



California State Wildlife Action Plan

2015 UPDATE

A Conservation Legacy for Californians

Volume I: Plan Update



September 2015



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CALIFORNIA STATE WILDLIFE ACTION PLAN

2015 UPDATE

A Conservation Legacy for Californians

Volume I: Plan Update



Prepared by

California Department of Fish and Wildlife

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With Assistance from



Ascent Environmental, Inc.



Foundations of Success



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Plan Preparers are listed in Chapter 9.

Acknowledgements

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Acronyms and Abbreviations

ACE	Areas of Conservation Emphasis
ACEC	Areas of Critical Environmental Concern
AF	Acre Feet
AFB	Air Force Base
AFRP	Anadromous Fish Restoration Program
AFWA	Association of Fish and Wildlife Agencies
AML	Appropriate Management Levels
AUM	Animal Unit Months
BCP	Budget Change Proposal
BDCP	Bay Delta Conservation Plan
BIOS	Biogeographic Information and Observation System
BLM	U.S. Bureau of Land Management
BMP	Best Management Practices
BRBP	Blue Ridge Berryessa Partnership
BSSC	Bird Species of Special Concern
CAL FIRE	California Department of Forestry and Fire Protection
CalEMA	California Emergency Management Agency
CalEPA	California Environmental Protection Agency
CalNASP	California National Archery in the Schools Program
CalSTA	California State Transportation Agency
CalTIP	Californians Turn in Poachers and Polluters
Caltrans	California Department of Transportation
CAMP	Campaign Against Marijuana Planting
CAPP	Conceptual Area Protection Plan
CBC	California Biodiversity Council
CCAS	California Climate Adaptation Strategy
CCWCN	Coastal Cactus Wren Conservation Network

Acronyms and Abbreviations

CDFA	California Department of Food and Agriculture
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CDNPA	California Desert Native Plants Act
CDOF	California Department of Finance
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CERES	California Environmental Resources Evaluation System
CESA	California Endangered Species Act
CFA	Code of Federal Regulations
CHAT	Crucial Habitat Assessment Tool
CIB	California Interregional Blueprint
CISAC	California Invasive Species Advisory Committee
CISR	Center for Invasive Species Research
CLNWS	China Lake Naval Weapons Station
CNDDDB	California Natural Diversity Database
CNRA	California Natural Resources Agency
Commission	Fish and Game Commission
CTP	California Transportation Plan
CVFPP	Central Valley Flood Protection Plan
CVP	California Central Valley Project
CVPIA	Central Valley Improvement Protection Act
CWA	Clean Water Act
CWHR	California Wildlife Habitat Relationships
DBW	Division of Boating and Waterways
Delta Reform Act	Sacramento-San Joaquin Delta Reform Act of 2009
Delta	Sacramento-San Joaquin Delta
DMG	Deserts Managers Group
DOD	U.S. Department of Defense
DOI	U.S. Department of Interior

DOW	Defenders of Wildlife
DRECP	Desert Renewable Energy Conservation Plan
DSC	Delta Stewardship Council
DSP	Distinct Population Segment
DWR	California Department of Water Resources
EBM	Ecosystem Biodiversity Monitoring
EGPR	Environmental Goals and Policy Report
ELI	Environmental Law Institute
ELRT	Eagle Lake rainbow trout
ELRTCS	Eagle Lake Rainbow Trout Conservation Strategy
ENSO	El Niño-Southern Oscillation
EPA	U.S. Environmental Protection Agency
ERP	Ecosystem Restoration Program
ESA	Endangered Species Act
ESU	Evolutionarily Significant Unit
FGC	Fish and Game Code
FPR	Forest Practice Regulation
FRAP	Fire and Resource Assessment Program
FRGP	Fisheries Restoration Grants Program
FRPA	Fish Restoration Program Agreement
GGRF	Greenhouse Gas Reduction Fund
GHG	Greenhouse Gas
GIS	Geographic Information Systems
HCP	Habitat Conservation Plan
HCPB	Habitat Conservation Planning Branch
HUC	Hydrologic Unit Code
IEP	Interagency Ecological Program
IID	Imperial Irrigation District
INRMP	Integrated Natural Resource Management Plan
IPCC	Intergovernmental Panel on Climate Change

Acronyms and Abbreviations

ISCC	Invasive Species Council of California
KEA	Key Ecological Attribute
LAE	Land Acquisition Evaluation
LCC	Landscape Conservation Cooperative
LED	Law Enforcement Division
LMP	Land Management Plan
Lower Colorado River Program	2005 Lower Colorado River Multi-Species Conservation Program
LSA	Lake and Streambed Alteration
MAST	Management, Analysis and Synthesis Team
MBTA	Migratory Bird Treaty Act
MCU	Marine Conservation Unit
MCS	Marijuana Cultivation Site
MLPA	Marine Life Protection Act
MMA	Marine Managed Area
MMBF	Million Board Feet
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPA	Marine Protected Area
MSCP	Multiple Species Conservation Program
MSHCP	Multiple Species Habitat Conservation Plan
MSSC	Mammal Species of Special Concern
NASP	National Archery in the Schools Program
NCCP	Natural Community Conservation Plan
NEPA	National Environmental Policy Act
NERRS	National Estuarine Research Reserve System
NGO	Non-Governmental Organization
NISC	National Invasive Species Council
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System

NPPA	Native Plant Protection Act
NPS	National Park Service
NRCS	National Resource Conservation Service
NZMS	New Zealand mud snails
OHV	Off-Highway Vehicle
OPC	California Ocean Protection Council
OPR	Governor’s Office of Planning and Research
OSPR	Office of Spill Prevention and Response
OTD	Office of Training and Development
PAD	Passage Assessment Database
PDO	Pacific decadal oscillation
PLM	Private Lands Management
PORTS	Parks On-line Resources for Teachers and Students
PUC	Public Utilities Commission
QSA	Quantification Settlement Agreement
RAMP	Regional Advance Mitigation Planning
RCD	Resource Conservation District
RDM	Residual Dry Matter
REAT	Renewable Energy Action Team
ROW	Right-Of-Way
SCP	Scientific Collector’s Permit
SGCN	Species of Greatest Conservation Need
SHA	Safe Harbor Agreement
SHARE	Shared Habitat Alliance for Recreational Enhancement
SI	CDFW’s Science Institute
Sierra Framework	Sierra Nevada Framework for Conservation and Collaboration
SJRRP	San Joaquin River Restoration Program
SMART	Specific, Measurable, Attainable, Relevant, and Time-Bound
SMCA	State Marine Conservation Area
SMR	State Marine Reserve

Acronyms and Abbreviations

SMRMA	State Marine Recreational Management Area
SNEP	Sierra Nevada Ecosystem Project
SNFPA	Sierra Nevada Forest Plan Amendment
SRWP	Sacramento River Watershed Program
SSC	Species of Special Concern
SVRA	State Vehicular Recreation Area
SWAP	State Wildlife Action Plan
SWG	State and Tribal Wildlife Grants
SWP	State Water Project
SWRCB	State Water Resources Control Board
TA	Technical Assistance
TAC	Technical Advisory Committee
TCP	Timberland Conservation Program
TMDL	Total maximum daily load
TNC	The Nature Conservancy
USBR	U.S. Bureau of Reclamation
USDA	U.S. Department of Agriculture
USFS	U.S. Forest Service
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
USNVC	U.S. National Vegetation Classification
UTS	Unarmored Threespine Stickleback
VegCAMP	Vegetation Classification and Mapping Program
WCB	Wildlife Conservation Board
WCGA	West Coast Governors Alliance
WET	Watershed Enforcement Team
WFL	Wildlife Forensic Laboratory
WIL	Wildlife Investigations Lab

Foreword

California is an amazing place. From the Sierra Nevada to the Pacific coast, from the redwood forests to the Mojave Desert, California is the most biologically diverse state in the country. Biodiversity measures richness of life and California Department of Fish and Wildlife's mission is to manage that richness of life for future generations.

The state is facing a warming climate and a fourth year of historic drought threatening many species, particularly native trout, salmon, and other inland fish. At the same time, California is the eighth largest economy in the world, and home to Silicon Valley, the birth of the aerospace industry, and Hollywood, just to name a few common references. We must have a solid plan in place to navigate the challenges ahead.

California Department of Fish and Wildlife is proud to present the first major revision to the State Wildlife Action Plan (SWAP 2015). SWAP 2015 includes conservation actions that respond to current and future challenges with objectives and goals that are specific, measurable, and time bound. The conservation strategies consider the anthropogenic pressures imposed by the legitimate need for food, housing, transportation, and recreation, taken together with the recognition of limited funding and time. The strategies focus on restoring ecological function and processes capable of withstanding the stresses imposed by a changing environment. Collaboration and partnerships will be imperative to implementing these strategies.

SWAP 2015 is a product of many individuals and organizations. More than 300 people and 40 organizations worked across 200 meetings to pull together this update. Every one of them deserves a big thank you. The document has received incredible public participation and scrutiny. We are grateful to all who helped in its development, and look forward to the continued collaboration needed to succeed in conserving California's tremendous biodiversity.

Wallace Stegner, a great native son, once remarked, "One cannot be pessimistic about the West. This is the native home of hope." California has always been a land of hope, dreams, and optimism, all of which we will need to safeguard the state's fish and wildlife for the future. Stegner also reminds us it is possible as Californians, "to create a society to match its scenery." At California Department of Fish and Wildlife, we have a duty to ensure the state's fish and wildlife and the habitats upon which they depend will be here and healthy for our children, their children, and so on. The 2015 update to the State Wildlife Action Plan will help us meet that challenge.

Charlton H. Bonham
Director

Foreward

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SWAP 2015 Document Structure

SWAP 2015 provides an ecosystem approach for conserving California's fish and wildlife resources by identifying strategies intended to improve conditions of Species of Greatest Conservation Need (SGCN) and the habitats upon which they depend (see Figure 1 of the Executive Summary). CDFW designed SWAP 2015 to guide resource managers, conservation partners, and the public in how they can directly or indirectly participate in conserving California's precious natural heritage. This section provides an overview of the structure of SWAP 2015 to help readers navigate through the document and find information. Key terms are defined in the text box on page 8.

SWAP 2015 is organized as follows:

- **Executive Summary** provides a summary of: the vision for wildlife conservation in California; statewide goals; the process used to develop conservation strategies based on an ecosystem approach; conservation targets and strategies for seven provinces and anadromous fish; statewide summary; plans for integration and implementation; and process for adaptive management and monitoring.
- **Chapter 1** provides an introduction to SWAP 2015. The challenge of sustaining biodiversity, a summary of CDFW responsibility, and the vision for California wildlife conservation are described. Chapter 1 also explains the requirements for updating SWAP, summarizes major changes since the original 2005 SWAP, and describes the analytical approach used in the 2015 update.
- **Chapter 2** describes California's natural diversity, identifies SGCN and the criteria used to evaluate species and habitat conditions, and addresses major pressures and stresses currently affecting the SGCN and their habitats.
- **Chapter 3** describes the existing conservation approaches in the state, including the major regulations protecting natural resources, CDFW planning tools, and major conservation programs.
- **Chapter 4** presents the statewide goals of SWAP 2015 and broad, state-level conservation strategies that will be implemented to achieve the desired conservation outcomes.
- **Chapter 5** is divided into seven sections that describe for each geographic province the conservation targets, SGCN and other focal species, KEAs, stresses, pressures, and conservation strategies, including goals and objectives for the provinces.
- **Chapter 6** focuses on conservation strategies developed for anadromous fish in California.
- **Chapter 7** describes how SWAP 2015 will be integrated with other programs and coordinated with partners for the implementation, including through companion plans.
- **Chapter 8** describes the monitoring plan for the conservation strategies, including the mandate for CDFW to use monitoring and adaptive management. It also presents a summary of the effectiveness evaluation of how SWAP 2005 was implemented. The chapter describes how the recommendations from the SWAP 2005 evaluation have been integrated into SWAP 2015. Rationales for selecting conservation strategies presented in SWAP 2015 and a framework for monitoring the effectiveness of the strategies are also described.

SWAP 2015 Document Structure

- ▲ **Chapter 9** provides the list of preparers of SWAP 2015.
- ▲ **Chapter 10** provides bibliographic references used in each chapter.
- ▲ **Chapter 11** provides a glossary of major terms used in SWAP 2015.
- ▲ **Several appendices** accompany SWAP 2015 to provide more detailed information and extensive tables that support the document.
- ▲ **Database files** created during the development of SWAP 2015 to compile and evaluate ecological information and to create strategies can be accessed at: <http://www.dfg.ca.gov/SWAP/>.

Figure A provides a “roadmap” to the document illustrating how SWAP 2015 is organized.

If questions arise regarding the use of SWAP 2015, please email SWAP@wildlife.ca.gov.

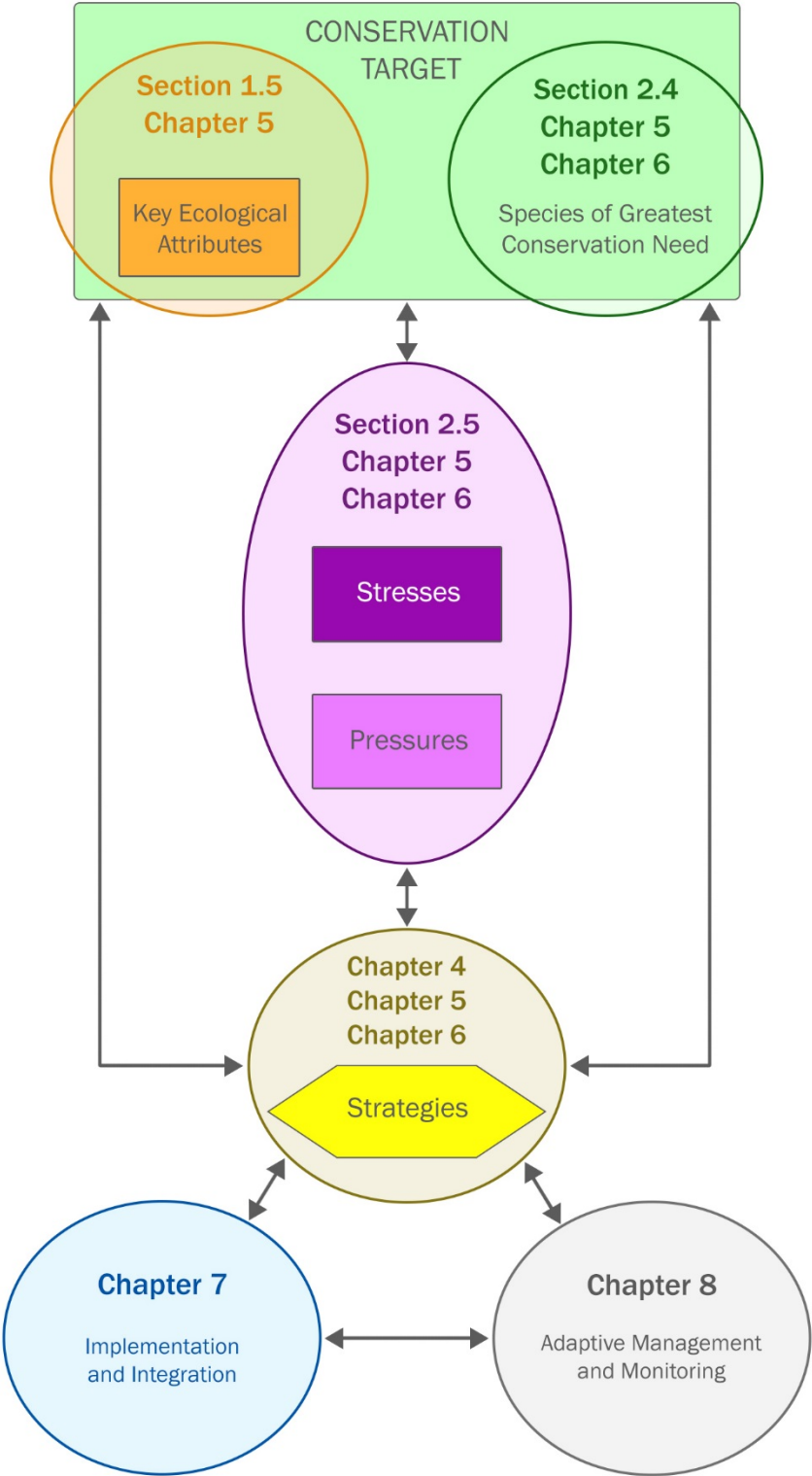


Figure A

SWAP 2015 Organizational Roadmap