# **Chapter 12 Reference Materials**

## **Under development**

Chapter 12 will include, *Reference Materials*; a *List of Acronyms and Abbreviations*, a *Glossary* of terms and their definitions, a *List of Preparers*, which identifies the individuals involved in the preparation of this document, and *Literature Cited*, which is a comprehensive bibliography of references cited in the text.



# **List of Acronyms**

Acronyms	Full Name/Term
ARCCERP	Auburn Ravine/Coon Creek Ecosystem Restoration Plan
BA	Biological Assessment
BMP	Best Management Practices
ВО	Biological Opinion
Caltrans	California Department of Transportation
CARP	County Aquatic Resources Program
CCJPA	California Communities Joint Powers Authority
CCR	California Code of Regulations
CDF	California Department of Forestry and Fire Protection
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CFD	Community Facilities District
cfs	cubic feet per second
CMAQ	Congestion Mitigation and Air Quality
CNDDB	California Natural Diversity Database
CNPPA	California Native Plan Protection Act
CNPS	California Native Plant Society
Corps	U.S. Army Corps of Engineers
CPI	Consumer Price Index
CSD	Community Service District
CSC	California Species of Special Concern
CVRWQB	Central Valley Regional Water Quality Control Board
CWA	Clean Water Act
CWHR	California Wildlife Habitat Associations
CWMZ's	Cold Water Management Zones
DCCRMP	Dry Creek Coordinated Resource Management Plan
DEM	Digital Elevation Models
DPR	
DSOD	California Division of Safety of Dams
EIR	Environmental Impact Report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FAHCE	Fisheries and Aquatic Habitat Collaborative Effort
FEMA	Federal Emergency Management Agency

FERC	Federal Energy Regulatory Commission
FR	Federal Register
FIFRA	Federal Insecticide, Fungicide and Rodenticide Act
FHWA	Federal Highway Administration
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
HPI	Home Price Index
IA	Implementing Agreement
IPM	Integrated Pest Management
ITP	Incidental Take Permit
JPA	Joint Powers Authority
JSA	Jones and Stokes Associates
LAFCO	Local Agency Formation Commission
LEDPA	Least Environmentally Damaging Practicable Alternative
LID	Low Impact Development
MBTA	Migratory Bird Treaty Act of 1918, as amended
MOU	Memorandum of Understanding
NCCP	Natural Communities Conservation Plan
NEMDC	Natomas East Main Drainage Canal
NEPA	National Environmental Policy Act
NFA	North Fork Associates
NHPA	National Historic Preservation Act
NID	Nevada Irrigation District
NLA	Neighboring Landowner Agreement
NLPP	Neighboring Landowner Protection Program
NMFS	National Marine Fisheries Service
NO2	Nitrogen Dioxide
NOAA	National Oceanic and Atmospheric Administration
NPC	Non-participating cities
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NRDA	Natural Resources Damages Assessment
NWI	National Wetlands Inventory
PAR	Property Analysis Report
PCA	Placer Conservation Authority
PCCP	Placer County Conservation Plan
PCFCD	Placer County Flood Control and Water Conservation District
PCWA	Placer County Water Agency
PCWHR	Placer County Wildlife Habitat Associations
PFG	Potential Future Growth Area
L	

PG&E	Pacific Gas and Electric Company
RAA	Reserve Acquisition Area
RAP	Rapid Assessment Protocols
RWQCB	Regional Water Quality Control Board
SACOG	Sacramento Area Council of Governments
SCADA	Supervisory control and data acquisition
SCIP	Statewide Community Infrastructure Program
SOD	Sudden Oak Death
SPRTA	South Placer Regional Transportation Authority
SR	State Route
SRA	Shaded Riverine Aquatic Habitat
SRWRS	Sacramento River Water Reliability Study
SSMP	Sewer System Master Plan
SSWD	Sacramento Suburban Water District
TMDL	Total Maximum Daily Load
TNC	The Nature Conservancy
TRA	TRA Environmental Sciences
UGB	Urban Growth Boundary
ug/L	micrograms per liter
ULL	Urban Limit Line
USA	Urban Service Area
USACE	United States Army Corps of Engineers
USB	Urban Service Boundary
USC	U.S. Government Code
USEPA	U.S. Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	U.S. Geological Survey
UTC	United Technologies Corporation
VTM	Vegetation Type Map

## **Glossary**

**Adaptive management.** A method for examining alternative strategies for meeting measurable biological goals and objectives, and then if necessary, adjusting future conservation management actions according to what is learned (65 Federal Register [FR] 106 35242–35257, June 1, 2000).

**Aquatic resources**. Aquatic resources include (1) waters of Placer County, (2) the stream system, and (3) the bed, bank, and channel of lakes, ponds, reservoirs within the county. The limit of aquatic resources is the edge of wetlands in palustrine systems and the top-of-bank or outer limit of riparian vegetation, whichever is broader, in lacustrine or riverine systems. The CARP Manual defines the various types of aquatic resources in western Placer County.

**Baseline.** The existing environmental state, which includes past and present impacts as well as the anticipated impacts of all permitted projects in the inventory area.

**Best Management Practices (BMP).** Policies, practices, procedures, or structures implemented to mitigate the adverse environmental effects on surface water quality resulting from development. Best Management Practices (BMPs) are effective, practical, structural or nonstructural methods which prevent or reduce the movement of sediment, nutrients, pesticides and other pollutants from the land to surface or ground water, or which otherwise protect water quality from potential adverse effects of development activities.

**Biodiversity.** The variety of organisms considered at all levels, from genetic variants of a single species through arrays of species to arrays of genera, families, and higher taxonomic levels; includes the variety of natural communities and ecosystems.

Biological diversity is the variety and variability among living organisms and the ecological complexes in which they occur. 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.

**Biological opinion (BO).** The document stating the opinion of the U.S. Fish and Wildlife Service 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.

**Biological goals.** Guiding principles for conservation within the study area based on the conservation needs of the covered species and natural communities. The goals describe the vision for the covered species and natural communities to be achieved through implementation of a successful conservation program. Biological goals are typically qualitative rather than quantitative (65 FR 106 35242–35257, June 1, 2000).

**Biological objectives.** Measurable targets that will be sought to achieve the biological goals. Biological objectives are typically quantitative or at least measurable (65 FR 106 35242–35257, June 1, 2000).

**Biological resource assessment**. A document prepared by a biological consultant that discusses the biological resources that occur on a project site. Adequate resource assessments also discuss the potential for special status species (including PCCP covered species) to occur on a property.

**Broad goals (or program goals).** Broad guiding principles for the entire Plan. These goals represent a summary of the "project purpose and need" for the Plan and may be incorporated as a mission statement for the process and the plan. These are a different set of goals than the biological goals and objectives.

**CEQA species.** Plant and animal species that are considered endangered, threatened, or rare under the California Environmental Quality Act (CEQA) and thus must be considered in CEQA documents, but are not species covered by the Plan (670.2 or 670.5, Title 14, California Code of Regulations [CCR]). See also *endangered species* and *threatened species*.

**Changed circumstances.** Changes in conditions or other circumstances affecting a covered species or the geographic area covered by the Plan that can reasonably be anticipated by the Permittees and that can reasonably be planned for in the Plan (e.g., new species listings, fire, or other reasonably foreseeable natural catastrophic events).

City limits. Official jurisdictional boundary of a city or town.

**Climate change.** Climate change refers to a statistically significant variation in either the mean state of the climate or in its variability, persisting for an extended period (typically decades or longer). Climate change may be due to natural internal processes or external forces, or to persistent anthropogenic changes in the composition of the atmosphere or in land use. (Intergovernmental Panel on Climate Change 2007 Report).

**Compliance monitoring.** Monitoring that tracks the status of plan implementation, ensuring that planned actions are executed, including reserve design and creation, implementation of management activities, and implementation of monitoring activities (Atkinson et al. 2004).

Conservation. According to the Federal Endangered Species Act, conserve, conserving, and conservation are the methods and procedures necessary to bring any endangered or threatened species to the point at which the measures provided under the Act are no longer necessary. Such methods and procedures include, but are not limited to, activities associated with resource management such as research, census, law enforcement, habitat acquisition and maintenance, propagation, live trapping, and transportation (16 U.S. Government Code [USC] 1532 [3]). According to the Natural Community Conservation Planning Act, conserve, conserving, and conservation are the use of methods and procedures within the Plan area that are necessary "to bring any covered species to the point at which the measures provided pursuant to [the California Endangered Species Act] ... are not necessary, and for covered species that are not listed pursuant to [the California Endangered Species Act] ..., to maintain or enhance the condition of a species so that listing pursuant to [the California Endangered Species Act] ...will not become necessary." In other words, the Natural Community Conservation Planning Act defines conservation as the steps necessary to remove a species from the California threatened or endangered species list (California Fish and Game Code 2085[d]).

**Conservation actions.** Specific activities that will be carried out to meet the conservation needs of the covered species and natural communities in order to achieve the biological goals and objectives.

**Conservation bank.** A site, or suite of sites, where resources (e.g., uplands, wetlands, streams, riparian areas) are protected *in situ* for the purpose of providing compensatory mitigation for impacts authorized by the PCCP. In general, a conservation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the conservation bank sponsor. The operation and use of a conservation bank are governed by a conservation banking instrument.

**Conservation strategy.** The Plan's overall and unified approach for achieving the biological goals and objectives. The conservation strategy is the collection of all conservation actions that will be implemented.

**Construction monitoring.** Monitoring by biologists of construction activities to ensure that conservation actions are implemented and impacts to biological resources are avoided or minimized in accordance with Plan requirements.

**Contribute to recovery.** Actions that measurably increase the baseline conditions necessary to support covered species and that contribute to the eventual delisting of a listed species or prevention of listing of a nonlisted species. A contribution to recovery does not include actions necessary to avoid, minimize, or mitigate impacts of covered activities.

**County Aquatic Resources Program (CARP).** A Placer County Conservation Plan program that identifies, classifies and protects aquatic resources within the Plan area. The program outlines a process to issue 404 (Army Corps of Engineers), 401 (Regional Water Quality Control Board) and 1602 (Department of Fish and Game) agreements under the PCCP.

**Cover (also canopy cover, areal cover).** The area of ground covered by vegetation of particular species or vegetation type, generally expressed as a percentage.

**Covered Activities.** Those activities addressed in the Plan and for which the Permittees will seek a Natural Community Conservation Planning Act take permit pursuant to Section 2835 of the California Natural Community Conservation Planning Act, and an incidental take permit pursuant to Section 10 of the federal Endangered Species Act.

**Covered species.** Those species addressed in the Plan for which conservation actions will be implemented and for which the Permittees will seek authorization for take under Section 2835 of the California Natural Community Conservation Planning Act and Section 10 of the federal Endangered Species Act.

**Creation (wetlands).** means the manipulation of the physical, chemical, or biological characteristics present to develop an aquatic resource that did not previously exist at an upland site. Establishment results in a gain in aquatic resource area and functions.

**Credit.** A unit of measure (e.g., a functional or areal measure or other suitable metric) representing the accrual or attainment of habitat functions at a compensatory mitigation site.

The measure of habitat function is based on the resources restored, created, enhanced, or preserved.

**Critical habitat.** An area designated as critical habitat by the U.S. Fish and Wildlife Service or by the National Marine Fisheries Service pursuant to the federal Endangered Species Act. Critical habitat areas are specific geographic areas that may or may not be occupied by listed species, that are determined to be essential for the conservation and management of listed species, and that have been formally described and designated in the Federal Register (16 USC 1532 [5]).

**Dominance.** The extent to which a given species predominates a community by virtue of its size, abundance, or coverage.

**Effectiveness monitoring.** The measurement of variables (such as) that allow the program to assess the success of the HCP/NCCP in meeting its stated biological objectives (Atkinson et al. 2004).

**Ecological integrity.** Ecosystems have *ecological integrity* when their native components are intact, including abiotic components, biodiversity, and ecosystem processes.

**Ecosystem.** A community of organisms and their physical environment interacting as an ecological unit.

A system that includes all living organisms (biotic factors) in an area as well as its physical environment (abiotic factors) functioning together as a unit. An ecosystem is made up of plants, animals, microorganisms, soil, rocks, minerals, water sources and the local atmosphere interacting with one another.

**Ecosystem function.** The sum total of processes operating at the ecosystem level, such as the cycling of matter, energy, and nutrients.

**Ecosystem restoration.** The reestablishment of ecological functions within an area that historically supported those functions.

**Endangered species.** A native species, subspecies, variety of organism, or distinct population segment (DPS) which 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 (16 USC 1532[6]; California Fish and Game Code Section 2062).

**Enhancement (wetlands).** means the manipulation of the physical, chemical, or biological characteristics of an aquatic resource to heighten, intensify, or improve a specific aquatic resource function(s). Enhancement results in the gain of selected aquatic resource function(s), but may also lead to a decline in other aquatic resource function(s). Enhancement does not result in a gain in aquatic resource area.

**Endemic.** A species, subspecies, or variety found only in the region defined.

**Environmental gradient.** A shift in physical and ecological parameters across a landscape, such as changes in topography, climate, land cover types, or natural communities.

**Ephemeral stream.** A stream that flows only in response to rain events and receives no groundwater input. As defined in the Habitat Plan, ephemeral streams will not include irrigation ditches, underground streams, or drainages and swales that have neither defined bed and bank nor evidence of scour or sediment transport. All other ephemeral drainages that qualify as streams will be considered under the Habitat Plan.

**Extinct species.** A species no longer in existence.

**Extirpated species.** A species no longer surviving in regions that were once part of its range.

**Geographic Information Systems (GIS).** Computer-based mapping technology that manipulates geographic data in digital layers and facilitates a wide array of environmental analyses.

**Greenfield.** A term used to describe a piece of previously undeveloped land, in a city or rural area, either currently used for agriculture or landscape design, or just left to nature. Greenfield land can be unfenced open fields or urban lots, or restricted, closed property kept off limits to the general public by a private or governmental entity.

**Habitat.** The environmental conditions that support occupancy of a given organism in a specified area (Hall et al. 1997). In scientific and lay publications, habitat is defined in many different ways and for many different purposes. For the purposes of the Plan, habitat is defined as the specific places where the environmental conditions (i.e., physical and biological conditions) are present that are required to support occupancy by individuals or populations of a given species. Habitat may be occupied (i.e., individuals or a population of the species are or have recently been present) or unoccupied. See also *unoccupied habitat*.

**Habitat creation.** The establishment of a natural community in an area that did not previously support it. For example, stock ponds can be created in areas that previously did not support them by grading and installing a check dam.

**Habitat enhancement.** The improvement of an existing degraded natural community. Habitat enhancement involves improving one or more ecological factors, such as species richness, species diversity, overall vegetative cover, or wildlife value. Enhancement activities typically occur on substrates that are largely intact.

**Habitat fragmentation.** The breaking up of habitats into discontinuous chunks, such as when vegetation is cleared for human settlements, roads or agriculture that can prevent animal migration and food supplies.

Habitat fragmentation is the breaking up of a species habitat into discontinuous chunks. Fragmentation can be caused by removal of vegetation over large areas for human development, or even by small roads breaking up the habitat of (for example) amphibians that are resistant to crossing roads or are frequently killed when crossing roads.

Habitat fragmentation is the breaking up of a continuous habitat, ecosystem, or land-use type into smaller fragments, which is considered to be one of several spatial processes in land transformation. It is commonly used in relation to the fragmentation of forests. Habitat fragmentation is mainly caused by human activities such as logging or road construction, conversion of forests into agricultural areas and suburbanization, but can also be caused by natural processes such as fire.

Habitat quality. The ability of the environment to provide conditions that support the persistence of individuals and populations (Hall et al. 1997). The precise meaning of habitat quality varies by species and depends on the subject species' specific needs in the context of a particular area. High-quality habitat for some species comprises only foraging and resting elements; for others it comprises foraging, resting, and nesting elements; for still others it may encompass all elements needed for the species to complete its lifecycle. Low quality habitat would include only the minimal elements that support occurrence of the species. High-quality habitat tends to support larger numbers of species than low-quality habitat.

#### Habitat restoration. See Restoration.

**Harass.** An intentional or negligent act or omission that creates the likelihood of injury to wildlife by annoying it to such an extent as to significantly disrupt normal behavioral patterns which include, but are not limited to, breeding, feeding, or sheltering (50 CFR 17.3). It is one component of the legal definition of "take" under the federal Endangered Species Act.

**Harm.** An act that kills or injures wildlife. Such an act may include significant habitat modification or degradation which results in injury of or death to wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering (50 CFR 17.3). Harm is one component of the legal definition of "take" under the federal Endangered Species Act.

**Hydrology.** The movement of surface and subsurface water flows in a given area. The hydrology of an area is intimately connected with its precipitation, soils, and topography.

The scientific study of the waters of the earth, especially with relation to the effects of precipitation and evaporation upon the occurrence and character of water in streams, lakes, and on or below the land surface. It is a dynamic process of surface and subsurface water movement within an area including the sources, timing, amount, and direction of that movement.

**Incidental take.** Any take otherwise prohibited, if such take is incidental to and not the purpose of the carrying out of an otherwise lawful activity (50 CFR 17.3).

**Independent Science Advisory Group (IAG).** An independent group of scientists required under the Natural Community Conservation Plan Act to develop sound principles for conservation, species protection, and adaptive management for the PCCP. This group was selected by Placer County and approved by California Department of Fish and Game based on specific criteria.

**Indicator species.** A species, the presence or absence of which is indicative of a particular habitat, community, or set of environmental conditions (Lincoln et al. 1998).

A species which is a good indicator of the living conditions in a particular habitat.

A species whose presence, absence, or relative well-being in a given environment is indicative of the health of its ecosystem as a whole.

**Interim project**. A project within the Plan study area that is proposed before adoption of the Plan and that has the potential to conflict with preliminary conservation objectives stated in the Planning Agreement.

**Inter-Agency Working Group (IAWG).** A group of representatives from the regulatory agencies that provided input and direction during the PCCP development. The agencies normally represented during the PCCP development included the U.S. Fish and Wildlife Service, U. S. Environmental Protection Agency, U.S. Army Corps of Engineers, and National Oceanic and Atmospheric Administration (NOAA) and the California Department of Fish and Game.

**Invasive species.** A species that is non-native to the ecosystem and whose introduction causes or is likely to cause economic or environmental harm or harm to human health (Atkinson et al. 2004; Executive Order 13112).

**In-kind/like-value creation.** Establishing a vegetative community or habitat that would provide the same ecological values over time as the vegetation community or habitat affected. For example, creating an artificial vernal pool that supports species similar to those found in an affected vernal pool would be in-kind/like value creation.

**Intermittent stream.** A stream that is supplied by both rainfall runoff and groundwater. Intermittent streams tend to be seasonal, with flow during the rainy season and into the late spring or early summer.

**Keystone predator.** The dominant predator, often the top predator in a given food web; a predator having a major influence on community structure, often in excess of that expected from its relative abundance (Lincoln et al. 1998).

**Keystone species.** A species whose impacts on its community or ecosystem are large, and much larger than would be expected from its abundance (Meffe and Carroll 2005).

**Land-cover type.** The dominant feature of the land surface discernible from aerial photographs and defined by vegetation, water, or human uses.

**Land-use designation.** The zoning designation, by parcel, in an adopted city or county General Plan, of the allowable land uses on that parcel.

**Metapopulation.** A group of partially isolated populations belonging to the same species that are connected by pathways of immigration and emigration. Exchange of individuals occurs between such populations, enabling recolonization of sites from which the species has recently become extirpated (Lincoln et al. 1998).

**Mitigation.** Actions or project design features that reduce environmental impacts by avoiding, minimizing, or compensating for adverse effects (Fulton 1999).

**Mitigation bank.** A site, or suite of sites, where resources (e.g., wetlands, streams, riparian areas) are restored, established, enhanced, and/or preserved for the purpose of providing compensatory mitigation for impacts authorized by the PCCP. In general, a mitigation bank sells compensatory mitigation credits to permittees whose obligation to provide compensatory mitigation is then transferred to the mitigation bank sponsor. The operation and use of a mitigation bank are governed by a mitigation banking instrument.

**Natural community.** A collection of species that co-occur in the same habitat or area and interact through food and spatial relationships. Communities are typically characterized by reference to one or more dominant species.

**Non-native species.** A species that is not native to the ecosystem under consideration.

**"No surprises assurances."** Assurances to permit holders that if unforeseen circumstances arise, the U.S. Fish and Wildlife Service and National Marine Fisheries Service will not require more land, water, or money or additional restrictions on the use of land, water, or other natural resources beyond the level stated in the HCP without the consent of the Permittee (63 FR 35, February 23, 1998). Applies as long as Permittee is implementing terms and conditions of the HCP properly. See also *unforeseen circumstances*.

**No-take species.** Species for which take is not authorized under the HCP/NCCP. In order to comply with the terms of the Plan, applicants for coverage under the Plan must avoid all direct and indirect impacts on no-take species.

**Out-of-kind/like-value creation.** Establishing a similar, but not identical, vegetative community or habitat which over time, develops some of the same ecological functions and values as the affected vegetative community or habitat.

Participating agency. City of Lincoln, County of Placer and the Placer County Water Agency.

**Participating special entity.** A public agency such as a water, school, irrigation, transportation, or other special district that is not subject to the jurisdiction of the Permittees but requests and receives coverage under the Plan during implementation according to the terms of the Plan.

**Perennial stream.** A stream that flows year around that is supplied by both rainfall runoff and groundwater.

**Performance indicator.** An environmental variable that is quantitatively measured over time to determine whether enhanced, created, or restored natural communities have successfully met HCP/NCCP biological goals and objectives.

**Performance objective.** In monitoring, the optimal desired value for each performance indicator. Performance objectives establish a higher threshold for each indicator than that established for performance standards. Funding, design, and management objectives for enhanced, created, or restored natural communities are established at levels that are designed to ensure that the performance objectives are achieved. Failure to meet a performance objective would not constitute a changed circumstance or require remedial measures.

**Performance period.** In monitoring, the time over which performance standards must be met.

**Performance standard.** In monitoring, a minimum requirement necessary to achieve biological goals and objectives. Failure to achieve a performance standard could constitute a changed circumstance and require that remedial measures be implemented.

**Permittees.** Those entities requesting a Section 10(a)(1)(B) incidental take permits from the U.S. Fish and Wildlife Service and the National Marine Fisheries Service and a take permit under the Natural Community Conservation Planning Act from the California Department of Fish and Game for the species and activities covered in the accompanying HCP/NCCP. The Permittees for the Placer County HCP/NCCP are Placer County, City of Lincoln and the Placer County Water Agency.

**Permittors.** The agencies (U.S. Fish and Wildlife Agency, U.S. Army Corps of Engineers, California Department of Fish and Game and California Regional Water Quality Control Board) that will issue the Permitees (Placer County, City of Lincoln and Placer County Water Agency. Also synonymous with Resource Agencies.

**Permit Term.** For an HCP/NCCP, the length of time for which the incidental take permits are valid and during which Permittees (see also *Permittees*) may undertake activities covered by the permit. The permit term is also the time period in which all land acquisition, habitat restoration, and other mitigation and conservation actions must be accomplished.

**Placer Conservation Authority (PCA).** A governmental body established to implement the PCCP. This body will provide services that include, but are not limited to, issuing permits, processing applications and ensuring that goals and objectives of the PCCP are met.

**Placer County Conservation Plan (PCCP).** Specific term used for the Natural Communities Conservation and Habitat Conservation Plan that Placer County its partners are preparing under the NCCP and HCP Act.

**Placer Legacy.** Placer Legacy is an ongoing, non-regulatory open space and agricultural conservation program administered by Placer County. Placer Legacy implements the open space and conservation goals and policies of the Placer County General Plan. The Placer Legacy program conducts land acquisition and restoration activities and manages programs that support land conservation efforts throughout the unincorporated area of Placer County. Some Placer Legacy acquisitions and programs are compatible with and enhance the biological goals and objectives of the PCCP.

**Plan area.** The area of Placer County that is being covered under the PCCP permit excluding the non-participating local jurisdictions, which include the cities of Roseville, Rocklin, and Auburn, and the Town of Loomis.

**Planning Agreement.** Document executed by Placer County, City of Lincoln and the Placer County Water Agency; California Department of Fish and Game; and the U.S. Fish and Wildlife Service pursuant to the Natural Community Conservation Planning Act to guide the preparation of the Plan. It defines the parties' goals and obligations with regard to development of a legally sufficient and approvable Plan that will form the basis for take permits for covered activities and covered species.

**Planning surveys.** Surveys conducted by applicants for HCP/NCCP coverage and used in the project-planning process to identify constraints and determine which HCP/NCCP conservation actions are applicable. Planning surveys also include surveys conducted by the Implementing Entity on potential reserve lands to evaluate whether these lands will meet Plan requirements. See also *Implementing Entity*.

**Population.** A group of individuals of the same species inhabiting a given geographic area, among which mature individuals reproduce or are likely to reproduce. Ecological interactions and genetic exchange are more likely among individuals within a population than among individuals of separate populations of the same species.

**Potential Future Growth (PFG).** Area designated within the Plan area that has the potential to accommodate projected growth and to create impacts that will be mitigated under the PCCP.

**Practicable.** Referring to an action, available and capable of being done after taking into consideration cost, existing technology, and logistics in light of overall project purpose (45 FR 85344, December 24, 1980: U.S. Environmental Protection Agency, Part 40 CFR 230.3, Definitions).

**Preconstruction surveys.** Surveys conducted for certain biological resources immediately prior to construction, by applicants for HCP/NCCP coverage, to ensure that species are adequately protected and that habitat avoidance and minimization measures can be effectively implemented during construction of covered projects or implementation of covered activities.

**Preservation.** Preventing changes in land use from a natural state by acquiring fee title to the land or purchasing a conservation easement that restricts use of that land.

**Protect habitat.** To maintain existing or enhanced species habitat through acquisition of land or water bodies in fee title or with conservation easements, or other mechanisms for bringing

**Range.** The geographic area a species is known or believed to occupy.

**Rapid Assessment Protocol (RAP).** A standardized process that uses qualitative and quantitative assessments for specific biological resources to determine ecological values and habitat integrity within an identified area.

**Recovery goal.** An established goal, usually quantitative, in a U.S. Fish and Wildlife Service or by the National Marine Fisheries Service recovery plan that identifies when a listed species is restored to a point at which the protections of the federal Endangered Species Act are no longer required.

**Recovery.** The process by which the decline of an endangered or threatened species is arrested or reversed or threats to its survival neutralized so that its long-term survival in nature can be ensured. Recovery entails actions to achieve the conservation and survival of a species (U.S. Fish and Wildlife Service and National Marine Fisheries Service 1998), including actions to prevent any further erosion of a population's viability and genetic integrity, as well as actions to restore or establish environmental conditions that enable a species to persist (i.e., the long-term occurrence of a species through the full range of environmental variation).

**Recovery plan.** A document published by U.S. Fish and Wildlife Service or by the National Marine Fisheries Service that lists the status of a listed species and the actions necessary to remove the species from the endangered species list.

**Reserves.** Discrete areas of conserved natural communities managed as single units under the Plan. .

**Reserve Acquisition Area.** An area designated in the PCCP within which a connected reserve system will be assembled. The ultimate reserve system will be built based upon property owners' willingness to sell property or conservation easements and the ability of these properties to meet PCCP mitigation and conservation requirements.

**Reserve Planning Units (RPUs).** Potential reserve areas that are grouped into specific community types to develop planning, acquisition, and management strategies.

Reserve System. All acquired Plan reserves considered collectively.

**Resource Agencies.** The agencies that are participating in the PCCP. These include the Wildlife Agencies (U.S. Fish and Wildlife Service, National Marine Fisheries Service, California Department of Fish and Game), U.S. Army Corps of Engineers, U.S. Environmental Protection Agency, and the Central Valley Regional Water Quality Control Board.

**Restoration.** Establishment of a natural community or habitat in an area that historically supported it, but no longer supports it because of the loss of one or more required ecological functions. Restoration typically involves altering the substrate or physical features to improve a site's ability to support the historic natural community or habitat.

**Restoration (wetlands).** means the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural/historic functions to a former or degraded aquatic resource. For the purpose of tracking net gains in aquatic resource area, restoration is divided into two categories: re-establishment and rehabilitation.

**Riparian habitat or vegetation.** Riparian vegetation is associated with river, stream, or lake banks and floodplains. Riparian vegetation is also defined by USFWS (1998) as plant communities contiguous to and affected by surface and subsurface hydrologic features of perennial or intermittent lotic and lentic water bodies (i.e., rivers, streams, lakes, or other watercourses). Riparian areas have one or both of the following characteristics: 1) distinctively different vegetation than adjacent areas, 2) species similar to adjacent areas but exhibiting more vigorous or robust growth forms due to the greater availability of surface and subsurface water.

**Ruderal.** A species or plant community that occurs on a highly disturbed site.

**Signature.** Characteristic value, color, or texture on an aerial photograph that correlates to a particular land-cover type.

**Special-status species.** Plants and animals that are legally protected under the federal and State Endangered Species Acts, or other regulations, and species that are considered sufficiently rare by the scientific community to qualify for such listing.

**Sphere of influence**. Line determined by the Local Area Formation Committee (LAFCO) indicating the probable ultimate physical boundaries and service area of a local government agency.

**Stream system**. The area along a stream extending to the outer boundary of the FEMA 100-year floodplain or the setback specified in PCCP Table 6-4 (ranging from 100-600 feet), whichever is greater. The stream system contains the stream zone.

**Stream zone**. The Department of Fish and Game defines a stream zone as the stream channel through which water and sediment flow, have flowed, or are capable of flowing. It is delineated by the top of the bank or the outer edge of the riparian canopy, whichever is more landward. Where riparian vegetation is present, the stream zone and the County riparian zone are the same. Where riparian habitat is lacking, the stream zone is the top of the bank.

**Succession.** The change in the composition and structure of a biological community over time. Successional patterns often shift dramatically following a major disturbance (e.g., fire, flood, anthropogenic clearing of land).

Suitable habitat. Habitat that exhibits the characteristics necessary to support a given species.

**Take.** According to the Federal Endangered Species Act (16 USC 1532 [19]), *take* means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. According to California Fish and Game Code (California Fish and Game Code Section 86), *take* means to hunt, pursue, catch, capture, or kill, or to attempt to hunt, pursue, catch, capture, or kill.

**Threatened species.** A native species, subspecies, variety, or distinct population segment (DPS) of an organism that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future throughout all of a significant portion of its range (16 USC 1532 [5], California Fish and Game Code Section 2067).

**Unoccupied habitat.** Habitat that exhibits all the constituent elements necessary for a species, but which surveys have determined is not currently occupied by that species. The lack of individuals or populations in the habitat is assumed to be the result of reduced numbers or distribution of the species such that some habitat areas are unused. It is expected that these areas would be used if species numbers or distribution were greater. See also *suitable habitat*.

**Unforeseen circumstances.** Changes in circumstances affecting a covered species or geographic area covered by an HCP/NCCP that could not reasonably have been anticipated by the plan developers, and that result in a substantial and adverse change in the status of a covered species. Under the state permit, this refers to changes affecting one or more species, habitat, natural community, or the geographic area covered by a conservation plan that could not reasonably have been anticipated at the time of plan development, and that result in a substantial adverse change in the status of one or more covered species.

**Urban edge effect.** An effect that may occur to species that occupy habitats adjacent to urban, suburban or rural development. Impacts vary from species to species and may occur as a result of factors that include, but is not limited to, noise, light, introduction of non-native vegetation and domestic animals.

**Urban growth boundary (UGB).** An officially adopted and mapped line dividing land to be developed from land to be protected for natural or rural uses, including agriculture. UGBs are regulatory tools, often designated for 20 or more years to provide greater certainty for both development and conservation goals.

**Urban service area.** The area within a city's sphere of influence where utilities such as gas, water, sewer, and electricity, and public services such as police, fire, schools, and parks and recreation are and will be provided.

**Waters of Placer County**. Waters of Placer County encompasses waters of the United States and all other lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, marshes, wetlands, inlets, canals, and other bodies of surface waters, natural or artificial, public or private. Waters of Placer County also includes isolated waters and wetlands not currently regulated by the Corps of Engineers.

**Waters of the United States**. Those waters specifically defined at 33 CFR Part 328, and generally include navigable waters, interstate waters, tributaries to those waters, and wetlands, streams bogs, and similar areas lying adjacent to those waters. Waters of the United States are included in waters of Placer County

**Watercourse.** A body of water that flows at least periodically or intermittently through a bed or channel having banks. This may include bodies of water having a surface or subsurface flow that supports or has supported riparian vegetation, fish or other aquatic life.

**Wildland-urban interface.** The area where structures and other human development meet or intermingle with undeveloped wildland (University of Wisconsin n.d.).

**Wildlife Agencies.** U.S. Fish and Wildlife Service, National Marine Fisheries Service, and California Department of Fish and Game.

# List of Preparers Under development



### **Literature Cited**

Under development

#### Bibliography for Draft Chapter 5, December 2010, Sections 5.4.2 and 5.5.14

- Angeler, D. G., B. Sanchez, G. Garcia, and J. M. Moreno. 2006. Community ecotoxicology: Invertebrate emergence from Fire Trol 934 contaminated vernal pool and salt marsh sediments under contrasting photoperiod and temperature regimes. Aquatic Toxicology 78:167-175.
- Crawford, A. J., K. R. Lips, and E. Bermingham. 2010. Epidemic disease decimates amphibian abundance, species diversity, and evolutionary history in the highlands of central Panama. Proceedings of the National Academy of Sciences 107:13777-13782.
- De Weese, J. M. 1998. Vernal Pool Construction Monitoring Methods and Habitat Replacement Evaluation. Pages 217-223 *in* C. W. Witham, E. T. Bauder, D. Belk, W. R. Ferren Jr., and R. Ornduff, editors. Ecology, Conservation, and Managment of Vernal Pool Ecosystems Proceedings from a 1996 Conference. California Native Plant Society, Sacramento, CA.
- EcoAnalysts, Inc. 2009a. Placer County Vernal Pool Functionality Assessment Method.
- EcoAnalysts, Inc. 2009b. Placer County Vernal Pool Restoration Feasibility Assessment.
- Griggs, F. T. 2000. Vina Plains Preserve: eighteen years of adaptive management. Fremontia 27:4 and 28:1:48-51.
- Harrison, S., B. D. Inouye, and H. D. Safford. 2003. Ecological heterogeneity in the effects of grazing and fire on grassland diversity. Conservation Biology 17:837-845.
- Jones & Stokes. 2004. Placer County Natural Resources Report. A Scientific Assessment of Watersheds, Ecosystems, and Species of the Phase I Planning Area.
- Marty, J. 2004. Vernal pools are at home on the range. National Wetlands Newsletter 26:1, 13-14.
- Marty, J. 2005. Effects of cattle grazing on diversity in ephemeral wetlands. Conservation Biology 19:1626-1632.
- Marty, J. 2007. Managing for biodiversity in vernal pool grasslands using fire and grazing. Pages 175-185 *in* R. A. Schlising and D. G. Alexander, editors. Vernal Pool Landscapes. Califorina State University, Chico.
- Pandolfino, E.R. 2008. Population trends of the Loggerhead Shrike in California: Possible impact of the West Nile Virus in the Central Valley. Central Valley Bird Club Bulletin. 11:37-44.

- Pyke, C., and J. Marty. 2005. Cattle grazing mediates climate change impacts on ephemeral wetlands. Conservation Biology 19:1619-1625.
- Rice, P. 2005. Fire as a tool for controlling nonnative invasive plants. Center for Invasive Plant Management. Bozeman. Retrieved from <a href="http://www.csu.edu/cerc/researchreports/documents/FireAsToolForControllingNonnativeInvasiveSpecies2005.pdf">http://www.csu.edu/cerc/researchreports/documents/FireAsToolForControllingNonnativeInvasiveSpecies2005.pdf</a>.
- Silveira, J. G. 2007. Managing vernal pools and associated habitats at Sacramento National Wildlife Refuge Complex. Pages 187-209 *in* R. A. Schlising and D. G. Alexander, editors. Vernal Pool Landscapes. Califorina State University, Chico.
- Skerratt, L. F., L. Berger, R. Speare, S. Cashins, K. R. McDonald, A. D. Phillott, H. B. Hines, and N. Kenyon. 2007. Spread of chytridiomycosis has caused the rapid global decline and extinction of frogs. EcoHealth 4:125-134.
- Steinberg, P. D. 2002. Nassella pulchra. In U.S. Department of Agriculture Forest Service, Fire Effects Information System. Available: http://www.fs.fed.us/database/feis/plants/graminoid/naspul/all.html
- U. S. Environmental Protection Agency. 2005. River Corridor and Wetland Restoration Website. Accessed on June 15, 2009. http://www.epa.gov/owow/wetlands/restore/defs.html.
- U.S. Fish and Wildlife Service. 2005. Recovery Plan for Vernal Pool Ecosystems of California and Southern Oregon. Portland, Oregon. xxvi + 606 pages. Available: http://www.fws.gov/sacramento/es/recovery\_plans/vp\_recovery\_plan\_links.htm