



**The California Department of Fish and Wildlife  
Report on Caltrans Advance Mitigation Program**

**July 1, 2022**

A Report to the Legislature  
in compliance with Streets and Highways Code Section 800.6 (g)

## **EXECUTIVE SUMMARY**

Streets and Highways Code Section 800.6 directs the California Department of Fish and Wildlife (CDFW) to submit to the Legislature every two years a report on the California Department of Transportation (Caltrans) Advance Mitigation Program. Specifically, CDFW is to report on the extent to which the Advance Mitigation Program improved the quality and effectiveness of habitat mitigation provided by Caltrans for transportation projects and make related recommendations on how to maximize these attributes. This is CDFW's third biennial report.

CDFW has reviewed nine Regional Advance Mitigation Needs Assessments (RAMNAs), and two more are in preparation. Once finalized, RAMNAs will be used by Caltrans Districts when scoping and justifying advance mitigation projects. Each RAMNA could generate multiple advance mitigation projects that address District-specific mitigation needs outlined in the RAMNA. Habitat mitigation specific to the Caltrans Advance Mitigation Program has yet to be completed, but two Caltrans Districts have funded advance mitigation projects and are currently scoping the options within their respective Districts.

CDFW headquarters and Regions continue to provide guidance to Caltrans on natural resource related aspects of the Advance Mitigation Program. Based on these interactions and pursuant to statutory direction for this report CDFW is providing progress updates on the 2020 Legislative Report recommendations. These recommendations will increase the likelihood that forthcoming Caltrans advance mitigation projects will improve the quality and effectiveness of habitat mitigation for future transportation projects. These recommendations include: 1) maximize multi-species and habitat benefits within each advance mitigation project, where feasible; 2) align mitigation across multiple Statewide Advance Mitigation Initiative (SAMi) resource agency members; 3) for impacts to CDFW jurisdictional resources, use existing CDFW programs that can generate advance mitigation; 4) continue to partner with CDFW on emerging concepts currently in development within CDFW programs that are researching new regulatory and administrative pathways to establish advance mitigation credits, including fish and wildlife connectivity; and 5) Consistent with the Caltrans Advance Mitigation Guidelines, after funding and before putting advance mitigation projects out to bid, when appropriate, Caltrans should seek out regional and local resource agency and conservation organization expertise when developing specific advance mitigation projects.

## California Department of Fish and Wildlife Report to the Legislature on the Caltrans Advance Mitigation Program

July 1, 2022

### 1. Program Background and Purpose

The Caltrans Advance Mitigation Program (AMP) was formed to meet the requirements of the Road Repair and Accountability Act of 2017 (SB 1 Beall, Ch. 5, Statutes of 2017). The program was amended by SB 103 (Committee on Budget and Fiscal Review), Ch. 95, Statutes of 2017). The Act directs:

- Caltrans to set up a new program for advance mitigation planning and implementing advance mitigation projects<sup>1</sup>;
- The Director of Finance to direct the State Controller to deposit no less than \$30 million annually into an Advance Mitigation Account, for implementing advance mitigation projects, commencing with the 2017–18 fiscal year, and for a period of four years;
- Caltrans to operate the Advance Mitigation Account as a self-sustaining revolving account, to manage the total of no less than \$120 million, set aside; and
- Caltrans to protect natural resources through transportation project mitigation and to mitigate, to the maximum extent required by law, environmental impacts from transportation infrastructure projects.

The Act also directs Caltrans to consult with CDFW on all AMP activities (Streets and Highways Code (SHC) 800(a)) and for CDFW and Caltrans to regularly report to the Legislature on the improved quality and effectiveness of Caltrans' AMP habitat mitigation and transportation project acceleration, respectively (SHC 800.6 (f)(g)).

### 2. CDFW – Past and Current Role

Prior to the July 21, 2017, creation of the formal AMP program through SB 1 and SB 103, CDFW was in constant consultation with Caltrans on advance mitigation topics and provided Caltrans with guidance on conservation goals, objectives, and tools for assessing mitigation conservation values. CDFW is also a signatory to the Statewide Advance Mitigation Initiative (SAMI) Memorandum of Understanding (SAMI MOU 2011; renewed in 2016 and 2021), the purpose of which is “to establish a mutual framework for coordinated review concerning development of the Initiative for advance mitigation and conservation planning for planned transportation projects at a landscape scale.”

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<sup>1</sup> The Act defines “advance mitigation” as “mitigation implemented before, and in anticipation of, environmental effects of planned transportation improvements (SHC 800.5(c)).

Caltrans' initial advance mitigation efforts were operated out of the State Highway Operations and Protection Program (SHOPP). In 2013, Caltrans entered into a reimbursable agreement with CDFW to fund a liaison to assist with efforts such as developing advance mitigation science and policy; enhancing interagency coordination; and integrating CDFW conservation tools and programs into advance mitigation planning. This report focuses on the formal AMP program created through the Road Repair and Accountability Act of 2017.

Under the formal AMP program, Caltrans finalized its Advance Mitigation Final Formal Guidelines in October of 2019. The program consists of five new major planning steps (Figure 1, taken from the Guidelines), followed by five project delivery steps. The five planning steps are:

**Figure 1. Caltrans AMP Steps for the Planning Phase**



- 1. Statewide Advance Mitigation Needs Assessment (SAMNA):** The first SAMNA report was published in May 2019. Developed between 2016-2018, the SAMNA is a Geographic Information System (GIS)-based assessment that is performed on future planned state transportation projects that are identified on current long-range transportation plans. These potential footprints are overlaid with natural resource data layers that model species habitat and aquatic resources. Analyses are run on a Caltrans District-wide basis to estimate impacts to specific resources within specific ecoregions or watersheds. Caltrans published the second SAMNA report in April 2021. As of June 2022, Caltrans is now publishing the SAMNA on a quarterly basis moving forward.
- 2. Geographic Area of Interest Selection (GAI):** Once an overall estimate of potential compensatory mitigation need is identified for the state through the SAMNA, the AMP, local transportation agencies, and the Caltrans Districts will coordinate to identify geographic areas of interest(s) for Regional Advance Mitigation Needs Assessment (RAMNA) development that will optimize the investment of funds toward meeting AMP goals. GAIs are located where SAMNA

results indicate that investing program funds to implement landscape-scale mitigation in the area is likely to maximize SHOPP and Statewide Transportation Improvement Program (STIP) funded transportation project acceleration in the region while maximizing environmental benefits. GAs are established at watershed or ecoregion scales to assist with appropriate planning areas for mitigation implementation and anticipated use areas that align with resource agency practices.

- 3. Regional Advance Mitigation Needs Assessment (RAMNA):** The RAMNA is a document that builds on the needs identified in the SAMNA for a given GAI; it sets the stage for Caltrans to maximize the environmental and conservation benefits from potential advance mitigation actions; and provides Caltrans Districts with enough information to conceptualize advance mitigation projects that can be scoped and submitted to the Caltrans Director for approval. The RAMNA is further informed through two review and information requests: a request of interested parties and the public; and a request of natural resource regulatory agencies that are members of the SAMI MOU.
- 4. Advance Mitigation Project Scoping, Initiation and Nomination Process:** After the RAMNA is finalized, advance mitigation projects will be scoped and initiated by Caltrans Districts using a process similar to transportation projects, but customized and streamlined to fit the unique needs of advance mitigation projects.
- 5. Caltrans Director's Approval:** The Caltrans Director decides, based on the recommendation of the Chief Financial Officer and Chief Engineer, which advance mitigation projects will be funded through the AMP.

The October 2019 Caltrans Advance Mitigation Program Final Formal Guidelines goes into more detail on the steps described above. As of June 2022, Caltrans has finalized seven RAMNAs, two are in review, and two are in preparation. The Caltrans Director has approved two advance mitigation projects for two Districts.

### **3. Advance Mitigation Program - Accomplishments**

Since the last CDFW report to the Legislature on July 1, 2020, the following major accomplishments occurred:

- **Biweekly coordination:** CDFW Headquarters continues to meet with the Caltrans AMP to help inform and guide various aspects of the program's planning and implementation. CDFW Headquarters and Region staff have been actively engaged in the RAMNA process, including suggesting several data sources and providing reviews and comments.
- **Region coordination:** To date, all CDFW Regions have reviewed and commented on RAMNAs where the GAI included all or part of the CDFW Region.

In some cases where the GAI crosses CDFW Regions, multiple Regions have provided comments on an individual RAMNA. Region comments are designed to help guide Caltrans Districts in scoping advance mitigation projects that will successfully generate credits for the species and habitats assessed within the RAMNA.

- **Caltrans SAMNA:** The second SAMNA report was published in April 2021 and was used for RAMNAs occurring after the publication date. As of June 2022, Caltrans is now publishing the SAMNA on a quarterly basis moving forward.
- **SAMI MOU renewal:** The renewal of the SAMI MOU was approved by all parties on December 14, 2021, and the next renewal will occur in 2026. The SAMI includes CDFW, California Coastal Commission, Caltrans, Environmental Protection Agency, National Marine Fisheries Service, California State Water Resources Control Board, U.S. Army Corps of Engineers, and U.S. Fish and Wildlife Service as signatories.
- **RAMNAs:** Since the last CDFW report, Caltrans has finalized seven RAMNAs, two are currently in agency review, and two more are in preparation (see Table 1 below for specific information). Finalized RAMNAs are publicly posted on the Caltrans Advance Mitigation Program webpage. RAMNAs were reviewed by CDFW Headquarters and all Regions covered within the RAMNA. To date, CDFW has provided comments within the 60-day timeframe outlined in the SAMI MOU Process Agreement.
- **CDFW Regional Conservation Investment Strategies Program (RCIS):** Caltrans continues to participate in CDFW's RCIS Program, a program established in 2017 to enable regional conservation strategies and Mitigation Credit Agreements (MCA) that provide advance mitigation credits to Caltrans, other state infrastructure agencies, and other development.
  - Since the last CDFW report, Several Caltrans Districts have written letters of support for RCISs: Caltrans District 4 (Oakland, CA) for the East Bay RCIS (Alameda and Contra Costa counties), District 7 (Los Angeles, CA) for the Antelope Valley RCIS (parts of Los Angeles County), District 5 (San Luis Obispo, CA) for the Monterey County RCIS and Santa Cruz County RCIS, and District 6 (Fresno, CA) for the Kaweah RCIS (parts of Tulare and Kings counties).
  - Caltrans is a current member of the steering committees for three RCISs in preparation: Kaweah, Santa Cruz County, and North Baylands RCIS (parts of Marin, Sonoma, Napa, and Solano counties).

#### 4. Quality and Effectiveness of Habitat Mitigation

The Caltrans AMP is now in the planning phase leading to RAMNA development for almost all of their Districts. Once finalized, the RAMNAs will form the basis for scoping

species and habitat-specific advance mitigation projects within each District. As of June 2022, Caltrans currently has seven final RAMNAs and two in draft, indicated in Table 1 below. As of June 2022, a two Districts (6 and 8) have moved forward to the project delivery phase and are in the process of scoping individual advance mitigation projects for species and habitats identified in the RAMNA ("Programmed Advance Mitigation Projects" in Table 2). Districts 5 and 1, and likely many others, are anticipated to be funded in Fiscal Year 2023.

**Table 1. Caltrans RAMNAs: Final or in Preparation**

<b>Caltrans District and Office Location</b>	<b>Geographic Area of Interest</b>	<b>RAMNA Status</b>	<b>CDFW Region Reviews</b>
District 8, San Bernardino	Mojave Ecoregion subsection.	Final – August 2020	Regions 4, 5, 6
District 6, Fresno	Great Valley Ecoregion subsection.	Final – December 2020	Region 4
District 5, San Luis Obispo	The Central California Coast and Central Valley Coast Range ecoregion sections where they overlap the Central Coastal, Monterey Bay, Pajaro, Salinas, and San Francisco Coastal South watershed subbasins.	Final – June 2021	Regions 3, 4
District 1, Eureka	Northern California Coast and Northern California Coast Ranges ecoregion sections where they overlap the Mad-Redwood, Lower Eel, and South Fork Eel watershed subbasins.	Final – July 2021	Region 1
District 7, Los Angeles	Thirteen Ecoregion Subsections of the Southern California Coast and Southern California Mountains	Final – December 2021	Regions 5, 6
District 3, Marysville	Lower Sacramento Basin	Final – January 2022	Regions 1, 2, 3

<b>Caltrans District and Office Location</b>	<b>Geographic Area of Interest</b>	<b>RAMNA Status</b>	<b>CDFW Region Reviews</b>
District 9, Bishop	Six Northern Mojave Sub-basins and the Owens Lake Sub-basin Within California RAMNA	Final – April 2022	Regions 4, 5, 6
District 4, Oakland	Gualala-Salmon, San Pablo Bay, and Tomales-Drake Bays Sub-basins RAMNA	Draft – Comment period closed April 2022	Region 3
District 10, Stockton	Great Valley Ecoregion Section within Caltrans District 10	Draft – Comment period closed May 2020	Regions 2, 3, 4
District 2, Redding	In preparation	In preparation	In preparation
District 11, San Diego	In preparation	In preparation	In preparation

All RAMNAs incorporate components of several of CDFW's and other resource agencies' statewide and regional conservation plans, objectives, and data resources. CDFW-associated data sources include:

- Climate change resilience and vulnerability assessments
- State Wildlife Action Plan conservation targets
- Statewide and regional habitat connectivity plans
- Areas of Conservation Emphasis (ACE) biodiversity datasets
- Species recovery plans and critical habitat
- Conservation and mitigation banks
- Natural Community Conservation Plans
- Regional Conservation Investment Strategies

In addition to these data sources and plans, RAMNAs also include information from all SAMI partner agencies and local, county, and nongovernmental data sources.



As of June 2022, a few Districts have moved forward to the project delivery phase and are in the process of scoping individual advance mitigation projects for species and habitats identified in the RAMNA (Table 2).

**Table 2. Caltrans RAMNA Potential Projects**

<b>Caltrans District</b>	<b>Species and Habitats of Need identified in RAMNA</b>	<b>RAMNA Status</b>	<b>Programmed Advance Mitigation Projects</b>
District 8, San Bernardino	Desert tortoise, wetland, and non-wetland water resources	Final – August 2020	Funded from Advance Mitigation Account
District 6, Fresno	California tiger salamander, San Joaquin kit fox, giant kangaroo rat, Fresno kangaroo rat, Tipton kangaroo rat, wetland, and non-wetland water resources	Final – December 2020	Funded from Advance Mitigation Account
District 5, San Luis Obispo	California red-legged frog, California tiger salamander, foothill yellow-legged frog, tricolored blackbird, Central California Coast and South-Central California Coast Distinct Population Segment (“DPS”) steelhead, tidewater goby, wetland, and non-wetland water resources	Final – June 2021	Preparing scoping document for Director’s funding approval
District 1, Eureka	Southern Oregon/Northern California Coast (“SONCC”) evolutionarily significant unit (“ESU”) coho salmon, Northern California Coast Distinct Population Segment (“DPS”) steelhead, wetland, and non-wetland water resources	Final – July 2021	Project nominated, preparing scoping document

## 5. Recommendations

CDFW continues to work closely with Caltrans to provide guidance on CDFW's conservation goals, objectives, and tools; to help Caltrans maximize conservation values and meet their regulatory mitigation requirements.

In the 2020 Legislative Report, CDFW offered five general recommendations to help maximize the "quality and effectiveness" of the future advance mitigation projects. These recommendations are still progressing, and in lieu of providing new recommendations, below is a summary of progress on these recommendations since the 2020 report.

**2020 Recommendation 1:** Caltrans should seek to maximize multi-species and habitat benefits within each advance mitigation project, where feasible. The Caltrans District RAMNAs identify conservation goals and objectives for selected Caltrans species and habitats for which mitigation is needed. However, the RAMNAs also report on potential impacts to all special-status species and habitats within the region. Caltrans should look for creative ways to scope advance mitigation projects that not only address its specific project mitigation needs, but that also benefit multiple other species, habitats, climate resiliency, and conservation objectives.

**Progress on Recommendation 1:** To date, all RAMNAs have included advance mitigation goals and objectives to "provide multispecies benefits" and support "climate resiliency," with various RAMNA-specific sub-objectives related to each goal. Each RAMNA has also provided SAMNA results for all potentially impacted species in addition to the Caltrans species and habitats of mitigation need. Future progress on this recommendation will be determined by the types of credits created and habitats preserved from the future advance mitigation projects.

**2020 Recommendation 2:** Caltrans should seek to align mitigation across multiple SAMI resource agency members. Opportunities may exist to meet multiple agency regional goals and objectives within individual advance mitigation projects. This may increase efficiencies within the Caltrans program and be more likely to improve the quality and effectiveness of the resulting mitigation. The SAMI could provide a forum to aid in aligning resource agency mitigation requirements.

**Progress on Recommendation 2:** To date, all RAMNAs have included advance mitigation goals and objectives for terrestrial and aquatic species and resources that are based on several SAMI agency documents relevant to the GAI, including the State Wildlife Action Plan, recovery plans, NCCPs, RCIS, and other regional conservation plans. Future progress on this recommendation will be determined by the various RAMNA goals and objectives that are reflected in advance mitigation projects that create credits.

For mitigation alignment, work continues across resource agencies within both the SAMI MOU interagency group and a new "mitigation alignment" sub-group formed from recommendation 6.1 of the December 2019 Assembly Bill 1282 Transportation Permitting

Task Force Legislative Report. Recommendation 6.1 seeks to “improve tools and options to align agency requirements in implementing advance mitigation.” In May of 2021, the interagency mitigation Banking Agency Management Team (BAMT) updated the Bank Enabling Instrument and associated templates to accommodate the purchase of bulk advance mitigation credit purchases in advance of their use for actual projects. Future progress on this recommendation will be determined by the advance mitigation projects that create credits, and if applicable, successful use of the credits to satisfy multiple resource agency mitigation requirements.

**2020 Recommendation 3:** For impacts to CDFW jurisdictional resources, Caltrans should use the three CDFW programs that can generate advance mitigation opportunities for future transportation projects: Conservation and Mitigation Banking, NCCP, and RCIS and the associated Mitigation Credit Agreements (MCA). Each program considers a regional context and multiple conservation goals and objectives. Approved mitigation from each of those programs has the highest likelihood of being acceptable for future transportation project permits.

**Progress on Recommendation 3:** To date, all RAMNAs discuss the availability and feasibility of all AMP authorized mitigation types within the GAI, including Conservation and Mitigation Banking, NCCP, and RCIS/MCA. Of these, Mitigation and Conservation Banking is currently the most feasible pathway for mitigation credits due to established procedures that align across state and federal resource agencies. The MCA Guidelines are expected to be published in the fall of 2022, and CDFW continues to work with Caltrans and other resource agencies to align MCAs with their respective mitigation requirements. Future progress on this recommendation will be reflected by an increase in feasible mitigation types outlined within RAMNAs.

**2020 Recommendation 4:** Caltrans should use MCAs in the RCIS program to establish advance mitigation credits, including fish and wildlife connectivity. While still in development, this program was designed to enable the establishment of mitigation credits from infrastructure projects that improve fish and wildlife habitat or connectivity in excess of what is required for an individual transportation project. CDFW looks forward to continuing to partner with Caltrans on these efforts. Once a crediting system is developed, Caltrans could leverage its considerable engineering expertise and generate mitigation as stand-alone advance mitigation projects or as a part of planned transportation projects.

**Progress on Recommendation 4:** To date, all RAMNAs have included goals and sub-objectives for connectivity. RAMNAs have utilized the CDFW Areas of Conservation Emphasis (ACE) Terrestrial Connectivity map, applicable regional linkage reports, and the CDFW California Wildlife Barriers report. All RAMNAs also have a chapter, “Assessment of Authorized Activities,” that consists of a feasibility assessment for each RAMNA GAI. Caltrans Headquarters and Districts continue to be involved in various RCIS efforts throughout the state and pending publication of the CDFW MCA Guidelines, the Caltrans AMP intends to consider MCA credit options in relation to all other authorized advance mitigation options. In addition, SB 790, Wildlife connectivity actions:

compensatory mitigation credits, took effect January 1, 2022, and clarifies that both CDFW banking and MCA programs are potential pathways to generate mitigation credits for connectivity improvements. CDFW is tasked with writing guidelines for crediting such projects. Future progress on this recommendation may be reflected by consideration of wildlife connectivity projects as feasible options for mitigation credits in future RAMNAs or during the scoping of specific advance mitigation projects.

**2020 Recommendation 5:** Consistent with the Caltrans Advance Mitigation Guidelines, after funding, and before putting advance mitigation projects out to bid, when appropriate, Caltrans should seek out regional and local resource agency and conservation organization expertise when developing specific advance mitigation projects. Local knowledge and experience may help Caltrans align multiple high-value areas that also meet its mitigation needs.

**Progress on Recommendation 5:** At the time of this report, Caltrans AMP advance mitigation projects are in the early stages of scoping and project delivery in a few Districts. Where appropriate, Caltrans has expressed interest in having resource agencies participate in focus meetings prior to putting advance mitigation projects out to bid, and a few meetings have taken place between the Districts and Regions. Future progress on this recommendation will be reflected by increased participation of resource agencies, where appropriate, in the scoping and project delivery phases of Caltrans advance mitigation projects.