

# 2020 Fish Passage Annual Legislative Report (October 2021)



Report to the Legislature

2021

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## 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 assessing, funding, prioritizing, and remediating barriers to fish passage on the State Highway System. This report covers progress from January 1, 2020, to December 31, 2020.

### 2020 Fish Passage Program Accomplishments

In 2020, Caltrans completed fish passage remediation projects at four barrier locations, improving access to an estimated 124.4 miles of salmon and Steelhead Trout habitat.

Caltrans is currently developing projects to remediate 28 active (funded) fish passage barriers, which are estimated to improve access to 185.6 miles of currently blocked salmon and Steelhead Trout habitat.

Fish Passage Advisory Committees have identified 74 salmon and Steelhead Trout barrier locations for priority remediation. In total, the priority barriers block an estimated 402.8 miles of high-quality salmon and Steelhead Trout habitat.

In 2020, Caltrans completed 510 fish passage assessments at road/stream crossings. Of those assessments, the following was identified: 13 new barriers, 62 non-barriers, and 435 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 55 total barrier locations. Those 55 locations account for an estimated 896.1 miles of improved access to salmon and Steelhead Trout habitat. This includes 15 full span remediations (long term), which allow full access to an estimated 322.6 miles of habitat, and 40 partial/hydraulic remediation locations, which have improved access to an estimated 573.5 miles of habitat. See *Appendix A, Fish Passage Locations Completed (page 41)*, for additional information.

Caltrans continues to provide management oversight, meeting facilitation, mapping, science and data, and engineering support, and coordination for the six Fish Passage Advisory Committees, the Interagency Engineering Working Group, the Leadership Action Team, and the newly formed 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, page51) 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 such that they neither pose nor create a barrier to fish passage.

## 2020 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.

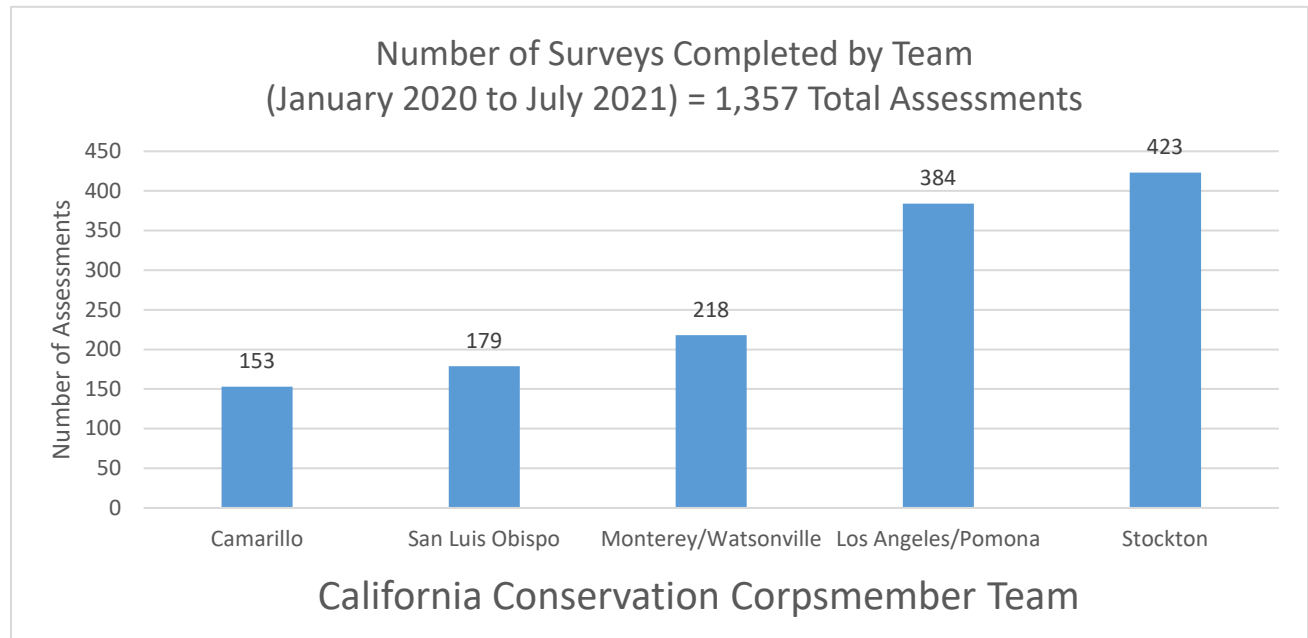
### Science and Data

In 2020, Caltrans, the California Conservation Corps, and the Pacific States Marine Fisheries Commission, continued to partner to create a new statewide barrier assessment program. Teams of California Conservation Corps members were hired or developed from existing Corps members and trained to perform first pass (reconnaissance) assessments. Innovative software and tablet device technologies were developed to convey assigned assessments, perform necessary onsite assessments, and submit high quality assessment data and photographs directly to the California Department of Fish and Wildlife's Passage Assessment Database.

The California Conservation Corps member teams have been conducting first pass (reconnaissance) assessments at road-stream crossings to survey potential barriers to salmon and Steelhead Trout across the State Highway System. Their work informs the Passage Assessment Database, Fish Passage Advisory Committee prioritization, and the State Highway System Asset Management Tool. Currently, five Corps member teams have been using Survey123 technology to efficiently assess barriers on the State Highway System. From January 1 to December 31, 2020, 510 assessments were conducted, and from January 1 to early July 2021, a total of 1,357 assessments have

been completed (Figure 1, below). The California Conservation Corps partnership advances the understanding of the scope and scale of fish passage barriers on the State Highway System and functions as a job skill mentoring program for young professionals who are interested in restoration and environmental sciences.

Fish Passage Advisory Committees continued to review and verify barriers throughout the state and to prioritize barriers for remediation and develop a common understanding of the most effective long-term solutions for fish passage and channel restoration.



**Figure 1. California Conservation Corps, Completed Assessments by Team Engineering**

The **Interagency Engineering Working 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 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 Working Group contributed to a fact sheet to inform project delivery teams of the need and importance of adequate longitudinal profile surveys. Longitudinal profile surveys verify that the design solution meets the criteria for swimming and jumping capabilities of salmon and Steelhead Trout. The length of needed surveys for fish passage remediation projects differ (upstream and downstream) from standard design surveys and provide the data needed at project inception, to determine suitable

channel design solutions, in coordination with the California Department of Fish and Wildlife and the National Marine Fisheries Service.

The Working Group also helps to educate fish biologists and all fish passage practitioners on 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, which is particularly important for priority barriers and the recovery of threatened and endangered salmon and Steelhead Trout habitat.

## 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 2, below). 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](http://www.cafishpac.org/training).



**Figure 2. Outreach and Education**

Fish Passage Advisory Committees typically meet in-person several times annually, using webinar platforms for select meetings and trainings. To encourage continued progress and partnerships during in-person meeting restrictions, all Fish Passage Advisory Committee meetings have continued to meet using a remote webinar platform. Since the onset of the pandemic, there has been an increased focus on outreach and education, conducted via 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 8), lists the training events offered to Fish Passage Advisory Committee members and partners.

The Fish Passage Advisory Committees have begun developing two-page Fact Sheets to inform members and fish passage partners of helpful information to assist fish passage project delivery. For example, technical information generated by engineers such as longitudinal profile guidance, Streets and Highways Code Section 156, and hydraulic modeling are summarized in a two-page Fact Sheet and made available to share and understand needed technical studies or requirements.



**Table 1. Workshops and Webinar Training Events**

<b>Event Dates</b>	<b>Description</b>	<b>Instructor Expertise</b>	<b>Participants</b>
<p><u>2020</u> 25 August</p>	<p><b>Cultural Resources and Fish Passage</b> This presentation included training on regulatory compliance, examples of cultural resources, a description of how cultural resources are part of Project Delivery Teams, Native American consultation and archaeology, and how cultural resources protection/preservation affects bridge and culvert projects, including examples of avoidance, mitigation, and monitoring.</p>	<ul style="list-style-type: none"> <li>• Caltrans, Office of Cultural Resource Studies Chief</li> <li>• Caltrans, Office of Cultural Resource Studies Associate Environmental Planner</li> <li>• Caltrans, Division of Environmental Analysis, Native American Cultural Studies Branch Chief</li> <li>• Caltrans, Office of Cultural Studies, Architectural History Branch Chief</li> </ul>	<p>111</p>
<p><u>2021</u> 16 December</p>	<p><b>Caltrans Fish Passage Program Overview</b> This presentation provided background and status on Caltrans' Fish Passage Program, to include partnering and innovative tools FishPAC uses to advance science and data toward remediating access to salmon and Steelhead habitat in California.</p>	<ul style="list-style-type: none"> <li>• Caltrans, Senior Fish Biologist</li> <li>• Caltrans, Senior Aquatics and Mitigation Stewardship Specialist</li> </ul>	<p>180</p>
<p><u>2021</u> 25 March</p>	<p><b>Fish Passage Restoration and Permitting</b> This training webinar included an overview of permitting tools, important elements of CDFW's Habitat Restoration Program and Enhancement Act, restoration for large projects, and State Water Resources Control Board's Small Habitat Restoration Program.</p>	<ul style="list-style-type: none"> <li>• California Department of Fish and Wildlife, Senior Environmental Scientist</li> <li>• North Coast Regional Water Quality Control Board, Environmental Scientist</li> <li>• California Department of Fish and Wildlife, Environmental Scientist</li> </ul>	<p>172</p>
<p><u>2021</u> 7 April</p>	<p><b>Hydroacoustics and Biological Evaluation of Bridge Foundations</b> This training included biological foundation analysis, principles of hydroacoustic impacts to fish and aquatic species, avoidance, attenuation, and monitoring.</p>	<ul style="list-style-type: none"> <li>• Caltrans, Senior Fish Biologist</li> </ul>	<p>160</p>
<p><u>2021</u> 14 April</p>	<p><b>Fundamentals of Assessing Noise and Vibration Related to Bridge Construction</b> This training included information on noise and vibration fundamental concepts, acoustic accounting, attenuating impacts, noise and vibration monitoring, and case study analyses.</p>	<ul style="list-style-type: none"> <li>• Caltrans, Senior Acoustic Engineer</li> </ul>	<p>145</p>

## Permitting

Caltrans is pursuing the 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. Caltrans continues to develop the programmatic permit by defining remediation project actions and construction methods, in order to perform an analysis of temporary construction impacts to threatened and endangered species. The programmatic permit is expected to reduce permitting timelines and expedite fish passage remediation projects.

Progress to date includes Caltrans completing a suite of 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 Trout 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. Ongoing steps in the process to support fish passage remediation project engineering and environmental analysis:

- 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 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 infrastructure 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 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, including assessments, prioritization, training, planning and scoping design solutions, advocating for funding, project delivery guidance, and continuously updating the Passage Assessment Database.

The Fish Passage Advisory Committee, Science and Innovation Team has been working together since it was created in May of 2020, to help advance innovation in the collection and sharing of fish passage barrier and habitat data. The Team develops innovative approaches to conducting State Highway System location assessments and data collection using the latest software and device technologies, develops products and protocols in support of the multi-species camera project, compiles information on field equipment guidance, develops two-page fact sheets to convey technical information in support of Caltrans and Fish Passage Advisory Committee goals.

The Fish Passage Advisory Committee, 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 Leadership Action Team consists of managers from Caltrans, the California Department of Fish and Wildlife, the National Marine Fisheries Service, the U.S. Army Corps of Engineers, and the Resource Conservation District of the Santa Monica Mountains, who provide guidance to the Fish Passage Advisory Committees. Fish Passage Advisory Committee member/managers can apply for a two-year term on the Leadership Action Team. Selection to the Leadership Action Team is made based on demonstrated commitment to the goals of the six Fish Passage Advisory Committees as well as expertise, accountability, communication and problem-solving skills, and the ability to be a team player and to motivate others.

## Funding

In 2019 and 2020, Caltrans Headquarters Division of Environmental Analysis and the Headquarters Asset Management office partnered to include the inventory of fish passage priorities in the 2021 State Highway System Management Plan, which 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 that is updated every two years.

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

Information such as the inspection status of priority fish passage barrier locations and a maintenance inspection report performed within the previous two years have been used as a basis to develop the 2021 State Highway Management Plan.

The Division of Environmental Analysis and the Headquarters Asset Management office continue to collaborate with Districts to identify needs and appropriate solutions for addressing priority fish passage barriers. Twenty-one priority fish passage locations, of the 74 current priorities, are targeted for fish passage remediation funding in the last five years of the 2021 State Highway System Management Plan. Of the 21 targeted priority fish passage locations, 18 targets currently propose to use the Accelerated Bridge Construction pre-designed bridges that Caltrans Structures Division of Engineering completed in 2020. Every two years the State Highway System Management Plan will update the five-year needs and investments to account for new priority fish passage barriers including bridges, many of which will use the design efficiencies provided by the ABC pre-designed bridges.

Currently, 28 active (funded) fish passage locations are being developed, totaling approximately \$220 million to \$230 million in transportation funding. The scope for most projects currently being developed are small bridges, or other full-span solutions. See *Appendix C, Active Fish Passage Remediation Locations Funding* (page 52), which outlines funding information for the 28 active fish passage remediation locations.

### Multi-Species and Habitat Benefits

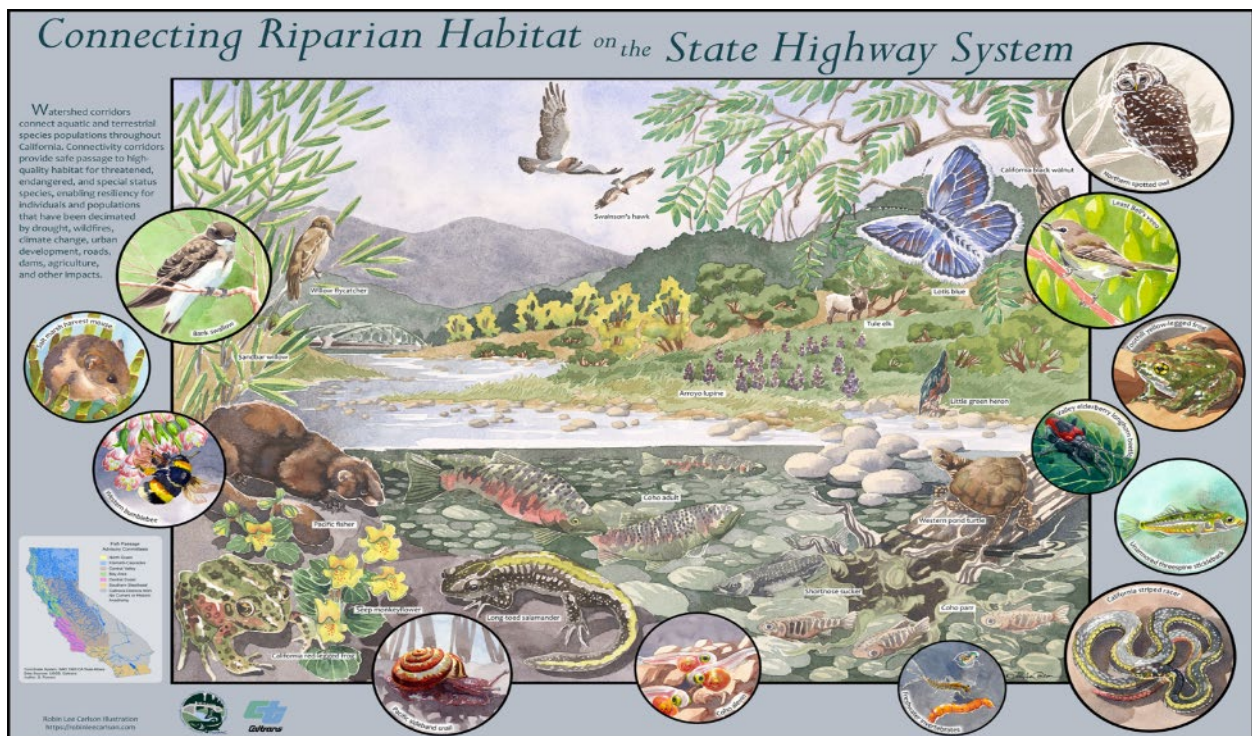
Fish Passage Advisory Committees continue to identify historic, current, and future salmon and Steelhead Trout barrier remediation projects that also provide connectivity benefits to other aquatic and terrestrial species. Watersheds and riparian areas are used by aquatic and terrestrial species to meet some, or all, of their life history needs, including migration to find food, 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 Trout, 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 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, Pacific States Marine Fisheries

Commission, and the Fish Passage Advisory Committees continue to deploy wildlife cameras to pre- and post-project fish and stream corridor remediation projects. The multi-species benefits story map is updated as camera data is available to monitor and demonstrate multi-species benefits which are often the result of full-span salmon and Steelhead Trout barrier remediation projects. Link to the multi-species story map; (<https://www.arcgis.com/apps/MapSeries/index.html?appid=2e345c26f68741129c346eb7a1f4ef5c>)

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 120-foot width, 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, 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.

In March of 2021, Caltrans and the Fish Passage Advisory Committee collaborated with a scientific illustrator to create the Connecting Riparian Habitat on the State Highway System poster to demonstrate the multi-species benefits that result from implementation of the full-span Accelerated Bridge Construction pre-designed fish passage bridges (Figure 3, below).



**Figure 3. Poster Demonstrates Multi-Species Benefits of Remediation**



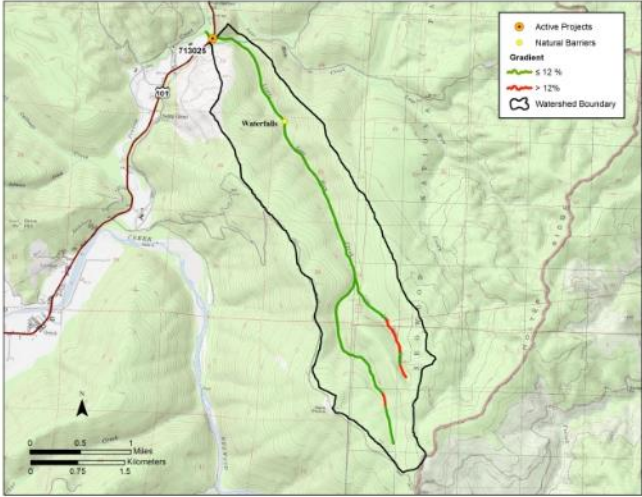
## Research

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 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. The final research report is on track to be completed in 2021.

## 2020 Completed Fish Passage Remediation Locations

Four fish passage barriers were remediated in 2020, improving access to an estimated **124.4** miles of habitat for salmon and Steelhead Trout. Table 2 contains information on the completed locations. Figure 4 (Page 18), is a map of the locations listed in Table 2.

**Table 2. 2020 Completed Fish Passage Remediation Locations**

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
1	1	Humboldt	101	124.49	713025	Little Lost Man	Full Span Bridge
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.21</b> miles of salmon and Steelhead Trout habitat above this barrier.					
<b>Pre-Construction Fish Passage (Barrier)</b>				<b>Post-Construction Fish Passage (Remediation)</b>			
							
<b>Notes</b>				<b>Watershed model - run/rise habitat estimate</b>			
<ul style="list-style-type: none"> <li>• Double-bay reinforced concrete box barrier was replaced with a full-span bridge solution.</li> <li>• Channel restoration and habitat complexity were designed and implemented.</li> <li>• The new 69.5-foot, full-span bridge is on a curve tangent with a slight abutment skew.</li> <li>• The bridge rail has a salmon detail to educate the traveling public.</li> </ul> <p><b>Note:</b> Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</p>							

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
2	2	Siskiyou	5	27.2	720504	Parks Creek	Hydraulic Channel restoration
	<b>Species</b>	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).					
	<b>Habitat</b>	There is an estimated <b>19.1</b> miles of salmon and Steelhead Trout habitat above this barrier.					

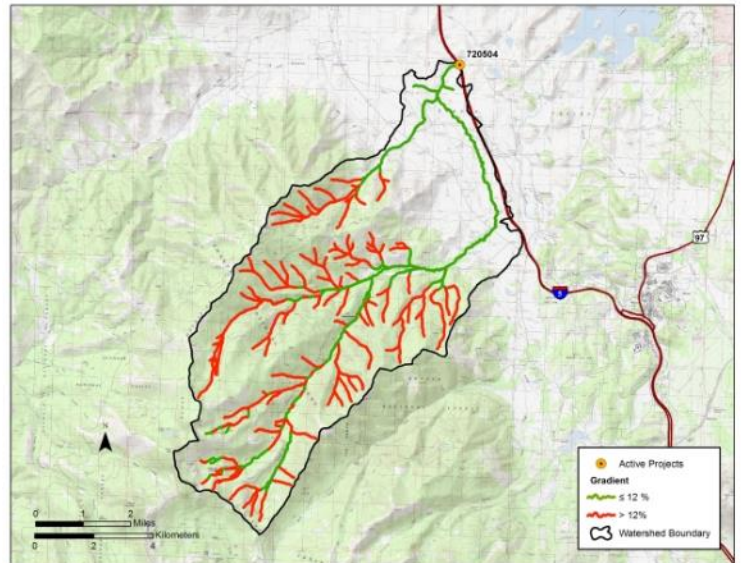
Pre-Construction Fish Passage (Barrier)	Post-Construction Fish Passage (Remediation)
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Notes	Watershed model - run/rise habitat estimate
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- The old ford, low-water access road crossing was removed.
- Channel restoration and habitat complexity were designed and implemented.



**Watershed model - run/rise habitat estimate**

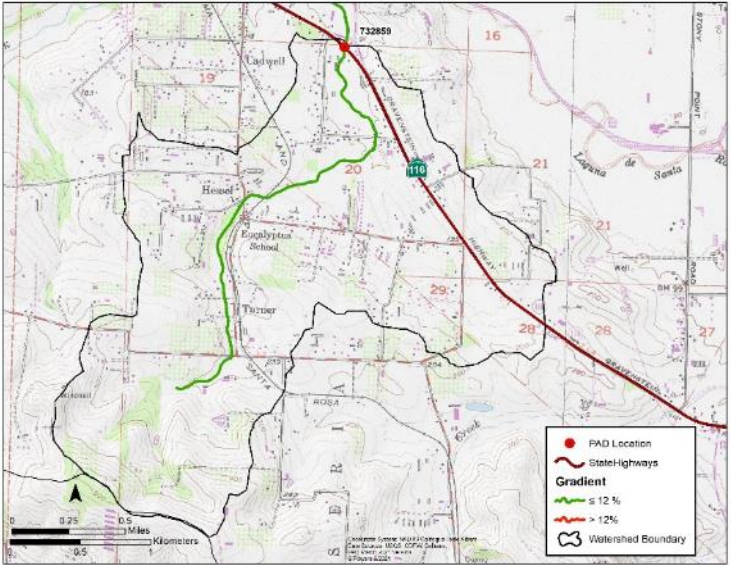


**Note:** Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.



Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
3	4	Sonoma	116	31.14	732859	Laguna de Santa Rosa	Full
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).					
	<b>Habitat</b>	There is an estimated <b>2.24</b> 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
<ul style="list-style-type: none"> <li>• Double-bay reinforced concrete box barrier was replaced with a full-span bridge solution.</li> <li>• Channel restoration and habitat complexity were designed and implemented.</li> </ul> <p><b>Note:</b> Green lines on the map were established using gradient over distance to simulate adult Steelhead Trout swimming and jumping capabilities.</p>	

Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Treatment Status
4	5	Santa Barbara	1	15.61	700085	Salsipuedes Creek	Full-span bridge, Hydraulic Channel Restoration
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).					
	<b>Habitat</b>	There is an estimated <b>101.81</b> miles of salmon and Steelhead Trout habitat above this barrier.					

Pre-Construction Fish Passage (Barrier)	Post-Construction Fish Passage (Remediation)
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Notes	Watershed model - run/rise habitat estimate
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- Foundation scour mitigation and revetment to mitigate downstream incision had become a total barrier to salmon and Steelhead Trout.
- A new full-span bridge was constructed.
- A complex channel design solution was implemented to restore the grade of the scoured and incised channel.
- Long-term monitoring is required to ensure that the performance of the in-channel design continues to perform adequately for fish.

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

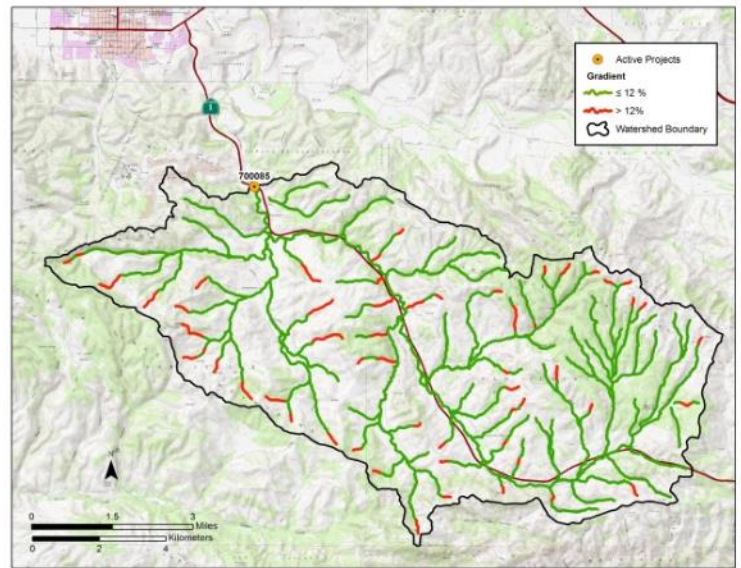




Figure 4. 2020 Completed Fish Passage Remediation Locations.

## 2020 Completed Fish Passage Assessment Locations

In 2020, **510** fish passage assessments were completed in Districts 3 (Marysville), 4 (Oakland), 5 (San Luis Obispo), 6 (Fresno), 7 (Los Angeles), 11 (San Diego), and 12 (Orange). Table 3 below lists **13** new identified barriers and **435** potential barriers that need detailed assessments (listed below). The other **62** 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 5 (page 20) shows locations listed in Table 3.

**Table 3. 2020 Completed Fish Passage Assessment Locations.**

District/FishPAC	Counties	Total Assessments	Assessed Non-Barriers	Detailed Assessments Needed	New Identified Barriers
District 3 (Marysville) – Central Valley FishPAC	Butte, El Dorado, Glenn, Nevada, Sacramento, Sutter, Yolo, Yuba	4	4	0	0
District 4 (Oakland) – Bay Area FishPAC	Alameda, Contra Costa, Marin, Napa, San Mateo, Santa Clara, Solano, Sonoma	5	0	3	2
District 5 (San Luis Obispo) – Central Coast FishPAC	Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz	138	29	105	4
District 6 (Fresno) – Central Valley FishPAC	Fresno, Kings, Madera, Tulare	8	8	0	0
District 7 (Los Angeles) – Southern Steelhead FishPAC	Los Angeles, Ventura	184	20	157	7
District 11 (San Diego) – Southern Steelhead FishPAC	San Diego	77	0	77	0
District 12 (Orange) – Southern Steelhead FishPAC	Orange	94	1	93	0
<b>Totals</b>		<b>510</b>	<b>62</b>	<b>435</b>	<b>13</b>



Figure 5. 2020 Completed Fish Passage Assessment Locations.

## 2020 Active Fish Passage Remediation Locations

Caltrans is currently developing projects to remediate **28** fish passage barriers. Two new locations have been funded on the State Highway System, which are indicated in **bold and underline (new)**. The 28 active locations account for an estimated **185.6 miles** of currently blocked habitat for salmon and Steelhead Trout. Table 4 lists the locations that are either funded through construction, or partially funded for planning, design, or permitting. Figure 6 (page 26) is a map of the locations listed in Table 4. See Appendix C, *Active Fish Passage Remediation Locations Funding* (page 52), for funding information.

**Table 4. 2020 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
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).				
	<b>Habitat</b>	There is an estimated <b>2.49 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
2	1	Del Norte – 199 – PM 2.56	707139	Clarks Creek	199 Culverts	2023/24
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).				
	<b>Habitat</b>	There is an estimated <b>3.69 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
3	1	Del Norte – 199 – PM 31.31	707137	Griffin Creek	199 Culverts	2023/24
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).				
	<b>Habitat</b>	There is an estimated <b>3.66 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
4	1	Humboldt – 96 – PM 8.87	707141	Campbell Creek	Invert Repair & Baffle Restoration	2020/21
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>1.62 miles</b> of salmon and Steelhead Trout habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
5	1	Humboldt – 254 – PM 4.18	707157	Fish Creek	Fish Creek Fish Passage	2024/25
	<b>Species</b>	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).				
	<b>Habitat</b>	There is an estimated <b>4 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
6	1	Humboldt – 254 – PM 40.83	722439	Chadd Creek	Storm Water Mitigation	2027/28
	<b>Species</b>	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened).				
	<b>Habitat</b>	There is an estimated <b>2.03 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
7	2	Shasta – 5 – PM 8.83	759970	Spring Branch Creek	District Wide Scour Counter Measures Project	2022/23
	<b>Species</b>	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).				
	<b>Habitat</b>	There is an estimated <b>2.29 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
8	2	Shasta – 36 – PM 3.6	737281	Harrison Gulch	Harrison Gulch	2022/23
	<b>Species</b>	Southern Oregon\Northern California Coasts Coho Salmon (Threatened).				
	<b>Habitat</b>	There is an estimated <b>5.02 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
9	2	Siskiyou – 96 – PM 43.5	720541	Cade Creek	Cade Creek	2027/28
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>2.58 miles</b> of Steelhead Trout habitat above this barrier.				
10	2	Siskiyou – 96 – PM 57.0	707169	Portuguese Creek	Portuguese Creek	2027/28
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>2.79 miles</b> of Steelhead Trout habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
11	2	Trinity – 3 – PM 24.95	735849	Unnamed / Frazier Creek	Hayfork Mountain Culverts	2022/23
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>1.7 miles (cumulative)</b> of Steelhead Trout habitat above and including PAD ID #760686.				
12	2	Trinity – 3 – PM 25.25	760686	Unnamed / Frazier Creek	Hayfork Mountain Culverts	2022/23
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>1.7 miles (cumulative)</b> of Steelhead Trout habitat above and including PAD ID #735849.				
13	4	Alameda – 84 – PM 121.1	713729	Stonybrook Creek	Niles Canyon Creek Bridge Replacement	2023/24
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>7.01 miles</b> of Steelhead Trout habitat above this barrier.				
14	4	Napa – 29 – PM 33.13	705459	Ritchie (Ritchey) Creek	Fish Passage Remediation	2022/23
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>2.36 miles</b> of Steelhead Trout habitat above this barrier.				
<u>15 (New)</u>	<u>4</u>	<u>Napa – 29 – PM 38.96</u>	<u>705526</u>	<u>Horns Creek</u>	<u>Bridge Preventative Maintenance and Scour Mitigation Project</u>	<u>2022/23</u>
	<b>Species</b>	<u>Central California Coast Steelhead Trout (Threatened).</u>				
	<b>Habitat</b>	<u>There is an estimated 0.87 miles of Steelhead Trout habitat above this barrier.</u>				
16	4	Napa – 121 – PM 0.75	714975	Huichica Creek	Hiuchica Creek Bridge Replacement	2024/25
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).				
	<b>Habitat</b>	There is an estimated <b>5.27 miles</b> of salmon and Steelhead Trout habitat above this barrier.				



Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
17	4	San Mateo – 280 – PM 0.01	705760	Los Trancos Creek	Seismic Restoration - King DR. UC #35-0202L	2022/23
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>11.82 miles</b> of Steelhead Trout habitat above this barrier.				
18	4	Santa Clara – 85 – PM 12.6	733945	San Tomas Aquinas Creek	Sub-Structure Rehab/Scour Mitigation	2023/24
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).				
	<b>Habitat</b>	There is an estimated <b>4.9 miles</b> of Steelhead Trout habitat above this barrier.				
19	4	Sonoma – 1 – PM 15.1	733223	Scotty Creek	Gleason Beach Highway Realignment	2023/24
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).				
	<b>Habitat</b>	There is an estimated <b>3.87 miles</b> of salmon and Steelhead Trout habitat above this barrier.				
20	5	Santa Barbara – 101 – PM 5.6	734310	Arroyo (Parida) Paredon Creek	South Coast 101 HOV Lanes - Padaro	2022/23
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>2.37 miles</b> of Steelhead Trout habitat above this barrier.				
21	5	Santa Barbara – 101 – PM 9.4	705161	Romero Creek	South Coast 101 HOV Lanes - Padaro Montecito	2024/25
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>5.84 miles</b> of Steelhead Trout habitat above this barrier.				
22	5	Santa Barbara – 101 – PM 9.6	734342	San Ysidro Creek	South Coast 101 HOV Lanes - Padaro Montecito	2024/25
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>2.36 miles</b> of Steelhead Trout habitat above this barrier.				

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
<b>23</b> <b>(new)</b>	<u>5</u>	<u>Santa Barbara-101-PM 10.51</u>	<u>734353</u>	<u>Oak Creek</u>	<u>South Coast 101 HOV Lanes - Montecito</u>	<u>2024/25</u>
	<b>Species</b>	<b>Southern California Coast Steelhead Trout (Endangered).</b>				
	<b>Habitat</b>	<b>There is an estimated 1.99 miles of Steelhead Trout habitat above this barrier.</b>				
<b>24</b>	5	Santa Barbara-101-PM 36.7	707402	Refugio Creek	Refugio Creek Bridge Replacement	2026/27
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>4.5 miles</b> of Steelhead Trout habitat above this barrier.				
<b>25</b>	7	Los Angeles – 1 – 50.3	705781	Solstice Creek	Solstice Creek Bridge Replacement	2025/26
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>2.25 miles</b> of Steelhead Trout habitat above this barrier.				
<b>26</b>	7	Ventura – 33 – PM 7.62	713867	San Antonio Creek	Scour Mitigation & Rail Upgrade	2023/24
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>56.4 miles</b> of Steelhead Trout habitat above this barrier.				
<b>27</b>	11	San Diego – 76 – PM 29.5	712680	Pauma Creek	Storm Water Mitigation/Fish Passage	2029/30
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>5.74 miles</b> of Steelhead Trout habitat above this barrier.				
<b>28</b>	12	Orange – 5 – PM 11.30	706807	Trabuco Creek	Trabuco	2024
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).				
	<b>Habitat</b>	There is an estimated <b>36.16 miles</b> of Steelhead Trout habitat above this barrier.				



**Figure 6. 2020 Active Fish Passage Remediation Locations.**

## 2020 Priority Fish Passage Locations for Funding

Table 5 (below) lists the **74** Priority locations that were identified by the six statewide Fish Passage Advisory Committees. Ten new locations have been added as Priorities on the State Highway System, which are indicated in **bold and underline (new)**. The 74 Priority locations account for an estimated **402.8 miles** of blocked habitat for salmon and Steelhead Trout. Figure 7 (page 40), is a map of the locations listed in Table 5.

**Table 5. 2020 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)
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).			
	<b>Habitat</b>	There is an estimated <b>0.46 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
2	1	Del Norte – 199 – PM 34.04	712954	Broken Kettle Creek	Elk Creek (Illinois River)
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.86 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
3	1	Humboldt – 36 – PM 5.18	712972	Wilson Creek	Yager Creek (Van Duzen River)
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>3.47 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
4	1	Humboldt – 36 – PM 9.17	707129	Fox Creek	Van Duzen River
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.31 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
5	1	Humboldt – 101 – PM 1.61	707159	Durphy Creek	South Fork Eel River
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.44 miles</b> of salmon and Steelhead Trout 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	Strong's Creek	Eel River
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>20.26</b> miles of salmon and Steelhead Trout habitat above this barrier.			
7	1	Humboldt – 101 – PM R126.2	718442	May Creek	Prairie Creek
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>3.16 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
8	1	Humboldt – 299 – PM R2.97	713051	Essex Gulch	Mad River
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>3.51 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
9	1	Mendocino – 1 – PM 4.64	713068	Fish Rock Gulch	Fish Rock Gulch
	<b>Species</b>	California Coastal Chinook (Threatened), Northern CA Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>0.99 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
10	1	Mendocino – 1 – PM R25.48	706971	Mallo Pass Creek	Pacific Ocean (Navarro-Garcia)
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>4.65 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
11	1	Mendocino – 1 – PM R54.62	707070	Doyle Creek	Pacific Ocean
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.36 miles</b> of salmon and Steelhead Trout 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
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>5.22 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
13	1	Mendocino – 1 – PM 58.78	707072	Digger Creek	Digger Creek
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.39 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
14	1	Mendocino – 1 – PM 88.71	713078	Powderhouse Gulch	Cottaneva Creek
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>0.87 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
15	1	Mendocino – 20 – PM 30.87	713093	Unnamed Tributary to Broaddus Creek	Broaddus Creek
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>1.81 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
16	1	Mendocino – 101 – PM 61.09	707091	Long Valley Creek	Outlet Creek (Upper Eel)
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>17.17 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #707094.			
17	1	Mendocino – 101 – PM 63.47	707094	Long Valley Creek	Outlet Creek (Upper Eel)
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>17.17 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #707091.			

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)
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>1.79 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
19	1	Mendocino – 128 – PM 4.30	707185	Barton Gulch	Navarro River
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.39 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
20	1	Mendocino – 128 – PM 7.27	707187	Mustard Gulch	Navarro River
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>1.55 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
21	1	Mendocino – 128 – PM 18.69	706968	Lazy Creek	Navarro River
	<b>Species</b>	Northern California Steelhead Trout (Threatened), Central California Coast Coho (Endangered), California Coastal Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>3.89 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
22	2	Shasta – 5 – PM R17.14	737799	Boulder Creek	Churn Creek (Clear Creek – Sacramento River)
	<b>Species</b>	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).			
	<b>Habitat</b>	There is an estimated <b>6.67 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #737800 and #737798.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
23	2	Shasta – 44 – PM 33.78	737802	Millseat Creek	North Fork Battle Creek
	<b>Species</b>	California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run and Fall/Late Fall-run Chinook (Threatened), Sacramento Winter-run Chinook (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.84</b> miles of salmon and Steelhead Trout habitat above this barrier.			
24	2	Shasta – 273 – PM 18.0	707132	Sulphur Creek	Sacramento River
	<b>Species</b>	Sacramento River Winter-run Chinook (Endangered), California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened).			
	<b>Habitat</b>	There is an estimated <b>9.33 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
25 (new)	<u>2</u>	<u>Shasta – 271 – PM 19.1</u>	<u>737800</u>	<u>Boulder Creek</u>	<u>Churn Creek (Sacramento River)</u>
	<b>Species</b>	<u>Sacramento River Winter-run Chinook (Endangered), California Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened).</u>			
	<b>Habitat</b>	<u>There is an estimated 6.67 miles (cumulative) of salmon and Steelhead Trout habitat above and including PAD ID #737799 and #737798.</u>			
26 (new)	<u>2</u>	<u>Shasta – 299 – PM 24.7</u>	<u>737798</u>	<u>Boulder Creek</u>	<u>Clear Creek (Sacramento River)</u>
	<b>Species</b>	<u>Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).</u>			
	<b>Habitat</b>	<u>There is an estimated 6.67 miles (cumulative) of salmon and Steelhead Trout habitat above and including PAD ID #737799 and #737800.</u>			
27	2	Siskiyou – 3 – PM 6.5	707148	Big Mill Creek	Scott River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.03 miles</b> of salmon and Steelhead Trout habitat above this barrier.			



Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
28	2	Siskiyou – 96 – PM R12.02	732222	Ti Creek	Klamath River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>0.25 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
29 (new)	<u>2</u>	<u>Tehama – 36 – PM 22.13</u>	<u>737286</u>	<u>Little/Big Crane Creek</u>	<u>Cottonwood Creek</u>
	<b>Species</b>	<b><u>Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 19.45 miles of salmon and Steelhead Trout habitat above this barrier.</u></b>			
30	2	Trinity – 3 – PM 10.9	707231	Barker Creek	Trinity River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>14.48 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
31	2	Trinity – 3 – PM 32.6	707178	East Weaver Creek	Trinity River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>7.42 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
32	2	Trinity – 299 – PM 49.6	720522	West Weaver Creek	Trinity River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>4.64 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
33	2	Trinity – 299 – PM 51.2	737674	Sydney Gulch	Trinity River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>5.54 miles</b> of salmon and Steelhead Trout habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
34	2	Trinity – 299 – PM 51.4	735941	Garden Gulch	Trinity River
	<b>Species</b>	Southern Oregon/Northern California Coho (Threatened), California Coastal Chinook (Threatened), Northern California Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>4.52 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
35	4	Marin -1 – PM 18.69	706078	McCurdy Creek	Pine Gulch Creek (Bolinas Lagoon)
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>0.75 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
36	4	Marin – 1 – PM 18.69	706079	North Fork McCurdy Creek	McCurdy Creek/ Pine Gulch Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>0.75 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
37	4	Marin – 1 – PM 22.67	706059	John West Fork	Olema Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.85 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
38 (new)	<u>4</u>	<u>Marin – 1 – PM 25.55</u>	<u>759018</u>	<u>Cemetery Creek</u>	<u>Olema Creek</u>
	<b>Species</b>	<u>Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).</u>			
	<b>Habitat</b>	<u>There is an estimated 1.09 miles (cumulative) of salmon and Steelhead Trout habitat above and including PAD ID #759027.</u>			
39 (new)	<u>4</u>	<u>Marin – 1 – PM 25.57</u>	<u>759027</u>	<u>Unnamed Tributary</u>	<u>Olema Creek</u>
	<b>Species</b>	<u>Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).</u>			
	<b>Habitat</b>	<u>There is an estimated 1.09 miles (cumulative) of salmon and Steelhead Trout habitat above and including PAD ID #759018.</u>			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
40	4	Marin – 1 – PM 25.63	706054	Quarry Gulch	Olema Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>0.87 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
41	4	Marin – 1 – PM 25.67	759028	Quarry Gulch	Olema Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).			
	<b>Habitat</b>	There is an estimated <b>0.15 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
42 (new)	<u>4</u>	<u>Napa – 29 – PM 6.04</u>	<u>705518</u>	<u>Suscol Creek</u>	<u>Napa River</u>
	<b>Species</b>	<b><u>Central California Coast Steelhead (Threatened).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 4.83 miles of salmon and Steelhead Trout habitat above this barrier.</u></b>			
43	4	San Mateo – 1 – PM 4.32	705302	Whitehouse Creek	Pacific Ocean
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>4.04 miles</b> of Steelhead Trout habitat above this barrier.			
44	4	San Mateo – 1 – PM 22.75	716835	Lobitos Creek	Pacific Ocean
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>5.55 miles</b> of Steelhead Trout habitat above this barrier.			
45	4	San Mateo – 84 – PM 4.6	706675	Bogess Creek	San Gregorio Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>6.1 miles</b> of Steelhead Trout habitat above this barrier.			
46	4	San Mateo – 84 – PM 19.25	705766	Bear Creek	San Francisquito
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>0.75 miles</b> of Steelhead Trout habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
47	4	San Mateo – 84 – PM 19.98	705768	West Union Creek	Bear Creek/San Francisquito Creek
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>4.83 miles</b> of Steelhead Trout habitat above this barrier.			
48 <u>(new)</u>	<u>4</u>	<u>San Mateo – 84 – PM 19.98</u>	<u>758036</u>	<u>Pilarcitos Creek</u>	<u>Pacific Ocean</u>
	<b>Species</b>	<b><u>Central California Coast Steelhead Trout (Threatened).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 3.48 miles of Steelhead Trout habitat above this barrier.</u></b>			
49 <u>(new)</u>	<u>5</u>	<u>San Luis Obispo – 101 – PM 30.5</u>	<u>700058</u>	<u>San Luis Obispo Creek</u>	<u>Pacific Ocean</u>
	<b>Species</b>	<b><u>Southern Central California Coast Steelhead Trout (Threatened).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 16.78 miles of Steelhead Trout habitat above this barrier.</u></b>			
50	5	San Luis Obispo – 101 – PM 36.59	707246	Santa Margarita Creek	Salinas River
	<b>Species</b>	Southern Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.64 miles</b> of Steelhead Trout habitat above this barrier.			
51	5	Santa Barbara – 101 – PM R0.0	707368	Rincon Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>10.56 miles</b> of Steelhead Trout habitat above this barrier.			
52	5	Santa Barbara – 101 – PM 46.92	706655	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the 5-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
53	5	Santa Barbara – 101 – PM 46.95	706656	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the five-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			
54	5	Santa Barbara – 101 – PM 47.12	706657	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the five-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			
55	5	Santa Barbara – 101 – PM 47.15	706658	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the five-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			
56	5	Santa Barbara – 101 – PM 47.19	706659	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the five-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			
57	5	Santa Barbara – 101 – PM R49.38	706388	Gaviota Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>28.37 miles (cumulative)</b> of Steelhead Trout habitat above, to include the five-small check-dam barriers and a culvert. Numbers 52-57 are proposed to be included in one fish barrier remediation project.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
58	5	Santa Barbara – 192 – PM 3.39	706538	Mission Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>4.26 miles</b> of Steelhead Trout habitat above this barrier.			
59	5	Santa Cruz – 1 – PM 9.97	706703	Valencia Creek	Aptos Creek
	<b>Species</b>	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>16.36 miles (cumulative)</b> of Steelhead Trout habitat above and including PAD ID #706704.			
60	5	Santa Cruz – 1 – PM 9.87	706704	Valencia Creek	Aptos Creek
	<b>Species</b>	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>16.36 miles (cumulative)</b> of Steelhead Trout habitat above and including PAD ID #706703.			
61	5	Santa Cruz – 1 – PM 28.59	706003	San Vicenta Creek	Pacific Ocean
	<b>Species</b>	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>4.4 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
62	5	Santa Cruz – 1 – PM 31.25	705994	Molino Creek	Pacific Ocean
	<b>Species</b>	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).			
	<b>Habitat</b>	There is an estimated <b>2.31 miles</b> of salmon and Steelhead Trout habitat above this barrier.			
63 (new)	<u>5</u>	<u>Santa Cruz – 9 – PM 5.5</u>	<u>712260</u>	<u>Gold Gulch</u>	<u>Lan Lorenzo River</u>
	<b>Species</b>	<b><u>Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 1.62 miles of Steelhead Trout habitat above this barrier.</u></b>			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
64	7	Los Angeles – 1 – PM 40.99	716891	Topanga Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>3.76 miles</b> of Steelhead Trout habitat above this barrier.			
65	7	Los Angeles – 1 – PM 54.97	716906	Zuma Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>3.99 miles</b> of Steelhead Trout habitat above this barrier.			
66	7	Ventura – 1 – PM – 1.23	723563	Little Sycamore Creek	Pacific Ocean
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.19 miles</b> of Steelhead Trout habitat above this barrier.			
67 (new)	<u>7</u>	<u>Ventura – 33 – PM 15.85</u>	<u>731927</u>	<u>North Fork Matilija Creek</u>	<u>Ventura River</u>
	<b>Species</b>	<b><u>Southern California Coast Steelhead Trout (Endangered).</u></b>			
	<b>Habitat</b>	<b><u>There is an estimated 11.41 miles of Steelhead Trout habitat above this barrier.</u></b>			
68	7	Ventura – 33 – PM 34.5	723804	Burro Creek	Sespe Creek
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>2.1 miles</b> of Steelhead Trout habitat above this barrier.			
69	7	Ventura – 126 – PM 18.6	723760	Boulder Creek	Santa Clara River
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>4.59 miles</b> of Steelhead Trout habitat above this barrier.			
70	7	Ventura – 126 – PM R26.48	713878	Hopper Canyon Creek	Santa Clara Creek
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>10.38 miles</b> of Steelhead Trout habitat above this barrier.			

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
71	7	Ventura – 150 – PM 18.75	713873	San Antonio Creek	Ventura River
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>10.35</b> miles of Steelhead Trout habitat above this barrier.			
72	7	Ventura – 150 – PM 22.8	700083	Lion Creek	Sespe Creek
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>11.13 miles</b> of Steelhead Trout habitat above this barrier.			
73	7	Ventura – 150 – PM 28.48	761522	Sissar Creek	Santa Paula Creek
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>10.26 miles</b> of Steelhead Trout habitat above this barrier.			
74	10	Stanislaus – 120 – PM R15.04	761519	Wildcat Creek	Stanislaus River
	<b>Species</b>	Southern California Coast Steelhead Trout (Endangered).			
	<b>Habitat</b>	There is an estimated <b>48.61 miles</b> of Steelhead Trout habitat above this barrier.			



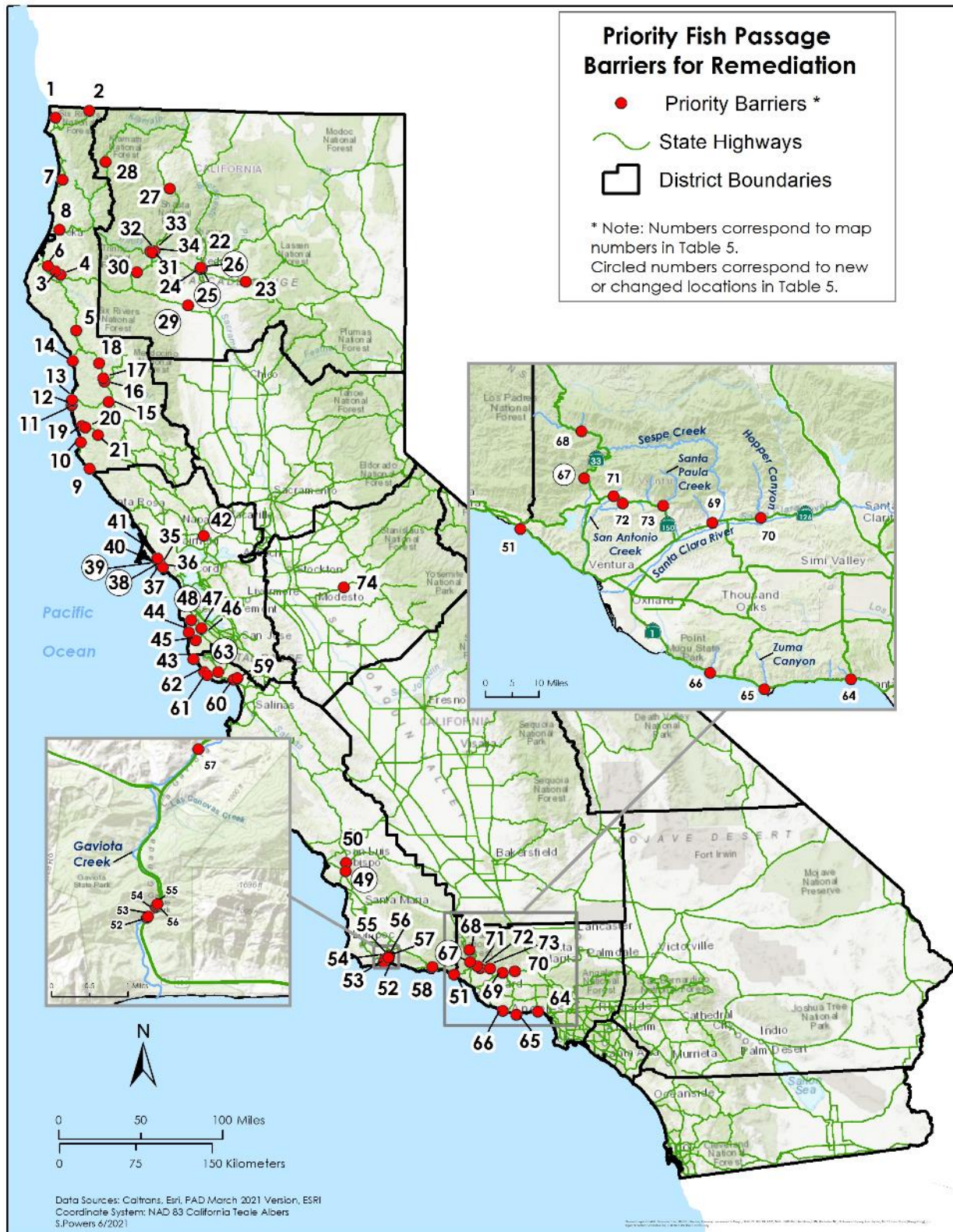


Figure 7. 2020 Priority Fish Passage Locations for Remediation.

## 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, 2020. **Bold and underlined (new)** locations are new to this report and were constructed in 2020. The **55** locations listed in Appendix A account for an estimated **896.1 miles** of improved access to salmon and Steelhead Trout habitat. Figure 8 (page 50) 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	1	Del Norte - 101 - PM 41.41	707135	Ritmer Creek	Ritmer Creek Emergency	2019	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.11 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
2	1	Del Norte - 101 - PM 43.7	715563	Lopez Creek	Smith River Widening	2009	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>0.5 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
3	1	Del Norte - 197 - PM 2.12	720982	Peacock Creek	Peacock Creek Emergency	2013	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.68 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
4	1	Del Norte - 197 - PM 2.9	712952	Unnamed Tributary to Smith River	Emergency Culvert	2019	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>0.31 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
5	1	Del Norte - 197 - PM 5.0	707143	Sultan Creek	Emergency Bridge Project	2015	Full
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.33 miles</b> of salmon and Steelhead Trout habitat above this barrier.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
6	1	Del Norte – 197 – PM 6.15	707142	Little Mill Creek	Emergency Bridge Project	2016	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.0 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
7	1	Humboldt - 101 - PM 40.12	722460	Chadd Creek	Chadd Creek Fish Passage	2006	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	<b>Habitat</b>	There is an estimated <b>1.81 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
8	1	Humboldt – 169 - PM 22.37	706198	Cappell Creek	Four Bridges Project	2011	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened).					
	<b>Habitat</b>	There is an estimated <b>0.5 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
9 (new)	<u>1</u>	<u>Humboldt – 101 - PM 124.5</u>	<u>713025</u>	<u>Little Lost Man</u>	<u>Prairie Creek</u>	<u>2020</u>	<u>Full</u>
	<b>Species</b>	<b><u>Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened)</u></b>					
	<b>Habitat</b>	<b><u>There is an estimated 1.21 miles of salmon and Steelhead Trout habitat above this barrier.</u></b>					
10	1	Humboldt – 299 - PM 4.2	716742	Hall Creek	Mitigation Mad River Bridge	2013	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	<b>Habitat</b>	There is an estimated <b>3.5 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
11	1	Mendocino – 1 - PM 92.8	706958	Dunn Creek Bridge	10 Mile Bridge Mitigation	2013	Full
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	<b>Habitat</b>	There is an estimated <b>2.13 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
12	1	Mendocino – 1 – PM 14.85	712450	Point Arena Creek	Emergency Culvert	2019	Partial
	<b>Species</b>	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	<b>Habitat</b>	There is an estimated <b>2.86 miles</b> of salmon and Steelhead Trout habitat above this barrier.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
13	1	Mendocino – 101 – PM 48.14	705136	Upp Creek	Willits Mitigation	2017	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>2.98 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
14	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 Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>2.52 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
15	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 Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>1.46 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
16	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 Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>4.7 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
17	1	Mendocino -- 101 – PM 81.4	706986	Rattlesnake Creek	Rattlesnake Creek	2009	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>24.9 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #706987.					
18	1	Mendocino -- 101 – PM 83.99	706987	Rattlesnake Creek	Fish Passage	2013	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>24.9 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #706986.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
19	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 Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>11.91 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
20	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 Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>10.58 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
21	1	Mendocino – 128 – PM 21.8	707199	Clow Creek	Culvert Upgrade	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>1.36 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
22	1	Mendocino – 128 – PM 27.54	707205	Graveyard Creek	Culvert Upgrade	2015	Partial
	Species	Southern Oregon/Northern California Coast Coho (Threatened), Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened).					
	Habitat	There is an estimated <b>1.22 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
23	1	Mendocino – 128 – PM 36.63	707208	Lost Creek	Culvert Upgrade	2015	Partial
	Species	Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated <b>0.26 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
24	1	Mendocino – 128 – PM 39.88	707212	Beebe Creek	Culvert Upgrade	2015	Partial
	Species	Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated <b>1.55 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #713145.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
25	1	Mendocino - 128 – PM 39.95	713145	John Hatt Creek	Beebe Storm Damage	2011	Partial
	Species	Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated <b>1.55 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #707212.					
26	1	Mendocino - 128 – PM 49.66	707219	Edwards Creek	Edwards Creek Fish Passage	2011	Partial
	Species	Northern California Steelhead Trout (Threatened), California Coastal Chinook (Threatened), Central California Coast Coho (Endangered).					
	Habitat	There is an estimated <b>0.62 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
27	2	Shasta - 299 – PM 20.7	737289	Salt Creek	Salt Creek Fish Passage Project	2006	Partial
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated <b>7.1 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
28	2	Shasta – 299 – PM 32.2	737295	Yank/Lemm Creek Bridge	Yank/Lemm Creek Bridge	2014	Full
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened).					
	Habitat	There is an estimated <b>14.66 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
29 (new)	<u>2</u>	<u>Siskiyou – 5 – PM 27.2</u>	<u>720504</u>	<u>Parks Creek</u>	<u>Shasta River</u>	<u>2020</u>	<u>Full</u>
	Species	<u>Southern Oregon\ Northern California Coasts Coho Salmon (Threatened).</u>					
	Habitat	<u>There is an estimated 19.1 miles of salmon and Steelhead Trout habitat above this barrier.</u>					
30	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 <b>3.98 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
31	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 <b>0.89 miles</b> of salmon and Steelhead Trout habitat above this barrier.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
32	2	Tehama - 5 – PM 16.9	737006	Elder Creek	Elder Creek Scour Mitigation	2008	Partial
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated <b>245.54 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
33	2	Tehama - 5 – PM 28.1	737007	Dibble Creek	Dibble Creek Scour Mitigation	2008	Partial
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated <b>94.3 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
34	2	Tehama - 99 – PM 15.6	737013	Sunset Canal	Sunset Canal Bridge	2010	Partial
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated <b>6.12 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
35	2	Tehama - 99 – PM 21.1	737012	Craig Creek	Craig Creek	2011	Full
	Species	Central Valley Steelhead Trout (Threatened), Central Valley Spring-run Chinook (Threatened), Sacramento River Winter-run Chinook (Endangered).					
	Habitat	There is an estimated <b>165.44 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
36	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 <b>12.46 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #735688.					
37	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 <b>12.46 miles (cumulative)</b> of salmon and Steelhead Trout habitat above and including PAD ID #720511.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
38	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 Trout (Threatened).					
	Habitat	There is an estimated <b>28.23 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
39	4	Marin – 1 – PM 22.78	706058	Giacomini Gulch	Giacomini Gulch Bridge	2018	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).					
	Habitat	There is an estimated <b>1.56 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
40	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 Trout (Threatened).					
	Habitat	There is an estimated <b>0.79 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
41	4	Marin – 1 – PM 33.4	732518	Millerton Gulch	Millerton Gulch Emergency	2017	Partial
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).					
	Habitat	There is an estimated <b>0.76 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
42	4	Napa - 121 – PM 1	733333	Huichica Creek	Duhig Road Project	2010	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).					
	Habitat	There is an estimated <b>1.33 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
43	4	Napa – 121 – PM 9.3	758605	Sarco Creek	Sarco Creek Bridge	2017	Partial
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).					
	Habitat	There is an estimated <b>8.7 miles</b> of Steelhead Trout habitat above this barrier.					



Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
44 (new)	4	Sonoma	116	31.14	732859	Laguna de Santa Rosa	Full
	Species	Central California Coast Coho (Endangered), Central California Coast Steelhead Trout (Threatened).					
	Habitat	There is an estimated 2.24 miles of salmon and Steelhead Trout habitat above this barrier.					
45 (new)	5	Santa Barbara— 1—PM 15.61	700085	Salsipuedes Creek	Santa Ynez River	2020	Full
	Species	Southern Oregon \ Northern California Coasts Coho Salmon (Threatened)					
	Habitat	There is an estimated 101.81 miles of salmon and Steelhead Trout habitat above this barrier.					
46	5	Santa Barbara – 101 – PM 2.2	707182	Carpinteria Creek	Carpinteria Creek Retrofit	2018	Partial
	Species	Southern California Steelhead Trout (Endangered).					
	Habitat	There is an estimated 12.22 miles of Steelhead Trout habitat above this barrier.					
47	5	Santa Barbara - 101 – PM 33.9	707398	El Capitan Creek	El Capitan Creek	2007	Partial
	Species	Southern California Steelhead Trout (Endangered).					
	Habitat	There is an estimated 6.34 miles of Steelhead Trout habitat above this barrier.					
48	5	Santa Barbara – 101 – PM 38.3	707403	Tajiguas Creek	Tajiguas Creek	2014	Partial
	Species	Southern California Steelhead Trout (Endangered).					
	Habitat	There is an estimated 8.2 miles of Steelhead Trout habitat above this barrier.					
49	5	Santa Barbara - 101 – PM 41.0	707405	Arroyo Hondo Creek	Arroyo Hondo	2008	Partial
	Species	Southern California Steelhead Trout (Endangered).					
	Habitat	There is an estimated 2.0 miles of Steelhead Trout habitat above this barrier.					
50	5	Santa Barbara - 101 – PM 47.2	706669	Gaviota Creek	Gaviota Creek	2008	Partial
	Species	Southern California Steelhead Trout (Endangered).					
	Habitat	There is an estimated 25.6 miles of Steelhead Trout habitat above this barrier.					

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
51	5	Santa Barbara – 192 – PM 15.5	706239	Arroyo (Parida) Paredon Creek	Bridge Replacement	2019	Full
	<b>Species</b>	Southern California Steelhead Trout (Endangered).					
	<b>Habitat</b>	There is an estimated <b>1.2 miles</b> of Steelhead Trout habitat above this barrier.					
52	5	Santa Cruz - 1 – PM 17.4	735367	Branciforte Creek	Hwy 1 Remediation	2007	Partial
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).					
	<b>Habitat</b>	There is an estimated <b>18.0 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
53	5	Santa Cruz - 1 – PM 17.42	735366	Carbonera Creek	Hwy 1 Remediation	2008	Partial
	<b>Species</b>	Central California Coast Steelhead Trout (Threatened), Central California Coast Coho (Endangered).					
	<b>Habitat</b>	There is an estimated <b>3.23 miles</b> of salmon and Steelhead Trout habitat above this barrier.					
54	7	Ventura - 150 – PM 28.7	723744	Santa Paula Creek	Santa Paula Creek	2012	Partial
	<b>Species</b>	Southern California Steelhead Trout (Endangered).					
	<b>Habitat</b>	There is an estimated <b>17.4 miles</b> of Steelhead Trout habitat above this barrier.					
55	12	Orange – 74 – PM 13.30	759565	San Juan Creek	San Juan Creek Fish Passage	2018	Full
	<b>Species</b>	Southern California Steelhead Trout (Endangered).					
	<b>Habitat</b>	There is an estimated <b>4.91 miles</b> of Steelhead Trout habitat above this barrier.					

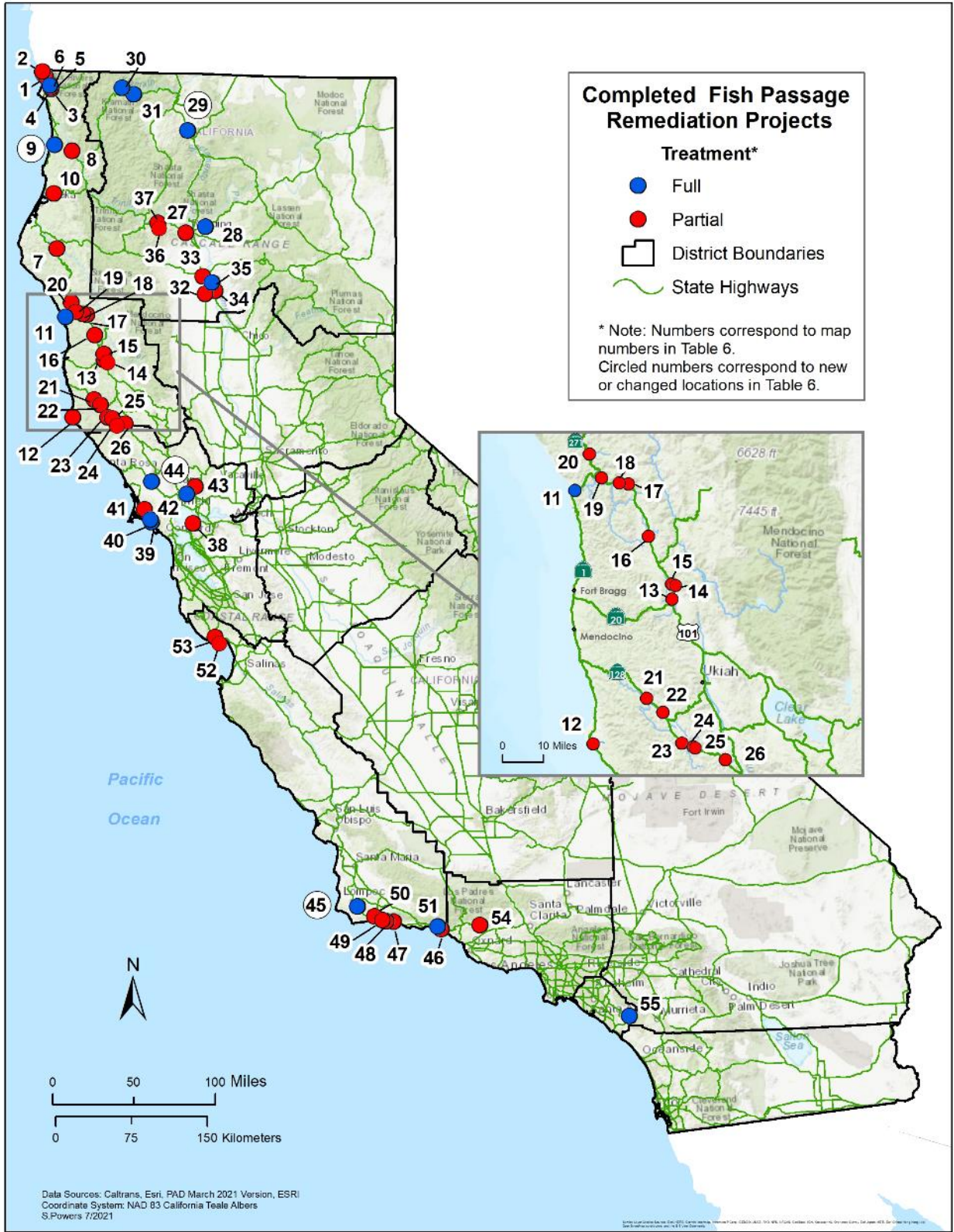


Figure 8. Fish Passage Locations Completed.

## 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. 2020 Active Fish Passage Remediation Locations Funding

This table represents current funding information available for the 28 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 <sup>1</sup>	PAD ID #	Stream Name	Estimated Year of Construction	Estimated Year Construction Completed	Total Programmed Fish Passage Project Funding <sup>2</sup>	Contributions by Others
1	1	Del Norte – 101 – PM 39.78	0F310	0115000108	Dominie Fish Passage	SHOPP	707134	Dominie Creek	2019/20	2022/23	\$10,609,000	
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 – 254 – PM 4.18	0E790	0115000021	Construct Bridge - Fish Passage Remediation	SHOPP	707157	Fish Creek	2022/23	2024/25	\$17,312,000	
6	1	Humboldt – 254 – PM 40.83	0H240	0117000140	254 Culverts-Storm Water Mitigation	SHOPP	722439	Chadd Creek	2026/27	2027/28	<b><u>\$6,000,000</u></b>	
7	2	Shasta – 5 – PM R24.54	4G530	0214000023	District Wide Scour Counter Measures Project	SHOPP	759970	Spring Branch Creek	2020/21	2022/23	<b><u>\$1,500,000</u></b>	
8	2	Shasta – 36 – PM 3.6	2H620	0216000154	Harrison Gulch	SHOPP Minor B	737281	Harrison Gulch	2021/22	2022/23	\$735,000	
9	2	Siskiyou – 96 – PM 43.5	1H590	0216000025	Cade Creek	SHOPP	720541	Cade Creek	2023/24	2025/26	<b><u>\$9,877,000</u></b>	\$50,000
10	2	Siskiyou – 96 – PM 57.0	1H590	0216000025	Portuguese Creek	SHOPP	707169	Portuguese Creek	2023/24	2025/26	<b><u>\$9,958,000</u></b>	\$50,000
11	2	Trinity – 3 – PM 24.97	0J500	0219000130	Hayfork Mountain Culvert	Minor	735849	Unnamed / Frazier Creek	2022/23	2023/24	<b><u>\$1,726,700</u></b>	
12	2	Trinity – 3 – PM 25.24	2J170	0221000036	Hayfork Mountain Culvert 2	Minor	760686	Unnamed / Frazier Creek	2021/22	2022/23	<b><u>\$1,576,700</u></b>	
13	4	Alameda – 84 – PM 121.1	16030	0400000429	Niles Canyon Alameda Creek Bridge Replacement Project	SHOPP	713729	Stonybrook Creek	2020/21	2023/24	<b><u>\$4,500,000</u></b>	
14	4	Napa – 29 – PM 33.13	4J990	0416000037	Ritchie Creek Fish Passage Remediation	SHOPP	705459	Ritchie (Ritchey) Creek	2021/22	2022/23	\$11,570,000	
15	4	Napa – 29 – PM 38.96	2J88U	0418000401	Bridge Preventative Maintenance and Scour Mitigation Project	SHOPP	705526	Horns Creek	2022/23	2020/21	<b><u>\$3,078,000</u></b>	

<sup>1</sup> Abbreviations for Program Document: SHOPP = State Highway Operation and Protection Program, and STIP = State Transportation Improvement Program.

<sup>2</sup> 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.	District	County – Route – Post Mile	EA	Project ID	Project Name	Programming Document <sup>1</sup>	PAD ID #	Stream Name	Estimated Year of Construction	Estimated Year Construction Completed	Total Programmed Fish Passage Project Funding <sup>2</sup>	Contributions by Others
16	4	Napa – 121 – PM 0.75	4G210	0412000310	Huichica Creek – Bridge Replacement Project	SHOPP	714975	Huichica Creek	2020/21	2024/25	\$30,359,000	
17	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	<b><u>\$2,100,000</u></b>	
18	4	Santa Clara – 85 – PM 12.6	2J780	0415000017	Sub-Structure Rehab/Scour Mitigation	SHOPP	733945	San Tomas Aquinas Creek	2021/22	2023/24	<b><u>\$1,434,000</u></b>	
19	4	Sonoma – 1 – PM 15.1	0A020	0400000129	Gleason Beach Highway Realignment	SHOPP	733223	Scotty Creek	2021/22	2023/24	<b><u>\$22,500,000</u></b>	
20	5	Santa Barbara – 101 – PM R5.6	0N702	0518000113	South Coast 101 HOV Lanes - Padaro	STIP	734310	Arroyo (Parida) Paredon Creek	2020/21	2025/26	<b><u>\$6,500,000</u></b>	
21	5	Santa Barbara – 101 – PM 9.4	0N70B	0518000131	South Coast 101 HOV Lanes - Montecito	STIP	705161	Romero Creek	2020/21	2024/25	<b><u>\$4,500,000</u></b>	
22	5	Santa Barbara – 101 – PM 9.6	0N70B	0518000131	South Coast 101 HOV Lanes - Montecito	STIP	734342	San Ysidro Creek	2020/21	2024/25	<b><u>\$4,500,000</u></b>	
23	5	Santa Barbara-101-PM	0N70B	0518000131	South Coast 101 HOV Lanes - Montecito	STIP	734353	Oak Creek	2020/21	2024/25	<b><u>\$4,500,000</u></b>	
24	5	Santa Barbara-101-PM 36.7	1C950	0513000018	Refugio Creek Bridge Replacement	SHOPP	707402	Refugio Creek	2023/24	2026/27	\$5,900,000	
25	7	Los Angeles – 1 – PM 50.3	31350	0715000090	LA-001- Drainage Improvement	SHOPP	705781	Solstice Creek	2021/22	2025/26	\$36,248,131	
26	7	Ventura – 33 – PM 7.62	29130	0712000083	Scour Mitigation & Rail Upgrade	SHOPP	713867	San Antonio Creek	2020/21	2023/24	\$9,075,000	
27	11	San Diego – 76 – PM 29.5	42220	1115000179	SR 76 Storm Water Mitigation/Fish Passage	SHOPP	712680	Pauma Creek	2026/27	2029/30	\$24,862,000	
28	12	Orange – 5 – PM 11.30	PEER	PEER	Trabuco	Local Agency	706807	Trabuco Creek	N/A	2020		\$1,100,000
<b>Total Estimated Fish Passage Funding Investment</b>											<b><u>\$220,000,000 - \$230,000,000<sup>3</sup></u></b>	

<sup>3</sup> The total estimate is a range of all funded project costs which have been rounded.