2021 Fish Passage Annual Legislative Report (October 2022)

Report to the Legislature

2022

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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 on the status of the department's progress in locating, assessing, and remediating barriers to fish passage. This report covers progress from January 1, 2021, to December 31, 2021, and includes updated status on fish passage barrier assessments, active project and planned remediation projects, priority fish passage barriers, and completed fish passage remediations on the State Highway System.

2021 Fish Passage Program Accomplishments

In 2021, Caltrans completed fish passage remediation projects at five barrier locations, improving access to an estimated 16.4 miles of salmon and steelhead habitat.

Caltrans is currently developing projects to remediate 30 active (funded) fish passage barrier locations, estimated to improve habitat access to 211.16 miles of currently blocked, high-quality salmon and steelhead habitat.

Fish Passage Advisory Committees have identified 96 barrier locations for priority remediation which block an estimated 490 miles of high-quality salmon and steelhead habitat. In 2021, a funding analysis identified aligned transportation funding for 25 of the 96 priority locations, which are currently in the pre-project, planning process. Currently there are 71 additional unfunded priority fish passage barriers for remediation.

In 2021, 1,514 first pass (reconnaissance) or second pass (detailed) fish passage assessments were completed at road/stream crossings throughout the state. Of those assessments, the following was identified: 92 new barriers, 509 non-barriers, and 913 locations are potential barriers which need additional surveys to determine barrier status and habitat suitability.

Since the enactment of Senate Bill 857 (Kuehl, Chapter 589, Statutes of 2005), Caltrans has remediated a total of 60 barrier locations. Those 60 locations account for an estimated 910 miles of improved access to salmon and steelhead habitat. This includes 18 full span remediation solutions (long term), which allow full access to an estimated 335 miles of habitat, and 42 partial/hydraulic fish passage remediation locations, which have improved access to an estimated 577 miles of habitat. (See Appendix A, Fish Passage Locations Completed, page 43), for additional information.

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

Background

Streets and Highways Code, Section 156.1 (see Appendix B. Statutory Reporting Reference, page 53) requires Caltrans to prepare an annual report to the Legislature describing the status of progress in assessing fish barriers, funding priority barriers, and remediating priority barriers. The bill also requires Caltrans to do the following:

- 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 such that they neither pose nor create a barrier to fish passage.

2021 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 staff from 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 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 2021, Caltrans, the California Conservation Corps, and the Pacific States Marine Fisheries Commission, took major steps in statewide fish passage barrier assessment work by completing over 1,500 fish passage barrier assessments statewide. That science and data has been added to the Passage Assessment Database and made available to the Fish Passage Advisory Committee and to advance the understanding of fish passage barriers throughout California.

California Conservation Corps member teams in Los Angeles, Monterey, San Luis Obispo, and Stockton were trained to assess fish passage barriers using innovative software, tablet devices, and geospatial technology. This technology efficiently conveys assessment assignments and allows teams to collect high-quality data and photographs statewide. By use of this technology, Caltrans has increased the rate of barrier assessments by over 300% and has efficiently submitted data directly to the California Department of Fish and Wildlife's Passage Assessment Database. Furthermore, the new technology requires a fraction of the time of conventional input

methods significantly reducing the time and labor for the database manager to verify information and integrate data into the Passage Assessment Database.

From January 1 to December 31, 2021, 1,387 first pass (reconnaissance) assessments were completed by the California Conservation Corps member teams, and 127 second pass (detailed) assessments were completed by professional biologists at the Pacific States Marine Fisheries Commission (Figure 1. History of Assessments on the State Highway System 2008-2021, below).

As of 2021, the majority of needed assessments have been completed for Central and Southern California, which includes District 5 (San Luis Obispo), District 6 (Fresno), District 7 (Los Angeles), District 11 (San Diego), and District 12 (Orange). Next assessment efforts will focus on northern California areas in District 1 (Eureka), District 2 (Redding), District 3 (Marysville), and District 4 (Oakland).

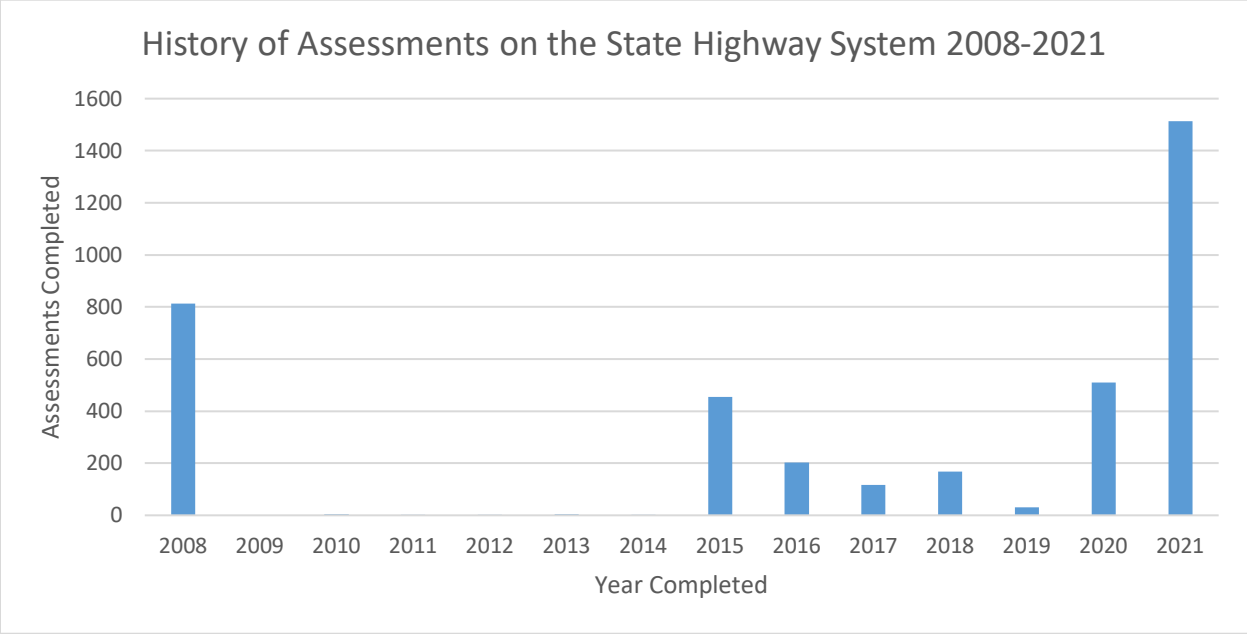


Figure 1. History of Assessments on the State Highway System (2008-2021)

A new California Conservation Corpsmember team began assessment work operating out of Ukiah, in Mendocino County, as of July 2022. This team is performing assessments throughout Mendocino, Marin, Sonoma, Napa, Humboldt, and Del Norte counties.

In 2021, a team of Pacific States Marine Fisheries Commission professional biologists, located in Southern California, conducted 127 second pass (detailed) assessments. Due to the growing number of Corpsmember identified second pass assessment needs, Caltrans and the Pacific States Marine Fisheries Commission collaborated to create a second professional biologist team to conduct assessment work, based out of Humboldt County. Moving forward, two teams of professional biologists will work full-time to address detailed (second pass) assessment needs throughout California.

Over the last 3 years, the Caltrans Fish Passage Program has leveraged the latest in geospatial software and field data collection hardware to streamline the assessment of potential fish passage barriers on the State Highway system. These technologies include comprehensive workforce management software (ArcGIS Workforce), digital data recording (ArcGIS Survey123), and sophisticated data management (ArcGIS Online), which are customized to meet Caltrans' program needs Figure 2, below. The combination of software and hardware has provided an estimated 80% reduction in man-hours over previous analog workflows. This process allows for real-time verification of all data recorded and management from several simultaneous data pipelines collected by partners at the California Conservation Corps, Pacific State Marine Fisheries Commission, and Caltrans District Fish Passage Coordinators.

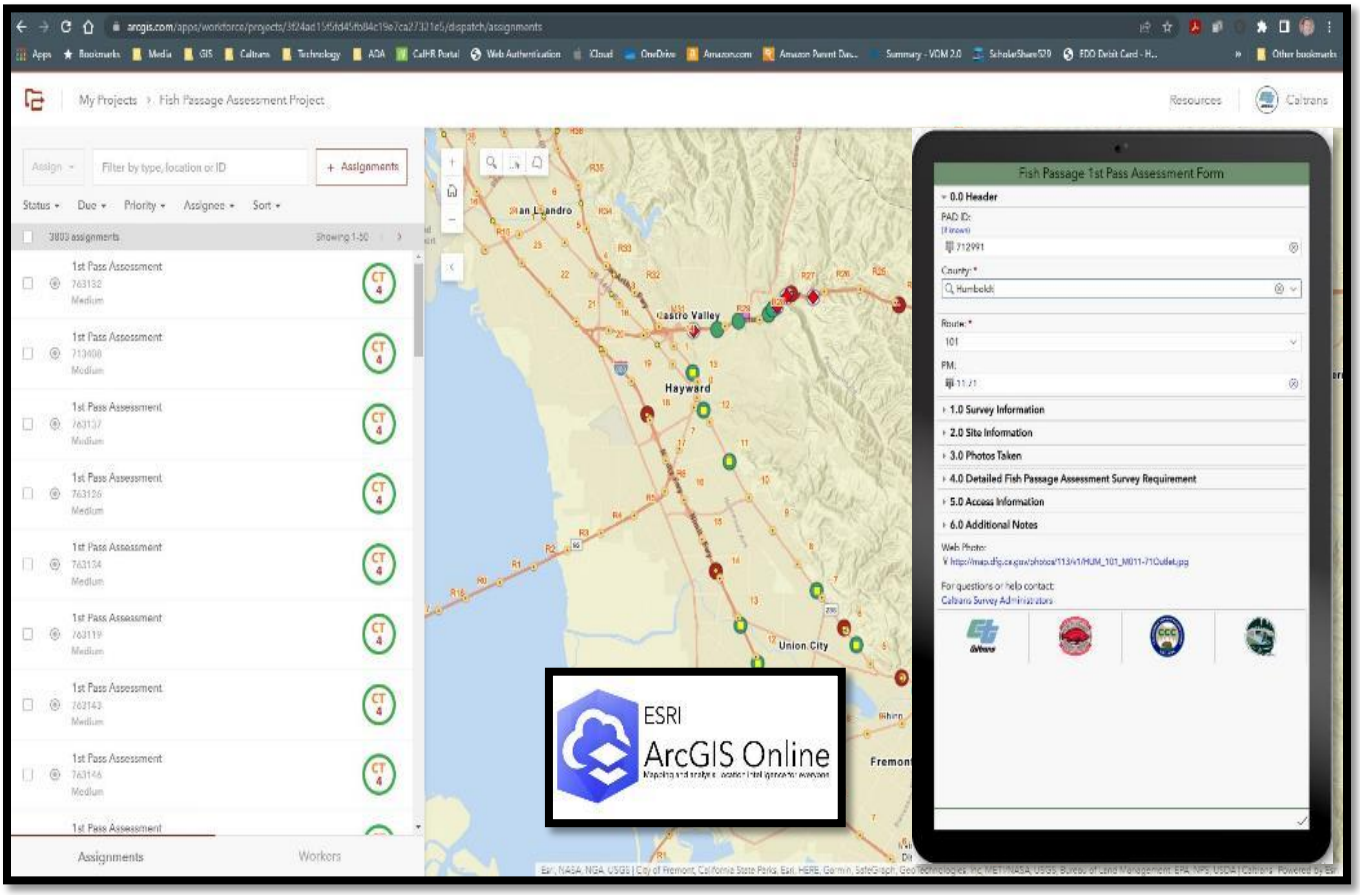


Figure 2. Example Screenshot - Fish Passage ArcGIS Workforce and Survey123

This technology allows for quick on-the-fly visualization of data and progress (ArcGIS Dashboards Figure 3, page 6). This Technological innovation is essential to the increase in assessment progress for Caltrans' Fish Passage Program and the goal of a fully vetted fish passage barrier inventory.

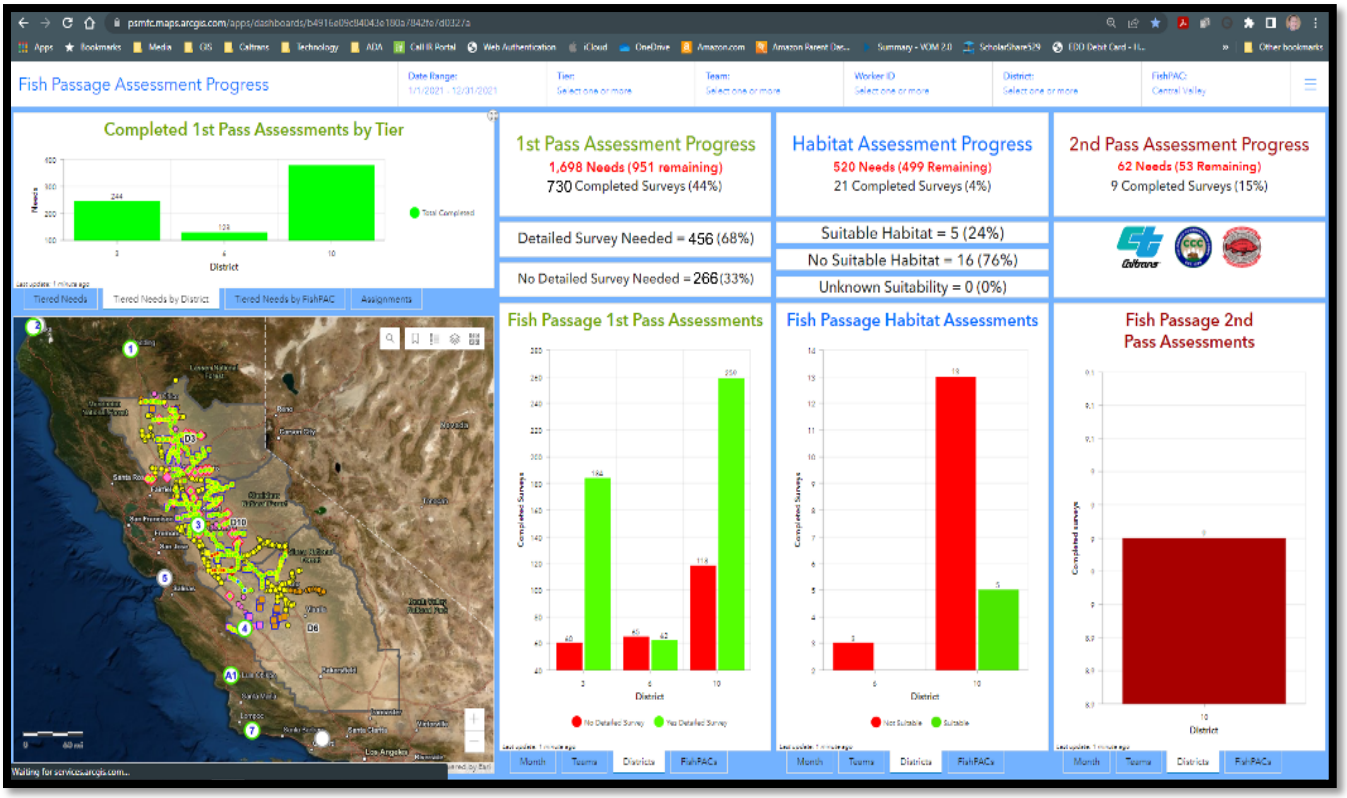


Figure 3. Example Screenshot - Fish Passage Assessment ArcGIS Dashboard

Engineering

The Interagency Engineering Work Group (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, guidance, research, project-specific design considerations, and information sharing. Member expertise includes fish passage engineering, hydraulic engineering, structures design and foundations engineering, watershed modeling, maintenance inspection, and design guidance for both fish passage remediation and long-term channel restoration work.

The Working Group contribute to early scoping and planning for funded fish passage remediation projects, and the research panel has contributed to the Fish Passage Engineering Efficacy research conducted by Cal Poly Humboldt, as well as planning the next Fish Passage Engineering Workshop. The Working Group helps educate fish passage practitioners on short and long-term engineering solutions. This includes the costs and benefits of long-term, full-span solutions that do not require continuous, intensive maintenance, which is particularly important for priority barriers and the recovery of threatened and endangered salmon and steelhead habitat.

Training

Fish Passage Advisory Committees continue to provide high-quality training related to the collection of 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. Webinar training events have offered 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.

Fish Passage Advisory Committees typically meet in-person several times annually, using webinar platforms for select meetings and trainings. The Fish Passage Advisory Committees have begun developing a comprehensive science and innovation workshop to focus on the Caltrans Fish Passage Program, innovations in science and technology, and assessment protocols. This workshop has a tentative delivery planned late 2022.

Permitting

Caltrans continues to pursue development of a programmatic fish passage environmental review process that will streamline permitting and approvals with appropriate state and federal agencies for remediating barriers. Current fish passage remediation projects are permitted on a project-by-project basis. The draft programmatic effort continues to define and assess remediation project actions and construction methods, to analyze temporary construction impacts to threatened and endangered species. The programmatic permit will reduce permitting timelines and expedite fish passage remediation projects.

Caltrans has completed a suite of pre-designed bridges, research on foundation types common on the State Highway System, along the coast, in Central Valley watersheds, and research in collaboration with Cal Poly Humboldt on the efficacy of fish passage design solutions for salmon and steelhead barrier remediation.

Caltrans continues to work with the California Department of Fish and Wildlife, the National Marine Fisheries Service, and the Fish Passage Advisory Committees on engineering, methods, and environmental analysis to inform Caltrans' expedited full-span fish passage pre-design and programmatic permitting efficiencies, including:

- Describing the types, sizes, and depths of proposed foundations.
- Completing an analysis of various anticipated sediment types, to determine pile type and size of foundations, and to complete a pile strike and hydroacoustic analysis.
- Defining partial/hydraulic fish passage design solution criteria.

- After all proposed engineering and methodology actions are fully defined, perform analysis of anticipated temporary impacts to threatened and endangered species that will occur during construction.
- Continue collaboration with 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 fish passage programmatic scope of work defines construction methods actions that avoid and minimize impacts to species. Fish and wildlife connectivity projects benefit aquatic and terrestrial migration and improved stream process and function, which far outweigh temporary construction impacts. Districts may also negotiate assurances for fish remediation projects with state and federal partners to develop and implement full-span fish passage solutions for priority barriers that have no maintenance or replacement needs by funding mitigation to offset unavoidable impacts from other current transportation projects.

Partnerships

The Fish Passage Advisory Committees include more than 200 member partners representing all aspects of fish passage remediation, to include assessment work, prioritization, training, engineering, planning, and advocating for funding.

The Fish Passage Advisory Committee, Science and Innovation Team has been working together since May 2020, to advance innovation in the collection and sharing of fish passage barrier and habitat data. The Science and Innovation Team develops innovative approaches to conducting State Highway System assessments and data collection using the innovative software and device technologies, develops products and protocols in support of the multi-species camera project, and conveys technical information in support of Caltrans and Fish Passage Advisory Committee goals.

The Science and Innovation Team continues to lead California in fish barrier and habitat assessment data collection and improvements to the Passage Assessment Database. These efficiencies in data exchange have rapidly improved the State Highway System inventory of barriers and provides vital data for the prioritization of barriers.

The Fish Passage Advisory Committee Leadership Action Team currently has eight member managers from Caltrans, the California Department of Fish and Wildlife, the National Marine Fisheries Service, the U.S. Army Corps of Engineers and one non-governmental partner, who all provide guidance to the Fish Passage Advisory Committees. Selection to the Leadership Action Team is determined based on demonstrated commitment to the goals of the six Fish Passage Advisory Committees as well as expertise, accountability, communication and problem-solving skills, as well as the ability to be a team player and motivate others.

Funding

Caltrans Division of Environmental Analysis and the Asset Management office continue to partner on the fish passage priority inventory as a component of State Highway System Management Plan. The State Highway System Management Plan is 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 strategy, which is updated biennially.

Fish passage barrier remediation was introduced as a new performance objective in the 2021 State Highway System Management Plan. This goal is managed and tracked to align fish passage priorities with State Highway System needs, investments, and resulting performance projections that contains information such as the inspection status of priority fish passage barrier locations and a maintenance inspection report performed within the previous two years. As part of the 2021 State Highway Management Plan, the Division of Environmental Analysis and the Asset Management office continue to collaborate with Districts to identify needs and solutions for remediating priority fish passage barriers. In 2021, it was determined that 25 of the current 96 priority fish passage barriers are targeted for remediation funding in the last five years of the 2021 State Highway System Management Plan. See *Table 5. Planned Funding – Priority Fish Passage Remediation*, page 29, for the list of priority locations that are currently in the pre-project planning process. These locations will be allocated once the scope, schedule, and costs have been determined for project delivery.

Of the 25 priority fish passage locations with planned funding and, preliminary estimates, we have identified 18 remediations that will deploy the pre-design Accelerated Bridge Construction bridges that Caltrans Structures Division of Engineering completed in 2020. Two locations are scoped for long-term hydraulic solutions and five check dams will be removed and the respective stream sections will be restored. Every two years, the State Highway System Management Plan will update the five-year needs and investments to account for a funding analysis for new priority fish passage barriers.

Currently, 30 active (funded) fish passage barrier locations are in the project delivery process, being developed for remediation, totaling approximately $280 million to $290 million in transportation funding sources. The scope for many of the projects being developed are small bridges, or other full-span or high-quality solution. *See Appendix C, Active Fish Passage Remediation Locations Funding,* page 54 for an outline of project and funding information.

Multi-Species and Habitat Benefits

Fish Passage Advisory Committees continue to identify priority salmon and steelhead barrier locations 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, reproduce, or 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 common species (e.g., deer, black bear, bobcats, coyotes, etc.).

Full-span fish passage solutions span the historically active channel, minimizing interference between the bridge or culvert and natural channel processes, providing both terrestrial and aquatic species passage as well as full ecosystem function. Full-span solutions represent the most strategic investment in fish passage barrier remediation and require minimal maintenance over time. Caltrans continues to deploy wildlife cameras to pre- and post-project fish and stream corridor remediation projects. In 2021, 32 wildlife cameras were loaned to 4 districts and deployed on/near Caltrans facilities associated with priority, active, or completed fish passage remediation locations. See *Figure 4. Example Wildlife Camera Trap Photos*, below, for photos captured from fish passage remediation locations that provide data in support of the multi-species benefits of full span fish passage remediation projects.

<table>
<tr><td>  </td><td>  </td></tr>
<tr><td>Black bear - District 5 (San Luis Obispo)
Gaviota Creek, Santa Barbara 101</td><td>Mountain lion – District 5 (San Luis Obispo)
Salsipuedes Creek, Santa Barbara 101</td></tr>
<tr><td>  </td><td>  </td></tr>
<tr><td>Roosevelt Elk – District 1 (Eureka)
Little Lost Man Creek, Humboldt 101</td><td>Black bear, District 1 (Eureka)
Little Lost Man Creek, Humboldt 101</td></tr>
</table>

Figure 4. Example Wildlife Camera Trap Photos.

Pre-designed Accelerated Bridge Construction 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 116.5-foot span, or for any bridge replacement that fits the scope of the small bridge pre-designed work. Wet channel solutions require more expensive 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, dry span locations where scour risk is low, less expensive slab foundations can be used without jeopardizing the long-term success of the dry span connectivity project.

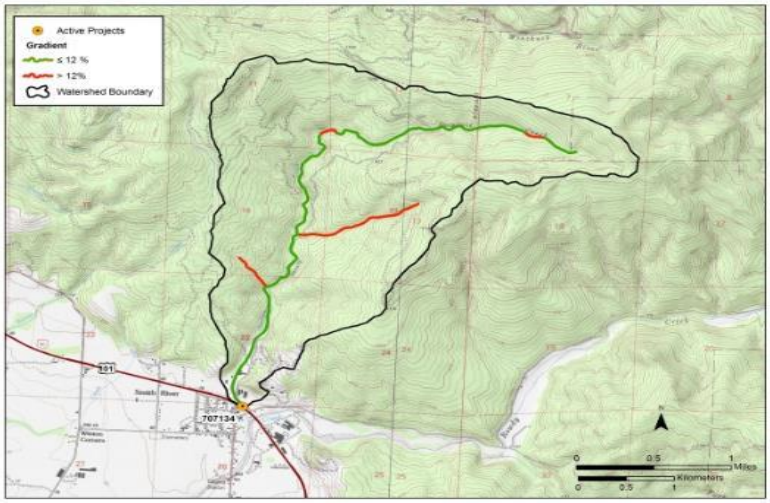
Research

In 2018, Caltrans 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 Cal Poly Humboldt expert engineers collaborated to complete the research 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. The final research report is expected to be completed and made available to all interested partners by the end of July 2022.

2021 Completed Fish Passage Remediation Locations

Five fish passage barriers were remediated in 2021, improving access to an estimated 16.43 miles of habitat for salmon and Steelhead Trout. Table 1 contains information on the completed locations. Figure 5, Page 17, is a map of the locations listed in Table 1.

Table 1 (Maps 1-5). 2021 Completed Fish Passage Remediation Locations

<table>
<tr><th>Map #</th><th>Caltrans District</th><th>County – Route – Post Mile</th><th>PAD ID #</th><th>Stream Name</th><th>Treatment Status</th></tr>
<tr><td rowspan="3">1</td><td>1</td><td>Del Norte – 101– 39.78</td><td>707134</td><td>Dominie Creek</td><td>Full Span Bridge</td></tr>
<tr><td>Species</td><td colspan="4">Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).</td></tr>
<tr><td>Habitat</td><td colspan="4">There is an estimated 2.49 miles of salmon and Steelhead Trout habitat above this barrier.</td></tr>
<tr><td colspan="3">Pre-Construction Fish Passage (Barrier)</td><td colspan="3">Post-Construction Fish Passage (Remediation)</td></tr>
<tr><td colspan="3">  </td><td colspan="3">  </td></tr>
<tr><td colspan="3">Notes</td><td colspan="3">Watershed model - run/rise habitat estimate</td></tr>
<tr><td colspan="3">• The old reinforced concrete box culvert was a partial barrier for steelhead and a total barrier for Coho Salmon.
• The new full-span bridge solution provides improved access for steelhead, as well as access for Coho Salmon.
• Prior to construction permitted biologists trapped and related Chinook Salmon, Steelhead Trout, Pacific Giant salamander, and tailed frogs.
Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</td><td colspan="3"> 
</td></tr>
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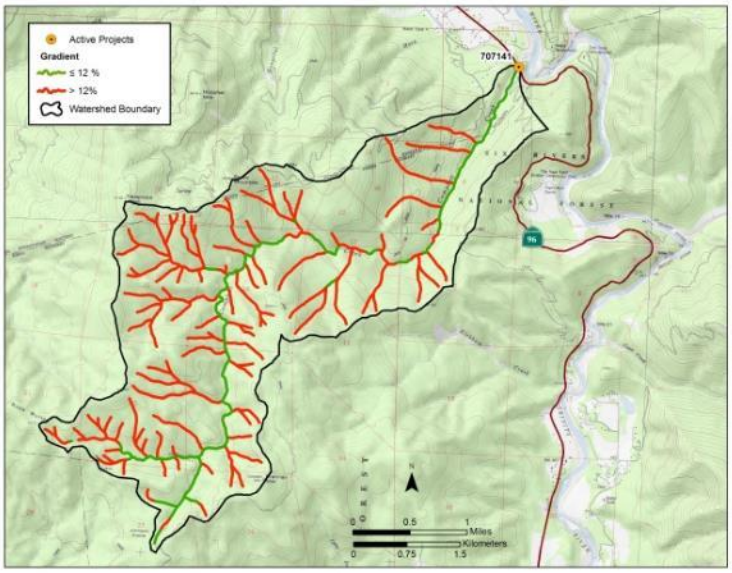
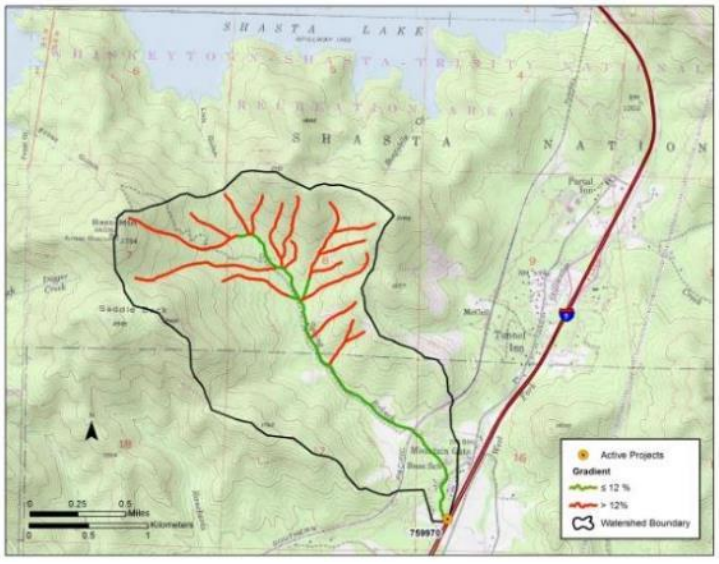
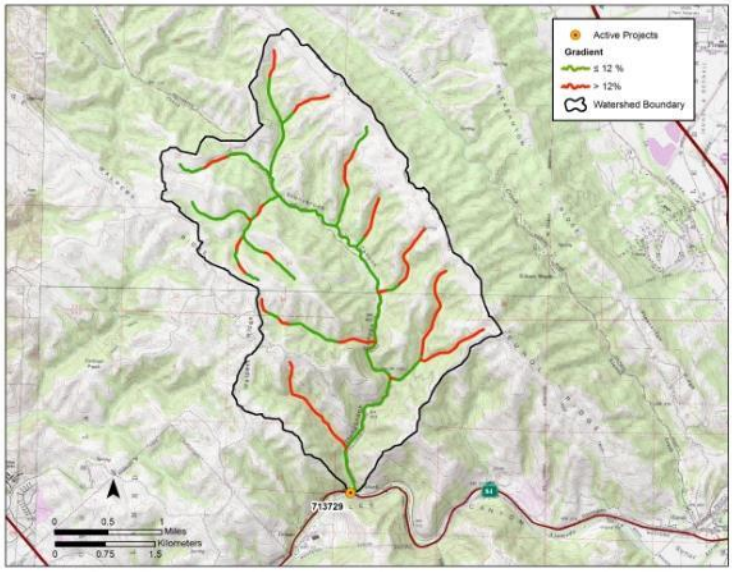
<table>
<tr><th>Map #</th><th>Caltrans District</th><th>County – Route – Post Mile</th><th>PAD ID #</th><th>Stream Name</th><th>Treatment Status</th></tr>
<tr><td rowspan="3">2</td><td>1</td><td>Humboldt – 96 – 8.87</td><td>707141</td><td>Campbell Creek</td><td>Hydraulic Channel restoration</td></tr>
<tr><td>Species</td><td colspan="4">Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).</td></tr>
<tr><td>Habitat</td><td colspan="4">There is an estimated 1.62 miles of salmon and Steelhead Trout habitat above this barrier.</td></tr>
<tr><td colspan="3">Pre-Construction Fish Passage (Barrier)</td><td colspan="3">Post-Construction Fish Passage (Remediation)</td></tr>
<tr><td colspan="3">  </td><td colspan="3">  </td></tr>
<tr><td colspan="3">Notes</td><td colspan="3">Watershed model - run/rise habitat estimate</td></tr>
<tr><td colspan="3">• Metal weirs were place inside of the culvert to provide depth of water for fish to swim through the culvert, providing improved partial passage for migrating salmon and steelhead.

Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</td><td colspan="3"> 
</td></tr>
</table>

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Treatment Status
3	2	Shasta – 5 – R24.54	759970	Spring Branch Creek	Hydraulic Channel restoration
	Species	Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).			
	Habitat	There is an estimated **2.29** miles of salmon and Steelhead Trout habitat above this barrier.			

Pre-Construction Fish Passage (Barrier)	**Post-Construction Fish Passage (Remediation)**
	
Notes	**Watershed model - run/rise habitat estimate**
• The stream channel was stabilized using rock and wood, mixed with stream bed material, as well as vegetative plantings. • The restored channel provides improved low flow passage for salmon and steelhead. • This project stabilized the channel to improve the continuous low flow channel and create depth within the reinforced concrete box **Note:** Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.	

<table>
<tr><th>Map #</th><th>Caltrans District</th><th>County – Route – Post Mile</th><th>PAD ID #</th><th>Stream Name</th><th>Treatment Status</th></tr>
<tr><td rowspan="3">4</td><td>4</td><td>Alameda – 84 – 121.1</td><td>713729</td><td>Stonybrook Creek</td><td>Full Span Bridge</td></tr>
<tr><td>Species</td><td colspan="4">Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).</td></tr>
<tr><td>Habitat</td><td colspan="4">There is an estimated 7.01 miles of salmon and Steelhead Trout habitat above this barrier.</td></tr>
<tr><td colspan="3">Pre-Construction Fish Passage (Barrier)</td><td colspan="3">Post-Construction Fish Passage (Remediation)</td></tr>
<tr><td colspan="3">  </td><td colspan="3">  </td></tr>
<tr><td colspan="3">Notes</td><td colspan="3">Watershed model - run/rise habitat estimate</td></tr>
<tr><td colspan="3">• The reinforced concrete box barrier was removed and replaced with a full-span bridge as part of the Niles Canyon project.
• The full-span bridge now allows access to all life cycles of salmon and steelhead.

Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</td><td colspan="3"> 
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<table>
<tr><th>Map</th><th>Caltrans District</th><th>County – Route – Post Mile</th><th>PAD ID #</th><th>Stream Name</th><th>Treatment Status</th></tr>
<tr><td rowspan="3">5</td><td>5</td><td>Santa Barbara – 192 – 8.12</td><td>706527</td><td>Montecito Creek</td><td>Full Span Bridge</td></tr>
<tr><td>Species</td><td colspan="4">Southern California Coast Steelhead Trout (Endangered).</td></tr>
<tr><td>Habitat</td><td colspan="4">There is an estimated 3.02 miles of salmon and Steelhead Trout habitat above this barrier.</td></tr>
<tr><td colspan="3">Pre-Construction Fish Passage (Barrier)</td><td colspan="3">Post-Construction Fish Passage (Remediation)</td></tr>
<tr><td colspan="3">  </td><td colspan="3">  </td></tr>
<tr><td colspan="3">Notes</td><td colspan="3">Watershed model - run/rise habitat estimate</td></tr>
<tr><td colspan="3">• The bridge barrier at Montecito Creek was damaged during the 2020 mud slides.
• The bridge replacement project was expedited to quickly address the damage.
• The new full-span bridge allows unimpeded access to steelhead.

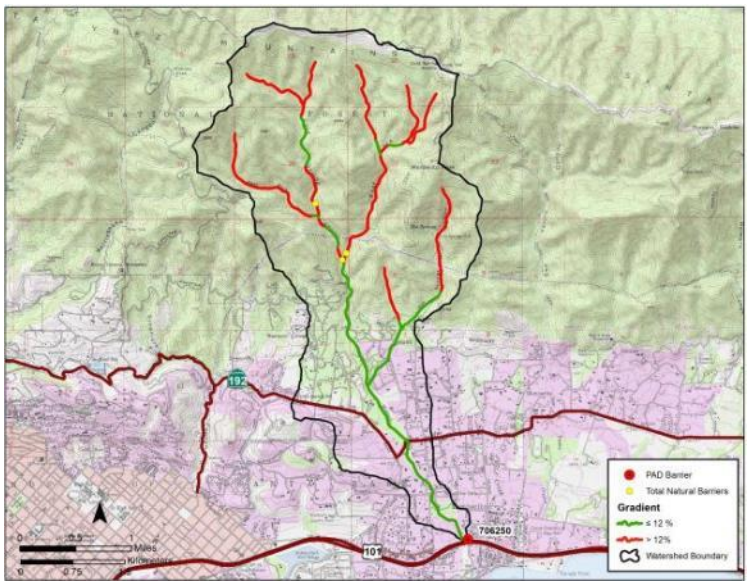
Note: Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</td><td colspan="3"> 
</td></tr>
</table>

Figure 5. 2021 Completed Fish Passage Remediation Locations.

2021 Completed Fish Passage Assessment Locations

In 2021, **1514** reconnaissance (first pass) and detailed (second pass) fish passage assessments were completed in Districts 3 (Marysville), 4 (Oakland), 5 (San Luis Obispo), 6 (Fresno), 7 (Los Angeles), 10 (Stockton), 11 (San Diego), and 12 (Orange). Table 2 below lists **92** new identified barriers and **913** potential barriers that need detailed assessments. The other **509** assessed locations are not barriers to salmon or Steelhead Trout. Assessment information has been submitted to the California Department of Fish and Wildlife, Passage Assessment Database. Figure 6, page 23 demonstrates new barriers, assessed non barriers, and further assessments needed.

Table 2. 2021 Completed Fish Passage Assessment Locations.

District/FishPAC	Counties	Total Assessments	Assessed Non-Barriers	Detailed Assessments Needed	New Identified Barriers
District 1 (Eureka) – North Coast FishPAC	Humboldt, Mendocino	8	3	1	4
District 3 (Marysville) – Central Valley FishPAC	Butte, El Dorado, Glenn, Nevada, Sacramento, Sutter, Yolo, Yuba	239	70	167	2
District 4 (Oakland) – Bay Area FishPAC	Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, Sonoma	137	31	106	0
District 5 (San Luis Obispo) – Central Coast FishPAC	Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz	414	163	209	42
District 6 (Fresno) – Central Valley FishPAC	Fresno, Kings, Madera, Tulare	125	66	59	0
District 7 (Los Angeles) – Southern Steelhead FishPAC	Los Angeles, Ventura	129	35	72	22
District 10 (Stockton) – Central Valley FishPAC	Amador, Calaveras, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne	366	130	230	6
District 11 (San Diego) – Southern Steelhead FishPAC	San Diego	79	10	57	12
District 12 (Orange) – Southern Steelhead FishPAC	Orange	17	1	12	4
Totals		**1514**	**509**	**913**	**92**

2021 New Identified Fish Passage Barrier Locations

In 2021, detailed (second pass) fish passage assessments and Habitat Evaluations were completed in Districts 3 (Marysville), 4 (Oakland), 5 (San Luis Obispo), 6 (Fresno), 7 (Los Angeles), 10 (Stockton), 11 (San Diego), and 12 (Orange). As a result, **92** new barriers were identified. Assessment information has been submitted to the California Department of Fish and Wildlife, Passage Assessment Database. Table 3 below lists the new barriers, and Figure 6, page 23 shows locations listed in Table 3.

Table 3. 2021 New Identified Fish Passage Barriers.

New Barrier #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
1	1	Humboldt - 36 - PM 4.39	712971	Ward Creek	Yager Creek
2	1	Mendocino - 128 - PM 35.54	707207	Elkins Creek	Rancheria Creek
3	1	Mendocino - 128 - PM 43.3	713148	Wattle Creek	Dry Creek
4	1	Mendocino - 128 - PM 43.67	713149	Ward Creek	Dry Creek
5	3	Butte - 70 - PM 8.27	764494	Oak Knob Draw	Feather River
6	3	Yolo - 80 - PM 0.01	764518	Putah Creek	Toe Drain
7	5	Monterey - 1 - PM 52.5	731841	unnamed	Pacific Ocean
8	5	Monterey - 1 - PM 77.3	734027	unnamed	Pacific Ocean
9	5	Monterey - 68 - PM 7.79	734127	Del Rey Canyon	Pacific Ocean
10	5	Monterey - 68 - PM 9.86	734209	Del Rey Canyon	Pacific Ocean
11	5	San Luis Obispo - 1 - PM 32	731921	unnamed	Pacific Ocean
12	5	San Luis Obispo - 101 - PM 15.8	732307	unnamed	Meadow Creek
13	5	San Luis Obispo - 101 - PM 25.7	732077	Froom Creek	San Luis Obispo Creek
14	5	San Luis Obispo - 101 - PM 26	700047	Prefumo Creek	San Luis Obispo Creek
15	5	San Luis Obispo - 101 - PM 31.9	731264	unnamed	San Luis Obispo Creek
16	5	San Luis Obispo - 101 - PM 33.2	731375	unnamed	San Luis Obispo Creek
17	5	San Luis Obispo - 101 - PM 38.9	762346	unnamed	Santa Margarita Creek
18	5	San Luis Obispo - 227 - PM 11.73	731888	unnamed	Dry Creek

New Barrier #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
19	5	San Luis Obispo - 227 - PM 8.8	731372	Davenport Creek	San Luis Obispo Creek
20	5	San Luis Obispo - 41 - PM 14.2	762174	unnamed	Atascadero Creek
21	5	San Luis Obispo - 41 - PM 2.5	762172	unnamed	Morro Creek
22	5	San Luis Obispo - 41 - PM 5.4	731657	unnamed	Morro Creek
23	5	San Luis Obispo - 41 - PM 7.5	731197	unnamed	Morro Creek
24	5	San Luis Obispo - 41 - PM 8.23	731591	unnamed	Morro Creek
25	5	San Luis Obispo - 41 - PM 8.6	732057	unnamed	Morro Creek
26	5	San Luis Obispo - 41 - PM 9.2	732110	Morro Creek	Pacific Ocean
27	5	Santa Barbara - 1 - PM 18.3	762495	unnamed	Santa Ynez River
28	5	Santa Barbara - 1 - PM 18.7	762494	unnamed	Santa Ynez River
29	5	Santa Barbara - 1 - PM 9.3	762491	unnamed	El Jaro Creek
30	5	Santa Barbara - 101 - PM 10.51	734353	Oak Creek	Pacific Ocean
31	5	Santa Barbara - 101 - PM 9.4	705161	Romero Creek	Pacific Ocean
32	5	Santa Barbara - 101 - PM 9.56	734342	San Ysidro Creek	Pacific Ocean
33	5	Santa Cruz - 1 - PM 17.03	734812	Pasatiempo Creek	San Lorenzo River
34	5	Santa Cruz - 1 - PM 18.7	734815	unnamed	Pacific Ocean
35	5	Santa Cruz - 1 - PM 19.86	731785	unnamed	Pacific Ocean
36	5	Santa Cruz - 1 - PM 23.85	731891	Baldwin Creek	Pacific Ocean
37	5	Santa Cruz - 1 - PM 24.91	731185	Majors Creek	Pacific Ocean
38	5	Santa Cruz - 1 - PM 28.05	731208	unnamed	Pacific Ocean
39	5	Santa Cruz - 1 - PM 3.5	731806	Harkins Slough	Watsonville Slough
40	5	Santa Cruz - 1 - PM 3.6	762564	unnamed	Harkins Slough
41	5	Santa Cruz - 1 - PM 30.22	732120	unnamed	Pacific Ocean

New Barrier #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
42	5	Santa Cruz - 1 - PM 30.34	731506	unnamed	Pacific Ocean
43	5	Santa Cruz - 1 - PM 7.73	734798	Larkins Creek	Pacific Ocean
44	5	Santa Cruz - 152 - PM 5.96	734851	Hughes Creek	Casserly Creek
45	5	Santa Cruz - 152 - PM 6.87	734853	unnamed	Hughes Creek
46	5	Santa Cruz - 17 - PM 12.47	734891	Burns Creek	West Branch Soquel Creek
47	5	Santa Cruz - 9 - PM 1.06	731513	unnamed	San Lorenzo River
48	5	Santa Cruz - 9 - PM 4.73	731776	unnamed	San Lorenzo River
49	7	Los Angeles - 1 - PM 38.09	716915	Temescal Canyon	Pacific Ocean
50	7	Los Angeles - 1 - PM 38.53	716916	Pulga Canyon	Pacific Ocean
51	7	Los Angeles - 1 - PM 44.15	759020	Las Flores Canyon	Pacific Ocean
52	7	Los Angeles - 1 - PM 49.89	713894	Corral Canyon	Pacific Ocean
53	7	Los Angeles - 1 - PM 50.36	705781	Solstice Creek	Pacific Ocean
54	7	Los Angeles - 1 - PM 58.2	716927	Encinal Canyon	Pacific Ocean
55	7	Los Angeles - 1 - PM 59.9	716928	Lechuza Canyon	Pacific Ocean
56	7	Ventura - 1 - PM 1.23	723563	Little Sycamore Canyon	Pacific Ocean
57	7	Ventura - 1 - PM 1.28	723564	Little Sycamore Canyon	Pacific Ocean
58	7	Ventura - 1 - PM 4.54	723631	Big Sycamore Canyon	Pacific Ocean
59	7	Ventura - 150 - PM 17.84	712466	Fox Canyon Barranca	San Antonio Creek
60	7	Ventura - 150 - PM 4	732232	Poverty Canyon	Los Sauces Creek
61	7	Ventura - 33 - PM 10.3	731138	unnamed	Ventura River
62	7	Ventura - 33 - PM 2.1	731995	Canada de San Joaquin	Ventura River
63	7	Ventura - 33 - PM 3.26	732274	Canada de las Encinas	Ventura River
64	7	Ventura - 33 - PM 3.76	732171	Manuel Canyon	Ventura River
65	7	Ventura - 33 - PM 35.24	723804	Burro Creek	Sespe Creek
66	7	Ventura - 33 - PM 4.81	731569	Weldon Canyon	Ventura River

New Barrier #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
67	7	Ventura - 33 - PM 41.5	759855	Adobe Creek	Sespe Creek
68	7	Ventura - 33 - PM 42.12	759857	unnamed	Adobe Creek
69	7	Ventura - 33 - PM 6.4	731512	Fresno Canyon	Ventura River
70	7	Ventura - 33 - PM 7.62	713867	San Antonio Creek	Ventura River
71	10	Merced - 140 - PM 14	763700	unnamed	San Joaquin River
72	10	Merced - 140 - PM 9.1	763697	Los Banos Creek	Mud Slough
73	10	Merced - 152 - PM 18.2	763377	Los Banos Creek	Mud Slough
74	10	Merced - 152 - PM 25	763369	unnamed	Arroyo Canal
75	10	Merced - 152 - PM 26.7	763371	unnamed	Boundary Drain
76	10	Stanislaus - 120 - PM 15.04	761519	Wildcat Creek	Stanislaus River
77	11	San Diego - 125 - PM 5.6	759446	unnamed	Sweetwater River
78	11	San Diego - 5 - PM 6.7	759231	Telegraph Canyon	Pacific Ocean
79	11	San Diego - 76 - PM 23.77	759380	Trujillo Creek	San Luis Rey River
80	11	San Diego - 76 - PM 24.31	759381	Magee Creek	San Luis Rey River
81	11	San Diego - 76 - PM 25.1	759382	unnamed	San Luis Rey River
82	11	San Diego - 76 - PM 31.3	759389	unnamed	San Luis Rey River
83	11	San Diego - 76 - PM 32.5	759390	unnamed	San Luis Rey River
84	11	San Diego - 76 - PM 32.8	759391	Yuima Creek	San Luis Rey River
85	11	San Diego - 76 - PM 35.4	759392	unnamed	Potrero Creek
86	11	San Diego - 76 - PM 35.5	759393	Plaisted Creek	Potrero Creek
87	11	San Diego - 76 - PM 45.5	735076	Wigham Creek	San Luis Rey River
88	11	San Diego - 76 - PM 9.46	759365	unnamed	San Luis Rey River
89	12	Orange - 133 - PM 8.59	759602	San Diego Creek	Pacific Ocean
90	12	Orange - 5 - PM 16.4	759494	unnamed	Oso Creek
91	12	Orange - 5 - PM 20.49	759495	San Diego Creek	Pacific Ocean
92	12	Orange - 5 - PM 20.97	759496	Serrano Creek	San Diego Creek

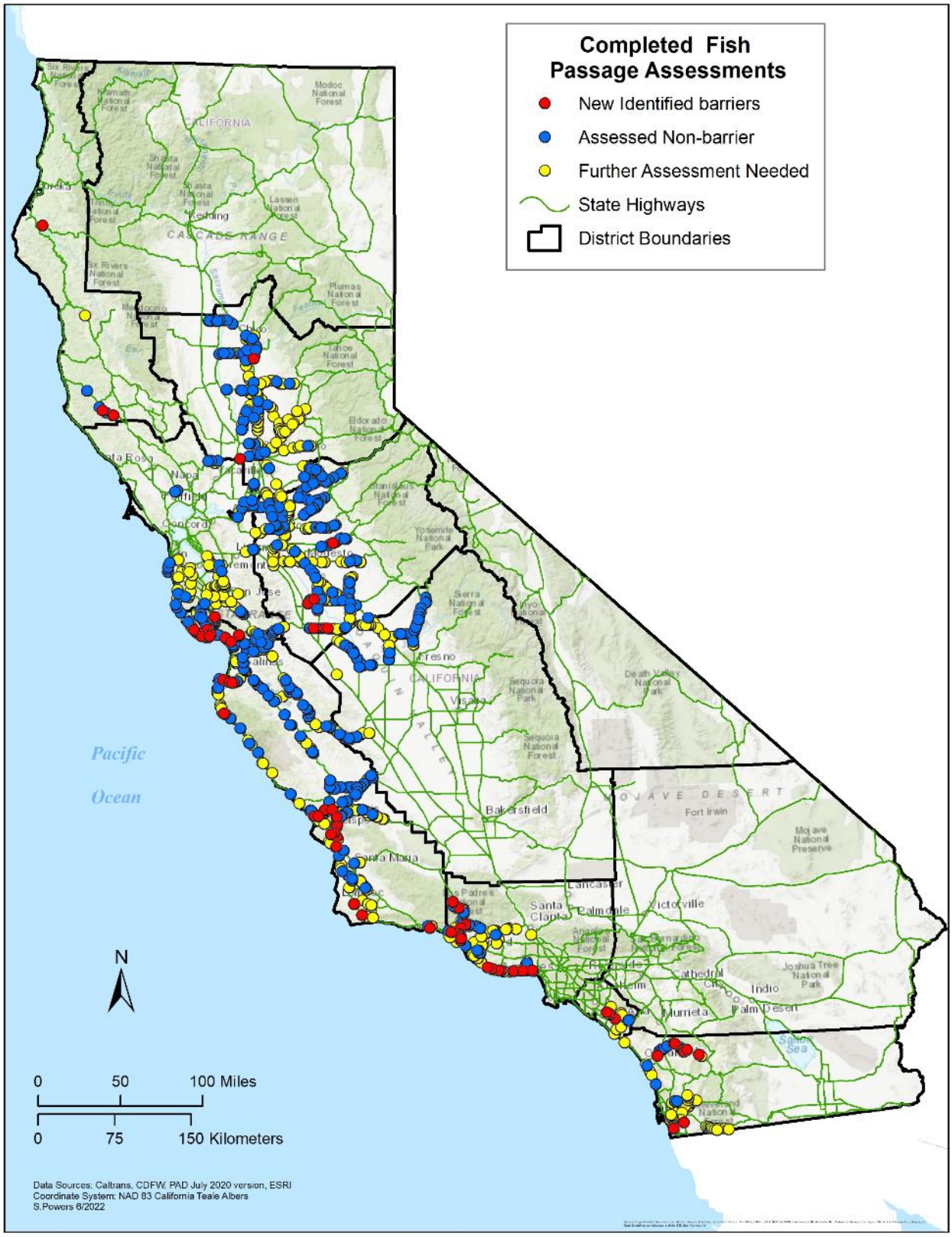


Figure 6. 2021 Completed Fish Passage Assessment Locations.

2021 Active Fish Passage Remediation Locations

Caltrans is currently developing projects to remediate 30 fish passage barriers. Six 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 **213.5** 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 7, page 28 is a map of the locations listed in Table 4. *See Appendix C, Active Fish Passage Remediation Locations Funding, page 54 for funding information*.

Table 4. 2021 Active Fish Passage Remediation Locations.

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Solution Type	Estimated Habitat	Species
1 (new)	**1**	**Del Norte – 101 – PM 37.46**	**712951**	**Mello Creek**	**Mello Creek Fish Passage**	**Full Span Bridge**	**0.46**	**Southern Oregon/Northern California Coast Coho (Threatened).**
2	1	Del Norte – 199 – PM 2.56	707139	Clarks Creek	199 Culverts	Hydraulic/ Partial	3.69	Southern Oregon/Northern California Coast Coho (Threatened).
3	1	Del Norte – 199 – PM 31.31	707137	Griffin Creek	199 Culverts	Hydraulic/ Partial	3.66	Southern Oregon/Northern California Coast Coho (Threatened).
4 (new)	**1**	**Humboldt – 36 – PM 4.39**	**712971**	**Ward Creek**	**Carlotta Shoulders Widening**	**Full Span Bridge**	**2.83**	**Southern Oregon/Northern California Coast Coho (Threatened).**
5	1	Humboldt – 254 – PM 4.18	707157	Fish Creek	Fish Creek Fish Passage	Full Span Bridge	4.00	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).
6 (new)	**1**	**Humboldt – 254 – PM 15.04**	**713040**	**Mowry Creek**	**HUM 254 Culvert Rehabilitation**	**Embedded Culvert**	**0.37**	**Southern Oregon/Northern California Coast Coho (Threatened).**

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Solution Type	Estimated Habitat	Species
7	1	Humboldt – 254 – PM 40.83	722439	Chadd Creek	Storm Water Mitigation	Stream Simulation Design	2.03	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened).
8	2	Shasta – 36 – PM 3.6	737281	Harrison Gulch	Harrison Gulch	Hydraulic/ Partial	5.02	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).
9	2	Siskiyou – 96 – PM 43.5	720541	Cade Creek	Cade Creek	Full Span Bridge	2.58	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).
10	2	Siskiyou – 96 – PM 57.0	707169	Portuguese Creek	Portuguese Creek	Full Span Bridge	2.79	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).
11	2	Trinity – 3 – PM 24.95	735849	Unnamed / Frazier Creek	Hayfork Mountain Culverts	Hydraulic/ Partial	0.3	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
12	2	Trinity – 3 – PM 25.25	760686	Unnamed / Frazier Creek	Hayfork Mountain Culverts	Hydraulic/ Partial	1.4	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
13	4	Napa – 29 – PM 33.13	705459	Ritchie (Ritchey) Creek	Fish Passage Remediation	Full Span Bridge	2.36	Central California Coast Steelhead (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Solution Type	Estimated Habitat	Species
14	4	Napa – 29 – PM 38.96	705526	Horns Creek	Bridge Preventative Maintenance Scour Mitigation	Hydraulic/ Partial	0.87	Central California Coast Steelhead (Threatened0.
15	4	Napa – 121 – PM 0.75	714975	Huichica Creek	Hiuchica Creek Bridge Replacement	Full Span Bridge	5.27	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).
16	4	San Mateo – 280 – PM 0.01	705760	Los Trancos Creek	Seismic Restoration - King DR. UC #35-0202L	Hydraulic/ Partial	11.82	Central California Coast Steelhead (Threatened).
17	4	Santa Clara – 85 – PM 12.6	733945	San Tomas Aquinas Creek	Sub-Structure Rehab/Scour Mitigation	Hydraulic/ Partial	4.90	Central California Coast Steelhead (Threatened).
18	4	Sonoma – 1 – PM 15.1	733223	Scotty Creek	Gleason Beach Highway Realignment	Full Span Bridge	3.87	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).
19 (new)	**5**	**Santa Barbara – 101 – PM R0.0**	**707368**	**Rincon Creek**	**Rincon Creek Fish Passage**	**Hydraulic/ Partial**	**10.56**	**Southern Central California Coast Steelhead (Threatened).**
20	5	Santa Barbara – 101 – PM 5.6	734310	Arroyo (Parida) Paredon Creek	South Coast 101 HOV Lanes - Padaro	Full Span Bridge	2.37	Southern California Coast Steelhead (Endangered).
21 (new)	**5**	**Santa Barbara – 101 – PM 5.63**	**734309**	**Toro Creek**	**South Coast 101 HOV Lanes**	**Hydraulic/ Partial**	**2.38**	**Southern California Coast Steelhead Trout (Endangered).**

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Solution Type	Estimated Habitat	Species
22	5	Santa Barbara – 101 – PM 9.4	705161	Romero Creek	South Coast 101 HOV Lanes - Padaro Montecito	Full Span Bridge	5.84	Southern California Coast Steelhead (Endangered).
23	5	Santa Barbara – 101 – PM 9.6	734342	San Ysidro Creek	South Coast 101 HOV Lanes - Padaro Montecito	Full Span Bridge	2.36	Southern California Coast Steelhead (Endangered).
24	5	Santa Barbara-101-PM 10.51	734353	Oak Creek	South Coast 101 HOV Lanes - Montecito	Full Span Bridge	1.99	Southern California Coast Steelhead (Endangered).
25	5	Santa Barbara-101-PM 36.7	707402	Refugio Creek	Refugio Creek Bridge Replacement	Full Span Bridge	4.50	Southern California Coast Steelhead (Endangered).
26	7	Los Angeles – 1 – 50.3	705781	Solstice Creek	Solstice Creek Bridge Replacement	Stream Simulation Design	2.25	Southern California Coast Steelhead (Endangered).
27	7	Ventura – 33 – PM 7.62	713867	San Antonio Creek	Scour Mitigation & Rail Upgrade	Hydraulic/ Partial	56.40	Southern California Coast Steelhead (Endangered).
28 (new)	**7**	**Ventura – 1 – PM 4.54**	**723631**	**Big Sycamore Canyon**	**Bridge Replacement**	**Full Span Bridge**	**24.77**	**Southern California Steelhead (Endangered).**
29	11	San Diego – 76 – PM 29.5	712680	Pauma Creek	Storm Water Mitigation/Fish Passage	Full Span Bridge	5.74	Southern California Coast Steelhead (Endangered).
30	12	Orange – 5 – PM 11.30	706807	Trabuco Creek	Trabuco	Hydraulic/ Partial	36.16	Southern California Coast Steelhead (Endangered).

Figure 7. 2021 Active Fish Passage Remediation Locations.

2021 Planned Funding - Priority Fish Passage Remediation

In 2021, priority fish passage barrier locations were evaluated to identify transportation funding nexus opportunities. The 25 priority locations listed in Table 5 below have planned funding and are currently in the planning (pre-project) phase, working to complete Project Initiation Documents in order to determine the scope, cost, and schedule to program for project delivery. Once locations are programmed, they will begin the Project Analysis and Environmental Document phase of project delivery and will be reported as "Active" (funded). The 25 locations planned for funding and listed in Table 5 below account for an estimated **157.3** miles of currently blocked habitat for salmon and steelhead. Figure 8, page 32 demonstrates the 25 locations identified for planned funding.

Table 5. 2021 Planned Funding for Priority Fish Passage Remediation

#	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
1	1	Humboldt – 36 – PM 5.18	712972	Wilson Creek	Yager Creek (Van Duzen River)	3.47	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
2	1	Humboldt – 36 – PM 9.17	707129	Fox Creek	Van Duzen River	2.31	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
3	1	Humboldt – 101 – PM 1.61	707159	Durphy Creek	South Fork Eel River	2.44	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).
4	1	Humboldt – 101 – PM 59.94	715460	Strongs Creek	Eel River	20.26	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).
5	1	Mendocino – 1 – PM R25.48	706971	Mallo Pass Creek	Pacific Ocean	4.65	Northern California steelhead (Threatened), Central California Coast Coho (Endangered).

#	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
6	1	Mendocino – 1 – PM 88.71	713078	Powderhouse Gulch	Cottaneva Creek	0.87	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).
7	1	Mendocino – 128 – PM 7.27	707187	Mustard Gulch	Navarro River	1.55	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).
8	2	Trinity – 3 – PM 32.62	707178	East Weaver Creek	Weaver Creek (Trinity River)	7.42	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
9	2	Trinity – 299 – PM 49.6	720522	West Weaver Creek	Weaver Creek (Trinity River)	4.64	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
10	2	Trinity – 299 – PM 51.2	737674	Sydney Gulch	West Weaver Creek (Trinity River)	5.54	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
11	2	Trinity – 299 – PM 51.4	735941	Garden Gulch	Sydney Gulch (Trinity River)	4.52	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
12	4	Marin -1 – PM 18.69	706078	McCurdy Creek	Pine Gulch Creek (Bolinas Lagoon)	0.38	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
13	4	Marin – 1 – PM 18.69	706079	North Fork McCurdy Creek	McCurdy Creek (Pine Gulch Creek)	0.37	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).

#	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
14	4	Marin – 1 – PM 22.67	706059	John West Fork	Olema Creek	2.85	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
15	4	San Mateo – 1 – PM 4.32	705302	Whitehouse Creek	Pacific Ocean	4.04	Central California Coast Steelhead (Threatened).
16	5	Santa Barbara – 101 – PM 46.92	706655	Gaviota Creek	Pacific Ocean	0.03	Southern Central California Coast Steelhead (Threatened).
17	5	Santa Barbara – 101 – PM 46.95	706656	Gaviota Creek	Pacific Ocean	0.17	Southern Central California Coast Steelhead (Threatened).
18	5	Santa Barbara – 101 – PM 47.12	706657	Gaviota Creek	Pacific Ocean	0.03	Southern Central California Coast Steelhead (Threatened).
19	5	Santa Barbara – 101 – PM 47.15	706658	Gaviota Creek	Pacific Ocean	0.04	Southern Central California Coast Steelhead (Threatened).
20	5	Santa Barbara – 101 – PM 47.19	706659	Gaviota Creek	Pacific Ocean	2.19	Southern Central California Coast Steelhead (Threatened).
21	5	Santa Barbara – 101 – PM R49.38	706388	Gaviota Creek	Pacific Ocean	21.87	Southern Central California Coast Steelhead (Threatened).
22	5	Santa Cruz – 1 – PM 9.88	706704	Valencia Creek	Aptos Creek	16.33	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
23	7	Ventura – 1 – PM – 1.23	723563	Little Sycamore Creek	Pacific Ocean	2.19	Southern California Coast Steelhead (Endangered).
24	7	Ventura – 33 – PM 34.5	723802	Burro Creek	Sespe Creek	0.54	Southern California Coast Steelhead (Endangered).
25	10	Stanislaus – 120 – PM R15.04	761519	Wildcat Creek	Middle San Joaquin River (Lower Stanislaus River)	48.61	California Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook Salmon (Threatened).

Figure 8. 2021 Planned Funding Priority Fish Passage Remediations

2021 Priority Fish Passage Locations Requiring Funding

Table 6 below lists 71 priority locations as determined by the six statewide Fish Passage Advisory Committees, which do not currently have identified funding. 27 new priorities have been added, which are indicated in **bold and underline (new)**. The 71 Priority locations account for an estimated **331 miles** of blocked habitat for salmon and steelhead. Figure 9, page 42 is a map of the locations listed in Table 6.

Table 6. 2021 Priority Fish Passage Locations Requiring Funding

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
1	1	Del Norte – 199 – PM 34.04	712954	Broken Kettle Creek	Elk Creek	2.86	Southern Oregon/Northern California Coast Coho (Threatened).
2 (new)	**1**	**Humboldt – 36 – PM 9.92**	**712977**	**Flannigan Creek**	**Van Duzen River (Lower Eel)**	**1.34**	**Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).**
3 (new)	**1**	**Humboldt – 101 – PM 11.71**	**712991**	**Bear Canyon**	**South Fork Eel**	**3.46**	**Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).**
4 (new)	**1**	**Humboldt – 101 – PM 93.27**	**716739**	**North Fork Widow White Creek**	**Mad River**	**6.42**	**Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).**
5	1	Humboldt – 101 – PM R126.2	718442	May Creek	Prairie Creek	3.16	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
6	1	Humboldt – 299 – PM R2.97	713051	Essex Gulch	Mad River	3.51	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
7	1	Mendocino – 1 – PM 4.64	713068	Fish Rock Gulch	Pacific Ocean	0.99	California Coastal Chinook (Threatened), Northern CA Steelhead (Threatened), Central California Coast Coho (Endangered).
8	1	Mendocino – 1 – PM R54.62	707070	Doyle Creek	Pacific Ocean	2.36	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).
9	1	Mendocino – 1 – PM 57.81	707071	Mitchell Creek	Pacific Ocean	5.22	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).
10	1	Mendocino – 1 – PM 58.78	707072	Digger Creek	Pacific Ocean	2.39	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered).
11	1	Mendocino – 20 – PM 30.87	713093	Unnamed Tributary to Broaddus Creek	Broaddus Creek	1.81	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).
12 (new)	**1**	**Mendocino – 101 – PM 54.89**	**713110**	**Reeves Canyon**	**Outlet Creek (Upper Eel)**	**2.57**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
13	1	Mendocino – 101 – PM 61.09	707091	Long Valley Creek	Outlet Creek (Upper Eel)	2.38	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
14	1	Mendocino – 101 – PM 63.47	707094	Long Valley Creek	Outlet Creek (Upper Eel)	14.79	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).
15	1	Mendocino – 101 – PM 73.56	706969	Lewis Creek	Tenmile Creek	1.79	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
16 (new)	**1**	**Mendocino – 101 – PM 75.66**	**706994**	**Steep Creek (Steep Gulch)**	**Tenmile Creek**	**4.48**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
17 (new)	**1**	**Mendocino – 101 – PM 80.75**	**707105**	**Twin Rocks Creek**	**Rattlesnake Creek (South Fork Eel)**	**2.2**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
18 (new)	**1**	**Mendocino – 101 – PM 81.17**	**707106**	**Cummings Creek**	**Rattlesnake Creek (South Fork Eel)**	**0.77**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
19 (new)	**1**	**Mendocino – 101 – PM 82.41**	**707107**	**Elk Creek**	**Rattlesnake Creek (South Fork Eel)**	**2.07**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
20	1	Mendocino – 128 – PM 4.30	707185	Barton Gulch	Navarro River	2.39	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
21	1	Mendocino – 128 – PM 18.69	706968	Lazy Creek	Navarro River	3.89	Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).
22	2	Shasta – 5 – PM R17.14	737799	Boulder Creek	Churn Creek	0.26	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).
23	2	Shasta – 44 – PM 33.78	737802	Millseat Creek	North Fork Battle Creek	2.84	California Central Valley Steelhead (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).
24	2	Shasta – 273 – PM 18.0	707132	Sulphur Creek	Sacramento River	9.33	Sacramento River Winter-run Chinook (Endangered), California Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).
25	2	Shasta – 273 – PM 19.1	737800	Boulder Creek	Churn Creek (Sacramento River)	5.41	Sacramento River Winter-run Chinook (Endangered), California Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).
26 (new)	**2**	**Shasta – 299 – PM 19.14**	**707130**	**Middle Creek**	**Sacramento River**	**3.28**	**California Central Valley Steelhead (threatened), Central Valley Spring-run Chinook Salmon (threatened), Sacramento River Winter-run Chinook Salmon (endangered), Central Valley Fall & Late Fall-run Chinook Salmon (species of concern).**

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
27	2	Shasta – 299 – PM 24.7	737798	Boulder Creek	Churn Creek (Sacramento River)	1.0	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
28 (new)	**2**	**Siskiyou – 96 – PM 38.56**	**707164**	**Benjamin Creek**	**Klamath River**	**0.62**	**Southern Oregon/Northern California Coho (Threatened).**
29 (new)	**2**	**Tehama – 36 – PM 9.98**	**737285**	**Dry Creek (Budden Canyon Creek)**	**Dry Creek**	**13.42**	**California Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).**
30	2	Tehama – 36 – PM 22.13	737286	Little/Big Crane Creek	Dry Creek	19.45	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
31	2	Trinity – 3 – PM 10.9	707231	Barker Creek	Hayfork Creek	14.48	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead (Threatened).
32 (new)	**4**	**Marin 1 – PM 21.06**	**732665**	**Unnamed Tributary Olema Creek**	**Olema Creek**	**0.7**	**Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).**
33	4	Marin – 1 – PM 25.55	759018	Cemetery Creek	Olema Creek	0.02	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
34	4	Marin – 1 – PM 25.57	759027	Unnamed Tributary	Olema Creek	1.07	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
35	4	Marin – 1 – PM 25.63	706054	Quarry Gulch	Olema Creek	0.87	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
36	4	Marin – 1 – PM 25.67	759028	Quarry Gulch	Olema Creek	0.15	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
37	4	Napa – 29 – PM 6.04	705518	Suscol Creek	Napa River	4.83	Central California Coast Steelhead (Threatened).
38 (new)	**4**	**Napa – 29 – PM 32.07**	**705448**	**Mill Creek**	**Napa River**	**2.87**	**Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).**
39	4	San Mateo – 1 – PM 22.75	716835	Lobitos Creek	Pacific Ocean	5.55	Central California Coast Steelhead (Threatened).
40 (new)	**4**	**San Mateo – 1 – PM 30.29**	**707274**	**Frenchmans Creek**	**Pacific Ocean**	**4.61**	**Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).**
41	4	San Mateo – 84 – PM 4.6	706675	Bogess Creek	San Gregorio Creek	6.10	Central California Coast Steelhead (Threatened).
42	4	San Mateo – 84 – PM 19.25	705766	Bear Creek	San Francisquito Creek	0.75	Central California Coast Steelhead (Threatened).
43	4	San Mateo – 84 – PM 19.98	705768	West Union Creek	Bear Creek	4.83	Central California Coast Steelhead (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
44	4	San Mateo – 92 – PM 3.3	758036	Pilarcitos Creek	Pacific Ocean	3.48	Central California Coast Steelhead (Threatened).
45 (new)	**4**	**Sonoma 1 – PM – 34.36**	**723192**	**Fort Ross Creek**	**Pacific Ocean**	**1.35**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
46 (new)	**4**	**Sonoma 1 – PM – 34.36**	**723191**	**Kolmer Gulch (Fort Ross Creek)**	**Pacific Ocean**	**3.09**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
47 (new)	**4**	**Sonoma 1 – PM – 34.36**	**723190**	**Miller Creek**	**Pacific Ocean**	**1.46**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**
48 (new)	**5**	**San Luis Obispo – 1 – PM 25.71**	**700066**	**San Luisito Creek**	**Chorro Creek**	**14.49**	**Southern Central California Coast Steelhead (Threatened).**
49	5	San Luis Obispo – 101 – PM 30.5	700058	San Luis Obispo Creek	Pacific Ocean	2.33	Southern Central California Coast Steelhead (Threatened).
50 (new)	**5**	**San Luis Obispo – 101 – PM 32.83**	**700061**	**San Luis Obispo Creek**	**Pacific Ocean**	**14.45**	**Southern Central California Coast Steelhead (Threatened).**
51	5	San Luis Obispo – 101 – PM 36.59	707246	Santa Margarita Creek	Salinas River	2.64	Southern Central California Coast Steelhead (Threatened).
52 (new)	**5**	**Santa Barbara – 101 – PM 47.41**	**706661**	**Gaviota Creek**	**Pacific Ocean**	**0.28**	**Southern Central California Coast Steelhead (Threatened).**

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
53 (new)	**5**	**Santa Barbara – 101 – PM 47.37**	**706660**	**Gaviota Creek**	**Pacific Ocean**	**0.04**	**Southern Central California Coast Steelhead (Threatened).**
54 (new)	**5**	**Santa Barbara – 101 – PM 47.69**	**706663**	**Gaviota Creek**	**Pacific Ocean**	**1.06**	**Southern Central California Coast Steelhead (Threatened).**
55 (new)	**5**	**Santa Barbara – 101 – PM 47.75**	**706664**	**Gaviota Creek**	**Pacific Ocean**	**0.02**	**Southern Central California Coast Steelhead (Threatened).**
56 (new)	**5**	**Santa Barbara – 101 – PM 47.77**	**706665**	**Gaviota Creek**	**Pacific Ocean**	**0.04**	**Southern Central California Coast Steelhead (Threatened).**
57 (new)	**5**	**Santa Barbara – 101 – PM 47.81**	**706666**	**Gaviota Creek**	**Pacific Ocean**	**25.04**	**Southern Central California Coast Steelhead (Threatened).**
58 (new)	**5**	**Santa Barbara 101 – PM 48.35**	**707414**	**Las Canovas Creek**	**Gaviota Creek**	**0.96**	**Southern California Coast Steelhead (Endangered).**
59	5	Santa Barbara – 192 – PM 3.39	706538	Mission Creek	Pacific Ocean	4.26	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
60	5	Santa Cruz – 1 – PM 9.97	706703	Valencia Creek	Aptos Creek	16.36	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
61	5	Santa Cruz – 1 – PM 28.59	706003	San Vicenta Creek	Pacific Ocean	4.40	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
62	5	Santa Cruz – 1 – PM 31.25	705994	Molino Creek	Pacific Ocean	2.31	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Estimated Habitat	Species
63 (new)	**5**	**Santa Cruz – 9 – PM 5.5**	**712260**	**Gold Gulch**	**San Lorenzo River**	**1.62**	**Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).**
64 (new)	**5**	**Santa Cruz – 9 – PM 19.2**	**713774**	**San Lorenzo River**	**Pacific Ocean**	**3.42**	**Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).**
65	7	Los Angeles – 1 – PM 40.99	716891	Topanga Creek	Pacific Ocean	3.76	Southern California Coast Steelhead (Endangered).
66	7	Los Angeles – 1 – PM 54.97	716906	Zuma Creek	Pacific Ocean	3.99	Southern California Coast Steelhead (Endangered).
67	7	Ventura – 33 – PM 15.85	731927	North Fork Matilija Creek	Ventura River	11.41	Southern California Coast Steelhead (Endangered).
68	7	Ventura – 126 – PM 18.6	723760	Boulder Creek	Sespe Creek	4.59	Southern California Coast Steelhead (Endangered).
69	7	Ventura – 126 – PM R26.48	713878	Hopper Canyon Creek	Santa Clara River	10.38	Southern California Coast Steelhead (Endangered).
70	7	Ventura – 150 – PM 18.75	713873	San Antonio Creek	Ventura River	10.35	Southern California Coast Steelhead (Endangered).
71	7	Ventura – 150 – PM 28.48	761522	Sissar Creek	Santa Paula Creek	10.26	Southern California Coast Steelhead (Endangered).

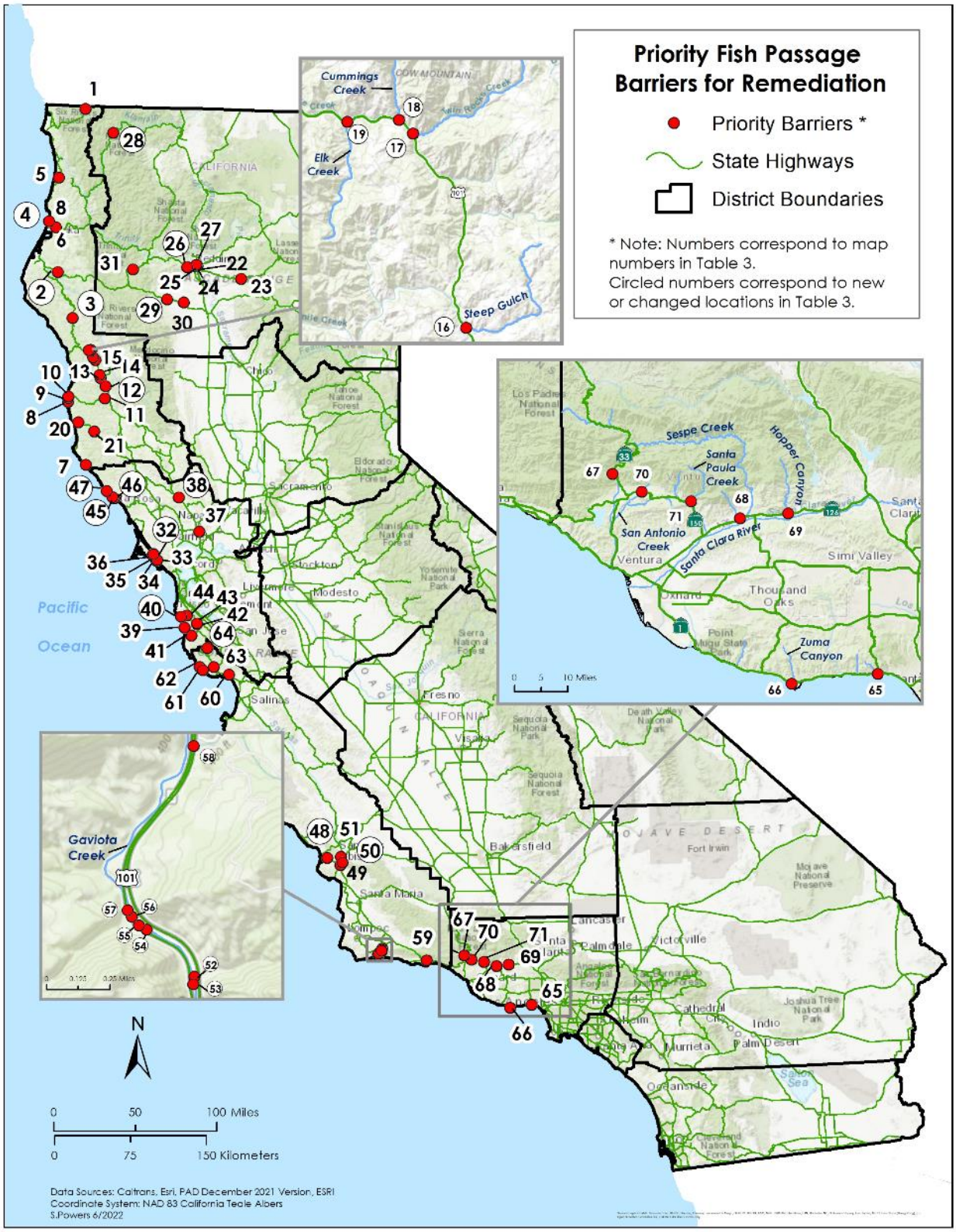


Figure 9. 2021 Priority Fish Passage Locations Requiring Remediation.

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 7 lists remediated barriers from January 1, 2006, to December 31, 2021. **Bold and underlined (new)** locations are new to this report and were constructed in 2020. The **60** locations listed in Appendix A account for an estimated **910 miles** of improved access to salmon and steelhead habitat. Figure 10, page 52 is a map of the locations listed in Appendix A.

Table 7. Fish Passage Locations completed

Map #	Caltrans District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
1 (new)	**1**	**Del Norte – 101– 39.78**	**707134**	**Dominie Creek**	**Dominie Creek Fish Passage Bridge**	**2021**	**Full Span**	**2.49**	**Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).**
2	1	Del Norte - 101 - PM 41.41	707135	Ritmer Creek	Ritmer Creek Emergency	2019	Partial	1.11	Southern Oregon/Northern California Coast Coho (Threatened).
3	1	Del Norte - 101 - PM 43.7	715563	Lopez Creek	Smith River Widening	2009	Partial	0.50	Southern Oregon/Northern California Coast Coho (Threatened).
4	1	Del Norte - 197 - PM 2.12	720982	Peacock Creek	Peacock Creek Emergency	2013	Partial	1.68	Southern Oregon/Northern California Coast Coho (Threatened).
5	1	Del Norte - 197 - PM 2.9	712952	Unnamed Tributary to Smith River	Emergency Culvert	2019	Partial	0.31	Southern Oregon/Northern California Coast Coho (Threatened).
6	1	Del Norte – 197 – PM 5.0	707143	Sultan Creek	Emergency Bridge Project	2015	Full Span	1.33	Southern Oregon/Northern California Coast Coho (Threatened).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
7	1	Del Norte – 197 – PM 6.15	707142	Little Mill Creek	Emergency Bridge Project	2016	Partial	1.00	Southern Oregon/Northern California Coast Coho (Threatened).
8 (new)	**1**	**Humboldt – 96 – 8.87**	**707141**	**Campbell Creek**	**Hydraulic Channel Restoration**	**2021**	**Partial**	**1.62**	**Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).**
9	1	Humboldt - 101- PM 40.12	722460	Chadd Creek	Chadd Creek Fish Passage	2006	Partial	1.81	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
10	1	Humboldt – 169 - PM 22.37	706198	Cappell Creek	Four Bridges Project	2011	Partial	0.50	Southern Oregon/Northern California Coast Coho (Threatened).
11	1	Humboldt – 101 - PM 124.5	713025	Little Lost Man	Prairie Creek	2020	Full	1.21	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened).
12	1	Humboldt – 299 - PM 4.2	716742	Hall Creek	Mitigation Mad River Bridge	2013	Partial	3.50	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
13	1	Mendocino – 1 - PM 92.8	706958	Dunn Creek Bridge	10 Mile Bridge Mitigation	2013	Full	2.13	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
14	1	Mendocino – 1 – PM 14.85	712450	Point Arena Creek	Emergency Culvert	2019	Partial	2.86	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
15	1	Mendocino – 101 – PM 48.14	705136	Upp Creek	Willits Mitigation	2017	Partial	2.98	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
16	1	Mendocino – 101 – PM 52.25	707085	South Fork Ryan Creek	Willits Mitigation	2017	Partial	2.52	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
17	1	Mendocino – 101 – PM 52.36	707086	North Fork Ryan Creek	Willits Mitigation	2017	Partial	1.46	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
18	1	Mendocino – 101 – PM 66.5	707096	Ten Mile Creek	Culvert Scour Project	2017	Partial	4.70	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
19	1	Mendocino -- 101 – PM 81.4	706986	Rattlesnake Creek	Rattlesnake Creek	2009	Partial	2.59	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
20	1	Mendocino -- 101 – PM 83.99	706987	Rattlesnake Creek	Fish Passage	2013	Partial	22.31	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
21	1	Mendocino – 101 – PM 89.24	706954	Cedar Creek	Cedar Creek Fish Passage Retrofit	2018	Partial	11.91	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
22	1	Mendocino - 101 – PM 99.0	707115	Red Mountain Creek	Confusion Hill Mitigation	2010	Partial	10.58	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
23	1	Mendocino – 128 – PM 21.8	707199	Clow Creek	Culvert Upgrade	2015	Partial	1.36	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
24	1	Mendocino – 128 – PM 27.54	707205	Graveyard Creek	Culvert Upgrade	2015	Partial	1.22	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead (Threatened), California Coastal Chinook (Threatened).
25	1	Mendocino – 128 – PM 36.63	707208	Lost Creek	Culvert Upgrade	2015	Partial	0.26	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).
26	1	Mendocino – 128 – PM 39.88	707212	Beebe Creek	Culvert Upgrade	2015	Partial	0.07	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).
27	1	Mendocino - 128 – PM 39.95	713145	John Hatt Creek	Beebe Storm Damage	2011	Partial	1.48	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).
28	1	Mendocino - 128 – PM 49.66	707219	Edwards Creek	Edwards Creek Fish Passage	2011	Partial	0.62	Northern California Steelhead (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
29 (new)	**2**	**Shasta – 5 – R24.54**	**759970**	**Spring Branch Creek**	**Fish Passage Restoration**	**2021**	**Partial**	**2.29**	**Southern Oregon\Northern California Coasts Coho Salmon (Threatened).**
30	2	Shasta - 299 – PM 20.7	737289	Salt Creek	Salt Creek Fish Passage Project	2006	Partial	7.10	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).
31	2	Shasta – 299 – PM 32.2	737295	Yank/Lemm Creek Bridge	Yank/Lemm Creek Bridge	2014	Full	14.66	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened).
32	2	Siskiyou – 5 –PM 27.18	720504	Parks Creek	Shasta River	2020	Full	19.10	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).
33	2	Siskiyou - 96 – PM 56.0	707168	Fort Goff Creek	Fort Goff Creek Fish Passage	2014	Full	3.98	Southern Oregon/Northern California Coast Coho (Threatened).
34	2	Siskiyou - 96 – PM 65.4	707147	O'Neil Creek	O'Neil Creek Fish Passage	2008	Full	0.89	Southern Oregon/Northern California Coast Coho (Threatened).
35	2	Tehama - 5 – PM 16.9	737006	Elder Creek	Elder Creek Scour Mitigation	2008	Partial	245.54	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
36	2	Tehama - 5 – PM 28.1	737007	Dibble Creek	Dibble Creek Scour Mitigation	2008	Partial	94.30	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).
37	2	Tehama - 99 – PM 15.6	737013	Sunset Canal	Sunset Canal Bridge	2010	Partial	6.12	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).
38	2	Tehama - 99 – PM 21.1	737012	Craig Creek	Craig Creek	2011	Full	165.44	Central Valley Steelhead (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).
39	2	Trinity – 299 – PM 68.06	720511	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage	2015	Partial	0.14	Southern Oregon/Northern California Coast Coho (Threatened).
40	2	Trinity – 299 – PM 68.2	735688	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage	2015	Partial	12.32	Southern Oregon/Northern California Coast Coho (Threatened).
41 (new)	**4**	**Alameda – 84 – 121.1**	**713729**	**Stonybrook Creek**	**Niles Canyon**	**2021**	**Full**	**7.01**	**Northern California Steelhead (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).**

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
42	4	Contra Costa – 80 – PM 8.4	723716	Pinole Creek	Pinole Creek Bridge Retrofit	2016	Partial	28.23	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
43	4	Marin – 1 – PM 22.78	706058	Giacomini Gulch	Giacomini Gulch Bridge	2018	Full	1.56	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
44	4	Marin – 1 – PM 24.77	732502	Tributary to Olema Creek	Tributary to Olema Creek Bridge	2018	Full	0.79	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
45	4	Marin – 1 – PM 33.4	732518	Millerton Gulch	Millerton Gulch Emergency	2017	Partial	0.76	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
46	4	Napa - 121 – PM 1	733333	Huichica Creek	Duhig Road Project	2010	Full	1.33	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
47	4	Napa – 121 – PM 9.3	758605	Sarco Creek	Sarco Creek Bridge	2017	Partial	8.70	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
48	4	Sonoma – 116 – PM 31.14	732859	Laguna de Santa Rosa	Laguna de Santa Rosa	2020	Full	2.24	Central California Coast Coho (Endangered), Central California Coast Steelhead (Threatened).
49	5	Santa Barbara—1—PM 15.61	700085	Salsipuedes Creek	Santa Ynez River	2020	Full	101.81	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).

Map #	Caltrans District	County- Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment	Estimated Habitat	Species
50	5	Santa Barbara – 101 – PM 2.2	707182	Carpinteria Creek	Carpinteria Creek Retrofit	2018	Partial	12.22	Southern California Steelhead (Endangered).
51	5	Santa Barbara - 101 – PM 33.9	707398	El Capitan Creek	El Capitan Creek	2007	Partial	6.34	Southern California Steelhead (Endangered).
52	5	Santa Barbara – 101 – PM 38.3	707403	Tajiguas Creek	Tajiguas Creek	2014	Partial	8.20	Southern California Steelhead (Endangered).
53	5	Santa Barbara - 101 – PM 41.0	707405	Arroyo Hondo Creek	Arroyo Hondo	2008	Partial	2.00	Southern California Steelhead (Endangered).
54	5	Santa Barbara - 101 – PM 47.2	706669	Gaviota Creek	Gaviota Creek	2008	Partial	25.60	Southern California Steelhead (Endangered).
55 (new)	**5**	**Santa Barbara – 192 – 8.12**	**706527**	**Montecito Creek**	**Montecito Creek Bridge**	**2021**	**Full**	**3.02**	**Southern California Coast Steelhead (Endangered).**
56	5	Santa Barbara – 192 – PM 15.5	706239	Arroyo	Bridge Replacement	2019	Full	1.20	Southern California Steelhead (Endangered).
57	5	Santa Cruz - 1 – PM 17.4	735367	Branciforte Creek	Hwy 1 Remediation	2007	Partial	18.00	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
58	5	Santa Cruz - 1 – PM 17.42	735366	Carbonera Creek	Hwy 1 Remediation	2008	Partial	3.23	Central California Coast Steelhead (Threatened), Central California Coast Coho (Endangered).
59	7	Ventura - 150 – PM 28.7	723744	Santa Paula Creek	Santa Paula Creek	2012	Partial	17.40	Southern California Steelhead (Endangered).
60	12	Orange – 74 – PM 13.30	759565	San Juan Creek	San Juan Creek Fish Passage	2018	Full	4.91	Southern California Steelhead (Endangered).

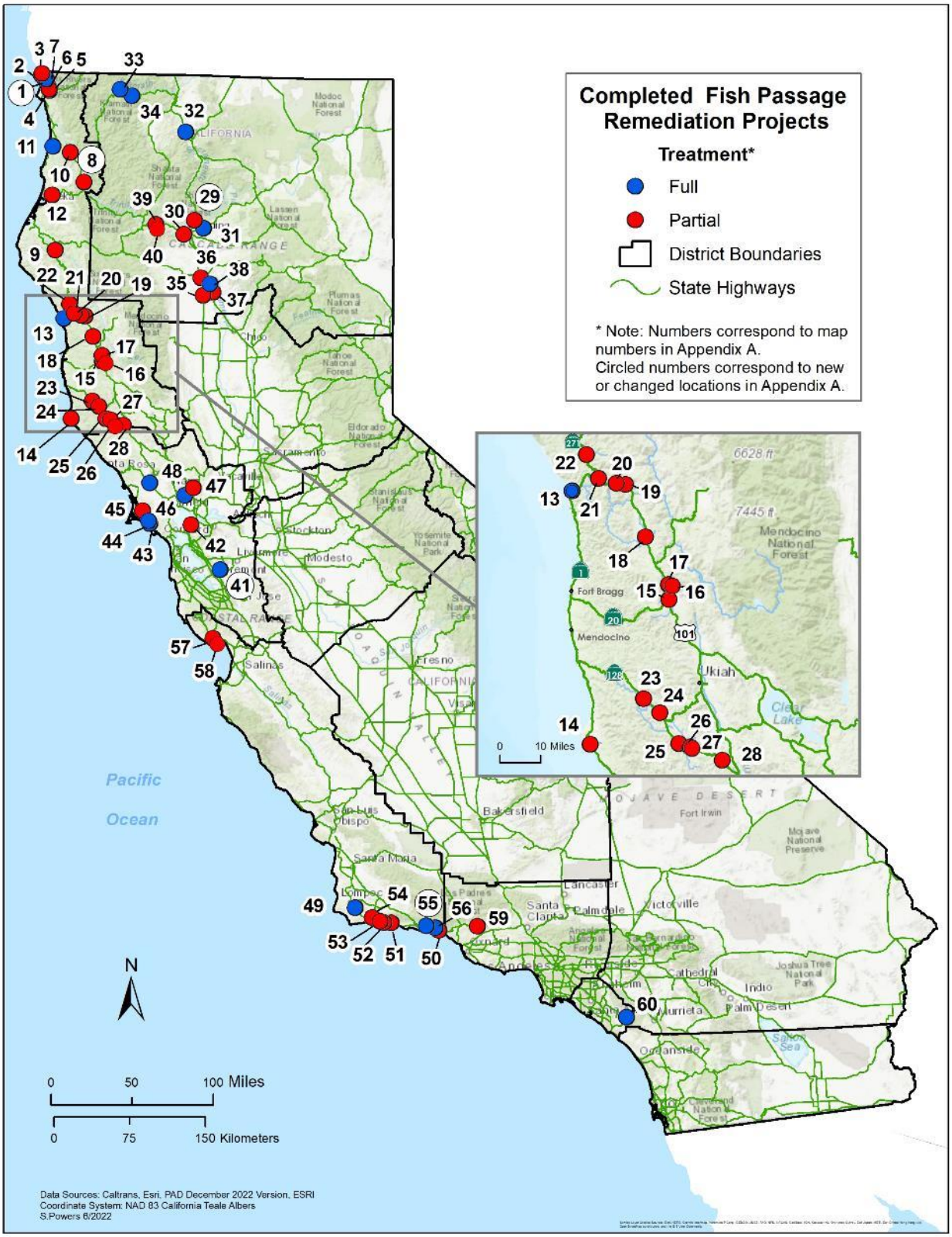


Figure 10. Fish Passage Locations Completed.

Appendix B. Statutory Reporting Reference

Streets and Highways Code Section 156 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.
(6) The applicable program initiation document work plan review.
(7) The estimated completion date for the project.

156.2. The department shall pursue development of a programmatic environmental review process with appropriate state and federal regulatory agencies for remediating barriers to fish passage that will streamline the permitting process for projects. The department shall include a description of its progress on this review process in the report specified in Section 156.1.

156.3. For any project using state or federal transportation funds programmed after January 1, 2006, the department shall ensure that, if the project affects a stream crossing on a stream where anadromous fish are, or historically were, found, an assessment of potential barriers to fish passage is completed prior to commencing project design. The department shall submit the assessment to the Department of Fish and Wildlife and add it to the Passage Assessment Database. If any structural barrier to passage exists, remediation of the barrier shall be designed into the project by the implementing agency. New projects shall be constructed so that they do not present a barrier to fish passage. When barriers to fish passage are being addressed, plans and projects shall be developed in consultation with the Department of Fish and Wildlife.

Appendix C. 2021 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 24. As these fish passage remediation locations are further developed through the design, permitting, and construction process, costs and other information will be updated.

No.	Caltrans 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	Programmed Fish Passage Project Funding[2]
1	1	Del Norte – 101 – PM 37.46	0K690	0120000135	Mello Creek Fish Passage	SHOPP	712951	Mello Creek	2027/28	2029/2030	$9,314,000
2	1	Del Norte – 199 – PM 2.56	48802	119000028	199 Culverts	SHOPP	707139	Clarks Creek	2022/23	2023/24	$120,000
3	1	Del Norte – 199 – PM 31.31	48801	119000016	199 Culverts	SHOPP	707137	Griffin Creek	2022/23	2023/24	$370,000
4	1	Humboldt – 36 – PM 4.39	0J890	119000119	HUM 36 Shoulder Widening	SHOPP	712971	Ward Creek	2023/24	2024/25	$1,159,000
5	1	Humboldt – 254 – PM 4.18	0E790	115000021	Fish Creek Fish Passage	SHOPP	707157	Fish Creek	2022/23	2024/25	$17,299,000
6	1	Humboldt – 254 – PM 15.04	0H240	117000140	HUM 254 Culvert Rehabilitation	SHOPP	713040	Mowry Creek	2025/26	2026/27	**$3,000,000**
7	1	Humboldt – 254 – PM 40.83	0H240	117000140	HUM 254 Culvert Rehabilitation	SHOPP	722439	Chadd Creek	2025/26	2026/27	**$6,000,000**
8	2	Shasta – 36 – PM 3.6	2H620	216000154	Harrison Gulch	Minor	737281	Harrison Gulch	2022/23	2023/24	$735,000
9	2	Siskiyou – 96 – PM 43.5	1H590	216000025	Cade Creek	SHOPP	720541	Cade Creek	2023/24	2024/25	**$9,877,000**
10	2	Siskiyou – 96 – PM 57.0	1H590	216000025	Portuguese Creek	SHOPP	707169	Portuguese Creek	2023/24	2024/25	**$9,958,000**
11	2	Trinity – 3 – PM 24.95	0J500	219000130	Hayfork Mountain Culverts	Minor	735849	Unnamed / Frazier Creek	2022/23	2023/24	**$3,143,000**
12	2	Trinity – 3 – PM 25.25	2J170	221000036	Hayfork Mountain Culverts	Minor	760686	Unnamed / Frazier Creek	2022/23	2023/24	**$2,768,700**
13	4	Napa – 29 – PM 33.13	4J990	416000037	Fish Passage Remediation	SHOPP	705459	Ritchie (Ritchey) Creek	2022/23	2023/24	$11,570,000
14	4	Napa – 29 – PM 38.96	2J88U	418000401	Bridge Preventative Maintenance and Scour Mitigation Project	SHOPP	705526	Horns Creek	2022/23	2023/25	**$3,078,000**
15	4	Napa – 121 – PM 0.75	4G210	412000310	Hiuchica Creek Bridge Replacement	SHOPP	714975	Huichica Creek	2022/23	2024/25	$30,359,000
16	4	San Mateo – 280 – PM 0.01	4J850	416000028	Seismic Restoration - King DR. UC #35-0202L	SHOPP	705760	Los Trancos Creek	2022/23	2022/23	**$2,100,000**

[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 ranges of 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.	Caltrans 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	Programmed Fish Passage Project Funding[2]
17	4	Santa Clara – 85 – PM 12.6	2J780	415000017	Sub-Structure Rehab/Scour Mitigation	SHOPP	733945	San Tomas Aquinas Creek	2022/23	2023/24	**$1,434,000**
18	4	Sonoma – 1 – PM 15.1	0A020	400000129	Gleason Beach Highway Realignment	SHOPP	733223	Scotty Creek	2022/23	2023/24	**$22,500,000**
19	5	Santa Barbara – 101 – PM R0.0	1J911	0521000086	Rincon Creek Fish Passage	SHOPP	707368	Rincon Creek	2027/28	2029/30	$15,000,000
20	5	Santa Barbara – 101 – PM 5.6	0N702	518000113	South Coast 101 HOV Lanes - Padaro	STIP	734310	Arroyo (Parida) Paredon Creek	2022/23	2024/25	**$6,500,000**
21	5	Santa Barbara – 101 – PM 6.25	1C8B3	0521000072	South Coast 101 HOV Lanes - Padaro	STIP	734309	Toro Creek	2027/28	2028/29	**$800,000**
22	5	Santa Barbara – 101 – PM 9.4	0N70B	518000131	South Coast 101 HOV Lanes -Montecito	STIP	705161	Romero Creek	2023/24	2024/25	**$4,500,000**
23	5	Santa Barbara – 101 – PM 9.6	0N70B	518000131	South Coast 101 HOV Lanes - Montecito	STIP	734342	San Ysidro Creek	2023/24	2024/25	**$4,500,000**
24	5	Santa Barbara-101-PM 10.51	0N70B	518000131	South Coast 101 HOV Lanes - Montecito	STIP	734353	Oak Creek	2023/24	2024/25	**$4,500,000**
25	5	Santa Barbara-101-PM 36.7	1C950	513000018	Refugio Creek Bridge Replacement	SHOPP	707402	Refugio Creek	2023/24	2026/27	$5,900,000
26	7	Los Angeles – 1 – 50.3	31350	715000090	Solstice Creek Bridge Replacement	SHOPP	705781	Solstice Creek	2023/24	2025/26	$36,248,131
27	7	Ventura – 33 – PM 7.62	29130	712000083	Scour Mitigation & Rail Upgrade	SHOPP	713867	San Antonio Creek	2022/23	2024/25	$9,075,000
28	7	Ventura – 1 – PM 4.54	36010	0719000268	Bridge Replacement Repair Sea Wall	SHOPP	723631	Big Sycamore Canyon	2025/26	2027/28	$56,344,000
29	11	San Diego – 76 – PM 29.5	42220	1115000179	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	Unk	$1,100,00[3]
Total Estimated Fish Passage Funding Investment											**$280,000,000 - $290,000,000**

[3] Trabuco Creek funding estimate is in the form of planning and engineering grants and in CalTrout project management. Funding for implementation has not been identified.