TRIBAL LANDS COMPANION PLAN

December 2016

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

SWAP
California State Wildlife Action Plan

Photo Credit:

Left:
Knights Ferry Covered Bridge, California
Date: 3 February 2011
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Right:
Red Rock Canyon State Park, California
Date: 27 July 2009
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Prepared by Blue Earth Consultants, LLC

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Disclaimer:

Although we have made every effort to ensure that the information contained in this report accurately reflects SWAP 2015 companion plan development team discussions shared through web-based platforms, e-mails, and phone calls, Blue Earth Consultants, LLC makes no guarantee of the completeness and accuracy of information provided by all project sources. SWAP 2015 and associated companion plans are non-regulatory documents. The information shared is not legally binding nor does it reflect a change in the laws guiding wildlife and ecosystem conservation in the state. In addition, mention of organizations or entities in this report as potential partners does not indicate a willingness and/or commitment on behalf of these organizations or entities to partner, fund, or provide support for implementation of this plan or SWAP 2015.

The consultant team developed companion plans for multiple audiences, both with and without jurisdictional authority for implementing strategies and conservation activities described in SWAP 2015 and associated companion plans. These audiences include but are not limited to the California Department of Fish and Wildlife leadership team and staff; the California Fish and Game Commission; cooperating state, federal, and local government agencies and organizations; California Tribes and tribal governments; and various partners (such as non-governmental organizations, academic research institutions, and citizen scientists).

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Acronyms and Abbreviations

AFWA	**Association of Fish and Wildlife Agencies**
BIA	**Bureau of Indian Affairs**
BLM	**U.S. Bureau of Land Management**
Blue Earth	**Blue Earth Consultants, LLC**
Caltrans	**California Department of Transportation**
CBC	**California Biodiversity Council**
CDFA	**California Department of Food and Agriculture**
CDFW	**California Department of Fish and Wildlife**
CDWR	**California Department of Water Resources**
Ch.	**Chapter**
CNRA	**California Natural Resources Agency**
CTKW	**Climate and Traditional Knowledges Workgroup**
DOI	**U.S. Department of Interior**
DRECP	**Desert Renewable Energy Conservation Plan**
HCP	**Habitat Conservation Plan**
HHS	**Health and Human Services**
ITEP	**Institute for Tribal Environmental Professionals**
KEA	**Key Ecological Attribute**
LCC	**Landscape Conservation Cooperative**
NCCP	**Natural Community Conservation Plan**
NGO	**Non-governmental Organization**
NOAA	**National Oceanic and Atmospheric Administration**
NRCS	**National Resources Conservation Service**
RAMP	**Regional Advance Mitigation Planning**
RTOC	**Regional Tribal Operations Committee**
SGC	**Strategic Growth Council**
SGCN	**Species of Greatest Conservation Need**
SWAP	**State Wildlife Action Plan**
SWG	**State and Tribal Wildlife Grants**
TEEIC	**Tribal Energy and Environmental Information Clearinghouse**
TEK	**Traditional Ecological Knowledge**
TNC	**The Nature Conservancy**
UCCE	**University of California Cooperative Extension**
USEPA	**U.S. Environmental Protection Agency**
USDA	**U.S. Department of Agriculture**
USFS	**U.S. Forest Service**
USFWS	**U.S. Fish and Wildlife Service**
USGS	**U.S. Geological Survey**
WCB	**Wildlife Conservation Board**

1. Introduction

The California State Wildlife Action Plan 2015 Update (SWAP 2015; see Text Box 1) provides a vision and a framework for conserving California's diverse natural heritage. SWAP 2015 also calls for the development of a collaborative framework to sustainably manage ecosystems across the state in balance with human uses of natural resources. To address the need for a collaborative framework, California Department of Fish and Wildlife (CDFW), Blue Earth Consultants, LLC (Blue Earth), and partner agencies and organizations undertook the preparation of companion plans for SWAP 2015. While this document reports on the progress made thus far on collaboration, the intent is to set a stage for achieving the state's conservation priorities through continued partnerships and by mutually managing and conserving natural and cultural resources. Text Box 2 highlights important definitions for SWAP 2015 and the companion plan process.

Text Box 1 What is a State Wildlife Action Plan?

In 2000, Congress enacted the State and Tribal Wildlife Grants (SWG) program to support state programs that broadly benefit wildlife and habitats, but particularly "Species of Greatest Conservation Need" (SGCN) as defined by individual states. Congress mandated each state and territory to develop a SWAP that outlined a comprehensive wildlife conservation strategy to receive federal funds through the SWG program. From 2005 through 2014, CDFW received approximately $37 million through the SWG program, matched with approximately $19 million in state government support for wildlife conservation activities. The SWG program requires SWAP updates at least every 10 years. CDFW prepared and submitted SWAP 2015, the first comprehensive update of the California SWAP 2005, to the U.S. Fish and Wildlife Service (USFWS). The update allows CDFW to expand and improve the recommended conservation activities addressed in the original plan by integrating new knowledge acquired since 2005. [1]

Text Box 2: Definitions Important to SWAP 2015

Conservation Target: An element of biodiversity at a project site, which can be a species, habitat/ecological system, or ecological process on which a project has chosen to focus.

Goal: A formal statement detailing a desired outcome of a conservation project, such as a desired future status of a target. The scope of a goal is to improve or maintain *key ecological attributes* (defined below).

Key Ecological Attribute (KEA): An aspect of a target's biology or ecology that, if present, defines a healthy target and, if missing or altered, would lead to outright loss or extreme degradation of the target over time.

Objective: A formal statement detailing a desired outcome of a conservation project, such as reducing the negative impacts of a critical *pressure* (defined below). The scope of an objective is broader than that of a goal because it may address positive impacts not related to ecological entities (such as getting better ecological data or developing conservation plans) that would be important for the project. The set of objectives developed for a conservation project are intended, as a whole, to lead to the achievement of a goal or goals, that is, improvements of key ecological attributes.

Pressure: An anthropogenic (human-induced) or natural driver that could result in changing the ecological conditions of the target. Pressures can be positive or negative depending on intensity, timing, and duration. Negative or positive, the influence of a pressure to the target is likely to be significant.

Target: Same as *conservation target* defined above.

Species of Greatest Conservation Need (SGCN): All state and federally listed and candidate species, species for which there is a conservation concern, or species identified as being vulnerable to climate change as defined in SWAP 2015.

Strategy: A group of actions with a common focus that work together to reduce pressures, capitalize on opportunities, or restore natural systems. A set of strategies identified under a project are intended, as a whole, to achieve goals, objectives, and other key results addressed under the project.

Stress: A degraded ecological condition of a target that resulted directly or indirectly from negative impacts of pressures (e.g., habitat fragmentation).

(CDFW 2015)

1.1 SWAP 2015 Statewide Goals

SWAP 2015 has three statewide conservation goals and 12 sub-goals under which individual regional goals are organized (CDFW 2015). These statewide goals set the context for SWAP 2015 and the companion plans.

Goal 1 - Abundance and Richness: Maintain and increase ecosystem and native species distributions in California while sustaining and enhancing species abundance and richness.

Goal 2 - Enhance Ecosystem Conditions: Maintain and improve ecological conditions vital for sustaining ecosystems in California.

Goal 3 - Enhance Ecosystem Functions and Processes: Maintain and improve ecosystem functions and processes vital for sustaining ecosystems in California.

1.2 SWAP 2015 Companion Plans

Need for Partnerships

The state of California supports tremendous biodiversity. However, the state also has a large and growing human population and faces many challenges, such as climate change, that affect biodiversity and natural resources in general. To balance growing human activities with conservation needs for sustaining the state's ecosystems, collaboratively managing and conserving fragile natural resources is a necessity. As many desirable conservation actions identified under SWAP 2015 are beyond CDFW's jurisdiction, the Department determined that more-detailed coordination plans are needed in line with and beyond the recommendations presented in SWAP 2015. Called "companion plans," these sector-specific plans (see Text Box 3) were created collaboratively with partners and will be instrumental in implementing SWAP 2015 (See Appendix C).

Text Box 3: Companion Plan Sectors

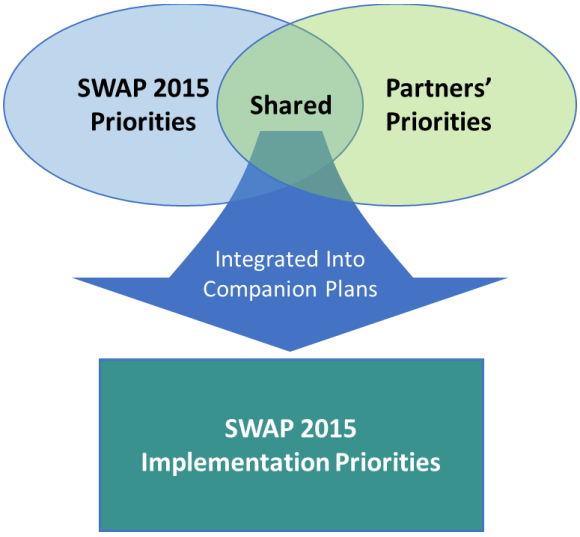
- Agriculture
- Consumptive and Recreational Uses
- Energy Development
- Forests and Rangelands
- Land Use Planning
- Marine Resources
- Transportation Planning
- Tribal Lands
- Water Management

Companion Plan Purpose and Sector Selection

Companion plans present shared priorities identified among SWAP 2015 and partners involved in the companion plan development. Figure 1 illustrates how, through collaboration with partner organizations, shared priorities come together in the companion plans and become elevated as implementation priorities for SWAP 2015.

The companion plans respond to feedback from many sources, including CDFW staff and partners involved in natural resources management and conservation. This includes the California Biodiversity Council (CBC), under which a resolution to promote interagency alignment within the state was signed in 2013. The companion plans are also aligned with the National Fish, Wildlife, and Plants Climate Adaptation Strategy (U. S. Fish and Wildlife Service [USFWS] 2012), which emphasizes increased partner engagement as a best practice in climate change adaptation. Developing the companion plans also

Figure 1: Aligning SWAP 2015 and Partner Priorities



directly helps CDFW comply with recently enacted legislation which states that CDFW shall "seek to create, foster, and actively participate in effective partnerships and collaborations with other agencies and stakeholders to achieve shared goals and to better integrate fish and wildlife resource conservation and management with the natural resource management responsibilities of other agencies" (CDFW 2012).

CDFW selected sector categories based on the department's needs as well as the themes identified in other existing plans, including the 2009 California Climate Adaptation Strategy (California Natural Resources Agency [CNRA] 2009), the 2014 Safeguarding California Plan (CNRA 2014), The President's Climate Action Plan (Executive Office of the President, 2015), and the National Fish, Wildlife, and Plants Climate Adaptation Strategy (USFWS 2012).

Companion Plan Development

Because the companion plans focused on teamwork during their development, they inherently help set a stage for implementing SWAP 2015 through future collaborations. Together, SWAP 2015 and the associated companion plans describe the context and strategic direction of integrated planning and management efforts that are crucial for sustaining California's ecosystems. The SWAP 2015 companion plan management team, consisting of CDFW and Blue Earth staff, provided general direction to the companion plan development teams to develop each sector plan (see Appendix F). To form sector teams, CDFW sought statewide representation from public and private partners with topic expertise and who were heavily involved in natural resource conservation and management (see Appendix C).[1]

Text Box 4: Tribal Companion Plan Challenges

Although the management team and Blue Earth sought a broad range of potential development team participants, lack of available time and/or resources to participate limited the number of participants available to contribute to the tribal land companion plan development process. Because of this limited engagement, this companion plan serves as a starting point and reference for future discussions and collaborations between CDFW, California Native American tribes, and other partners on wildlife and habitat conservation priorities and activities in the state that address SWAP 2015 strategies and activities.

Beginning in early 2015, Blue Earth facilitated a series of four web-based collaboration meetings for each sector. A kickoff meeting provided development teams with an overview of SWAP 2015 and the

[1] Although the management team sought to engage a broad range of partners, CDFW recognizes that there are many other partners who play important roles in conserving and managing natural resources in California who were not involved in developing the companion plans.

companion plan development process, followed by three sector-specific meetings. During these sector meetings, participants discussed their ongoing and potential future efforts that would benefit wildlife and habitat conservation in the state. The development teams and CDFW then identified shared priorities, as well as collaboration opportunities for achieving those mutual interests.

Two internal drafts of the companion plans were reviewed by the development teams prior to the public release of the third draft in the fall, 2015. The final nine companion plans were published, incorporating responses to public comments.

Companion Plan Content

Each companion plan addresses the following components:

- SWAP 2015 overview
- Companion plans overview—approach, purpose, development process, and content
- Sector overview
- Common themes across sectors
- Common priority pressures and strategies across sectors
- Priority pressures and strategies for the sector
- Potential collaboration activities
- Potential partners and resources
- Evaluating implementation
- Desired outcomes
- Next steps

2. Tribal Lands Sector

2.1 Tribal Lands in California

As the state with the largest Native American population in the nation, California is home to more than 100 federally recognized Tribes and tribal governments that have a unique relationship with California's natural and wildlife resources (BIA 2014). California Tribes and tribal governments have sovereign authority over their members and territory and have distinct environmental interests and cultural knowledge (CNRA 2012), as well as an interest in maintaining their ecological integrity. These natural resources (e.g., water, fish, and agricultural land) have shaped and continue to shape the environmental values of Native American tribes by contributing to their cultural and spiritual identity and offering opportunities for recreation and commerce (CDWR 2013a).

The extent of state and tribal jurisdiction over fish and wildlife resources is intertwined with land status and location. California is distinctive in its number of Native American tribes and the complexity of tribal lands which include trust and fee lands, encompassing approximately 0.6% of California's landscape (BLM 2015). Trust lands are federally owned and held for the benefit of a tribe or a tribal member. Fee lands are lands owned outright by a tribe or a tribal member. In California, trust and fee lands can be found within and outside of reservations and rancherias. With the intricate tribal landscape in the state,

a collaborative effort among natural resources agencies, Tribes, and tribal communities is essential for the management and conservation of California's natural and wildlife resources.

2.2 Current Tribal Lands Management and Conservation in California

As traditional users and stewards of the state's natural resources, Tribes and tribal governments in California have traditional knowledge of and associations with the resources in their surroundings. Collaborations between Tribes, tribal governments, and state agencies can lead to better planning and strategy adaptation as ecosystems change and as priority actions are identified to conserve California's natural and wildlife resources.

For example, the BIA *Strategic Plan for 2014-2018* incorporates goals to implement adaptive management for all natural and cultural infrastructure while considering and using traditional ecological knowledge (TEK) as a data source (BIA 2014). TEK refers to the "evolving knowledge acquired by indigenous and local peoples over hundreds or thousands of years through direct contact with the environment, is location–specific, and includes relationships between plants, animals, natural phenomena, landscapes and timing of events used for lifeways, including but not limited to hunting, fishing, trapping, agriculture, and forestry" (USFWS 2011). The CDWR developed a *Tribal Communication Plan* as a part of the California Water Plan Update, to support and promote integrated water planning with an emphasis on TEK from Tribes and tribal governments on topics such as water rights, traditional fishing, and climate change (CDWR 2014). Additionally, CDWR, in partnership with the California Tribal Water Summit Design Team, convened the second California Tribal Water Summit in 2013, where guiding principles and implementation goals were created (CDWR 2013b). One goal stated the importance of Tribes, tribal governments, and state agencies working together to further the understanding of tribal lifestyles when it comes to the role of water, including subsistence[2] and cultural practices (CDWR 2013a). These are just a few examples of efforts in the tribal lands sector supporting conservation and planning efforts for California's natural and wildlife resources, consistent with SWAP 2015.

Coexistence of tribal and modern values when managing natural resources for subsistence and sustainability is an important goal for California. In 2012 the CNRA adopted a *Tribal Consultation Policy*, which ensures government-to-government consultation between Tribes and agencies through inclusive communication. This communication extends from agencies to Tribes and tribal governments with interests in the development and planning of programs and projects (CNRA 2012). CDFW also adopted its own policy in September 2014 to provide a foundation to work cooperatively, communicate effectively, and consult with Tribes, as a means to embody Governor's Executive Order B-10-11 to

[2] Subsistence, defined as "the gathering and harvest, processing, consumption, and use of all wild resources—birds, mammals, fish, and plants—from all the varied environments found throughout tribal communities," has continued to be an essential component of tribal culture (BIA 2014a).

"implement effective government-to-government consultation with California Tribes" and CNRA's *Tribal Consultation Policy* (Office of Governor 2011; CDFW 2014).

A number of state agencies and nonprofit organizations have started supporting projects to enrich and preserve natural and cultural heritage while enhancing tribal collaborations. For example, in 2012 state and federal conservation agencies (CDFW, USFWS, the Pacific States Marine Fisheries Commission, and the National Oceanic and Atmospheric Administration [NOAA] Fisheries) and California Tribes and tribal governments worked together to complete a scientific review of California's salmon and steelhead hatcheries, where one of the project goals was to support sustainable fisheries for the Yurok and Hoopa Tribes (USFWS 2012). Another example comes from the California Fish and Game Commission that approved a Yurok Tribe proposal to implement a salmon conservation closure in the Blue Creek area of the Klamath Basin, which resulted in closing all non-tribal sport fishing from June 15 – September 14 (CDFW 2015). Tribes and tribal governments are also taking steps to engage partners in conservation and restoration. For example, the Morongo Band of Mission Indians in the Mojave Desert has an Environmental Protection Department that has focused on promoting "environmental awareness and environmentally considerate activities by exemplifying environmental stewards, fostering collaborative relationships, expanding education and outreach activities." Continuing collaboration of Native American tribes and CDFW would deepen conservation effectiveness, while simultaneously creating new opportunities for mutual learning to enrich and exchange both traditional and modern knowledge.

Text Box 5: Examples of Collaborative Conservation Efforts

There are numerous collaborative conservation management efforts found in California. Below we share two such examples related to tribal lands.

Cultural Values and Sea Level Rise Workshop: The Yurok Tribe of the California Yurok Reservation in the Klamath basin received $59,800 for fiscal year 2014 through BIA Tribal Climate Change Adaptation Competitive Grant Program to host a workshop focused on characterizing tribal cultural landscapes and values in the context of rising sea levels. The goal of the intertribal workshop was to apply the "Cultural Landscape Approach to identify tools and best practices and case studies for Tribes to identify and communicate areas of significance that will be impacted by rising ocean waters as a result of climate change" (USFS 2013; BIA 2014).

Conservation of Humbug Valley: After Pacific Gas & Electric Company transferred parcels in Humbug Valley to the Pacific Forest and Watersheds Stewardship Council, The Maidu Summit Consortium – a collective of nine organizations of Maidu Indians (http://www.maidusummit.org/home.html) – and CDFW's North Central Region filed competing claims to gain ownership of Humbug Valley (Little, 2014). Through discussion during the process of filing their claims, the two groups realized that they had many shared interests and thus decided to partner towards conservation and restoration of the valley. They formed joint working groups to draft a proposal outlining long-term management, restoration, and conservation goals and presented these to the Stewardship Council. In November 2013, the Stewardship Council endorsed the joint CDFW-Maidu Summit Consortium proposal for the Maidu Summit Consortium to hold the fee title of Humbug Valley in perpetuity and for CDFW to hold a conservation easement over the property. CDFW and the Maidu Summit Consortium are currently working together on a valley-wide management plan that will pair Maidu traditional ecological knowledge and CDFW knowledge and expertise (CDFW 2013).

3. Common Themes across Sectors

Equally important to discussion topics unique to each sector are the common themes across all sectors. This section summarizes the two major overarching themes discussed through the course of developing the nine companion plans: climate change and integrated regional planning.

3.1 Climate Change-related Issues

Climate change continues to be one of the major pressures forcing us to examine the relationship between modern society and nature. Describing climate science, however, has been difficult due to its inherent complexity. Because of this and other factors, our society has not been able to fully embrace the seriousness of the implications of climate change. In the most recent analyses, the global average temperature is projected to increase in the range of 0.3–4.8°C (0.5–8.6°F) by 2100, and in California, the increase is projected to be 1.5°C (2.7°F) by 2050 and 2.3–4.8°C (4.1–8.6°F) by 2100 (IPCC 2014; CNRA 2014).

The effects of climate change are already present. Global sea level rise over the past century has exceeded the mean rate of increase during the previous two millennia, and the earth's surface temperature over each of the last three decades has been successively warmer than any previous decade since 1850. The evidence of these observed climate change impacts is manifested the strongest and most comprehensively in natural systems where many species of terrestrial, freshwater and marine organisms have shifted their geographic ranges, migration patterns, abundances, and life cycle activities in response to ongoing climate change (IPCC 2014).

As climate conditions are inextricably linked to the welfare of environments and societies, even the most conservatively projected increase in global mean temperatures would trigger significant changes to socio-economic and ecosystem conditions. Food production, energy and water development, and preparation and response to catastrophic events are examples of human systems that would be negatively affected by climate change. Pressures and stresses to ecosystems identified in SWAP 2015 will likely increase in magnitude and severity through the compounding effects of climate change (SWAP 2015).

Accordingly, the potential far-reaching effects on California's natural resources induced or exacerbated by climate change were a common concern among sectors, and cross-sector collaboration was considered critical for ecosystem adaptation while avoiding disasters.

Two key discussion points amongst sectors were to strategically assess the state's climate change vulnerabilities and implement adaptation actions. These actions included, but were not limited to: establishing a well-connected reserve system to increase ecosystem integrity (e.g. habitat resilience and mobility); incorporating climate change related factors (e.g. carbon sequestration, habitat shifts and sea level rise) into natural resource management; improving regulations to reduce greenhouse gas emissions; developing research guidelines to comprehensively evaluate climate change effects; and raising awareness of climate change.

3.2 Integrated Regional Planning

California presents a landscape that is ecologically, socio-economically, and politically intricate. The current status of the state's ecosystems reflects not only the interactions between biological and abiotic components, but also among ecosystems and diverse human activities that are further controlled by mandates imposed on regulated activities.

The concept of integrated regional planning arises from the realization that addressing only one aspect of a complicated human/nature system is not sustainable. Paraphrased from the definition in the California Water Plan, integrated regional planning is an approach to prepare for effective management, including conservation activities, while concurrently achieving social, environmental, and economic objectives to deliver multiple benefits across the region and jurisdictional boundaries (CDWR, 2014). Expected outcomes of adopting an integrated regional planning approach include; maximizing limited resources to meet diverse demands, receiving broader support for natural resource conservation, and sustaining and improving ecosystem conditions, both for intrinsic and resource values.

Integrated regional planning begins with accepting diverse priorities and values articulated by the stakeholders of a region. With this mutual understanding, attempts are made, often through intense negotiations, to integrate various activities associated with multiple interests occurring in the region. Expected tasks under integrated regional planning include: identifying conflicting or redundant activities occurring in a region, minimizing redundant activities by aligning similar efforts, streamlining and integrating needed processes across different priorities, and collaborating and complementing efforts to effectively achieve mutual and/or diverse interests. As an example, integrated regional planning could result in zoning a region and limiting activities within each zone to avoid or reduce incompatible activities occurring in the region, or deferring timing to reduce negative consequences of interactive activities occurring in a region. In sum, integrated regional planning requires trust, open-mindedness, transparency, patience, strategic thinking, and collaboration among partners who seek to use the same or similar resources from different perspectives.

Establishing a framework for integrated regional planning was considered as one of the state's top priorities across sector s. Related topics included: preparing, approving, and implementing regional and landscape-level conservation plans; systematically pursuing necessary resources to implement conservation strategies; coordinating effective partnerships; adapting to emerging issues; and reviewing and revising the plans. Several existing plans were recognized as ongoing integrated regional planning efforts: Natural Community Conservation Plans (NCCPs), Habitat Conservation Plans (HCPs), Habitat Connectivity Planning for Fish and Wildlife (CDFW 2015), the Master Plan for Marine Protected Areas, individual species management plans, and SWAP 2015 and related endeavors, including this companion plan.

SWAP 2015, Chapter 7 describes implementation and integration opportunities, and identifies where partners can engage in cooperative implementation. Such opportunities include programs under various state and federal agencies such as Regional Advance Mitigation Planning (RAMP) by Caltrans and CDWR;

California Water Plan, California Water Action Plan, and the Central Valley Flood System Conservation Strategy by CDWR; Fire and Resource Assessment Program by CALFIRE; and federal programs under regulations such as the Central Valley Project Improvement Act, and the National Forest Management Act (CDFW 2015).

4. Commonly Prioritized Pressures and Strategy Categories across Sectors

SWAP 2015 adopted the Open Standards for the Practice of Conservation (Conservation Measures Partnership, 2013), a conservation planning framework, and applied the process to select actions needed to conserve focal ecological components (conservation targets). The process started with examining the status of targets by identifying and evaluating their key ecological attributes, factors influencing their compromised conditions (stresses), and the sources of these stresses (pressures). Based on the situational analysis, conservation strategies (sets of actions) were selected for each target, either to improve the conditions of key ecological attributes, or to reduce the negative impacts from the stresses and pressures (CDFW 2015).

Pressures across Sectors

A pressure, as defined in SWAP 2015, is "an anthropogenic (human-induced) or natural driver that could result in impacts to the target (i.e., ecosystem) by changing the ecological conditions". Pressures can have either positive or negative effects depending on their intensity, timing, and duration, but they are all recognized to have strong influences on the well-being of ecosystems. Table 1 below lists the 29 standard pressures addressed under SWAP 2015.

Table 1: SWAP 2015 Pressures

- Agricultural and forestry effluents
- Air-borne pollutants
- Annual and perennial non-timber crops
- Catastrophic geological events[1]
- Climate change[1]
- Commercial and industrial areas[2]
- Dams and water management/use
- Fire and fire suppression
- Fishing and harvesting aquatic resources
- Garbage and solid waste
- Household sewage and urban waste water [3,4]
- Housing and urban areas[2]
- Industrial and military effluents[4, 5]
- Introduced genetic material
- Invasive plants/animals
- Livestock, farming, and ranching
- Logging and wood harvesting
- Marine and freshwater aquaculture
- Military activities
- Mining and quarrying
- Other ecosystem modifications[6]
- Parasites/pathogens/diseases
- Recreational activities
- Renewable energy
- Roads and railroads
- Shipping lanes[7]
- Tourism and recreation areas
- Utility and service lines
- Wood and pulp plantations

Pressures include the following:

[1] Volcano eruption, earthquake, tsunami, avalanche, landslide, and subsidence

2	Shoreline development
3	Urban runoff (e.g., landscape watering)
4	Point discharges
5	Hazardous spills
6	Modification of mouth/channels; ocean/estuary water diversion/control; and artificial structures
7	Ballast water

(CDFW 2015)

4.1 Strategy Categories across Sectors

SWAP 2015 outlines 11 categories of conservation strategies (Table 2) under which regional strategies are organized, similar to the manner in which the regional goals are tiered under the statewide conservation goals (CDFW 2015). These strategies, grouped in various categories, are meant to work synergistically to achieve the statewide goals and priorities.

Table 2: SWAP 2015 Conservation Strategy Categories

- Data Collection and Analysis
- Direct Management
- Economic Incentives
- Environmental Review
- Land Acquisition, Easement, and Lease
- Land Use Planning
- Law and Policy
- Management Planning
- Partner Engagement
- Outreach and Education
- Training and Technical Assistance

(CDFW 2015)

The three most common priority strategy categories across the nine sectors were Data Collection and Analysis (7 sectors prioritized this strategy), Management Planning (7 sectors), and Partner Engagement (5 sectors). The strategy categories identified as most relevant to the tribal lands sector are described in Section 5.2 below.

5. Tribal Lands Priority Pressures and Strategy Categories

As described in SWAP 2015, pressures such as climate change and stresses such as habitat fragmentation can work together to adversely affect biodiversity and natural resources in the state. Although key challenges exist, these seemingly negative aspects of pressures present opportunities for improving ecological health through collaborative conservation work.

For the purpose of developing companion plans, CDFW went through the pressures and strategy categories that were selected for various conservation targets under SWAP 2015 (CDFW 2015). Those elements considered relevant to each sector were collected from the document and prioritized by importance to the sector. Section 5.1 and 5.2 provide the results of this prioritization, and Text Box 5 lists pressures and strategies considered important but not included in this plan (for future consideration).

5.1 Priority Pressures

Climate change – The effects of climate change can alter the environment in a number of ways including direct changes to temperature, precipitation, and sea level rise, as well as stresses experienced by vulnerable wildlife and habitats as a result of these exposures (e.g., habitat loss and fragmentation, migration barriers, increases in the presence and prevalence of invasive species). (Also reference Section 3.1 Climate Change-related Issues.)

Fishing and harvesting aquatic resources - Commercial and recreational fishing and harvesting of aquatic resources can directly or indirectly deplete populations, reduce biodiversity, alter habitat structure, and disrupt the ecological balance within the ecosystem.

Dams and water management/use – The management of water resources to meet water (stream and off-stream use) and power supply needs, for example for communities and agricultural production, results in numerous pressures on rivers, wetlands, estuaries, and aquifers. This includes changing natural water flow patterns either deliberately or as a result of other activities, such as dam constructions and operations, sediment control, salt regime change, wetland filling for mosquito control, levees and dike construction, surface water diversion, groundwater pumping, channelization, artificial lake creation, and illegal diversions.

5.2 Priority Strategy Categories

The top five strategy categories selected by the tribal development team are the following: data collection and analysis, economic incentives, law and policy, partner engagement, and training and technical assistance. These categories are described below.

Data Collection and Analysis – Data collection and analysis is fundamental to science-driven conservation, that is, the utilization of a wide range of data and analysis to more effectively plan, implement, and adaptively manage conservation actions. Strategies found under this category include designing and implementing monitoring plans and collecting, maintaining, conveying, and presenting data on (for example) species presence or absence, habitat suitability, population viability, in-situ treatments, mapping and measuring growth, range, extent, and distribution of species populations.

Economic Incentives –Economic incentives are available and deployable resources for private landowners and other stakeholders to implement responsible stewardship and enhancement of landscapes, ecological conditions, and species. Example strategies include developing and providing economic incentives and assurances and seeking funding though grants, cooperating with other agencies and other opportunities as sources for economic incentives, and streamlining costly permitting processes to encourage growers to complete work.

Law and Policy – This strategy category involves the development, revision, guidance, and implementation of legislation, regulations, policy, and voluntary standards to improve stewardship of natural and cultural resources.

Partner Engagement – Partner engagement is the process for engaging and developing collaboration among state and federal agencies, tribes and tribal governments, non-governmental organizations (NGOs), private landowners, and other partners to achieve shared conservation objectives and enhance coordination across jurisdictions and areas of interest.

Training and Technical Assistance – This strategy category involves enhancing human capacity by providing training opportunities and assisting managers, scientists, stakeholders, or others who engage in natural resource conservation and management. The scope of training is wide, for example, on TEK, ecology, information technology, laws and policies, financing, technical writing, grant application preparation, communication, all of which support successful resource conservation.

Text Box 6: Additional Pressures for Future Consideration

Pressures

- Access to fresh water
- Hunting and collection of terrestrial animals
- Public health

6. Collaboration Opportunities for Joint Priorities

Conservation programs in California are managed by diverse partners, including state and federal agencies, local governments, and NGOs. Because SWAP 2015 is a comprehensive conservation plan, integrating their work into SWAP is crucial for impactful conservation outcomes for the state (SWAP 2015 Chapter 7). While the full array of relevant efforts is too extensive to list here, potential alignment opportunities were identified. Conservation activities considered most relevant to each prioritized strategy category (as described in Section 5.2) are summarized in Table 3. Potential partners and financial resources for implementing these conservation activities are listed in the Appendix D and E. Together, Table 3 and Appendix D and E summarize the key findings for this sector.

Alignment Opportunities and Potential Resources

Table 3 highlights conservation activities by the strategy categories considered important for collaboration, and which could be implemented over the next 5–10 years. While some activities are applicable across many spatial scales and jurisdictions, they are assigned only to the most relevant scale and jurisdiction. The information in Table 3 is not comprehensive, and does not obligate any organization to fund or provide support for strategy implementation.

Table 3: Collaboration Opportunities by Strategy Category

Data Collection and Analysis

Potential Conservation Activities

Local/Site-specific

- Analyze impacts of a particular pressure on a conservation target
- Collect baseline and long-term data for conservation targets
- Collect data on climate and climate refugia impacts on activities and landscapes
- Conduct comprehensive ecological assessments of individual species, guilds, and ecosystems
- Conduct groundwater and surface water assessments
- Conduct research to design more effective conservation strategies with a focus on TEK
- Explain correlations of human and abiotic effects on species distribution and demographics

Economic Incentives

Potential Conservation Activities

Local/Site-specific

- Convey economic incentives to stakeholders for responsible stewardship
- Develop strategies related to incentive practices
- Find financial resources/grants

Law and Policy

Potential Conservation Activities

Statewide

- Ensure Tribes and tribal communities are consulted when laws and policies allow or permit actions or impacts upstream from tribal lands.

Partner Engagement

Potential Conservation Activities

Statewide

- Reference parallel efforts in other agencies and organizations

Regional

- Include different ecosystems in conservation strategies

Local/Site-specific

- Develop Tribal Team statements of conservation purpose and strategies
- Engage partners
- Identify and meet needs (e.g. climate vulnerability, adaptation)
- Identify natural resource managers and stakeholder organizations for partnering
- Identify the outcomes that require a strategic partnership
- Include human dimensions and traditional culture in plans
- Train partners in TEK awareness

Training and Technical Assistance
Potential Conservation Activities
Local/Site-specific
• Address illegal marijuana farms upstream with impacts on Tribal lands • Assist in compatible goals of LCCs and Tribal Implementation Plans • Complete needs assessment on understanding climate change impacts • Conduct climate change vulnerability assessments • Address connections between water and salmon runs • Incorporate TEK into water resource planning/training • Provide high-level technical training • Provide trainings on tribal climate adaptation (e.g., Climate-Smart Conservation planning) • Offer trainings through UCCE on protection and promotion of agriculture, plan hedgerows, and habitat restoration activities • Understand climate change impacts

7. Evaluating Implementation Efforts

Implementing SWAP 2015 and its nine companion plans is a complex undertaking. This section (and SWAP 2015 Chapter 8) emphasizes the importance of adaptive management based on performance monitoring and evaluation during the implementation stage.

SWAP 2015 sets a stage for adaptive management by developing the plan based on the Open Standards for the Practices of Conservation. SWAP 2015 implementation will be monitored over time in concert with other conservation activities conducted by CDFW and partners. SWAP 2015 recognizes three types of monitoring:

1. status monitoring, which tracks conditions of species, ecosystems, and other conservation factors (including negative impacts to ecosystems) through time;
2. effectiveness monitoring, which determines if conservation strategies are having their intended results and identifies ways to improve actions that are less effective for adaptive management; and
3. effects monitoring, which addresses if and how the target conditions are being influenced by strategy implementation.

Monitoring and evaluating SWAP 2015 implementation are critical steps to demonstrate and account for the overall progress and success achieved by the plan. By incorporating lessons learned through monitoring conservation activities and evaluating for future actions, CDFW and partners have opportunities to improve performance and adapt emerging needs that were not previously considered. For stakeholders including decision-makers, partners, and funders, the resulting data would be useful for not only understanding the status of SWAP 2015 and companion plan implementation, but also to prioritize resource allocations necessary for managing natural resources in the state.

SWAP 2015 developed performance measures for each strategy category (SWAP 2015 Chapter 8). These measures are critical in assessing SWAP 2015 performance and will be used for estimating the plans' overall contributions to natural resource conservation in California.

8. Desired Outcomes

Desired outcomes for this sector over the next 5–10 years, within the context of SWAP 2015, were identified and are provided below. These outcomes are organized by the selected strategy categories described in Section 5.2, and are not listed in order of priority.

Data Collection and Analysis

- Comprehensive ecological assessments conducted on individual species and ecosystems (e.g., invasive boars) to understand species status and likelihood of impacts, which inform management decisions (e.g., exterminating boars that feed on Tanoak acorns).
- Ongoing data collection that supports and augments strong baseline data, and coordinated data collection efforts that serve to protect native and culturally important species from environmental impacts (e.g., integration of CDWR groundwater and surface water assessments with similar data collected by Tribes using USEPA funding).

Economic Incentives

- Necessary financial resources secured to support activities that contribute to the goals of SWAP 2015 and companion plans.
- Economic incentives identified and secured to support continued tribal engagement.

Law and Policy

- Culturally significant and sensitive species identified and conserved (e.g., species valued by Tribes, but not identified as conservation priorities by the state).
- Tribes engaged in the development of conservation policies for the state.

Partner Engagement

- Partners engaged on activities in support of SWAP 2015 and companion plans.
- Awareness of existing partnerships and opportunities for tribal engagement (e.g., the California LCCs) increased, and mechanisms to encourage collaboration among partners including tribes identified and implemented.

Training and Technical Assistance

- Awareness and understanding of TEK and its values increased in state agencies (e.g., through TEK and sensitivity trainings)
- Awareness and understanding of the correlation between human activities and species distribution/demographics (e.g., embryonic effects on species) increased.
- Ongoing training of new state employees to promote understanding of linkages between management practices and culturally sensitive issues (e.g., illegal marijuana farms).

- Existing collaborative trainings (e.g., collaboration between UCCE and USFS) supported and funded to promote continued tribal participation, training, and engagement.

9. Next Steps

The key next steps identified to ensure successful implementation of the companion plan over the next five years are: partnership and collaboration; human and financial resources; communication and outreach; and monitoring and evaluation. Suggested activities relevant to these steps are found below.

Partnership and Collaboration

- Promote and support existing collaborative researches and trainings (e.g., by LCCs, CDFA, and University of California, Davis).
- Increase opportunities for face-to-face interactions (e.g., working groups on small projects) to help build partnerships and develop bonds among participants.

Human and Financial Resources

- Secure funding for designated staff to help implement SWAP 2015 and the companion plans, including tracking and evaluating the implementation progress, to effectively achieve priorities addressed under those plans.

Communication and Outreach

- Bring tribal groups together to increase awareness and understanding of SWAP 2015 and companion plans.
- Develop mechanisms to update partners on the implementation status of SWAP 2015 and companion plans (e.g., California Water Plan progress reports [CDWR, 2015]).

Monitoring and Evaluation

- Conduct internal and statewide assessments of performance metrics identified in SWAP 2015 to evaluate progress toward SWAP 2015 and companion plan goals.

10. Acknowledgements

This companion plan was developed in collaboration with many partners who deserve special recognition for their time and commitment. (Please see Appendix C for a list of tribal lands development team members.) CDFW and Blue Earth express our warmest gratitude to those who were involved in the plan's development, as well as to the organizations that generously offered their staff time. As an initial step toward building a collaborative approach for implementing SWAP 2015 and the nine sector-focused companion plans, CDFW will develop an operational plan that describes logistics for moving forward.

Appendices

Appendix A: References

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Appendix C: Tribal Lands Companion Plan Development Team Members and Affiliations

Affiliation	Participant
California Department of Fish and Wildlife	Steve Ingram Terri Stewart
California Department of Food and Agriculture	David Pegos
California Department of Water Resources	Emily Alejandrino Michelle Selmon
California Fish and Game Commission, Trinidad Rancheria	Jacqueline Hostler-Carmesin
InterTribal Sinkyone Wilderness Council	Shawn Padi
Mountain Thistle Botanicals and Consultation, Nomtipom Wintu Tribe	Sage La Pena
U.S. Fish and Wildlife Service	Damion Ciotti
University of California, Davis	Beth Rose Middleton

Appendix D: Potential Partners for Collaboration

Please note that the following table does not provide an exhaustive list of potential partners. The organizations listed here were identified through the sector discussions, but the listing does not imply that they have agreed to partner or to implement SWAP 2015.Also note that the table was completed to the best of the team's knowledge. Where specific organizational efforts or orientations were unknown to the team, corresponding cells were left blank. An asterisk (*) indicates a new opportunity added by CDFW after the team discussions; therefore it was not addressed by the sector team.

Potential Partners	Data Collection and Analysis	Economic Incentives	Law and Policy	Partner Engagement	Training and Technical Assistance
Bureau Indian Affairs (BIA)				✓	✓
CA Department of Fish and Wildlife (CDFW)	✓	✓	✓	✓	✓
CA Department of Food and Agriculture (CDFA)		✓		✓	
CA Department of Parks and Recreation				✓	
CA Department of Water Resources (CDWR) • **Institute for Tribal Environmental Professionals (ITEP)**	✓	✓	✓	✓	✓
CA Landscape Conservation Cooperative (LCC) • **Desert LCC** • **Tribal/TEK Team**		✓		✓	✓
City and County Governments	✓	✓	✓	✓	✓
Institute for Tribal Environmental Professionals (ITEP)		✓		✓	✓
Inter-Tribal Council • **Sacramento** • **Sinkyone Wilderness**				✓	
Landowners	✓	✓	✓	✓	✓
Maidu Summit Consortium			✓	✓	
National Park Service				✓	
Natural Resources Conservation Service (NRCS)		✓		✓	✓
South Central Climate Science Center		✓		✓	✓
Southwest Climate Science Center	✓	✓	✓	✓	✓
Sustainable Conservation				✓	✓
The Nature Conservancy (TNC)				✓	✓
UC Cooperative Extension (UCCE)	✓	✓	✓	✓	✓
University of Oregon Tribal Climate Change Project		✓		✓	
U.S. Department of Agriculture (USDA)				✓	✓
U.S. Department of Interior (DOI)				✓	
U.S. Environmental Protection Agency (USEPA) – Region 9				✓	✓

Potential Partners	Data Collection and Analysis	Economic Incentives	Law and Policy	Partner Engagement	Training and Technical Assistance
• **Regional Tribal Operations Committee (RTOC)**					
U.S. Fish and Wildlife Service • **Partners for Fish and Wildlife Program**	✓	✓		✓	✓
U.S. Forest Service (USFS)		✓	✓	✓	✓
Western Regional Climate Center		✓		✓	✓

Appendix E: Potential Financial Resources

Potential Financial Resources *(Note: this information is intended to serve as a starting point for outreach and potential engagement, and does not represent a comprehensive list of all the potential funding sources)*	Data Collection and Analysis	Economic Incentives	Law and Policy	Partner Engagement	Training and Technical Assistance
Bureau Indian Affairs (BIA) - Tribal Cooperative Landscape Conservation Program Tribal Grant Program	✓	✓		✓	
CA Department of Food and Agriculture (CDFA) – Specialty Block Grant Funds		✓		✓	
CA Department of Transportation (Caltrans)		✓		✓	
CA Landscape Conservation Cooperative (LCC) • **Desert LCC** • **Tribal/TEK Team**		✓		✓	
Farm Bill		✓		✓	
Maidu Summit Consortium			✓	✓	
President's Climate Action Plan		✓			
UC Cooperative Extension (UCCE)		✓			
U.S. Department of Interior (DOI)				✓	
U.S. Environmental Protection Agency (USEPA) – Region 9 • **Regional Tribal Operations Committee (RTOC)**		✓		✓	
U.S. Fish and Wildlife Service • **Tribal Wildlife Grant Program** • **Partners for Fish and Wildlife Program**	✓	✓		✓	
U.S. Forest Service (USFS)		✓		✓	
Western Integrated Pest Management Center (University of California, Davis)		✓		✓	

Potential funding sources available to multiple strategy categories:
BIA - Tribal Cooperative Landscape Conservation Program
USFWS – Tribal Wildlife Grants
DWR - Guidelines for Considering Traditional Knowledges in Climate Change Initiatives, Climate and Tribal Knowledge work group
Proposition 1
State Water Resources Control Board Revolving Fund
University of Oregon - Pacific Northwest Tribal Climate Change Project

Appendix F: Companion Plan Management Team

Name	Title
Armand Gonzales	**SWAP 2015 Project Lead, CDFW**
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Appendix G: Glossary

The definitions found here are referenced from SWAP 2015, and are mostly adopted from the glossary in the Conservation Measures Partnership's (CMP) Open Standards for the Practice of Conservation (Version 2.0). Some terms have been added or refined to clarify their use by CDFW.

activity: a task needed to implement a strategy, and to achieve the objectives and the desirable outcomes of the strategy.

adaptive management: the incorporation of a formal learning process into conservation action. Specifically, it is the integration of project design, management, and monitoring, to provide a framework to systematically test assumptions, promote learning, and supply timely information for management decisions.

aquatic: growing, living in, or frequenting fresh water, usually open water; compare with wetland.

biodiversity: the full array of living things.

climate change vulnerability: refers to the degree to which an ecological system, habitat, or individual species is likely to be negatively affected as a result of changes in climate and often dependent on factors such as exposure, sensitivity, and adaptive capacity.

conceptual model: a diagram that represents relationships between key factors that are believed to impact or lead to one or more conservation targets. A good model should link the conservation targets to pressures, opportunities, stakeholders, and intervention points (factors – pressures, opportunities, or targets – in a conceptual model where a team can develop strategies that will influence those factors). It should also indicate which factors are most important to monitor.

conservation: the use of natural resources in ways such that they may remain viable for future generations. Compare with preservation.

conservation target: an element of biodiversity at a project site, which can be a species, habitat/ecological system, or ecological process on which a project has chosen to focus. All targets at a site should collectively represent the biodiversity of concern at the site. Synonymous with biodiversity target.

contributing factor: a behind the scene socio-economic factor that contributes to produce pressures.

critical pressure: direct pressure that have been prioritized as being the most important to address.

direct pressure: primarily human actions that immediately degrade one or more conservation targets. For example, "logging" or "fishing." They can also be natural phenomena altered by human activities (e.g., increase in extreme storm events due to climate change). Typically tied to one or more stakeholders. Sometimes referred to as a "pressure" or "source of stress." Compare with indirect pressure.

distribution: the pattern of occurrences for a species or habitat throughout the state; generally more precise than range.

driver: a synonym for factor.

ecosystem: a natural unit defined by both its living and non-living components; a balanced system for the exchange of nutrients and energy. Compare with habitat.

ecosystem function: the operational role of ecosystem components, structure, and processes.

ecosystem processes: the flow or cycling of energy, materials, and nutrients through space and time.

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

evaluation: an assessment of a project or program in relation to its own previously stated goals and objectives. See monitoring and compare to audit.

extinct: refers to a plant or animal or vegetation type that no longer exists anywhere.

factor: a generic term for an element of a conceptual model including direct and indirect pressures, opportunities, and associated stakeholders. It is often advantageous to use this generic term since many factors – for example tourism – could be both a threat and an opportunity.

fauna: refers to all of the animal taxa in a given area.

flora: refers to all of the plant taxa in a given area.

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

goal: a formal statement detailing a desired outcome of a conservation project, such as a desired future status of a target. The scope of a goal is to improve or maintain key ecological attributes. A good goal meets the criteria of being linked to targets, impact oriented, measurable, time limited, and specific.

habitat: where a given plant or animal species meets its requirements for food, cover, and water in both space and time. May or may not coincide with a single macrogroup, i.e., vegetated condition or aquatic condition. Compare with ecosystem.

Habitat Conservation Plan: a plan to ensure the adequate minimizing and mitigating of the effects of an authorized incidental take of a listed species, as part of an application for an Incidental Take Permit, issued under the Federal Endangered Species Act.

HCP: see Habitat Conservation Plan.

impact: the desired future state of a conservation target. A goal is a formal statement of the desired impact.

indicator: a measurable entity related to a specific information need such as the status of a target/factor, change in a threat, or progress toward an objective. A good indicator meets the criteria of being: measurable, precise, consistent, and sensitive.

indirect pressure: a factor identified in an analysis of the project situation that is a driver of direct pressure. Often an entry point for conservation actions. For example, "logging policies" or "demand for fish." sometimes called a root cause or underlying cause. Compare with direct pressure.

information need: something that a project team and/or other people must know about a project. The basis for designing a monitoring plan.

landscape: the traits, patterns, and structure of a specific geographic area, including its biological composition, its physical environment, and its anthropogenic or social patterns. An area where interacting ecosystems are grouped and repeated in similar form.

migrate; migratory: referring to animals that travel seasonally. Migrations may be local or over long distances.

monitoring: the periodic collection and evaluation of data relative to stated project goals and objectives. Many people often also refer to this process as monitoring and evaluation (abbreviated M&E).

native: naturally occurring in a specified geographic region.

Natural Community Conservation Plan: a broad-based, stakeholder-driven planning approach to identify and provide for the regional protection of plants, animals, their habitats, while allowing for compatible and appropriate economic activity.

NCCP: see Natural Community Conservation Plan.

objective: A formal statement detailing a desired outcome of a conservation project, such as reducing a critical pressure. The scope of an objective is broader than that of a goal because it may address positive impacts not related to ecological entities (such as getting better ecological data or developing conservation plans) that would be important for the project. The set of objectives developed for a conservation project are intended, as a whole, to lead to the achievement of a goal or goals, that is, improvements of key ecological attributes. A good objective meets the criteria of being: results oriented, measurable, time limited, specific, and practical. If the project is well conceptualized and designed, realization of a project's objectives should lead to the fulfillment of the project's goals and ultimately its vision. Compare to vision and goal.

opportunity: a factor identified in an analysis of the project situation that potentially has a positive effect on one or more targets, either directly or indirectly. Often an entry point for conservation actions. For example, “demand for sustainably harvested timber.” In some senses, the opposite of a threat.

outcome: an improved (and intended) future state of a conservation factor due to implementation of actions or strategies. An objective is a formal statement of the desired outcome.

output: a deliverable that can be measured by the activities and processes that will contribute to accomplishing the desired outcomes and goals.

population: the number of individuals of a particular taxon in a defined area.

preservation: generally, the nonuse of natural resources. Compare with conservation.

pressure: an anthropogenic (human-induced) or natural driver that could result in impacts to the target by changing the ecological conditions. Pressures can be positive or negative depending on intensity, timing, and duration. See also direct pressure and indirect pressure.

private land: lands not publicly owned, including private conservancy lands.

program: a group of projects which together aim to achieve a common broad vision. In the interest of simplicity, this document uses the term “project” to represent both projects and programs since these standards of practice are designed to apply equally well to both.

project: a set of actions undertaken by a defined group of practitioners – including managers, researchers, community members, or other stakeholders – to achieve defined goals and objectives. The basic unit of conservation work. Compare with program.

project area: the place where the biodiversity of interest to the project is located. It can include one or more “conservation areas” or “areas of biodiversity significance” as identified through ecoregional assessments. Note that in some cases, project actions may take place outside of the defined project area.

project scope: individual ecoregion or watershed will serve as the basis for developing strategies and actions within the project area.

province: a regional unit defined under SWAP 2015 that is made out of several nearby conservation units.

public: lands owned by local, state, or federal government or special districts.

range: the maximum geographic extent of a taxon or habitat; does not imply that suitable conditions exist throughout the defined limits. Compare with distribution.

refugia: areas where species can take refuge during times of climatic upheaval or biological stress. Places of past refugium are sometimes areas that still harbor high biological diversity.

result: the desired future state of a target or factor. Results include impacts which are linked to targets and outcomes which are linked to threats and opportunities.

richness: a measure of diversity; the total number of plant taxa, animal species, or vegetation types in a given area.

scope: the broad geographic or thematic focus of a program or project. The State of California will serve as the broad geographic or thematic scope for the program which consists of a group of projects, which together aim to achieve a common broad vision.

Species of Greatest Conservation Need (SGCN): all state and federally listed and candidate species, species for which there is a conservation concern, or species identified as being highly vulnerable to climate change.

stakeholder: any individual, group, or institution that has a vested interest in the natural resources of the project area and/or that potentially will be affected by project activities and have something to gain or lose if conditions change or stay the same. Stakeholders are all those who need to be considered in achieving project goals and whose participation and support are crucial to its success.

strategic plan: the overall plan for a project. A complete strategic plan includes descriptions of a project's scope, vision, and targets; an analysis of project situation, an action plan, a monitoring plan, and an operational plan.

strategy: a group of actions with a common focus that work together to reduce pressures, capitalize on opportunities, or restore natural systems. A set of strategies identified under a project is intended, as a whole, to achieve goals, objectives, and other key results addressed under the project.

stress: a degraded ecological condition of a target that resulted directly or indirectly from pressures defined above (e.g., habitat fragmentation).

target: see conservation target.

taxa: plural of taxon.

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

threat: see pressure.

wetland: a general term referring to the transitional zone between aquatic and upland areas. Some wetlands are flooded or saturated only during certain seasons of the year. Vernal pools are one example of a seasonal wetland.

wildlife: all species of free-ranging animals, including but not limited to mammals, birds, fishes, reptiles, amphibians, and invertebrates.