



# Considerations for Determining Advance Mitigation Credits for Wildlife Connectivity Actions

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## New California Connectivity Legislation

California is home to extraordinary biodiversity, 40 million people, and a booming economy, which has led to numerous barriers that prevent wildlife from migrating. New legislation is allowing the California Department of Fish and Wildlife (CDFW) to start to address this issue.

- Effective January 1, 2022, California [Fish and Game Code 1955-1958](#) (proposed as Senate Bill 790) promotes wildlife connectivity improvements through CDFW's advance mitigation programs.
- The new legislation:
  - Provides economic incentives to develop wildlife crossings with necessary management and maintenance by allowing mitigation credits for wildlife crossings
  - Supports advanced mitigation planning
  - Overcomes implementation difficulties with mitigation banks that encompass barriers like roads and addresses right-of-way issues
  - Uses ecologically based evaluation criteria for crediting (vs traditional transportation criteria)
- CDFW can approve compensatory mitigation credits for wildlife connectivity actions under CDFW's:
  - Conservation and Mitigation Banking Program
  - Mitigation Credit Agreements (MCAs)
- Compensatory mitigation credit can be used to fulfill mitigation requirements from:
  - California Environmental Quality Act (CEQA),
  - California Endangered Species Act (CESA),
  - Lake and Streambed Alteration Agreement (LSA Agreement), and
  - Other regulatory requirements as determined by the applicable state or federal agency.

**Wildlife Connectivity Mitigation Guidelines are currently under development and are expected to be available for public comment fall 2023.**



## Wildlife Connectivity Actions

- Wildlife connectivity actions measurability improve aquatic or terrestrial habitat connectivity, or wildlife migration, recolonization, and breeding opportunities inhibited by built infrastructure or habitat fragmentation such as a road over or underpass solely for wildlife. An example is:
  - A wildlife connectivity action can aim to restore the linkage between upland breeding habitat and ponds to allow populations of California tiger salamander to expand their habitat and population by replacing a culvert with a full span bridge with riparian/upland habitat, allowing for movement under a two-lane highway.

## Wildlife Connectivity Action Crediting

- Credit amounts will be based on the ecological benefit of the wildlife connectivity action, not acreage.
- For evaluating each species and habitat credit amount, CDFW is using ecological benefit crediting considerations.



## Ecological Benefit Crediting Considerations

- **Engineering and ecological design**
  - Wildlife connectivity structure dimensions
  - Sound and light barriers
  - Surface substrates and vegetation
  - Hydrogeomorphic components
  - Existing conditions
  - Approaches
  - Fencing or other directional implements
  - Designing for resilience to climate change
  - Additional species-specific elements
- **Value of habitat adjacent and connected**
  - Habitat quantity
  - Habitat quality
  - Protection of the land
- **Use or value of the particular location**
  - Topography
  - Presence of a watercourse or other pathway
  - Vegetative and other cover
  - Movement and mortality data
  - Permeability and built infrastructure characteristics
  - Other wildlife connectivity actions
  - Human impacts
- **Critical habitat linkages**
  - Regional connectivity
  - Local connectivity
- **Population-level benefits to target species**
  - Improved genetic diversity and breeding opportunities
  - Species adaptation to climate change



Photos by CDFW  
Photos include examples of wildlife crossing structures and California species and habitats.



## CDFW's Advance Mitigation Programs

- A **conservation or mitigation bank** is land managed for its natural resource values through the Banking program in exchange for mitigation credits.
- **MCAs** are flexible, advance mitigation crediting mechanism that can be developed within an approved [Regional Conservation Investment Strategy \(RCIS\)](#) boundary.

## MCAs and Banks Comparison

MCAs	Banks
Must occur within an approved RCIS	Can occur anywhere in California
Creates non-permanent & permanent credits	Create permanent credits
Long term durability agreement (non-permanent) or CE (permanent)*	Requires Conservation Easement (CE)*
Can occur on publicly owned lands	Generally, not on public lands
CDFW program – allows other agency involvement if desired	Under MOU includes up to 8 agencies (BEI)
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

\* The wildlife connectivity action site can be protected with a long-term durability agreement if a conservation easement is not feasible, such as in a right-of-way. Long-term durability agreements provide a plan that ensures the long-term success, maintenance, repair, and upkeep of the wildlife connectivity action.

For further information regarding Connectivity Mitigation, please email [mitconnect@wildlife.ca.gov](mailto:mitconnect@wildlife.ca.gov). For more information on CDFW's advance mitigation programs, visit the [Banking](#) or [RCIS](#) Program webpages.