ADVANCE MITIGATION OPTIONS

Overview

- Advance Mitigation Basics
- CDFW's Advance Mitigation Programs
  - Conservation and Mitigation Banking
  - Mitigation Credit Agreements (MCAs) portion of the Regional Conservation Investment Strategies (RCIS) Program
  - Optional Supplement: Wildlife Connectivity Advance Mitigation Guidelines
- Program comparisons and resources

CDFW photo

Advance Mitigation Basics

Sponsors:

- Protect land conserved and managed for its natural resource values
- Can sell credits from advance mitigation site to permittees needing compensatory mitigation to offset their project's impacts (e.g., CEQA, CESA, LSA)
- Can earn a return on their investment of protecting the land by selling the credits
- Can determine credit prices in a free market

CDFW photo - Brandon Amrhein

Advance Mitigation Ecological Benefits

- No temporal loss of ecological function because protected before impacts occur
- Management of properties specifically for resources
- Larger, more functional and longer lasting ecological systems instead of small, fragmented projects

CDFW photo – Laurel Low

Advance Mitigation Essential Components

- CDFW review program fees and timelines
- Management plans
- Performance standards & monitoring
- Long-term management funding - Endowments
- Securities – e.g. Construction and Performance
- Land package review
- Credit release schedule
- Entity Due Diligence review

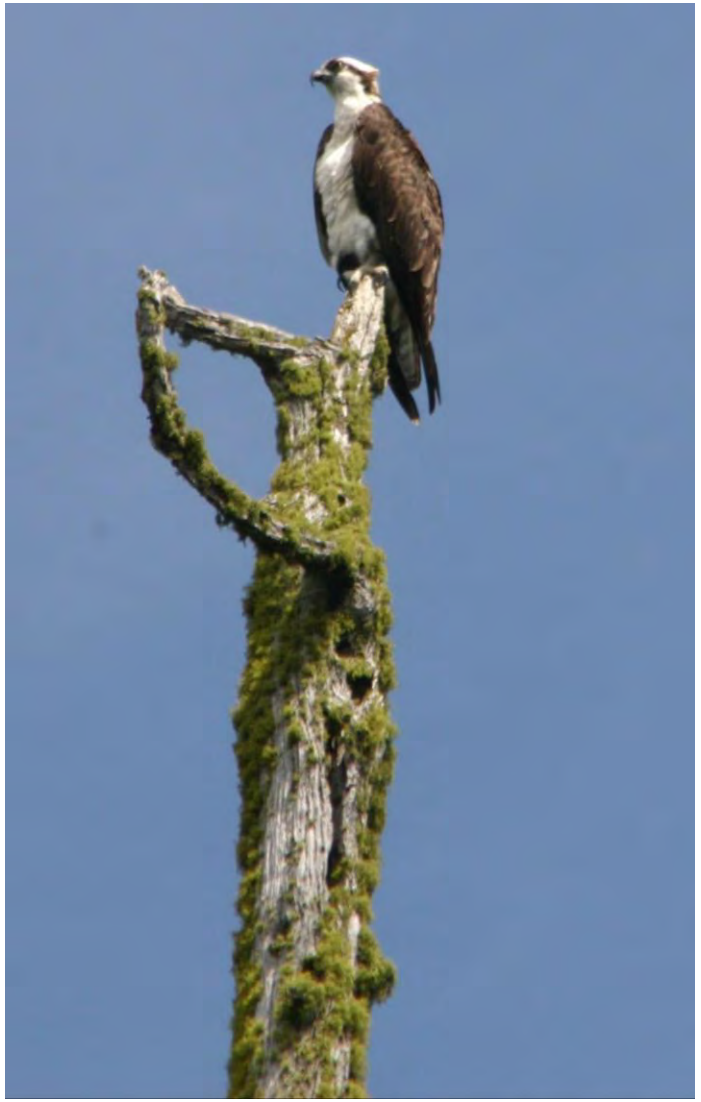
Conservation and Mitigation Banking Program

- Established advance mitigation process and program
- 8 MOU agency process for collaboration on proposed banks
  - Sponsors have pathway for creating credits fulfilling multiple agency's mitigation requirements (e.g., 404 credits or federally endangered species act credits)
- Land is protected in perpetuity with a conservation easement
- Sponsors submit fee and document to Region staff

CDFW photo

Mitigation Credit Agreements (MCAs)

- **Must occur within an approved RCIS area**
- New "bank-like" advance mitigation program with additional options and flexibilities
  - Could be faster and cheaper than banks depending on complexity
- Must implement actions identified in an RCIS for species, habitats, and/or other conservation elements
- Any entity can create an MCA (public or private)
- Can engage with other agencies to create credit types needed for their regulatory requirements
- Credits can be sold or retained by the sponsor for future use
- Can be established on public lands
- Sponsors should reach out to CDFW prior to paying fees and submittal

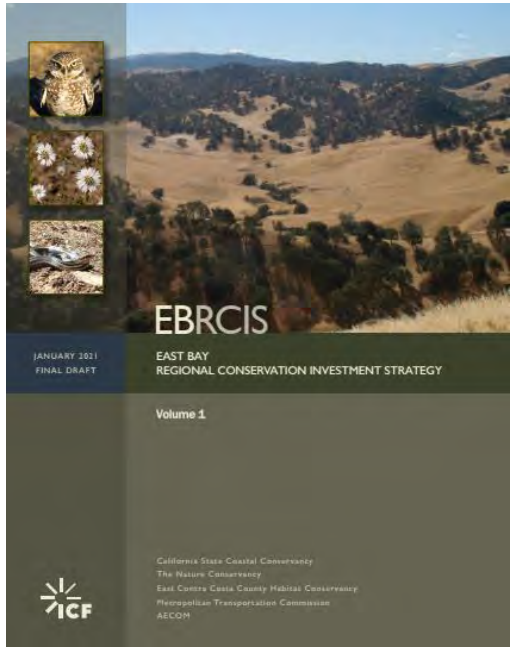


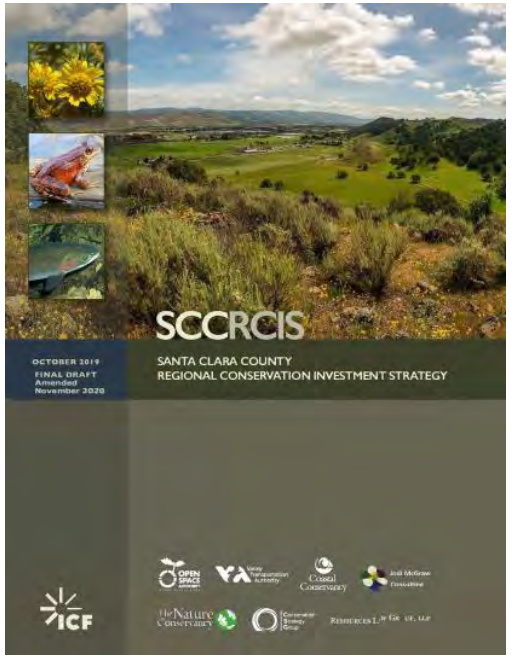
CDFW photo - Brandon Amrhein


NORTH BAY
BAYLANDS
REGIONAL
CONSERVATION
INVESTMENT
STRATEGY
June 2023


Santa Cruz County
Regional Conservation
Investment Strategy
December 2022


Regional Conservation
Investment Strategy Status
Draft In Development
Draft In Review
Final Approved
Mid-Sacramento Valley
Yolo
North Bay Baylands
East Bay
Santa Clara
Santa Cruz County
San Joaquin River Basin
Monterey County
Kaweah Groundwater Subbasin
Antelope Valley
San Bernardino County

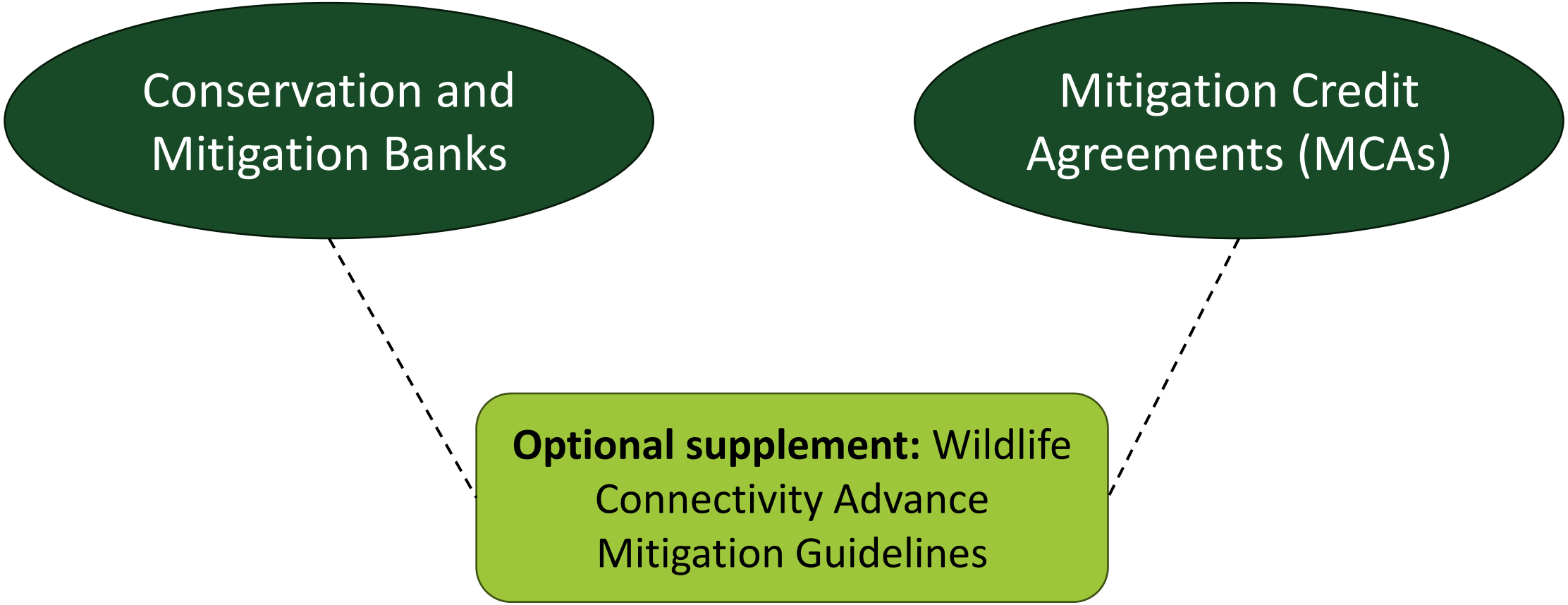

EBRCIS
JANUARY 2021
FINAL DRAFT
EAST BAY
REGIONAL CONSERVATION INVESTMENT STRATEGY
Volume 1
ICF


SCCRCIS
OCTOBER 2019
FINAL DRAFT
Amended
November 2020
SANTA CLARA COUNTY
REGIONAL CONSERVATION INVESTMENT STRATEGY
ICF

Program Comparison

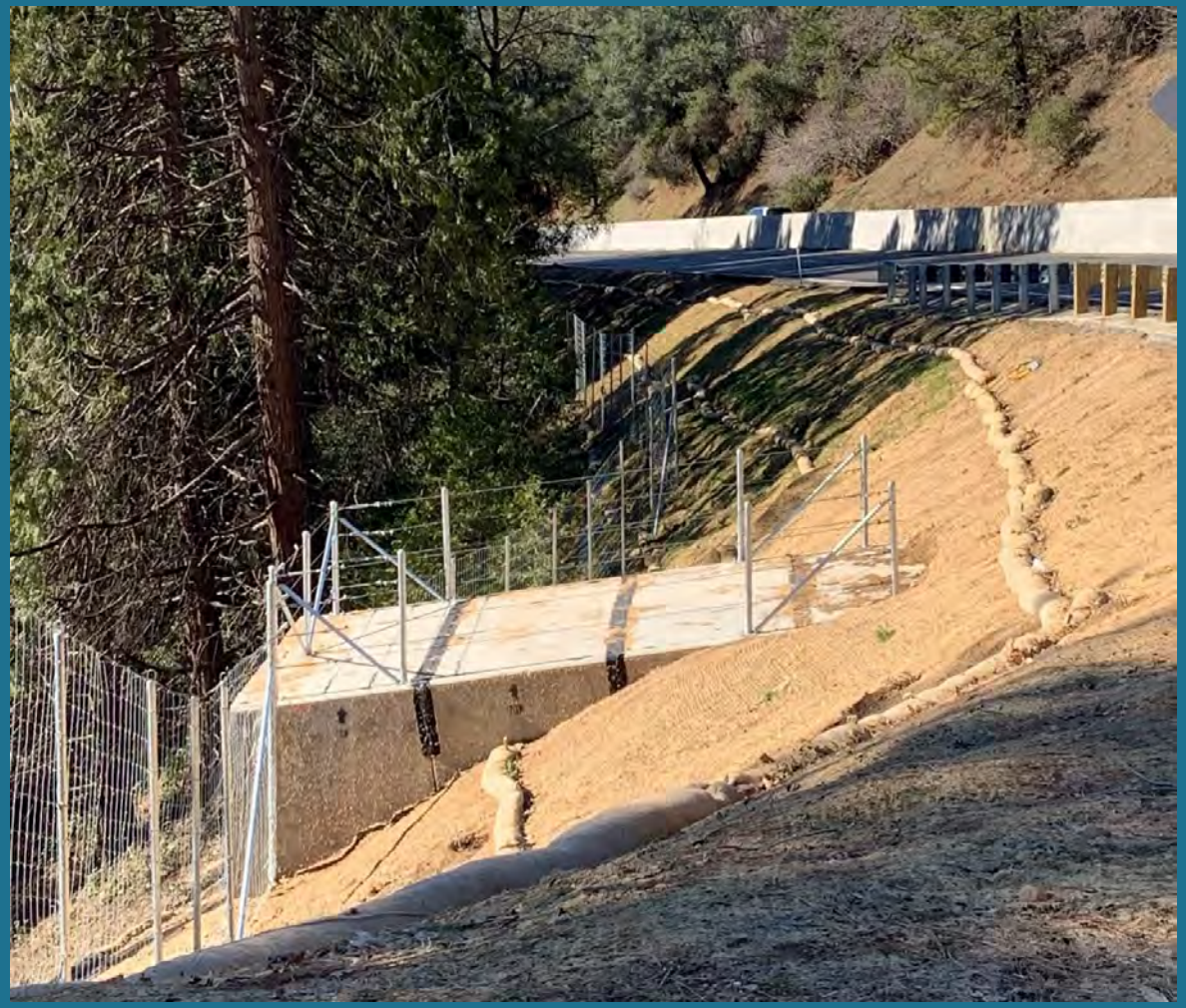
MCA Program	Conservation/Mitigation Banking Program
Must occur within an approved RCIS	Can occur anywhere
Non-permanent & permanent credits	Permanent
Requires Conservation Easement (permanent) Long term durability agreement (non-permanent)	Requires Conservation Easement
Framework option available	No framework
CDFW program – allows other agencies to sign as acknowledging agency if desired	Includes up to 8 MOU agencies that use the Bank Enabling Instrument (BEI)
Can create an MCA from excess mitigation	Option not available
Public review required for MCA approval	No public review
MCA closure still allows for the use of credits purchased prior to closure	Bank closure stops the transfer (use) of credits that were purchased prior to closure

Advance Mitigation Tools



Connectivity Advance Mitigation (CAM)

Does your project include a road overpass or underpass to improve aquatic or terrestrial habitat connectivity?



CDFW photo – Laurel Low

Wildlife Connectivity Action

- An action that **measurably improves** aquatic or terrestrial habitat connectivity, or wildlife migration, recolonization, and breeding opportunities which are inhibited by built infrastructure or habitat fragmentation.

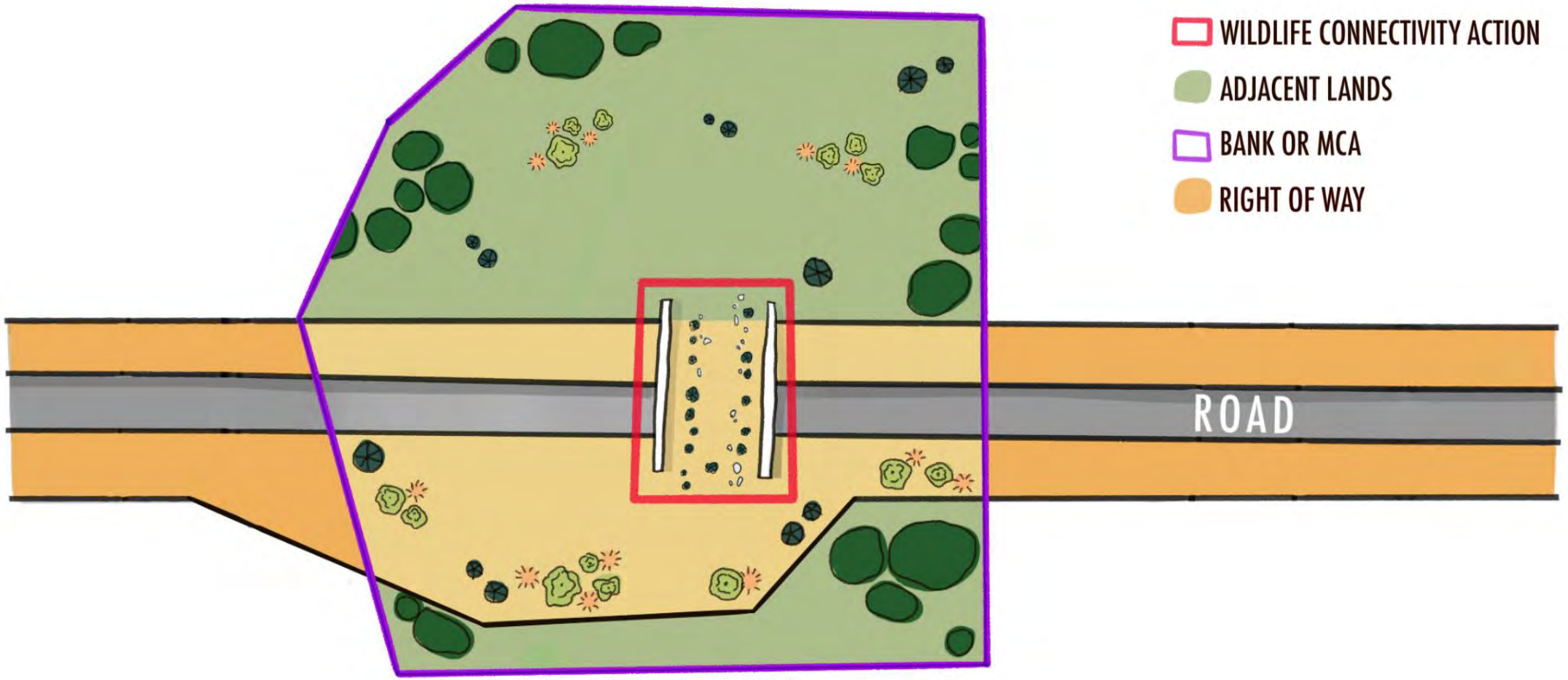
- May include, but is not limited to, a road overpass or underpass **solely** for use by wildlife.

CAM Key Features

CDFW Photo - Marcus Griswold

- Provides **economic incentives** to develop wildlife crossings
- Allows for **long-term conservation** within or over existing linear infrastructure barriers.
  - Through **Long-term Durability Agreements** within rights-of-way
- Uses **ecologically based evaluation criteria** for wildlife connectivity crediting
  - Credit allocations beyond actual acreage conserved

Wildlife Connectivity Action



CAM Considerations

Bank or MCA?	All connectivity projects have the same fees as the standard bank or MCA processes
Land protection	Conservation easements, unless infeasible and then use a long-term durability agreement (e.g. in the right of way)
Credit types	Creates habitat or species credits. Transferred or used like those from banks/MCAs. Will be labeled “WCA” in the bank ledger
Partners	Collaboration with a transportation agency or other groups?

Connectivity Advance Mitigation Modifications

MCA Program	Banking Program	CAM
Must occur within an approved RCIS	Can occur anywhere	Program dependent
Non-permanent & permanent credits	Permanent credits	Permanent credits
Requires Conservation Easement or Long term durability agreement (non-permanent)	Requires Conservation Easement	Requires Conservation Easement and where infeasible, long –term durability agreement
Framework option available	No framework	Program dependent
CDFW program – allows other agencies to sign agreement	Up to 8 MOU agencies using the Bank Enabling Instrument	CDFW program- can work with other agencies
Can create from excess mitigation	Option not available	Program dependent
Public review required	No public review	Program dependent
Closure still allows for the use of credits purchased prior to closure	Closure stops the transfer (use) of credits purchased prior to closure	Program dependent

Advance Mitigation Programs' Resources

Conservation and Mitigation Banking

Conservation and Mitigation Banking web page

mitbank@wildlife.ca.gov

CDFW HQ contact

- Craig Zeff, Bank Coordinator

Mitigation Credit Agreements (MCAs)

Mitigation Credit Agreements web page

rcis@wildlife.ca.gov

CDFW HQ contacts

- Brandon Amrhein, MCA Coordinator

Connectivity Advance Mitigation (CAM)

Wildlife Connectivity Advance Mitigation web page

mitconnect@wildlife.ca.gov

CDFW HQ contacts

- Laurel Low, Connectivity Advance Mitigation Coordinator
- Monica Aquino, Bank and Connectivity Advance Mitigation Liaison

Upcoming Webinars

October 4, 2024

- 9:00 a.m. - 10:30 a.m. Overview of CDFW's Advance Mitigation Programs Webinar
- 11:00 a.m. - 12:00 p.m. Connectivity Advance Mitigation (CAM) Webinar

October 15, 2024

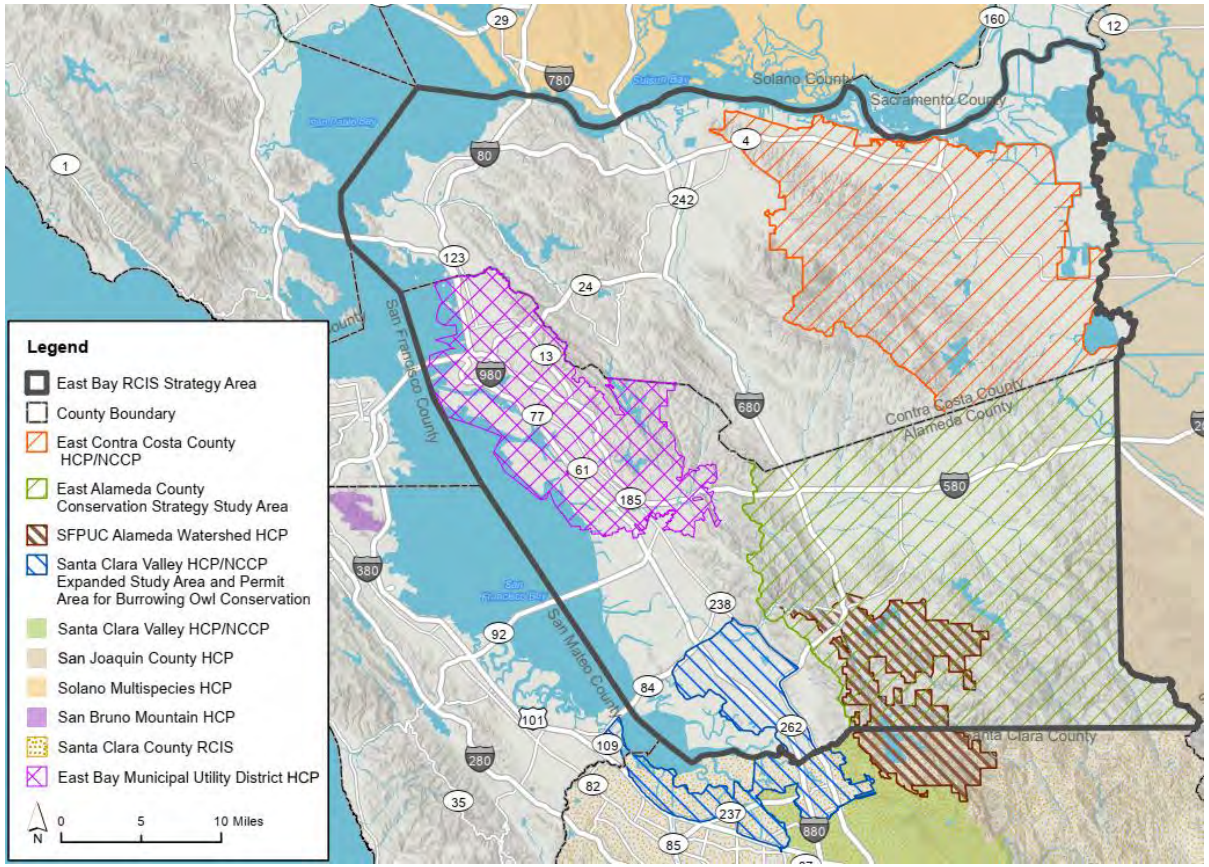
- 9:00 a.m. - 10:00 a.m. Regional Conservation Investment Strategies (RCIS) Webinar

Register at: https://wildlife.ca.gov/Conservation/Planning/Connectivity

Additional RCIS Information

East Bay RCIS

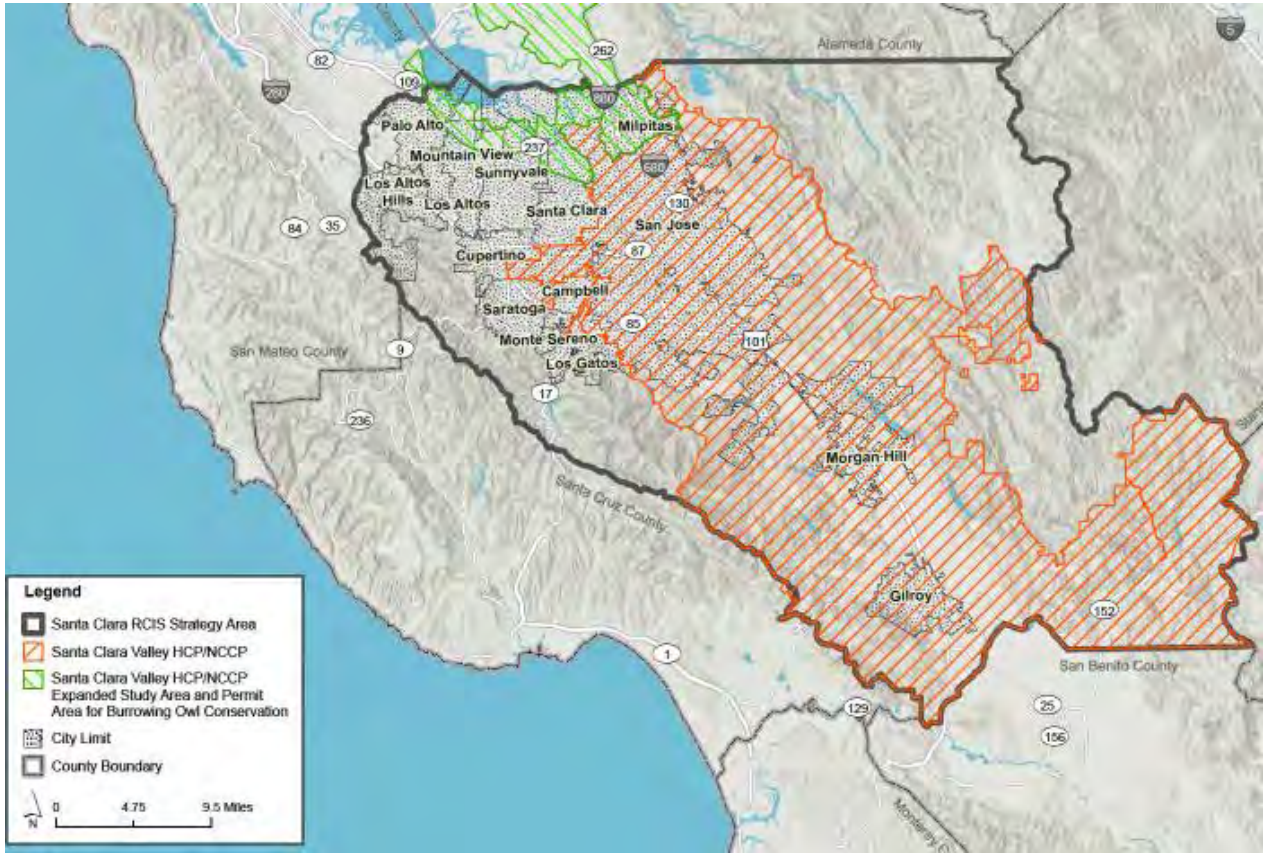
- Fish/invertebrates: Longfin smelt; Delta smelt; Central Valley steelhead; Winter Run steelhead; Chinook; Callippe Silverspot; Vernal pool fairy shrimp; Longhorn fairy shrimp; Vernal pool tadpole shrimp
- Herps: Northern CA legless lizard; western pond turtle; California tiger salamander; Foothill yellow-legged frog; California red-legged frog; Alameda whipsnake; Giant garter snake
- Mammals: American badger; Townsend's big eared bat; Salt marsh harvest mouse; San Joaquin kit fox; Mountain lion
- Birds: California black rail; western snowy plover; Ridgway's Rail; Northern harrier; Bald eagle; Burrowing owl



Includes a number of rare plants and other conservation elements (e.g., habitat)

Santa Clara RCIS

- Fish/invertebrates: Longfin smelt; Central California Coast steelhead; South-Central California Coast steelhead
- Herps: Western pond turtle; Foothill yellow-legged frog; California red-legged frog; California tiger salamander
- Mammals: American badger; Townsend's big eared bat; Salt marsh harvest mouse; San Joaquin kit fox; Mountain lion
- Birds: Western snowy plover; Ridgway's rail; Tricolored blackbird; Burrowing owl; Swainson's hawk



Includes a number of rare plants and other conservation elements (e.g., habitat)

Santa Cruz RCIS

- Fish and invertebrates: Coho Salmon; Tidewater goby; steelhead – South Central California Coast DPS; steelhead – Central California Coast DPS; Zayante band-winged grasshopper; Monarch butterfly; western bumblebee; Ohlone tiger beetle; Mount Hermon June beetle

- Herps: Foothill yellow-legged frog; California red-legged frog; California tiger salamander; Santa Cruz long-toed salamander; Southwestern pond turtle; San Francisco garter snake

- Mammals: Mountain lion; Marbled murrelet; Ring-tailed cat

- Birds: Western snowy plover; Tricolored blackbird; Swainson's hawk; Golden eagle; White-tailed kite; American peregrine falcon; Bald eagle; California brown pelican

Includes a number of rare plants and other conservation elements (e.g., habitat)

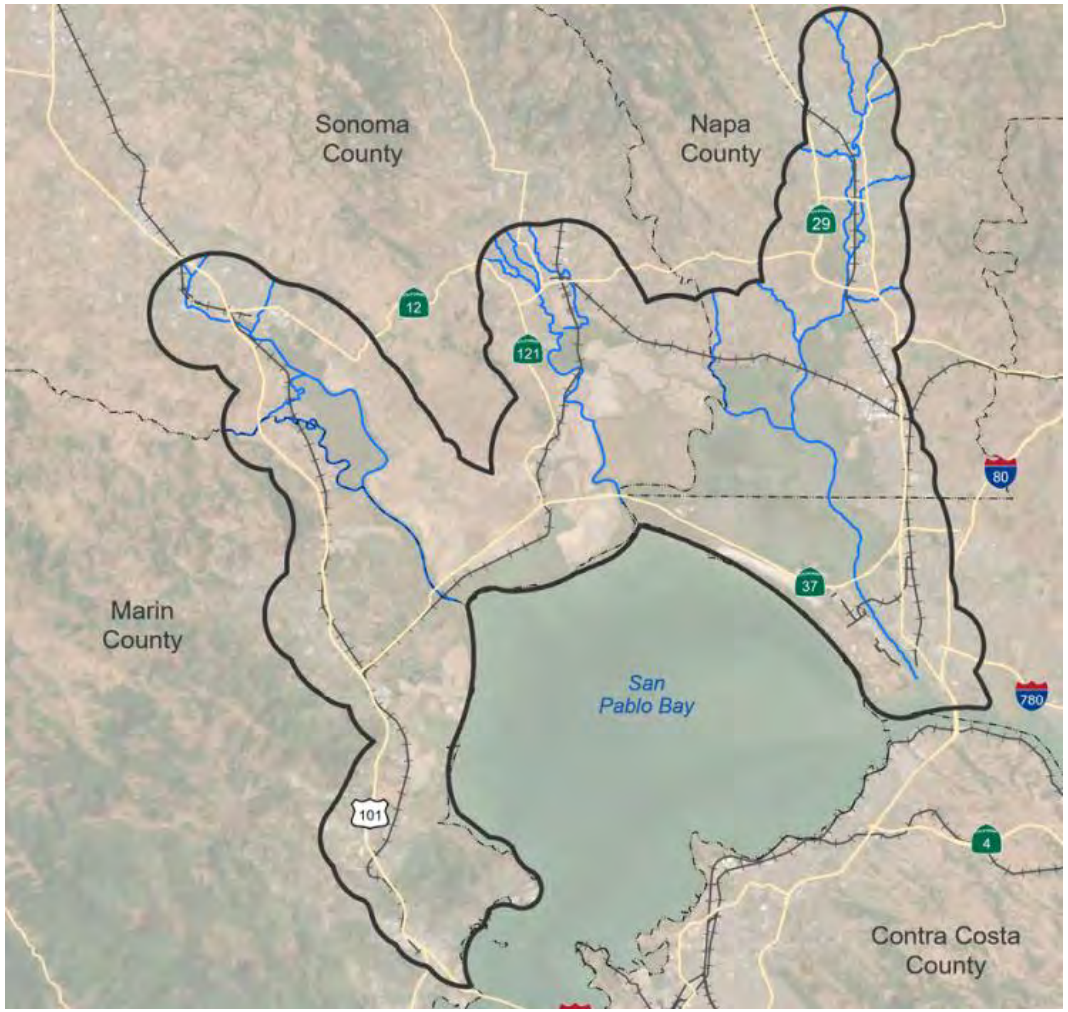
North Baylands RCIS (Draft)

- Fish and invertebrates: Chinook Salmon; Steelhead – Central California Coast DPS; Green Sturgeon – Southern DPS; Delta smelt; Longfin smelt; Sacramento splittail; Western ridged mussel; Callippe silverspot butterfly; Monarch butterfly; Western (or Crotch's) bumblebee; California freshwater shrimp

- Herps: California red-legged frog; Western pond turtle

- Mammals: Saltmarsh harvest mouse; Bats generally

- Birds: Tricolored blackbird; Swainson's hawk; California black rail; Ridgway's rail; Burrowing owl; Saltmarsh common yellowthroat; San Pablo song sparrow

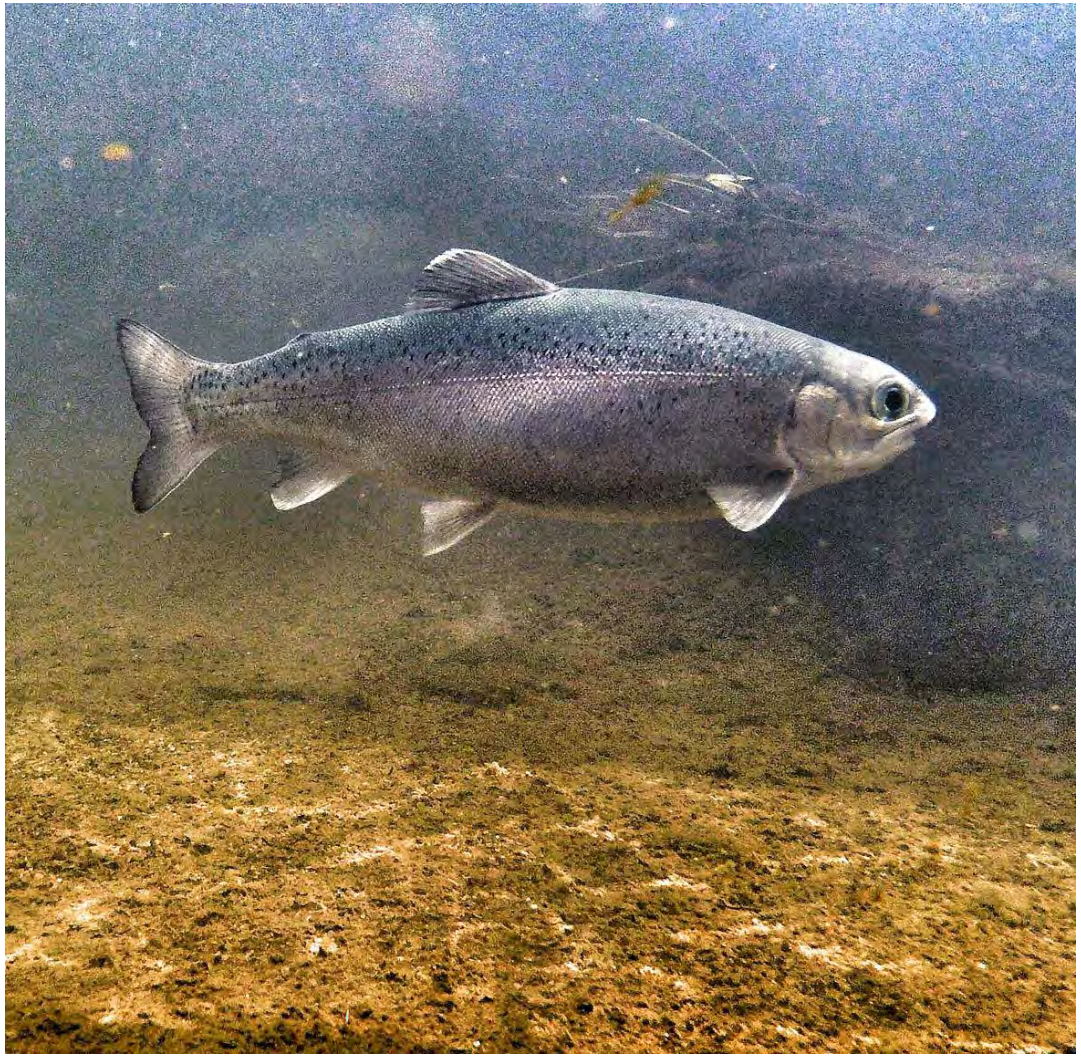


Includes a number of rare plants and other conservation elements (e.g., habitat)

Example East Bay RCIS Conservation Strategies

Steelhead and Salmon

- Permanently protect floodplains and riparian corridors
- Remove or modify fish barriers and design new road crossings and crossing upgrades across streams
- Restore and increase complexity of in-stream habitat (e.g., spawning substrate, in-stream woody debris, and cool, deep pools in streams) and riparian/shaded habitat
- Restore tidal marshes shallow subtidal habitat, and provide more and wider buffers
- Floodplain restoration



Amphibians and Reptiles

- Enhance breeding and upland habitat
- Improve the hydroperiod and water quality of ponds
- Plant native understory and overstory riparian vegetation
- Use livestock grazing that will maintain vegetation heights for amphibians
- Remove nonnative/eradicate exotic wildlife species
- Protect intermittent and ephemeral streams connected to perennial ones
- Enhance and restore wetland ecosystems
- Enhance seasonal breeding habitat below reservoirs by managing reservoir releases

Plant Related Strategies

- Manage vegetation using fire and/or grazing as well as other treatments that mimic the beneficial effects of fire and grazing, including cultural burning where appropriate
- Manage invasive plants
- Seed banking and seed bulking
- Reintroduce rare species into protected areas featuring suitable but unoccupied habitat
- Plant or protect host plants and nectar plants