SWAP

California State Wildlife Action Plan

CALIFORNIA DEPARTMENT OF FISH & WILDLIFE

TRIBAL LANDS COMPANION PLAN

SEPTEMBER 2025

Disclaimer:

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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

In 2000, Congress enacted the State and Tribal Wildlife Grants (SWG) program to support state programs that broadly benefit wildlife and habitats, particularly "Species of Greatest Conservation Need" (SGCN), as defined by individual states. Congress mandated that for a state or territory to receive federal funds through the SWG program, that state or territory had to develop a State Wildlife Action Plan (SWAP) that outlined a comprehensive wildlife conservation strategy.

The SWG program requires SWAP updates at least every 10 years. CDFW prepared and submitted SWAP 2025, the second comprehensive update of the California SWAP 2005, to the U.S. Fish and Wildlife Service (USFWS).

The California State Wildlife Action Plan 2025 Update (SWAP 2025) provides a vision and a framework for conserving California's diverse natural heritage. The update allows CDFW to expand and improve the recommended conservation activities addressed in the original plan by integrating new knowledge acquired since 2015 (CDFW 2025a).

Governor Newsom's October 2020 Nature Based Solutions Executive Order N-82-20, and the resulting Pathways to 30 x 30 Strategy (CNRA 2022) and Tribal Nature-Based Solutions Program (CNRA 2023), highlight the need to develop inclusive partnerships to address the biodiversity crisis and accelerate nature-based solutions. California policy encourages all state entities to seek opportunities to support California tribes' co-management of natural lands within tribe's ancestral land and under control of the State, and tribal self -government regarding tribal trust resources (Office of the Governor 2020) when partnering with California Native American tribes to protect and restore biodiversity in the state.

SWAP 2025 describes a collaborative approach to sustainably manage California's ecosystems. Through active partnerships, SWAP 2025 strategies can be applied to conserve natural resources in balance with human use. In 2015, the California Department of Fish and Wildlife (CDFW) and partner agencies and organizations prepared companion plans to address the need for a collaborative framework. The 2015 partnerships set the stage to achieve the state's conservation priorities and have continued to foster collaborative management of natural and cultural resources throughout the state. SWAP 2025 includes revisions to only two of the 2015 companion plans: the Tribal Companion Plan and the Water Companion Plan. Appendix E Glossary provides important definitions for SWAP 2025 and the companion plan process.

1.1 SWAP Companion Plans

Need for Partnerships

The State of California supports tremendous biodiversity and a large human population, along with facing many challenges that widely affect biodiversity and natural resources, such as climate change. To balance human activities with conservation needs to sustain the state's ecosystems, collaborative management is a necessity. Many conservation actions identified under SWAP 2025 are beyond CDFW's jurisdiction. The "companion plans" were created collaboratively with partners in 2015 to provide more detailed, sector-specific collaborative approaches beyond the recommendations presented in the SWAP. Companion plans were developed for these sectors:

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

Two of these companion plans were updated in 2025: the Tribal Lands Companion Plan and the Water Companion Plan.

Companion Plan Purpose and Sector Selection

Companion plans highlight SWAP 2025 priorities that are shared with partners that were 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 high priority implementation actions for SWAP 2025. Together, SWAP 2025 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.

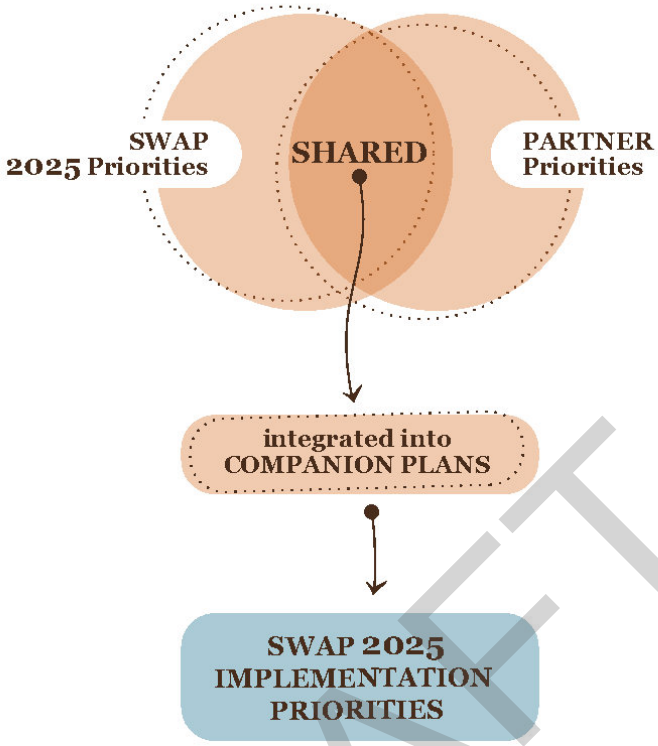

Figure 1. Aligning SWAP 2025 and Partner Priorities

Companion Plan Development

In 2015, CDFW and partners developed the initial set of companion plans to respond to feedback and to align with the National Fish, Wildlife, and Plants Climate Adaptation Strategy (National Fish, Wildlife, and Plants Climate Adaptation Network 2021), which emphasizes partner engagement as a best practice in climate change adaptation. Work on the companion plans has helped CDFW comply with legislation requiring CDFW to "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" (Assem. Bill No. 2042 (2011-2012 Reg. Sess.).

The 2015 companion plans were developed under the guidance of Blue Earth consultants and CDFW staff, who organized and advised the sector-specific teams. To form sector teams, CDFW sought statewide representation of public and private

partners with topical expertise. Blue Earth facilitated four virtual meetings for each sector in 2015. During these sector meetings, CDFW and participants discussed efforts that would benefit wildlife and habitat conservation and identified shared priorities and collaboration opportunities to achieve those mutual interests. After incorporating review and public feedback, CDFW published the original nine companion plans in 2015. During the 2025 SWAP update, CDFW sought internal and external review of the Tribal Lands and Water Management companion plans.

Although CDFW 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 Contents

Each companion plan addresses the following components:

- SWAP 2025 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

California is home to more than 109 federally recognized tribes and more than 60 non-federally recognized tribes, the largest Native American population in the nation, as listed by the Native American Heritage Commission for the purposes of cultural resource protection and assessment. California Native American 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 California Native American tribes by contributing to their cultural and spiritual identity and offering opportunities for recreation and commerce (DWR 2013).

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 less than 1% of California's landscape (Plachta 2022). 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. In the space of conservation, there are also many non-federally recognized tribes who have established 501(c)(3) non-profits to provide them a space for conservation efforts including ancestral land return.

With the intricate tribal landscape in California, a collaborative effort among natural resources agencies and California Native American tribes 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, California Native American tribes have Traditional Ecological Knowledge (TEK) and practices with the resources in their surroundings. Collaborations between tribes 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.

CNRA conservation policy includes strategies to strengthen tribal partnerships through shared decision-making when identifying conservation areas, supporting the return and ownership of ancestral lands to tribes, respecting culturally appropriate use of tribal expertise with consent and in consultation with tribes, and developing meaningful tribal co-management of conservation actions and areas (CNRA 2022). The Bureau of Indian Affairs (BIA) Strategic Plan for 2023-2026 incorporates goals to implement adaptive management for all natural and cultural infrastructure while considering and using traditional ecological knowledge (TEK) as a data source (US BIA 2024). 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 California Department of Water Resources (CDWR) developed a *Tribal Advisory Committee* 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 (DWR 2024). Additionally, CDWR, in partnership with the California Tribal Water Summit Design Team, convened the second California Tribal Water Summit in 2023, where guiding principles and implementation goals were created (DWR 2023). 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[1] and cultural practices (DWR 2023). 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 2025.

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 Tribal Communication and Consultation 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 "implement effective government-to-government consultation with California Tribes" and CNRA's *Tribal Consultation Policy* (Office of the Governor Edmund G. Brown Jr. 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. The California Natural Resources Agency established of the new $100 million Tribal Nature-Based Solutions Program, which includes a grant program, as part of a commitment to assist California Native American tribes in advancing multi-benefit nature-based solutions priorities for their communities. The California Fish and Game Commission's Tribal Committee was formed to allow greater time to investigate tribal issues. Examples of co-management topics have included implementation of the Western Joshua Tree Conservation Act, the Red Abalone Recovery Plan, and grant opportunities.

[1] 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).

Reintroduction of Winter-run Salmon to the McCloud River

CDFW, National Oceanic and Atmospheric Administration (NOAA) Fisheries, and the Winnemem Wintu Tribe are collaboratively working on multi-year projects to help with the reintroduction of juvenile winter-run Chinook salmon, an endangered species, to the McCloud River. This three-way collaboration is a historic achievement that advances shared common goals. Goals included the ecological restoration of an endangered species and cultural engagement to renew ancestral traditions and renew fishing opportunities for the Winnemem Wintu Tribe (CDFW 2023).

Endangered winter-run salmon were heavily impacted by drought and have been blocked from accessing their original spawning areas in cold mountain rivers since Shasta Dam was built in the 1940s. This area is also the ancestral home of the Winnemem Wintu Tribe, who have been caring for salmon for centuries. In 2022, the Tribe joined with state and federal agencies to take urgent action to preserve the species.

Initial measures included transporting 40,000 fertilized eggs to the cold McCloud River above Shasta Reservoir. This effort relied on support and knowledge of the Winnemem Wintu people. Many of the eggs hatched, swimming down the river for the first time since Shasta Dam was completed. The Tribe joined agency staff in collecting the juvenile fish before they reached the reservoir, which is populated with predators. Biologists then moved them downstream around the reservoir to continue to the ocean.

This work is supported through signed agreements between the Winnemem Wintu, CDFW, and NOAA. CDFW has supported the work with grants to Department of Water Resources (DWR) for a salmonid collection system to inform future work. CDFW awarded a $3.3 million grant to support the Tribe's participation in the restoration projects (Office of the Governor 2024).

3. Common Themes Across Nine 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, annual statewide average maximum temperature is expected to increase roughly 5.5°F by mid-century (a 30-year period from 2035–2064) and 9°F by end-of-century (2070–2099) under a high-end emissions scenario (Pierce et al. 2018).

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 2023).

As climate conditions are inextricably linked to the welfare of environments and societies, even conservative projected increases 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 2025 will likely increase in magnitude and severity through the compounding effects of climate change (CDFW 2025a). 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 for sectors were to 1) strategically assess the state's climate change vulnerabilities and 2) 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, socioeconomically, and politically intricate. The 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.

Integrated regional planning arose from the realization that it is not sustainable to address only one aspect of a complicated human/nature system. 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.

A recent example of a regional effort partnership between CDFW and tribes the MOU between CDFW, the Round Valley Indian Tribes, and other leaders to return Eel River water rights to Round Valley Indian tribes while securing water reliability to benefit salmon, environmental health, and local communities (CDFW 2025b). In 2023, CDFW provided funds for the collaborative planning between the Yurok Tribe, Karuk Tribe and other local stakeholders for three projects to restore critical salmon and steelhead habitat and improve water management in the Klamath Basin (The Yurok Tribe 2023).

Establishing a framework for integrated regional planning was considered as one of the state's top priorities across sectors. 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), Regional Conservation Investment Strategies (RCIS), Habitat Conservation Plans (HCPs), Habitat Connectivity Planning for Fish and Wildlife (CDFW 2025a), the Master Plan for Marine Protected

Areas (CDFW 2016), individual species management plans, and SWAP 2025 and related endeavors, including this companion plan.

An RCIS can be developed by any public agency or federally recognized tribe; RCIS amendments can be submitted by the original RCIS proponent, CDFW, or third-party agencies or federally recognized tribes. The RCIS guidelines include consulting with tribes that have cultural interests in the RCIS area. RCIS information is detailed in SWAP Chapter 3 and Appendix I.

SWAP 2025, Chapter 7 describes implementation and integration opportunities, and identifies where partners, including tribes, can engage in cooperative implementation. Such opportunities include programs under various state and federal agencies and with tribal governments.

4. Commonly Prioritized Pressures and Strategy Categories across Sectors

SWAP 2025 uses the planning framework outlined in the Open Standards for the Practice of Conservation (Conservation Measures Partnership 2020) to identify conservation actions for conservation targets. The process included identifying and evaluating the key ecological attributes (KEAs) of conservation targets, reviewing the factors influencing the compromised conditions of KEAs (stresses), and the sources of these stresses (pressures). This analysis then selected conservation strategies (sets of actions) for each target, either to improve the conditions of KEAs, or to reduce the negative impacts from the stresses and pressures (CDFW 2025).

4.1 Pressures across Sectors

A pressure, as defined in SWAP 2025, is an "activity that influences a stress and could significantly change the ecological conditions of a community. Pressures can be positive or negative depending on the intensity, timing, and duration. Pressures can be anthropogenic (human-induced) or naturally induced." Pressures are all recognized to have strong influences on the well-being of ecosystems. The 29 standard pressures addressed under SWAP 2025 include:

- Agricultural and Forestry Effluents
- Airborne Pollutants
- Annual and Perennial Non-timber Crops
- Catastrophic Geological Events, including Volcano eruption, earthquake, tsunami, avalanche, landslide, and subsidence
- Climate Change
- Commercial and Industrial Areas, including shoreline development

- Dams and Water Management/Use
- Fire and Fire Suppression
- Fishing and Harvesting Aquatic Resources
- Garbage and Solid Waste
- Household Sewage and Urban Wastewater, including urban runoff (e.g., landscape watering) and point discharges
- Housing and Urban Areas, including shoreline development
- Industrial and Military Effluents, including hazardous spills and point discharges
- 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, including modification of mouths/channels, ocean/estuary water diversion/controls, and artificial structures
- Parasites/pathogens/diseases
- Recreational activities
- Renewable energy
- Roads and railroads
- Shipping lanes, including ballast water
- Tourism and recreation areas
- Utility and service lines
- Wood and pulp plantations

4.2 Strategy Categories across Sectors

SWAP 2025 outlines 11 categories of conservation strategies:

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

The strategy categories identified are most relevant to the tribal lands sector are described in Section 5.2.

5. Tribal Lands Priority Pressures and Strategy Categories

As described in SWAP 2025, pressures such as climate change and stresses such as habitat fragmentation can 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.

CDFW identified the pressures and strategy categories that are relevant to each sector-specific companion plan. Section 5.1 and 5.2 provide the results of this prioritization and list 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. This is a priority pressure for California Native American tribes due to the impact on tribal resources of subsistence farming and ability to perform cultural ceremonies and practices.

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.

Klamath River Dam Removal Project

The Klamath River dam removal project aims to reestablish viable, wild, self-sustaining populations of anadromous fish species for conservation, ecological benefits and to enhance tribal, commercial and recreational fisheries. The removal and restoration of the Klamath Basin Dams had been championed by the tribal nations whose ancestral lands had been flooded and who rely on Klamath River fisheries. After decades of tribal and partner efforts, dam removal began in mid-2023 and was concluded in late 2024.

Background studies found the dam removal would benefit Chinook, Coho, steelhead, and Pacific Lamprey. On Oct. 15, 2024, spawning fall-run Chinook salmon were observed in Jenny Creek, a Klamath River tributary 4.3 river miles upstream of the former Iron Gate Dam location, the southernmost barrier of four dams removed from the Klamath River. Additionally, adult fall-run Chinook are starting to return to CDFW's newly rebuilt Fall Creek Fish Hatchery on Fall Creek, a formerly inaccessible tributary about 7.5 miles upstream of the old Iron Gate Dam (CA Trout 2024). In addition to returning fall-run Chinook, an adult Pacific lamprey was observed swimming through CDFW's fish counting station in Jenny Creek (CDFW 2024).

Restoration is supported by tribal and agency native seed collection, planting, and maintenance at revegetation sites. Ongoing monitoring by tribal, federal, state, and other partners will assess the repopulation of anadromous fish to the mainstem Klamath and additional tributaries above the former dam locations within California and Oregon.

See SWAP Chapter 6 for a description of the Klamath Dams Removal Project.

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, 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.

Pressures for Future Consideration

- Access to freshwater
- 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, tribal governments, local governments, and nongovernmental organizations (NGOs). Because SWAP 2025 is a comprehensive conservation plan, integrating their work into SWAP is crucial for impactful conservation outcomes for the state (SWAP 2025 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 (companion plan Section 5.2) are summarized below. Potential partners and financial resources for

implementing these conservation activities are listed in Appendix D and E. Together, the information provided below and Appendix D and E summarize the key findings for this sector.

6.1 Alignment Opportunities and Potential Resources

Conservation activities that the team considered important for collaboration and that can be implemented over the next 5–10 years are listed below. While some activities may apply across many spatial scales and jurisdictions (statewide, regional, and local/site-specific), they are assigned only to the most relevant scale and jurisdiction. The information is not comprehensive and does not oblige any organization to provide support for strategy implementation.

Data Collection and Analysis Potential 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 traditional ecological knowledge (TEK)
- Explain correlations of human and abiotic effects on species distribution and demographics

Economic Incentives Potential 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 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 Activities

Partner Engagement

Statewide

- Research and collaborate with other agencies and organizations that have tribal community engagement

Regional

- Include different ecosystems in conservation strategies

Local/Site-specific

- 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 Activities

Local/Site-specific

- Address illegal marijuana farms upstream with impacts on tribal lands
- Assist in compatible goals of Landscape Conservation Cooperatives (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 UC Cooperative Extension (UCCE) on protection and promotion of agriculture, plan hedgerows, and habitat restoration activities
- Understand climate change impacts

7. Evaluating Implementation Efforts

Implementing SWAP 2025 and its nine companion plans is a complex undertaking. SWAP 2025 Chapter 8 emphasizes the importance of adaptive management based on performance monitoring and evaluation during the implementation stage. SWAP 2025 implementation will be monitored over time in concert with other conservation activities conducted by CDFW and partners.

By incorporating lessons learned through monitoring conservation activities and evaluating for future actions, CDFW and partners have opportunities to improve performance and include 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 2025 and companion plan implementation, but also to prioritize resource allocations necessary for managing natural resources in the state.

8. Desired Outcomes

Desired outcomes for this sector, within the context of SWAP 2025, 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 2025 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 2025 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 cannabis 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: 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 research and trainings (e.g., by CNRA, LCCs, 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 2025 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 2025 and companion plans
- Develop mechanisms to update partners on the implementation status of SWAP 2025 and companion plans (e.g., California Water Plan progress reports)
- Encourage participation in the Fish and Game Commission Tribal Committee meetings

Monitoring and Evaluation

- Conduct internal and statewide assessments of performance metrics identified in SWAP 2025 to evaluate progress toward SWAP 2025 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 companion plan Appendix C for a list of tribal lands development team members. CDFW 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.

Appendices

Appendix A – References

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Appendix C - Potential Partners for Collaboration

Please note that the following list does not provide an exhaustive list of potential partners for engagement and their specific alignment opportunities. The organizations listed here were identified in 2015, but the listing does not imply that they have agreed to partner or to implement SWAP 2025.

- Bureau Indian Affairs (BIA)
- CA Department of Fish and Wildlife (CDFW)
- CA Department of Food and Agriculture (CDFA)
- CA Department of Forestry and Fire Protection (Cal Fire)
- CA Department of Parks and Recreation (State Parks)
- CA Department of Water Resources (CDWR)
- CA Landscape Conservation Cooperative (LCC)
- Desert LCC
- Tribal/TEK Team
- CA Natural Resources Agency (CNRA)
- City and County Governments
- Institute for Tribal Environmental Professionals (ITEP)
- Inter-Tribal Councils
- Sacramento
- Sinkyone Wilderness
- Landowners
- Maidu Summit Consortium
- National Park Service
- Natural Resources Conservation Service (NRCS)
- Regional Tribal Operations Committee (RTOC)
- 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)
- U.S. Fish and Wildlife Service (USFWS)
- Partners for Fish and Wildlife Program
- U.S. Forest Service (USFS)
- Western Regional Climate Center

Appendix D - Potential Financial Resources

This list 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.

- Bureau Indian Affairs (BIA)
- CA Department of Food and Agriculture (CDFA)
- Specialty Block Grant Funds
- CA Department of Forestry and Fire Protection (Cal Fire)
- CA Department of Fish and Wildlife (CDFW)
- Cannabis Restoration Grant Program (CRGP)
- Response Equipment Grant Program
- Native American Preparedness Grant Program
- CA Department of Transportation (Caltrans)
- CA Landscape Conservation Cooperative (LCC)
- Desert LCC
- Tribal/TEK Team
- CA Natural Resources Agency (CNRA)
- Tribal Nature-Based Solutions Program
- Natural Resources Conservation Service (NRCS) and Farm Service Agency (FSA)
- Farm Bill
- Maidu Summit Consortium
- President's Climate Action Plan
- Proposition 4: Parks, Environment, Energy, and Water Bond Measure (2024)
- Regional Tribal Operations Committee (RTOC)
- State Water Resources Control Board Revolving Fund
- UC Cooperative Extension (UCCE)
- U.S. Department of Interior (DOI)
- U.S. Environmental Protection Agency (USEPA) – Region 9
- U.S. Fish and Wildlife Service (USFWS)
- Tribal Wildlife Grant Program
- Partners for Fish and Wildlife Program
- U.S. Forest Service (USFS)
- Western Integrated Pest Management Center (University of California, Davis)

Appendix E - Glossary

The definitions found here are referenced from SWAP 2025 and are mostly adopted from the glossary in the Conservation Measures Partnership's (CMP) Open Standards for the Practice of Conservation (Version 4.0). 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 freshwater, 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 scenes 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