



WILDLIFE CONNECTIVITY ADVANCE MITIGATION GUIDELINES

September 2024

CONNECTIVITY ADVANCE MITIGATION (CAM)

Guidelines

PRESENTED BY:

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California Department of Fish and Wildlife

We will start at 11:02

October 2024

All photos are CDFW photos

So Far



Code- Background

Senate Bill 790 became Fish and G. Code section 1955-1958

Guidelines Section
1: Overview

Compensatory Mitigation Credits for Wildlife Connectivity Actions

- Mitigation and Conservation Banking Program
- Mitigation Credit Agreements (MCAs), a subprogram of Regional Conservation Investment Strategies (RCIS) Program



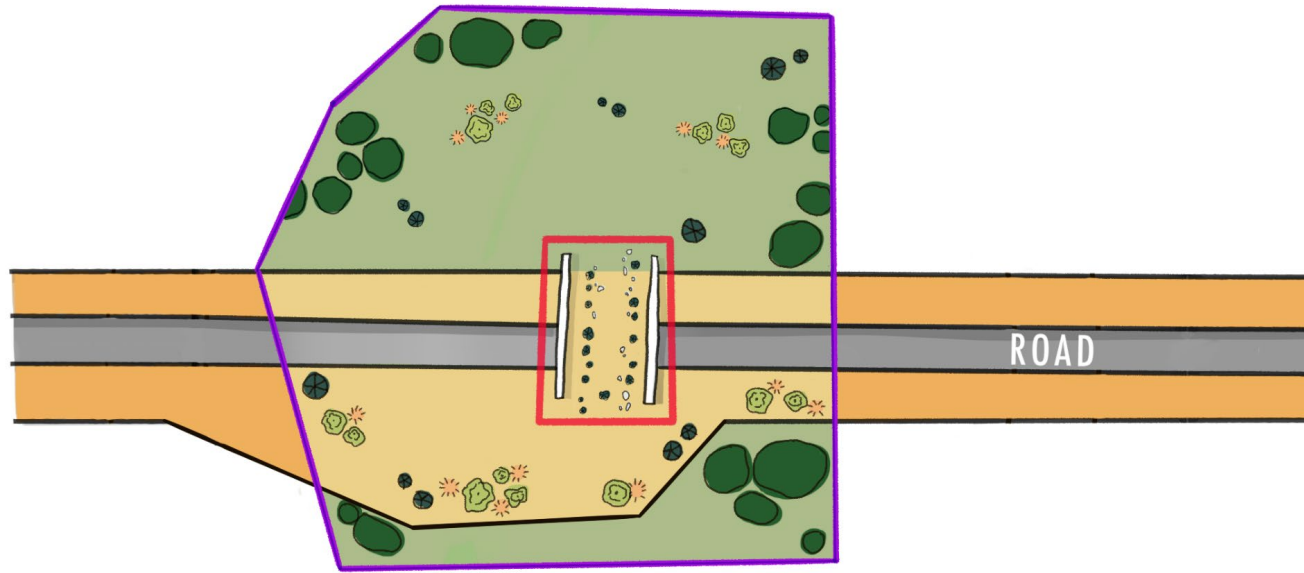
Key Features



- Economic incentives to develop wildlife crossings
- Overcomes implementation difficulties with mitigation banks that encompass barriers like roads and addresses right-of-way issues
 - Allows for Long-term Durability Agreements
- Uses ecologically based evaluation criteria to determine credits

Wildlife Connectivity Action

Guidelines Section 1.6: Wildlife Connectivity Actions



 WILDLIFE CONNECTIVITY ACTION

 ADJACENT LANDS

 BANK OR MCA

 RIGHT OF WAY

Any structure (e.g., road overpass, underpass), designed to improve aquatic or terrestrial habitat connectivity, wildlife migration, movement, recolonization, or breeding opportunities inhibited by built infrastructure.

Mitigation Fulfillment



Guidelines Section
3.1: Credit Types

California
Environmental
Quality Act

California
Endangered
Species Act

Lake or
Streambed
Alteration
Agreements

Other
compensatory
mitigation
requirements

Guidelines and Changes



Guidelines and Resources Available

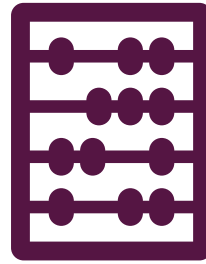
- Wildlife Connectivity Advance Mitigation Guidelines
- Additional documents
 1. Wildlife Connectivity Action Bank Checklist
 2. Wildlife Connectivity Action MCA Checklist
 3. Target Species Scoring Sheet
 4. Target Habitat Scoring Sheet
 5. Target Species Scoring Justification Checklist
 6. Target Habitat Scoring Justification Checklist
- FAQ with diagrams
- Advance Mitigation Options Decision Tree



Key Changes from Public Comments



Clarifications - definitions
and specificity



Changes to scoring
maximum point amounts



Stakeholder engagement
pilot period

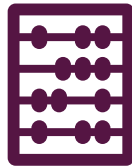
Guidelines



1. Overview
2. Banking and MCA Process with a Wildlife Connectivity Action
3. Wildlife Connectivity Action Crediting
4. Target **Species** Ecological Benefit Crediting Considerations
5. Target **Habitat** Ecological Benefit Crediting Considerations
6. Real Estate Instruments, Maintenance, and Monitoring
7. Bank and MCA Modifications
8. Appendices

Wildlife Connectivity Action Crediting Process

Guidelines Section
3: Wildlife
Connectivity Action
Crediting Process



Step 1: Credit Scoring
Wildlife Connectivity
Action Credit Proposal



Step 2: Crediting Factor
Stakeholder Engagement
Pilot Period

Step 1: Credit Scoring

Wildlife Connectivity Action Credit Proposal

- [Habitat/Species](#) Scoring Sheet
- [Habitat/ Species](#) Scoring Justification Checklist
- To be reviewed by the Connectivity Advance Mitigation (CAM) team

Additional
Documents



Ecological Benefit Crediting Considerations



Ecological engineered design



Value of the habitat connected



Value of particular location



Critical linkages



Population-level benefits to species

Guidelines Section 4
and 5: Ecological
Benefit Crediting
Considerations



Scoring Matrix

Crediting Considerations and Subcategories	High	Medium	Low	Total Possible Score
1. Ecological Engineered Design	N/A	N/A	N/A	24
A. Structure Dimensions	5-6	3-4	1-2	6
B. Noise and Light Minimization Measures	3	2	1	3
C. Surface Substrates and Vegetation	3	2	1	3
D. Approaches and Fencing or Other Directional Implements	7-9	4-6	1-3	9
E. Designing for Resilience to Climate Change	3	2	1	3
2. Value of the Habitat Connected	N/A	N/A	N/A	24
A. Habitat Quantity	6-8	3-5	1-2	8
B. Habitat Quality	6-8	3-5	1-2	8
C. Protection of the Land	6-8	3-5	1-2	8
3. Value of the Particular Location	N/A	N/A	N/A	21
A. Topography, Aquatic Resource or Other Natural Pathway	5-6	3-4	1-2	6
B. Existing Vegetation and Other Cover	3	2	1	3
C. Movement and Mortality	5-6	3-4	1-2	6
D. Existing Conditions	3	2	1	3
E. Human Impacts	3	2	1	3
4. Critical Linkages	N/A	N/A	N/A	16

Guidelines Section 3.2: Credit Amount



Scoring Sheet



TARGET HABITAT SCORING SHEET

Bank/MCA name: _____

Date: _____

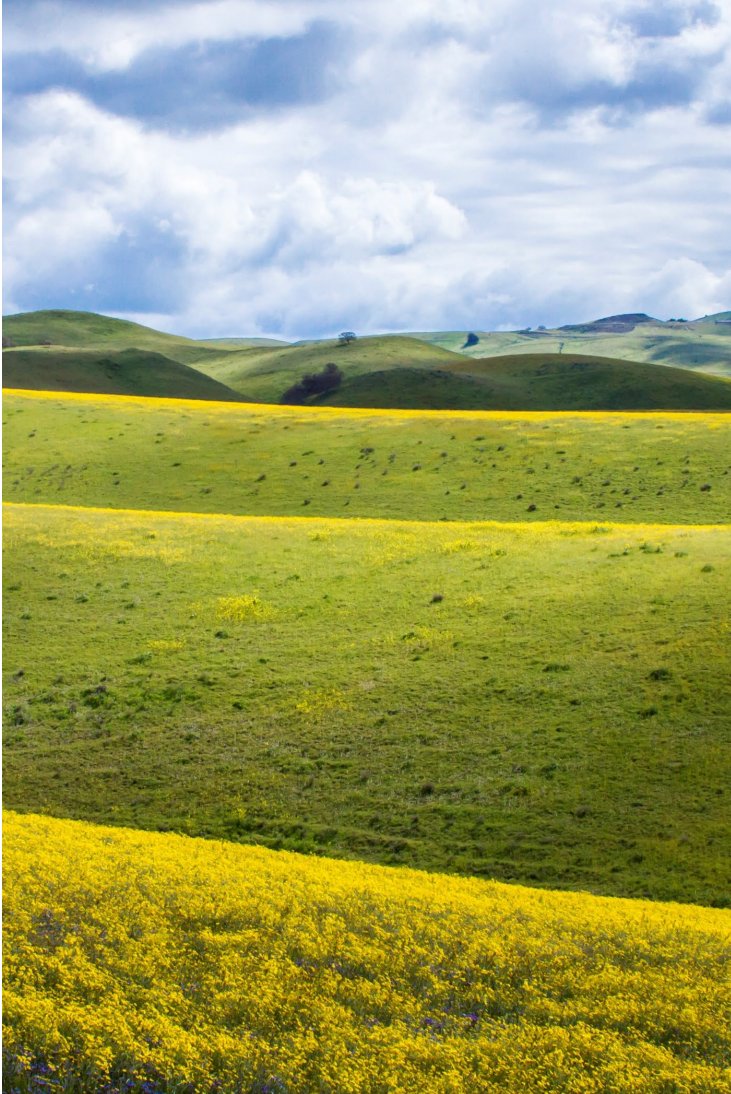
Target Habitat Type/Credit Type: _____

Crediting Considerations and Subcategories	Sponsor Proposed Score	CDFW Score
1. Ecological Engineered Design	N/A	N/A
A. Structure Dimensions	/12	/12
B. Noise and Light Minimization Measures	/4	/4
C. Surface Substrates and Vegetation	/12	/12
D. Designing for Resilience to Climate Change	/4	/4
2. Value of the Habitat Connected	N/A	N/A
A. Habitat Quantity	/12	/12
B. Habitat Quality	/12	/12
C. Protection of the Land	/12	/12
3. Value of the Particular Location	N/A	N/A
A. Topography	/4	/4
B. Existing Vegetation and Other Cover	/8	/8
C. Human Impacts	/4	/4
4. Critical Linkages	N/A	N/A
A. Regional Connectivity	/12	/12
Unique Project Characteristics	N/A	/4
Total out of 100	N/A	/100

* If 3 or more subcategories fall within the low scoring for a credit type, then sponsors must reach out to CDFW.

Additional
Document

Scoring Justification Checklist



Additional
Documents

- Target Habitat / Species Justification Checklist
 - Summary of items from Guidelines Sections 4 and 5

Resources for Justification

APPENDIX A – WILDLIFE CONNECTIVITY ACTION RESOURCES

CDFW recommends using the resources listed below to aid in the development of proposed wildlife connectivity actions. Please note that the list is a non-exhaustive list of resources available as of September 2023. The sponsor must confirm that these resources are the most up to date resources and/or reference the best available science and data at the time it is proposing a wildlife connectivity action.

Additional information about Fish and Wildlife Connectivity can be found on CDFW's [Connectivity and Planning for Fish and Wildlife web page](#).

WILDLIFE CONNECTIVITY ACTION LOCATION RESOURCES

The below resources can be used to identify where connectivity actions are needed.

Hot Spot Resources

These resources can be used to identify priority locations for wildlife connectivity actions.

- [Biogeographic Information and Observation System \(BIOS\)](#): BIOS is a geographic information system designed to enable the management, visualization, and analysis of biogeographic data collected by CDFW and its partner organizations. The BIOS connectivity bookmark enables viewers to get more detail on regional linkages. There are two datasets for wildlife connectivity hot spots:

Guidelines Appendix A: Wildlife Connectivity Action Resources

- Wildlife connectivity action location resources
- Wildlife connectivity action design resources
- Habitat resources

Step 2: Crediting Factor

Guidelines Section
3.2: Credit Amount



Crediting factor is TBD

- Team working on that now
- Stakeholder Engagement Pilot Period for more information

- Different for each project
- Will be important for sponsors determining if project is financially feasible
- CDFW focusing on ecological benefits

Tricky Points to Keep in Mind



Long-term Durability Agreement

Guidelines Section 6: Real Estate Instrument, Maintenance, and Monitoring

An enforceable legal instrument

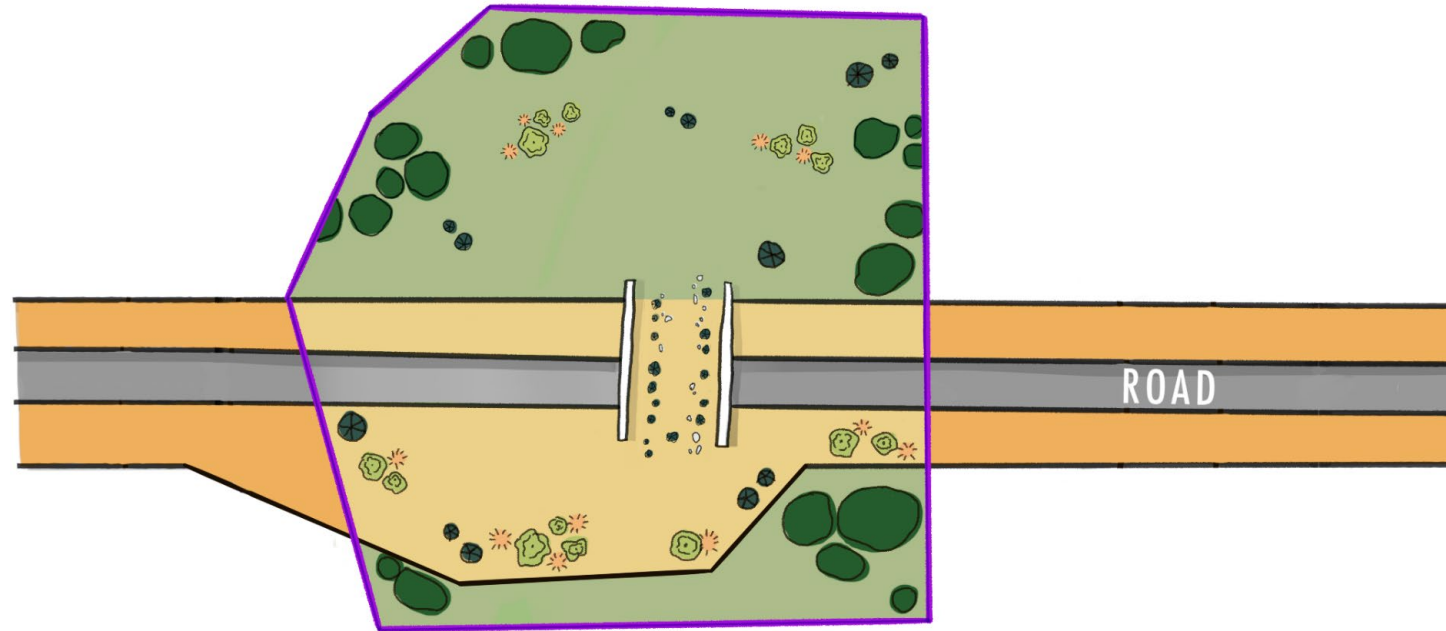
Ensures the legal real estate, maintenance, and repair

Required on any portion of a wildlife connectivity action where a Conservation easement is infeasible



Real Estate Instruments

Guidelines Section
6: Real Estate
Instrument,
Maintenance, and
Monitoring



- AREA PROTECTED BY CONSERVATION EASEMENT
- AREA PROTECTED BY LONG-TERM DURABILITY AGREEMENT
- RIGHT OF WAY
- BANK OR MCA

Long-term Durability and Other Programs

- For MCAs, refers to non-permanent land protection
- For CAM, refers to land protection where a CE is not feasible e.g., in the right of way
 - Both banks and MCAs can have long term durability agreements (where a CE is infeasible) for wildlife connectivity actions

Guidelines Section
6: Real Estate
Instrument,
Maintenance, and
Monitoring



Banks with Wildlife Connectivity Actions

- Changes in Bank Enabling Instrument (BEI)
 - Long-term Durability Agreement instead of/in addition to CE
 - Credit Release Schedule
 - Security calculations
- Credit Ledger (credits labeled “WCA”)
- Performance standards- think about monitoring for connectivity

Guidelines Section
7: Bank and MCA
Modifications



Wildlife Connectivity Action Modifications

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

Next Steps: Implementation



Stakeholder Engagement Pilot Period

- 6 pilot projects approved or 2 years
- Gather more information
 - Crediting factor
 - Long-term durability agreement
 - Funding options

Guidelines Section
3.2.3.1: Stakeholder
Engagement Pilot
Period



Pilot Projects



- Focus on projects addressing linear built infrastructure
- CDFW encourages sponsors to have initial conversations with us prior to official fee and document submittal
 - Sponsor reaches out using mitconnect@wildlife.ca.gov
- CDFW will coordinate and collaborate with Bank MOU agencies and acknowledging agencies

CAM Contacts



Headquarters CAM Team

Laurel Low, Statewide CAM Coordinator

Monica Aquino, CAM and Banking Specialist

Andy Amacher, Advance Mitigation Caltrans Liaison

Suzanne Gilmore, Senior Environmental Supervisor

Karen Weiss, Environmental Program Manager

Region CAM Coordinators

Marcus Griswold, Bay Delta Region (R3)

Reagen O'Leary, Central Region (R4)

Jason Bill, Inland Deserts Region (R6)

MitConnect@wildlife.ca.gov

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