

Regional Conservation Investment Strategies **PROGRAM GUIDELINES**

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REGIONAL CONSERVATION INVESTMENT STRATEGIES PROGRAM GUIDELINES

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Section 1 Program Overview

1.1 Introduction

On September 22, 2016, **Assembly Bill (AB) 2087** (Levine) was signed into law and became effective on January 1, 2017, officially creating the **California Department of Fish and Wildlife's** (CDFW) Regional Conservation Investment Strategies Program (Program). The new Program encourages public agencies to develop regional **conservation** planning documents, using the best available science to identify regional **conservation priorities** and other actions to help California's species **populations** that may be vulnerable or declining by protecting, **restoring**, creating, and reconnecting their **habitats**. The Program provides additional tools and mechanisms that will complement and enhance existing programs and increase options for project proponents, including public infrastructure agencies, to create **compensatory mitigation** that supports regional conservation priorities in advance of impacts. The goal of the Program is to achieve high-quality comprehensive, cohesive, and connected regional conservation outcomes by guiding investments in conservation and compensatory mitigation that support regional conservation priorities and that enhance the resilience of species and their habitats to the impacts of climate change and other **pressures**. Public agencies and other entities can use the Program to determine strategies for achieving conservation priorities and to assist in other land use planning efforts, to help minimize impacts to resources, maximize **conservation investments**, and reduce mitigation costs. Through use of the Program's tools, public agencies and other entities can demonstrate their commitment to protecting the **natural resources** in their regions, for their ecological values and for the **ecosystem services** they provide to their communities.

This is a non-regulatory and voluntary Program that consists of three primary components: **Regional Conservation Assessment (RCA)**, **Regional Conservation Investment Strategy (RCIS)**, and **Mitigation Credit Agreement (MCA)**. RCAs are assessments at the **ecoregional** scale that provide an overview of the area's **ecological resources** and ecological processes, and the pressures and **stressors** on those resources and processes. RCAs provide the context for conservation strategies and actions and identify areas with the greatest probability for long-term **ecosystem** conservation success.¹ RCAs are optional and not required to prepare an RCIS or MCA.

RCISs are strategies to identify and prioritize **conservation actions** and **habitat enhancement actions** for **focal species** and other **conservation elements** at the sub-

¹ Fish & G. Code, § 1851, subdivision (k)

ecoregional scale. RCISs include conservation actions and habitat enhancement actions that would advance the conservation of focal species, habitat, and other natural resources and provide nonbinding, voluntary guidance for the identification of wildlife and habitat conservation priorities, investments in ecological resource conservation, or identification of locations for compensatory mitigation for impacts to species and natural resources.² An RCIS may be proposed by CDFW or any other public agency, and shall be developed in consultation with local agencies that have land use authority (i.e., a city, a county, or a city and county) within the geographic area of the RCIS.³ Fish and Game Code section 1861 provides that CDFW can review and approve a maximum of eight RCISs.⁴ However, an RCIS submitted with a letter from a state water or transportation infrastructure agency requesting that CDFW approve the RCIS is exempt from this maximum (see Section 4.6.1.1 – State Agency Letters for more information on this exemption).⁵

MCAs are agreements that enable mitigation credits to be used to fulfill compensatory mitigation requirements established under any state or federal environmental law, as determined by the applicable local, state, or federal regulatory agency, including under the **California Endangered Species Act (CESA)**,⁶ CDFW's **Lake and Streambed Alteration (LSA)**⁷ program, or the **California Environmental Quality Act (CEQA)**.⁸ Under an approved RCIS, any entity may prepare MCAs as an **advance mitigation** tool to create credits. An RCIS must be in place before an MCA can be approved. MCAs are based on conservation and habitat enhancement actions in an approved RCIS. Consultation, review, and approval of a specific RCA, RCIS, or MCA will be conducted through CDFW's Habitat Conservation Planning Branch in Sacramento.

RCAs and RCISs are intended to provide scientific information for the consideration of public agencies and other entities. Information in RCAs and RCISs may benefit public agencies and other entities in land use considerations and conservation investments. RCISs and MCAs can also benefit public agencies and other entities in providing efficient mitigation delivery for infrastructure, development, and other project needs in the **RCIS area**. However, RCAs and RCISs are nonbinding, voluntary, and do not create, modify, or impose regulatory requirements or standards, regulate the use of land, establish land use designations, or affect the land use authority of, or the exercise of discretion by, any public agency.⁹ RCAs and RCISs must comply with all applicable state and local

² Fish & G. Code, § 1851, subdivision (l)

³ Fish & G. Code, § 1852, subdivision (a)

⁴ Section 2 of Senate Bill (SB) 103 eliminated the original January 1, 2020 end date by which time RCAs, RCISs, and MCAs could be approved by CDFW.

⁵ Sts. & Hy. Code § 800.6(j). Passage of SB 103 (Section 12) created an exemption from the maximum.

⁶ Fish & G. Code, §§ 2080 – 2085

⁷ Fish & G. Code, §§ 1600 – 1617

⁸ Pub. Resources Code, §§ 21000 – 21189

⁹ Fish & G. Code, § 1851, subdivisions (k) and (l)

requirements and do not preempt the authority of the State, or of local agencies to implement infrastructure and urban development in local general plans.¹⁰

1.2 Purpose and Use of Guidelines

CDFW is providing these Regional Conservation Investment Strategies Program Guidelines (**Guidelines**) to implement Fish and Game Code sections 1850–1861. These Guidelines incorporate all relevant documents and Program guidance and apply to all RCAs and RCISs submitted as of the date of these Guidelines, except as otherwise stated (see Section 4.1).¹¹ These Guidelines are intended to clarify and provide instructions or guidance related to the development, review, and approval of RCAs, RCISs, and MCAs to assist state and local public agencies, private entities, the public, and CDFW staff in implementing the Program. The Guidelines include instructions on where and how to submit individual Program documents and notices. CDFW may liberally interpret these Guidelines to accomplish the purposes of AB 2087 and the Program.

CDFW intends that these Guidelines will be a “living document” available on CDFW’s website (see Section 1.4 – Program Contacts). CDFW, in coordination with interested parties, may update these Guidelines as additional relevant documentation or guidance becomes available.

CDFW intends for these Guidelines to provide RCA and RCIS proponents, and MCA sponsors some flexibility in preparing documents to enable achieving high-quality comprehensive, cohesive, and connected conservation outcomes based on ecological principles and the best available science. This means that the documents should include and describe representative conservation elements (e.g., declining and vulnerable native species, natural communities, ecosystem processes) and the pressures and stressors affecting them, to inform and facilitate a comprehensive conservation outcome for the region covered. It also means that the conservation document informs and facilitates ecosystem conservation outcomes that are ecologically integrated and sustainable, with sufficiently large and connected conservation areas and redundancies in the types of habitats conserved to help ensure that species populations and natural communities are protected against the unanticipated damages and losses to any single location. Connected means that the conservation document leads to ecosystems, natural communities, and habitats that are connected, with species populations able to disperse and move throughout their home and migratory ranges without being adversely restricted by human-made impediments. Species’ ranges and natural communities should also be able to shift over time, adapting to changes in climate.

¹⁰ Fish & G. Code, §§ 1852, subdivision (c)(7) and 1853, subdivision (c)(8)

¹¹ Fish & G. Code, § 1858

Conservation is focused on native species and their habitats, and other conservation elements. In considering which habitats, ecological functions, and **ecosystem functions** to protect and restore for conserving focal species, their habitats, and other conservation elements, it is important to consider all natural communities and functions, including native natural communities, **working lands**, and nonnative communities. In some cases, working lands provide important functions and habitat for native species. In other cases, nonnative communities may provide habitat to native species and should be considered for conserving and restoring.

The Guidelines are structured as follows: the words “shall” and “must” are used for provisions that are required. Most other provisions in these Guidelines are suggested or strongly recommended. Those with “should” are strongly recommended. Those with “may” or similar terms are suggested. In some sections (e.g., Section 4.2.5 - Focal Species and Other Species Information and Analysis), guidance is provided on how to select focal species, recognizing the variance in data availability in different regions, and the complexity of ecological factors.

CDFW strongly recommends early and ongoing coordination and collaboration with CDFW’s RCIS Program staff when developing RCAs, RCISs, and MCAs. Doing so will allow early feedback on the various components (e.g., geographic area, conservation elements, level of detail needed) and benefit in a much higher likelihood of getting early approval of the submittals.

CDFW recommends including a public or stakeholder engagement process in the development of all RCIS Program submittals (RCAs, RCISs, and MCAs). Including a broad array of stakeholders can foster collaborative engagement with individuals and entities with relevant experience and expertise. Including a technical review team knowledgeable of ecological information and conservation needs can help to ensure that the best available scientific information is used and can help in developing conservation elements lists; goals, **objectives** and actions; and gaps in scientific information. Refer to the respective RCA, RCIS, and MCA Guidelines for additional information regarding public engagement requirements when preparing those documents.

CDFW recommends early and ongoing consultation among RCA and RCIS proponents, MCA sponsors, and developers of other conservation plans in the same or adjacent geographic areas (note that RCISs cannot overlap). This will generally result in fewer major changes needed during CDFW’s completeness and substantive review phases, saving the proponents or sponsors both time and money. To request a state infrastructure mitigation letter (see Section 4.6.1.1 – State Agency Letters) CDFW also recommends that RCIS proponents engage with infrastructure agencies early to anticipate requirements and needs for MCA credits for infrastructure projects and to participate in the development of the RCIS.

Terms defined in Section 2 - Standard Terminology are bolded with their first mention in each section of the Guidelines. The remainder of these Guidelines is divided into three main sections: Section 3 - Regional Conservation Assessments, Section 4 - Regional Conservation Investment Strategies, and Section 5 - Mitigation Credit Agreements.

1.3 Fees

Fish and Game Code section 1857 authorizes CDFW to collect fees or other compensation to pay for all or a portion of CDFW's costs relating to an RCA, RCIS, or MCA, and Section 1858 authorizes CDFW to adopt guidelines to implement the program without completing the procedures typically required by the Administrative Procedure Act. The fee schedule for the Program's components is posted on CDFW's website (see Section 1.4 – Program Contacts) and is incorporated into these Guidelines by this reference as if it was fully set forth herein.

1.4 Program Contacts

Information about the Program can be found on CDFW's website at:

<https://www.wildlife.ca.gov/Conservation/Planning/Regional-Conservation>

General inquiries, notifications of a proponent's intent to develop an RCA or RCIS, and requests for the list of entities that have filed a written request to CDFW for RCIS Program notices, must be directed to CDFW's Landscape Conservation Planning Program Manager:

Manager, Landscape Conservation Planning Program
rcis@wildlife.ca.gov
916-653-3779

State agency letters requesting the approval of an RCIS¹² must be sent to CDFW's Director via the following address:

Habitat Conservation Planning Branch
California Department of Fish and Wildlife
rcis@wildlife.ca.gov
P.O. Box 944209
Sacramento, CA 94244-2090

¹² State agency letters include those submitted pursuant to Fish & G. Code, § 1852, subdivision (a) and Streets and Highways Code section 800.6(j).

All document submittals, including draft and final RCAs, RCISs, MCAs; copies of state agency letters requesting RCIS approvals; and any RCA, RCIS, or MCA updates or amendments, must be sent by email and, if desired, hardcopy to CDFW's Habitat Conservation Planning Branch Chief:

Chief, Habitat Conservation Planning Branch
California Department of Fish and Wildlife
rcis@wildlife.ca.gov
P.O. Box 944209
Sacramento, CA 94244-2090

Alternatively, draft and final RCAs, RCISs, and MCAs may be uploaded to CDFW's File Transfer Protocol (FTP) site after notification has been sent to CDFW's Habitat Conservation Planning Branch Chief. The RCA or RCIS proponent, or MCA sponsor must request that CDFW provide a link to the FTP site, which will remain active for approximately two weeks.

Regional Conservation Investment Strategies Program Guidelines



Section 2 Standard Terminology

2.1 Terms, Abbreviations, Acronyms, and Definitions

Term/Acronym/ Abbreviation	Definition ¹³
AB – Assembly Bill	A draft of a proposed law introduced by a Member of the California Assembly. ¹⁴
ACE—Areas of Conservation Emphasis	A project that provides data to help guide and inform conservation priorities in California launched by CDFW in 2010, ¹⁵ or the latest update of that analysis.
adaptive management and monitoring strategy	A component of an RCIS that incorporates an adaptive management process that is informed by periodic monitoring of the implementation of both conservation actions and habitat enhancement actions. ¹⁶ Adaptive management means using the results of new information gathered through a monitoring program to adjust management strategies and practices to help provide for the conservation of focal species and their habitats. A monitoring strategy is the periodic evaluation of monitoring results to assess the adequacy of implementing a conservation action or habitat enhancement action and to provide information to direct adaptive management activities to determine the status of the focal species, their habitats, or other natural resources. ¹⁷
administrative draft NCCP	A substantially complete draft of a Natural Community Conservation Plan (NCCP) that is released after January 1, 2016, to the general public, plan participants, and CDFW.
advance mitigation	Compensatory mitigation for impacts on ecological resources (species and their habitats) and other natural resources that is implemented prior to impacts occurring.

¹³ Unless cited otherwise, all definitions are excerpted or modified from AB 2087 or are modified from the State Wildlife Action Plan.

¹⁴ California State Legislature Glossary of Legislative Terms, definition of “Bill.” Available: <http://www.legislature.ca.gov/quicklinks/glossary.html>.

¹⁵ <https://www.wildlife.ca.gov/Data/Analysis/Ace>

¹⁶ Fish & G. Code, § 1856, subdivisions (b)(1) and (f)(14)

¹⁷ Adapted from Fish & G. Code, § 2805, subdivisions (a) and (g)

Term/Acronym/ Abbreviation	Definition¹³
biodiversity	The full array of living things considered at all levels, from genetic variants of a single species to arrays of species and arrays of genera, families, and higher taxonomic levels; includes natural communities and ecosystems.
CDFW – California Department of Fish and Wildlife	California Department of Fish and Wildlife
CEHC—California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California	A statewide assessment of essential habitat connectivity completed by consultants and commissioned by CDFW and Caltrans; ¹⁸ the assessment used the best available science, data sets, and spatial analysis and modeling techniques to identify large remaining blocks of intact habitat or natural landscape and model linkages between them that need to be maintained, particularly as corridors for wildlife.
CEQA – California Environmental Quality Act	California Environmental Quality Act (California Public Resources Code, sections 21000 - 21178, and Title 14 CCR, section 753, and Chapter 3, sections 15000 - 15387).
CESA – California Endangered Species Act	California Endangered Species Act (Fish and Game Code § 2050-2115.5).
climate change vulnerability	Refers to the degree to which an ecological system, natural community, habitat, or individual species is likely to be adversely affected as a result of changes in climate and is often dependent on factors such as exposure, sensitivity, and adaptive capacity.
CNDDB – California Natural Diversity Database	California Natural Diversity Database is an inventory of the status and locations of rare plants and animals in California. ¹⁹
compensatory mitigation	Actions taken to fulfill, in whole or in part, mitigation requirements under state or federal law or a court mandate.
conservation, conserve	The use of habitat and other natural resources in ways such that they may remain viable for future generations. This includes permanent protection of such resources. See “permanently protect.”

¹⁸ *California Essential Habitat Connectivity Project*. Available: <https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC>.

¹⁹ <https://www.wildlife.ca.gov/Data/CNDDB>

Term/Acronym/ Abbreviation	Definition¹³
conservation action	An action identified in an RCIS that, when implemented, would permanently protect or restore, and perpetually manage, conservation elements, including focal species and their habitats, natural communities, ecological processes, and wildlife corridors. In contrast, a habitat enhancement action would have long-term durability but would not involve acquiring land or permanently protecting habitat – see habitat enhancement action. A conservation action is developed to achieve one or more conservation objectives. A conservation action may be implemented through a variety of conservation investments or MCAs. A conservation action that is implemented through an MCA would create conservation credits to be used as compensatory mitigation.
conservation easement	A perpetual conservation easement that complies with Chapter 4 (commencing with Section 815) of Title 2 of Part 2 of Division 2 of the Civil Code. ²⁰
conservation element	An element that is identified and analyzed in an RCIS that will benefit from conservation actions and habitat enhancement actions set forth in the RCIS. Conservation elements include focal species and their habitats, natural communities, biodiversity, habitat connectivity, ecosystem functions, water resources, and other natural resources. Conservation elements may benefit through both conservation investments and MCAs.
conservation goal	Broad, guiding principle that describes a desired future condition for a focal species, other species, or other conservation element. Each conservation goal is supported by one or more conservation objectives.
conservation investment	Conservation actions or habitat enhancement actions that are implemented under an approved RCIS, but the implementer does not create credits through an MCA with CDFW. Conservation investments are typically funded by public agencies and nonprofit or other philanthropic organizations.

²⁰ “Conservation easement” includes a conservation easement as defined in Civil Code section 815.1 and an agricultural conservation easement as defined in Pub. Resources Code, § 10211.

Term/Acronym/ Abbreviation	Definition¹³
conservation priority	A conservation or habitat enhancement action (e.g., land acquisition, restoration, or habitat enhancement) that is identified based on its importance for benefiting and contributing to the conservation of focal species and their habitats, or other conservation elements within an RCIS area.
conservation purpose	Statement or statements in an RCIS that identify focal species and other conservation elements within the RCIS area and which outline conservation actions or habitat enhancement actions that, if implemented, will sustain and restore these resources.
creation (of natural community or focal species' habitat)	The creation of a specified resource condition where none existed before. See “establishment.”
critical habitat	Habitat designated as critical ²¹ refers to specific areas occupied by a federally-listed species at the time it is listed, and that are essential to the conservation of the species and that may require special management considerations or protection. Critical habitat also includes specific areas outside occupied habitat into which the species could spread and that are considered essential for recovery of the species.
CWHR—California Wildlife Habitat Relationships	System that contains the life history, geographic range, habitat relationships, and management information for over 700 regularly occurring species of amphibians, reptiles, birds, and mammals in the state; allows users to produce queries to generate lists of species by geographic location or habitat type and provides information on expert opinion-based habitat suitability ranks for each species within each habitat type. ²²
ecological function	Ecological function refers to the roles and relationships (e.g., predator and prey relationships) of organisms within an ecological system, and the processes (e.g., pollination, decomposition) that sustain an ecological system. See also, “ecosystem function.”
ecological resources	Species, habitats, biological resources, and natural resources identified in an RCA or RCIS. See “conservation element” and “natural resources.”

²¹ 16 U.S.C. § 1532(5)(a)

²² <https://www.wildlife.ca.gov/Data/CWHR>

Term/Acronym/ Abbreviation	Definition¹³
ecoregion, sub-ecoregion	As used in this document, ecoregion means a USDA Section ²³ and sub-ecoregion means a portion of the USDA Section or USGS Hydrological Units (assigned hydrological unit codes; HUC). ²⁴ The U.S. Department of Agriculture (USDA) describes four geographic levels of detail in a hierarchy of regional ecosystems including domains, divisions, provinces, and sections. Sections are subdivisions of provinces based on major terrain features, such as a desert, plateau, valley, mountain range, or a combination thereof.
ecosystem	A natural unit defined by both its living and non-living components; a balanced system of the exchange of nutrients and energy. Compare with “habitat.”
ecosystem function	The ecosystem processes involving interactions between physical, chemical, and biological components, such as dynamic river meander, floodplain dynamism, tidal flux, bank erosion, and other processes necessary to sustain the ecosystem and the species that depend on it.
ecosystem services	The beneficial outcomes to humans from ecosystem functions such as supplying of oxygen; sequestering of carbon; moderating climate change effects; supporting the food chain; harvesting of animals or plants; providing clean water; recharging groundwater; abating storm, fire, and flood damage; pollinating and fertilizing for agriculture; and providing scenic views.
endemic	A species, subspecies, or variety found only in a specified geographic region.
enhancement	A manipulation of an ecological resource or natural resource that improves a specific ecosystem function. An enhancement does not result in a gain in protected or conserved land, but it does result in an improvement in ecological or ecosystem function.

²³ Goudey, C.B., and D.W. Smith, eds. 1994. Ecoregions California07_3. McClellan, CA. Remote Sensing Lab. Updated with ECOMAP 2007: Cleland, D.T.; Freeouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007. Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000] [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service. Miles and Goudey 1997. *Ecological Subregions of California*. Technical Report R5-EM-TP-005, USDA Forest Service, Pacific Southwest Region, San Francisco, CA.

²⁴ The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), the United States Geological Survey (USGS), and the Environmental Protection Agency (EPA). The Watershed Boundary Dataset (WBD) was created from a variety of sources from each state and aggregated into a standard national layer for use in strategic planning and accountability. Available: <http://datagateway.nrcs.usda.gov>.

Term/Acronym/ Abbreviation	Definition ¹³
essential connectivity areas	Those areas essential for ecological connectivity between natural landscape blocks, as depicted in the Essential Connectivity Map prepared as part of CEHC Project, ²⁵ or other connectivity report, plan, or map approved by CDFW or that represents best available science.
establishment	The manipulation of the physical, chemical, or biological characteristics present on a site to develop an aquatic or terrestrial habitat resource for Focal Species. Establishment will result in a gain in resource area and/or function. See “creation.”
focal species	Sensitive species that are identified and analyzed in an RCIS and will benefit from conservation actions and habitat enhancement actions set forth in the RCIS. Focal species may benefit through both conservation investments and MCAs. See also, “sensitive species”, “special-status species”, and “non-focal species”.
Guidelines	Regional Conservation Investment Strategies Program Guidelines
habitat	An ecological or environmental area that is, or may be, inhabited by a species of animal, plant or other type of organism. It is also the physical and biological environment that surrounds, influences, and is utilized by a species’ population and is required to support its occupancy. See also, “CWHR—California Wildlife Habitat Relationships.”
habitat connectivity	The capacity of habitat to facilitate the movement of species and ecological functions.

²⁵ *California Essential Habitat Connectivity Project*. Available: <https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC>.

Term/Acronym/ Abbreviation	Definition¹³
habitat enhancement action	An action identified in an RCIS that, when implemented, is intended to improve the quality of wildlife habitat, or to address risks or stressors to wildlife. A habitat enhancement action is developed to achieve one or more conservation objectives. A habitat enhancement action would have long-term durability but would not involve acquiring land or permanently protecting habitat. In contrast, a conservation action would permanently protect or restore, and perpetually manage, conservation elements – see Conservation Action. Examples of habitat enhancement actions include improving in-stream flows to benefit fish species, enhancing habitat connectivity, and controlling or eradicating invasive species. A habitat enhancement action may be implemented through a variety of conservation investments or MCAs. A habitat enhancement action that is implemented through an MCA would create habitat enhancement credits intended for use as compensatory mitigation for temporary impacts. ²⁶
HCP – Habitat Conservation Plan	Habitat Conservation Plan. A planning document that is required as part of an application for an incidental take permit under the federal Endangered Species Act. HCPs provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. HCPs describe the anticipated effects of the proposed taking, how those impacts will be minimized or mitigated, and how the HCP is to be funded. ²⁷
HUC – Hydrologic Unit Code	A code identifying a unique hydrologic unit. ²⁸
Implementing Entity	The organization designated in an NCCP and associated Implementing Agreement that is responsible for implementing the NCCP. Implementing Entities can be non-profit organizations, joint-powers authorities, local governments (such as cities or counties), or others.

²⁶ Fish & G. Code, § 1856, subdivision (d) states that “...the habitat enhancement action shall remain in effect at least until the site of the environmental impact is returned to pre-impact ecological conditions.”

²⁷ <https://www.fws.gov/endangered/esa-library/pdf/hcp.pdf>

²⁸ The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), the United States Geological Survey (USGS), and the Environmental Protection Agency (EPA). The Watershed Boundary Dataset (WBD) was created from a variety of sources from each state and aggregated into a standard national layer for use in strategic planning and accountability. Available: <http://datagateway.nrcs.usda.gov>.

Term/Acronym/ Abbreviation	Definition¹³
invasive species	Invasive species means, with regard to a particular ecosystem, a non-native organism whose introduction causes or is likely to cause economic or environmental harm, or harm to human, animal, or plant health. ²⁹
LSA – Lake and Streambed Alteration	Lake and Streambed Alteration Program (Fish and Game Code sections 1600-1617). ³⁰
MCA—Mitigation Credit Agreement	An agreement between CDFW and one or more persons or entities that identifies the types and numbers of credits the person(s) or entity(ies) proposes to create by implementing one or more conservation actions or habitat enhancement actions. An MCA includes the terms and conditions under which those credits may be used. The person or entity may create and use, sell, or otherwise transfer the credits upon CDFW’s approval that the credits have been created in accordance with the MCA. To enter into an MCA with CDFW, a person or entity shall submit a draft MCA to CDFW for its review, revision, and approval. An MCA may only be created within an area where an RCIS has been approved.
metric	The indicator (e.g., area, habitat quality, known or estimated population size, etc.) by which the net change can be measured, using existing technology, from implementation of the proposed conservation actions or habitat enhancement actions relative to performance standards, to determine achievement of the RCIS’s objectives.
natural community	A group of organisms living together and linked together by their effects on one another and their responses to the environment they share. ³¹ A general term often used synonymously with vegetation community and aquatic community.
natural resources	Biological and ecological resources including species and their habitats, Waters of the State, Waters of the United States, wetlands, and natural communities. See “ecological resources” and “conservation element.”

²⁹ Obama, Barack – the White House, Executive Order -- Safeguarding the Nation from the Impacts of Invasive Species. December 5, 2016. Available: <https://obamawhitehouse.archives.gov/the-press-office/2016/12/05/executive-order-safeguarding-nation-impacts-invasive-species>.

³⁰ Fish & G. Code, §§ 1600 – 1617

³¹ Sawyer, J.O., T. Keeler-Wolf, and J.E. Evens. 2009. *A Manual of California Vegetation*. Second Edition. Sacramento, CA: California Native Plant Society.

Term/Acronym/ Abbreviation	Definition¹³
NCCP—Natural Community Conservation Plan	A plan developed pursuant to the Natural Community Conservation Planning Act (Fish and Game Code sections 2800-2835) which identifies and provides for the regional protection of plants, animals, and their habitats, while allowing compatible and appropriate economic activity. ³² An NCCP allows for take of species listed under CESA, as well as other, non-listed species.
NCCPA – Natural Community Conservation Planning Act	Natural Community Conservation Planning Act (Fish and Game Code sections 2800-2835).
NEPA – National Environmental Policy Act	The National Environmental Policy Act requires federal agencies to assess the environmental effects of their proposed actions prior to making decisions. ³³
NMFS – National Marine Fisheries Service	National Marine Fisheries Service, or the National Oceanic and Atmospheric Administration (NOAA) Fisheries, is the federal agency responsible for the stewardship of the nation’s living marine resources and their habitat.
non-focal species	Species that are not “focal species”, as defined in these Guidelines, but which are associated with a focal species or other conservation element and will benefit from conservation actions and habitat enhancement actions set forth in the RCIS. Non-focal species may benefit through both conservation investments and MCAs. See also, “focal species”, “sensitive species”, and “special-status species”.
objective	A concise, measurable statement of what is to be achieved and that supports a conservation goal. The objective should be based on the best available scientific information to conserve the focal species or other conservation elements for which the conservation goal and objective is developed. It should be measurable by using a standard metric or scale (i.e., number, percent), in a region (e.g., county, watershed, jurisdictional area) over a period of time (e.g., years).
permanently protect	Permanent protection means: (1) recording a conservation easement and (2) providing secure, perpetual funding for management of the land, monitoring, legal enforcement, and defense.

³² Fish & G. Code, §§ 2800 – 2835

³³ Pub. L. 91-190, 42 U.S.C. 4321-4347, January 1, 1970, as amended by Pub. L. 94-52, July 3, 1975, Pub. L. 94-83, August 9, 1975, and Pub. L. 97-258, § 4(b), Sept. 13, 1982.

Term/Acronym/ Abbreviation	Definition¹³
population	The number of individuals of a particular taxon inhabiting a defined geographic area.
pressure	See “stressor, pressure.”
RCA—Regional Conservation Assessment	An assessment that provides information and analyses that document the ecosystems, ecosystem functions, species, habitat, protected and conserved areas, and habitat linkages within an ecoregion to provide the appropriate context for nonbinding, voluntary conservation strategies and actions. These assessments include information for the identification of areas with the greatest probability for long-term ecosystem conservation success incorporating co-benefits of ecosystem services, such as carbon cycling, water quality, and agricultural benefits. An RCA may be used to provide context at an ecoregional or sub-ecoregional scale to assist with the development of an RCIS. RCAs are intended to provide scientific information for the consideration of public agencies and their preparation is voluntary.
RCA or RCIS area	The geographic area encompassed by an RCA or RCIS.
RCA or RCIS proponent	The public agency or group of public agencies developing an RCA or RCIS for review and approval by CDFW and who is responsible for the technical and administrative updates of an RCA or RCIS.
RCIS—Regional Conservation Investment Strategy	Information and analyses to inform nonbinding and voluntary conservation actions and habitat enhancement actions that would advance the conservation of focal species and their habitats, natural communities, and other conservation elements. The RCIS provides nonbinding, voluntary guidance for the identification of conservation priorities, investments in ecological resource conservation, or identification of priority locations for compensatory mitigation for impacts on species and natural resources. RCISs are intended to provide scientific information for the consideration of public agencies and are voluntary. RCISs do not create, modify, or impose regulatory requirements or standards, regulate the use of land, establish land use designations, or affect the land use authority of, or exercise of discretion by, any public agency. RCISs are required if MCAs are to be developed.

Term/Acronym/ Abbreviation	Definition¹³
recovery	The process by which the decline of an endangered or threatened species is halted or reversed or threats to its survival are neutralized, so that its long-term survival in nature can be ensured. Recovery entails actions to achieve the conservation and survival of a species, ³⁴ including actions to prevent any further erosion of a population’s viability and genetic integrity. Recovery also includes actions to restore or establish environmental conditions that enable a species to persist (i.e., the long-term occurrence of a species through the full range of environmental variation).
recovery plan	A document published by USFWS, NMFS, or CDFW that lists the status of a listed species and the actions necessary to remove the species from the endangered species list.
rehabilitation	Manipulation of a piece of land with the goal of repairing natural or historic ecosystem functions to degraded habitat or natural resources. This results in an improvement in ecological or ecosystem functions, but it does not result in a gain in area.
restore, restoration	Manipulation of a site with the goal of returning species, habitat, and ecological and ecosystem functions to a site that historically supported such species, habitat, and functions, but which no longer supports them due to the loss of one or more required ecological factors or as a result of past disturbance. Compare with “conservation,” “preserve,” and “rehabilitation.”
sensitive species	Any special-status species identified by a state or federal agency. See also, “focal species” and “special-status species”.
SCV – Survey of California Vegetation	The Survey of California Vegetation is the vegetation mapping standard developed and maintained for the state by CDFW (Fish and Game Code 1940). ³⁵
special-status species	For the purpose of the Program, a species identified as endangered, threatened, or candidate under state or federal law; as rare or fully protected under state law; or otherwise identified by CDFW through the approval of an RCIS. See also, “focal species” and “sensitive species”.

³⁴ U.S. Fish and Wildlife Service and National Marine Fisheries Service. 1998. *Recovery Plan for Upland Species of the San Joaquin Valley, California*. Portland, OR: Region 1.

³⁵ <https://www.wildlife.ca.gov/Data/VegCAMP/Mapping-Standards>

Term/Acronym/ Abbreviation	Definition¹³
SGCN – Species of Greatest Conservation Need	Species of Greatest Conservation Need are selected, for each state, to indicate the status of biological diversity in the state, specifying at-risk species that have the greatest need for conservation. The latest SGCN list for the state of California is found in the California State Wildlife Action Plan 2015 Update. ³⁶
SSC – Species of Special Concern	Species of Special Concern ³⁷ is an administrative designation and carries no formal legal status. The intent of designating SSCs is to: 1) focus attention on animals considered potentially at conservation risk by CDFW, other state, local and federal governmental entities, regulators, land managers, planners, consulting biologists, and others; 2) stimulate research on poorly known species; and 3) achieve conservation and recovery of these animals before they meet CESA criteria for listing as threatened or endangered.
stressor, pressure	Stressor is a degraded ecological condition of a focal species or other conservation element that resulted directly or indirectly from a negative impact of pressures such as habitat fragmentation. A pressure is an anthropogenic (human-induced) or natural driver that could result in changing the ecological conditions of a focal species or other conservation element. Pressures can be positive or negative depending on intensity, timing, and duration. Negative or positive, the influence of a pressure to the target focal species or other conservation elements is likely to be significant.
sub-ecoregion	See “ecoregion, sub-ecoregion.”

³⁶ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians. Appendix C: Species of Greatest Conservation Need.* Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109224&inline>.

³⁷ <https://www.wildlife.ca.gov/Conservation/SSC>

Term/Acronym/ Abbreviation	Definition¹³
SWAP– California State Wildlife Action Plan	The California State Wildlife Action Plan (SWAP) is a CDFW publication developed to address the highest conservation priorities of the state, providing a blueprint for actions necessary to sustain the integrity of California’s diverse ecosystems. ³⁸ CDFW also created companion plans to support SWAP 2015 ³⁹ implementation through collaboration with partner agencies and organizations. The companion plans identify shared priorities among partner organizations to conserve natural resources in nine sectors that are experiencing significant pressures affecting natural resources. ⁴⁰
USDA – U.S. Department of Agriculture	U.S. Department of Agriculture, the federal agency providing leadership on food, agriculture, natural resources, rural development, nutrition, and related issues based on public policy, the best available science, and effective management.
USFWS – U.S. Fish and Wildlife Service	U.S. Fish and Wildlife Service, the federal agency responsible for conserving, protecting and enhancing fish, wildlife and plants and their habitats.
USGS – U.S. Geological Survey	U.S. Geological Survey, the federal agency that provides science about natural hazards and natural resources.
VegCAMP – Vegetation Classification and Mapping Program	The Vegetation Classification and Mapping Program develops and maintains California’s expression of the National Vegetation Classification System. ⁴¹
watershed	An area or ridge of land that contains a common set of streams and rivers that all drain into one location such as a marsh, stream, river, lake, or ocean.
working land	An area where people live and work in a way that allows ecosystems or ecosystem functions to be sustained (e.g., farms, ranches). Human activities are done in a way that minimizes disturbance on native plants and animals while still retaining the working nature of the landscape.

³⁸ <https://www.wildlife.ca.gov/SWAP/Final>

³⁹ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians*. Edited by Armand G. Gonzales and Junko Hoshi. Prepared with assistance from Ascent Environmental, Inc., Sacramento, CA. Available: <https://www.wildlife.ca.gov/SWAP>.

⁴⁰ <https://www.wildlife.ca.gov/SWAP/Final/Companion-Plans>

⁴¹ <https://www.wildlife.ca.gov/Data/VegCAMP>



Regional Conservation Assessments

3.1 Introduction

This section provides an overview of the required information to develop a **Regional Conservation Assessment (RCA)**, an optional tool that can provide valuable context for **Regional Conservation Investment Strategies (RCISs)**. The **California Department of Fish and Wildlife (CDFW)** can approve an RCA only for the purpose of developing an RCIS.⁴² An RCA is not required for submitting an RCIS to CDFW for review and approval.⁴³ If an RCA that has been approved by CDFW encompasses or overlaps with the area of a proposed RCIS, the RCIS shall explain how and to what extent it has incorporated the RCA information and analysis.⁴⁴

At an **ecoregional** scale, RCAs will identify areas with the greatest probability for long-term ecosystem **conservation** success with co-benefits of **ecosystem services** such as carbon sequestration, protection against flood damage and other risks, support of the food chain, and agricultural benefits, water quality, and scenic views. An RCA includes information and analyses that document species, **ecosystems, ecosystem functions**, protected and conserved lands, and wildlife corridors and linkages within an ecoregion. RCAs are expected to conform to ecoregional geographic areas.⁴⁵ RCAs will serve as a valuable tool for assessing conservation values in an ecoregional area.

Using existing, readily available geospatial information for species, the distribution of natural communities, standard vegetation classifications, and other standardized data, RCAs will identify and summarize relevant⁴⁶ regional conservation values, **pressures**, and **stressors** including, but not limited to, conservation areas, **habitat connectivity** values, and **climate change vulnerability**. The RCA will consider existing conservation plans such as the current version of the **California State Wildlife Action Plan (SWAP)** and approved or **administrative draft Natural Community Conservation Plans (NCCPs)**. Approved RCAs will be used to provide context at an ecoregional scale to assist with the development of subsequent, finer-scale regional RCISs and **Mitigation Credit Agreements (MCAs)**.

⁴² Fish & G. Code, § 1853, subdivision (a)

⁴³ Fish & G. Code, § 1853, subdivision (a)

⁴⁴ Fish & G. Code, § 1853, subdivision (b)

⁴⁵ Fish & G. Code, § 1851, subdivision (k)

⁴⁶ Relevance pertains to identifying the conservation values, pressures, and stressors that can help determine in an RCIS achievable conservation goals and objectives for sustaining **focal species** and their habitats and other conservation elements.

RCAs shall include provisions ensuring compliance with all applicable state and local requirements. As a non-regulatory document, an RCA cannot preempt the authority of local agencies to implement infrastructure and urban development in local general plans. An RCA shall not create, modify, or impose regulatory requirements or standards, nor regulate the use of land, establish land use designations, or affect the land use authority or the exercise of discretion by any public agency.⁴⁷ An RCA may be proposed by CDFW or any other public agency. The public agency proposing and developing the RCA shall notify CDFW of its intent to develop an RCA (see Section 1.4 – Program Contacts).

See Section 1.2 for information regarding the terms “shall”, “must”, “should” and “may”, as used in these **Guidelines**, as well as recommendations for collaboration and coordination.

3.2 Required Components of an RCA

The RCA shall identify and summarize the species, ecosystems, ecosystem functions, protected areas, conservation areas, and habitat connectivity relevant to the conservation assessment. It shall also identify and summarize the relevant regional pressures and stressors, including climate change vulnerability. An RCA shall be prepared using information from the current version of SWAP (and the companion plans), approved NCCPs⁴⁸ that overlap the RCA, BIOS,⁴⁹ approved RCISs that overlap with the RCA, and other information available from CDFW.

Data availability, currency, and quality vary throughout the state. An RCA shall use the most current, detailed, and accurate data and information that is consistent across the **RCA area**. An RCA shall use the best available scientific information including, but not limited to, peer-reviewed literature and datasets identified in this section. A comprehensive map or maps of elements included in the assessment is preferred but not required.

3.2.1 Description of the RCA Area

The RCA shall include a concise description of: 1) the RCA’s geographic area; 2) the rationale for why it was selected; and 3) the surrounding ecoregion(s) and any adjacent protected **habitat** areas or linkages that provide relevant context and rationale for the RCA’s development.

⁴⁷ Fish & G. Code, § 1853, subdivision (c)(8)

⁴⁸ <https://www.wildlife.ca.gov/Conservation/Planning/NCCP/Plans>

⁴⁹ BIOS is CDFW’s data catalogue of spatial data, including other species observation, distribution, and habitat datasets. Available: <https://www.wildlife.ca.gov/Data/BIOS>.

The RCA shall use the following ecoregional classifications for terrestrial and aquatic data to enable and promote consistency among RCAs throughout California:

- a. USDA Ecoregion Sections — one or more **U.S. Department of Agriculture (USDA)** ecoregion Sections.⁵⁰
- b. **U.S. Geological Survey (USGS) Hydrologic Unit Codes (HUCs)** — four-digit (HUC-4) or eight-digit (HUC-8) units.⁵¹

3.2.2 Species and Natural Communities Information

The RCA shall identify the best available scientific information and analyses, including geospatial information regarding the distribution of species and natural communities.⁵²

The RCA shall use CDFW's Natural Communities List⁵³ to enable and promote consistency with vegetation classifications in RCAs throughout California. This list is based on *A Manual of California Vegetation, Second Edition (MCVII)*,⁵⁴ which is the California expression of the U.S. National Vegetation Classification,⁵⁵ and it is developed and maintained by CDFW's **Vegetation Classification and Mapping Program (VegCAMP)**.⁵⁶ This list supersedes all other lists of terrestrial natural communities and vegetation types developed for the **California Natural Diversity Database (CNDDDB)**.⁵⁷

The RCA shall include lists of rare natural communities or other high-priority natural communities⁵⁸ that occur within the RCA area. Information on the distribution and mapped locations of rare or other high-priority natural communities is available through, but not limited to, **Survey of California Vegetation (SCV)** vegetation maps, the CNDDDB program, and the **Areas of Conservation Emphasis (ACE)** Significant Habitats dataset.

⁵⁰ Goudey, C.B., and D.W. Smith, eds. 1994. *Ecoregions California07_3*. McClellan, CA. Remote Sensing Lab. Updated with ECOMAP 2007: Cleland, D.T.; Freeouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007. *Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000]* [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service. Miles and Goudey 1997. *Ecological subregions of California*. Technical Report R5-EM-TP-005, USDA Forest Service, Pacific Southwest Region, San Francisco, CA.

⁵¹ The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), the United States Geological Survey (USGS), and the Environmental Protection Agency (EPA). The Watershed Boundary Dataset (WBD) was created from a variety of sources from each state and aggregated into a standard national layer for use in strategic planning and accountability. Available: <http://datagateway.nrcs.usda.gov>

⁵² Fish & G. Code, § 1853, subdivision (c)(2)

⁵³ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. September. Vegetation Classification and Mapping Program. Sacramento, CA. Available: <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List>.

⁵⁴ <https://www.wildlife.ca.gov/Data/VegCAMP/Publications-and-Protocols/Vegetation-Manual>

⁵⁵ https://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation/NVCS_V2_FINAL_2008-02.pdf

⁵⁶ <https://www.wildlife.ca.gov/Data/VegCAMP>

⁵⁷ <https://www.wildlife.ca.gov/Data/CNDDDB>

⁵⁸ <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>

RCA proponents shall check for the most recent version of the lists, associated vegetation descriptions, and any recent updates specific to the RCA area. Any vegetation information, including maps, developed for an RCA shall use the VegCAMP classification system and follow SCV standards.⁵⁹ If the RCA area has not been mapped to SCV standards, contact VegCAMP to determine the best readily available alternative vegetation map and associated descriptions.⁶⁰ If an approved NCCP in the RCA area uses a vegetation classification that differs from the Manual of California Vegetation, Second Edition, the RCA shall provide a cross-walk between the classifications to help ensure consistency between the RCA and the overlapping NCCP.

RCA proponents may add or emphasize species or taxonomic groups and their distribution information if those species or taxonomic groups add additional conservation values in the RCA area that are not already considered in the ACE datasets as indicated in Section 3.2.3 - Biodiversity Information and Analysis. RCA proponents shall indicate the reason for adding or emphasizing each of those species or taxonomic groups. RCA proponents should consider the information in the following list, as practicable.

- a. Covered species information from NCCPs that overlap the RCA area.
- b. When available, existing species or habitat distribution models published by CDFW or in peer-reviewed literature. If new models are developed for an RCA they should meet CDFW's best modeling practices⁶¹ and shall include a description of the new model's process and methods and how recognized species experts were involved in the development or evaluation of the model (see Section 3.3 – Data Management, Sharing, and Access).
- c. Lists of wildlife species found in the RCA area using the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California;⁶² the list of **Species of Greatest Conservation Need (SGCN)**⁶³ as defined in the current version of SWAP; and lists of **special-status species**. Special-status species lists may include plant and animal species that are listed in the following sources: under the federal Endangered

⁵⁹ <https://www.wildlife.ca.gov/Data/VegCAMP/Mapping-Standards>

⁶⁰ <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Other-Info>

⁶¹ California Department of Fish and Wildlife, Biogeographic Data Branch. December 2014. *Guidance Document for Fine-Scale Wildlife Connectivity Analysis*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93018&inline>.

⁶² California Department of Fish and Wildlife, California Wildlife Habitat Relationships Program. May 2016. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155&inline>.

⁶³ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians Appendix C: Species of Greatest Conservation Need*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109224&inline>.

Species Act or **California Endangered Species Act (CESA)**,^{64,65} CDFW animal **Species of Special Concern (SSC)**,⁶⁶ California Fully Protected Animals,⁶⁷ and additional special-status species identified by the CNDDDB special plants and special animal lists.^{68,69} In addition, lists of terrestrial vertebrates can be generated by queries of CWHR.⁷⁰ The CWHR contains life history, geographic range, and habitat suitability information for regularly occurring species of amphibians, reptiles, birds, and mammals in the state. The CWHR allows users to produce queries to generate lists of species by geographic location (e.g., ecoregion, HUC) and/or by habitat type, and provides information on expert opinion–based habitat suitability ranks for each species within each habitat type.

- d. Geospatial information on special-status species and their habitats in the RCA area. Reported information on the distribution of many of these species is available through, but not limited to, the CNDDDB program and BIOS map viewer from CDFW's Biogeographic Data Branch.⁷¹ The CNDDDB is an inventory of GIS-mapped occurrence locations of special species in California. The BIOS spatial data catalog⁷² includes additional geospatial information on the distributions of wildlife species (e.g., occurrence location data and species distribution models).

3.2.3 Biodiversity Information and Analysis

The RCA shall identify and summarize areas of high biological value within an RCA area using information from the most recent version of ACE.⁷³ ACE is a compilation and analysis of the best available statewide spatial information on California's biological richness, including species diversity, rarity, and endemism. In addition to ACE, RCA proponents may use other local or regional resources, as available. The ACE datasets identify and map the following relative to **biodiversity**:

⁶⁴ California Department of Fish and Wildlife, Biogeographic Data Branch. October 2017. *State & Federally Listed Endangered & Threatened Animals of California*. Available:

<https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline>.

⁶⁵ California Department of Fish and Wildlife, Biogeographic Data Branch. October 2017. *State & Federally Listed Endangered, Threatened, and Rare Plants of California*. Available:

<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>.

⁶⁶ <https://www.wildlife.ca.gov/Conservation/SSC>

⁶⁷ http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html

⁶⁸ California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB). October 2017. *Special Vascular Plants, Bryophytes, and Lichens List*. Available:

<http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>.

⁶⁹ California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB). October 2017. *Special Animals List*. Available: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>.

⁷⁰ <https://www.wildlife.ca.gov/Data/CWHR>

⁷¹ <https://www.wildlife.ca.gov/Explore/Organization/BDB>

⁷² The BIOS spatial data catalog can be searched by species name, or searched spatially by location.

⁷³ <https://www.wildlife.ca.gov/Data/Analysis/ACE>

- a. Native species richness, which represents overall native diversity of all species in the state, both common and rare;
- b. Rare species richness, which represents diversity of rare species;
- c. Irreplaceability, which is a weighted measure of endemism.

3.2.4 Habitat Connectivity Values

RCA proponents shall conduct analyses or use existing analyses designed to identify areas for habitat connectivity. Habitat connectivity is important to maintaining viable ecosystem functions, healthy wildlife **populations**, and gene flow. Habitat connectivity is a critical consideration when evaluating the location and association of protected lands within an RCA, and when determining how to provide for wildlife movement at different scales. Wildlife movement entails searches for food, shelter, and mates; dispersal as young find new territories; seasonal migration; and shifts to new ranges, when feasible, in response to climate change. Habitat connectivity and wildlife movement are also important to maintaining healthy gene flow of plants through pollination and seed dispersal. RCA proponents shall use habitat connectivity data and information including, but not limited to:

- a. **The California Essential Habitat Connectivity Project (CEHC)**,⁷⁴ a statewide assessment of essential habitat connectivity. The project identified large remaining blocks of intact, contiguous natural habitat (natural landscape blocks) and modeled linkages (**essential connectivity areas**) between them to best maintain habitat connectivity across the landscape. CEHC data is included in ACE.
 - **Natural Landscape Blocks** identify remaining intact lands across the state, independent of ownership. These lands contribute to habitat connectivity and are expected to have high conservation and climate resilience value because of their size, intactness, and connectedness with other natural habitats. Although the CEHC only used large natural landscape blocks (greater than 2,000 acres) due to the statewide nature of its analysis, smaller landscape blocks were identified and should be used for evaluating connectivity at a regional scale.⁷⁵
 - **Modeled Linkages, or Essential Connectivity Areas**, represent coarse-scale, generalized habitat connections between natural landscape blocks. These connections provide a broad-scale view of habitat connectivity needs at the statewide scale, but they should be supplemented with, or superseded by, fine-scale connectivity analyses at a regional scale, when available.

⁷⁴ <https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC>

⁷⁵ This data is available in BIOS as two layers: "Natural Landscape Blocks" shows blocks that are more than 2,000 acres in size, and "Natural Areas Small" shows blocks that are less than 2,000 acres in size.

- b. ACE dataset on the spatial evaluation of the relative contribution of an area to terrestrial connectivity.⁷⁶
- c. Regional, fine-scale connectivity analyses include refinements of the CEHC at a regional scale using finer-scale datasets and based on species movement needs. They may also include different methodologies applied regionally. Regional, fine-scale connectivity analyses have been or may in the future be completed for several ecoregions in the state. When such scientifically based regional connectivity analyses are readily available, these spatial datasets⁷⁷ and project reports⁷⁸ should be used in preparing an RCA. These datasets can be used to identify overall fine-scale habitat connections within or through an ecoregion, as well as critical movement corridors for individual species that may be of high priority for conservation. Some regional analyses are included in ACE.
- d. CDFW's Guidance for Fine-Scale Wildlife Connectivity Analysis⁷⁹ is a report that provides guidance to complete a fine-scale wildlife connectivity analysis that meets CDFW standards. The report includes information on species selection criteria and landscape block identification and details the model development process using examples from CDFW's case study analysis of wildlife connectivity across the northern Sierra Nevada foothills that was conducted after the completion of the CEHC project. RCA proponents are not required to develop a fine-scale connectivity analysis; however, if RCA proponents choose to develop this type of analysis, CDFW's guidance should be used. RCA proponents must submit a description of the modeling process, methods, and metadata that meet CDFW's minimum metadata standards, and model reviews by recognized species experts (see Section 3.3 – Data Management, Sharing, and Access).
- e. Fish Passage Assessment Database⁸⁰ and/or CDFW Fisheries Branch list of priority fish barriers. The Fish Passage Assessment Database is an ongoing inventory of known and potential barriers to anadromous fish in California. It compiles currently available fish passage information from more than two hundred data sources and allows past and future barrier assessments to be standardized and stored in one place. The inventory is to be used to identify barriers suitable for removal or modification to **restore** access to spawning and rearing habitat. Contact CDFW Fisheries Branch for their list of priority fish barriers in the RCA area.

⁷⁶ California Department of Fish and Wildlife, Biogeographic Data Branch. February 2018. *ACE Dataset Fact Sheet; Terrestrial Connectivity*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835&inline>.

⁷⁷ Available in BIOS: <https://www.wildlife.ca.gov/Data/BIOS>.

⁷⁸ <https://www.wildlife.ca.gov/Conservation/Planning/Connectivity>

⁷⁹ California Department of Fish and Wildlife, Biogeographic Data Branch. December 2014. *Guidance Document for Fine-Scale Wildlife Connectivity Analysis*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93018&inline>.

⁸⁰ <https://nrm.dfg.ca.gov/PAD/>

3.2.5 Existing Conservation Areas

RCA proponents shall conduct analyses or use existing spatial analyses to identify ecological relationships between existing conservation areas and other existing protected areas. The spatial analysis should identify the degree to which **conservation elements** are captured in existing protected areas including, but not limited to, the total acreage and percent of the RCA area currently in conservation protection and the acreage and percent of each habitat type currently in conservation protection. The analysis should consider the location, size, habitats, and level of connectivity of the protected areas to help identify priority areas for additional conservation efforts. The analysis shall include the following, where applicable:

- a. Reserve networks within any NCCPs that overlap the RCA area;
- b. The California Protected Areas Database (CPAD);⁸¹
- c. Protected Areas Database of the United States (PAD-US);⁸²
- d. Federally owned/managed lands including National Forests, National Parks, National Monuments, Bureau of Land Management lands, and other federal lands;
- e. California’s network of Marine Protected Areas, Areas of Biological Significance, and other areas of special biological significance to coastal, marine, and aquatic ecosystems;
- f. CDFW owned/managed lands;
- g. California Department of Parks and Recreation–owned/managed lands;
- h. California Conservation Easement Database (CCED);⁸³
- i. National Conservation Easement Database (NCED);⁸⁴
- j. Other readily available data on conserved and protected areas.

While not required, it is recommended that protected lands’ management strategies be taken into consideration by the RCA proponent when evaluating the level of conservation protection on existing protected lands. The protected lands’ management strategies are captured by the Gap Analysis Program (GAP) Status Rank⁸⁵ as provided in CPAD and PAD-US. The GAP Status Rank, when available, gives an indication of the level of conservation protection afforded to various lands based on their management strategies.

⁸¹ <http://www.calands.org/>

⁸² <https://gapanalysis.usgs.gov/padus/>

⁸³ <http://www.calands.org/cced/>; additional conservation easement information may be available from local land trusts

⁸⁴ <https://www.conservationeasement.us/>

⁸⁵ <https://gapanalysis.usgs.gov/padus/data/>

3.2.6 Pressures and Stressors

The RCA shall identify the pressures and stressors for the ecoregion(s) that occur in the RCA area. An RCA is not required to include pressures and stressors for each identified species in the RCA. An RCA shall identify and summarize relevant regional pressures and stressors, including those associated with climate change and **invasive species**. As a starting point, RCA proponents shall indicate and reference pressures and stressors provided in the current version of SWAP (Tables 1.5-2 and 1.5-3 in SWAP 2015), and identify, summarize, and reference additional regional pressures and stressors indicated in approved NCCPs within the RCA area.

3.2.6.1 Climate Change Vulnerability Assessments

RCA proponents shall conduct analyses or use existing analyses and information to identify exposure of the RCA area to climate change (e.g., magnitude of projected changes in temperature and precipitation, sea level rise), climate vulnerable resources in the RCA (e.g., vulnerable fish, wildlife, and plant species), and areas that may be resilient to the impacts of climate change.

For existing information on climate vulnerability of California species and habitats and links to associated datasets, please refer to CDFW's climate change vulnerability assessment website.⁸⁶ This website will be maintained to provide relevant resources that will aid proponents in developing content for this section of the RCA in accordance with the list of requirements below.

An RCA shall include summaries of the following relevant existing data, when available:

- a. Lists of climate-vulnerable species or species groups and natural communities developed or supported by CDFW. These include species, species groups, and natural communities recognized in climate vulnerability assessments for birds, mammals, reptiles, amphibians, fish, and plants in California including those listed in the current version of SWAP (Criteria 3 in the SGCN list of SWAP 2015).⁸⁷ Vulnerable vegetation assessments may be found in *A Climate Change Vulnerability Assessment of California's Terrestrial Vegetation*.⁸⁸
- b. Other factors that may contribute to climate resilience such as diverse land facets⁸⁹ (geophysical features expected to support biodiversity in a changing climate) and

⁸⁶ <https://www.wildlife.ca.gov/Conservation/Climate-Science/Resources/Vulnerability>

⁸⁷ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians. Appendix C: Species of Greatest Conservation Need*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109224&inline>.

⁸⁸ Thorne, J.H., R.M. Boynton, A.J. Holguin, J.A.E. Stewart, & J. Bjorkman. (2016) *A Climate Change Vulnerability Assessment of California's Terrestrial Vegetation*. California Department of Fish and Wildlife (CDFW), Sacramento, CA. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116208&inline>

⁸⁹ https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/oregon/science/Documents/PNW_Terrestrial_Climate_Resilience_Report_March3_2015.pdf

high levels of connectivity (corridors to facilitate movement as species' ranges and species' habitats shift in response to climate change). Where available, data or information should be included that demonstrate how land facets and/or corridors within the RCA may promote climate resilience.

- c. Geospatial information on climate exposure with respect to species, including information from existing projected range-shift models for wildlife species developed for CDFW climate vulnerability analyses, where available.
- d. Geospatial information on landscape-scale climate exposure, such as:
 - High-climate-exposure **natural community** areas as identified by the Climate Change Vulnerability Assessment of California's Terrestrial Vegetation.⁹⁰ These represent habitats that are expected to experience major changes in composition, such as habitat type conversion, due to changes in temperature and water availability.
 - Coastal areas expected to be impacted by sea level rise. Tools such as Cosmos,⁹¹ CalAdapt,⁹² the NOAA Sea Level Rise viewer,⁹³ the Coastal Conservancy's Climate Ready Program,⁹⁴ and California's Climate Change web page on coastal and ocean resources⁹⁵ may assist in identifying stressors associated with sea level rise.
- e. Geospatial information on landscape-scale climate resilience, such as climate-resilient natural community areas representing habitats expected to remain stable in the face of climate change (i.e., potential climate refugia). See ACE datasets on the probability that a given location within California will serve as refugia under climate change.
- f. Other readily available analyses that indicate exposure of the RCA area to climate change, climate vulnerable resources in the RCA, and areas that may be resilient to the impacts of climate change.

3.2.6.2 Invasive Species

The RCA shall include invasive species within the RCA area as a pressure or stressor to conservation elements. Information is available from CDFW's Invasive Species

⁹⁰ Thorne, J.H., R.M. Boynton, A.J. Holguin, J.A.E. Stewart, & J. Bjorkman, California Department of Fish and Wildlife. 2016. *A Climate Change Vulnerability Assessment of California's Terrestrial Vegetation*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116208&inline>.

⁹¹ https://walrus.wr.usgs.gov/coastal_processes/cosmos/

⁹² <http://cal-adapt.org/tools/slr-calflod-3d/>

⁹³ <https://coast.noaa.gov/slr/beta/#/layer/slr>

⁹⁴ http://scc.ca.gov/climate_change/

⁹⁵ http://www.climatechange.ca.gov/adaptation/coast_and_oceans.html

Program,⁹⁶ California Department of Food and Agriculture,⁹⁷ Invasive Species Council of California,⁹⁸ California Invasive Plant Council online inventory,⁹⁹ and county agricultural commissioner offices.¹⁰⁰

3.2.7 Other Considerations

The RCA shall consider existing major water, transportation, and transmission infrastructure facilities in the assessment area and account for reasonably foreseeable development of major infrastructure facilities including, but not limited to, renewable energy and housing.¹⁰¹ Reasonably foreseeable development may be identified through consideration of the following sources:

- a. Renewable energy projects—information from the county or the California Energy Commission;
- b. Infrastructure projects—identified in local, state, and federal agencies’ plans and/or in **California Environmental Quality Act** (CEQA) and **National Environmental Policy Act** (NEPA) documents;
- c. Housing and other development—identified in city and county general and specific plans and in CEQA and NEPA documents.

3.2.8 Consistency and Compliance

An RCA shall be consistent with administrative draft and approved NCCPs, regional federal **Habitat Conservation Plans** (HCPs), and approved **recovery plans** within the ecoregion or sub-ecoregion included in the RCA.¹⁰² An RCA shall include provisions ensuring that the RCA is consistent with and complements approved NCCPs and regional federal HCPs that overlap the RCA area.¹⁰³ The RCA shall also include an explanation of whether, and to what extent, the RCA is consistent with any previously approved or amended assessment, state or federal recovery plan, or other state or federal approved conservation strategy that overlaps with the RCA area.¹⁰⁴ This can be accomplished by including brief summaries that compare the RCA components (such as natural communities, habitat connectivity areas, existing conservation lands, **conservation priorities** and conservation areas) to those identified in these other

⁹⁶ <https://www.wildlife.ca.gov/Conservation/Invasives>

⁹⁷ <http://www.cdfa.ca.gov/plant/>

⁹⁸ <http://www.iscc.ca.gov/species.html>

⁹⁹ <http://cal-ipc.org/paf/>

¹⁰⁰ http://www.cdfa.ca.gov/exec/county/county_contacts.html

¹⁰¹ Fish & G. Code, § 1853, subdivision (c)(7)

¹⁰² Fish & G. Code, § 1853, subdivision (c)(6)

¹⁰³ Fish & G. Code, § 1853, subdivision (c)(9)

¹⁰⁴ Fish & G. Code, § 1853, subdivision (c)(10)

plans. If inconsistencies exist, explain the scientific basis for how and why the RCA is acceptable.

An RCA shall consider local general plans and include provisions ensuring that the RCA complies with all applicable state and local requirements and that the RCA and any RCIS within the RCA area do not preempt the authority of the State, or of local agencies to implement infrastructure and urban development in local general plans.¹⁰⁵

3.3 Data Management, Sharing, and Access

RCA proponents are encouraged to consult with CDFW RCIS Program staff when developing a plan for data management during the RCA development and approval period.

All data and models used for or created for the RCA shall be readily available to potential users, including RCA proponents, and shall not depend upon the acquisition of proprietary data, software, or licenses. If an RCA proponent wishes to use proprietary data or models not readily available to the public, the proponent shall confer with CDFW.

All spatial and non-spatial data created during RCA development shall be submitted to CDFW via a File Transfer Protocol (FTP) site at the time that the RCA is submitted to CDFW for review. The RCA proponent shall compile and provide spatial input and summary data in an industry-standard (Environmental Systems Research Institute [ESRI]-readable) geospatial format and include metadata that meets CDFW's minimum metadata standards.¹⁰⁶ The RCA proponent must request that CDFW provide a link to the FTP site, which will remain active for approximately two weeks.

RCA proponents may also choose to upload this information onto another (non-CDFW) web portal for interactive use to allow all interested parties to generate queries of regional conservation values within the RCA area. The web portal should clearly display the process-related steps used to compile, develop, and derive RCA information. All spatial data included in the web portal shall have metadata meeting CDFW's minimum metadata standards and be available for download in an industry-standard geospatial format. Examples of an interactive platform include the Desert Renewable Energy Conservation Plan Gateway portal¹⁰⁷ and the Bay Area Conservation Lands Network Explorer Tool.¹⁰⁸

¹⁰⁵ Fish & G. Code, § 1853, subdivision (c)(8)

¹⁰⁶ <https://wildlife.ca.gov/Data/BIOS/Metadata>

¹⁰⁷ Desert Renewable Energy Conservation Plan (DRECP) Gateway: <https://drecp.databasin.org>

¹⁰⁸ <http://www.bayarealands.org/explorer/>

3.4 Review Process for RCAs

This section provides an overview of CDFW’s review and approval process for RCAs, which also applies to amended RCAs. An RCA is not required for CDFW approval of an RCIS.¹⁰⁹ However, if an RCA has been approved by CDFW, a proposed RCIS that overlaps the RCA area shall explain how and to what extent it has incorporated that RCA’s information and analysis.¹¹⁰ If inconsistencies exist, the RCIS shall include an explanation providing the scientific basis for how and why the RCIS is acceptable.

A public input and review process is recommended but not required prior to the approval by CDFW of an RCA or any subsequent amendments.

3.4.1 CDFW Review Process

After a draft RCA is submitted to CDFW for its review, CDFW shall determine that the RCA is complete or provide the RCA proponent with a written explanation of the information needed to complete the RCA. Once CDFW determines that an RCA is complete, CDFW shall make the draft RCA available to the public on CDFW’s website (see Section 1.4 – Program Contacts).

3.4.2 Finalizing an RCA

After a final RCA is submitted to CDFW for its review and approval, CDFW shall approve the final RCA or provide the RCA applicant with a written explanation of the information needed to approve the RCA. CDFW shall make all approved RCAs available on its website.

3.5 Process to Update an RCA

RCAs are not required to be updated. However, CDFW recommends that an RCA be updated at least every ten years with current scientific information. The updated RCA shall include an explanation of the updates and whether, and to what extent, the RCA is consistent with the previously approved RCA or amended RCA. Upon completion of the update, the public agency responsible for updating the RCA shall submit it to CDFW for review and approval (see Section 1.4 – Program Contacts). CDFW recommends that public input regarding the RCA update be sought to maximize the opportunity to supplement the relevant information.

¹⁰⁹ Fish & G. Code, § 1853, subdivision (a)

¹¹⁰ Fish & G. Code, § 1853, subdivision (b)

3.6 Fee Schedule for RCAs

The current fee schedule for RCAs is available on CDFW's website (see Section 1.4 – Program Contacts).

Regional Conservation Investment Strategies Program Guidelines



Section 4

Regional Conservation Investment Strategies

4.1 Introduction

This section provides guidance on the information needed to develop a **Regional Conservation Investment Strategy (RCIS)**, and applies to all RCISs submitted as of the posting date of these **Guidelines**.¹¹¹ An RCIS should be a comprehensive regional **conservation** strategy that enables the protection of the region's **focal species** and other **conservation elements**, and promotes resilience to foreseeable **pressures** and **stressors**. RCISs will include existing, available information and analyses of conservation elements at a **sub-ecoregional** scale, including focal species and their associated **habitats**, wildlife corridors and linkages, and other relevant **natural resources** within the **RCIS area**. The intent of the RCIS Program (Program) is to identify high-value conservation and habitat **enhancement** opportunities within the RCIS area to inform and facilitate comprehensive, cohesive, and connected regional conservation outcomes. When implemented, RCIS-directed **conservation actions** and **habitat enhancement actions** will benefit species **conservation**, adaptation to climate change, and resiliency in the face of pressures and stressors.

Preparation of an RCIS by public agencies is voluntary. The use of an RCIS by any organization, entity, or individual is also voluntary. Each RCIS will incorporate the best available scientific data and existing information to identify **conservation goals** and **objectives** for focal species and important conservation elements identified in the RCIS¹¹² to identify conservation actions and habitat enhancement actions that, if implemented, will further those goals and objectives. The conservation actions and habitat enhancement actions will benefit the conservation of conservation areas, focal species and their habitats, and other conservation elements by addressing or

¹¹¹ All RCISs are subject to these September 2018 Guidelines, except for RCISs that were initiated prior to January 1, 2017 or filed a Notice of Intent (NOI) pursuant to Fish and Game Code Section 1854(c)(1) on or before September 13, 2018. To be considered for exemption from these September 2018 Guidelines, RCIS proponents must provide CDFW with adequate written documentation that they have met either one of the criteria. Those RCISs that meet the criteria will be subject to the June 2017 RCIS Guidelines unless they choose to follow the September 2018 Guidelines. Any RCIS subject to the June 2017 Guidelines must be submitted to CDFW for completeness review by March 29, 2019. In the event the RCIS is not submitted by that date, it will thereafter be subject to the September 2018 Guidelines. Notwithstanding the above, all RCISs not already submitted for CDFW review prior to September 13, 2018 are subject to requirements in the following sections (including subsections) of the September 2018 Guidelines: 1.4 – Program Contacts; 2.1 – Terms, Abbreviations, Acronyms, and Definitions; 4.2.2 – Description of the RCIS Area; 4.2.4 - Consultation, Consistency and Compliance; 4.2.5.3 – Non-focal Species Information; 4.6 – Review and Approval Process; 4.7 – Amending an RCIS; and 4.8 – Updating and Extending an RCIS.

¹¹² Fish & G. Code, § 1852, subdivision (c)(8)

responding to pressures and stressors affecting these resources. These actions may provide a basis for **conservation investments** or they may be used as the basis for developing **advance mitigation** opportunities through the **creation** of credits (see Section 5 – Mitigation Credit Agreements).

In addition to the above, it is also the intent of the Program that RCISs inform infrastructure planning and provide project proponents with additional mechanisms for identifying and developing **compensatory mitigation**. An RCIS may be used to assist in land use planning in conjunction with other land use considerations, such as physical geography, social, economic, and risk-reduction analyses.

An RCIS is nonbinding and the development of an RCIS shall not create, modify, or impose regulatory requirements or standards, regulate land use, establish land use designations, or affect the land use authority of a public agency.¹¹³ An RCIS shall include provisions ensuring compliance with all applicable state and local requirements.¹¹⁴ An RCIS shall not preempt the authority of the State, and as a non-regulatory document, an RCIS does not preempt the authority of local agencies to implement or regulate infrastructure and urban development within their jurisdiction.¹¹⁵ Project proponents in need of compensatory mitigation are not required to use or implement any action described in an RCIS. Only entities that are a party to a **Mitigation Credit Agreement (MCA)** will be required to implement the RCIS conservation goals, objectives, and conservation and habitat enhancement actions that form the basis for the MCA.¹¹⁶ Additionally, the preparation or approval of an RCIS does not alter the requirements of the **California Environmental Quality Act (CEQA)**,¹¹⁷ the **California Endangered Species Act (CESA)**,¹¹⁸ the **Natural Community Conservation Planning Act (NCCPA)**,¹¹⁹ or the **California Department of Fish and Wildlife’s (CDFW’s) Lake and Streambed Alteration (LSA)**¹²⁰ and Conservation and Mitigation Bank¹²¹ programs.

An RCIS may be proposed by CDFW or any other public agency and shall be developed in consultation with local agencies with land use authority (i.e., a city, a county, or a city and county) within the geographic area of the RCIS.¹²² Other entities whose jurisdictions are likely to be included in the RCIS’s conservation or habitat enhancement actions should be considered for participating in the RCIS planning

¹¹³ Fish & G. Code, § 1851, subdivisions (k) and (l)

¹¹⁴ Fish & G. Code, §§ 1852, subdivision (c)(7) and 1853, subdivision (c)(8)

¹¹⁵ Fish & G. Code, §§ 1852, subdivision (c)(7) and 1853, subdivision (c)(8)

¹¹⁶ Fish & G. Code, § 1855, subdivisions (a) and (c)

¹¹⁷ Pub. Resources Code §§ 21000 – 21189

¹¹⁸ Fish & G. Code, §§ 2080 – 2085

¹¹⁹ Fish & G. Code, § 2035

¹²⁰ Fish & G. Code, §§ 1600 – 1613

¹²¹ Fish & G. Code, §§ 1797 – 1799

¹²² Fish & G. Code, § 1852, subdivision (a)

process. For guidance on RCIS consultation, consistency, and compliance requirements and recommendations, see Section 4.2.4 – Consultation, Consistency and Compliance.

The public agency proposing the RCIS shall notify CDFW of its intent to develop an RCIS (see Section 1.4 – Program Contacts). Fish and Game Code section 1861 provides that CDFW can review and approve a maximum of eight RCISs.¹²³ However, an RCIS does not count toward this limit when a state water or transportation infrastructure agency has sent a letter to CDFW’s Director (see Section 4.6.1.1 - State Agency Letters) requesting the approval of the RCIS.¹²⁴ CDFW may approve an RCIS for an initial period of up to ten years.¹²⁵

See Section 1.2 for information regarding the terms “shall”, “must”, “should” and “may”, as used in these Guidelines, and recommendations to consult with stakeholders, proponents of adjacent and overlapping conservation plans in development, and CDFW’s RCIS Program staff early and ongoing through the development of RCISs. CDFW also recommends early consultation with one or more state agencies to acquire the support letters indicated in Section 4.6.1.1 – State Agency Letters.

4.2 Required Components of an RCIS

Unless otherwise indicated, the information below outlines required RCIS components pursuant to Fish and Game Code section 1852(c). Any maps provided in an RCIS should include a level of detail commensurate with the scale of the RCIS area and its resources, but do not need to include individual parcel boundaries or other specific detail. A comprehensive map or maps of **ecological resources** and **conservation priorities** is preferred but not required. In lieu of a comprehensive map, separate maps may be considered for various conservation element groupings (as indicated in Sections 4.2.5 and 4.2.6). For a conservation action or habitat enhancement action identified in an RCIS to be used to create mitigation credits, the RCIS shall include components indicated in Section 4.3 – Additional Requirements to Create MCAs.

4.2.1 Explanation of the RCIS’s Conservation Purpose

An RCIS’s **conservation purpose** should align with the goals and objectives of the current version of the **California State Wildlife Action Plan** (SWAP) and any approved **Regional Conservation Assessment** (RCA) encompassing the RCIS area. It shall also be consistent with and complement any **Natural Community Conservation Plans** (NCCPs) or federal **Habitat Conservation Plans** (HCPs) that overlap the RCIS area.

¹²³ Fish & G. Code, § 1861

¹²⁴ Sts. & Hy. Code, § 800.6(j). Passage of SB 103 (Section 12) created an exemption from the maximum of eight RCISs that CDFW can approve.

¹²⁵ Fish & G. Code, § 1854, subdivision (a)

Generally, an RCIS's conservation purpose is to identify and prioritize conservation and habitat enhancement actions within the RCIS area that, if implemented, will benefit the RCIS's conservation elements, including focal species and their habitats, and other natural resources.

The RCIS's conservation purpose shall be included in the approval request letter submitted by the state agency (see Section 4.6.1.1 - State Agency Letters).¹²⁶ This letter shall briefly state the purpose of the RCIS from both a conservation perspective and an infrastructure planning perspective, and it may be a brief (e.g., one-page) document.

4.2.2 Description of the RCIS Area

The RCIS area is the geographic area encompassed by an RCIS. The RCIS's focal species and other key ecological resources—collectively called conservation elements—should be considered when determining the RCIS area. Criteria for selecting and defining the RCIS area should be based on ecological considerations and should consider subdivisions of one or more **U.S. Department of Agriculture (USDA) ecoregions**¹²⁷ or **U.S. Geological Survey (USGS) Hydrologic Unit Codes (HUCs)**.¹²⁸ An RCIS area may also be further modified by administrative boundaries such as county lines or jurisdictional boundaries of the RCIS proponent.

There is no minimum or maximum size for an RCIS area; however, an RCIS area should be a complete, unfragmented geographic area. Multiple RCISs shall not overlap one another. Where multiple RCISs are adjacent or close to one another, the RCISs may or may not address the same conservation elements but they should complement and be compatible with one another. The provisions of two RCISs that are adjacent or near one another shall not conflict with one another, nor shall the provisions of one RCIS undermine or be incompatible with the conservation purpose of another RCIS.

Other factors to consider when defining the RCIS area may include, but are not limited to:

- a. Areas of resilient habitat (to climate change or other stressors and pressures), **U.S. Fish and Wildlife Service (USFWS)**–defined designated **critical habitat** or recovery units for one or more focal species, or distinct population segments or

¹²⁶ Fish & G. Code, § 1852, subdivision (a)

¹²⁷ Goudey, C.B., and D.W. Smith, eds. 1994. Ecoregions California07_3. McClellan, CA. Remote Sensing Lab. Updated with ECOMAP 2007: Cleland, D.T.; Freeouf, J.A.; Keys, J.E., Jr.; Nowacki, G.J.; Carpenter, C; McNab, W.H. 2007. Ecological Subregions: Sections and Subsections of the Conterminous United States [1:3,500,000] [CD-ROM]. Sloan, A.M., cartog. Gen. Tech. Report WO-76. Washington, DC: U.S. Department of Agriculture, Forest Service. Miles and Goudey 1997. *Ecological subregions of California*. Technical Report R5-EM-TP-005, USDA Forest Service, Pacific Southwest Region, San Francisco, CA.

¹²⁸ The United States Department of Agriculture-Natural Resources Conservation Service (USDA-NRCS), the United States Geological Survey (USGS), and the Environmental Protection Agency (EPA). The Watershed Boundary Dataset (WBD) was created from a variety of sources from each state and aggregated into a standard national layer for use in strategic planning and accountability. Available: <http://datagateway.nrcs.usda.gov>

ecologically significant units (e.g., **National Marine Fisheries Service (NMFS)** equivalent for fish).

- b. Areas where conservation actions or habitat enhancement actions, when implemented, may benefit focal species and other conservation elements including, when feasible, contributing to species **recovery** or sustaining focal species **populations**.
- c. Areas where NCCPs and HCPs have not been developed and are unlikely to be developed or where conservation or mitigation banks have not been established.

The RCIS shall include a concise description of the RCIS's geographic area and the rationale for why it was selected, including the rationale for excluding any areas. The description shall indicate the USDA Ecoregional Section or sub-ecoregions and the USGS HUC units that overlap with the RCIS area (in part or in whole). The description shall also identify the surrounding ecoregion(s) and describe any adjacent protected habitat areas (see Section 4.2.9.7 – Existing Protected or Conserved Areas) or linkages (see Section 4.2.9.6 - Habitat Connectivity) that provide relevant context and rationale for the RCIS.¹²⁹

An RCIS may be amended or updated any time after its initial approval to incorporate additional geographical areas, ecological resources, or new information (see Section 4.8 – Updating and Extending an RCIS).

4.2.3 Summary of Mitigation and Conservation Banks within an RCIS Area

The RCIS shall include a summary of all mitigation banks and conservation banks approved by CDFW,¹³⁰ USFWS,¹³¹ NMFS, and/or the U.S. Army Corps of Engineers that are located within the RCIS area or whose service area overlaps the RCIS area. Information on the types of credits available shall be provided.

4.2.4 Consultation, Consistency and Compliance

An RCIS must be consistent with NCCPs, HCPs, **recovery plans**, and RCAs within the RCIS area. The RCIS must also consider existing and reasonably foreseeable land uses including agriculture and major infrastructure. To ensure this, an RCIS shall be developed in consultation with local agencies that have land use authority (i.e., a city, a county, or a city and county) within the geographic area of the RCIS.¹³² Consultation with each local public agency with land use authority shall include notification prior to

¹²⁹ Fish & G. Code, § 1852, subdivision (c)(2)

¹³⁰ <https://www.wildlife.ca.gov/Conservation/Planning/Banking/Approved-Banks>

¹³¹ https://ribits.usace.army.mil/ribits_apex/?p=107:2

¹³² Fish & G. Code, § 1852, subdivision (a)

or when the Notice of Intent (NOI) for preparing an RCIS is filed. The RCIS proponent shall demonstrate a good faith effort to work together with local land use authorities, including consideration of general plan and other land use authority designations. The RCIS shall include a brief description of how it consulted with local agencies with land use authority.

To achieve consistency with HCPs and NCCPs, CDFW strongly recommends that an RCIS be developed in consultation with HCP and NCCP Implementing Entities within the geographic area of the RCIS. Other entities with land use authority whose jurisdictions are likely to be included in the RCIS's conservation or habitat enhancement actions should be considered to participate in the RCIS planning process.

CDFW recommends that RCIS proponents also consult with:

- a. Local public agencies with land use authority (i.e., a city, a county, or a city and county) adjacent to or near the proposed RCIS area;
- b. Tribes with cultural interests in the RCIS area;
- c. RCA proponents preparing RCAs that overlap with or are adjacent to the RCIS area;
- d. RCIS proponents with draft or approved RCISs adjacent to the RCIS area;
- e. Proponents of other overlapping or encompassing conservation plans in development;
- f. MCA sponsors preparing MCAs adjacent or near to the RCIS area;
- g. A technical review team and stakeholders with knowledge of local species, natural communities, **ecosystem functions** and other conservation elements, pressures and stressors, and conservation needs.

Conservation actions and habitat enhancement actions should be developed in consideration of existing and reasonably foreseeable land uses including conservation, agriculture, and major infrastructure. Those actions should focus on conserving natural communities, focal species, and other conservation elements with existing and reasonably foreseeable land uses in mind. RCIS proponents may wish to include actions that could be used for MCAs to satisfy mitigation requirements for reasonably foreseeable land uses.

An RCIS is nonbinding and voluntary. An RCIS shall not create, modify, or impose regulatory requirements or standards, nor regulate the use of land, establish land use designations, or affect the land use authority or the exercise of discretion by any public agency.¹³³ An RCIS must comply with all applicable state and local requirements and

¹³³ Fish & G. Code, § 1851, subdivisions (k) and (l)

cannot preempt the authority of the State, or of local agencies to implement infrastructure and urban development in local general plans.¹³⁴

4.2.4.1 Consistency with Existing Land Uses and Foreseeable Development

An RCIS shall consider existing land uses, including major water, transportation, and transmission infrastructure facilities and urban development areas in the RCIS area.¹³⁵

An RCIS shall consider the conservation benefits of preserving **working lands** for agricultural uses.¹³⁶ An RCIS shall consider existing protected areas (see Section 4.2.9.7 – Existing Protected or Conserved Areas).

Reasonably foreseeable development may be identified through publicly and readily available sources, such as consultation and personal communication with infrastructure agencies and by reviewing city and county general plans,¹³⁷ state water and transportation plans, regional transportation plans, and/or other land use planning documents. Information on renewable energy projects may be obtained from the cities, counties, and the California Energy Commission. Sources of information shall be cited.

An RCIS shall indicate how reasonably foreseeable development of major infrastructure facilities, including, but not limited to, renewable energy and housing, was considered in developing the RCIS and its conservation goals, objectives and actions, and in determining conservation priorities. Consideration of the reasonably foreseeable development should result in an RCIS that is reasonably implementable.

As a non-regulatory document, impacts that may be associated with foreseeable developments should not be included in an RCIS. However, the RCIS may be used to inform infrastructure and development investments and identify potential suitable compensatory mitigation opportunities to satisfy CDFW or other regulatory agencies' permit conditions, including conservation actions or habitat enhancement actions to create mitigation credits through MCAs. Conservation actions and habitat enhancement actions should be developed to conserve natural communities, focal species, and other conservation elements with existing and reasonably foreseeable land uses in mind.

An RCIS shall include provisions ensuring that the RCIS complies with all applicable state and local requirements and that the RCIS does not preempt the authority of the State, or local agencies to implement infrastructure and urban development in local general plans.¹³⁸

¹³⁴ Fish & G. Code, §§ 1852, subdivision (c)(7) and 1853, subdivision (c)(8)

¹³⁵ Fish & G. Code, § 1852, subdivision (c)(6)

¹³⁶ Fish & G. Code, § 1852, subdivision (e)(1)

¹³⁷ Fish & G. Code, § 1852, subdivisions (c)(6) and (e)(2-4)

¹³⁸ Fish & G. Code, § 1852, subdivision (c)(7)

4.2.4.2 Consistency with RCAs, NCCPs, HCPs, and Recovery Plans

An RCIS's goals, objectives and actions shall be consistent with and complement those of **administrative draft NCCPs**, approved NCCPs, federal HCPs, and approved state or federal recovery plans within the RCIS area.¹³⁹ Requisite information depends on the plan type and is as follows:

Consistency with RCAs

If a CDFW-approved RCA encompasses or overlaps with a proposed RCIS area, the RCIS shall explain how and to what extent it has incorporated the RCA's information and analysis.¹⁴⁰

Consistency with NCCPs and HCPs

If an approved NCCP or HCP, or administrative draft NCCP, overlaps with a proposed RCIS area, the RCIS shall explain how and to what extent it is consistent with the NCCP or HCP by including the consistency information described below. However, for small (i.e., non-regional HCPs for discrete projects) or old approved HCPs (i.e., if the HCP permit term has expired), the RCIS shall, instead, only address consistency as noted in "a" and "b" (see below) in a general way rather than by including a species-by-species comparison.

- a. Consistency Comparison – The RCIS shall summarize how the RCIS conservation goals, objectives and actions for each focal species are consistent and compatible (i.e., not in conflict) with the HCP/NCCP biological goals and objectives (BGOs) for each of those HCP/NCCP covered species that are also RCIS focal species. The summary should also address general consistency between all RCIS conservation goals, objectives, and actions and the HCP/NCCP BGOs, not just those that are species specific. The requirement is to ensure that all RCIS goals, objectives, and actions are consistent with those for the same species or habitat types in the HCP/NCCP as well as with all HCP/NCCP BGOs in general.
- b. Inconsistencies Explanation – The RCIS shall explain any inconsistencies and conflicts that may exist and provide an ecological rationale that justifies those differences.
- c. Consistency Letter or Table – The RCIS proponent shall either submit a letter or a comparison table as described below. The letter or table should be included as part of the RCIS.
 1. The letter shall indicate consistency and compatibility between the RCIS conservation goals, objectives and actions and the HCP/NCCP BGOs, signed by

¹³⁹ Fish & G. Code, § 1852, subdivisions (c)(10) and (c)(11)

¹⁴⁰ Fish & G. Code, § 1853, subdivision (b)

the regional HCP/NCCP **Implementing Entity**. The letter should include language, consistent with Fish and Game Code section 1852(c)(10), such as:

“We, the _____ NCCP Implementing Entity, reviewed the draft _____ RCIS and determined that it is consistent with and complements the _____ NCCP. The draft _____ RCIS includes provisions ensuring that the RCIS’s conservation goals, objectives and actions will not preclude the _____ NCCP from achieving its goals, objectives, and actions or the NCCP’s conservation strategy.”

2. Comparison Table - If a consistency letter is not submitted then the RCIS proponent shall provide a table to directly compare the RCIS conservation goals, objectives, and actions to the HCP/NCCP BGOs (by their identification numbers). The accompanying text shall indicate consistency and compatibility between the RCIS conservation goals, objectives and actions and the HCP/NCCP BGOs.

Consistency with Recovery Plans

For approved state or federal recovery plans the RCIS shall address consistency as noted in “a” and “b” above.

4.2.5 Focal Species and Other Species Information and Analysis

The RCIS shall provide an overview of the RCIS area’s focal species and their habitats, and other conservation elements. An RCIS may also include other species as “**non-focal species**” if they can be associated with a focal species or other conservation element (see Section 4.2.5.3 - Non-focal Species Information).

Focal species, non-focal species, and other conservation elements may benefit through either conservation investments, MCAs, or both. Focal species, non-focal species and other conservation elements must be included in an RCIS to be considered for credits in an MCA.¹⁴¹ However, to have a comprehensive RCIS, the RCIS should not be restricted solely to those species and other conservation elements with anticipated compensatory mitigation needs under CESA, CEQA, LSA, or other state, federal, and local laws and regulations. The final focal species list and list of other conservation elements shall be representative of all major and unique natural communities and ecosystem functions that characterize the conservation needs in the RCIS area such that the RCIS results in a comprehensive, cohesive, and connected regional conservation outcome with enhanced adaptation to pressures and stressors.

CDFW recommends that the RCIS proponent involve stakeholders and a technical review team in developing the list of focal species, non-focal species, and other

¹⁴¹ Fish & G. Code, § 1856, subdivision (a)

conservation elements (see Sections 1.2, 4.2.4, and 4.6.1.2). The subsections below provide further details on the selection process and required information for focal species, non-focal species, and other conservation elements.

4.2.5.1 Focal Species Selection Process

The preliminary focal species list shall be developed using the best available scientific information (see Section 4.2.9.3 – Focal Species). Once a preliminary focal species list is developed, it must be refined to create the final focal species list. The RCIS must include a description of the criteria, data, and methods for refining the preliminary list, including the reasons for excluding species.¹⁴² For example, if a species is already protected under an approved conservation plan covering the same area as the RCIS, then that species may be considered for exclusion with written justification. Lack of information about a species may be another justification for exclusion, in which case the information needed for that species should be noted as part of the scientific gap analysis (see Section 4.2.9).

The focal species list shall consist of a range of species with conservation needs within the RCIS area and should include federal- and state-listed species, wide-ranging species, climate-vulnerable species, and representative species from major taxonomic groups (see further descriptions of these in the list below). Focal species must be native species.

- a. **Listed Species** – Listed species include all federal- or state-listed species, candidates for listing, and California Fully-Protected species. CDFW recommends that the focal species list include listed species that are most representative of the major and unique **natural community** types in the RCIS area and ecosystem functions that are characteristic of the conservation needs in the RCIS area. Listed species that are included in an RCIS should be focal species (as opposed to non-focal species), particularly if they cannot be closely associated with a single focal species or other conservation element.
- b. **Wide-ranging Species** – Wide-ranging focal species are those that require contiguous (i.e., connected) blocks of habitat and represent the general wildlife and **habitat connectivity** needs in the RCIS area. This includes achieving and maintaining wildlife and plant dispersal connectivity across or through barriers such as infrastructure, fences, and other landscape barriers, and ensuring that species movement and habitat requirements are conserved at different scales, as applicable (for example, movement of species to and from wetlands such as streams and vernal pools, as well as species movement throughout large regions).
- c. **Climate-Vulnerable Species** – Climate-vulnerable focal species are those listed in CDFW’s current version of SWAP as climate-vulnerable **Species of Greatest**

¹⁴² Fish & G. Code, § 1852, subdivision (c)(4)

Conservation Need (SGCN). Climate-vulnerable species may also include other species deemed to be vulnerable to the effects of climate change by other agencies or best available scientific information.

- d. Taxonomic Group Representatives – One or more focal species should represent each of the following major taxonomic groups: plants, invertebrates, fish, amphibians, reptiles, birds and mammals.

4.2.5.2 Required Focal Species Information

The RCIS shall include focal species summaries that provide a sufficient basis for the RCIS conservation goals, objectives, conservation actions, and habitat enhancement actions to benefit species and address pressures and stressors. Focal species summaries may be provided as appendices. The summaries shall use the best available scientific information and shall include proper citations (see Section 4.2.9 – Best Available Scientific Information). The summaries should provide a basis for the development of reasonable **metrics** to meet RCIS objectives (see Section 4.2.7 – Conservation Goals and Objectives, and Section 4.3 – Additional Requirements to Create MCAs).

If an NCCP or HCP overlaps with the RCIS area and an RCIS focal species is covered by the NCCP or HCP, the NCCP or HCP covered species information and analysis may be included in the RCIS focal species summaries and the original sources, or the HCP and NCCP, or both, should be cited, as appropriate.

Each focal species summary shall include the following information:

- a. A brief summary and a map of the species' range within the RCIS area or within the state, as feasible, based on readily available, scientifically based descriptions and maps (e.g., from CDFW or USFWS websites). A range summary and map may also be useful to provide for adjacent RCIS areas or elsewhere within the region for conservation strategies and to aid in the determination of potential MCA service areas.
- b. The species' regulatory status, if any.
- c. Maps and/or description of the known occurrences and potential distribution based on existing habitat and, if known, the quality of that habitat within the RCIS area¹⁴³ (see Section 4.2.9.4 - Distribution of Focal Species and Natural Communities). When appropriate, multiple species occurrences may be shown in one map. RCIS proponents are not required to create new species distribution models.
- d. The species' ecological requirements (i.e., habitat components; **ecological functions**; movement characteristics including dispersal, migration, habitat connectivity and home-range needs; and biotic and abiotic conditions) that would

¹⁴³ Fish & G. Code, § 1852, subdivision (c)(3)

be necessary to provide a basis for determining and indicating pressure-stressor effects and developing conservation and habitat enhancement actions for the focal species. The summaries should also include any aspects of the species' life history that alters its ecological requirements (e.g., provide the seasonal time frame during which a migratory bird would be present in the RCIS area and using the RCIS's ecological resources).

- e. The RCIS shall include a summary of historic, current, and projected pressures and stressors in the RCIS area, including climate change, land use changes, **invasive species** (see Section 4.2.9.9 – Invasive Species), and others. The climate change summary must include a **climate change vulnerability** assessment, as available (see Section 4.2.9.8 – Climate Change Vulnerability Assessment).¹⁴⁴ A general description of pressures and stressors may be discussed for a group, provided there is a focused discussion about how those pressures and stressors influence focal species in the focal species summaries or group summaries (see “grouping option” below). The focused discussion should provide a basis for the development of conservation and habitat enhancement actions to overcome the adverse effects of the pressures and stressors on the focal species.

Grouping Option:

Information shared among some focal species or with other conservation elements may be summarized by groups to reduce redundancies. Shared information may be grouped by natural community, taxonomic group, ecosystem function, or another appropriate group. Examples of information that may be grouped include shared pressures and stressors or general shared distribution information.

4.2.5.3 Non-focal Species Information

Species may be considered as non-focal species in an RCIS if they have conservation needs in the RCIS area and require actions that are addressed by a focal species or other conservation element. Non-focal species must be a native species. If a non-focal species can be associated with a focal species or other conservation element in the RCIS, then it could be eligible for consideration of mitigation credits in an MCA.

In order to demonstrate sufficient association, the RCIS must include a brief, science-based justification indicating how the non-focal species' ecological requirements align with those of a focal species or another conservation element, and how the actions for the associated focal species or other conservation element would benefit the non-focal species (see Section 4.2.8 - Conservation Actions and Habitat Enhancement Actions).

If a proposed non-focal species has unique characteristics requiring conservation or habitat enhancement actions beyond those provided for its associated focal species or

¹⁴⁴ Fish & G. Code, § 1852, subdivision (c)(5)

other conservation elements, the non-focal species should instead be listed as a focal species (for MCA credits to be available for such actions the species must be listed as a focal species; see Section 4.2.8 - Conservation Actions and Habitat Enhancement Actions).

Grouping Option:

To simplify the associations with focal species and other conservation elements, non-focal species may be grouped by natural community, taxonomic group, ecosystem function, or another appropriate group. However, the group description must still include a science-based justification indicating how the group's ecological requirements align with those of a focal species or other conservation element and must include a brief ecological justification for each non-focal species' inclusion in the group.

4.2.6 Information and Analysis of Other Conservation Elements

An RCIS shall include other conservation elements needing conservation within the RCIS area, and those whose inclusion would help to achieve a comprehensive, cohesive, and connected regional conservation outcome. Conservation elements include major and unique natural communities, **biodiversity**, habitat connectivity, ecosystem functions, and water resources – these are described further in the list below. An RCIS shall explain how the other conservation elements were selected, including the science-based criteria, data, and methods¹⁴⁵ and the reasons for excluding any conservation elements. Reasons for exclusion may include that a focal species' conservation goals, objectives and actions will sufficiently address the conservation needs of a conservation element.

- a. **Natural Communities** – The RCIS shall include important natural communities¹⁴⁵, including major types and those considered unique, sensitive, vulnerable to pressures and stressors, and declining. Natural communities should be largely characterized by native species. Other natural communities may be considered if they have conservation benefits, such as providing **ecosystem services** benefits including carbon sequestration; protection against flood, fire, or storm damages; open space and park values; agriculture and cultural values; or other benefits.
- b. **Biodiversity** – The RCIS should include biodiversity as a conservation element (see Section 4.2.9.5).
- c. **Habitat Connectivity** – The RCIS shall include habitat connectivity¹⁴⁵ as a conservation element (see Section 4.2.9.6).

¹⁴⁵ Fish & G. Code, § 1852, subdivision (c)(4)

- d. Ecosystem Functions - The RCIS shall include specific ecosystem functions that are important to the RCIS area.¹⁴⁵ Some examples include a dynamic river meander zone; an area of eroding banks; a stream's or river's pool, riffle, or run areas; floodplains; peat-development areas; and tidal zones.
- e. **Water Resources** – The RCIS should include wetlands, Waters of the United States, Waters of the State, and other applicable water resources, particularly if they are likely to incur permitting needs under CDFW's or other state or federal agency's jurisdiction that may be mitigated through an MCA. Water resources provide ecosystem functions valuable to focal species and other species and provide ecosystem services important to people such as quality drinking water, surface water, and groundwater recharge.

4.2.6.1 Required Information for Other Conservation Elements

The RCIS shall include summaries for other conservation elements. The summaries may be provided as appendices. Summaries for other conservation elements shall be sufficiently detailed, using the best available scientific resources (see Section 4.2.9 – Best Available Scientific Information) and proper citations, to provide the basis for the RCIS's goals, objectives, and conservation actions and/or habitat enhancement actions for those conservation elements, and to address pressures and stressors. The summaries should provide a basis for the development of reasonable metrics to meet RCIS objectives (see Section 4.2.7 – Conservation Goals and Objectives, and Section 4.3 – Additional Requirements to Create MCAs).

The following information shall be included in the summaries for each other conservation element:

- a. Description of the natural community, ecosystem function, water resource, or other conservation element, including its ecological characteristics and status (i.e., sensitive, vulnerable, declining, etc.);
- b. Description and map of the current known or estimated extent within the RCIS area (see Section 4.2.9 - Best Available Scientific Information);
- c. Ecosystem functions, if applicable to the conservation element;
- d. Ecosystem services, if applicable to the conservation element.

In addition, the RCIS shall include a summary of historic, current, and projected pressures and stressors on the natural community, ecosystem function, water resource, or other conservation element in the RCIS area, including a climate-change vulnerability assessment, if applicable (see Section 4.2.9.8 – Climate Change Vulnerability Assessment).¹⁴⁶

¹⁴⁶ Fish & G. Code, § 1852, subdivision (c)(5)

Grouping Option:

Certain types of information shared among some other conservation elements or with focal species may be summarized by group to reduce redundancies. Shared information could be grouped by natural community, ecosystem function, or another appropriate group. Examples of information that may be grouped include shared pressures and stressors or general shared distribution information.

4.2.7 Conservation Goals and Objectives

Conservation goals and objectives for the focal species and other conservation elements identified in the RCIS shall address or respond to the identified pressures and stressors on focal species and other important conservation elements.¹⁴⁷ Goals and objectives must also strive to provide for adaptation opportunities against negative effects of climate change for the focal species.¹⁴⁸ RCIS proponents should consider the conservation goals, strategies, and objectives discussed in the current version of SWAP and companion plans and in approved conservation plans that overlap the RCIS area. Conservation goals and objectives for focal species, non-focal species, and other conservation elements may be grouped by habitats, taxonomic groups, ecosystem functions, and/or other groups if a goal or objective largely addresses the ecological needs of the group and pressures affecting the group (see sections 4.2.5.2 and 4.2.5.3). If a focal species or other conservation element has unique ecological requirements that are not fully covered by its group, specific conservation goals and objectives must be included to support conservation or habitat enhancement actions for that species or other conservation element.

RCIS proponents shall use the best available scientific information on focal species and other conservation elements to develop the RCIS's conservation goals, measurable objectives, and conservation actions and habitat enhancement actions. The RCIS's conservation goals shall reflect broad, desired outcomes for focal species and other conservation elements within the RCIS area. Examples of potential conservation goals include achieving sustainable native species populations and natural community persistence in the RCIS area, supporting stability and recovery of focal species; **restoring** and enhancing habitat; reconnecting fragmented habitat blocks; maintaining and enhancing ecological and ecosystem functions and ecosystem services; and improving connectivity by increasing permeability for wildlife movement and migration corridors.

An objective is a concise statement of a target outcome for a focal species or other conservation element. Objectives should be "SMART" (Specific, Measurable, Achievable, Relevant and Timebound) objectives, as described in this section. Objectives shall be

¹⁴⁷ Fish & G. Code, § 1852, subdivision (c)(8)

¹⁴⁸ Fish & G. Code, § 1852, subdivision (c)(13)

specific and measurable (e.g., percent or estimated number of acres conserved, by habitat, or habitat quality, size, connectivity) to identify the types of habitat and ecological functions that need protection or enhancement to benefit one or more species or other conservation elements. The objectives should also be linked to locations within the RCIS area where those objectives, if implemented, would provide the greatest conservation benefit.

In developing the objectives for focal species and other conservation elements, the RCIS proponent should consider the following existing conditions for the habitat, natural community, ecosystem function, or ecological function that pertain to one or more focal species or other conservation elements: size, location, habitat type, quality, degree of connectivity, level of protection, and threats from pressures and stressors. The existing conditions information should be based on the information provided in the RCIS focal species summaries or group summaries and connected and protected land descriptions. Science-based analyses and information to support the development of these objectives are described in Section 4.2.9 - Best Available Scientific Information, particularly in Section 4.2.9.4 - Distribution of Focal Species and Natural Communities, Section 4.2.9.5 - Biodiversity Information and Analysis, Section 4.2.9.6 - Habitat Connectivity, and Section 4.2.9.7 - Existing Protected or Conserved Areas.

The objectives should include the improvements to be achieved relative to the existing conditions, and the time period (e.g., years) within which the objective (or, if needed, milestone steps indicated to achieve the objective) should ideally be reached to achieve the intended conservation benefit for the focal species or other conservation elements. Information on setting objectives, and various tools for measuring achievement of conservation objectives are publicly available.^{149, 150}

Objectives in the RCIS should be achievable through conservation actions or habitat enhancement actions. In describing objectives, consistent metrics shall be used, such as the area of focal species' habitat or quality of a conservation element's ecosystem function. The metrics chosen shall be used to measure the net change resulting from the implementation of conservation actions and habitat enhancement actions.¹⁵¹

The objectives and their associated conservation and habitat enhancement actions (see Section 4.2.8 – Conservation Actions and Habitat Enhancement Actions) shall be

¹⁴⁹ Tear, Timothy H., et al. 2005. *How Much Is Enough? The Recurrent Problem of Setting Measurable Objectives in Conservation*. BioScience, Volume 55, Issue 10. October 1. Pages 835-849. Available: <https://academic.oup.com/bioscience/article/55/10/835/274365>

¹⁵⁰ Chiavacci, S.J., and Pindilli, E.J., 2018, Database of biodiversity and habitat quantification tools used for market-based conservation in the United States: U.S. Geological Survey data release. Available: <https://doi.org/10.5066/F79G5M3X>. Fact sheet available: <https://doi.org/10.3133/fs20183039>. (CDFW does not endorse nor certify biodiversity and habitat quantification tools. Agencies should independently evaluate their applicability for use with the conservation elements in their RCIS area.)

¹⁵¹ Fish & G. Code, § 1854, subdivision (e)

prioritized and the RCIS shall include the rationale for the prioritization, based on focal species' or other conservation elements' needs and the objective's and action's importance in contributing to conserving and benefiting focal species and their habitats, or other conservation elements within an RCIS area.

4.2.8 Conservation Actions and Habitat Enhancement Actions

An RCIS shall identify conservation actions or habitat enhancement actions that support the RCIS's conservation goals and objectives for focal species and other conservation elements, including provisions for climate-change adaptation. RCIS proponents should consider the conservation actions discussed in the current version of SWAP and companion plans, and in approved conservation plans that overlap the RCIS area (see Section 4.2.4 – Consultation, Consistency and Compliance). The RCIS shall include a description of how conservation actions or habitat enhancement actions were selected in relation to the RCIS's goals and objectives.¹⁵² Examples of these actions may include, but are not limited to, creation or **establishment** of habitat, restoration or **rehabilitation** of habitat and other conservation elements on public¹⁵³ or private land, installation of wildlife crossings, and removal of fish barriers.

Conservation actions and habitat enhancement actions for focal species and other conservation elements may be grouped by habitats, taxonomic groups, ecosystem functions, and/or other groups if an action largely addresses the ecological needs of the group along with pressures affecting that group. However, if a focal species or other conservation element has unique ecological requirements that are not covered by actions for the group, those actions should be included for that species or other conservation element.

MCA credits can only be created for focal species, non-focal species or other conservation elements if the associated conservation or habitat enhancement actions proposed in the MCA are included in the RCIS. If the species, other conservation elements, or actions needed in MCAs are not included in the RCIS, the RCIS may need to be amended.

Actions for focal species and other conservation elements are intended to cover the non-focal species that are associated with them. However, if proposed non-focal species have unique characteristics and actions not covered by its associated focal species or other conservation element, in order for MCA credits to be available for such actions,

¹⁵² Fish & G. Code, § 1852, subdivision (c)(9)

¹⁵³ Conservation or habitat enhancement actions may be proposed on public lands, subject to the written approval of the landowner and title restrictions. However, if the actions will result in mitigation credits, the relative value of the mitigation credits must be equal to or greater than they would be if the same mitigation credits were situated on non-public or non-conserved lands. See MCA Guidelines section regarding "mitigation on public lands" for more information.

the species shall instead be included as a focal species (see Section 4.2.5.3 – Non-focal Species Information).

Conservation priorities are conservation actions or habitat enhancement actions (e.g., land acquisition, restoration, or habitat enhancement) that are prioritized based on focal species' or other conservation elements' needs and the objective's and associated action's importance in contributing to conserving and benefiting focal species and their habitats, or other conservation elements within an RCIS area. Key locations for conservation priorities shall be indicated by description, map, or both, along with an explanation as to why those key locations were selected. See Section 4.2.4 – Consultation, Consistency and Compliance, regarding consistency of conservation and habitat enhancement actions and priorities with existing and reasonably foreseeable land uses within the RCIS area.

4.2.9 Best Available Scientific Information

The RCIS shall incorporate and cite the best available scientific information for the RCIS area for identifying and summarizing focal species and other conservation elements; for identifying pressures and stressors and their effects on those conservation elements; and for determining conservation and habitat enhancement actions and conservation priorities. The best available scientific information includes, but is not limited to, peer-reviewed literature and datasets identified in this section. The RCIS shall also provide a brief description of gaps in relevant scientific information that may not allow for a full analysis of the conservation elements or that may result in uncertainties in any portion of the RCIS. Some examples of potential scientific information gaps include key ecological information, distribution information, or management uncertainties for focal species or other conservation elements.

RCIS proponents are encouraged to have a technical review team (see Section 1.2) to help ensure that the best available scientific information is provided and utilized, and to help identify gaps in scientific information. The following subsections provide additional details regarding best available scientific information sources.

4.2.9.1 Use of Standard Vegetation Classifications

The RCIS shall use CDFW's Natural Communities List¹⁵⁴ to enable and promote consistency with vegetation classifications in RCISs throughout California. This list is based on A Manual of California Vegetation, Second Edition (MCVII),¹⁵⁵ which is the California expression of the National Vegetation Classification,¹⁵⁶ and is developed and

¹⁵⁴ California Department of Fish and Game. 2010. *List of Vegetation Alliances and Associations*. September. Vegetation Classification and Mapping Program. September. Sacramento, CA. Available: <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/List>

¹⁵⁵ <https://www.wildlife.ca.gov/Data/VegCAMP/Publications-and-Protocols/Vegetation-Manual>

¹⁵⁶ https://www.fgdc.gov/standards/projects/FGDC-standards-projects/vegetation/NVCS_V2_FINAL_2008-02.pdf

maintained by CDFW's **Vegetation Classification and Mapping Program** (VegCAMP).¹⁵⁷ This list replaces all other lists of terrestrial natural communities and vegetation types developed for the **California Natural Diversity Database** (CNDDDB).¹⁵⁸ Currently included in this list are 350 alliances, 2,140 associations, 82 provisional alliances, 66 provisional associations, 96 semi-natural stands, 15 stand types (within semi-natural category), and 15 special stands.

The RCIS proponent shall check for the most recent version of the list, associated vegetation descriptions, and any recent updates specific to the RCIS area. Any vegetation maps and other information developed for an RCIS shall use this classification system and follow the **Survey of California Vegetation** (SCV) standards.¹⁵⁹ If the RCIS area has not been mapped to SCV standards, proponents shall contact VegCAMP to determine the best readily available vegetation map.¹⁶⁰ If an approved or administrative draft NCCP or regional HCP overlaps the RCIS area, the RCIS proponent may use that NCCP's or HCP's vegetation classification system, or a slightly modified version to accommodate additional vegetation types in the RCIS area, but outside of the NCCP area, if necessary. If the RCIS area uses a vegetation classification that differs from the Manual of California Vegetation, Second Edition, the RCIS shall provide a cross-walk between the classifications to help ensure consistency between the RCIS and the overlapping NCCP.

The **Areas of Conservation Emphasis** (ACE) Significant Habitats dataset also includes information on the distribution and mapped locations of rare or other high-priority natural communities.

4.2.9.2 Aquatic Resources

The RCIS shall use the best available data sources to assess inland, coastal marine, and other aquatic resources. These may include the ACE Aquatic Biodiversity dataset,¹⁶¹ USGS topographic maps, local wetland delineation reports, USFWS National Wetlands Inventory,¹⁶² the State Water Resources Control Board's marine Areas of Special Biological Significance,¹⁶³ California's network of Marine Protected Areas,¹⁶⁴ sea level rise mapping and other climate change adaptation planning documents (see Section 4.2.9.8 – Climate Change Vulnerability Assessment), the most up-to-date list of

¹⁵⁷ <https://www.wildlife.ca.gov/Data/VegCAMP>

¹⁵⁸ <https://www.wildlife.ca.gov/Data/CNDDDB>

¹⁵⁹ <https://www.wildlife.ca.gov/Data/VegCAMP/Mapping-Standards>

¹⁶⁰ <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities/Other-Info>

¹⁶¹ <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150856&inline>

¹⁶² <https://www.fws.gov/wetlands/>

¹⁶³ http://www.waterboards.ca.gov/water_issues/programs/ocean/asbs_map.shtml

¹⁶⁴ <https://www.wildlife.ca.gov/Conservation/Marine/MPAs>

California's Impaired Water Bodies (i.e., Clean Water Act section 303(d) List/ 305(b) Report),¹⁶⁵ and the California Ocean Protection Council's resources.¹⁶⁶

4.2.9.3 Focal Species

For information regarding focal species, their habitats, and other conservation elements, the RCIS proponent shall use the current version of SWAP and the companion plans, approved NCCPs that overlap the RCIS area, and CDFW data resources found in BIOS (CDFW's map-based spatial data warehouse) or otherwise published by CDFW. In addition to CDFW data, RCIS proponents may use other available state, local, or regional resources. Data vary throughout the state, and the most current, detailed, available and scientifically supported data shall be used.

Resources that shall be used to create the preliminary species list include the following:

- a. SGCN lists in the current version of SWAP;¹⁶⁷
- b. The Complete List of Amphibian, Reptile, Bird, and Mammal Species in California;¹⁶⁸
- c. Plant and animal species that are listed under the federal Endangered Species Act, or are proposed for listing or are a candidate for listing as endangered or threatened;^{169,170}
- d. Plant or animal species that are listed under CESA as endangered or threatened or are candidates for listing;^{169,170}
- e. CDFW Animal SSC;¹⁷¹
- f. California Fully Protected Animals;¹⁷²

¹⁶⁵ http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml

¹⁶⁶ <http://www.opc.ca.gov/2012/06/coastal-and-ocean-impacts-from-land/>

¹⁶⁷ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians Appendix C: Species of Greatest Conservation Need*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109224&inline>.

¹⁶⁸ California Department of Fish and Wildlife, California Wildlife Habitat Relationships Program. May 2016. *Complete List of Amphibian, Reptile, Bird and Mammal Species in California*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=87155&inline>.

¹⁶⁹ California Department of Fish and Wildlife, Biogeographic Data Branch. October 2017. *State & Federally Listed Endangered & Threatened Animals of California*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109405&inline>.

¹⁷⁰ California Department of Fish and Wildlife, Biogeographic Data Branch. October 2017. *State & Federally Listed Endangered, Threatened, and Rare Plants of California*. Available: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109390&inline>.

¹⁷¹ <https://www.wildlife.ca.gov/Conservation/SSC>

¹⁷² http://www.dfg.ca.gov/wildlife/nongame/t_e_spp/fully_pro.html

- g. Additional species identified by the CNDDDB special plants and special animal lists;^{173,174}
- h. Native game species managed under CDFW's Game Management Programs;¹⁷⁵
- i. Species specially protected under the California Wildlife Protection Act of 1990 (mountain lion);¹⁷⁶
- j. Species formally listed by the US Forest Service as a Sensitive Species^{177,178} or a Management Indicator Species; species formally listed by the US Fish and Wildlife Service as a Bird of Conservation Concern;¹⁷⁹ animal and plant species listed by the US Bureau of Land Management as sensitive;^{180,181} and other species identified by a state or federal agency as having special status.

In addition, lists of terrestrial vertebrates can be generated by queries of the **California Wildlife Habitat Relationships (CWHR)** Program.¹⁸² The CWHR contains life history, geographic range, and habitat suitability information for regularly occurring species of amphibians, reptiles, birds, and mammals in the state. The CWHR allows users to produce queries to generate lists of species by geographic location (e.g., ecoregion, HUC) and/or by habitat type and provides information on expert opinion-based habitat suitability ranks for each species within each habitat type.

4.2.9.4 Distribution of Focal Species and Natural Communities

The RCIS shall identify and describe the distribution of focal species and natural communities using the following information:

- a. Geospatial information on the distribution of the focal species in the RCIS area. The CWHR¹⁸³ contains life history, geographic range, and habitat relationship information on regularly occurring species of amphibians, reptiles, birds, and mammals in the state. The CWHR can be used to generate lists of species by

¹⁷³ California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB). October 2017. *Special Vascular Plants, Bryophytes, and Lichens List*. Available: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109383&inline>.

¹⁷⁴ California Department of Fish and Wildlife, California Natural Diversity Database (CNDDDB). October 2017. *Special Animals List*. Available: <http://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109406&inline>.

¹⁷⁵ <https://www.wildlife.ca.gov/Explore/Organization/WLB/Game-Management>

¹⁷⁶ <https://www.wildlife.ca.gov/Conservation/Mammals/Mountain-Lion>

¹⁷⁷ USDA Forest Service sensitive animal species lists located on web page: <https://www.fs.usda.gov/main/r5/plants-animals/wildlife>

¹⁷⁸ USDA Forest Service sensitive plant species lists located on web page: <https://www.fs.usda.gov/main/r5/plants-animals/plants>

¹⁷⁹ <https://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>

¹⁸⁰ <https://www.blm.gov/ca/dir/pdfs/2010/im/CAIM2010-008ATT1.pdf>

¹⁸¹ <https://www.blm.gov/ca/dir/pdfs/2010/im/CAIM2010-008ATT2B.pdf>

¹⁸² <https://www.wildlife.ca.gov/Data/CWHR>

¹⁸³ <https://www.wildlife.ca.gov/Data/CWHR>

geographic location (e.g., ecoregion, HUC) and/or by habitat type. The CWHR provides 1) geographic range data representing the maximum, current (within the past 20 years) extent of a species distribution for most regularly occurring vertebrates in the state and 2) predicted habitat distributions, showing areas of potentially suitable habitat within each species' range based on CWHR habitat suitability ranks. The BIOS spatial data catalog¹⁸⁴ includes additional geospatial information on the distributions of wildlife species (e.g., occurrence location data and species distribution models).

- b. Geospatial information on the **special-status species**. Reported information on the distribution of many of these species is available through, but not limited to, the CNDDDB program and BIOS map viewer from CDFW's Biogeographic Data Branch.¹⁸⁵ The CNDDDB is an inventory of GIS-mapped occurrence locations of special species in California. BIOS is CDFW's data catalogue of spatial data, including other species observation, distribution, and habitat datasets (e.g., USFWS critical habitat datasets, fish distribution maps for some salmonids).
- c. While not required, the RCIS may incorporate existing species distribution models published by CDFW or in peer-reviewed literature or developed specifically for the RCIS. If new models are developed for an RCIS they should follow CDFW's best modeling standards and practices.¹⁸⁶ The new models shall include a description of the new model's process and methods and how recognized species experts were involved in the development or evaluation of the model. All new data (e.g., new occurrence information, maps and other model output) must be submitted to CDFW as indicated in Section 4.4 – Data Management, Sharing, and Access.
- d. Lists of rare natural communities or other high-priority natural communities¹⁸⁷ that occur within the RCIS area. Information on the distribution and mapped locations of rare or other high-priority natural communities is available through, but not limited to, SCV vegetation maps, the CNDDDB program, and the ACE Significant Habitats dataset.
- e. Information on the RCIS's focal species, natural communities, or other conservation elements from any NCCPs that overlap the RCIS area.

¹⁸⁴ The BIOS spatial data catalog can be searched by species name or searched spatially by location. Available: <https://www.wildlife.ca.gov/Data/BIOS>.

¹⁸⁵ <https://www.wildlife.ca.gov/Explore/Organization/BDB>

¹⁸⁶ California Department of Fish and Wildlife, Biogeographic Data Branch. December 2014. *Guidance Document for Fine-Scale Wildlife Connectivity Analysis*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93018&inline>.

¹⁸⁷ <https://www.wildlife.ca.gov/Data/VegCAMP/Natural-Communities>

4.2.9.5 Biodiversity Information and Analysis

The RCIS should identify and summarize areas of high biological value within an RCIS area using information from the most recent version of ACE.¹⁸⁸ ACE is a compilation and analysis of the best available statewide spatial information on California's biological richness, including species diversity, rarity, and endemism. In addition to ACE, RCIS proponents may use other local or regional resources, as available. The ACE datasets identify and map the following relative to biodiversity:

- a. Native species richness, which represents overall native diversity of all species in the state, both common and rare;
- b. Rare species richness, which represents diversity of rare species;
- c. Irreplaceability, which is a weighted measure of endemism.

4.2.9.6 Habitat Connectivity

Habitat connectivity is a critical consideration when evaluating the location and association of protected lands within an RCIS. It is important in determining how to maintain sustainable populations and gene pools and how to provide for wildlife movement at different scales. Wildlife movement includes daily movements to find food, cover and mates; dispersal by young to find new territories; seasonal migration; and movement in response to climate change. An RCIS should use habitat connectivity data and information including, but not limited to:

- a. **The California Essential Habitat Connectivity Project (CEHC)**,¹⁸⁹ a statewide assessment of essential habitat connectivity. The project identified large remaining blocks of intact, contiguous natural habitat (natural landscape blocks) and modeled linkages (**essential connectivity areas**) between them to best maintain habitat connectivity across the landscape. ACE data includes CEHC.
 - **Natural Landscape Blocks** identify remaining intact lands across the state, independent of ownership. These lands contribute to habitat connectivity and are expected to have high conservation and climate resilience value because of their size, intactness, and connectedness with other natural habitats. Although the CEHC only used large natural landscape blocks (greater than 2,000 acres) due to the statewide nature of its analysis, smaller landscape blocks were identified and should be used for evaluating connectivity at a regional scale.¹⁹⁰

¹⁸⁸ <https://www.wildlife.ca.gov/Data/Analysis/ACE>

¹⁸⁹ <https://www.wildlife.ca.gov/conservation/planning/connectivity/CEHC>

¹⁹⁰ This data is available in BIOS as two layers: "Natural Landscape Blocks" shows blocks that are more than 2,000 acres in size, and "Natural Areas Small" shows blocks that are less than 2,000 acres in size. Available: <https://www.wildlife.ca.gov/Data/BIOS>.

- Modeled Linkages, or Essential Connectivity Areas, represent coarse-scale, generalized habitat connections between natural landscape blocks. These connections provide a broad-scale view of habitat connectivity needs at the statewide scale, but they should be supplemented with or superseded by fine-scale connectivity analyses at a regional scale, when available.
- b. ACE dataset on the spatial evaluation of the relative contribution of an area to terrestrial connectivity.¹⁹¹
- c. Regional, fine-scale connectivity analyses include refinements of the CEHC at a regional scale using finer-scale datasets and based on species' movement needs. They may also include different methodologies applied regionally. Regional, fine-scale connectivity analyses have been or may in the future be completed for several ecoregions in the state. When such scientifically based regional connectivity analyses are readily available, these spatial datasets¹⁹² and project reports¹⁹³ should be used by an RCIS. These datasets can be used to identify overall fine-scale habitat connections within or through an ecoregion, as well as critical movement corridors for individual species that may be of high priority for conservation.
- d. CDFW's Guidance for Fine-Scale Wildlife Connectivity Analysis¹⁹⁴ is a report that provides guidance to complete a fine-scale wildlife connectivity analysis that meets CDFW standards. The report includes information on species selection criteria and landscape block identification and details the model development process using examples from CDFW's case study analysis of wildlife connectivity across the northern Sierra Nevada foothills that was conducted after the completion of the CEHC project. RCIS proponents are not required to develop a fine-scale connectivity analysis; however, if RCIS proponents choose to develop this type of analysis, CDFW's guidance should be used. RCIS proponents must submit a description of the modeling process, methods, and metadata that meet CDFW's minimum metadata standards, and model reviews by recognized species experts (see also, Section 4.4 – Data Management, Sharing, and Access).
- e. Fish Passage Assessment Database¹⁹⁵ and/or CDFW Fisheries Branch list of priority fish barriers. The Fish Passage Assessment Database is an ongoing inventory of known and potential barriers to anadromous fish in California. It compiles currently available fish passage information from more than two hundred data sources and

¹⁹¹ California Department of Fish and Wildlife, Biogeographic Data Branch. February 2018. *ACE Dataset Fact Sheet; Terrestrial Connectivity*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=150835&inline>.

¹⁹² Available in BIOS: <https://www.wildlife.ca.gov/Data/BIOS>.

¹⁹³ <https://www.wildlife.ca.gov/Conservation/Planning/Connectivity>

¹⁹⁴ California Department of Fish and Wildlife, Biogeographic Data Branch. December 2014. *Guidance Document for Fine-Scale Wildlife Connectivity Analysis*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=93018&inline>.

¹⁹⁵ <https://nrm.dfg.ca.gov/PAD/>

allows past and future barrier assessments to be standardized and stored in one place. The inventory is to be used to identify barriers suitable for removal or modification to restore access to spawning and rearing habitat. Contact CDFW Fisheries Branch for their list of priority fish barriers in the RCIS area.

4.2.9.7 Existing Protected or Conserved Areas

The spatial analysis shall identify the degree to which conservation elements are captured in existing protected areas including, but not limited to, the total acreage and percent of the RCIS area currently in conservation protection and the acreage and percent of each habitat type currently in conservation protection. The analysis shall include the following sources:

- a. Reserve networks within any NCCPs that overlap the RCIS area;
- b. The California Protected Areas Database (CPAD);¹⁹⁶
- c. Protected Areas Database of the United States (PAD-US);¹⁹⁷
- d. California's network of Marine Protected Areas, Areas of Biological Significance, and other areas of special biological significance to coastal, marine, and aquatic ecosystems;
- e. CDFW owned/managed lands;
- f. Federally owned/managed lands including National Forests, National Parks, National Monuments, Bureau of Land Management, and other federal lands;
- g. California Department of Parks and Recreation-owned/managed lands;
- h. California Conservation Easement Database (CCED);¹⁹⁸
- i. National Conservation Easement Database (NCED);¹⁹⁹
- j. Other readily available data on conserved and protected areas.

While not required, it is recommended that protected land's management strategies be considered when evaluating the level of conservation protection on existing protected lands. The protected lands' management strategies are captured by the USGS National Gap Analysis Program (GAP) Status Rank²⁰⁰ as provided in CPAD and PAD-US. The GAP Status Rank, when available, gives an indication of the level of conservation protection afforded to various lands based on their management strategies.

¹⁹⁶ <http://www.calands.org/>

¹⁹⁷ <https://gapanalysis.usgs.gov/padus/>

¹⁹⁸ <http://www.calands.org/cced>; additional conservation easement information may be available from local land trusts.

¹⁹⁹ <https://www.conservationeasement.us/>

²⁰⁰ <https://gapanalysis.usgs.gov/padus/data/>

4.2.9.8 Climate Change Vulnerability Assessment

The RCIS shall incorporate existing available, science-based analyses and information to identify climate change vulnerability of the RCIS focal species and natural communities, exposure of the RCIS area to climate change (e.g., magnitude of projected changes in temperature and precipitation, sea level rise), and areas that may be resilient to the impacts of climate change. The climate vulnerability information assembled for the RCIS should include climate change threats at mid-century (2050) and end-of-century (2100) for both a hotter and drier future climate scenario and a warmer and wetter future climate scenario where possible. The future climate scenarios used in existing studies may vary, and these differences and their implications should be explicitly indicated and addressed in the RCIS.

Climate science and modeling is a rapidly evolving field, and the best available, most current scientifically-based information should be consulted and cited for each RCIS. For all new analyses, global climate models selected for the state's most recent California Climate Change Assessment²⁰¹ should be used. For information on climate vulnerability of California species and habitats and links to associated datasets, please refer to CDFW's climate change vulnerability assessment website.²⁰² This website will be maintained to provide relevant resources that will aid proponents in developing the RCIS. An RCIS shall be informed by:

- a. Lists of climate-vulnerable species and natural communities developed or supported by CDFW, for example, those recognized under the climate vulnerability assessments for vegetation,²⁰³ birds, mammals, reptiles, amphibians, fish, and plants in California and the current version of SWAP (Criteria 3 in the SGCN list of SWAP 2015).²⁰⁴
- b. Other factors that may contribute to climate resilience such as diverse land facets²⁰⁵ (geophysical features expected to support **biodiversity** in a changing climate) and high levels of connectivity (corridors to facilitate movement as species and their habitats move in response to climate change). Where available, data or information should be included that demonstrate how land facets and/or corridors within the RCIS area may promote climate resilience.

²⁰¹ http://climatechange.ca.gov/climate_action_team/reports/climate_assessments.html

²⁰² <https://www.wildlife.ca.gov/Conservation/Climate-Science/Resources/Vulnerability>

²⁰³ Thorne, J.H., R.M. Boynton, A.J. Holguin, J.A.E. Stewart, & J. Bjorkman. (2016) *A climate change vulnerability assessment of California's terrestrial vegetation*. California Department of Fish and Wildlife (CDFW), Sacramento, CA. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116208&inline>

²⁰⁴ California Department of Fish and Wildlife. 2015. *California State Wildlife Action Plan, 2015 Update: A Conservation Legacy for Californians. Appendix C: Species of Greatest Conservation Need*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=109224&inline>.

²⁰⁵ https://www.conservationgateway.org/ConservationByGeography/NorthAmerica/UnitedStates/oregon/science/Documents/PNW_Terrestrial_Climate_Resilience_Report_March3_2015.pdf

- c. Geospatial information on climate exposure with respect to species, including projected range-shift models for wildlife species developed for CDFW climate vulnerability analyses, where available.
- d. Geospatial information on landscape-scale climate exposure, such as:
 - High-climate-exposure natural community areas as identified by the Climate Change Vulnerability Assessment of California's Terrestrial Vegetation.²⁰⁶ These represent habitats that are expected to experience major changes in composition, such as type conversion, due to changes in temperature and water availability.
 - Coastal areas expected to be impacted by sea level rise. Tools such as Cosmos,²⁰⁷ CalAdapt,²⁰⁸ the NOAA Sea Level Rise viewer,²⁰⁹ the Coastal Conservancy's Climate Ready Program,²¹⁰ and California's Climate Change web page on coastal and ocean resources²¹¹ may assist in identifying stressors associated with sea level rise.
- e. Geospatial information on landscape-scale climate resilience, such as climate-resilient natural community areas, representing habitats expected to remain stable in the face of climate change (i.e., potential climate refugia). See ACE datasets on the probability that a given location within California will serve as refugia under climate change.
- f. Other available, science-based analyses and information to identify exposure of the RCIS area to climate change, climate-vulnerable resources in the RCIS, and areas that may be resilient to the impacts of climate change.

4.2.9.9 Invasive Species

RCIS proponents shall include invasive species within the RCIS area as a pressure or stressor to focal species and other conservation elements. Information is available from CDFW's Invasive Species Program,²¹² California Department of Food and Agriculture,²¹³

²⁰⁶ Thorne, J.H., R.M. Boynton, A.J. Holguin, J.A.E. Stewart, & J. Bjorkman, California Department of Fish and Wildlife. 2016. *A Climate Change Vulnerability Assessment of California's Terrestrial Vegetation*. Available: <https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=116208&inline>.

²⁰⁷ https://walrus.wr.usgs.gov/coastal_processes/cosmos/

²⁰⁸ <http://cal-adapt.org/sealevel/>

²⁰⁹ <https://coast.noaa.gov/slr/beta/#/layer/slr>

²¹⁰ http://scc.ca.gov/climate_change/

²¹¹ http://www.climatechange.ca.gov/adaptation/coast_and_oceans.html

²¹² <https://www.wildlife.ca.gov/Conservation/Invasives>

²¹³ <http://www.cdfa.ca.gov/plant/>

Invasive Species Council of California,²¹⁴ California Invasive Plant Council online inventory,²¹⁵ and county agricultural commissioner offices.²¹⁶

4.2.10 Other Considerations

The RCIS shall consider existing major water, transportation, and transmission infrastructure facilities in the assessment area and shall consider reasonably foreseeable development of major infrastructure facilities including, but not limited to, renewable energy and housing.²¹⁷ Reasonably foreseeable development may be identified through consideration of the following sources:

- a. Renewable energy projects—information from the county or the California Energy Commission;
- b. Infrastructure projects—identified in local, state, and federal agencies' plans and/or in CEQA and **National Environmental Policy Act** (NEPA) documents;
- c. Housing and other development—identified in city and county general and specific plans and in CEQA and NEPA documents.

4.3 Additional Requirements to Create MCAs

Under an approved RCIS, any entity may prepare MCAs as a mitigation or advance mitigation tool to create credits to satisfy mitigation, including compensatory mitigation, required under CESA, LSA, or CEQA. Any focal species, non-focal species, or other conservation element meeting the minimum requirements (see Sections 4.2.5 and 4.2.6) may be considered for MCA credits. To create mitigation credits through an MCA (see Section 5 – Mitigation Credit Agreements), the RCIS shall also include the items in the list below.²¹⁸ The items in the list below must be included in the draft RCIS submitted to CDFW for completeness review if conservation actions or habitat enhancement actions identified in the RCIS are to be used to develop MCAs, otherwise the RCIS would be required to be amended to enable MCA development.

The RCIS proponent is responsible for all items in the list below unless responsibility is transferred to another entity and such transfer is mutually agreed to in writing by all parties and with CDFW's written approval by the RCIS Program Manager. All MCA sponsors shall contribute to collecting data and providing the data to the RCIS proponent to assist with the implementation and completion of the items below.

²¹⁴ <http://www.iscc.ca.gov/species.html>

²¹⁵ <http://www.cal-ipc.org/plants/inventory/>

²¹⁶ http://www.cdfa.ca.gov/exec/county/county_contacts.html

²¹⁷ Fish & G. Code, § 1852, subdivision (c)(6)

²¹⁸ Fish & G. Code, § 1856, subdivision (b)

- a. **An adaptive management and monitoring strategy** for the conservation and habitat enhancement actions of focal species, their habitats, and other conservation elements that are to create mitigation credits through MCAs.²¹⁹ Adaptive management and monitoring plans will be included in MCAs. The RCIS adaptive management and monitoring strategy may be brief and can refer to the adaptive management and monitoring plan templates to be included in MCAs.²²⁰ Though not required, the RCIS may indicate minimum requirements that the MCA adaptive management and monitoring plan templates must include, so long as those requirements are consistent with CDFW’s MCA Guidelines and MCA Template (not to be confused with an MCA’s adaptive management and monitoring plan “template”). CDFW also recommends including, when feasible, an RCIS adaptive management and monitoring strategy that covers resources conserved by investments apart from those achieved through MCAs.
- b. A process for updating the RCIS’s scientific information (e.g., GIS data or minor changes to numbers or text in the document) that pertains to focal species and other conservation elements, and minor changes to goals, objectives, and conservation and/or habitat enhancement actions pertaining to those elements. The updates should occur as data are available and no less than once every ten years until all mitigation credits are used. Refer to Section 4.8 – Updating and Extending an RCIS.
- c. A process for tracking and reporting on the effectiveness of conservation actions and habitat enhancement actions in achieving the goals and objectives for focal species and other conservation elements, including offsetting the effects of identified pressures and stressors. The process shall specify the metrics (i.e., area, habitat quality, percent complete)²²¹ by which the effectiveness will be assessed, the frequency of assessment, and the way the data will be managed and reported.
- d. The contents of an RCIS report to be submitted to CDFW at the end of the RCIS ten-year term or in the updated RCIS submitted to CDFW for renewal after the end of the RCIS ten-year term (see Section 4.8 – Updating and Extending an RCIS).²²² The RCIS report or RCIS update shall indicate the progress of conservation and habitat enhancement actions in achieving the RCIS’ goals and objectives. The RCIS report shall summarize the net change in selected metrics for the focal species and other conservation elements. This shall include a summary of the progress of all MCAs in the RCIS area based on readily available MCA information. To the extent feasible the RCIS report shall also include a summary of other readily available information on conservation and/or habitat enhancement actions undertaken in the RCIS area during the 10-year interval.

²¹⁹ Fish & G. Code, § 1856, subdivision (b)(1)

²²⁰ Fish & G. Code, § 1856, subdivision (f)(14)

²²¹ Fish & G. Code, § 1854, subdivision (e)

²²² Fish & G. Code, §§ 1854, subdivision (a) and 1856, subdivision (b)(2)

- e. Identification of a specific public or private entity that has agreed to be responsible, along with the RCIS proponent, for the completion and approval by CDFW of RCIS updates, effectiveness evaluation, and the RCIS report on effectiveness. In the event that the responsible party is not available for these tasks, another responsible party shall be designated by the RCIS proponent responsible for the most current RCIS version. If potential MCA sponsors are known at the time the RCIS is developed and submitted for CDFW's review and approval, they may be indicated as responsible parties in completing these tasks.
- f. The level of information required from MCA sponsors to the RCIS proponent for completion of the items in the list above.

4.4 Data Management, Sharing, and Access

RCIS proponents are encouraged to consult with CDFW RCIS Program staff when developing a plan for data management during the RCISs development and approval period.

All data, models, and other tools used for or created for the RCIS shall be readily available to potential users, including MCA sponsors, and shall not depend upon the acquisition of proprietary data, software, or licenses. If an RCIS proponent wishes to use proprietary data or models not readily available to the public, the proponent shall confer with CDFW.

All spatial and non-spatial data created during RCIS development (e.g., new occurrence information, maps and other model output) shall be submitted to CDFW via a File Transfer Protocol (FTP) site upon submission of the draft document for CDFW review. The RCIS proponent shall compile and provide spatial input and summary data in an industry-standard (Environmental Systems Research Institute [ESRI]-readable) geospatial format and include metadata that meets CDFW's minimum metadata standards.^{223, 224} The RCIS proponent must request that CDFW provide a link to the FTP site, which will remain active for approximately two weeks.

RCIS proponents may also choose, in addition, to upload this information onto another (non-CDFW) web portal for interactive use to allow all interested parties to generate queries of regional conservation values within the RCIS area. The web portal should clearly display the process-related steps used to compile, develop, and derive RCIS information. All spatial data included in the web portal shall have metadata meeting CDFW's minimum metadata standards and be available for download in an industry-standard geospatial format. Examples of an interactive platform include the Desert

²²³ <https://wildlife.ca.gov/Data/BIOS/Metadata>

²²⁴ Fish & G. Code, § 1852, subdivision (d)

Renewable Energy Conservation Plan Gateway portal²²⁵ and the Bay Area Conservation Lands Network Explorer Tool.²²⁶

All spatial and non-spatial data created from implementing the RCIS's conservation actions and habitat enhancement actions shall be provided to CDFW and the RCIS proponent.

4.5 Accessibility

CDFW follows the Web accessibility standards of California Government Code 11135²²⁷ and the U.S. Rehabilitation Act section 508.²²⁸ Since draft and final RCISs will be posted to CDFW's website (see Section 1.4 – Program Contacts), RCIS proponents must ensure that the standards for adequate accessibility to people with disabilities are met for all draft and final RCISs and associated submittals. The Seven Steps to Creating an Accessible Word Document²²⁹ are as follows:

- a. Use appropriate font style and size;
- b. Use color appropriately;
- c. Add alternative texts and captions;
- d. Format tables according to guidance;
- e. Use meaningful hyperlink text;
- f. Use built-in formatting styles;
- g. Use Word accessibility checker.

For guidance on compliance with these standards and for assistance with other document formats (e.g., PDFs), refer to the following resources:

- a. Seven Steps to Creating an Accessible Word Document;²²⁹
- b. U.S. Department of Health and Human Services section 508 Accessibility checklists pursuant to the Rehabilitation Act of 1973;²³⁰
- c. California Department of Rehabilitation Disability Access Services website.²³¹

²²⁵ Desert Renewable Energy Conservation Plan (DRECP) Gateway: <https://drecp.databasin.org>

²²⁶ <http://www.bayarealands.org/explorer/>

²²⁷ https://leginfo.ca.gov/faces/codes_displaySection.xhtml?lawCode=GOV§ionNum=11135

²²⁸ <https://www.section508.gov/manage/laws-and-policies>

²²⁹ Seven Steps to Creating an Accessible Word Document: <http://www.dor.ca.gov/DisabilityAccessInfo/DAS-Docs/Seven-Steps-to-Creating-an-Accessible-Word-document-rev-062016.pdf>

²³⁰ [U.S. Department of Health and Human Services section 508 Accessibility checklists](#)

²³¹ [California Department of Rehabilitation Disability Access Services website](#)

4.6 Review and Approval Process

This section provides guidance on the timing and requirements for preparing and submitting an RCIS to CDFW; reviews conducted by CDFW, cities, counties, and the public; responses to comments; revising and submitting the final RCIS; and CDFW's consideration of approval of the final RCIS.^{232, 233} All steps of the process described below apply to both original and amended RCISs.

Figure 1 provides a flowchart to help orient RCIS proponents with the review and approval process; however, RCIS proponents should refer to Fish and Game Code Section 1854 and these Guidelines for the detailed requirements.

²³² Fish & G. Code, § 1854, subdivisions (a-c)

²³³ In the event of any inconsistency between Fish and Game Code sections 1850-1861 and these Guidelines, the provisions of the Fish and Game Code govern the interpretation of these Guidelines.

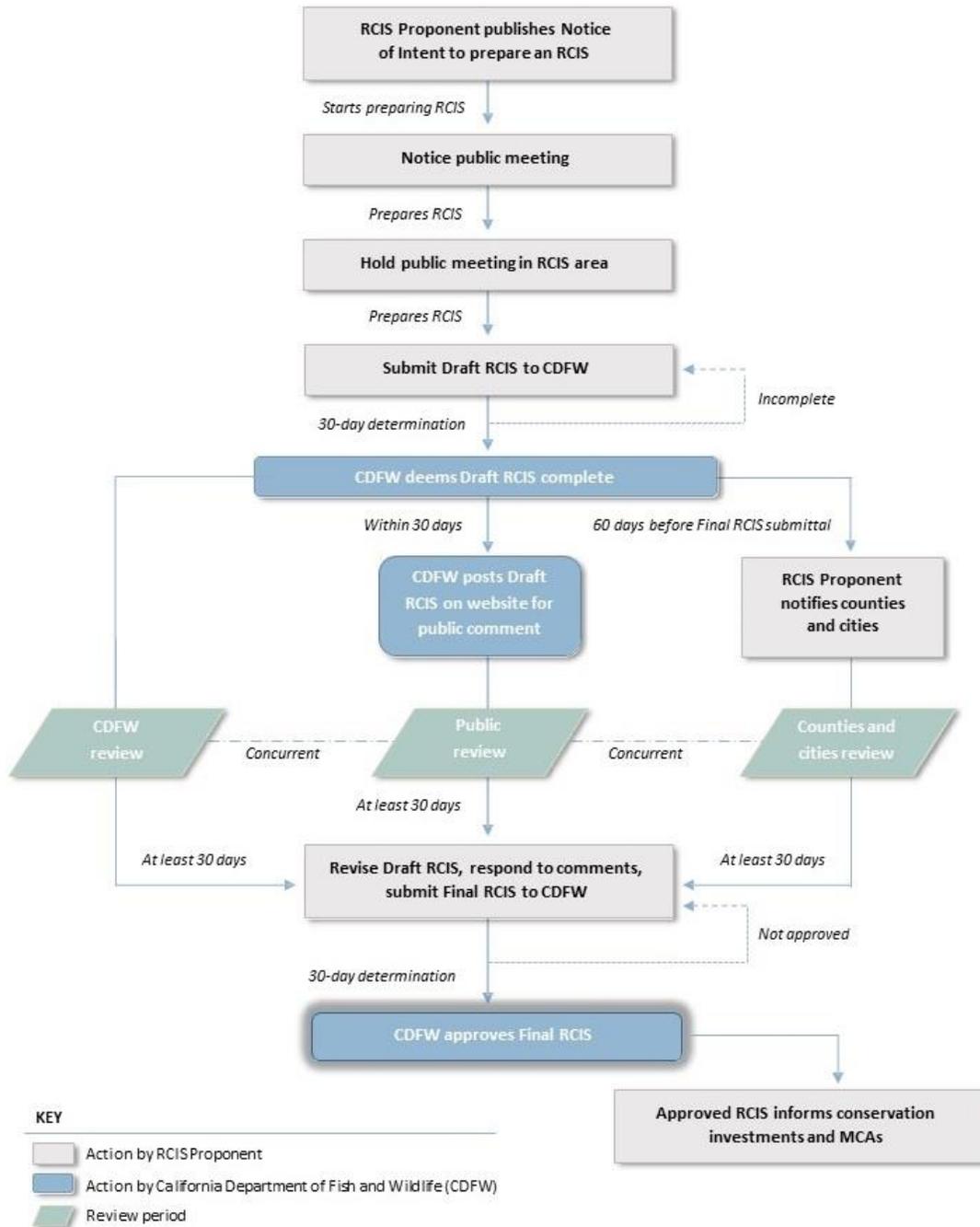


Figure 1. Process for Regional Conservation Investment Strategy Approval

4.6.1 Pre-Submittal Steps

This section provides an overview of the minimum responsibilities of the RCIS proponent prior to submitting a draft RCIS to CDFW. Steps include consultation with CDFW, local agencies with land use authority (i.e., a city, a county, or a city and county), and at least one state agency willing to write a letter in support of the RCIS; submission of an NOI to the Governor’s Office of Planning and Research; conducting and advertising at least one public meeting, and publishing notices and draft RCISs on the RCIS proponent’s website. See Section 1.2 for recommendations to consult with stakeholders and CDFW’s RCIS Program staff early and ongoing through the development of RCISs. The process described below applies to both original and amended RCISs.

4.6.1.1 State Agency Letters

Early consultation with one or more state agencies is strongly recommended to acquire the two types of support letters indicated in this section, a state goals letter and an infrastructure mitigation letter.

State Goals Letter

An RCIS can be prepared and submitted by any public agency in California, including CDFW.²³⁴ If the RCIS proponent is not a state agency, the proponent must find a state agency to write a letter to the CDFW Director requesting approval of the RCIS.²³⁵ The letter shall not be construed as a commitment by the State agency to consult on, or implement, any part of the RCIS. The letter shall briefly (e.g., within one page) state the purpose of the RCIS from both a conservation perspective and an infrastructure planning perspective. The state goals letter requesting approval of the RCIS should be obtained during the pre-submittal phase and a copy shall be included with the draft RCIS package submitted to CDFW for completeness review. The letter should include language, consistent with Fish and Game Code section 1852(a), such as:

“We, the _____, a state agency, request approval of the _____ RCIS as it would contribute to meeting state conservation goals and public infrastructure and/or forest management goals.”

Infrastructure Mitigation Letter

CDFW can generally approve a maximum of eight RCISs.²³⁶ However, an RCIS is exempt from this cap if it is accompanied by a letter to the CDFW Director from a state water or transportation infrastructure agency requesting the RCIS’s approval. In

²³⁴ Fish & G. Code, § 1852, subdivision (a)

²³⁵ Fish & G. Code, § 1852, subdivision (a). If the letter is from a state water or transportation infrastructure agency and meets the requirements of Streets and Highways Code section 800.6(j), the RCIS will not count toward the limit on the total number of RCISs that CDFW can approve under Fish and Game Code section 1861.

²³⁶ Fish & G. Code, § 1861

seeking an infrastructure mitigation letter from a state infrastructure agency for this purpose, CDFW recommends that the RCIS proponent engage with infrastructure agencies early to anticipate requirements and needs for MCA credits for infrastructure projects and to participate in the development of the RCIS. To qualify for the exemption, the state water or transportation infrastructure agency must state in the support letter that the RCIS may be used to facilitate mitigation for an infrastructure project.²³⁷ If an infrastructure mitigation letter is to be submitted, it must be submitted with the final RCIS; however, CDFW encourages submitting the letter with the draft RCIS for completeness determination. The letter should include language, consistent with Streets and Highways Code section 800.6(j), such as:

“We, the _____, a state water or transportation infrastructure agency, request approval of the _____ RCIS as it may be used to facilitate mitigation for an infrastructure project.”

A single letter from one state water or transportation infrastructure agency may be used to satisfy the requirements of Fish and Game Code section 1861 and Streets and Highways Code section 800.6(j) if all of the requirements outlined in this section are met. A commitment from a state agency to write a letter does not obligate them to consult with the RCIS proponent on the preparation of the RCIS, nor does it obligate them to implement any part of the RCIS.²³⁸

4.6.1.2 Consultation with Other Agencies

An RCIS proponent must develop the RCIS in consultation with all local public agencies that have land use authority (i.e., a city, a county, or a city and county) within the geographic area of the RCIS.²³⁹ See Section 4.2.4 - Consultation, Consistency and Compliance, for guidance on the notification and invitation process with local land use authorities and for CDFW’s recommendations to consult with other entities. The RCIS proponent can prepare an RCIS collaboratively with other public agencies or other stakeholders, including non-profit organizations or other interested parties. An RCIS proponent may also elect to engage one or more consultants to assist in the preparation of the RCIS and related documents. However, the RCIS must be submitted to CDFW and proposed by a public agency.

²³⁷ Sts. & Hy. Code § 800.6(j). Passage of SB 103 (Section 12) created an exemption from the maximum of eight RCISs that CDFW can approve.

²³⁸ Additionally, a letter of support from a state agency is solely for the purposes outlined in this section. It does not imply that the RCIS is complete or that it meets the requirements set forth in Fish and Game Code sections 1852, 1854, and 1855 and these Guidelines, and it does not substitute for CDFW’s review and approval process.

²³⁹ Fish & G. Code, § 1852, subdivision (a)

4.6.1.3 Notice of Intent

The RCIS proponent shall publish an NOI to create an RCIS by filing the NOI with the Governor’s Office of Planning and Research and the county clerk of each county in which the RCIS area overlaps (in part or in whole).²⁴⁰ Additionally, a copy of the NOI shall either be emailed to CDFW at rcis@wildlife.ca.gov or mailed to CDFW’s Habitat Conservation Planning Branch Chief (see Section 1.4 – Program Contacts).

4.6.1.4 Public Involvement

CDFW recommends that RCIS proponents include a broad array of stakeholders in the development of RCISs to foster collaborative engagement with individuals and entities with relevant experience and expertise. The RCIS proponent should identify interested individuals and other stakeholders early in development of the RCIS to invite their input in terms of interests, concerns, information, and ideas that may help in the development of a comprehensive, supported RCIS. As a starting point, upon written request, CDFW will provide the RCIS proponent with the list of public agencies, organizations, and individuals who have filed a written request with CDFW for notices of all RCIS public meetings.

After publishing the NOI and at least 30 days prior to submitting the draft RCIS to CDFW for completeness review, the RCIS proponent shall hold at least one public meeting within or near the RCIS area.²⁴¹ The public meeting shall be held within the county, or one of the counties, in which the RCIS is located in whole or in part. The purpose of the public meeting is to provide interested persons and entities with meaningful information about the draft RCIS early in the process and solicit input. The RCIS proponent shall provide an adequate opportunity for interested persons and entities to provide oral or written comments. The public meeting may be supplemented with an online meeting. The RCIS proponent shall respond to written comments submitted during the public meeting(s) and during the public comment period which begins after CDFW deems the draft RCIS complete and pursuant to public notice.²⁴² The RCIS proponent should notify interested parties that they must provide their comments in written form during the public meeting(s) or during the public comment period if they wish for their comments to be considered by the RCIS proponent in the draft RCIS submitted for final CDFW review.

²⁴⁰ Fish & G. Code, § 1854, subdivision (c)(1). If the RCIS proponent began preparation of the RCIS prior to January 1, 2017, the NOI is not required.

²⁴¹ Fish & G. Code, § 1854, subdivision (c)(3)(A). If the RCIS proponent began preparation of the RCIS prior to January 1, 2017 and held a public meeting that meets the requirements set forth above prior to January 1, 2017, no further public meeting is required.

²⁴² Fish & G. Code, § 1854, subdivision (c)(3)(B)

At least 30 days before holding a public meeting to distribute information about the development of a draft RCIS or amended RCIS, the RCIS proponent shall provide notice of an RCIS or amended RCIS public meeting as follows:²⁴³

- a. To CDFW via email at rcis@wildlife.ca.gov;
- b. On the public agency's internet website and any relevant LISTSERV;
- c. To each city and county within or adjacent to the RCIS area (CDFW recommends sending the notification to the city and county clerks);
- d. To the Implementing Entity for each NCCP or federal regional HCP that overlaps with the RCIS area;
- e. To each public agency, organization, or individual who has filed a written request for the notice, including any agency, organization, or individual who has filed a written request to CDFW for notices of all RCIS public meetings. CDFW will provide a list of these entities to the RCIS proponent upon written request (see Section 4.2.4).

All drafts submitted for CDFW review and approval shall include a section or appendix that lists all written public comments received during public meeting(s) or the public comment period²⁴⁴, including a summary of the content of each comment, the RCIS proponent's response, a description of how each comment was addressed in the RCIS, and copies of all written comments received.²⁴⁵

4.6.2 Completeness Review

A draft RCIS submitted to CDFW (see Section 1.4 – Program Contacts) shall contain all of the information required by Fish and Game Code section 1852(c) and these Guidelines. See section 4.6.1.1 – State Agency Letters for guidance on the state support letters to be submitted with the draft RCIS. In preparing a draft RCIS, the RCIS proponent shall consider all written comments received from the public during the public meeting(s). See Section 4.6.1.4 – Public Involvement, for details on requirements to incorporate public comments in the draft and final RCIS submittals.

Once the RCIS proponent submits a draft RCIS to CDFW for approval, CDFW shall have thirty (30) days within which to deem the draft RCIS complete or to explain in writing to the RCIS proponent what additional information is required to complete the draft RCIS.²⁴⁶ CDFW will deem the RCIS package complete if the RCIS proponent provides

²⁴³ Fish & G. Code § 1854, subdivision (c)(4)

²⁴⁴ Only the draft submitted for completeness review needs to include comments received during the public meeting(s) held prior to submitting that draft.

²⁴⁵ Fish & G. Code, § 1854, subdivision (c)(3)(B)

²⁴⁶ Fish & G. Code, § 1854, subdivision (c)(2)

information in response to each of the required elements and sub-elements listed in Fish and Game Code section 1852(c) and these Guidelines, and provides a copy of the state agency approval request letter sent to the Director. However, a determination that an RCIS is complete does not indicate that CDFW has concluded that the draft RCIS contains all of the information necessary for CDFW to approve it as a final RCIS; during the course of its substantive review of the draft RCIS, CDFW may identify additional information or provisions the RCIS will need before CDFW can approve it as a final RCIS. Comprehensive communication and coordination with CDFW and with agencies and other stakeholders early and ongoing in the RCIS document's scoping and development may reduce the amount of changes needed during completeness and subsequent reviews.

4.6.3 Review of the Draft RCIS

Once CDFW deems an RCIS complete, substantive review of the RCIS commences. Within thirty (30) days of deeming the RCIS complete, CDFW shall make the draft RCIS available to the public on the CDFW website for review and comment. At that time, CDFW shall send an email notification to announce the availability of the draft RCIS to any public agency, organization, or individual who has filed a written request to CDFW to receive such notifications.²⁴⁷ The notification will indicate the process for submitting public comments. The RCIS proponent shall also send a notification of the availability of the draft RCIS to the entities and individuals that expressed their interest in the RCIS to the RCIS proponent.

Depending on the scope, length, and complexity of the draft RCIS, CDFW will determine an appropriate public review and comment period; provided, however, that the public review and comment period shall extend for at least thirty (30) days after posting of the draft RCIS on the CDFW website.²⁴⁸ CDFW will strive to conduct its substantive review of the draft RCIS generally concurrent with the public review period and shall submit written comments to the RCIS proponent upon completion of its review.

After CDFW deems the draft RCIS complete and at least sixty (60) days prior to submitting the final RCIS to CDFW for review and approval, the RCIS proponent shall notify, in writing, the boards of supervisors and the city councils in each county within which the RCIS is located in whole or in part, of the draft RCIS. The RCIS proponent shall provide those entities at least thirty (30) days in which to submit written comments to the RCIS proponent.²⁴⁹ CDFW strongly encourages RCIS proponents to coordinate with CDFW to schedule concurrent reviews by the public, CDFW, and cities and counties.

²⁴⁷ Fish & G. Code, § 1854, subdivision (c)(2)

²⁴⁸ Fish & G. Code, § 1854, subdivision (c)(2)

²⁴⁹ Fish & G. Code, § 1854, subdivision (c)(5)

Within thirty (30) days of the close of the public review and comment period and the city and county review and comment period, and at least thirty (30) days prior to submitting the final RCIS to CDFW, the RCIS proponent shall provide CDFW with copies of all written comments received on the draft RCIS.

4.6.4 Submission and Review of the Final RCIS

In preparing a final RCIS, the RCIS proponent shall consider all written comments received from CDFW, cities and counties, and the public. Responses to such comments shall be incorporated into the body of the final RCIS. See Section 4.6.1.4 – Public Involvement, for details on requirements to incorporate public comments in the draft and final RCIS submittals.

Once the RCIS proponent submits the final RCIS to CDFW for review and approval, CDFW shall have thirty (30) days in which to approve the final RCIS or to explain in writing to the RCIS proponent what additional information or provisions are required for CDFW to approve it.²⁵⁰ If the proponent resubmits the final RCIS for approval and CDFW again determines not to approve the RCIS, CDFW may, in its discretion, grant the RCIS proponent an additional opportunity to revise the RCIS or it may issue a final disapproval. CDFW shall make all approved RCISs available on its website.²⁵¹ CDFW may approve a final RCIS for up to ten years, although it retains discretion to approve an RCIS for a shorter period of time.

4.7 Amending an RCIS

CDFW has defined two types of RCIS amendments: simple and complex. A simple amendment would include small or minor changes to the document that are more than a data update (see Section 4.8 – Updating and Extending an RCIS), but that do not result in substantial changes, as determined by CDFW. A complex amendment would result in a substantial change to the document, such as changes to the geographic area, focal species, or other conservation elements, as determined by CDFW.

An amended RCIS shall include the reason(s) for the amendment, a summary of the amended information, and the extent to which the RCIS is consistent with an approved or amended RCA covering the RCIS area, if applicable. The complex RCIS amendment is subject to the same public notice requirements and review and approval processes required for original RCISs (see Section 4.6 – Review and Approval Process).

An amended RCIS can be submitted by either the original RCIS proponent, CDFW, or by a third-party public agency with the express written authorization of the original RCIS

²⁵⁰ Fish & G. Code, § 1854, subdivision (c)(6)

²⁵¹ Fish & G. Code, § 1854, subdivision (d)

proponent. If a third-party public agency wishes to amend an approved RCIS and the original RCIS proponent declines to so amend the RCIS or to authorize the third-party public agency to do so, the third-party public agency may seek authorization from CDFW to amend the RCIS. CDFW may, in its sole discretion, authorize a third-party public agency to amend an RCIS if it determines that the proposed amendment will provide a substantial conservation benefit and will not unduly prejudice the rights or interests of the original RCIS proponent. CDFW may also, in its sole discretion, amend an RCIS if it determines that an amendment is necessary to conform to new or amended federal, state, or local laws or regulations, or if it determines that the proposed amendment will provide a substantial conservation benefit and will not unduly prejudice the rights or interests of the original RCIS proponent.

4.8 Updating and Extending an RCIS

In contrast to an amendment, an update to an RCIS means updates to the best available scientific information contained in a previously approved RCIS. A data update is generally the submission of GIS data or minor changes to numbers or text in the document that require less than four hours of CDFW staff time. It does not include updates or amendments to the geographic area, focal species, or other conservation elements. An RCIS proponent may update the scientific information in the RCIS at any time.

CDFW may extend the duration of an approved RCIS for additional periods of up to ten years after the scientific information has been updated. If the RCIS is intended to be used to create mitigation credits pursuant to Fish and Game Code section 1856, the public or private entity identified in the RCIS as the party responsible for updating scientific information and evaluating effectiveness, pursuant to Section 4.3(b-d), shall complete such updates and evaluation at least once every ten years after CDFW approves the RCIS.²⁵²

If CDFW determines that an approved RCIS needs to be updated or evaluated more frequently and the RCIS proponent or responsible party declines to do so, CDFW may elect to update the RCIS or authorize a third-party public agency to amend an RCIS. Any such updates shall become part of the approved RCIS, pending an evaluation by CDFW.

4.9 RCIS Fee Schedule

The current fee schedule for RCISs is available on CDFW's website (see Section 1.4 – Program Contacts).

²⁵² Fish & G. Code, § 1856, subdivisions (a) and (b)

Regional Conservation Investment Strategies Program Guidelines



Section 5

Mitigation Credit Agreements

The Guidelines will be updated to include this section.