

2015 FISH PASSAGE ANNUAL REPORT



*Little Grass Valley Creek (District 2, Redding), Fish Passage Retrofit Project

Report to the Legislature

Prepared:
October 2016

Prepared by the California Department of
Transportation, Division of Environmental Analysis

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Executive Summary

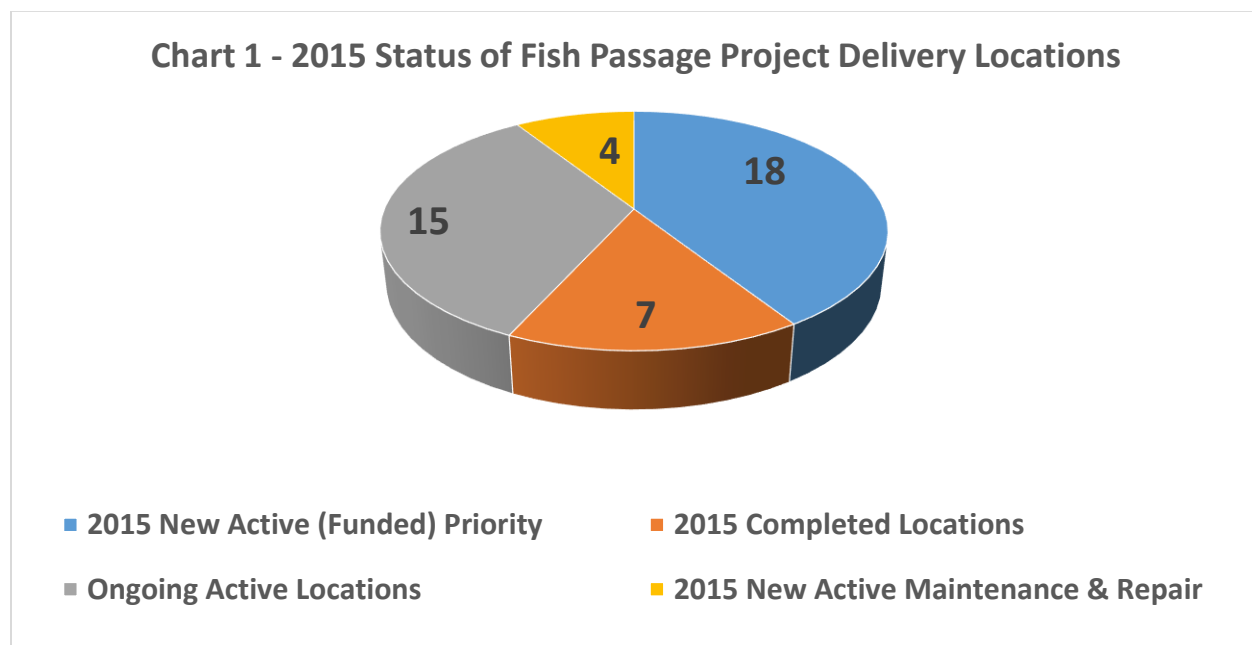
2015 Fish Passage Program Accomplishments

- Completed Fish Passage Remediation Locations = **7 Locations**
- Completed Fish Passage Assessment Locations = **455 assessments**
- Active Fish Passage Remediation Locations (programmed) = **37 locations**
- Priority Fish Passage Barrier Locations (future program) = **50 locations**

New Project Initiation

In 2015 twenty-two new fish barrier locations were funded for project delivery, on the State Highway System; eighteen of those locations are high priority locations for both Caltrans and the California Department of Fish and Wildlife (CDFW), and four of the locations are lower priority barriers that have been funded due to identified maintenance repair needs or as designated project mitigation.

The chart below (Chart 1) demonstrates the distribution of current Project Delivery locations.



Internal Partnering

Toward the goal of identifying internal opportunities to fund and deliver an increased number of fish passage remediation locations, internal experts from Districts and Headquarters Divisions met in November 2015 to identify partnering efforts and process efficiencies. Staff and managers from throughout the state and each division identified roles, responsibilities, increased communication, internal and external partnering, as well as process improvements. Caltrans staff and managers from Environmental, Project Management, Maintenance,

Hydraulics, Planning and Right of Way continue to meet to address the status of fish passage locations, priorities and overall progress.

The Caltrans Division of Engineering Services (DES) and Division of Environmental Analysis have partnered to consider efficiencies and assistance towards standardized design solutions for small bridge locations and have renewed a commitment towards innovative solutions such as Accelerated Bridge Construction (ABC), which consists of pre-cast bridge elements built off-site and assembled at the site, thus reducing construction duration and associated on-site, environmental impacts.

External Partnering

In February 2016, Caltrans invited agency partners to a Fish Passage Summit Meeting that was held in Sacramento, California. State and Federal agencies met to discuss the status of fish barrier locations on the State Highway System. Caltrans staff from Environmental, Project Management, Structures, Design, and Planning attended the meeting to hear feedback from expert fish passage agency staff and managers. Internal and external partnerships and communication continue to improve between Caltrans and fish passage external partners. Efficiencies such as standardized designs for small bridge solutions are in progress.

In May of 2016, the California Department of Fish and Wildlife was able to fill the Caltrans funded Fish Passage Engineering Position. The National Marine Fisheries Service (NMFS), is actively working towards filling the position that was funded at NMFS.

AB 95 – Funding

After Oct 31, 2016, AB 95 (SEC. 8. Section 156.1 of the Streets and Highways Code), requires Caltrans to provide funding information respective of the appropriated \$5,000,000. The October 31, 2017 Fish Passage Annual Report and annual reports thereafter will include respective funding information.

Background

This report provides fish passage assessment and remediation information for locations which Caltrans is responsible. This is in accordance with Streets and Highways Code, Section 156.1. This report updates progress and describes assessment and remediation activities between January 1 and December 31, 2015.

In the decade since legislation was passed, by far this report demonstrates the greatest improvements in both internal and external execution. All four of the current reporting requirements; Completed Remediations, New Assessments, Active Projects (funded) and Priority Locations have all demonstrated improvements.

Caltrans and our partners continue to develop additional Design, Environmental and Maintenance expertise, support and guidance to improve fish passage remediation efforts.

Overview of Fish Passage Progress on the State Highway System (from 2006 to 2015)						
District	Existing Barrier Locations	Locations Remediated (Since 2006)	2015 Locations Remediated	Active Locations¹		2015 Priority Locations²
				2015	Ongoing	
District 1 (Eureka)	286	15	5	11	5	10
District 2 (Redding)	47	10	2	5	0	10
District 3 (Marysville)	0 ³	0	0	0	0	0
District 4 (Oakland)	70	1	0	2	3	10
District 5 (San Luis Obispo)	84	8	0	0	7	10
District 6 (Fresno)	0	0	0	0	0	0
District 7 (Los Angeles)	21	1	0	1	0	10
District 10 (Stockton)	0	0	0	0	0	0
District 11 (San Diego)	2	0	0	2	0	0
District 12 (Orange)	1	0	0	1	0	0
Totals	519	37	7	37		50

¹ Active locations are partially or fully funded. The 2015 locations are new to the report.

² Priority Locations have the highest biological value, per Caltrans and CDFW, and are not yet funded.

³ Districts 3, 6 and 10 have no identified barriers or priorities. Passage Assessments are ongoing in Districts 3 & 10 and will be included in the next report to the Legislature.

2015 Completed Fish Passage Remediation Locations

Seven fish passage locations were completed in 2015. Table 1, 2015 Completed Fish Passage Remediations, contains information on the locations. Figure 2 (page 7) is a map of the locations listed in Table 1.

Table 1 – 2015 Completed Fish Passage Remediation Locations							
Map #	Caltrans District	County	Route	Post Mile	PAD ID #	Stream Name	Project Name
1	1	Del Norte	197	5.0	707143	Sultan Creek	Sultan Creek Bridge
2	1	Mendocino	128 ⁴	21.8	707199	Clow Creek	Culvert upgrade
3	1	Mendocino	128	27.54	707205	Graveyard Creek	Culvert upgrade
4	1	Mendocino	128	36.63	707208	Lost Creek	Culvert upgrade
5	1	Mendocino	128	39.88	707210	Beebe Creek	Culvert upgrade
6	2	Trinity	299	68.0	735688	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage
7	2	Trinity	299	68.2	720511	Little Grass Valley Creek	Little Grass Valley Creek Fish Passage

⁴ The retrofit improvement locations that were addressed on Mendocino 128 creeks (Clow, Graveyard, Lost and Beebe) are in steep mountain streams and have already experienced sediment and scour issues that will be monitored during the 2016/2017 winter. It is likely that a maintenance project will be initiated to address the excavation of sediment, rock weir repair and any other identified improvements for fish passage.

Figure 1 - 2015 Completed Fish Passage Remediation Locations



2015 Completed Fish Passage Assessment Locations

In 2015, 455 fish passage assessments were completed of which Table 2 shows the below 30 locations, designated as: new barriers, barriers due to existing sediment (temporary barriers), or as updated surveys for existing barrier locations⁵. The remaining 425 assessment locations are not barriers to fish passage. Assessment information has been submitted to the CDFW Passage Assessment Database. Figure 2 (page 10) shows locations listed in Table 2.

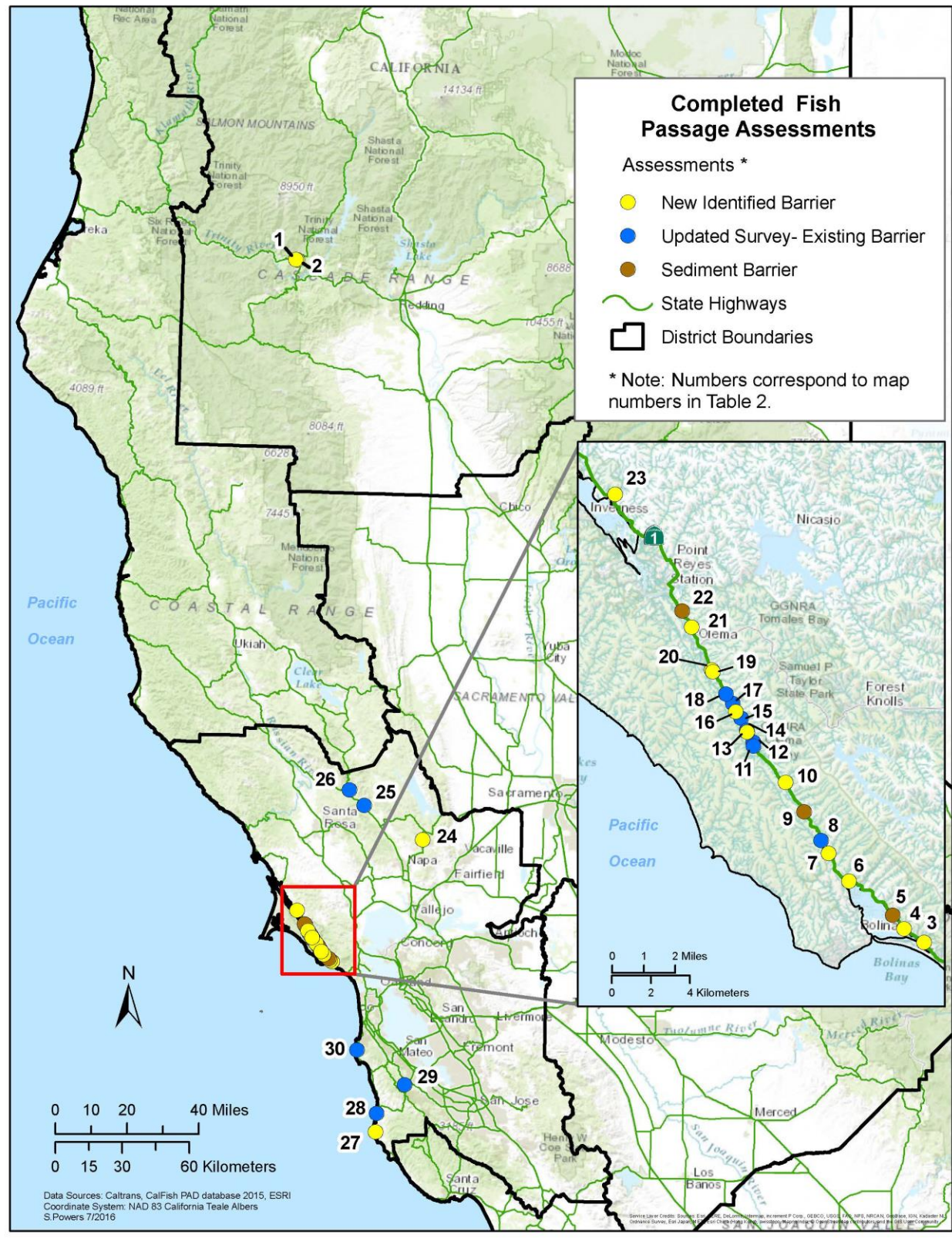
Table 2 – 2015 Completed Fish Passage Assessment Locations						
Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Assessment Status
1	2	Trinity – 299 – PM 51.2	737674	Sidney Gulch	West Weaver Creek	New Identified Barrier
2	2	Trinity – 299 – PM 51.41	735941	Garden Gulch	Munger Gulch	New Identified Barrier
3	4	Marin – 1 – PM 13.49	732450	Stinson Gulch	Pacific Ocean	New Identified Barrier
4	4	Marin – 1 – PM 14.31	732461	Unnamed	Pacific Ocean	New Identified Barrier
5	4	Marin – 1 – PM 14.86	732468	Morses Gulch	Pacific Ocean	Sediment Barrier ⁶
6	4	Marin – 1 – PM 16.95	732659	Wilkins Gulch	Pacific Ocean	New Identified Barrier
7	4	Marin – 1 – PM 18.17	759015	Cronin Gulch	Pacific Ocean	New Identified barrier
8	4	Marin – 1 – 18.69	706078	McCurdy & North Fork McCurdy	Pine Gulch Creek	Updated Survey Existing Barrier
9	4	Marin – 1 – PM 19.94	732501	Headwaters Tributary	Olema Creek	Sediment barrier
10	4	Marin – 1 – PM 21.06	732665	Unnamed	Olema Creek	New Identified Barrier
11	4	Marin – 1 – PM 22.67	706059	John West Fork	Olema Creek	Updated Survey Existing Barrier
12	4	Marin – 1 – PM 22.78	706058	Giacomini Gulch	Olema Creek	Updated Survey Existing Barrier

⁵ Updated Surveys for Existing Barrier locations either verified or improved upon existing information for consideration of location prioritization.

⁶ Maintenance is investigating the potential to expeditiously resolve the 3 identified temporary sediment barriers.

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to	Assessment Status
13	4	Marin – 1 – PM 23.20	759019	Unnamed	Olema Creek	New Identified Barrier
14	4	Marin – 1 – PM 23.26	706057	Horse Camp Creek	Olema Creek	Updated Survey Existing Barrier
15	4	Marin – 1 – PM 23.68	706056	Unnamed	Olema Creek	Updated Survey Existing Barrier
16	4	Marin – 1 – PM 24.00	759016	Unnamed	Olema Creek	New Identified Barrier
17	4	Marin – 1 – PM 24.30	706055	Boundary Gulch	Olema Creek	Updated Survey Existing Barrier
18	4	Marin – 1 – PM 24.67	732502	Unnamed	Olema Creek	Updated Survey Existing Barrier
19	4	Marin – 1 – PM 25.55	759018	Unnamed	Olema Creek	New Identified barrier
20	4	Marin – 1 – PM 25.63/25.67	706054	Quarry Gulch	Olema Creek	New Identified barrier
21	4	Marin – 1 – PM 27.21	732670	Unnamed	Olema Creek	New Identified Barrier
22	4	Marin – 1 – PM 27.92	759017	Unnamed	Olema Creek	Sediment barrier
23	4	Marin – 1 – PM 33.40	732518	Millerton Gulch	Tomales Bay	New Identified Barrier
24	4	Napa – 121 – PM 19.18	733347	Capell Creek	Putah Creek	New Identified Barrier
25	4	Napa – 29 – PM 32.07	705448	Mill Creek	Napa River	Updated Survey Existing Barrier
26	4	Napa – 29 – PM 38.96	705526	Horns Creek	Garnett Creek	Updated Survey Existing Barrier
27	4	San Mateo – 1 – PM 11.07	733824	Arroyo de los Frijoles	Pacific Ocean	New Identified Barrier
28	4	San Mateo – 1 – PM 16.49	733837	Pomponio Creek	Pacific Ocean	Updated Survey Existing Barrier
29	4	San Mateo – 84 – PM 19.25	705766	Bear Creek	San Francisquito	Updated Survey Existing Barrier
30	4	San Mateo – 1 – PM 37.09	733897	Martini Creek	Pacific Ocean	Updated Survey Existing Barrier

Figure 2 - 2015 Completed Fish Passage Assessment Locations



Active Fish Passage Remediation Locations

Caltrans is currently developing projects to remediate 37 fish passage barrier locations. Twenty-two new locations have been funded on the State Highway System; eighteen of those locations are high priority locations for both Caltrans and CDFW, and four of the locations have been initiated for identified repair or maintenance needs or as designated mitigation.

Table 3 below, Active Fish Passage Remediation Locations, lists the current remediation locations that are either funded through construction, or partially funded for planning, design and permitting. Figure 3 (page 14), is a map of the locations that are listed in Table 3. The locations that are **bold and underlined** show the 22 new locations.

Table 3 – Active Fish Passage Remediation Locations						
Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
<u>1</u>	<u>1</u>	<u>Del Norte – 101 – PM 39.78</u>	<u>707134</u>	<u>Dominie Creek</u>	<u>Dr. Fine Bridge Mitigation</u>	<u>2020</u>
<u>2</u>	<u>1</u>	<u>Del Norte – 197 – PM 6.15</u>	<u>707142</u>	<u>Little Mill Creek</u>	<u>Little Mill Creek Emergency Bridge</u>	<u>2016</u>
<u>3</u>	<u>1</u>	<u>Del Norte – 199 – PM 2.56</u>	<u>707139</u>	<u>Clarks Creek</u>	<u>Clarks Creek</u>	<u>2020</u>
<u>4</u>	<u>1</u>	<u>Del Norte – 199 – PM 31.31</u>	<u>707137</u>	<u>Griffin Creek</u>	<u>Griffin Creek</u>	<u>2020</u>
<u>5</u>	<u>1</u>	<u>Humboldt – 101 – PM 124.49</u>	<u>713025</u>	<u>Little Lost Man Creek</u>	<u>Little Lost Man Creek</u>	<u>2020</u>
<u>6</u>	<u>1</u>	<u>Humboldt – 96 – PM 8.83</u>	<u>707141</u>	<u>Campbell Creek</u>	<u>Campbell Creek</u>	<u>2017</u>
<u>7</u>	<u>1</u>	<u>Humboldt – 254 – PM 4.18</u>	<u>707157</u>	<u>Fish Creek</u>	<u>Fish Creek Fish Passage</u>	<u>2017</u>
<u>8</u>	<u>1</u>	<u>Mendocino – 1 – PM 4.64</u>	<u>713068</u>	<u>Fish Rock Gulch</u>	<u>Fish Rock Gulch</u>	<u>2020</u>
<u>9</u>	<u>1</u>	<u>Mendocino – 1 – PM 57.81</u>	<u>707071</u>	<u>Mitchell Creek</u>	<u>Mitchell Creek</u>	<u>2020</u>
<u>10</u>	<u>1</u>	<u>Mendocino – 1 – PM 58.78</u>	<u>707072</u>	<u>Digger Creek</u>	<u>Digger Creek</u>	<u>2020</u>
11	1	Mendocino – 101 – 48.14	705136	Upp Creek	Willits Bypass	2017
12	1	Mendocino – 101 – PM 52.36	707085	South Fork Ryan Creek	Willits Bypass Mitigation	2017

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
13	1	Mendocino – 101 – PM 52.25	707086	North Fork Ryan Creek	Willits Bypass Mitigation	2017
14	1	Mendocino – 101 – PM 66.5	707096	Ten Mile Creek	36 Culverts	2016
15	1	Mendocino – 101 – PM 89.24	706954	Cedar Creek	Cedar Creek	2018
<u>16</u>	<u>1</u>	<u>Mendocino – 128 – PM 14.04</u>	<u>707192</u>	<u>Soda Creek</u>	<u>Soda Creek</u>	<u>2017</u>
<u>17</u>	<u>2</u>	<u>Siskiyou – 5 – PM 27.2</u>	<u>720504</u>	<u>Parks Creek</u>	<u>Parks Creek</u>	
<u>18</u>	<u>2</u>	<u>Siskiyou – 96 – PM 8.0</u>	<u>707149</u>	<u>Stanshaw Creek</u>	<u>Stanshaw and Sandy Bar Creek</u>	<u>2028</u>
<u>19</u>	<u>2</u>	<u>Siskiyou – 96 – PM 9.1</u>	<u>720537</u>	<u>Sandy Bar Creek</u>	<u>Stanshaw and Sandy Bar Creek</u>	<u>2028</u>
<u>20</u>	<u>2</u>	<u>Siskiyou – 96 – PM 43.5</u>	<u>720541</u>	<u>Cade Creek</u>	<u>Cade Creek</u>	<u>2028</u>
<u>21</u>	<u>2</u>	<u>Siskiyou – 96 – PM 57.0</u>	<u>707169</u>	<u>Portuguese Creek</u>	<u>Portuguese Creek</u>	<u>2028</u>
22	4	Contra Costa – 80 – PM 8.4	723716	Pinole Creek	Pinole Creek ⁷ (RCD, by Encroachment)	2016
23	4	Marin – 1 – PM 24.77	732502	Tributary to Olema Creek	Olema Creek Culvert Replacement	2018
<u>24</u>	<u>4</u>	<u>Napa – 121 – PM 0.75</u>	<u>714975</u>	<u>Huichica Creek</u>	<u>Napa Slough</u>	<u>2019</u>
<u>25</u>	<u>4</u>	<u>Napa – 121 – PM 9.30</u>	<u>758605</u>	<u>Sarco Creek</u>	<u>Miliken Creek</u>	<u>2021</u>
26	4	Sonoma – 1 – PM 15.1	733223	Scotty Creek	Gleason Beach Highway Realignment	2019
27	5	Santa Barbara – 1 – PM 15.6	700085	Salsipuedes Creek	Salsipuedes Bridge Replacement	2019

⁷ The Contra Costa Resource Conservation District is the sponsor of this location and has worked with Caltrans through the Encroachment Permit process.

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Project Name	Estimated Year of Completion
28	5	Santa Barbara – 101 – PM 5.6	734310	Arroyo Parida Creek	South Coast HOV	2023
29	5	Santa Barbara – 101 – PM 9.4	705161	Romero Creek	South Coast HOV	2023
30	5	Santa Barbara – 101 – PM 9.6	734342	San Ysidro Creek	South Coast HOV	2020
31	5	Santa Barbara – 101 – PM 0.0	707368	Rincon Creek	Highway Rehab Project	2023
32	5	Santa Barbara – 101 – PM 2.2	707182	Carpinteria Creek	Highway 101 Linden/ Casitas Pass	2020
33	5	Santa Barbara – 192 – PM 15.5	706239	Arroyo Parida Creek	Arroyo Parida Creek	2018
<u>34</u>	<u>7</u>	<u>Los Angeles – 1 – PM 50.3</u>	<u>705781</u>	<u>Solstice Creek</u>	<u>Pacific Ocean</u>	<u>2022</u>
<u>35</u>	<u>11</u>	<u>San Diego – 76 – PM 29.5</u>	<u>712680</u>	<u>Pauma Creek</u>	<u>SR-76 Culvert Replacement/Fish Passage</u>	<u>2020</u>
<u>36</u>	<u>11</u>	<u>San Diego – 76 – PM 45.5</u>	<u>735076</u>	<u>Wigham Creek</u>	<u>SR-76 Culvert Replacement/Fish Passage</u>	<u>2020</u>
<u>37</u>	<u>12</u>	<u>Orange – 5 – PM 11.30</u>	<u>706807</u>	<u>Trabuco Creek</u>	<u>I-5/Trabuco</u>	<u>2018</u>

Figure 3 – Active Fish Passage Remediation Locations



Priority Fish Passage Locations for Remediation

Table 4, Priority Fish Passage Locations for Remediation, is below. All listed locations are equal in priority for funding and implementation. The 22 locations that are **bold and underlined** are new to the 2015 Report. There are 50 priority locations identified on the priority list. Figure 4 (page 18), is a map of the locations that are listed in Table 4.

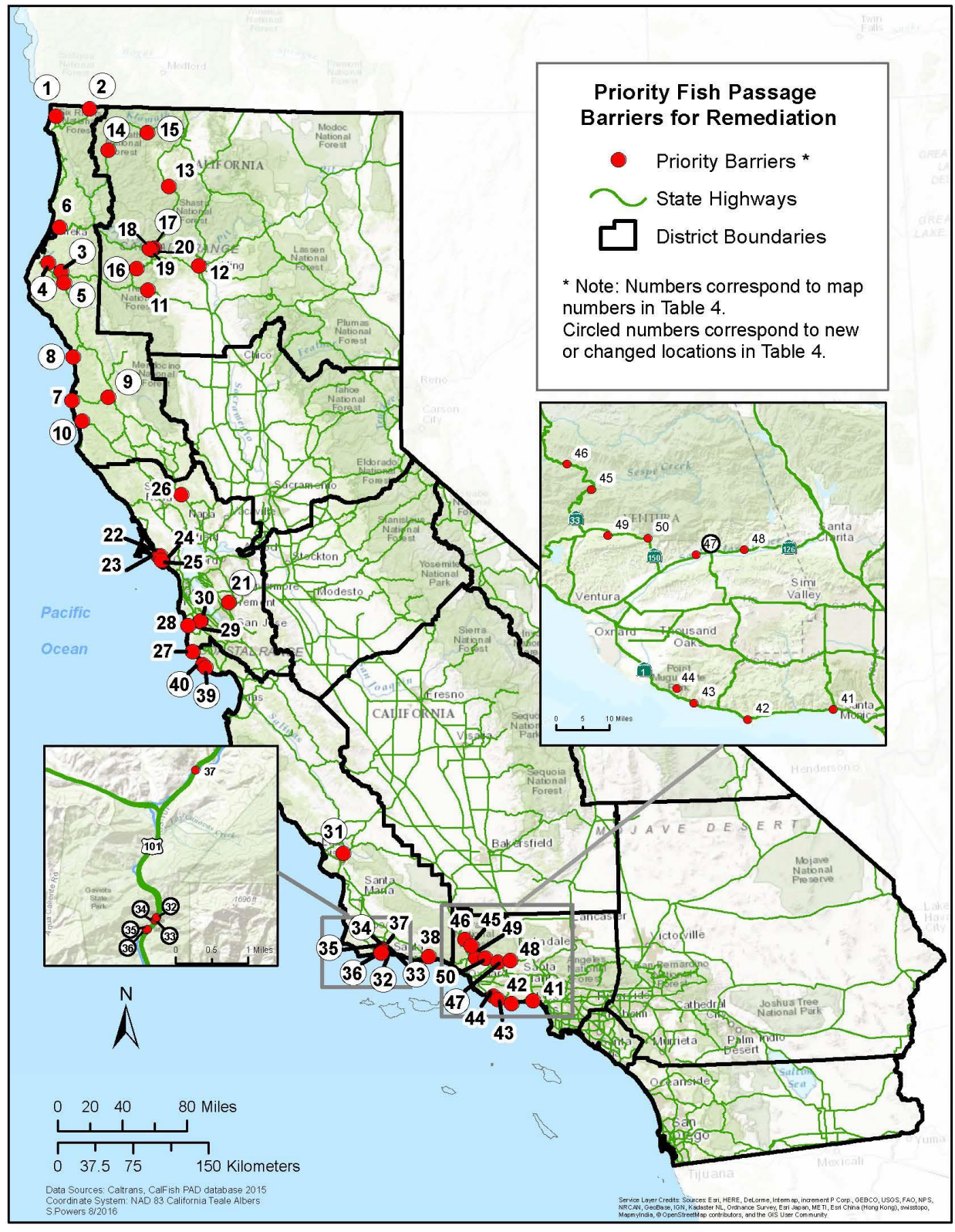
Table 4 – Priority Fish Passage Locations for Remediation					
Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
<u>1</u>	<u>1</u>	<u>Del Norte – 101 – PM 37.46</u>	<u>712951</u>	<u>Unnamed Trib to Morrison Creek</u>	<u>Morrison Creek</u>
<u>2</u>	<u>1</u>	<u>Del Norte – 199 – PM 34.04</u>	<u>712954</u>	<u>Broken Kettle Creek</u>	<u>Elk Creek</u>
<u>3</u>	<u>1</u>	<u>Humboldt – 36 – PM 9.17</u>	<u>707129</u>	<u>Fox Creek</u>	<u>Van Duzen River</u>
<u>4</u>	<u>1</u>	<u>Humboldt – 101 – PM 54.94</u>	<u>715460</u>	<u>Strongs Creek</u>	<u>Eel River</u>
<u>5</u>	<u>1</u>	<u>Humboldt – 254 – PM 40.83</u>	<u>722439</u>	<u>Chadd Creek</u>	<u>Eel River</u>
6	1	Humboldt – 299 – PM 2.97	713051	Essex Gulch	Mad River
7	1	Mendocino – 1 – PM 54.62	707070	Doyle Creek	Pacific Ocean
<u>8</u>	<u>1</u>	<u>Mendocino – 1 – PM 88.71</u>	<u>713078</u>	<u>Powderhouse Gulch</u>	<u>Cottaneva Creek</u>
<u>9</u>	<u>1</u>	<u>Mendocino – 20 – PM 30.87</u>	<u>713093</u>	<u>Unnamed Trib to Broaddus Creek</u>	<u>Broaddus Creek</u>
<u>10</u>	<u>1</u>	<u>Mendocino – 128 – PM 4.30</u>	<u>707185</u>	<u>Barton Gulch</u>	<u>Navarro River</u>
11	2	Shasta – 36 – PM 3.6	737281	Harrison Gulch	Middle Fork Cottonwood Creek
12	2	Shasta – 273 – PM 18.0	707132	Sulphur Creek	Sacramento River
13	2	Siskiyou – 3 – PM 6.5	707148	Big Mill Creek	Scott River
<u>14</u>	<u>2</u>	<u>Siskiyou – 96 – PM 23.7</u>	<u>707162</u>	<u>Coon Creek</u>	<u>Klamath River</u>
<u>15</u>	<u>2</u>	<u>Siskiyou – 96 – PM 70.7</u>	<u>735752</u>	<u>Tom Martin Creek</u>	<u>Klamath River</u>
<u>16</u>	<u>2</u>	<u>Trinity – 3 – PM 10.9</u>	<u>707231</u>	<u>Barker Creek</u>	<u>Trinity River</u>

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
<u>17</u>	<u>2</u>	<u>Trinity – 3 – PM 32.6</u>	<u>707178</u>	<u>East Weaver Creek</u>	<u>Trinity River</u>
18	2	Trinity – 299 – PM 49.6	720522	West Weaver Creek	Trinity River
19	2	Trinity – 299 – PM 51.2	737674	Sydney Gulch	Trinity River
20	2	Trinity – 299 – PM 51.4	735941	Garden Gulch	Trinity River
<u>21</u>	<u>4</u>	<u>Alameda – 84 – PM 12.1</u>	<u>713729</u>	<u>Stonybrook Creek</u>	<u>Alameda Creek</u>
22	4	Marin – 1 – PM 22.67	706059	John West Fork	Olema Creek
23	4	Marin – 1 – PM 22.78	706058	Giacomini Gulch	Olema Creek
24	4	Marin -1 – PM 18.69	706078	McCurdy Creek	Pine Gulch Creek (Bollinas Lagoon)
25	4	Marin – 1 – PM 18.69	706079	North Fork McCurdy Creek	McCurdy Creek/ Pine Gulch Creek
26	4	Napa – 29 – PM 33.17	705459	Ritchie Creek	Napa River
27	4	San Mateo – 1 – PM 4.32	705302	Whitehouse Creek	Pacific Ocean
28	4	San Mateo – 1 – PM 22.75	716835	Lobitos Creek	Pacific Ocean
29	4	San Mateo – 84 – PM 19.25	705766	Bear Creek	San Francisquito
30	4	San Mateo – 84 – PM 19.98	705768	West Union Creek	Bear Creek/San Francisquito Creek
<u>31</u>	<u>5</u>	<u>San Luis Obispo – 101 – PM 36.59</u>	<u>707246</u>	<u>Santa Margarita Creek</u>	<u>Salinas River</u>
<u>32</u>	<u>5</u>	<u>Santa Barbara – 101 – PM 47.19</u>	<u>706659</u>	<u>Gaviota Creek</u>	<u>Pacific Ocean</u>
<u>33</u>	<u>5</u>	<u>Santa Barbara – 101 – PM 47.15</u>	<u>706658</u>	<u>Gaviota Creek</u>	<u>Pacific Ocean</u>
<u>34</u>	<u>5</u>	<u>Santa Barbara – 101 – PM 47.12</u>	<u>706657</u>	<u>Gaviota Creek</u>	<u>Pacific Ocean</u>

Map #	Caltrans District	County – Route – Post Mile	PAD ID #	Stream Name	Tributary to
<u>35</u>	<u>5</u>	<u>Santa Barbara – 101</u> <u>– PM 46.92</u>	<u>706655</u>	<u>Gaviota Creek</u>	<u>Pacific Ocean</u>
<u>36</u>	<u>5</u>	<u>Santa Barbara – 101</u> <u>– PM 46.95</u>	<u>706656</u>	<u>Gaviota Creek</u>	<u>Pacific Ocean</u>
37	5	Santa Barbara – 101 – PM 49.6	706388	Gaviota Creek	Pacific Ocean
38	5	Santa Barbara – 192 – PM 3.39	706538	Mission Creek	Pacific Ocean
<u>39</u>	<u>5</u>	<u>Santa Cruz – 1 – PM</u> <u>28.59</u>	<u>706003</u>	<u>San Vicente</u> <u>Creek</u>	<u>Pacific Ocean</u>
<u>40</u>	<u>5⁸</u>	<u>Santa Cruz – 1 – PM</u> <u>31.25</u>	<u>705994</u>	<u>Molino Creek</u>	<u>Pacific Ocean</u>
41	7	Los Angeles 1 – PM 40.99	716891	Topanga Creek	Pacific Ocean
42	7	Los Angeles 1 – PM 54.97	716906	Zuma Creek	Pacific Ocean
43	7	Ventura – 1 – PM 1.23	723563	Little Sycamore Creek	Pacific Ocean
44	7	Ventura – 1 – PM 4.5	723529	Big Sycamore Creek	Pacific Ocean
45	7	Ventura – 33 – PM 24.17	713767	North Fork Matilija Creek	Ventura River
46	7	Ventura – 33 – PM 34.5	723804	Burro Creek	Sespe Creek
<u>47</u>	<u>7</u>	<u>Ventura – 126 – PM</u> <u>18.6</u>	<u>723760</u>	<u>Boulder Creek</u>	<u>Santa Clara River</u>
48	7	Ventura – 126 – PM 26.48	713878	Hopper Canyon Creek	Santa Clara Creek
49	7	Ventura – 150 – PM 22.8	700083	Lion Creek	Sespe Creek
50	7	Ventura – 150 – PM 28.48	705162	Sissar Creek	Santa Paula Creek

⁸ District 5 and CDFW staff in the Central and South Coast Region have updated priority locations to reflect recent studies and assessments. Scott Creek (PAD ID# 732371) and Waddell Creek (PAD ID# 731839) are not barriers to anadromous fish. Pennington Creek (PAD ID# 700040) is a barrier but due to updated information it is no longer a top 10 Priority location.

Figure 4 - Priority Fish Passage Locations for Remediation



Appendix A – Fish Passage Locations Completed

Senate Bill 857 (Kuehl, Chapter 589, Statutes of 2005), was enacted into law effective January 1, 2006. Appendix A, Fish Passage Locations Completed, is a list of all fish passage barriers that have been either fully or partially remediated on the State Highway System, since that time. The below table lists all treated barriers from January 1, 2006 to December 31, 2015. **Bold and underlined** locations are new to this report and constructed in 2015. Figure 5 (page 22), is a map of the locations that are listed in Appendix A.

Appendix A – 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 43.7	715563	Lopez Creek	Smith River Widening	2009	Partial ⁹
2	1	Del Norte- 197 - PM 2.12	720982	Peacock Creek	Peacock Creek Emergency	2013	Partial
<u>3</u>	<u>1</u>	<u>Del Norte – 197 – PM 5.0</u>	<u>707143</u>	<u>Sultan Creek</u>	<u>Sultan Creek Bridge</u>	<u>2015</u>	<u>Full</u> ¹⁰
4	1	Humboldt - 101 - PM 40.12	722460	Chadd Creek	Chadd Creek Fish Passage	2006	Partial
5	1	Humboldt - 101 - PM 115.3	737005	Unnamed Tributary	Stone Lagoon	2007	Partial
6	1	Humboldt – 169 - PM 22.37	706198	Cappell Creek	Four Bridges Project	2011	Partial
7	1	Humboldt-299- PM 4.2	716742	Hall Creek	Mitigation Mad River Bridge	2013	Partial
8	1	Mendocino-1- PM 92.8	706958	Dunn Creek Bridge	10 Mile Bridge Mitigation	2013	Full
9	1	Mendocino- 101 – PM 81.4	706986	Rattlesnake Creek	Rattlesnake Creek	2009	Partial
10	1	Mendocino - 101 – PM 83.99	706987	Rattlesnake Creek	Rattlesnake Creek Fish Passage	2013	Partial

⁹ **Partial Treatment** – hydraulic treatments intended to improve fish passage, while not fully spanning the natural channel width. This can be accomplished by incorporating weirs, baffles, ladders and any other water velocity or grade control device. These facilities need to be annually inspected and maintained to ensure that sediment deposition and/or scour pools do not impact continued access to upstream habitat.

¹⁰ **Full Treatment** – locations where the natural channel width is fully spanned. Post-project monitoring needs to occur to ensure that sediments in the channel does not impact passage for fish after the first few winter seasons.

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
11	1	Mendocino - 101 – PM 99.0	707115	Red Mountain Creek	Confusion Hill Mitigation	2010	Partial
<u>12</u>	<u>1</u>	<u>Mendocino – 128 – PM 21.8</u>	<u>707199</u>	<u>Clow Creek</u>	<u>Culvert Upgrade</u>	<u>2015</u>	<u>Partial</u>
<u>13</u>	<u>1</u>	<u>Mendocino – 128 – PM 27.54</u>	<u>707205</u>	<u>Graveyard Creek</u>	<u>Culvert Upgrade</u>	<u>2015</u>	<u>Partial</u>
<u>14</u>	<u>1</u>	<u>Mendocino – 128 – PM 36.63</u>	<u>707208</u>	<u>Lost Creek</u>	<u>Culvert Upgrade</u>	<u>2015</u>	<u>Partial</u>
<u>15</u>	<u>1</u>	<u>Mendocino – 128 – PM 39.88</u>	<u>707210</u>	<u>Beebe Creek</u>	<u>Culvert Upgrade</u>	<u>2015</u>	<u>Partial</u>
16	1	Mendocino - 128 – PM 39.95	713145	John Hatt Creek	Beebe Storm Damage	2011	Partial
17	1	Mendocino - 128 – PM 49.66	707220	Edwards Creek	Edwards Creek Fish Passage	2011	Partial
18	2	Shasta - 299 – PM 20.7	737289	Salt Creek	Salt Creek Fish Passage Project	2006	Partial
19	2	Shasta – 299 – PM 32.2	737295	Yank /Lemm Creek Bridge	Yank Creek/Lemm Creek Bridge	2014	Full
20	2	Siskiyou - 96 – PM 56.0	707168	Fort Goff Creek	Fort Goff Creek Fish Passage	2014	Full
21	2	Siskiyou - 96 – PM 65.4	707147	O’Neil Creek	O’Neil Creek Fish Passage	2008	Full
22	2	Tehama - 5 – PM 16.9	737006	Elder Creek	Elder Creek Scour Mitigation	2008	Partial
23	2	Tehama - 5 – PM 28.1	737007	Dibble Creek	Dibble Creek Scour Mitigation	2008	Partial
24	2	Tehama - 99 – PM 21.1	737012	Craig Creek	Craig Creek & Sunset Canal Bridges Project	2011	Full
25	2	Tehama - 99 – PM 15.6	737013	Sunset Canal	Sunset Canal Bridge	2010	Partial
<u>26</u>	<u>2</u>	<u>Trinity – 299 – PM 68.0</u>	<u>720511</u>	<u>Little Grass Valley Creek</u>	<u>Little Grass Valley Creek Fish Passage</u>	<u>2015</u>	<u>Partial</u>
<u>27</u>	<u>2</u>	<u>Trinity – 299 – PM 68.2</u>	<u>720511</u>	<u>Little Grass Valley Creek</u>	<u>Little Grass Valley Creek Fish Passage</u>	<u>2015</u>	<u>Partial</u>

Map #	District	County-Route- Post mile	PAD ID #	Stream Name	Project Name	Year Completed	Treatment Status
28	4	Napa - 121 – PM 1	733333	Huichica Creek	Duhig Road Project	2010	Full
29	5	Santa Barbara - 101 – PM 33.9	707398	El Capitan Creek	El Capitan Creek	2007	Partial
30	5	Santa Barbara – 101 – PM 38.3	707403	Tajiguas Creek	Tajiguas Creek	2014	Partial
31	5	Santa Barbara - 101 – PM 41.0	707405	Arroyo Hondo Creek	Arroyo Hondo	2008	Partial
32	5	Santa Barbara - 101 – PM 47.2	706669	Gaviota Creek	Gaviota Creek	2008	Partial
33	5	Santa Cruz - 1 – PM 10.0	706703	Valencia Creek	Tributary to Aptos Creek (culvert 1)	2007	Partial
34	5	Santa Cruz – 1 – PM 10.0	706704	Valencia Creek	Tributary to Aptos Creek (culvert 2)	2007	Partial
35	5	Santa Cruz - 1 – PM 17.4	735367	Branciforte Creek	Hwy 1 Remediation	2007	Partial
36	5	Santa Cruz - 1 – PM 17.42	735366	Carbonera Creek	Hwy 1 Remediation	2008	Partial
37	7	Ventura - 150 – PM 28.7	723744	Santa Paula Creek	Santa Paula Creek	2012	Full

Figure 5 – Fish Passage Locations Completed

