

12.0 DEFINITIONS

100,000 Square Foot Commercial Development. Any commercial development that creates at least 100,000 square feet of impermeable area, including parking areas.

Abiotic. Abiotic refers to nonliving objects, substances, processes or environmental factors (such as drought, extreme cold/heat, or high winds).

Adaptive Management. A process in which projects are implemented within a framework of scientifically driven experimentation to test predictions and assumptions. An analysis of project outcomes helps managers determine whether current management activities should continue or be modified to achieve desired conditions.

Adverse Modification. The threshold at which a proposed action will adversely affect the elements or management of designated critical habitat in a manner that will appreciably diminish or preclude the role of that habitat in the survival or recovery of the species.

Agricultural Lands. Lands used for crop production, animal production, forage production, and grazing activities employing usual and customary agricultural practices for the region.

Alluvial Fan. A fan-shaped area of alluvium deposited by a river upon reaching flatter land.

Alluvium. Sediment deposited by running water, especially the type of soil formed in river valleys and deltas from material washed down by the river.

Anadromous. A life history pattern for some fish species (salmon, steelhead, some lampreys) in which they spawn in fresh water and the offspring migrate to a bay, sea, or ocean to mature.

Appreciably Diminish. To considerably reduce the capability of designated or proposed critical habitat to contribute to the survival or recovery of a listed species.

Autecology. Ecological study of a single organism or a single species.

Automotive Repair Shop. A facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

Baseline Conditions. A standard by which things are measured or compared. Typically, baseline conditions are considered to be the conditions at the current time or when a project or assessment is initiated.

Basin. A natural depression in the surface of the land. Also a hydrologic unit consisting of a part of the Earth's surface covered by a drainage system consisting of a surface stream or body of impounded surface water plus all tributaries.

Best Management Practice (BMP). A program, technology, process, siting criteria, operational method or measure, or engineered system, which when implemented prevents, controls, removes, or reduces pollution.

Biodiversity. Biological diversity, simply stated, is the diversity of life. As defined in the proposed US Congressional Biodiversity Act, HR1268 (1990), "*biological diversity means the full range of variety and variability within and among living organisms and the ecological complexes in which they occur, and encompasses ecosystem or community diversity, species diversity, and genetic diversity.*" Typical measurements of biodiversity such as those used by CDFG (CDFG 2003a) when analyzing the Biodiversity of California include:

Richness – a measure of diversity – is usually referred to as species richness and is the number of species of a particular taxon (or all taxa) in an area. Richness can also mean the number of vegetation types in an area.

Rarity – a measure of sensitivity – is used for those taxa that have special status due to very limited distribution, low population levels, or immediate threat such as habitat conversion. An area high in rarity has many taxa that meet this definition.

Endemism – a measure of natural distribution – is used for those taxa that are found in one specific area, such as a region or state. A region with high endemism has many taxa that are restricted to it.

Biological Opinion. A written statement provided to a Federal Agency and an applicant, if any, pursuant to Section 7(b)(3)(A) of the Federal Endangered Species Act setting forth the Secretary of the Interior's opinion, and a summary of the information on which the opinion is based, detailing how the agency action affects listed species or its critical habitat. If jeopardy or adverse modification is found, the biological opinion shall suggest reasonable and prudent alternatives that the Secretary believes would not violate subsection 7(a)(2) and can be taken by the Federal Agency or applicant in implementing the agency action.

Bio-swale. A constructed swale vegetated with upland grass or wetland herbaceous plants used for filtering run-off.

Brackish Marsh. A marsh consisting of plant species adapted to brackish water conditions in which the concentration of salt has been diluted by fresh water.

Buffer. A conserved natural habitat area or zone which serves to minimize the impacts of adjacent land use. Buffer zones protect the natural environment and help keep nearby ecological niches stable and functioning.

Canal. A man-made waterway that conveys water for irrigation or flood control.

Categorical Exemption. An exemption from CEQA for a class of projects based on a finding by the Secretary of Resources that such projects would not have a significant effect on the environment.

CEQA. The California Environmental Quality Act, California Public Resources Code sections 21000 et seq. A State law requiring State and local agencies to regulate activities with consideration for environmental protection. If a proposed activity has the potential to cause a significant adverse environmental impact, an Environmental Impact Report (EIR) must be prepared and its adequacy certified before taking action on the proposed project. General Plans require preparation of a program-level EIR.

CESA. The California Endangered Species Act, Fish and Game Code, Sections 2050 et seq.

Changed Circumstance. Changes that can reasonably be anticipated and planned for (e.g., the listing of new species, modifications in the project or activity as described in the original HCP).

Channel. Man-made waterway that drains water for irrigation or flood control.

Community Noise Equivalent Level (CNEL). A weighted average of measured sound levels gathered throughout a 24-hour period. CNEL is essentially a measure of ambient noise with different weighting factors applied to day, evening, and nighttime periods. This sound measurement recognizes that community members are most sensitive to noise during the late night hours and are more sensitive during the evening hours than in the daytime hours. CNEL depends not only on the noise level of individual approaches, but also on the number of approaches during the measurement period.

Commercial Development. Any development on private land that is not heavy industrial or residential. This development category includes, but is not limited to: hospitals, laboratories and other medical facilities, educational institutions, recreational facilities, plant nurseries, car wash facilities, mini-malls and other business complexes, shopping malls, hotels, office buildings, public warehouses and other light industrial complexes.

Conservation. The terms “conserve,” “conserving” and “conservation” mean to use and the use of all methods and procedures necessary to bring endangered or threatened species to the point at which regulatory measures pursuant to the federal and state Endangered Species acts are no longer necessary. Such methods and procedures include, but are not limited to, all activities associated with scientific resources management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, transplantation, and, in the extraordinary case where population pressures within a given ecosystem cannot be otherwise relieved, may include regulated taking. [ESA §3(3)]

Conservation Lands. Lands owned in fee title by a governmental agency, non-governmental organization (NGO), and/or the private sector where the lands are protected (e.g., through a conservation easement, deed restriction, or legislative mandate) for the primary purpose of preserving natural resources. This designation does not imply the right for public access.

Conservation Measures. Conservation measures are actions to benefit or promote the recovery of listed species and minimize or compensate for, project effects on the species under review.

Constituent Elements. Physical and biological features of designated or proposed critical habitat essential to the conservation of the 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; and (5) habitats that are protected from disturbance or are representative of the historic geographic and ecological distributions of a species.

Construction Component. As referred to in the Solano HCP, the construction (excavation, grading, revegetation, etc.) necessary to restore and enhance habitats, primarily wetland type communities as part of mitigation for project impacts.

Corridor. A physical linkage, connecting two or more areas of habitat that is used on a daily or seasonal basis by animals to get from one area to the other.

Creation. The construction or establishment of a habitat or plant community within a different habitat or plant community that previously did not support that community.

Creek. A natural stream of water often smaller than and tributary to a river.

Critical Habitat. For listed species consists of: (1) specific areas within the geographical region occupied by the species, at the time it is listed in accordance with the provisions of Section 4 of the ESA, in which those physical or biological features (constituent elements) are found that are (a) essential to conservation of the species and (b) require special management considerations or protection; and (2) specific areas outside the geographical region occupied by the species at the time it is listed in accordance with the provisions of Section 4 of the ESA, determined by the Secretary to be essential for conservation of the species. Designated critical habitats are described in 50 CFR §17 and 226.

Deep Ripping. An agricultural practice in which metal prongs are dragged through the soil by a tractor or other equipment. Deep ripping is commonly employed to increase the depth of water penetration and to break up or reduce soil compaction.

Deposition. Any accumulation of material, by mechanical settling from water or air, chemical precipitation, evaporation from solution, etc. The accumulation of material dropped because of a slackening movement of the transporting medium (e.g., water or wind).

Development. Defined as the placement or erection of any solid material or structure; discharge or disposal of any dredged or imported material or of any gaseous, liquid, solid, or thermal waste; grading, removing, dredging, mining, or extraction of any materials on land, in or under water; change in the density or intensity of land use, including, but not limited to, subdivision pursuant to the Subdivision Map Act (commencing with Section 66410 of the Government Code), and any other division of land, including lot splits, except where the land division is brought about in connection with the purchase of such land by a public agency for public recreation; change in the intensity of water use, or of access thereto; construction, reconstruction, demolition, or alteration of the size of any structure, including any private, public, or municipal utility facility; and the removal or harvesting of major vegetation other than for agricultural purposes and timber operations that are in accordance with a timber harvesting plan submitted pursuant to the provisions of the Z'berg-Nejedly Forest Practice Act of 1973 (commencing with Section 4511). As used in this definition, "structure" includes, but is not limited to, any building, road, pipe, flume, conduit, siphon, aqueduct, telephone

line, communication tower/facility, reservoir, pump station, and electrical power transmission and distribution line.

Development Edge. The outward extent of any grading, structure, discharge area, or landscaped feature associated with any development as defined above. Temporary grading activities associated with utility lines may be exempted from Solano HCP conservation requirements for indirect impacts, except where specifically noted, if the disturbed area is kept to the minimum needed to safely construct the project, the top 6 to 12 inches of soil are stockpiled and used to recap the disturbed area, and pre-project contours are restored following construction.

Diked Marsh. A marsh in which regular inundation by tidal action has been excluded due to the presence of a berm or dike.

Directly Connected Impervious Area (DCIA). The area covered by a building, impermeable pavement, and/or other impervious surface, which drains directly into the storm drain without first flowing over a permeable surface (e.g., lawns, bioswale).

Discretionary Project. A project the requiring a public agency or body to exercise judgment or deliberation in determining whether to approve or disapprove the project, as distinguished from projects for which the public agency or body merely has to determine conformity with applicable statutes, ordinances, or regulations.

Ditch. A small man-made excavation that drains water for irrigation or flood control.

Ecotone. Habitat created by the juxtaposition of distinctly different habitats; an edge habitat; or an ecological zone or boundary where two or more ecosystems meet.

Edaphic. Soil characteristics, such as water content, pH, texture, and nutrient availability that influence the type and quantity of vegetation in an area.

Environmental Impact Report/Environmental Impact Statement (EIR/EIS). A joint public information document for making informed decisions on a project prepared pursuant to the California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA), respectively.

Element Occurrence. The unique number assigned to an *occurrence* by the California Natural Diversity Data Base. (See also occurrence and population).

Endangered Species. Any species that is in danger of extinction throughout all or a significant portion of its range.

Endemic. Having a natural distribution confined to a specific geographical area or region.

Enhancement. The increase in biological values of a particular area or feature, vegetation, etc. Modification of specific structural features of an existing habitat to increase one or more functions based on management objectives. Enhancement may also be the alteration of a site to produce conditions that did not previously exist in order to accentuate one or more values of a site. When applied to species populations, enhancement includes actions that increase population size and/or

reproduction and decrease mortality, disease, and other pressures that negatively affect populations to increase the population's resilience to adverse pressures.

Ephemeral Stream. Watercourses that flow only in response to precipitation (i.e., flow ceases a few days or weeks after the rain ceases). Ephemeral streams typically do not support riparian vegetation.

ESA. Federal Endangered Species Act of 1973, as amended, 16 U.S.C. 1531 et seq. **Section 7** of the ESA outlines the procedures for federal interagency cooperation to conserve federally-listed species and designated critical habitats. Section 7(a)(2) requires that each Federal Agency shall, in cooperation with the Secretary of the Interior or Commerce, as appropriate, ensure that any action they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the destruction or adverse modification of designated critical habitat. **Section 10** of the ESA establishes the procedures for the incidental take of listed species by non-federal entities.

Establishment. The manipulation of the physical, chemical, or biological characteristics present on a site to develop a resource that does not currently exist. Establishment results in a gain in resource area and functions. Establishment associated with restoration is preferable to creation.

Estuarine Habitat. Estuaries are located in areas where fresh and salt water mix such as in bays, deltas, lagoons, and the mouths of rivers. Estuaries are usually diverse environments.

Evolutionarily Significant Unit (ESU). A set of populations that is morphologically and genetically distinct from other similar populations or a set of populations with a distinct evolutionary history.

Eutrophication. A process of aging of lakes and ponds in which the nutrient content builds up and supports algal growth. Algae expend oxygen in the evenings and when they die and decompose. The low oxygen content of these lakes and ponds results in low species diversity. Nitrate fertilizers in agricultural run-off and nutrients from animal waste and human sewage hasten eutrophication.

Exotic Species. Plants, animals, or microorganisms introduced by humans into areas where they are not indigenous. Exotics are often associated with negative ecological consequences for native species and the ecosystems.

Extirpated. Extinct or no longer existing in a specific geographic location or region.

Food Web. Complex relationships between a variety of organisms in which energy and nutrients are transferred from one species to another. The food web consists of a number of food chains and members of the food web often belong to more than one food chain resulting in the transfer of energy and nutrients among the food chains as well as within the food chains of a food web.

Forb. Any herbaceous flowering plant, other than a grass.

Forest. A landscape that supports a continuous overstory of tree cover in which the canopies largely overlap.

Fossorial. Having the habit of digging. The term is applied to those animals which excavate burrows or nest holes in the ground, such as the California ground squirrel, pocket gopher, and badger.

Friable Soils. A soil type that is easily crumbled or pulverized.

General Plan. A compendium of policies regarding the long-term development of a city or county, in the form of maps and accompanying text. The General Plan is a legal document required of each local agency by the State of California Government Code Section 65301 and adopted by the City Council or Board of Supervisors. In California, the General Plan has seven mandatory elements (Circulation, Conservation, Housing, Land Use, Noise, Open Space, Safety and Seismic Safety) and may include any number of optional elements (such as Air Quality, Economic Development, Hazardous Waste, and Parks and Recreation). The General Plan may also be called a "City Plan," "Comprehensive Plan," or "Master Plan."

General Plan Designated Open Space or Agriculture. Private land designated as open space by a General Plan. The open space designation generally requires a two-thirds vote for it to be changed to development. The term open space does not imply lands are accessible to the public.

Habitat Specialist. An organism with very particular habitat needs as opposed to a generalist that can live on a variety of different foods or cover types.

Habitat Conservation Plan (HCP). Under section 10(a)(2)(A) of the Act, a planning document that is a mandatory component of an incidental take permit application, also known as a Conservation Plan.

Herbaceous. A plant that has a non-woody stem and dies back at the end of the growing season (e.g., grasses and forbs).

Herbivory. The consumption of herbaceous vegetation.

Heteromyid. Small New World burrowing mouse-like rodents with fur-lined cheek pouches and hind limbs and tail adapted to leaping: pocket mice; kangaroo mice; kangaroo rats (family Heteromyidae).

Hillside. Property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is twenty-five percent or greater.

Hydromulch. The process of mixing seed with water and mulch for spraying directly onto bare soil.

In-fill Development. Development occurring in an area surrounded by existing development on at least three sides.

Incidental Take. As defined by ESA, "*incidental to, and not the purpose of, the carrying out of an otherwise lawful activity.*" Take of listed fish or wildlife species that results from, but is not the purpose of, carrying out an otherwise lawful activity.

Individual Mitigation Project. Lands set aside and managed typically by government agencies and the private sector to provide mitigation for impacts to natural resources as a result of individual development projects. Such lands are not typically available for public access.

Infiltration. The downward movement of water into the soil.

Inoculum. Material introduced into a site for the purpose of producing or introducing plant and/or animals into an area. A common revegetation technique for natural communities where seed and top soil is collected from impact sites and used to revegetate constructed or restored habitats.

Instar. The life stages of an insect larva between molts.

Intermittent Stream. Two types of intermittent streams, spatially and temporally intermittent, often occur along the same watercourse. Spatially intermittent streams have water that appears above the streambed in certain reaches whereas in other reaches, the water remains below the streambed. Temporally intermittent streams often flow for at least several months of the year. The water table provides the source of much of this water as it rises above the surface of the streambed after being recharged by rainfall or snowmelt.

Intermittent and ephemeral streams are often confused with one another. The critical difference is the connection between intermittent streams and the groundwater table. Vegetation growing along intermittent streams often has access to the water table or greater soil moisture due to the proximity of the water table. This connection creates distinct hydrologic characteristics and vegetational differences that distinguish intermittent streams from ephemeral streams.

Intertidal. The area of shore or bank that lies between the high and low tides.

Jeopardy. Jeopardize the continued existence of - to engage in an action that would be expected, directly or indirectly, to appreciably reduce the likelihood of both the survival and recovery of a listed species in the wild by reducing the reproduction, population, or distribution of that species. [50 CFR §402.02]

Key Conservation Element. A habitat feature or characteristic of the environment that can be physically mapped within the Plan Area that corresponds to, or is a surrogate measure of, the relative conservation value and/or overall habitat quality of the natural community.

Lacustrine. Refers to freshwater bodies greater than 20 acres in size and often refers to the shore of a lake.

Lead Agency. The public agency (e.g., city, county, government agency) that has the principal responsibility for carrying out or approving a project. Lead agencies are responsible for completing the environmental review process as required by CEQA.

Linkage. A connection between two or more habitat areas that are used infrequently (as compared to corridors) but are very important for dispersal of wildlife and movement of individual plants and animals to maintain populations throughout an area. Habitat linkages are also important for maintaining gene flow among the different portions of a population.

Listed Species. A species, subspecies, or distinct vertebrate population segment that has been added to the Federal lists of Endangered and Threatened Wildlife and Plants as they appear in sections 17.11 and 17.12 of Title 50 of the Code of Federal Regulations (50 CFR 17.11 and 17.12).

Managed Marsh. A marsh subjected to an artificial water regime for the benefit a particular species.

Maximum Extent Practicable (MEP). The basic performance standard in numerous state and federal regulations, including the Federal Endangered Species Act and Section 401 of the Federal Clean Water Act. The MEP standard does not necessarily involve the same criteria in each application; it is intended to address projects or actions on an individual basis considering their specific circumstances and purpose. For the purposes of the Solano HCP, the working definition for “maximum extent practicable” combines the primary elements from the EPA’s 404(b)(1) Guidelines for assessing the feasibility of alternatives to minimize impacts to aquatic resources and USFWS’s HCP Handbook for evaluating the maximum conservation program that can be reasonably required of an HCP applicant. Under the EPA guidelines, practicable is defined as:

“available and capable of being done after taking into consideration cost, existing technology and logistics in light of overall project purposes (40 CFR 230.10(a)(2)).”

The USFWS HCP Handbook (Section 7-3) states that a conservation program may be evaluated against the MEP standard by:

“weighing the benefits and costs of implementing additional mitigation, the amount of mitigation provided by other applicants in similar situations, and the abilities of that particular applicant.”

McAteer-Petris Act. The McAteer-Petris Act, enacted on September 17, 1965, established the San Francisco Bay Conservation and Development Commission as a temporary state agency charged with preparing a plan for the long-term use of the Bay (the Bay Plan). In August 1969, the McAteer-Petris Act was amended to make BCDC a permanent agency and to incorporate the policies of the Bay Plan into state law.

Member Agency. An agency within Solano County that purchases water from the Solano Project for agricultural, municipal, or industrial purposes.

Member Agency Service Area. The geographic area of the Member Agency where Federal water can be applied. For the Solano Irrigation District and the Maine Prairie Water District, the service area is their current boundaries. For the cities, the service area is defined by their sphere of influence (defined below). For each Member Agency, the service area is a subset of the SCWA’s contract service area.

Mesic. Refers to environmental conditions that have medium moisture levels as compared to wet (Hydric) or dry conditions (Xeric).

Microtines. Mice or rodents in the subfamily Microtinae including voles, tree mice, meadow mice, and muskrat.

Mima Mound. Micro-relief topography consisting of many, closely spaced mounds. The mounds are typically 3 to 4 feet in height and 30 to 40 feet in diameter and tend to occur in areas with periodically

waterlogged soils or in areas of thin soils underlain by a basement of bedrock, gravels, clay pans or hard pans.

Mitigation. Avoiding or minimizing impacts of an action.

Mitigation Bank. A commercial or privately-operated site, or suite of sites, where natural resources (e.g., endangered species, wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts resulting from projects completed by third-parties. In general, a mitigation bank sells compensatory mitigation credits to project proponents whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. Operation and use of a mitigation bank are governed by a binding agreement with one or more regulatory agencies.

Mitigation Ratio. The amount of mitigation required compared to offset impacts, typically expressed as a ratio of mitigation:impact (e.g., 2:1).

Municipal Separate Storm Sewer System (MS4). A publicly owned conveyance or system of conveyances that discharges to waters of the US and is designed or used for collecting or conveying stormwater, is not a combined sewer, and is not part of a publicly owned treatment works.

Natural Community. A distinctive group of different organisms that inhabit a common environment, interact with each other, and are relatively independent of other groups.

Natural Land. Land with a significant cover of natural vegetation. Natural vegetation in this context includes all native California natural communities and includes forestlands, shrublands, native and non-native grasslands, non-irrigated land, grazed land, and vacant or disturbed natural land. Natural land excludes lands subject to intensive agriculture and urban uses. Disturbed land or recently cleared land may still be restored and should be considered as natural land.

Natural Vegetation. An association of plants that grow in the absence of strong human influences. Natural vegetation includes grazed areas, but does not include disturbed or cultivated areas, or areas where the hydrology has been altered to a degree that supports a different association of plants.

Natural Community Conservation Planning Act (NCCP). California Fish and Game Code, Section 2800-2835.

Nejedly-Bagley-Zberg Suisun Marsh Preservation Act. The Suisun Marsh Preservation Act of 1974 directed the Bay Conservation and Development Commission (BCDC) and CDFG to prepare a Suisun Marsh Protection Plan "to preserve the integrity and assure continued wildlife use" of the Suisun Marsh. In December 1976, BCDC submitted the Suisun Marsh Protection Plan to the Governor and the Legislature. The Suisun Marsh Preservation Act was amended in 1977 to incorporate the findings and policies contained in the plan into state law.

National Environmental Policy Act (NEPA). An act passed in 1974 establishing federal legislation for national environmental policy, a council on environmental quality, and the requirements for environmental impact statements

New Development. Land disturbing activities; structural development, including construction or installation of a building or structure and creation of impervious surfaces; and land subdivision are all considered new development.

Nonpoint Source Pollution. Pollution originating from diffuse areas (such as road run-off or air pollution from automobiles) having no well-defined locational source.

Occurrence. An occupied area located at least 0.4 kilometers ($\frac{1}{4}$ mile) away from the next occupied area. (See also element occurrence and population)

Oligolectic. Refers to insect, primarily native bee species that are relatively specialized to pollen sources/few plant species.

Oligotrophic. Low in nutrients and primary production.

Open Space Land. Any parcel or area of land or water, owned or controlled in some manner by private parties, municipal agencies or nongovernmental organizations (NGOs) (e.g., city or County owned land) where the primary purpose is for uses other than preserving natural resources. Examples include lands with conservation easements designed to preclude development and maintain current land uses for the production of resources (e.g., food, fiber, energy), protection of visual resources, outdoor recreation (parks), or public health and safety. The term open space does not imply lands are accessible to the public.

Parking Lot. A land area or facility for the temporary parking or storage of motor vehicles used personally, for business or for commerce with a lot size of 5,000 square feet or more, or with 25 or more parking spaces.

Palustrine Wetlands. Used in the wetlands classification system by the U.S. Fish and Wildlife Service (USFWS) to refer to non-tidal wetlands that are vegetated by trees, shrubs, herbaceous plants, mosses, and/or lichens and all wetlands that occur in tidal areas where the salinity of ocean-derived salts is below 0.5 parts per thousand. Palustrine wetlands can also be non-vegetated if the following four characteristics are present: 1) area less than 8 ha (20 acres); 2) active wave-formed or bedrock shoreline features are lacking; 3) water depth in the deepest part of the basin is less than 2 meters at low water; and 4) salinity due to ocean-derived salts is below 0.5 parts per thousand.

Perennial Stream. Streams that have visible water flowing above the streambed year-round.

Permit Holders. Local Solano County government entities (includes cities, irrigation districts and special districts) currently participating the HCP.

Point Source Pollution. Pollution that is discharged from a discrete location such as a pipe, tank, pit, ditch, or smokestack.

Polylectic. Refers to insects and native bees that utilize many types of pollen sources/plant species.

Population. A group of individuals of the same species that occupy an area small enough to permit regular interbreeding (used interchangeably with occurrence).

Practicable. Available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purposes as defined under the Section 404(b)(1) guidelines for alternative analyses required for individual permits issued by the U.S. Army Corps of Engineers.

Preservation Component. As referred to in the Solano HCP/NCCP, the protection of existing high quality habitats in perpetuity through direct fee title purchase, purchase of preservation credits from an approved mitigation bank, or establishment of appropriate conservation easements as part of mitigation for project impacts.

Preserve. An area where organisms or other features are protected.

Project. Any activity that may cause either a direct physical change in the environment, or a reasonably foreseeable indirect physical change in the environment.

Recovery. Improvement in the status of listed species to the point where listing is no longer appropriate under the criteria established in section 4(a)(1) of the federal Endangered Species Act. [50 §CFR 402.02]

Recovery Unit. Management subsets of listed species created to establish recovery goals or carry out management actions. To lessen confusion, a subset of an animal or plant species that needs to be identified for recovery management purposes will be called a “recovery unit” instead of a “population.”

Redevelopment. The creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Redevelopment includes, but is not limited to: expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces.

Reserve. An area or tract of land set apart or saved for future uses or specific purposes. Typically distinguished from preserves in that reserves involve significant restoration, rehabilitation, enhancement or other active management to create or improve conditions for target organisms.

Restaurant. A stand-alone facility that sells prepared food and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption. (SIC code 5812).

Restoration. The return of an ecosystem to a close approximation of its condition prior to disturbance. The Society for Ecological Restoration (SER) further defines ecological restoration as "the process of assisting the recovery and management of ecological integrity. Ecological integrity includes a critical range of variability in biodiversity, ecological processes and structures, regional and historical context, and sustainable cultural practices."

Retail Gasoline Outlet. Any facility engaged in selling gasoline and lubricating oils.

Riparian. The transitional zones between aquatic and terrestrial (or upland) environments. Riparian areas occur as a belt along the banks of rivers, streams, and lakes. Riparian areas occurring along the banks of moving water (i.e., streams or rivers) are often called lotic systems whereas those occurring along the banks of stationary water (i.e., lakes, ponds, or pools) are called lentic systems. As a transitional zone between aquatic and upland environments, riparian systems often exhibit characteristics of both; but they are not as dry as upland environments and not quite as wet as aquatic or wetland systems.

Riparian Setback. The distance development (including access roads and bike paths) is set back from a river or stream and is measured from either: 1) the top of the streambank, 2) or the outside edge of the existing riparian vegetation, whichever distance is greater.

Riverine Systems. The open-water habitats of rivers and streams. Riverine systems typically include all open water areas that occur within a defined channel of a stream as well as along perennial and intermittent stretches of streams and along some major dry washes. In some cases, riverine systems are bounded by *Palustrine Wetlands* that develop in the floodplain on either side of the defined channel. The riverine system and the adjacent palustrine wetlands are often referred to as *Riparian Habitat*.

Salt Marsh. A marsh consisting of plant species adapted to salt water that is not diluted by the presence of fresh water. Salt marsh species are adapted to a higher concentration of salt than brackish marsh species.

Savanna. A landscape supporting tree cover not exceeding 30 percent and a grassland understory (Pavlik et al. 1991).

Serpentine Soils. Soils derived from serpentine parent material. Serpentine soils have chemical and physical properties that tend to be low in available calcium, high in magnesium, and low water holding capacity. Because of the harsh conditions, serpentine soils are known for the evolution of the unique flora, often including many rare and endemic plant species.

Significant Effect on the Environment. A substantial, or potentially substantial, adverse change in any of the physical conditions within the area affected by the project including land, air, water, minerals, flora, fauna, ambient noise, and objects of historic or aesthetic significance. An economic or social change by itself is not considered a significant effect on the environment.

Slough. A side channel or inlet as from a river; ordinarily found on or at the edge of the flood plain or a river; a *Bayou*. A tide flat or bottom-land creek.

Solano County Water Agency (SCWA) Contract Service Area. The geographic area where federal water can be delivered by contract (Figure 1-2). SCWA's contract service area includes the service areas of the member agencies and the sphere of influence of the City of Benicia. The City of Benicia receives water on an emergency basis via an agreement with the City of Vallejo. SCWA's contract service area has also been known as the contract service area or contractual service area. The term "Agency's service area" is used in all the contracts between Reclamation, SCWA, and the member agencies to denote this area.

Solano Project. The Solano Project is the Reclamation project that makes water available to SCWA and its contractors. Solano Project facilities are owned by Reclamation and include Lake Berryessa, Monticello Dam, Putah Diversion Dam, and Putah South Canal.

Source Control BMP. Any schedules of activities, prohibitions of practices, maintenance procedures, managerial practices, or operational practices that aim to prevent storm water pollution by reducing the potential for contamination at the source of pollution.

Sphere of Influence. The probable physical boundaries and service area of a local agency, as determined by the Local Agency Formation Commission (LAFCO) of the County.

Stoloniferous. Having stolons, a ground lying or trailing stem that produces roots at the nodes.

Storm Event. A period of rainfall that produces more than 0.1 inch of precipitation and is separated from the previous period of rainfall (storm event) by at least 72 hours of dry weather.

Stream Order. A classification based on the branching pattern of river systems. The order of a stream or river is a dimensionless number that indicates the number of tributaries. The smallest unbranched tributary is designated as a first order stream. A channel formed by the confluence of two first order tributaries is designated as a second order stream. When two second order streams join, they result in a third order stream; and as streams of equal value meet they result in a stream of the next higher order. In general, the higher the order number, the larger is the watershed and greater are the channel dimension and discharge.

Structural BMP. Any structural facility designed and constructed to mitigate the adverse impacts of storm water and urban runoff pollution (e.g., canopy, structural enclosure). The category may include both Treatment Control BMPs and Source Control BMPs.

Survival. The condition in which a species continues to exist into the future while retaining the potential for recovery. This condition is characterized by a species with a sufficient population, represented by all necessary age classes, genetic heterogeneity, and number of sexually mature individuals producing viable offspring, which exists in an environment providing all requirements for completion of the species' entire life cycle, including reproduction, sustenance, and shelter.

Swainson's Hawk Nest Tree. A known nest tree is one used by Swainson's hawk in the recent past, but not used in the last three years. An active nest tree is one used in the last three years by Swainson's hawks. A potential nest tree is one located in suitable habitat for nesting Swainson's hawks that is capable of supporting a nest.

Take. As defined by ESA means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct. [ESA §3(19)] **Harm** is further defined by USFWS to include significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns such as breeding, feeding, or sheltering. **Harass** is defined by USFWS as actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. [50 CFR §17.3]

Tidal. The frequency and duration of inundation due to tidal action is unmodified in tidal areas.

Threatened Species. Any species that is likely to become endangered within the foreseeable future throughout all or a significant portion of its range. [ESA §3(20)]

TMDL (Total Maximum Daily Load). Section 303(d) of the federal Clean Water Act (CWA), requires States to identify waters that do not meet water quality standards after applying effluent limits for point sources other than publicly owned waste water treatment plants (POTW) that are based on the best practicable control technology currently available and effluent limits for POTWs based on secondary treatment. States are then required to prioritize waters/watersheds for development of total maximum daily loads (TMDL). States are to compile this information in a list and submit it to the EPA for review and approval. This list is known as the 303(d) list of impaired waters (303(d) list). TMDLs describe a specific water quality attainment strategy for a water body and related impairment identified on the 303(d) list. TMDLs may include more than one water body and more than one pollutant. The TMDL defines specific measurable features that determine attainment of relevant water quality standards. TMDLs include a description of the total allowable level of the pollutant(s) in question and allocation of allowable loads to individual sources or groups of sources of the pollutant(s) of concern.

Top of Streambank. The break in slope at the top of a streambank, where the streambank meets the floodplain. The streambanks are the slopes of the active channel, between which streamflow is normally confined.

Treatment. The application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media adsorption, biodegradation, biological uptake, chemical oxidation and UV radiation.

Treatment Control BMP. Any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media adsorption or any other physical, biological, or chemical process.

Unavoidable Impact. An unavoidable impact occurs where there is not a practicable alternative available to avoid or further minimize an impact.

Understory. The shrubs and smaller trees between the forest canopy and the ground cover.

Unforeseen Circumstance. Also referred to as extraordinary circumstance; Changes in circumstances surrounding an HCP that were not or could not be anticipated by HCP participants and the Resource Agencies, which result in a substantial and adverse change in the status of a Covered Species.

Urban Growth Boundary. An officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses. Urban growth boundaries are regulatory tools, often designated for long periods of time (20 years or more) to provide greater certainty for both development and conservation goals.

Urban Limit Line. A boundary, sometimes parcel-specific, located to mark the limit beyond which urban development will not be allowed. It has the aim of discouraging urban sprawl by containing urban development during a specified period, and its location may be modified over time.

Vernal Pool. Seasonally flooded depressions found on ancient soils with an impermeable layer such as a hardpan, claypan, or volcanic basalt. The impermeable layer allows the pools to retain water much longer than the surrounding uplands; nonetheless, the pools are shallow enough to dry up each season. Vernal pools often fill and empty several times during the rainy season. Vernal pools are often distinguished from other seasonal wetlands by the presence of distinct flora and fauna that is largely restricted to vernal pools and the dominance of native plants.

Vernal Pool Complex. Clusters of vernal pools and associated uplands that occur within a continuous landscape with unobstructed drainage to and from vernal pools. Vernal pool complexes are characterized by similar soils and topography.

Vernal Pool Complex Wetland or Aquatic Component. For the purposes of the Solano HCP, the wetland or aquatic component of the vernal pool complex is defined as the area meeting the generally accepted criteria for wetlands or other aquatic sites as defined by the U.S. Army Corps of Engineers (1987 and applicable technical updates). These communities include areas that support a prevalence of hydrophytic plant species, contain hydric soils, and wetland hydrology and are generally, but not exclusively considered to be waters of the United States and/or waters of the State of California.

Vernal Pool Upland or Watershed. Those higher elevation areas within the vernal pool complex that are outside of the seasonal inundation zone but within the natural contributing watershed of the individual pool/swale or the pool/swale complex.

Weed. A plant growing where it is not wanted, often to the detriment of a crop or the disfigurement of a landscape design.

Woodland. An open tree-dominated landscape in which trees grow at a cover greater than 30 percent but with canopies seldom overlapping (Pavlik et al. 1991).

Xeric. Describing an organism that requires little moisture or a habitat containing little moisture; dry environmental conditions as compared to Hydric (wet environmental conditions) and Mesic (moderate environmental conditions).