential to the conservation of a species, including, but not limited to: (1) space for individual and population growth, and for normal behavior; (2) food, water, air, light, minerals, or other nutritional or physiological requirements; (3) cover or shelter; (4) sites for breeding, reproduction, rearing of offspring, germination, or seed dispersal; (5) habitats that are protected from disturbance or are representative of the historic geographic and ecological distribution of a species.

Planning Area – The geographic area containing all Covered Activities and a sufficient additional area to adequately assess impacts and ensure that sufficient mitigation opportunities are available. For this HCP, the Planning Area includes portions of the Santa Ana River watershed in San Bernardino and Riverside Counties in California.

Population – An interbreeding group of individuals of the same species. The geographical limits of a population should be delineated as most appropriate for that species depending on its mobility, method of reproduction, and known distribution. Portions of a population will generally be determined based on the number of individuals; however, *area* may be the appropriate basis for some species.

Porter-Cologne Water Quality Control Act – This act governs the water quality regulation in California. It applies to surface water, groundwater, wetlands, and sources of pollution. The Act establishes Regional Water Quality Control Boards in the State Water Resources Control Board that are authorized to manage the quality of ground and surface water.

Preservation – The permanent protection and management of natural resources by setting aside or acquiring land in fee title or protected by a permanent conservation easement.

Preserve – The terms *preserve*, *preserving*, and *preservation* refer to the preservation of natural resources by setting aside or acquiring land in fee title or land protected by a permanent conservation easement. In limited circumstances, publicly owned lands that cannot be legally restricted will be considered as preservation when they will be managed under the terms of the HCP Preserve System.

Preserve Management – The actions taken to maintain, improve, and monitor a conservation or restoration site to ensure that it is in the providing the desired functions and maintained in the condition required to provide the habitat for HCP Covered Species. *Management* will include necessary measures such as trash removal, maintenance of required infrastructure (signs, gates, water conveyance structures), and access. *Monitoring* will include both monitoring of the condition of the property and the species and habitats.

Preserve System – The HCP Preserve System is composed of Conservation Areas that will be restored, rehabilitated, conserved, and/or managed as mitigation for Covered Activities through implementation of the HCP.

Projects – Well-defined actions that occur once in a discrete location (e.g., construction of new facilities, infrastructure development, capital improvement projects).

Qualified Biologist – An individual with the appropriate level of knowledge and training to conduct surveys or monitoring for a particular species or habitat. For some listed species, a qualified biologist must hold a current Section 10(a)(1)A recovery permit that authorizes the individual to conduct surveys, monitor, or assess habitat conditions.

Recharge Basin – A depression in the ground with permeable soils where surface waters are put for the express purpose of increasing the quantity (recharging) of groundwater.

Reestablishment – The manipulation of the physical, chemical, or biological characteristics of a site with the intent of returning historic functions to a former habitat. Reestablishment results in rebuilding a former habitat, and in a gain in both habitat area and functions.

Rehabilitation – Rehabilitation includes activities that improve habitat conditions of a degraded site, for example through nonnative plant management.

Restoration – Restoration includes more intensive activities than rehabilitation, such as site manipulation, with the goal of rebuilding/expanding habitat and re-instating ecological processes and services, where possible. Restoration is inclusive of reestablishment of functions in former habitats that no longer function as such, and rehabilitation of degraded and low functioning habitats. Restoration results in a gain of area or function. The term *restoration* is inclusive of *restoration*, *establishment*, and *reestablishment*.

Rising Groundwater – Occurs when the depth to groundwater decreases and the level of groundwater becomes closer to the surface of the ground than it was previously.

Sandbox – A settling pond that allows sediment and silt to drop out of the water before entering water flowlines.

Section 10(a)(1)(A) Permit – A permit issued by USFWS under Section 10(a)(1)(A) of FESA that allows take as part of activities intended to foster recovery of a listed species. Typical permitted activities include scientific research involving abundance surveys, presence/absence surveys, genetic research, relocations, telemetry surveys, and capture or marking.

Section 10(a)(1)(B) Permit – A permit issued by USFWS under Section 10(a)(1)(B) of FESA (16 USC 1539(a)(1)(B)) to allow the incidental take of Covered Species, to the extent take of such species is otherwise prohibited under Section 9 of FESA. *Take* under FESA does not apply to plant species, and take of listed plant species is not prohibited under FESA or authorized under a Section 10(a)(1)(B) permit. However, plant species adequately conserved by this HCP are listed in the 10(a)(1)(B) permit in recognition of the conservation measures and benefits provided for them under the HCP and receive assurances pursuant to USFWS' *No Surprises Rule*.

Section 1600 – Section 1600 of the California Fish and Game Code regulates alterations to permanent or intermittent stream courses.

Section 2081 – Section 2081(b) of CESA authorizes CDFW to allow, by permit, the take of an endangered, threatened, or candidate species, provided permit issuance criteria are met.

Section 7 – Section 7(a)(2) of FESA (16 USC 1536 (a)(2)) requires that any federal agency that permits, licenses, funds, or otherwise authorizes activities that may affect species listed under FESA consult with USFWS to ensure that its actions will not jeopardize the continued existence of any listed species or adversely modify the designated critical habitat of a listed species.

Sensitive Species – Species that meet any of the following criteria: (1) those species that are included on generally accepted and documented lists of plants and animals of endangered, threatened, candidate, or of special concern by the federal government or State of California; (2) narrow endemic species or sensitive plant species (as defined herein); or (3) those species that meet the definition of “rare or endangered species” under Section 15380 of the CEQA Guidelines.

Solar Energy Development – Activities related to the construction and maintenance of new solar facilities.

Suitable Habitat – An area that meets the habitat needs of a species and is likely to be utilized by that species at some point within a 5-year period. If an area appears to contain the appropriate elements for a species and is within dispersal distance of known populations and without substantial barriers, it should be considered suitable unless demonstrated otherwise through appropriate and adequate field surveys.

Take – Refers to the meaning provided by FESA and the California Fish and Game Code, including relevant regulations and case law. Under FESA, *take* is defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct (16 USC 1532(19)) and *harm* has been further defined to “include any act which actually kills or injures fish or wildlife” including “significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife” (40 *Federal Register* 44412 and 46 *Federal Register* 54748).

Take Authorization – Permit authority granted through a Section 10(a)(1)(B) permit pursuant to FESA, a Section 2081 permit granted pursuant to CESA, or a Section 2835 permit pursuant to the NCCPA.

Temporary Impacts – Impacts that result in removal of habitat, but for which, following completion of the activity, the habitat is then restored or allowed to regrow and recover habitat value for Covered Species.

Threatened Species – A species listed as *threatened* under FESA or CESA that is likely to become *endangered* in the foreseeable future.

Unforeseen Circumstances – Changes in circumstances affecting a species or geographic area covered by the HCP that could not reasonably have been anticipated by HCP Permittees or USFWS at the time of the HCP’s negotiation and development, which result in a substantial and adverse change in the status of the Covered Species.

Urban Runoff – Water that enters the system through storm drains. Urban runoff is generally caused by overwatering of landscaped areas, or other extraneous flows from residential, commercial, and industrial areas.

Viable – Capable of maintaining normal ecosystem functions over the long term that sustain a full suite of native or naturalized species without intensive direct human intervention.

Water Reuse Projects – Activities related to projects associated with water reuse, including construction of new water treatment plants and associated facilities, and O&M of existing and new water treatment plants and associated facilities.

Wells and Water Conveyance Infrastructure – Activities related to the creation of new wells and associated development (pipelines, access roads, reservoirs, bridges) and the O&M of this infrastructure and associated development.

Wet-Weather Flows – The flow of water in streams during the wet season when this region typically receives most of its rain (November–April). This is characterized by the average March flow in the Planning Area, when streamflows are typically the highest.

Width-Depth Ratio – Measurement of the ratio of a channel’s wetted width to flow depth for a given flood stage.

Wildlife Corridor – A specific route that is used for movement and migration of species. A wildlife corridor may be different from a linkage because it represents a smaller or narrower avenue for movement.