2019 Fish Passage Annual Legislative Report (October 2020)

Report to the Legislature

2020

Caltrans

This report is available online at

http://dot.ca.gov/programs/legislative-affairs/reports

This document is available in alternate formats for individuals with sensory disabilities.

For alternate format information, contact Caltrans Legislative Affairs at

(916) 654-2397, TTY 711, or at California Department of Transportation,

1120 N Street, Mail Stop 49, Sacramento, CA, 95814.

Table of Contents

List of Tables

List of Figures

Executive Summary

Streets and Highways Code, Section 156.1 requires the California Department of Transportation (Caltrans) to report annually. This report covers progress from January 1, 2019, to December 31, 2019, on location assessments, active locations, priority fish passage barriers, and completed barrier remediations on the State Highway System.

2019 Fish Passage Program Accomplishments

In 2019, Caltrans completed fish passage remediation projects at four barrier locations, improving access to an estimated 5.5 miles of salmon and Steelhead habitat.

Caltrans is currently developing projects to remediate 30 active (funded) fish passage barriers, which are estimated to improve access to 313 miles of currently blocked salmon and Steelhead habitat.

Fish Passage Advisory Committees have identified 65 salmon and Steelhead barrier locations for priority remediation. In total, the priority barriers block an estimated 385 miles of high-quality salmon and Steelhead habitat.

In 2019, Caltrans completed 30 fish passage assessments at road/stream crossings. Of those assessments, five were identified as new barriers, 23 non-barriers and two locations are potential barriers which need additional surveys to determine barrier status.

Since the enactment of Senate Bill (SB) 857 (Kuehl, Chapter 589, Statutes of 2005), Caltrans has remediated 51 barrier locations, which are currently functioning as designed. Those 51 locations account for an estimated 795 miles of improved access to salmon and Steelhead habitat. This includes 11 full (long-term) remediations, which allow access to an estimated 198 miles of habitat, and 40 partial/hydraulic remediation locations, which have improved access to an estimated 599 miles of habitat. *See Appendix A, Fish Passage Locations Completed (page 38), for additional information.*

Caltrans continues to provide management oversight, meeting facilitation, mapping, science and data, and engineering support for the six Fish Passage Advisory Committees, the Interagency Engineering Working Group and the new Leadership Action Team. Caltrans and its partners in these groups continue to develop and implement tools and efficiencies that are further outlined in this report.

Background

Streets and Highways Code, Section 156.1 (see Appendix B. Statutory Reporting Reference, page 46) requires Caltrans to prepare an annual report to the Legislature describing the status of progress in assessing crossings, funding priorities, and remediating barriers to fish passage. The bill also requires Caltrans to:

- Complete assessments for potential barriers to anadromous fish prior to commencing any project using state or federal transportation funds;
- Provide a status on active remediation locations; and
- Construct new projects in a way that do not pose or create a barrier to fish passage.

2019 Fish Passage Barrier Remediation Progress

Improving fish passage on the State Highway System requires a comprehensive approach focused on **science and data, engineering, training, permitting, research, funding, multi-species and habitat benefits, and partnerships**, because of complex considerations associated with successful fish barrier remediation. Caltrans has improved fish passage coordination and partnering across California through Fish Passage Advisory Committees, which include the California Department of Fish and Wildlife and the National Marine Fisheries Service as well other remediation partners. The Interagency Fish Passage Engineering Working Group and the new Fish Passage Leadership Action Team continue to identify and work toward improved understanding and application of successful fish passage remediation work in California.

Science and Data

In 2019, Caltrans and the Pacific States Marine Fisheries Commission collaborated to create an **innovative new story map** for use by the Fish Passage Advisory Committees in ongoing work to verify habitat suitability for each barrier location, and with the established long-term goal of District-specific, prioritized lists for confirmed barriers on the State Highway System. "Other Known Barriers" is the term the Fish Passage Advisory Committees use for locations that are not current priority barriers, and that have not been addressed by current or historic remediation projects. The Other Known Barriers story map aligns with the Passage Assessment Database. Each location includes watershed mapping, photos, salmon and Steelhead species identification and listing status, as well as the capability to use Google Earth maps for a preliminary understanding of the watershed and adjacent landscape practices. Science and data required for prioritization, which is currently unavailable for the majority of Other Known Barriers, has been identified for collection or investigation. The Other Known Barriers Story Map (page 4, Figure 1)), illustrates a map view whereas, Barrier Location Data and Mapping (page 4, Figure 2) depicts, the type of information available for each location.

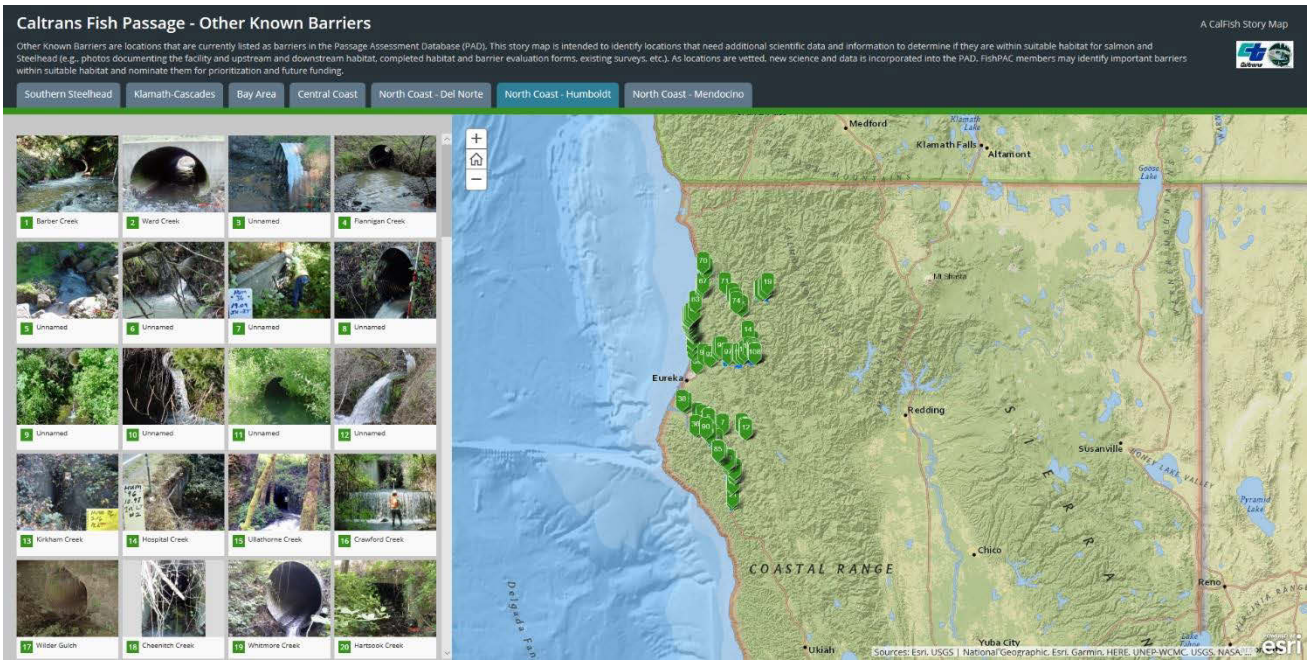


Figure 1. Other Known Barriers Story Map

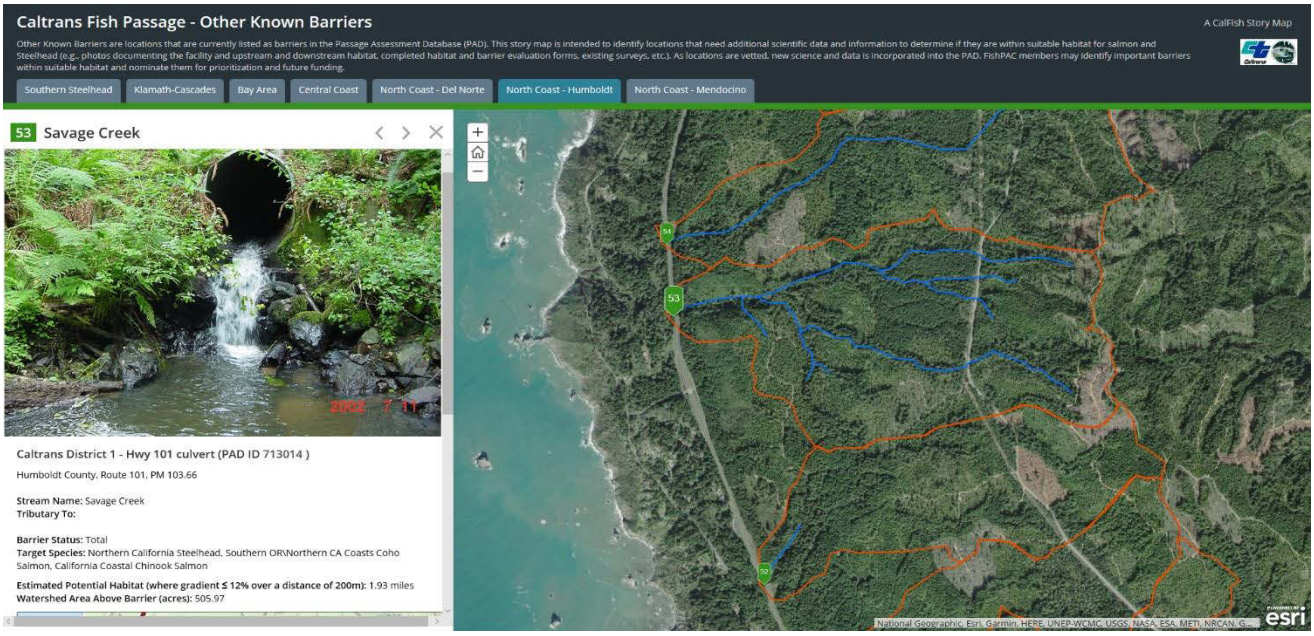


Figure 2. Barrier Location Data and Mapping

During the fall of 2019, **Caltrans and the California Conservation Corps initiated First Pass Assessment** work by designating, or hiring staff, to form assessment teams, currently managed and based out of Camarillo, Los Angeles/Pomona, and San Luis Obispo. In December of 2019, Caltrans and the California Conservation Corps provided in-person classroom and field training to support the new teams and assessment work.

Each Corps-member team was equipped with an iPad, an automated *Survey123* for ArcGIS® form, and survey assignments provided through the Workforce for ArcGIS® Application. The Workforce for ArcGIS® Application was used to manage and oversight progress and data submittals. This innovative solution allows managers to oversight and track progress and staff efforts in real-time. The program allows survey teams to directly communicate questions, to share photos and to receive more immediate guidance from managers (Figure 3).

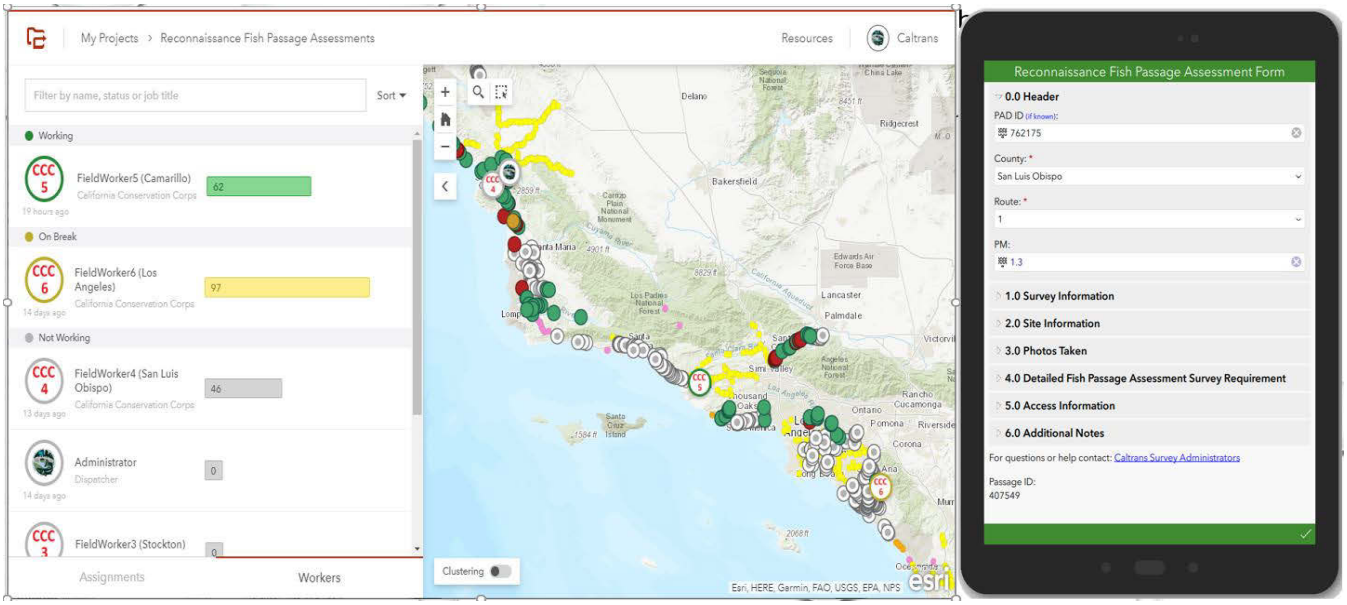


Figure 3. First Pass Assessment Innovation

In January 2020, the Corps-member teams initiated First Pass Assessment field work. The details will be reported to the Legislature in the next report for the 2020 calendar year (October 2021). However, to illustrate **assessment progress and success** of the Caltrans and California Conservation Corps collaboration, from March 2020 to July 2020, Corps-member teams completed **401** Assessments in Monterey, San Luis Obispo, Santa Barbara, Ventura, Los Angeles, Orange, and San Diego Counties (Figure 4, page 6). This progress was achieved despite travel restrictions instituted for safety measures related to the COVID-19 pandemic. By November 2020, it is estimated that all First Pass Assessments south of the Monterey/San Luis Obispo County line will be completed.

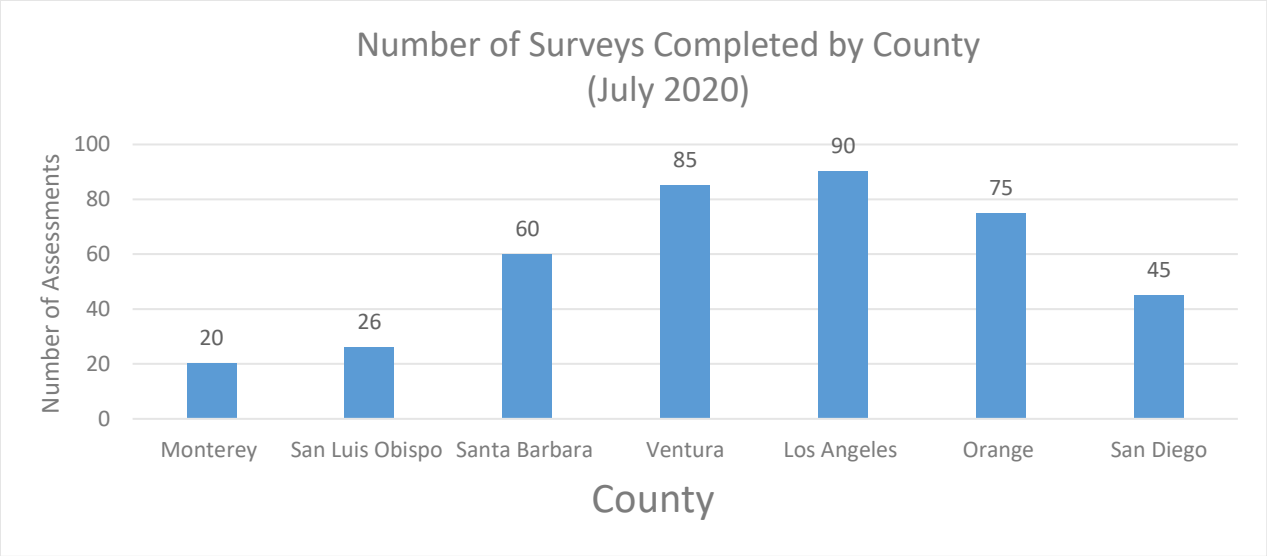


Figure 4. California Conservation Corps, Completed Assessments by County

Engineering

The **Interagency Engineering Working Group** includes members from Caltrans, the California Department of Fish and Wildlife, and the National Marine Fisheries Service. The Working Group convenes monthly to collaborate on training and guidance, research, project specific design considerations, and information sharing. Member expertise includes fish passage engineering, hydraulic engineering, structures design, watershed modeling, maintenance inspection, and design guidance for both fish passage remediation and long-term channel restoration work.

The Engineering Working Group is currently focused on updated guidance in support of adequate long-profile surveys for projects in the delivery process. Long-profile surveys for fish passage projects differ in overall length (upstream and downstream) from standard design surveys and provide the data needed at project inception, combined with required watershed modeling, to determine a suitable design solution, in coordination with the California Department of Fish and Wildlife and the National Marine Fisheries Service. Long-profile surveys verify that the design meets the criteria for swimming and jumping capabilities of salmon and Steelhead.

The Engineering Working Group also works to educate fish biologists and all fish passage practitioners on the various types of short-term and long-term engineering solutions. This includes the costs and benefits of long-term, full-span solutions that do not require continuous, intensive maintenance and is particularly important for priority barriers and the recovery of threatened and endangered salmon and Steelhead habitat.

In May 2020, **Caltrans Structures Design and Engineering Services** completed pre-design for 11 Accelerated Bridge Construction (precast) small bridges to stream line full-span bridge solutions, reduce project design costs and personnel time, and to provide an engineering basis to advance programmatic state and federal environmental permitting for fish and wildlife connectivity projects on the State Highway System. The designs are available for fish passage projects that require a 20-foot to 115-foot, simple-span (abutment to abutment), small bridge solution (Figure 5).

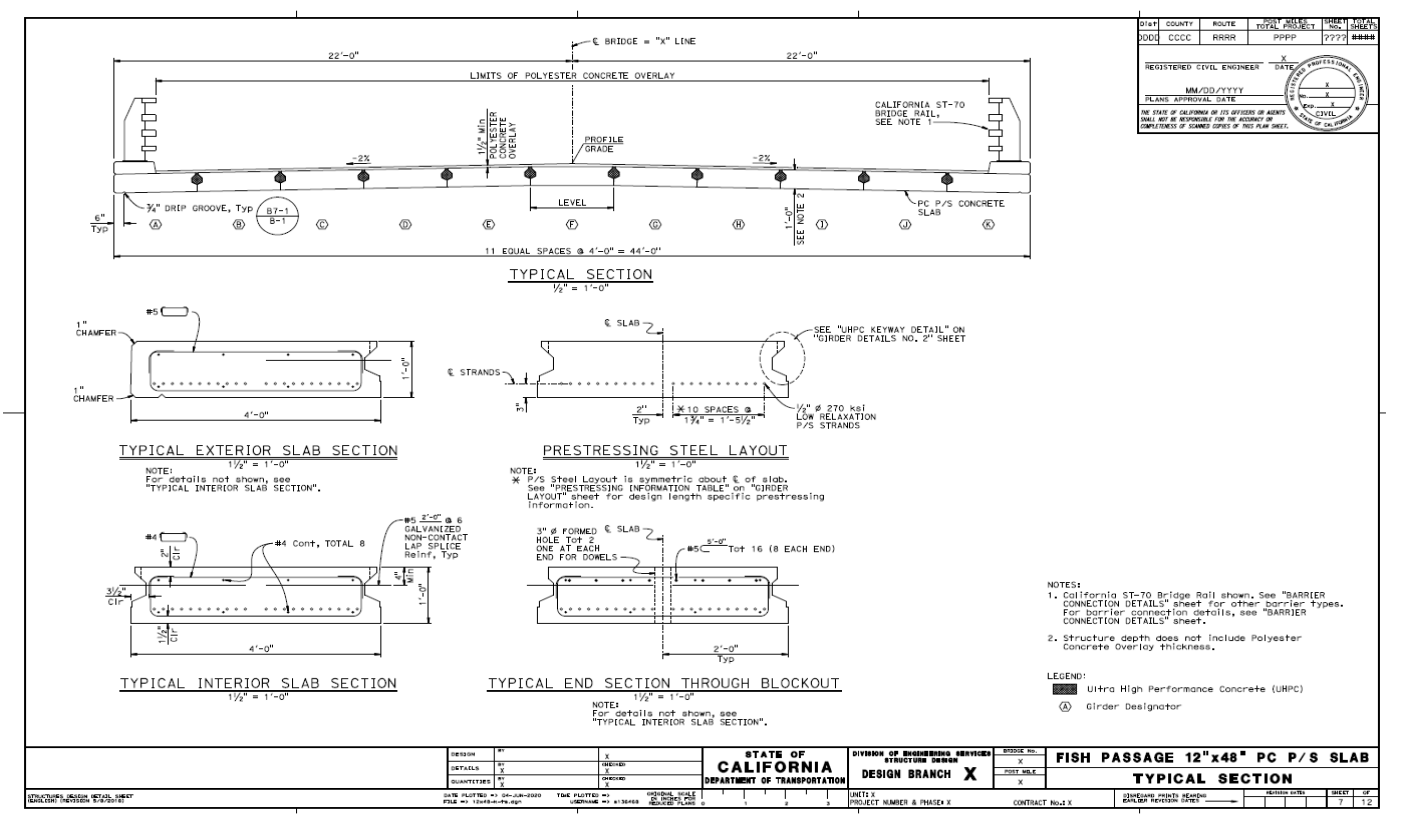


Figure 5. Example Plans for Caltrans Pre-Design Bridge Work

Training

Fish Passage Advisory Committees continue to provide high-quality training for biological science and data, fish passage engineering, project case studies and other content related to successful project delivery, funding, and monitoring to evaluate species success (Figure 6, page 8). During the COVID-19 pandemic, webinar training events have offered training opportunities for more than 200 Fish Passage Advisory Committee members and other fish passage partners in California and beyond. The training events are recorded and then immediately posted on the Fish Passage Advisory Committee training webpage; www.cafishpac.org/training.

Figure 6. Outreach and Education

Fish Passage Advisory Committees typically meet in-person several times annually, using webinar platforms for select meetings and trainings since 2018. To encourage continued progress and partnerships, all Fish Passage Committee meetings have continued to meet using remote webinar platform.

In the spring of 2020, when travel became restricted due to the COVID-19 pandemic, the Fish Passage Advisory Committee postponed a planned, in-person fish passage and connectivity permitting workshop. Since that time there has been an increased focus on outreach and education, conducted as webinar training events. The Fish Passage Advisory Committee webinars have included experts presenting information on science and data, engineering, project delivery, partnerships, funding, and post project monitoring.

Table 1. Workshops and Webinar Training Events (page 9), lists the training events offered to Fish Passage Advisory Committee members and partners.

Table 1. Workshops and Webinar Training Events

Event Dates	Description	Instructor Expertise	Participants
2019 9 July 10 July 11 July 13 August 14 August 15 August	**Fish Passage Engineering Workshop** This workshop included presentations on designing and implementing successful projects for fish passage remediation, channel morphology considerations, software modeling available to inform design considerations, pre-designed and conventional structures, and case studies and lessons learned.	• Caltrans, Senior Fish Biologist • National Marine Fisheries Service, Fish Passage Engineer • California Department of Fish and Wildlife, Senior Hydraulic Engineer • Caltrans, Senior Bridge Engineer	275
2020 12 March	**State of the Salmonids** This training webinar focused on the status and trends of the state's salmonid populations and vulnerabilities.	• UC Davis, Aquatic Ecologist and Conservation Biologist • California Trout, Bay Area Program Manager	125
2020 11 June	**A Toolbox for Fish Passage Engineering** This training webinar included the history of fish passage, channel incision syndrome, risk assessment, channel/stream evolutionary models, and ways to address incision.	• Mike Love and Associates, in affiliation with Humboldt State University	217
2020 17 June	**Connectivity Case Study** This training webinar featured three cases studies that illustrate restoration projects that enhance fish and wildlife habitat connectivity.	• Caltrans, District Hydraulic Engineer • Cachuma Operation and Maintenance Board, Fisheries Division Lead • Caltrans, District Biologist	141
2020 15 July	**Connectivity Case Study** This training webinar featured three cases studies that illustrate restoration projects that enhance habitat connectivity. Locations included Dunn Creek Bridge and Deer Creek Irrigation Dam.	• Caltrans, District Hydraulic Engineer • Trout Unlimited, Project Coordinator • Northwest Hydraulic Consultants, Water Resources Engineer	107
2020 28 July	**Fort Goff Creek Bridge Case Study** This training webinar shared successes and lessons learned from the Fort Goff Creek bridge project, including project development, partners, Accelerated Bridge Construction design, construction sequencing, lessons learned, environmental considerations, biological permitting, and species benefits.	• Caltrans, Office Chief Project Management • Caltrans, Environmental Office Chief • Caltrans, Senior Bridge Engineer • Caltrans, Project Hydraulic Engineer	83

Permitting

Caltrans is pursuing the development of a programmatic environmental review process that will streamline permitting with appropriate state and federal agencies for remediating barriers to fish passage. Current fish passage remediation projects are permitted on a project by project basis. Caltrans is continuing to develop the programmatic permit by defining remediation project actions and construction methods, in order to perform an analysis to identify temporary construction impacts to threatened and endangered species. The development of a programmatic permit is expected to reduce permitting timelines and expedite fish passage remediation projects.

Caltrans has made progress by completing 11 pre-designed bridges as well as research on foundation types common on the State Highway System, along the coast, in Central Valley watersheds, and in association with salmon and Steelhead habitat.

The California Department of Fish and Wildlife, the National Marine Fisheries Service, and the Fish Passage Advisory Committees, support progress to expedite Caltrans' full-span fish passage pre-design and programmatic permitting efficiencies. Next steps in the continued process for engineering and environmental analysis include:

- Describing the types, sizes, and depths of proposed foundations;
- Completing an analysis of various sediment types, related to the pile type and size of foundations, and completing a pile strike and hydroacoustic analysis;
- Defining partial or hydraulic fish passage design solutions, or criteria, to be included within the scope of work;
- Once all proposed actions are defined, an analysis will be completed for anticipated temporary impacts to species that will occur during construction. Temporary construction impacts are necessary to implement long-term solutions for fish passage and other wildlife connectivity.
- Continuing to inform and involve the California Department of Fish and Wildlife, the National Marine Fisheries Service, and Fish Passage Advisory Committees on all aspects of design and permitting efficiencies work.

Fish and wildlife connectivity projects are considered environmental enhancement projects. The scope of work for the fish passage programmatic permit defines methods and construction actions that avoid and minimize impacts to species. Fish and wildlife connectivity projects may be initiated due to maintenance or replacement transportation needs, in which the benefits for aquatic and terrestrial migration and improved stream process and function far outweigh temporary construction impacts. Districts may also negotiate with state and federal partners to implement full-span fish passage programmatic solutions for priority barriers that have no maintenance or replacement needs by funding mitigation for unavoidable impacts for current transportation projects (e.g., the current Smith River Bridge Replacement Project [Dr. Fine Bridge], is funding mitigation as barrier remediation work at the active Dominie Creek location).

Partnerships

The Fish Passage Advisory Committees, which include more than 200 members, partner on all aspects of fish passage remediation including training, guidance, assessments, prioritization, scoping design solutions, advocating for funding, and updating the Passage Assessment Database.

In January 2020, the Fish Passage Committee Leadership Action Team was created. The Leadership Action Team consists of managers from multiple agencies, who provide guidance and direction to the Fish Passage Advisory Committees. In December 2019, interested Fish Passage Advisory Committee member/managers applied for 2-year terms on the Leadership Action Team. Selection to the Leadership Action Team was made based on demonstrated commitment to the goals of the existing six Fish Passage Advisory Committees as well as expertise, accountability, strong communication and problem-solving skills, and the ability to be a team player and to motivate others.

The mission of the Leadership Action Team is to:

- Solve complex state-wide challenges related to fish passage barrier remediation;
- Support innovative engineering solutions; and
- Ensure sound science and data is incorporated in all Fish Passage Advisory Committee decisions.

Funding

In the Spring of 2019, Caltrans Headquarters Division of Environmental Analysis and the Headquarters Asset Management office partnered to include fish passage priorities in the State Highway System Management Plan, a performance driven and integrated plan for California's State Highway System. The plan integrates rehabilitation, maintenance, and operations into a single 10-year management plan and organizes activities into performance objectives that align with Caltrans' four primary goals of safety, stewardship, sustainability, and system performance.

Fish passage is a new State Highway System objective that is managed and tracked to align fish passage priorities with system needs, investments, and resulting performance projections. The June 2021 State Highway System Management Plan will track priority fish passage barrier locations and requires a maintenance inspection report performed within the previous two years.

The Division of Environmental Analysis and the Headquarters Asset Management office also collaborated with districts to plan more immediate funding allocations, prior to the June 2021 State Highway System Management Plan. This work targeted priority barriers that have a transportation nexus in Districts 1 (Eureka), 2 (Redding), and 5 (San Luis Obispo).

Currently, 30 active (funded) fish passage locations are being developed, totaling approximately $220 million to $240 million from transportation funding sources. The

scope for most projects currently being developed are small bridges or other full-span solutions. Appendix C. Active Fish Passage Remediation Locations Funding (page 47), outlines funding information for the 30 active fish passage remediation locations.

Multi-Species and Habitat Benefits

Fish Passage Advisory Committees continue to identify historic, current, and future salmon and Steelhead barrier remediation projects that also provide connectivity benefits to other aquatic and terrestrial species. Watersheds and riparian areas are used by aquatic and terrestrial species to meet some or all of their life history needs, including migration to find food, to reproduce, or to move into more suitable habitat. Rising temperatures, changing precipitation patterns, wildfires, and shifts in vegetative communities affect suitability of habitat and range for salmon, Steelhead and other threatened and endangered species, as well as more common species (e.g., deer, black bear, bobcats, coyotes, etc.).

Full span fish passage solutions span the historically active floodplain, minimize interference between the structure and channel processes and optimize both terrestrial and aquatic species passage and full ecosystem function. Full-span solutions also represent the most strategic investment in fish passage barrier remediation and require minimal maintenance over time. In 2018, Caltrans, Pacific States Marine Fisheries Commission, and Fish Passage Advisory Committees created a Multi-species story map (https://www.arcgis.com/apps/MapSeries/index.html?appid=2e345c26f68741129c346eb7a1f4ef5c) to monitor multi-species benefits, which are often the result of full-span salmon and Steelhead projects.

The pre-designed fish passage bridges can be implemented for in-channel (wet/bridge), or over-land (dry/viaduct), fish and wildlife connectivity projects that require a 20-foot to 115-foot width, or for any bridge replacement that fits the scope of the small bridge pre-design work. Wet channel solutions most likely require deep water foundations (drilled or driven piles), to avoid and minimize scour risk and ensure the long-term success of the in-water fish passage solution. However, for dry span locations where scour risk is low, less expensive slab foundations can often be used without jeopardizing the long-term success of the dry span connectivity project.

To further the collection of multi-species connectivity data, as of July 2020, Caltrans purchased 90 wildlife cameras, which will be distributed throughout the state to collect and share photographic observational data in collaboration with Districts and Fish Passage Advisory Committees. Each Fish Passage Advisory Committee has created a Camera Deployment Plan to implement in the fall of 2020. Preliminary results from completed studies will be shared in the next Legislative report (October 2021).

Research

In 2018, Caltrans' Division of Research, Innovation, and Systems Information funded an engineering research project to investigate the efficacy of full and partial fish passage remediation solutions to provide guidance and share lessons learned from previous remediation projects. The Interagency Engineering Working Group and Humboldt State University expert engineers continue to collaborate on the project. Research panelists include hydraulic engineers, fish passage engineers, fluvial geomorphologists, geologists and structures engineers from Caltrans, the California Department of Fish and Wildlife, and the National Marine Fisheries Service.

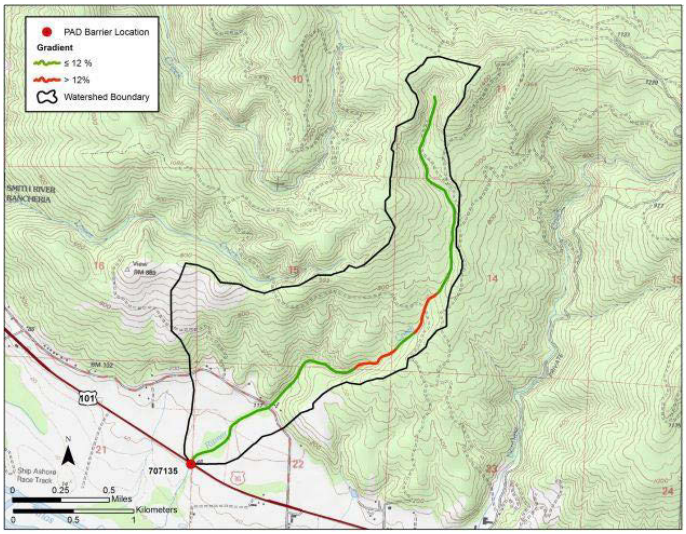
Per the original research schedule, field surveys were planned for the summer of 2020. Shelter-in-place and travel restrictions resulted in a no-cost extension of the research project to allow for additional time to complete the field study, as travel restrictions ease. As a result, the final research report will not be completed until 2021.

2019 Completed Fish Passage Remediation Locations

Four fish passage barriers were remediated in 2019, improving access to an estimated **5.5 miles** of habitat for salmon and Steelhead. Table 2 contains information on the completed locations. Figure 7 (Page 18), is a map of the locations listed in Table 2.

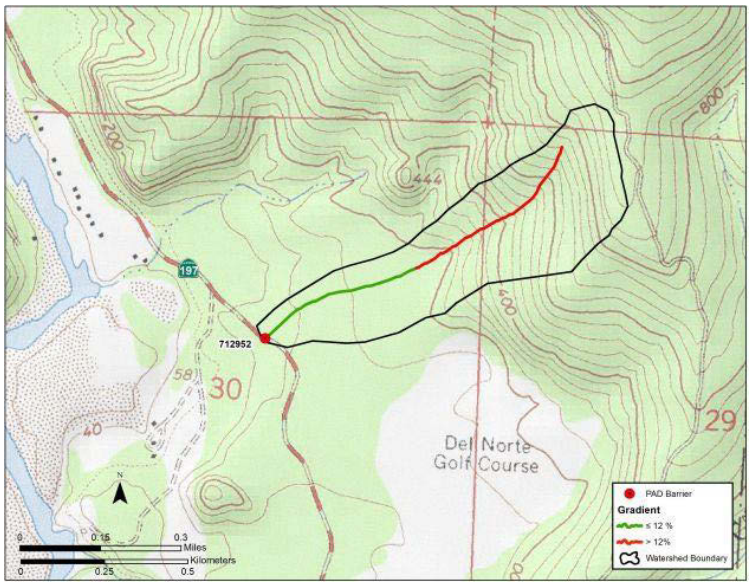
Table 2. 2019 Completed Fish Passage Remediation Locations

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
1	1	Del Norte	101	41.41	707135	Ritmer Creek Emergency	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **1.11 miles** of salmon and Steelhead habitat above this barrier.					

Pre-Construction Fish Passage (Barrier)	Post-Construction Fish Passage (Remediation)
	
Notes	**Watershed model - run/rise habitat estimate**
• Corrugated metal pipe replaced with bottomless arch culvert. • To expedite construction and minimize traffic disturbance an innovative precast culvert solution was selected. • This location is located approximately 5-miles from the Oregon border and is a tributary to Tillas Slough and the Smith River. • During fish relocation, prior to project activities, biologists found Steelhead, Coastal cutthroat trout, Pacific Lamprey, prickly sculpin and coastal giant salamanders. **Note:** Green lines on the map were established using gradient over distance to simulate adult Steelhead swimming and jumping capabilities.	

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
2	1	Del Norte	197	2.9	712952	Unnamed Tributary Emergency	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **0.31 miles** of salmon and Steelhead habitat above this barrier.					

Pre-Construction Fish Passage (Barrier)	**Post-Construction Fish Passage (Remediation)**
	

Notes	**Watershed model - run/rise habitat estimate**
• Failing 4.5-foot corrugated metal pipe replaced with a 10-foot diameter pipe. • The pipe was partially embedded to allow for clean river run cobbles to be placed in the bottom of the new culvert. • Embankments were regraded to improve the channel alignment. • Rock slope protection was place at the inlet to avoid and minimize scour and erosion. **Note:** Green lines on the map were established using gradient over distance to simulate adult Steelhead swimming and jumping capabilities.	

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
3	1	Mendocino	1	14.85	712450	Point Arena Creek Emergency	Partial
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Threatened).					
	Habitat	There is an estimated **2.86 miles** of salmon and Steelhead habitat above this barrier.					

Pre-Construction Fish Passage (Barrier)

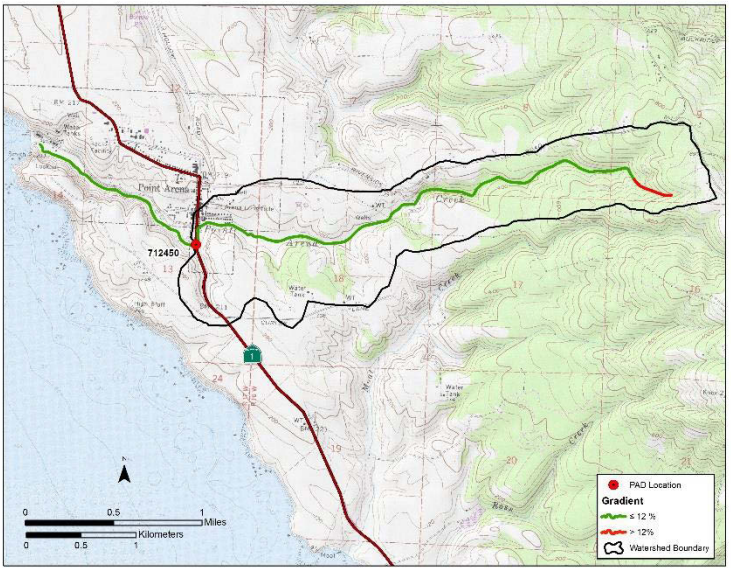
Post-Construction Fish Passage (Remediation)

Notes

- A 6-foot corrugated metal pipe was replaced with a 12-foot wide by 8-foot tall reinforced concrete box.
- The new reinforced concrete box was embedded into the channel to allow for some scour, without affecting fish passage and to mimic the natural stream bed.
- No fish or amphibians observed during pre-construction or construction efforts.

Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead swimming and jumping capabilities.

Watershed model - run/rise habitat estimate



Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
4	5	Santa Barbara	192	15.5	706239	Arroyo (Parida) Paredon Creek	Full
	Species	Southern California Coast Steelhead (Endangered).					
	Habitat	There is an estimated **1.24 miles** of Steelhead habitat above this barrier.					

Pre-Construction Fish Passage (Barrier)

Post-Construction Fish Passage (Remediation)

Notes

- The existing bridge was critically damaged and closed due to the debris flows associated with the January 2018 storms near Montecito, CA.
- The 35.5-foot bridge was replaced with a new full-span bridge under emergency authorization.
- Concrete and rock revetment was removed under the emergency authorization.
- The stream channel was graded and realigned to simulate the upstream channel condition.

Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead swimming and jumping capabilities.

Watershed model - run/rise habitat estimate

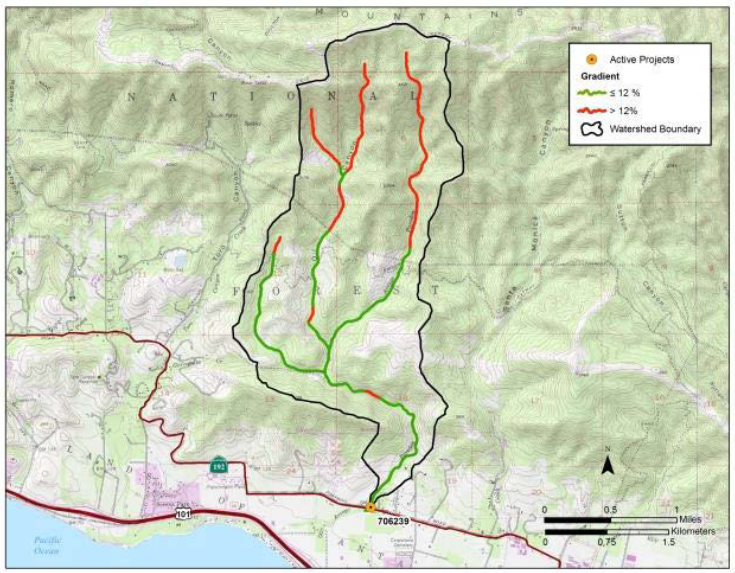


Figure 7. 2019 Completed Fish Passage Remediation Locations

2019 Completed Fish Passage Assessment Locations

In 2019, **30** fish passage assessments were completed in Districts 1 (Eureka), 2 (Redding), 3 (Marysville), 4 (Oakland), 5 (San Luis Obispo), 6 (Fresno), and 7 (Los Angeles). Table 3 below lists **5** new identified barriers and **2** potential barriers that need detailed surveys (listed below). The other 23 assessed locations are not barriers to salmon or Steelhead. Assessment information has been submitted to the California Department of Fish and Wildlife, Passage Assessment Database. Figure 8 (page 20) shows locations listed in Table 3.

Table 3. 2019 Completed Fish Passage Assessment Locations

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Assessment Status
1	2	Trinity – 3 – PM 24.95	735849	Unnamed / Frazier Creek	Little Creek	New Identified Barrier
2	2	Trinity – 3 – PM 25.25	760686	Unnamed / Frazier Creek	Little Creek	New Identified Barrier
3	2	Trinity – 299	731450	Little Browns Creek	Weaver Creek	New Identified Barrier
4	4	Marin - 1 - PM 17.01	765071	Wilkins Gulch	Bolinas Lagoon	New Identified Barrier
5	4	Sonoma - 1 - PM 11.2	733197	Unnamed	Bodega Bay	Potential Barrier
6	5	Santa Barbara - 101 - PM 33.82	707398	El Capitan Creek (Canada Del Capitan)	Pacific Ocean	Potential Barrier
7	7	Ventura - 150 - PM 28.61	723744	Santa Paula Creek	Santa Clara River	New Identified Barrier

Figure 8. 2019 Completed Fish Passage Assessment Locations

Active Fish Passage Remediation Locations

Caltrans is currently developing projects to remediate **30** fish passage barriers. Three new locations have been funded on the State Highway System, which are indicated in **bold and underline (new)**. The 30 active locations account for an estimated **313 miles** of currently blocked habitat for salmon and Steelhead. Table 4 lists the locations that are either funded through construction or partially funded for planning, design or permitting. Figure 9 (page 26), is a map of the locations listed in Table 4. For funding information on these locations, see Appendix C, Active Fish Passage Remediation Locations Funding (page 47).

Table 4. Active Fish Passage Remediation Locations

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
1	1	Del Norte – 101 – PM 39.78	707134	Dominie Creek	Dominie Fish Passage	2021
	Species	Southern Oregon/Northern California Coast Coho (Threatened).				
	Habitat	There is an estimated **2.49 miles** of salmon and Steelhead habitat above this barrier.				
2	1	Del Norte – 199 – PM 2.56	707139	Clarks Creek	199 Culverts	2023/24
	Species	Southern Oregon/Northern California Coast Coho (Threatened).				
	Habitat	There is an estimated **3.69 miles** of salmon and Steelhead habitat above this barrier.				
3	1	Del Norte – 199 – PM 31.31	707137	Griffin Creek	199 Culverts	2023/24
	Species	Southern Oregon/Northern California Coast Coho (Threatened).				
	Habitat	There is an estimated **3.66 miles** of salmon and Steelhead habitat above this barrier.				
4	1	Humboldt – 96 – PM 8.83	707141	Campbell Creek	Invert Repair & Baffle Restoration	2020/21
	Species	Northern California Steelhead (Threatened), Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened).				
	Habitat	There is an estimated **1.62 miles** of salmon and Steelhead habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
5	1	Humboldt – 101 – PM 124.49	713025	Little Lost Man Creek	Little Lost Man Fish Passage	2021/22
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Coast Steelhead (Threatened).				
	Habitat	There is an estimated **1.21 miles** of salmon and Steelhead habitat above this barrier.				
6	1	Humboldt – 254 – PM 4.18	707157	Fish Creek	Fish Creek Fish Passage	2024/25
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).				
	Habitat	There is an estimated **4.0 miles** of salmon and Steelhead habitat above this barrier.				
7	1	Humboldt – 254 – PM 40.83	722439	Chadd Creek	Storm Water Mitigation	2027/28
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).				
	Habitat	There is an estimated **2.03 miles** of salmon and Steelhead habitat above this barrier.				
8	2	Shasta – 5 – PM R24.54	759970	Spring Branch Creek	Districtwide Scour Project	2022/23
	Species	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).				
	Habitat	There is an estimated **2.29 miles** of salmon and Steelhead habitat above this barrier.				
9	2	Shasta – 36 – PM 3.6	737281	Harrison Gulch	Harrison Gulch	2022/23
	Species	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened).				
	Habitat	There is an estimated **5.02 miles** of salmon and Steelhead habitat above this barrier.				
10	2	Siskiyou – 5 – PM 27.2	720504	Parks Creek	Park Creek Fish Passage	2020/21
	Species	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).				
	Habitat	There is an estimated **19.1 miles** of salmon and Steelhead habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
11	2	Siskiyou – 96 – PM 43.5	720541	Cade Creek	Cade Creek	2027/28
	Species	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).				
	Habitat	There is an estimated **2.58 miles** of salmon and Steelhead habitat above this barrier.				
12	2	Siskiyou – 96 – PM 57.0	707169	Portuguese Creek	Portuguese Creek	2027/28
	Species	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).				
	Habitat	There is an estimated **2.78 miles** of salmon and Steelhead habitat above this barrier.				
13 (new)	**2**	**Trinity – 3 – PM 24.95**	**735849**	**Unnamed / Frazier Creek**	**Hayfork Mountain Culverts**	**2022/23**
	Species	**Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).**				
	Habitat	**There is an estimated 1.38 miles of Steelhead habitat above this barrier.**				
14 (new)	**2**	**Trinity – 3 – PM 25.24**	**760686**	**Unnamed / Frazier Creek**	**Hayfork Mountain Culverts**	**2022/23**
	Species	**Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).**				
	Habitat	**There is an estimated 1.7 miles of Steelhead habitat above this barrier.**				
15	4	Alameda – 84 – PM 12.1	713729	Stonybrook Creek	Niles Canyon Creek Bridge Replacement	2023/24
	Species	Central California Coast Steelhead (Threatened).				
	Habitat	There is an estimated **7.01 miles** of Steelhead habitat above this barrier.				
16 (new)	**4**	**Napa – 29 – PM 6.04**	**705518**	**Suscol (Soscol) Creek**	**Construct Connector Ramp**	**2024/25**
	Species	**Central California Coast Steelhead (Threatened).**				
	Habitat	**There is an estimated 4.83 miles of Steelhead habitat above this barrier.**				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
17 (new)	**4**	**Napa – 29 – PM 33.17**	**705459**	**Ritchie (Ritchey) Creek**	**Fish Passage Remediation**	**2022/23**
	Species	**Central California Coast Steelhead (Threatened).**				
	Habitat	**There is an estimated 2.36 miles of Steelhead habitat above this barrier.**				
18	4	Napa – 121 – PM 0.75	714975	Huichica Creek	Hiuchica Creek Bridge Replacement	2024/25
	Species	Central California Coast Steelhead (Threatened).				
	Habitat	There is an estimated **7.82 miles** of Steelhead habitat above this barrier.				
19	4	San Mateo – 280 – PM 0.01	705760	Los Trancos Creek	Seismic Restoration - King DR. UC #35-0202L	2022/23
	Species	Central California Coast Steelhead (Threatened).				
	Habitat	There is an estimated **11.82 miles** of Steelhead habitat above this barrier.				
20	4	Santa Clara – 85 – PM 12.6	733945	San Tomas Aquinas Creek	Sub-Structure Rehab/Scour Mitigation	2023/24
	Species	Central California Coast Steelhead (Threatened).				
	Habitat	There is an estimated **4.9 miles** of Steelhead habitat above this barrier.				
21	4	Sonoma – 1 – PM 15.1	733223	Scotty Creek	Gleason Beach Highway Realignment	2023/24
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).				
	Habitat	There is an estimated **3.87 miles** of salmon and Steelhead habitat above this barrier.				
22	5	Santa Barbara – 1 – PM 15.61	700085	Salsipuedes Creek	Salsipuedes Creek Bridge Scour Mitigation	2021/22
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **101.81 miles** of Steelhead habitat above this barrier.				
23	5	Santa Barbara – 101 – PM 5.6	734310	Arroyo (Parida) Paredon Creek	South Coast 101 HOV Lanes - Padaro (Segment 4B)	2025/26
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **2.37 miles** of Steelhead habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
24	5	Santa Barbara – 101 – PM 9.4	705161	Romero Creek	South Coast 101 HOV Lanes - Padaro (Segment 4C)	2023/24
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **5.84 miles** of Steelhead habitat above this barrier.				
25	5	Santa Barbara – 101 – PM 9.6	734342	San Ysidro Creek	South Coast 101 HOV Lanes - Padaro (Segment 4C)	2023/24
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **2.36 miles** of Steelhead habitat above this barrier.				
26 (new)	**5**	**Santa Barbara-101-PM 36.7**	**707402**	**Refugio Creek**	**Refugio Creek Bridge Replacement**	**2026/27**
	Species	**Southern California Coast Steelhead (Endangered).**				
	Habitat	**There is an estimated 4.5 miles of Steelhead habitat above this barrier.**				
27	7	Los Angeles – 1 – 50.3	705781	Solstice Creek	Solstice Creek Bridge Replacement	2025/26
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **2.25 miles** of Steelhead habitat above this barrier.				
28	7	Ventura – 33 – PM 7.62	713867	San Antonio Creek	Scour Mitigation & Rail Upgrade	2023/24
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **56.4 miles** of Steelhead habitat above this barrier.				
29	11	San Diego – 76 – PM 29.5	712680	Pauma Creek	Storm Water Mitigation/Fish Passage	2029/30
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **5.74 miles** of Steelhead habitat above this barrier.				
30	12	Orange – 5 – PM 11.30	706807	Trabuco Creek	Trabuco	2024
	Species	Southern California Coast Steelhead (Endangered).				
	Habitat	There is an estimated **36.16 miles** of Steelhead habitat above this barrier.				

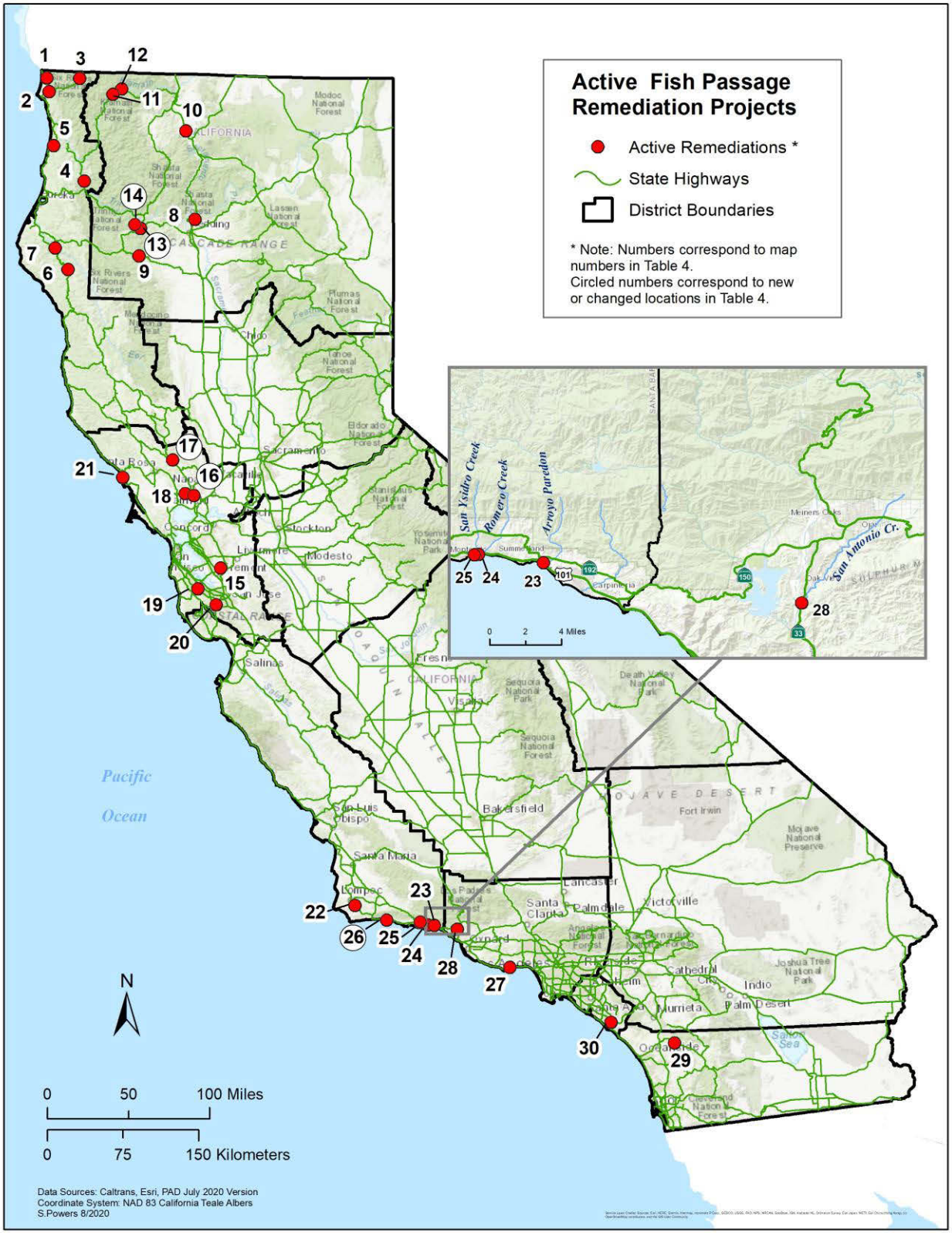


Figure 9. Active Fish Passage Remediation Locations

Priority Fish Passage Locations for Funding

Table 5 lists the 65 Priority locations that were identified by the six state wide Fish Passage Advisory Committees. One new location has been added as a Priority on the State Highway System, which is indicated in **bold and underline (new)**. The 65 Priority locations account for an estimated **385 miles** of blocked habitat for salmon and Steelhead. Figure 10 (page 37), is a map of the locations listed in Table 5.

Table 5. 2019 Priority Fish Passage Locations for Funding

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
1	1	Del Norte – 101 – PM 37.46	712951	Mello Creek	Morrison Creek (Smith River)
	Species	Southern Oregon/Northern California Coast Coho (Threatened).			
	Habitat	There is an estimated **0.46 miles** of salmon and Steelhead habitat above this barrier.			
2	1	Del Norte – 199 – PM 34.04	712954	Broken Kettle Creek	Elk Creek (Illinois River)
	Species	Southern Oregon/Northern California Coast Coho (Threatened).			
	Habitat	There is an estimated **2.86 miles** of salmon and Steelhead habitat above this barrier.			
3	1	Humboldt – 36 – PM 5.18	712972	Wilson Creek	Yager Creek (Van Duzen River)
	Species	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **3.47 miles** of salmon and Steelhead habitat above this barrier.			
4	1	Humboldt – 36 – PM 9.17	707129	Fox Creek	Van Duzen River
	Species	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **2.31 miles** of salmon and Steelhead habitat above this barrier.			
5	1	Humboldt – 101 – PM 1.61	707159	Durphy Creek	South Fork Eel River
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **2.44 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
6	1	Humboldt – 101 – PM 59.94	715460	Strongs Creek	Eel River
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **20.26** miles of salmon and Steelhead habitat above this barrier.			
7	1	Humboldt – 101 – PM R126.2	718442	May Creek	Prairie Creek
	Species	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **3.16 miles** of salmon and Steelhead habitat above this barrier.			
8	1	Humboldt – 299 – PM R2.97	713051	Essex Gulch	Mad River
	Species	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **3.51 miles** of salmon and Steelhead habitat above this barrier.			
9	1	Mendocino – 1 – PM 4.64	713068	Fish Rock Gulch	Fish Rock Gulch
	Species	California Coastal Chinook (Threatened), Northern CA Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **0.99 miles** of salmon and Steelhead habitat above this barrier.			
10	1	Mendocino – 1 – PM R25.48	706971	Mallo Pass Creek	Pacific Ocean (Navarro-Garcia)
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **4.65 miles** of salmon and Steelhead habitat above this barrier.			
11	1	Mendocino – 1 – PM R54.62	707070	Doyle Creek	Pacific Ocean
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **2.36 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
12	1	Mendocino – 1 – PM 57.81	707071	Mitchell Creek	Pacific Ocean
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **5.22 miles** of salmon and Steelhead habitat above this barrier.			
13	1	Mendocino – 1 – PM 58.78	707072	Digger Creek	Digger Creek
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **2.39 miles** of salmon and Steelhead habitat above this barrier.			
14	1	Mendocino – 1 – PM 88.71	713078	Powderhouse Gulch	Cottaneva Creek
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **0.87 miles** of salmon and Steelhead habitat above this barrier.			
15	1	Mendocino – 20 – PM 30.87	713093	Unnamed Tributary to Broaddus Creek	Broaddus Creek
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **1.81 miles** of salmon and Steelhead habitat above this barrier.			
16	1	Mendocino – 101 – PM 61.09	707091	Long Valley Creek	Outlet Creek (Upper Eel)
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **17.17 miles** of salmon and Steelhead habitat above this barrier.			
17	1	Mendocino – 101 – PM 63.47	707094	Long Valley Creek	Outlet Creek (Upper Eel)
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **14.3 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
18	1	Mendocino – 101 – PM 73.56	706969	Lewis Creek	Tenmile Creek (South Fork Eel)
	Species	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **1.79 miles** of salmon and Steelhead habitat above this barrier.			
19	1	Mendocino – 128 – PM 4.30	707185	Barton Gulch	Navarro River
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **2.39 miles** of salmon and Steelhead habitat above this barrier.			
20	1	Mendocino – 128 – PM 7.27	707187	Mustard Gulch	Navarro River
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **1.55 miles** of salmon and Steelhead habitat above this barrier.			
21	1	Mendocino – 128 – PM 18.69	706968	Lazy Creek	Navarro River
	Species	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	Habitat	There is an estimated **3.89 miles** of salmon and Steelhead habitat above this barrier.			
22	2	Shasta – 5 – PM R17.14	737799	Boulder Creek	Churn Creek (Clear Creek – Sacramento River)
	Species	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).			
	Habitat	There is an estimated **6.67** miles of salmon and Steelhead habitat above this barrier.			
23	2	Shasta – 44 – PM 33.78	737802	Millseat Creek	North Fork Battle Creek
	Species	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).			
	Habitat	There is an estimated **2.84** miles of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
24	2	Shasta – 273 – PM 18.0	707132	Sulphur Creek	Sacramento River
	Species	Sacramento River Winter-run Chinook (Endangered), California Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).			
	Habitat	There is an estimated **9.33 miles** of salmon and Steelhead habitat above this barrier.			
25	2	Siskiyou – 3 – PM 6.5	707148	Big Mill Creek	Scott River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **2.03 miles** of salmon and Steelhead habitat above this barrier.			
26	2	Siskiyou – 96 - R12.02	732222	Ti Creek	Klamath River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **0.25 miles** of salmon and Steelhead habitat above this barrier.			
27	2	Trinity – 3 – PM 10.9	707231	Barker Creek	Trinity River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **14.48 miles** of salmon and Steelhead habitat above this barrier.			
28	2	Trinity – 3 – PM 32.6	707178	East Weaver Creek	Trinity River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **7.42 miles** of salmon and Steelhead habitat above this barrier.			
29	2	Trinity – 299 – PM 49.6	720522	West Weaver Creek	Trinity River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **4.64 miles** of salmon and Steelhead habitat above this barrier.			
30	2	Trinity – 299 – PM 51.2	737674	Sydney Gulch	Trinity River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **5.54 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
31	2	Trinity – 299 – PM 51.4	735941	Garden Gulch	Trinity River
	Species	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).			
	Habitat	There is an estimated **4.52 miles** of salmon and Steelhead habitat above this barrier.			
32	3	Sacramento – 99 – PM 16.36	759042	Strawberry Creek	Beacon Creek
	Species	California Central Valley Steelhead (Threatened), Central Valley Fall & Late Fall-run Chinook Salmon (Threatened), Central Valley Spring-run Chinook Salmon (Endangered), Sacramento River Winter-run Chinook Salmon (Endangered).			
	Habitat	There is an estimated **6.67 miles** of salmon and Steelhead habitat above this barrier.			
33	4	Marin -1 – PM 18.69	706078	McCurdy Creek	Pine Gulch Creek (Bolinas Lagoon)
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **0.75 miles** of salmon and Steelhead habitat above this barrier.			
34	4	Marin – 1 – PM 18.69	706079	North Fork McCurdy Creek	McCurdy Creek/ Pine Gulch Creek
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **0.75 miles** of salmon and Steelhead habitat above this barrier.			
35	4	Marin – 1 – PM 22.67	706059	John West Fork	Olema Creek
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **2.85 miles** of salmon and Steelhead habitat above this barrier.			
<u>36 (new)</u>	**<u>4</u>**	**<u>Marin – 1 – PM 25.63</u>**	**<u>706054</u>**	**<u>Quarry Gulch</u>**	**<u>Olema Creek</u>**
	<u>Species</u>	**<u>Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).</u>**			
	<u>Habitat</u>	**<u>There is an estimated 0.87 miles of salmon and Steelhead habitat above this barrier.</u>**			
37	4	Marin – 1 – PM 25.67	759028	Quarry Gulch	Olema Creek
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).			
	Habitat	There is an estimated **0.86 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
38	4	San Mateo – 1 – PM 4.32	705302	Whitehouse Creek	Pacific Ocean
	Species	Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **4.04 miles** of Steelhead habitat above this barrier.			
39	4	San Mateo – 1 – PM 22.75	716835	Lobitos Creek	Pacific Ocean
	Species	Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **5.55 miles** of Steelhead habitat above this barrier.			
40	4	San Mateo – 84 – PM 4.6	706675	Bogess Creek	San Gregorio Creek
	Species	Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **6.1 miles** of Steelhead habitat above this barrier.			
41	4	San Mateo – 84 – PM 19.25	705766	Bear Creek	San Francisquito
	Species	Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **0.75 miles** of Steelhead habitat above this barrier.			
42	4	San Mateo – 84 – PM 19.98	705768	West Union Creek	Bear Creek/San Francisquito Creek
	Species	Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **4.83 miles** of Steelhead habitat above this barrier.			
43	5	San Luis Obispo – 101 – PM 36.59	707246	Santa Margarita Creek	Salinas River
	Species	Southern Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **2.64 miles** of Steelhead habitat above this barrier.			
44	5	Santa Barbara – 101 – PM R0.0	707368	Rincon Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **10.56** miles of Steelhead habitat above this barrier.			
45	5	Santa Barbara – 101 – PM 46.92	706655	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **28.37 miles (cumulative)** of Steelhead habitat above and including the 5-small check-dam barriers. Numbers 45-49 represent 5 locations proposed to be grouped into one project.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
46	5	Santa Barbara – 101 – PM 46.95	706656	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **28.37 miles (cumulative)** of Steelhead habitat above and including the 5-small check-dam barriers. Numbers 45-49 represent 5 locations proposed to be grouped into one project.			
47	5	Santa Barbara – 101 – PM 47.12	706657	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **28.37 miles (cumulative)** of Steelhead habitat above and including the 5-small check-dam barriers. Numbers 45-49 represent 5 locations proposed to be grouped into one project.			
48	5	Santa Barbara – 101 – PM 47.15	706658	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **28.37 miles (cumulative)** of Steelhead habitat above and including the 5-small check-dam barriers. Numbers 45-49 represent 5 locations proposed to be grouped into one project.			
49	5	Santa Barbara – 101 – PM 47.19	706659	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **28.37 miles (cumulative)** of Steelhead habitat above and including the 5-small check-dam barriers. Numbers 45-49 represent 5 locations proposed to be grouped into one project.			
50	5	Santa Barbara – 101 – PM R49.38	706388	Gaviota Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **2.79 miles** of Steelhead habitat above this barrier.			
51	5	Santa Barbara – 192 – PM 3.39	706538	Mission Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **4.26 miles** of Steelhead habitat above this barrier.			
52	5	Santa Cruz – 1 – PM 9.97	706703	Valencia Creek	Aptos Creek
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **16.36 miles** of salmon and Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
53	5	Santa Cruz – 1 – PM 10.05	706704	Valencia Creek	Aptos Creek
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **16.33 miles** of salmon and Steelhead habitat above this barrier.			
54	5	Santa Cruz – 1 – PM 28.59	706003	San Vicenta Creek	Pacific Ocean
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **4.4 miles** of salmon and Steelhead habitat above this barrier.			
55	5	Santa Cruz – 1 – PM 31.25	705994	Molino Creek	Pacific Ocean
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).			
	Habitat	There is an estimated **2.31 miles** of salmon and Steelhead habitat above this barrier.			
56	7	Los Angeles – 1 – PM 40.99	716891	Topanga Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **3.76 miles** of Steelhead habitat above this barrier.			
57	7	Los Angeles – 1 – PM 54.97	716906	Zuma Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **3.99 miles** of Steelhead habitat above this barrier.			
58	7	Ventura – 1 – PM – 1.23	723563	Little Sycamore Creek	Pacific Ocean
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **2.19 miles** of Steelhead habitat above this barrier.			
59	7	Ventura – 33 – PM 34.5	723804	Burro Creek	Sespe Creek
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **2.1 miles** of Steelhead habitat above this barrier.			
60	7	Ventura – 126 – PM 18.6	723760	Boulder Creek	Santa Clara River
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **4.59 miles** of Steelhead habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
61	7	Ventura – 126 – PM R26.48	713878	Hopper Canyon Creek	Santa Clara Creek
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **10.38 miles** of Steelhead habitat above this barrier.			
62	7	Ventura – 150 – PM 18.75	713873	San Antonio Creek	Ventura River
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **10.35** miles of Steelhead habitat above this barrier.			
63	7	Ventura – 150 – PM 22.8	700083	Lion Creek	Sespe Creek
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **11.13 miles** of Steelhead habitat above this barrier.			
64	7	Ventura – 150 – PM 28.48	761522	Sissar Creek	Santa Paula Creek
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **10.26 miles** of Steelhead habitat above this barrier.			
65	10	Stanislaus – 120 – PM R15.04	761519	Wildcat Creek	Stanislaus River
	Species	Southern California Coast Steelhead (Endangered).			
	Habitat	There is an estimated **48.61 miles** of Steelhead habitat above this barrier.			

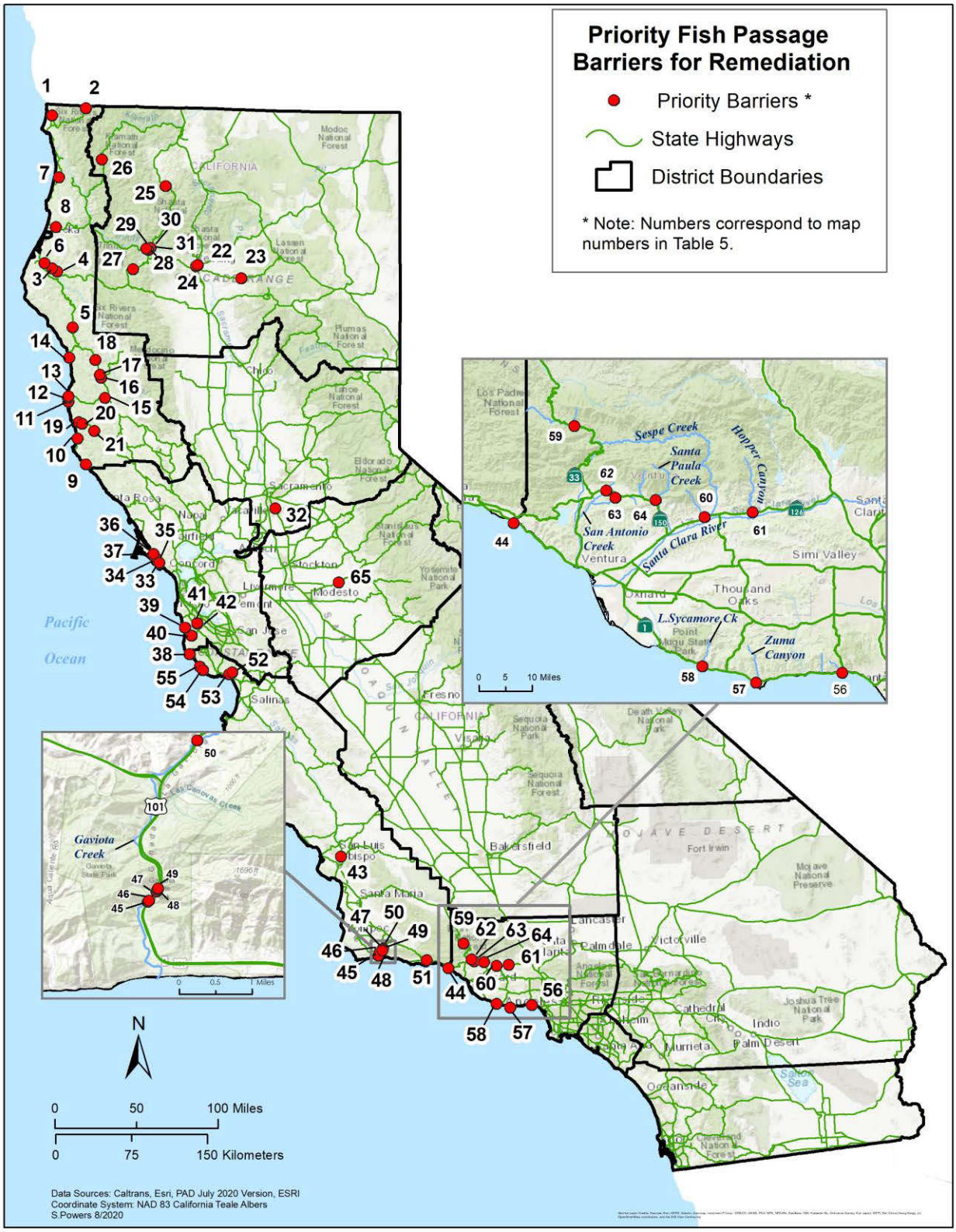


Figure 10. 2019 Priority Fish Passage Locations for Remediation

Appendix A. Fish Passage Locations Completed

Appendix A lists fish passage locations that have been either fully or partially remediated on the State Highway System since 2006, when Senate Bill 857 (Kuehl, Chapter 589, Statutes of 2005) was passed. Table 6 lists remediated barriers from January 1, 2006 to December 31, 2019. **Bold and underlined (new)** locations are new to this report and were constructed in 2019. The 51 locations listed in Appendix A account for an estimated **795 miles** of improved access to salmon and Steelhead habitat. Figure 11 (page 45) is a map of the locations listed in Appendix A.

Table 6. Fish Passage Locations Completed

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
1 (new)	**1**	**Del Norte - 101 - PM 41.41**	**707135**	**Ritmer Creek**	**Ritmer Creek Emergency**	**2019**	**Partial**
	Species	**Southern Oregon/Northern California Coast Coho (Threatened).**					
	Habitat	**There is an estimated 1.11 miles of salmon and Steelhead habitat above this barrier.**					
2	1	Del Norte - 101 - PM 43.7	715563	Lopez Creek	Smith River Widening	2009	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **0.5 miles** of salmon and Steelhead habitat above this barrier.					
3	1	Del Norte- 197 - PM 2.12	720982	Peacock Creek	Peacock Creek Emergency	2013	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **1.68 miles** of salmon and Steelhead habitat above this barrier.					
4 (new)	**1**	**Del Norte- 197 - PM 2.9**	**712952**	**Unnamed Tributary to Smith River**	**Emergency Culvert**	**2019**	**Partial**
	Species	**Southern Oregon/Northern California Coast Coho (Threatened).**					
	Habitat	**There is an estimated 0.31 miles of salmon and Steelhead habitat above this barrier**					
5	1	Del Norte – 197 – PM 5.0	707143	Sultan Creek	Emergency Bridge Project	2015	Full
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **1.33 miles** of salmon and Steelhead habitat above this barrier.					
6	1	Del Norte – 197 – PM 6.15	707142	Little Mill Creek	Emergency Bridge Project	2016	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **1.0 miles** of salmon and Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
7	1	Humboldt - 101 - PM 40.12	722460	Chadd Creek	Chadd Creek Fish Passage	2006	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **1.81 miles** of salmon and Steelhead habitat above this barrier.					
8	1	Humboldt – 169 - PM 22.37	706198	Cappell Creek	Four Bridges Project	2011	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **0.5 miles** of salmon and Steelhead habitat above this barrier.					
9	1	Humboldt-299-PM 4.2	716742	Hall Creek	Mitigation Mad River Bridge	2013	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **3.5 miles** of salmon and Steelhead habitat above this barrier.					
10	1	Mendocino-1-PM 92.8	706958	Dunn Creek Bridge	10 Mile Bridge Mitigation	2013	Full
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **2.13 miles** of salmon and Steelhead habitat above this barrier.					
11 (new)	**1**	**Mendocino – 1 – 14.85**	**712450**	**Point Arena Creek**	**Emergency Culvert**	**2019**	**Partial**
	Species	**Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).**					
	Habitat	**There is an estimated 2.86 miles of salmon and Steelhead habitat above this barrier.**					
12	1	Mendocino – 101 – PM 48.14	705136	Upp Creek	Willits Mitigation	2017	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **2.98 miles** of salmon and Steelhead habitat above this barrier.					
13	1	Mendocino – 101 – PM 52.25	707085	South Fork Ryan Creek	Willits Mitigation	2017	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **2.52 miles** of salmon and Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
14	1	Mendocino – 101 – PM 52.36	707086	North Fork Ryan Creek	Willits Mitigation	2017	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **1.46 miles** of salmon and Steelhead habitat above this barrier.					
15	1	Mendocino – 101 – PM 66.5	707096	Ten Mile Creek	Culvert Scour Project	2017	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **4.7 miles** of salmon and Steelhead habitat above this barrier.					
16	1	Mendocino- 101 – PM 81.4	706986	Rattlesnake Creek	Rattlesnake Creek	2009	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **13.06 miles** of salmon and Steelhead habitat above this barrier.					
17	1	Mendocino -101 – PM 83.99	706987	Rattlesnake Creek	Fish Passage	2013	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **24.9 miles** of salmon and Steelhead habitat above this barrier.					
18	1	Mendocino – 101 – PM 89.24	706954	Cedar Creek	Cedar Creek Fish Passage Retrofit	2018	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **11.91 miles** of salmon and Steelhead habitat above this barrier.					
19	1	Mendocino - 101 – PM 99.0	707115	Red Mountain Creek	Confusion Hill Mitigation	2010	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **10.58 miles** of salmon and Steelhead habitat above this barrier.					
20	1	Mendocino – 128 – PM 21.8	707199	Clow Creek	Culvert Upgrade	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **1.36 miles** of salmon and Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
21	1	Mendocino – 128 – PM 27.54	707205	Graveyard Creek	Culvert Upgrade	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated **1.22 miles** of salmon and Steelhead habitat above this barrier.					
22	1	Mendocino – 128 – PM 36.63	707208	Lost Creek	Culvert Upgrade	2015	Partial
	Species	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **0.26 miles** of salmon and Steelhead habitat above this barrier.					
23	1	Mendocino – 128 – PM 39.88	707212	Beebe Creek	Culvert Upgrade	2015	Partial
	Species	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **1.55 miles** of salmon and Steelhead habitat above this barrier.					
24	1	Mendocino - 128 – PM 39.95	713145	John Hatt Creek	Beebe Storm Damage	2011	Partial
	Species	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **0.89 miles** of salmon and Steelhead habitat above this barrier.					
25	1	Mendocino - 128 – PM 49.66	707219	Edwards Creek	Edwards Creek Fish Passage	2011	Partial
	Species	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **0.62 miles** of salmon and Steelhead habitat above this barrier.					
26	2	Shasta - 299 – PM 20.7	737289	Salt Creek	Salt Creek Fish Passage Project	2006	Partial
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated **7.1 miles** of salmon and Steelhead habitat above this barrier.					
27	2	Shasta – 299 – PM 32.2	737295	Yank/Lemm Creek Bridge	Yank/Lemm Creek Bridge	2014	Full
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).					
	Habitat	There is an estimated **14.66 miles** of salmon and Steelhead habitat above this barrier.					
28	2	Siskiyou - 96 – PM 56.0	707168	Fort Goff Creek	Fort Goff Creek Fish Passage	2014	Full
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **3.98 miles** of salmon and Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
29	2	Siskiyou - 96 – PM 65.4	707147	O'Neil Creek	O'Neil Creek Fish Passage	2008	Full
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **0.89 miles** of salmon and Steelhead habitat above this barrier.					
30	2	Tehama - 5 – PM 16.9	737006	Elder Creek	Elder Creek Scour Mitigation	2008	Partial
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated **245.54 miles** of salmon and Steelhead habitat above this barrier.					
31	2	Tehama - 5 – PM 28.1	737007	Dibble Creek	Dibble Creek Scour Mitigation	2008	Partial
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated **94.3 miles** of salmon and Steelhead habitat above this barrier.					
32	2	Tehama - 99 – PM 15.6	737013	Sunset Canal	Sunset Canal Bridge	2010	Partial
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated **6.12 miles** of salmon and Steelhead habitat above this barrier.					
33	2	Tehama - 99 – PM 21.1	737012	Craig Creek	Craig Creek	2011	Full
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated **165.44 miles** of salmon and Steelhead habitat above this barrier.					
34	2	Trinity – 299 – PM 68.06	720511	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **12.46 miles** of salmon and Steelhead habitat above this barrier.					
35	2	Trinity – 299 – PM 68.2	735688	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened).					
	Habitat	There is an estimated **12.2 miles** of salmon and Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
36	4	Contra Costa – 80 – PM 8.4	723716	Pinole Creek	Pinole Creek Bridge Retrofit	2016	Partial
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **28.23 miles** of salmon and Steelhead habitat above this barrier.					
37	4	Marin – 1 – PM 22.78	706058	Giacomini Gulch	Giacomini Gulch Bridge	2018	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **1.56 miles** of salmon and Steelhead habitat above this barrier.					
38	4	Marin – 1 – PM 24.77	732502	Tributary to Olema Creek	Tributary to Olema Creek Bridge	2018	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **0.79 miles** of salmon and Steelhead habitat above this barrier.					
39	4	Marin – 1 – PM 33.4	732518	Millerton Gulch	Millerton Gulch Emergency	2017	Partial
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **0.76 miles** of salmon and Steelhead habitat above this barrier.					
40	4	Napa - 121 – PM 1	733333	Huichica Creek	Duhig Road Project	2010	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **1.33 miles** of salmon and Steelhead habitat above this barrier.					
41	4	Napa – 121 – PM 9.3	758605	Sarco Creek	Sarco Creek Bridge	2017	Partial
	Species	Central California Coast Steelhead (Threatened).					
	Habitat	There is an estimated **8.7 miles** of Steelhead habitat above this barrier.					
42	5	Santa Barbara – 101 – PM 2.2	707182	Carpinteria Creek	Carpinteria Creek Retrofit	2018	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **12.22** miles of Steelhead habitat above this barrier.					
43	5	Santa Barbara - 101 – PM 33.9	707398	El Capitan Creek	El Capitan Creek	2007	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **6.34 miles** of Steelhead habitat above this barrier.					

Map #	District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
44	5	Santa Barbara – 101 – PM 38.3	707403	Tajiguas Creek	Tajiguas Creek	2014	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **8.2 miles** of Steelhead habitat above this barrier.					
45	5	Santa Barbara - 101 – PM 41.0	707405	Arroyo Hondo Creek	Arroyo Hondo	2008	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **2.0 miles** of Steelhead habitat above this barrier.					
46	5	Santa Barbara - 101 – PM 47.2	706669	Gaviota Creek	Gaviota Creek	2008	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **25.6 miles** of Steelhead habitat above this barrier.					
47 (new)	**5**	**Santa Barbara – 192 – PM 15.5**	**706239**	**Arroyo Paredon Creek**	**Bridge Replacement**	**2019**	**Full**
	Species	**Southern California Steelhead (Endangered).**					
	Habitat	**There is an estimated 1.2 miles of Steelhead habitat above this barrier.**					
48	5	Santa Cruz - 1 – PM 17.4	735367	Branciforte Creek	Hwy 1 Remediation	2007	Partial
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **18.0 miles** of salmon and Steelhead habitat above this barrier.					
49	5	Santa Cruz - 1 – PM 17.42	735366	Carbonera Creek	Hwy 1 Remediation	2008	Partial
	Species	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated **3.23 miles** of salmon and Steelhead habitat above this barrier.					
50	7	Ventura - 150 – PM 28.7	723744	Santa Paula Creek	Santa Paula Creek	2012	Partial
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **17.4 miles** of Steelhead habitat above this barrier.					
51	12	Orange – 74 – PM 13.30	759565	San Juan Creek	San Juan Creek Fish Passage	2018	Full
	Species	Southern California Steelhead (Endangered).					
	Habitat	There is an estimated **4.91** miles of Steelhead habitat above this barrier.					

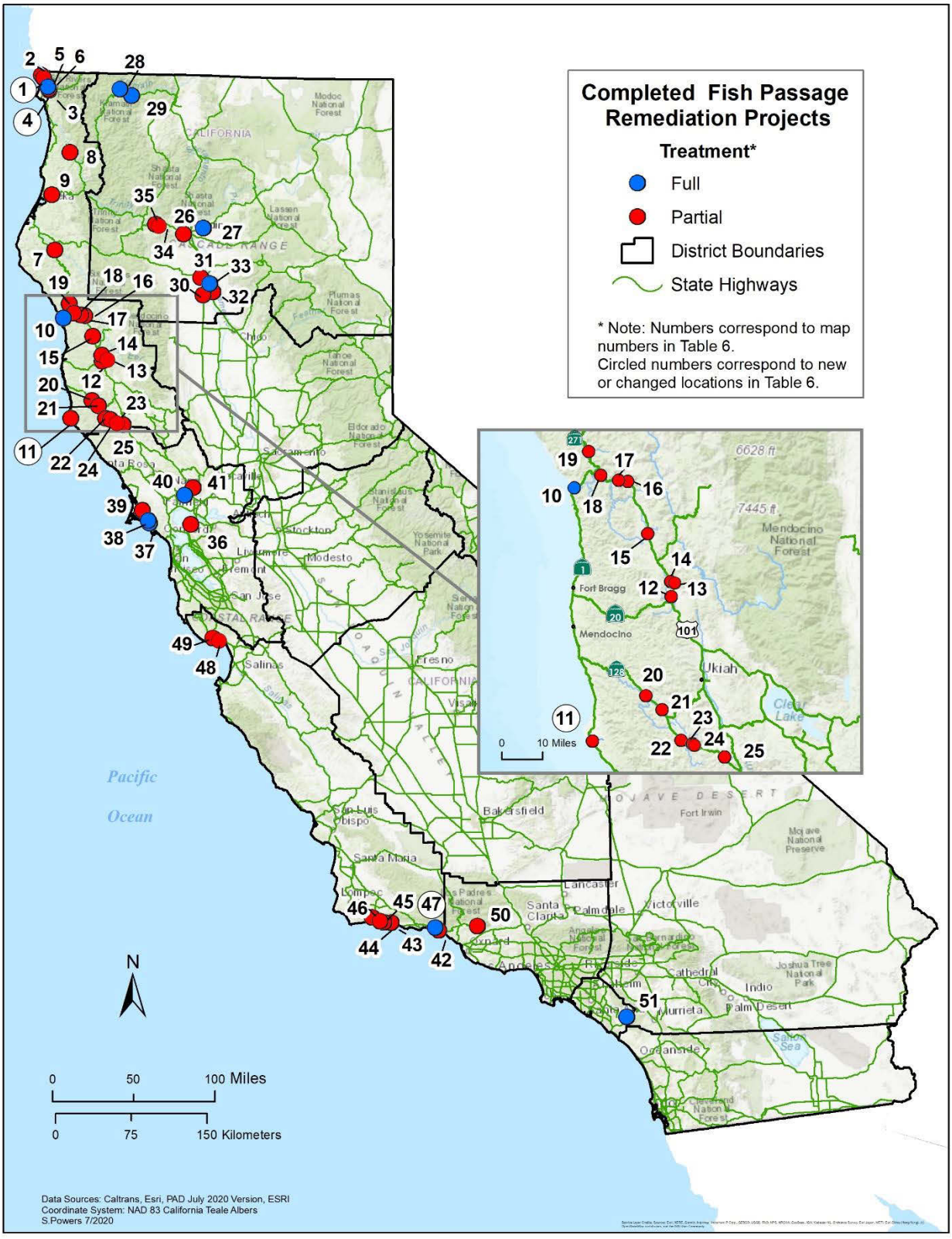


Figure 11. Fish Passage Locations Completed

Appendix B. Statutory Reporting Reference

Streets and Highways Code Section 156.1 became effective January 1, 2006, per Senate Bill 857 (Kuehl, Chapter 589, Statutes of 2005) and was amended by AB 95 (Committee on Budget, Chapter 12, Statutes of 2015).

156.1. (a) The Director of Transportation shall prepare an annual report describing the status of the department's progress in locating, assessing, and remediating barriers to fish passage. This report shall be given to the Legislature by October 31 of each year through the year 2025.

(b) Each report issued after October 31, 2016, shall include a status report on the remediation of barriers to fish passage on projects that have been identified pursuant to Section 156.5. The status report shall include, but is not limited to, all of the following information regarding a project identified pursuant to Section 156.5:

(1) Any updated information received by the department from the Department of Fish and Wildlife regarding the barriers to fish passage on the project.

(2) Whether funding has been committed to the project.

(3) The source of any funding for the project.

(4) The budget summary of the project.

(5) The status of inspections of culverts to ensure they are functioning properly and any other actions by the department to assess or remediate barriers to fish passage on the project.

(6) The applicable program initiation document work plan review.

(7) The estimated completion date for the project.

Appendix C. Active Fish Passage Remediation Locations Funding

This table represents current funding information available for the 30 active locations that are being developed, consistent with table 4 (page 21). As these fish passage remediation locations are further developed through the design, permitting and construction process, costs and other information will be updated.

No.	District	County – Route – Post Mile	EA	Project ID	Project Name	Programming Document[1]	PAD ID #	Stream Name	Estimated Year of Construction	Estimated Year Construction Completed	Total Programmed Fish Passage Project Funding	Contributions by Others
1	1	Del Norte – 101 – PM 39.78	0F310	0115000108	Dominie Fish Passage	SHOPP	707134	Dominie Creek	2019/20	2022/23	$10,832,000	
2	1	Del Norte – 199 – PM 2.56	48802	0119000028	199 Culverts	SHOPP	707139	Clarks Creek	2020/21	2023/24	$120,000	
3	1	Del Norte – 199 – PM 31.31	48801	0119000016	199 Culverts	SHOPP	707137	Griffin Creek	2020/21	2023/24	$370,000	
4	1	Humboldt – 96 – PM 8.87	0G160	0116000131	Invert Repair & Baffle Restoration	HM 151 - Culvert Program	707141	Campbell Creek	2019/20	2020/21	$364,000	
5	1	Humboldt – 101 – PM 124.5	0F960	01160000109	Little Lost Man Fish Passage	SHOPP	713025	Little Lost Man Creek	2019/20	2021/22	$9,263,000	
6	1	Humboldt – 254 – PM 4.18	0E790	0115000021	Construct Bridge - Fish Passage Remediation	SHOPP	707157	Fish Creek	2022/23	2024/25	$8,500,000	
7	1	Humboldt – 254 – PM 40.83	0H240	0117000140	254 Culverts-Storm Water Mitigation	SHOPP	722439	Chadd Creek	2026/27	2027/28	**$6,000,000**[2]	
8	2	Shasta – 5 – PM R24.54	4G530	0214000023	District Wide Scour Counter Measures Project	SHOPP	759970	Spring Branch Creek	2020/21	2022/23	**$1,500,000**	
9	2	Shasta – 36 – PM 3.6	2H620	0216000154	Harrison Gulch	SHOPP Minor B	737281	Harrison Gulch	2021/22	2022/23	$735,000	
10	2	Siskiyou – 5 – PM R27.2	2H060	0216000081	Park Creek Fish Passage	SHOPP Minor B	720504	Parks Creek	2019/20	2020/21	$311,000	
11	2	Siskiyou – 96 – PM 43.5	1H590	0216000025	Cade Creek	SHOPP	720541	Cade Creek	2024/25	2027/28	**$9,877,000**	$50,000
12	2	Siskiyou – 96 – PM 57.0	1H590	0216000025	Portuguese Creek	SHOPP	707169	Portuguese Creek	2024/25	2027/28	**$9,958,000**	$50,000
13	2	Trinity – 3 – PM 24.95	0J500	0219000130	Hayfork Mountain Culverts	Minor	735849	Unnamed / Frazier Creek	2021/22	2022/23	**$1,726,700**	
14	2	Trinity – 3 – PM 25.25	0J500	0219000130	Hayfork Mountain Culverts	Minor	760686	Unnamed / Frazier Creek	2021/22	2022/23	**$1,576,700**	
15	4	Alameda – 84 – PM 121.1	16030	0400000429	Niles Canyon Alameda Creek Bridge Replacement Project	SHOPP	713729	Stonybrook Creek	2020/21	2023/24	**$4,500,000**	

[1] Abbreviations for Program Document: SHOPP = State Highway Operation and Protection Program, and STIP = State Transportation Improvement Program.
[2] This column lists the programmed transportation funding for fish passage remediation locations. The **bold and underlined** costs are estimated costs for the identified fish passage solution type, since the true programmed amount includes funding for greater project efforts which are not related to fish passage.

No.	District	County – Route – Post Mile	EA	Project ID	Project Name	Programming Document[1]	PAD ID #	Stream Name	Estimated Year of Construction	Estimated Year Construction Completed	Total Programmed Fish Passage Project Funding	Contributions by Others
16	4	Napa – 29 – PM 6.04	28120	0400000769	Construct Connector Ramp	STIP	705518	Suscol (Soscol) Creek	2021/22	2024/25	**$200,000**	
17	4	Napa – 29 – PM 33.13	4J990	0416000037	Ritchie Creek Fish Passage Remediation	SHOPP	705459	Ritchie (Ritchey) Creek	2021/22	2022/23	$10,276,000	
18	4	Napa – 121 – PM 0.75	4G210	0412000310	Huichica Creek – Bridge Replacement Project	SHOPP	714975	Huichica Creek	2020/21	2024/25	$20,469,000	
19	4	San Mateo – 280 – PM 0.01	4J850	0416000028	Seismic Restoration - King Dr. UC #35-0202L/R, Serramo	SHOPP	705760	Los Trancos Creek	2022/23	2022/23	**$2,100,000**	
20	4	Santa Clara – 85 – PM 12.6	2J780	0415000017	Sub-Structure Rehab/Scour Mitigation	SHOPP	733945	San Tomas Aquinas Creek	2021/22	2023/24	**$1,434,000**	
21	4	Sonoma – 1 – PM 15.1	0A020	0400000129	Gleason Beach Highway Realignment	SHOPP	733223	Scotty Creek	2021/22	2023/24	**$22,500,000**	
22	5	Santa Barbara – 1 – PM 15.61	0A050	0500000007	Salsipuedes Creek Bridge Scour Mitigation	SHOPP	700085	Salsipuedes Creek	2020/21	2021/22	$11,449,000	
23	5	Santa Barbara – 101 – PM R5.6	0N702	0518000113	South Coast 101 HOV Lanes - Padaro (Segment 4B)	STIP	734310	Arroyo (Parida) Paredon Creek	2020/21	2025/26	**$6,500,000**	
24	5	Santa Barbara – 101 – PM 9.4	0N70B	0518000131	South Coast 101 HOV Lanes - Montecito (Segment 4D)	STIP	705161	Romero Creek	2020/21	2023/24	**$4,500,000**	
25	5	Santa Barbara – 101 – PM 9.6	0N70B	0518000131	South Coast 101 HOV Lanes - Montecito (Segment 4D)	STIP	734342	San Ysidro Creek	2020/21	2023/24	**$4,500,000**	
26	5	Santa Barbara-101-PM 36.7	1C950	0513000018	Refugio Creek Bridge Replacement	SHOPP	707402	Refugio Creek	2023/24	2026/27	$5,900,000	
27	7	Los Angeles – 1 – PM 50.3	31350	0715000090	LA-001- Drainage Improvement	SHOPP	705781	Solstice Creek	2021/22	2025/26	$36,248,131	
28	7	Ventura – 33 – PM 7.62	29130	0712000083	Scour Mitigation & Rail Upgrade	SHOPP	713867	San Antonio Creek	2020/21	2023/24	$9,075,000	
29	11	San Diego – 76 – PM 29.5	42220	01115000179	SR 76 Storm Water Mitigation/Fish Passage	SHOPP	712680	Pauma Creek	2026/27	2029/30	$24,862,000	
30	12	Orange – 5 – PM 11.30	PEER	PEER	Trabuco	Local Agency	706807	Trabuco Creek	N/A	2020	-	$1,100,000
Total Estimated Fish Passage Funding Investment											**$220,000,000 - $240,000,000[3]**	

[3] The final total is an estimated range of all funded project costs which have been rounded.