



**Wildlife Conservation Board**  
**May 26, 2022, 10:00 am Board Meeting**  
**First Floor Auditorium, CNRA Headquarters Building**

Pickel Meadow





## Item 2. Discussion and Selection of new Board Chair

Reading Island





### **Item 3. Public Forum**

Lake Earl





## Item 4. Funding Status

Grizzly Island Wildlife Area



# Funding Status cont.

- The following table presents proposed and revised state fund expenditure amounts for the budget year by General Fund, special funds, and selected bond funds.

Expenditures	Current Year 2021-22	January Proposed*	May Revision*	Change*	% Change
General Fund	\$247,750	\$430,941	\$593,248	\$162,307	37.66%
Special Fund	\$2,040	\$2,610	\$2,303	\$-307	-11.76%
Selected Bond Funds	\$84,244	\$4,769	\$10,491	\$5,722	119.98%
<b>Totals, State Funds</b>	<b>\$334,034</b>	<b>\$438,320</b>	<b>\$606,042</b>	<b>\$167,722</b>	<b>38.26%</b>

- The following table presents proposed and revised budget year positions for WCB.

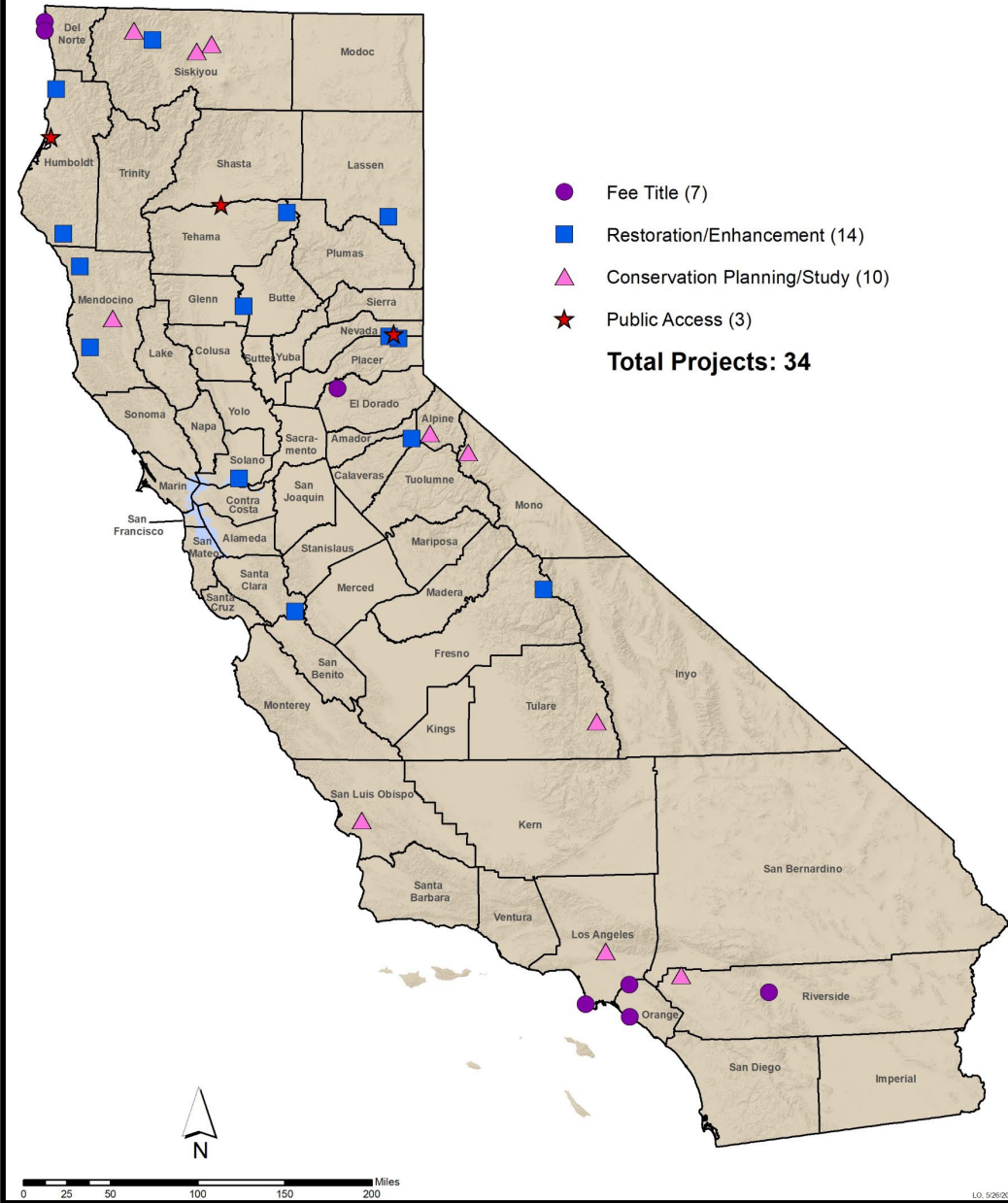
Positions	January Proposed*	May Revision*	Change*	% Change
<b>Totals, Positions</b>	<b>37.0</b>	<b>44.0</b>	<b>7.0</b>	<b>18.92%</b>





# Wildlife Conservation Board Proposed Projects

May 26, 2022



# Wildlife Conservation Board Meeting May 26, 2022 Project Map





## Consent Items 5-28

Studies Following Klamath Dam Removal

## Item 5. Recovery of Funds

Fund Name	Amount
Habitat Conservation Fund	\$105,567.78
Greenhouse Gas Reduction Fund	\$0.00
California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Fund	\$0.00
Water Security, Clean Drinking Water, Coastal and Beach Protection Fund of 2002	\$3,216,084.37
Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Fund of 2006	\$107,130.10
Water Quality, Supply, and Infrastructure Improvement Fund of 2014	\$10,532.23
The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018	\$3,469.00
<b>Total Recoveries for All Funds</b>	<b>\$3,442,783.48</b>



**Consent Items 5-28, excluding 18  
Motion**





## Proposed Calendar Items 29-43

Donner Lake Lagoon



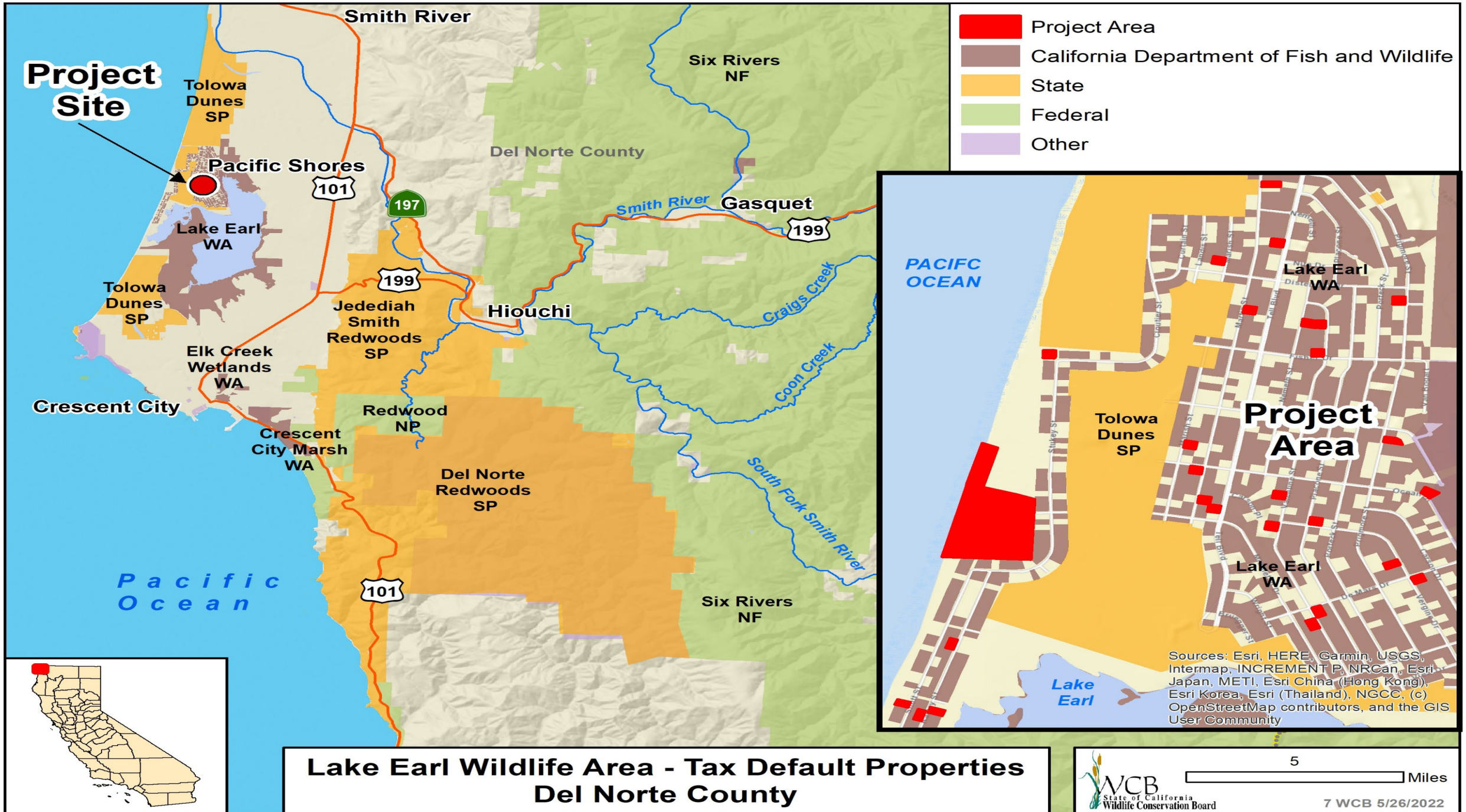


# 6. Fund Shift for Previously Approved Projects

Slide 1

Topography of Quail Ridge Reserve – 18 miles of dirt roads traverse the peninsula.

**Mattley Meadow**



- Project Area
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Lake Earl Wildlife Area - Tax Default Properties  
Del Norte County**

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



Lake Earl Feasibility Study  
Project of Smith River Alliance

Phase III Program



# 7. Lake Earl Wildlife Area - Tax Default Properties

Slide 1



## 7. Lake Earl Wildlife Area - Tax Default Properties

Slide 2

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Snowy Plover at Lake Earl Wildlife Area  
Photo by Deborah Jaques





## 7. Lake Earl Wildlife Area - Tax Default Properties

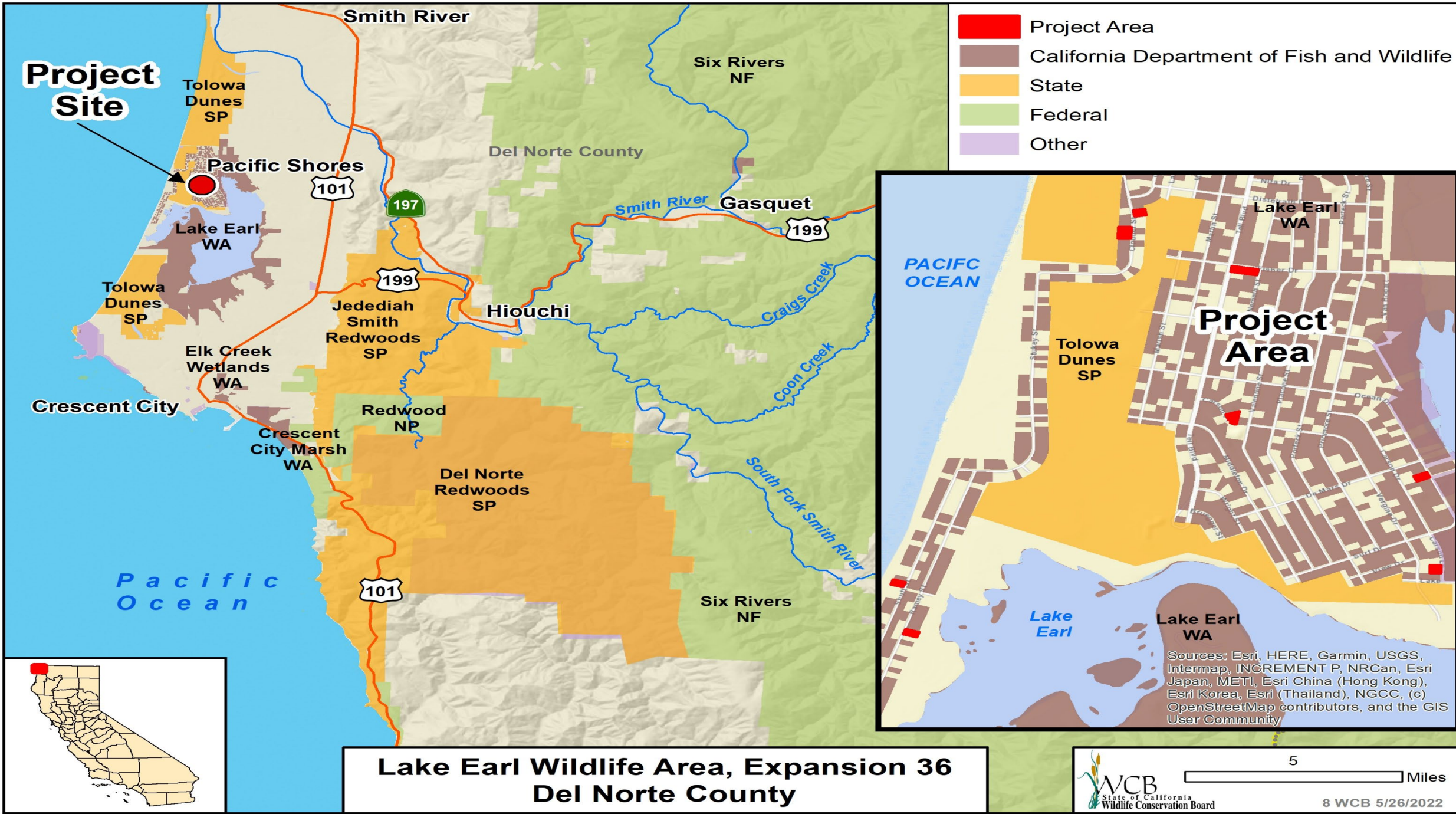
Slide 3

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View of Lake Earl Wildlife Area

Photo by Deborah Jaques





- Project Area
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Project Site**

**Project Area**



**Lake Earl Wildlife Area, Expansion 36  
Del Norte County**

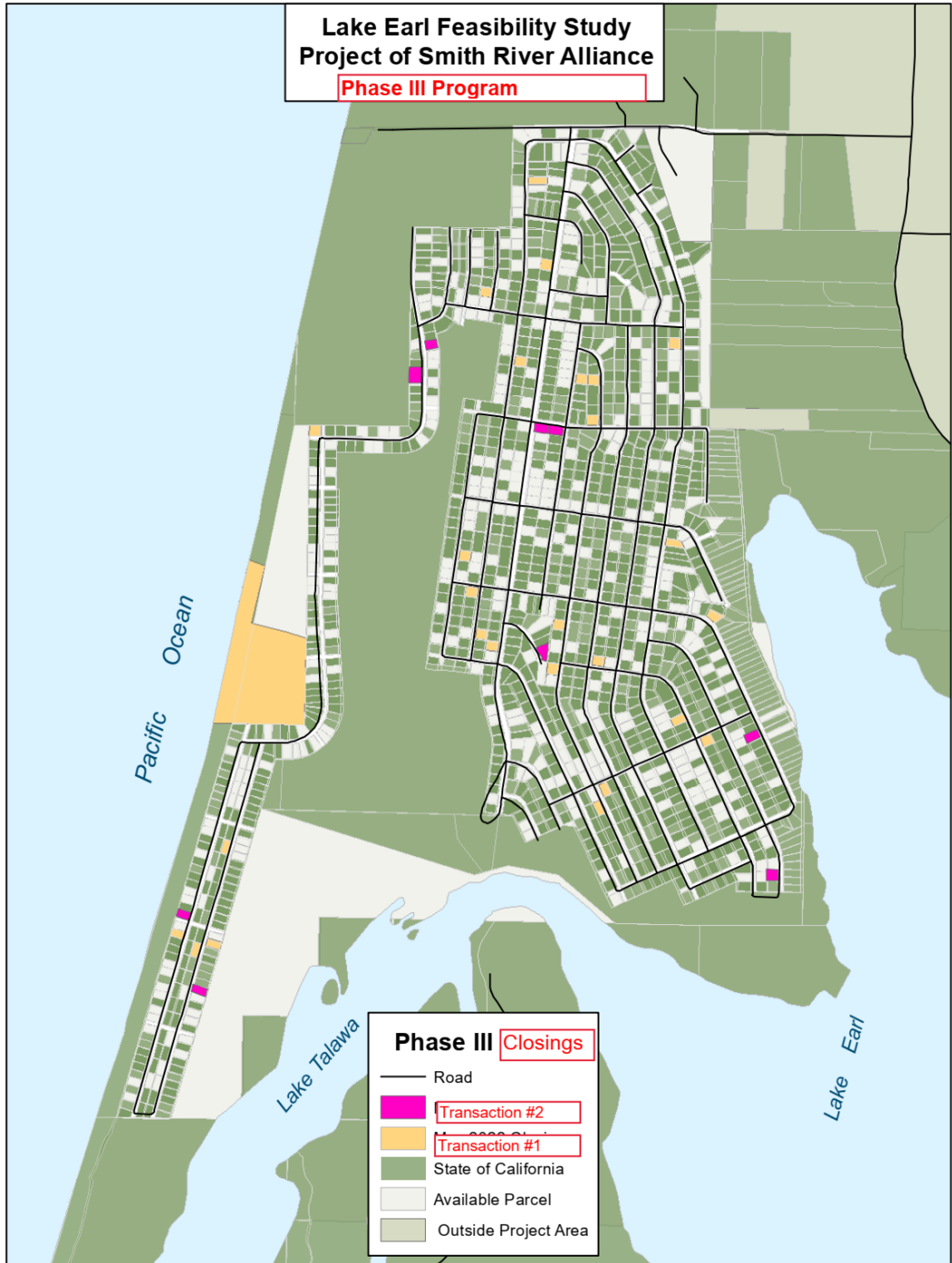


5 Miles

Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community



Lake Earl Feasibility Study  
Project of Smith River Alliance  
**Phase III Program**



## 8. Lake Earl Wildlife Area, Expansion 36

Slide 1



8. Lake Earl Wildlife Area,  
Expansion 36

Slide 2

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Virginia rail bird at Lake Earl Wildlife Area

Photo by Deborah Jaques





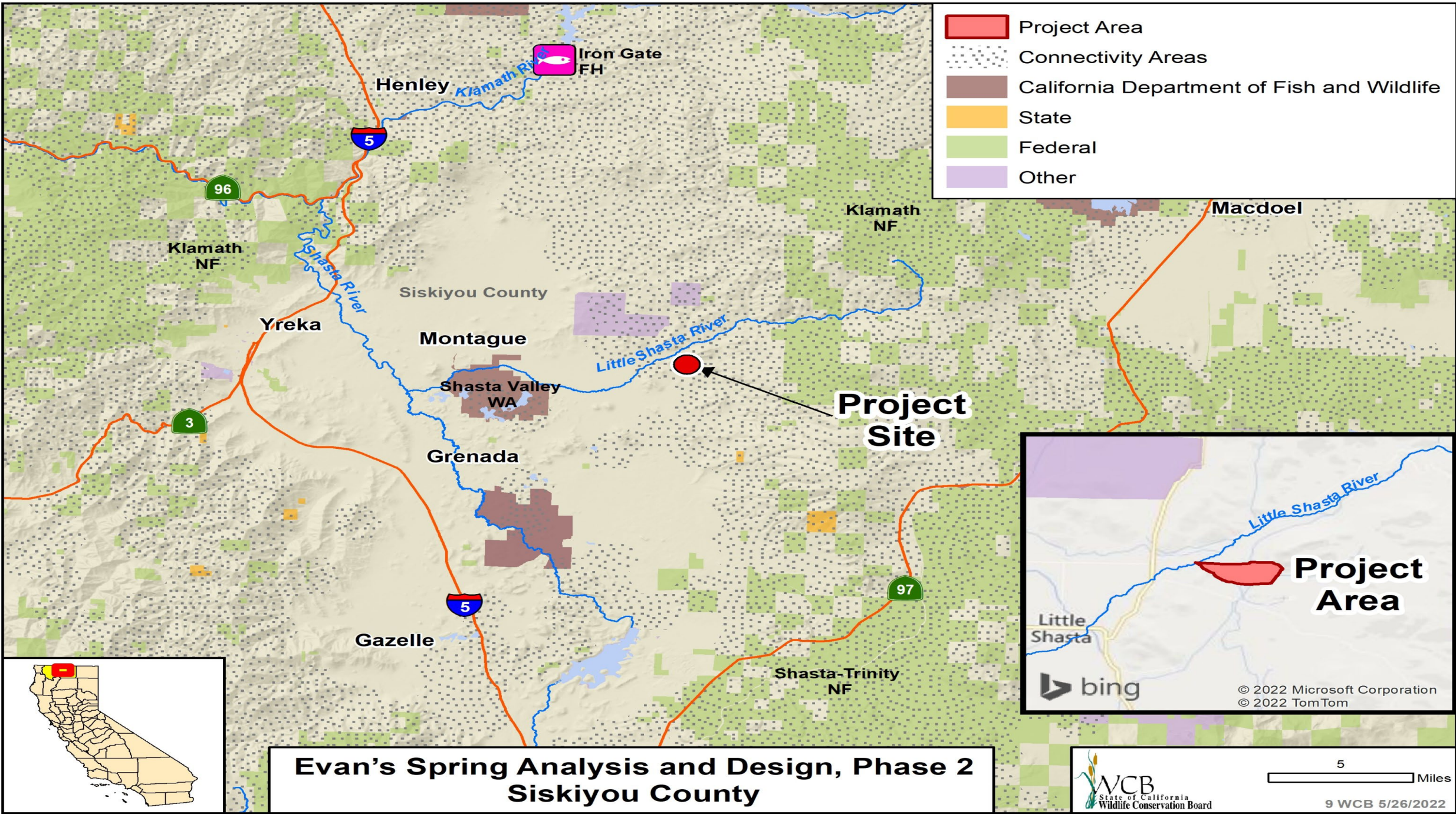


## 8. Lake Earl Wildlife Area, Expansion 36

Slide 3

Pelicans on Lake Earl  
Photo by Deborah Jaques





**Evan's Spring Analysis and Design, Phase 2  
Siskiyou County**



5 Miles





# 9. Evan's Spring Analysis and Design, Phase 2

Slide 1

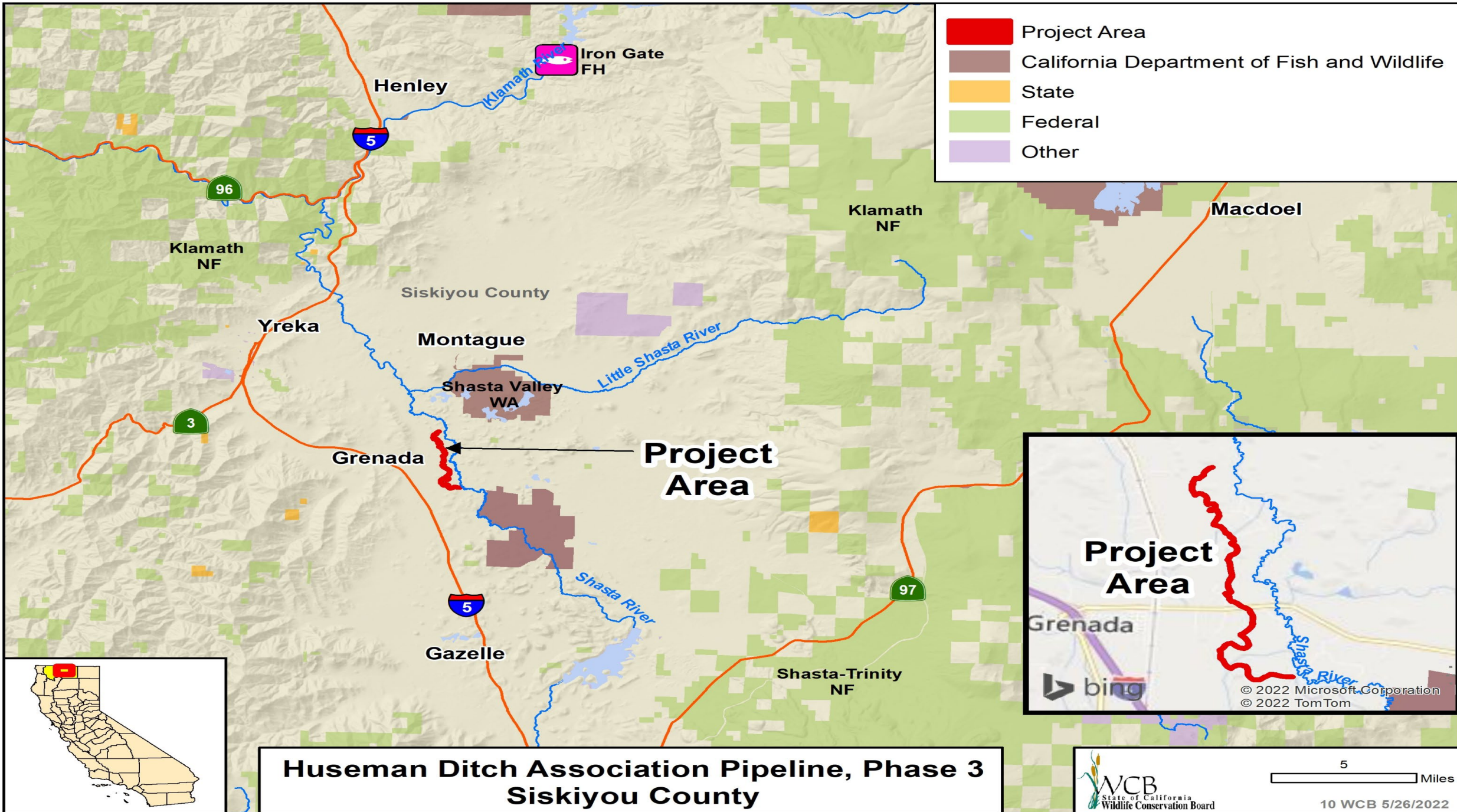
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Photo taken of the diversion (POD  
467) below Evan's Spring.

Photo by Dan Malmon







- Project Area
- California Department of Fish and Wildlife
- State
- Federal
- Other


**Huseman Ditch Association Pipeline, Phase 3  
Siskiyou County**



5 Miles







# 10. Huseman Ditch Association Pipeline, Phase 3


Slide 1

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Huseman Ditch looking south towards  
Mt. Shasta and the upper Shasta River  
area.







# 10. Huseman Ditch Association Pipeline, Phase 3

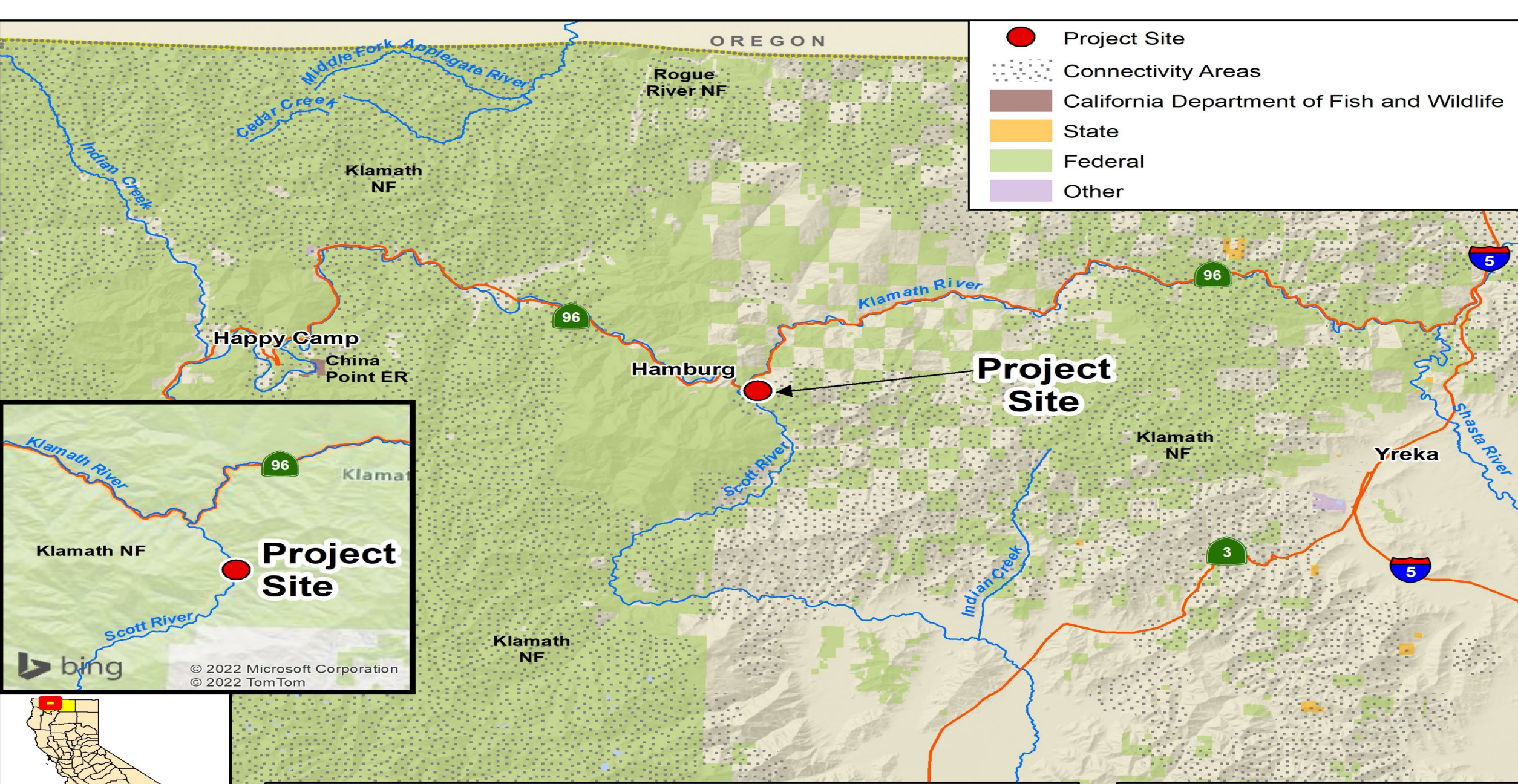
Slide 2

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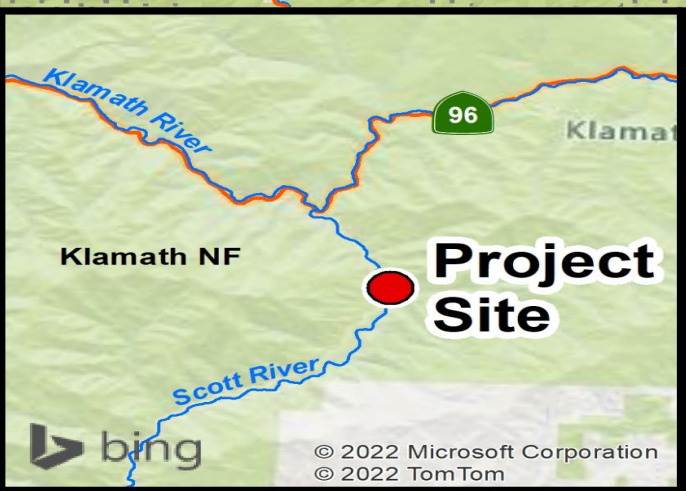
Huseman Ditch looking north to Rice Livestock dormant irrigated pastures. This ditch conveys 11.9 cfs to three ranches north of County Road A-12.







- Project Site
- Connectivity Areas
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Scott Bar Mill Creek Fish Passage Improvement  
Siskiyou County**

WCB  
State of California  
Wildlife Conservation Board

5 Miles

11 WCB 5/26/2022



# 11. Scott Bar Mille Creek Fish Passage Improvement

Slide 1



Quartz Hill Mine at Scott Bar, ca.1908



# 11. Scott Bar Mille Creek Fish Passage Improvement

Slide 2



Mill Creek Ford Crossing



# 11. Scott Bar Mille Creek Fish Passage Improvement

Slide 3



Fish Passage Barrier



# 11. Scott Bar Mille Creek Fish Passage Improvement

Slide 4



Fish Passage Barrier



# 11. Scott Bar Mille Creek Fish Passage Improvement

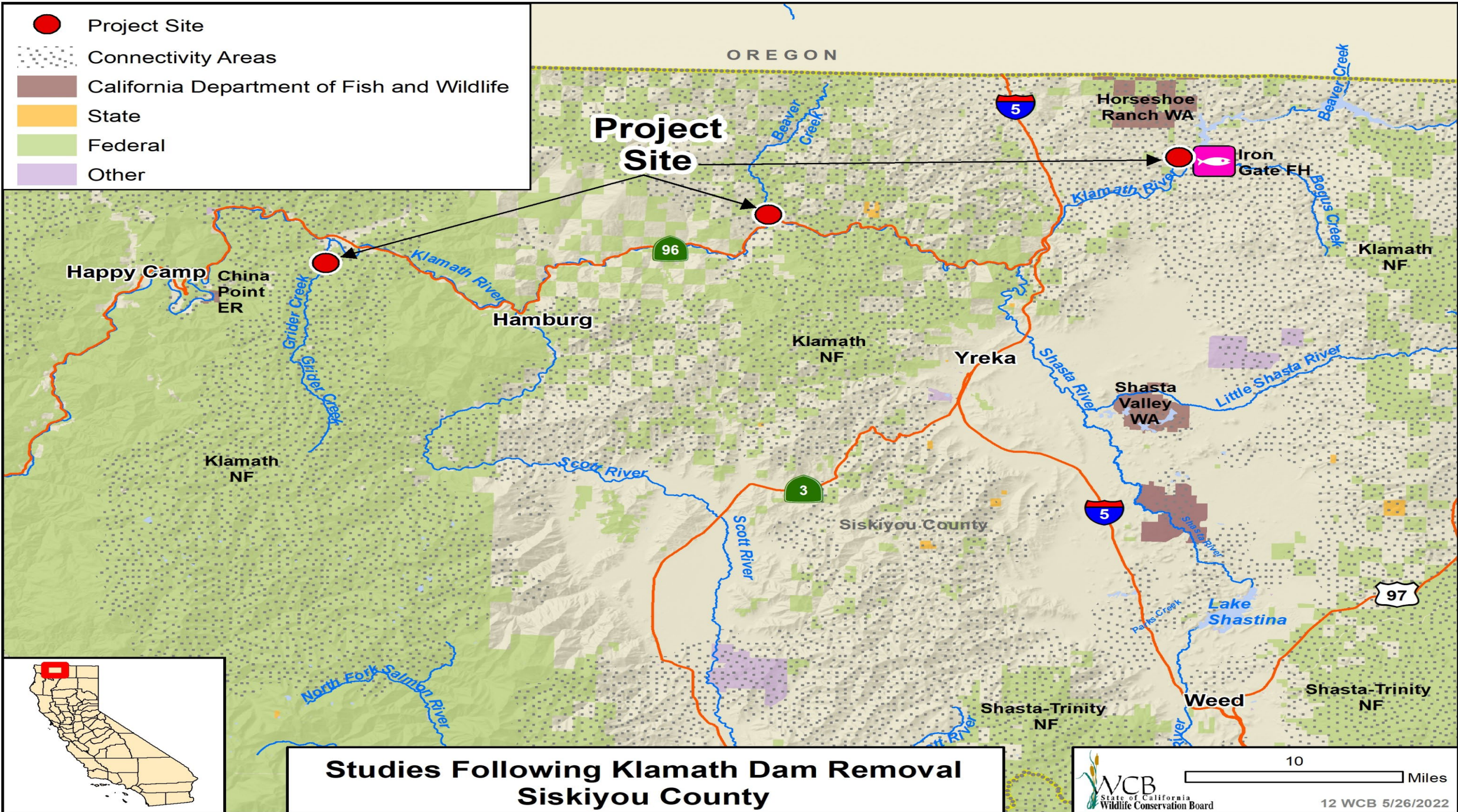
Slide 5



Upstream End of Ford Crossing



-  Project Site
-  Connectivity Areas
-  California Department of Fish and Wildlife
-  State
-  Federal
-  Other



**Studies Following Klamath Dam Removal  
Siskiyou County**





# 12. Studies Following Klamath Dam Removal

Slide 1

Beaver Creek immediately upstream of confluence with Klamath River  
(looking downstream).





## 12. Studies Following Klamath Dam Removal

Slide 2

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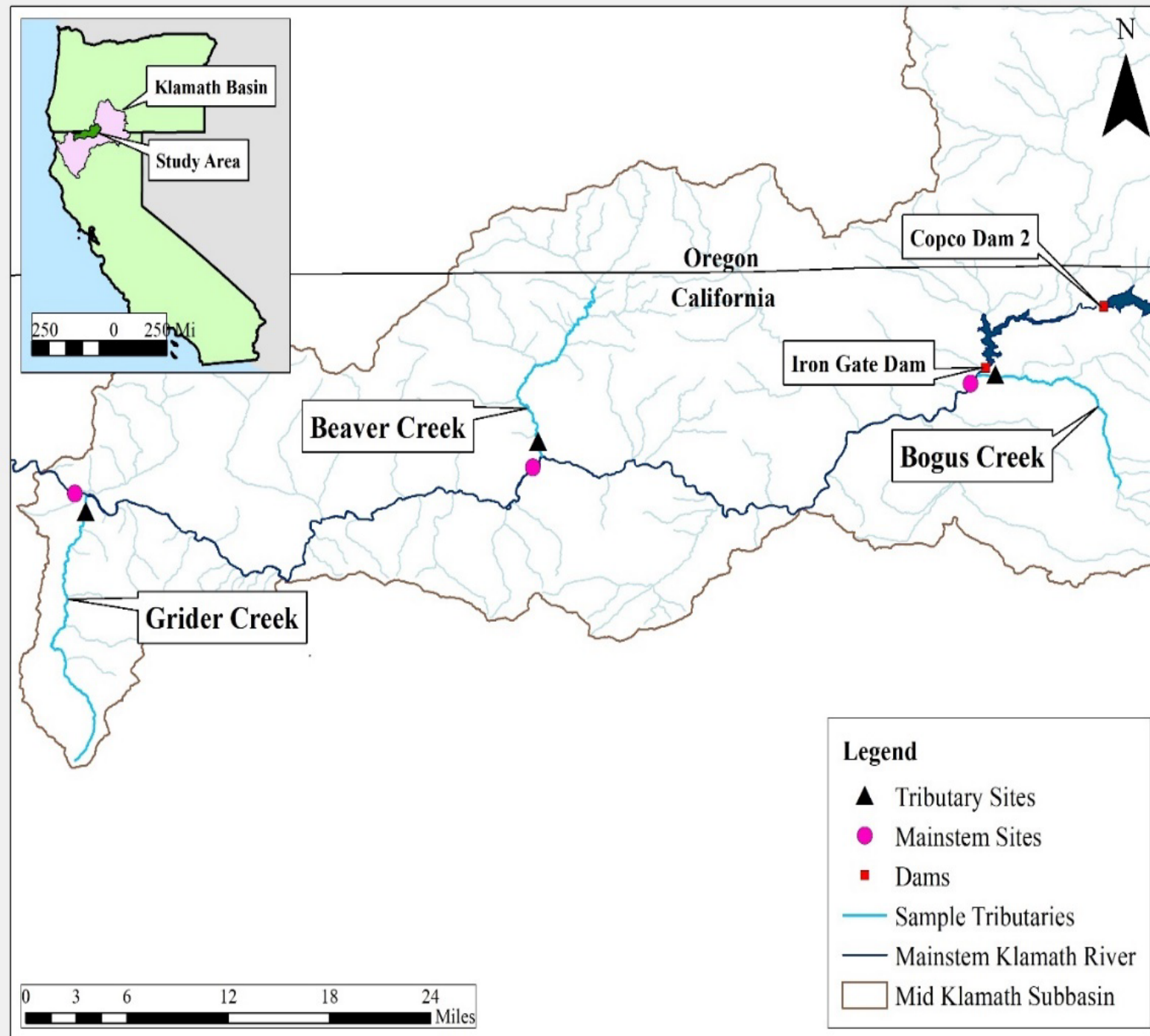
Klamath River sampling site downstream from  
Iron Gate Dam and upstream of confluence with  
Bogus Creek (looking downstream).



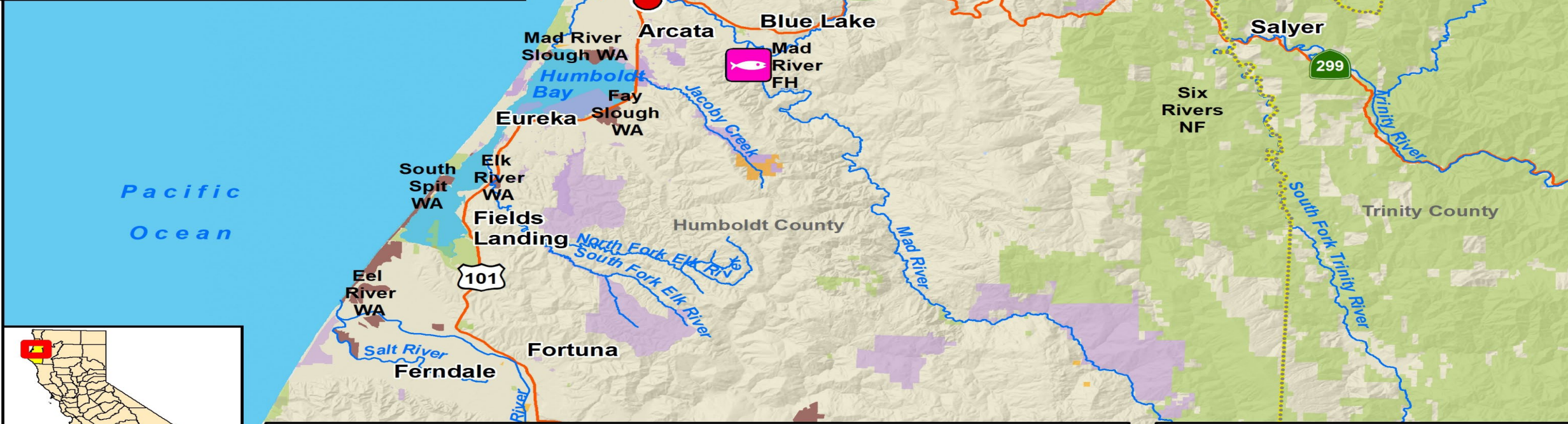
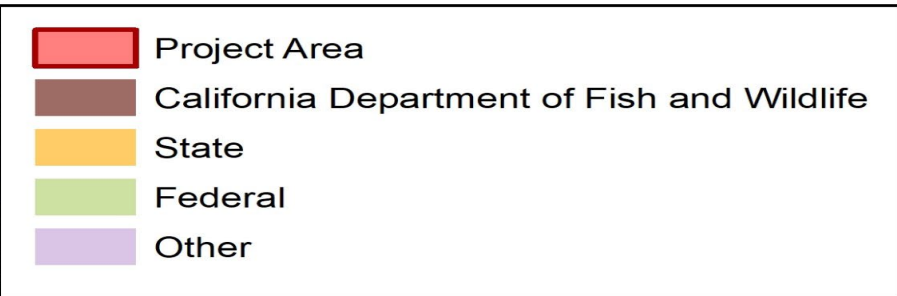
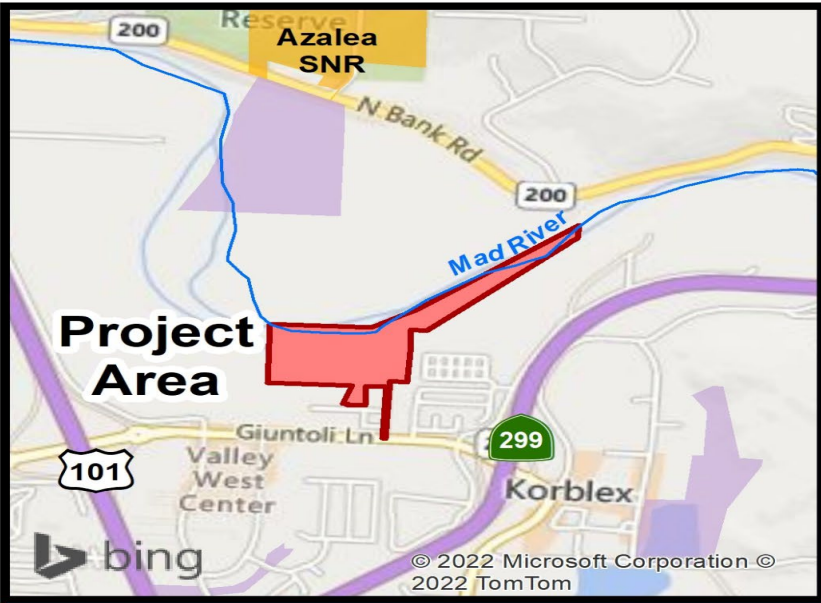
# 12. Studies Following Klamath Dam Removal

Slide 3

Map of study sites located on the mainstem Klamath River downstream of Iron Gate Dam (pink circles) and adjacent tributaries Grider Creek, Beaver Creek and Bogus Creek (black triangles). Credit: Katherine Stonecypher







**Carlson Park Improvement and Mad River Access  
Humboldt County**



# 13. Carlson Park Improvement and Mad River Access

Slide 1

Existing conditions near where the proposed accessible trail will be located.







## 13. Carlson Park Improvement and Mad River Access

Slide 2

- 3,800 feet of trail included a pathway for kayaks, canoes, and paddleboards
- ADA river lookout trail
- Observation deck
- Parking lot upgrades
- Bilingual interpretive signage
- Boat staging area
- ADA restroom
- Two access points to the river
- Invasive species removal (by hand and mechanical means only) and revegetation

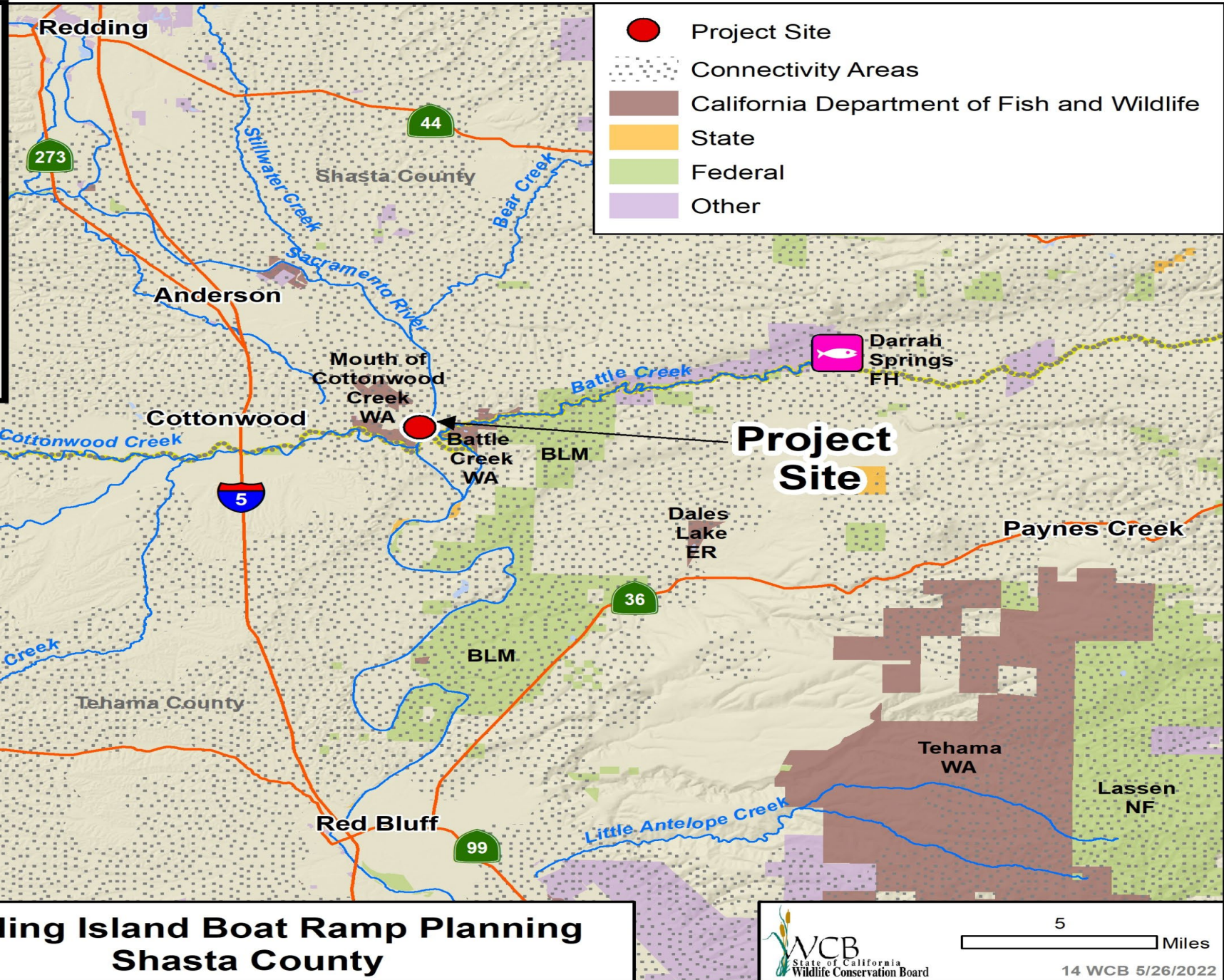




## 13. Carlson Park Improvement and Mad River Access

Slide 3





# Reading Island Boat Ramp Planning Shasta County



A gravel path leads from the foreground towards a boat ramp in the distance. The ramp is a concrete structure with two vertical posts. The area is surrounded by trees with green foliage and some large rocks on the left. The sky is blue with a few wispy clouds.

# 14. Reading Island Boat Ramp Planning

Slide 1

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View of boat ramp

Photo: Chico State Enterprises



A photograph of a dirt path leading to a concrete boat ramp structure. The path is surrounded by trees and brush. The ramp is a long, narrow concrete slab with a low wall on one side. The scene is outdoors, with a clear blue sky visible through the trees.

# 14. Reading Island Boat Ramp Planning

Slide 2

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View of ramp from Anderson Creek.

Photo: Chico State Enterprises



A scenic view of Anderson Creek. In the background, a bridge spans across the water, supported by a single pillar. The banks are lined with dense, green trees and shrubs. The water is calm, reflecting the surrounding greenery. The sky is clear and blue.

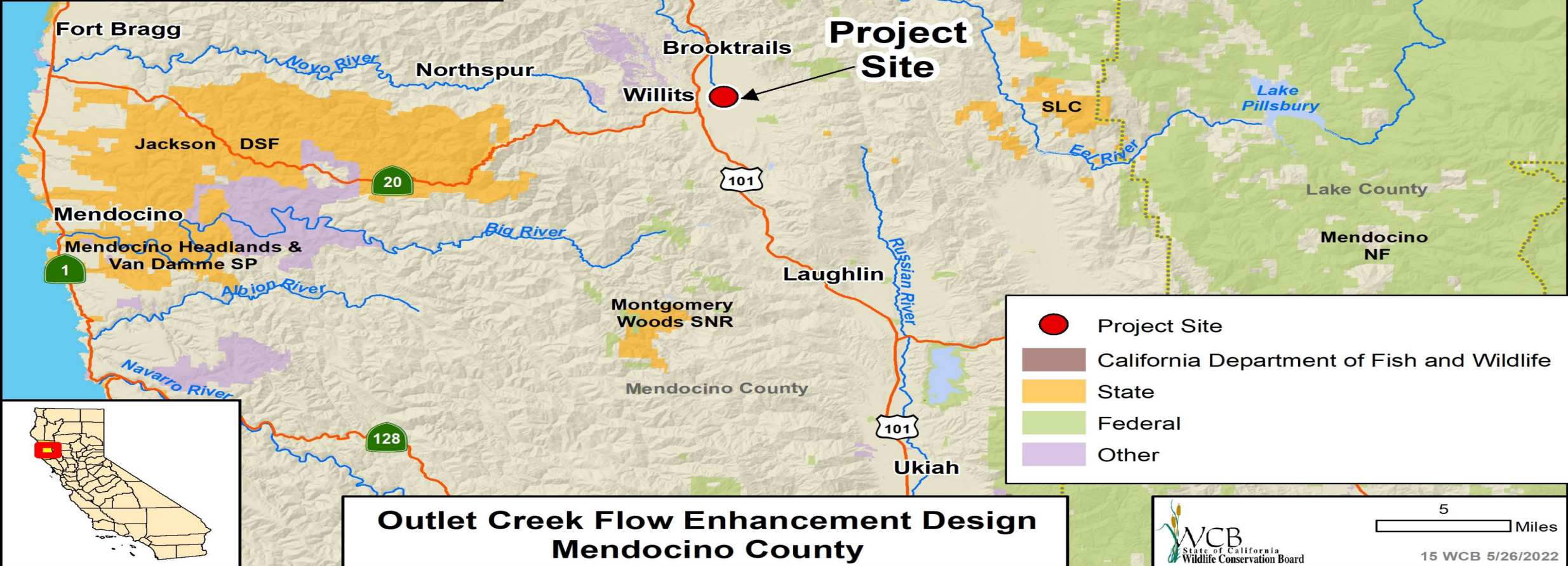
# 14. Reading Island Boat Ramp Planning

Slide 3

View upstream from boat ramp in Anderson Creek.

Photo: Chico State Enterprises






# Outlet Creek Flow Enhancement Design Mendocino County

- Project Site
- California Department of Fish and Wildlife
- State
- Federal
- Other



A landscape photograph showing a wide, grassy field in the foreground and middle ground. The grass is a mix of green and golden-brown, suggesting a late summer or autumn setting. In the background, there is a dense forest of tall, dark green evergreen trees. The sky is a pale, clear blue. The overall scene is a natural, undeveloped area.

# 15. Outlet Creek Flow Enhancement Design

Slide 1

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Upper Baechtel Creek floodplain enhancement site.

Photo Credit: Ben Cook





## 15. Outlet Creek Flow Enhancement Design

Slide 2

- Looking away from Outlet Creek at alluvial fan enhancement site.
- Photo Credit: Ben Cook



A narrow stream flows through a dense forest. The water is clear and reflects the surrounding greenery. The banks are covered in moss and various plants. The trees are tall and thin, with some showing signs of decay or being dead. The overall scene is a lush, natural environment.

## 15. Outlet Creek Flow Enhancement Design

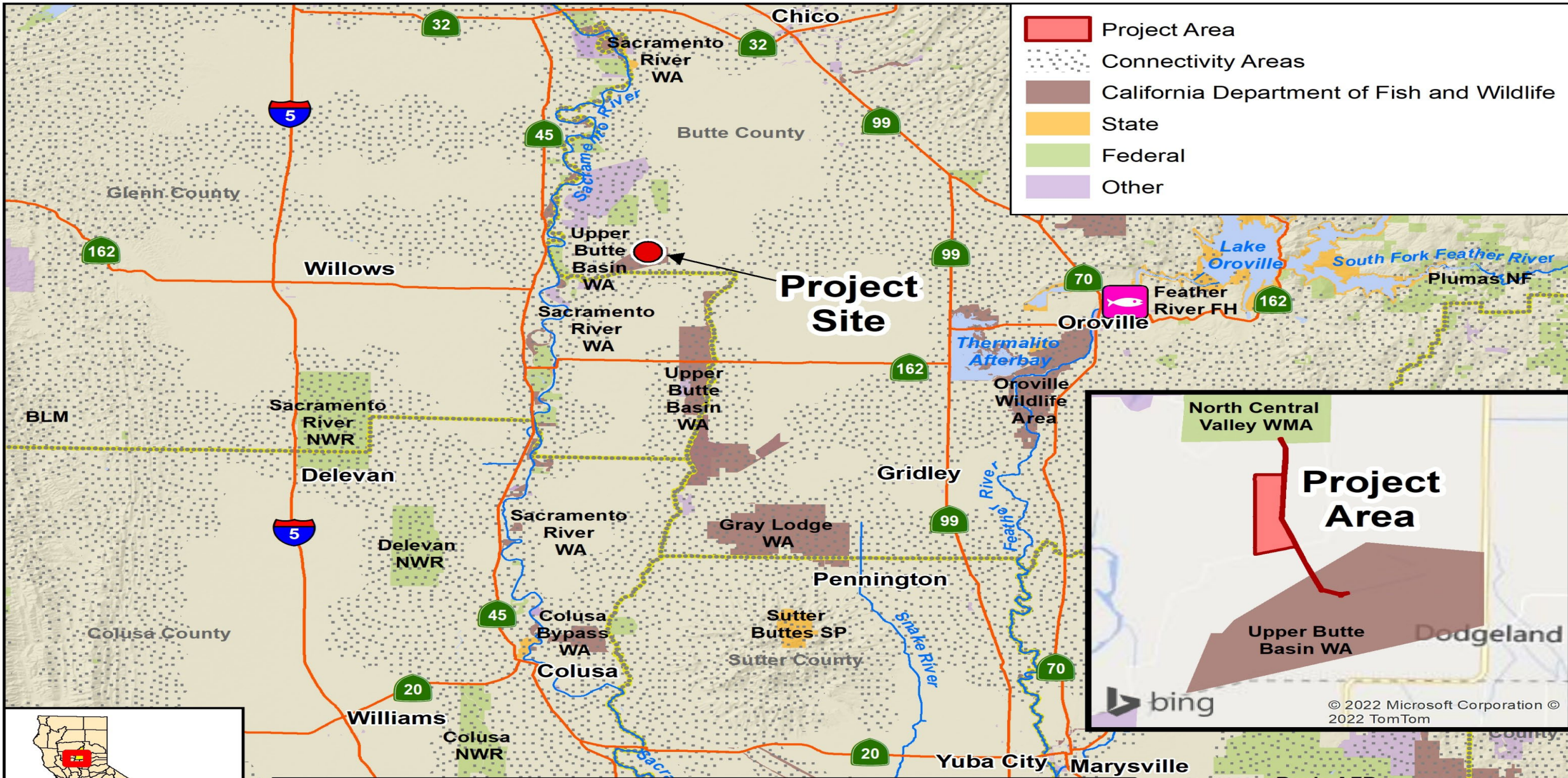
Slide 3

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Ryan Creek floodplain enhancement site.

Photo Credit: Ben Cook





**Upper Butte Basin Wildlife Area Liano Seco Unit  
Canal Improvement  
Butte County**



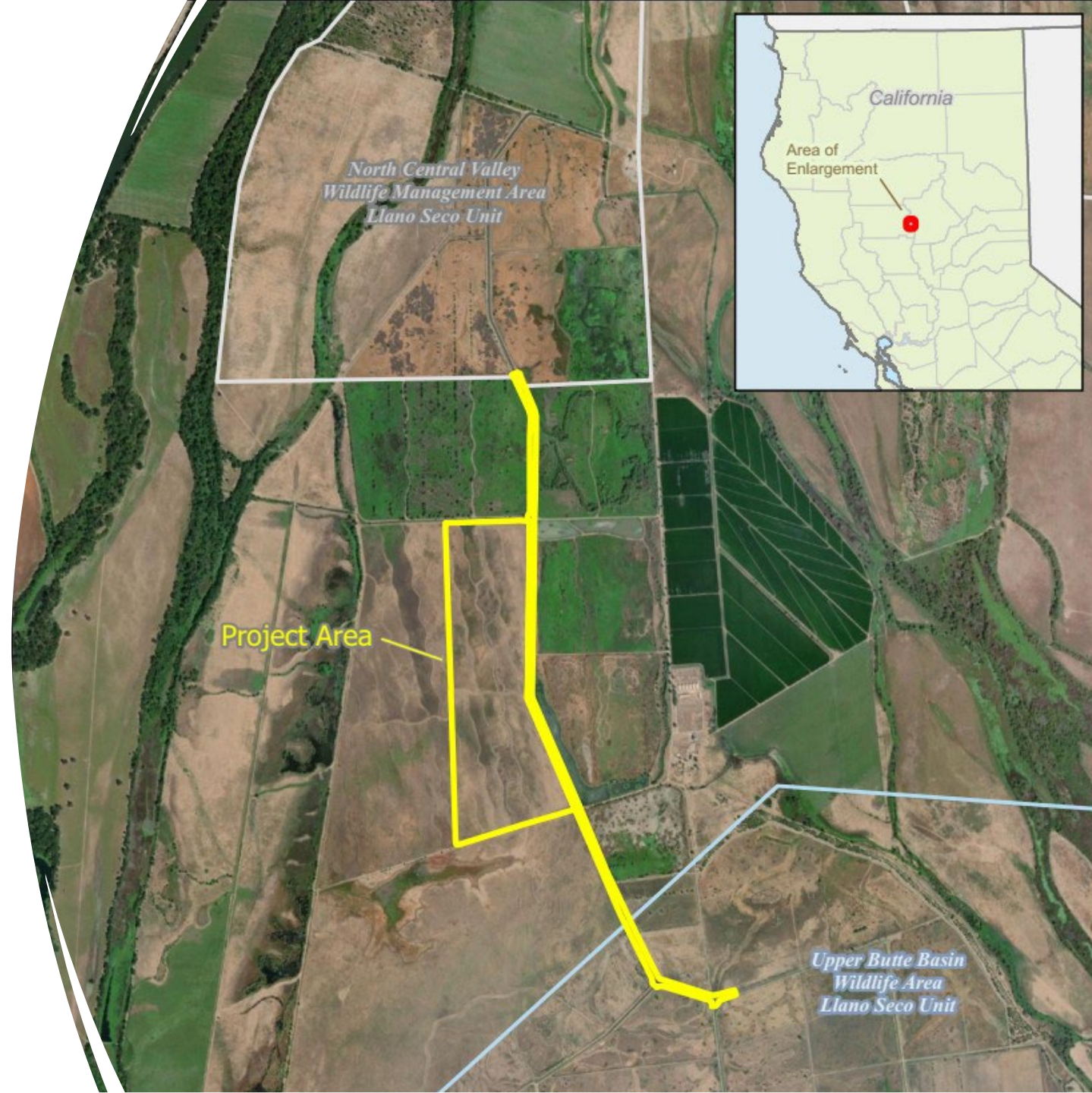
10 Miles



# 16. Upper Butte Basin Wildlife Area Llano Seco Unit Canal Improvement

Slide 1

Map of project area showing canal to be improved, and wetland unit to be recontoured.







16. Upper Butte Basin Wildlife  
Area Llano Seco Unit Canal  
Improvement  
Slide 2

Water delivery ditch to  
be regraded to  
increase water use  
efficiency.



# 16. Upper Butte Basin Wildlife Area Llano Seco Unit Canal Improvement

Slide 3

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Main water delivery canal will have banks raised to increase capacity to deliver water to the UBBWA – Llano Seco Unit.





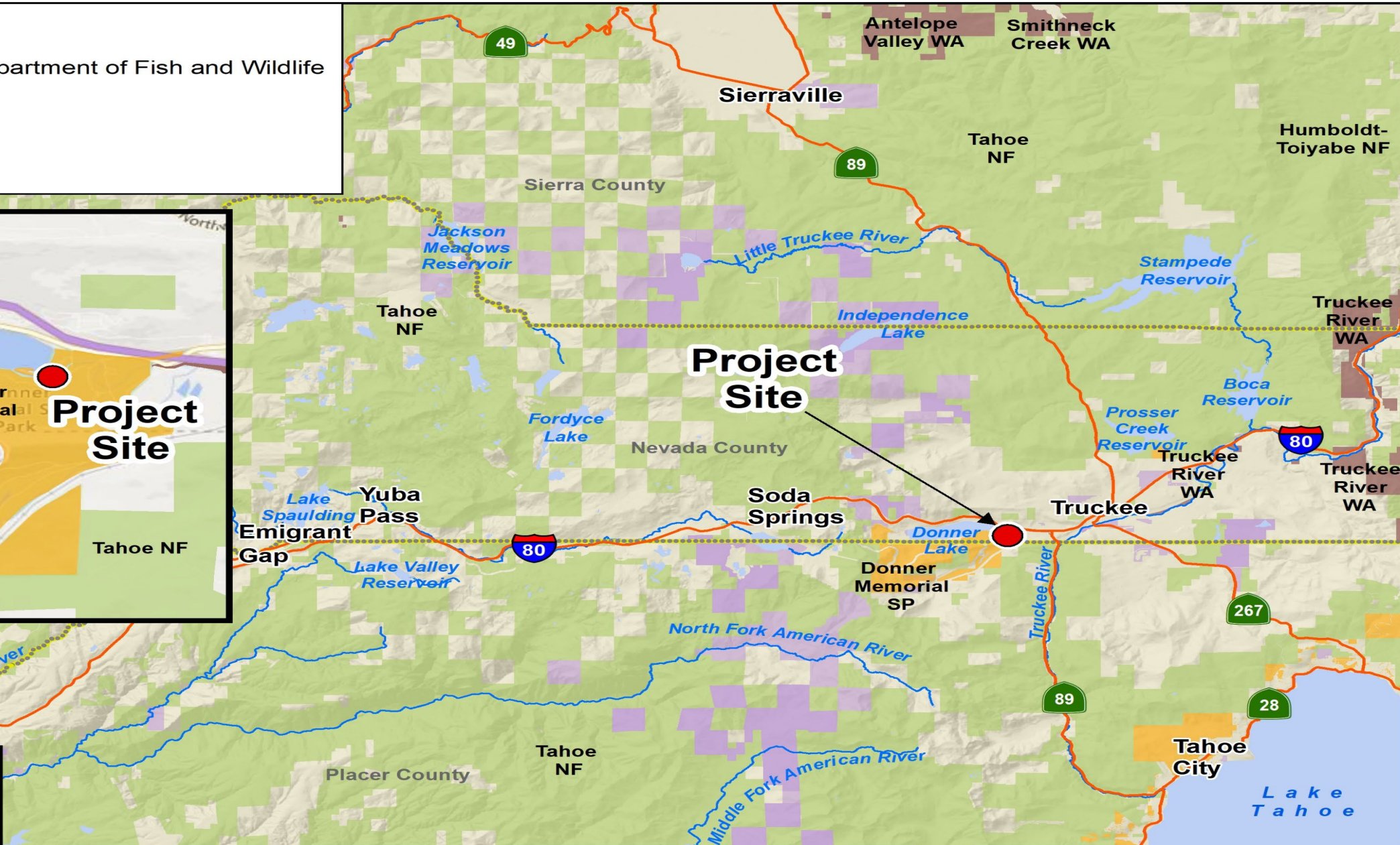
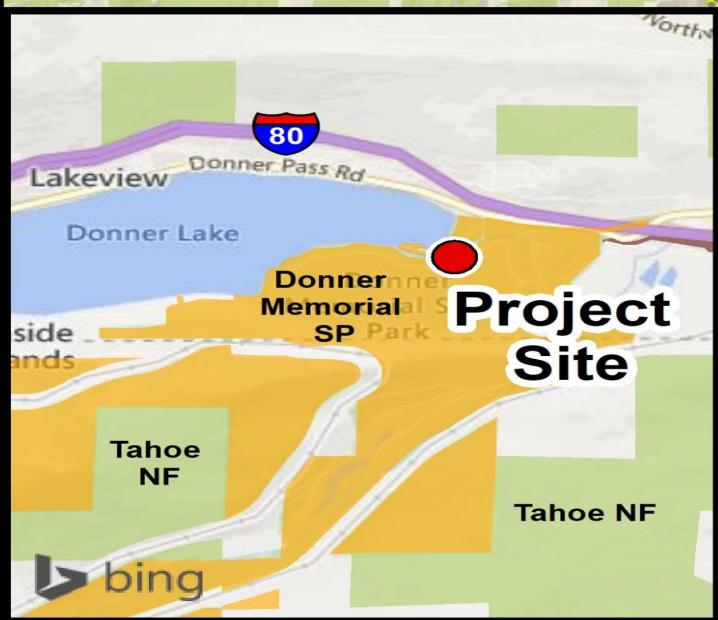
● Project Site

■ California Department of Fish and Wildlife

■ State

■ Federal

■ Other



# Donner Lake Lagoon Access Improvement Nevada County



5 Miles

17 WCB 5/26/2022





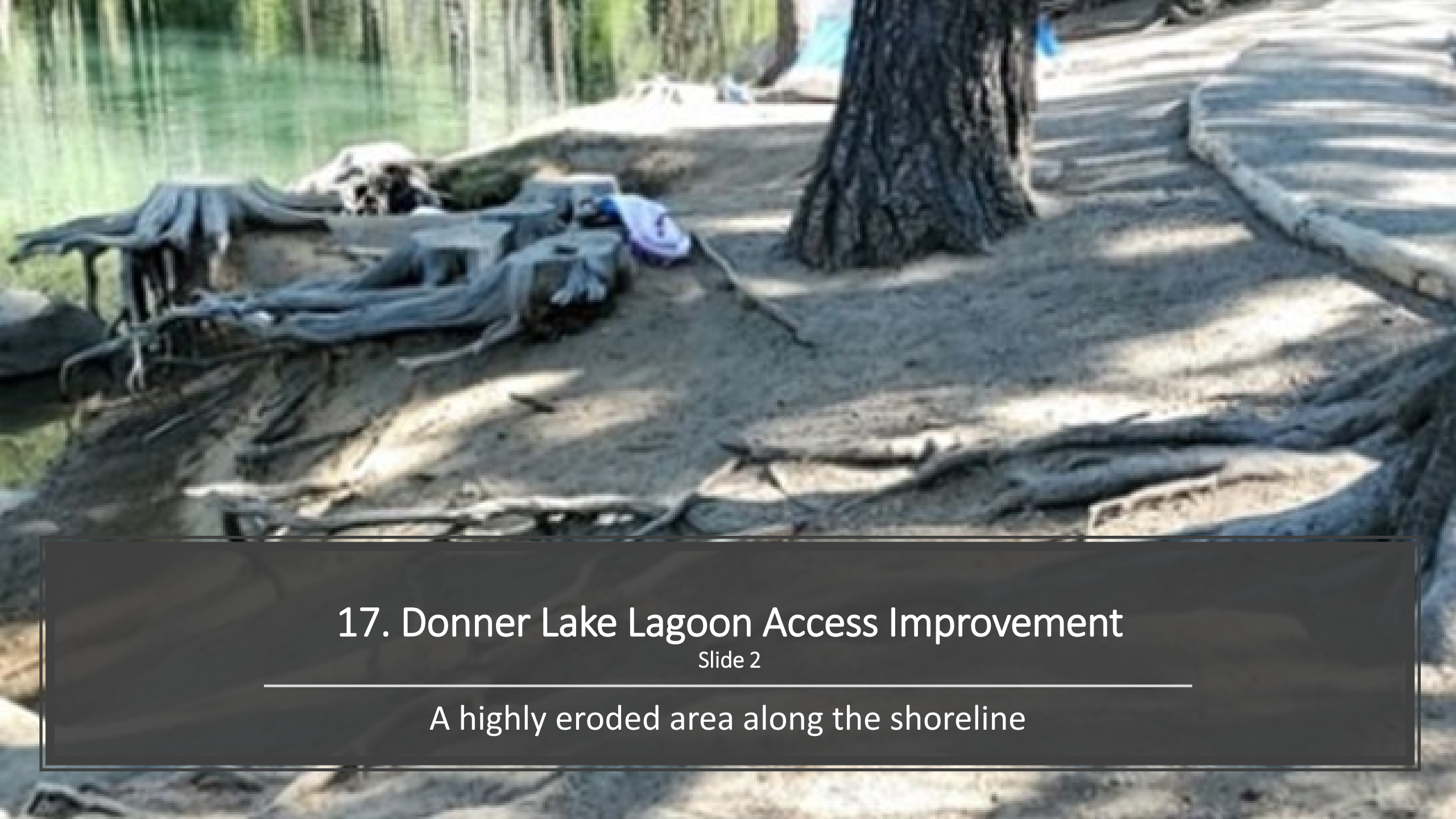
## 17. Donner Lake Lagoon Access Improvement

Slide 1

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Donner Lake Lagoon is a popular place for picnicking and kayaking.





## 17. Donner Lake Lagoon Access Improvement

Slide 2

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A highly eroded area along the shoreline





# 17. Donner Lake Lagoon Access Improvement

Slide 3

- Roadside loading area
- Designated staging area
- Water entry point for boats
- Protect eroding areas
- Stabilize streambanks
- Improve picnic areas
- Revegetation
- Outreach and monitoring
- Multilingual interpretive signs





## 17. Donner Lake Lagoon Access Improvement

Slide 4

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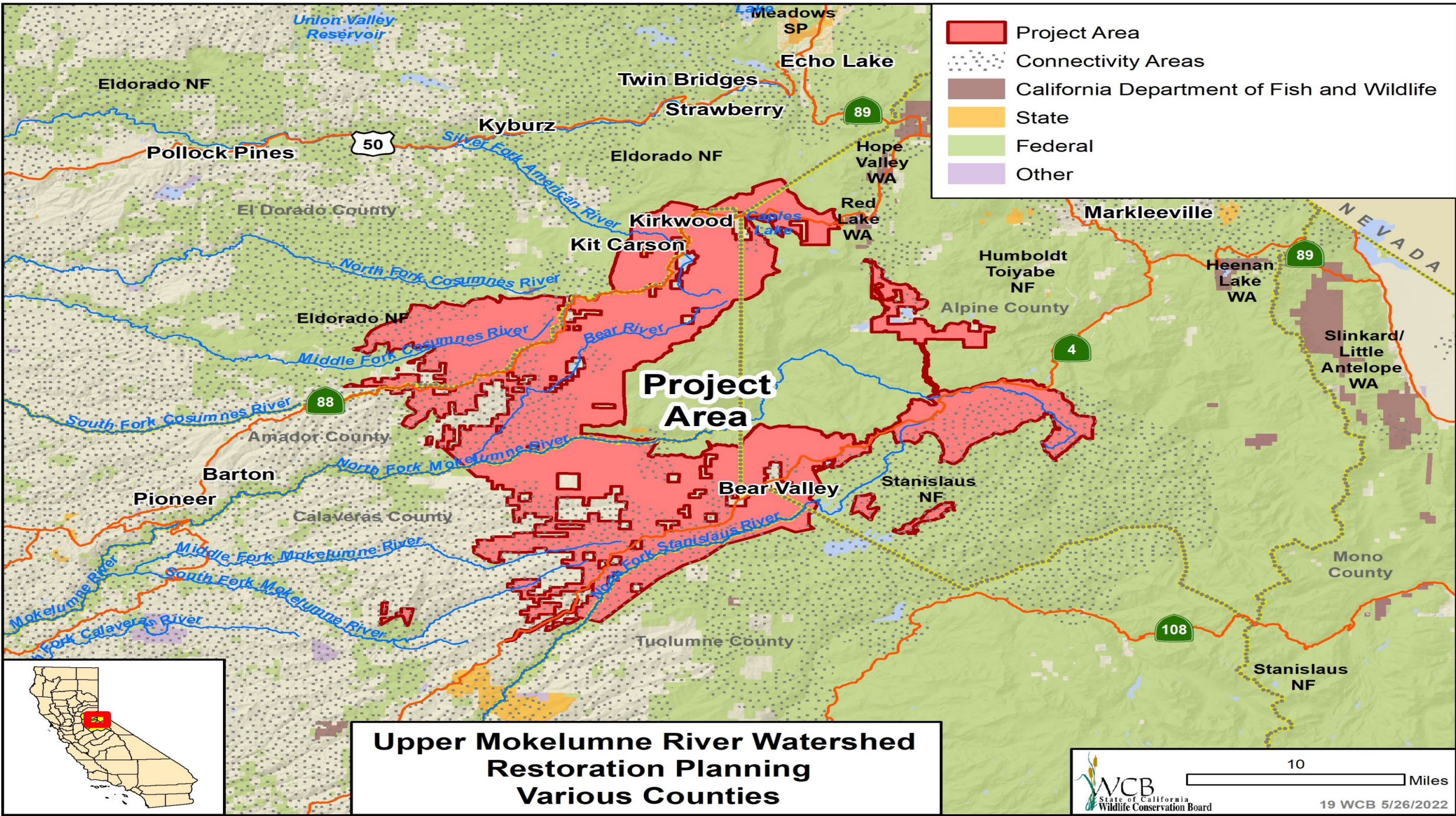
An eroded shoreline at Donner  
Lake Lagoon



# 18. Climate Smart Restoration at River Garden Farms

Withdrawn from consideration at this time









## 19. Upper Mokelumne River Watershed Restoration Planning Slide 1

Aspen monitoring stand on the Amador Ranger District showing only a single live aspen stem on far left, surrounded by young lodge pole pine and red fir.





## 19. Upper Mokelumne River Watershed Restoration Planning

Slide 2

Depicts Area in Amador  
Ranger District with  
encroaching conifers  
removed in 2019 and  
aspen regeneration in  
foreground 2020.





# 19. Upper Mokelumne River Watershed Restoration Planning

Slide 3

Example of exclusion fencing used to facilitate aspen re-generation



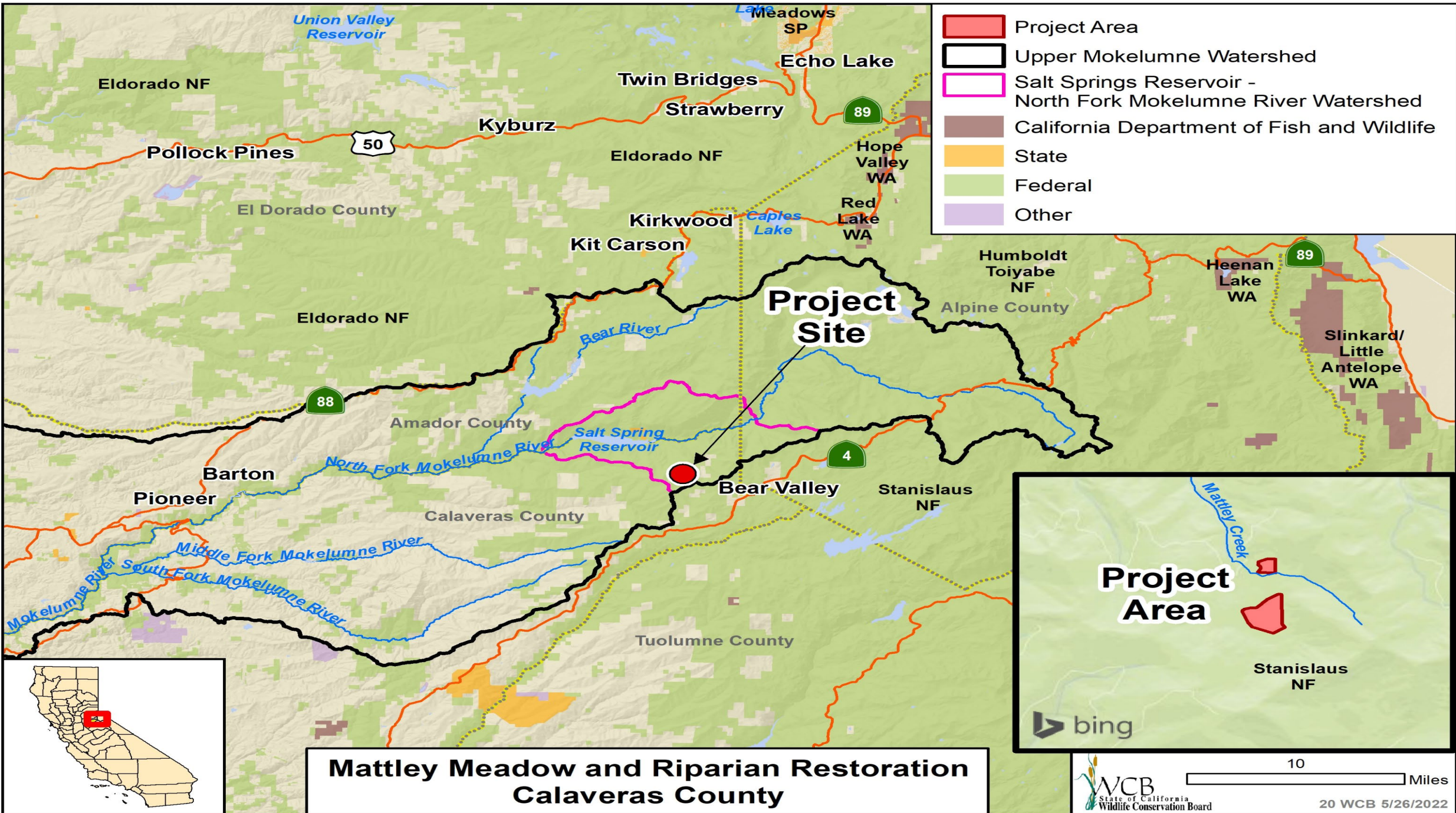
# 19. Upper Mokelumne River Watershed Restoration Planning

Slide 4

Example of deer browse  
damage.







**Mattley Meadow and Riparian Restoration  
Calaveras County**



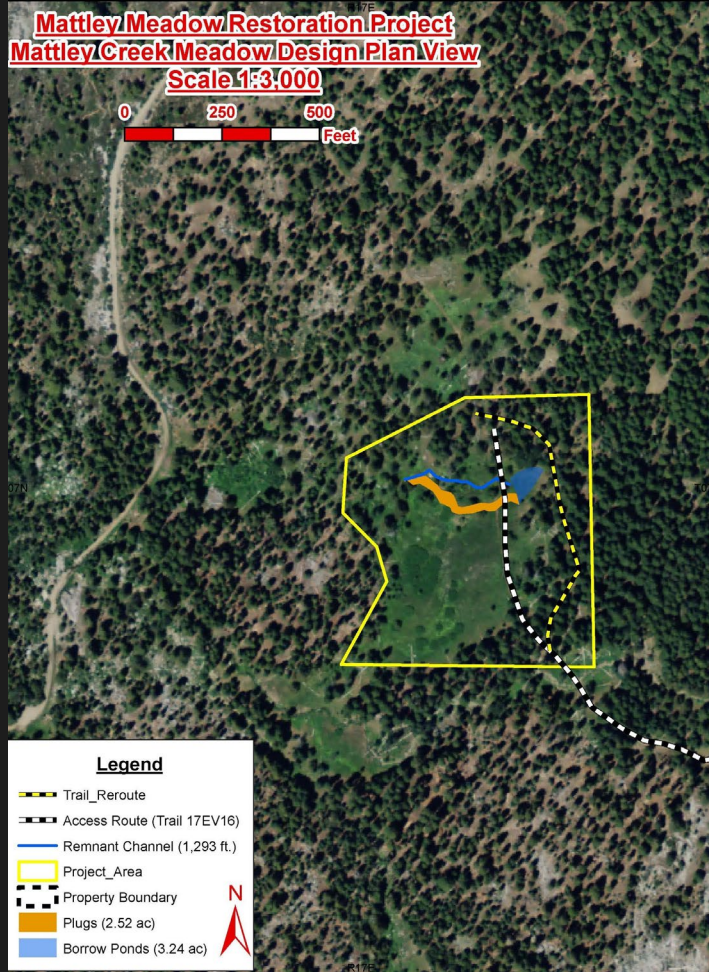


## 20. Mattley Meadow and Riparian Restoration

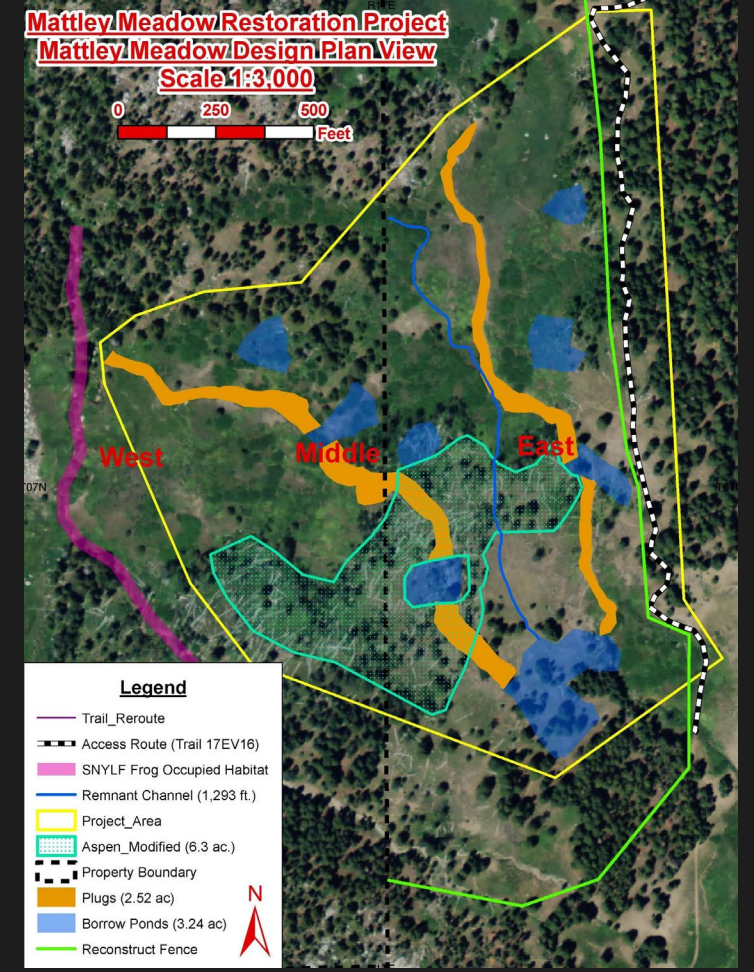
Slide 1

Current conditions of declining meadow and riparian habitat





OHV trail that cuts through Mattley Creek Meadow will be rerouted outside meadow

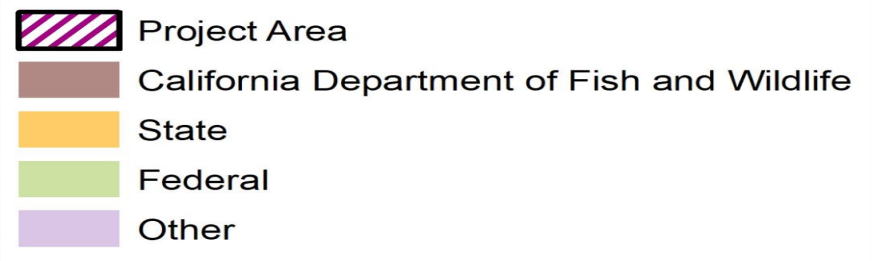
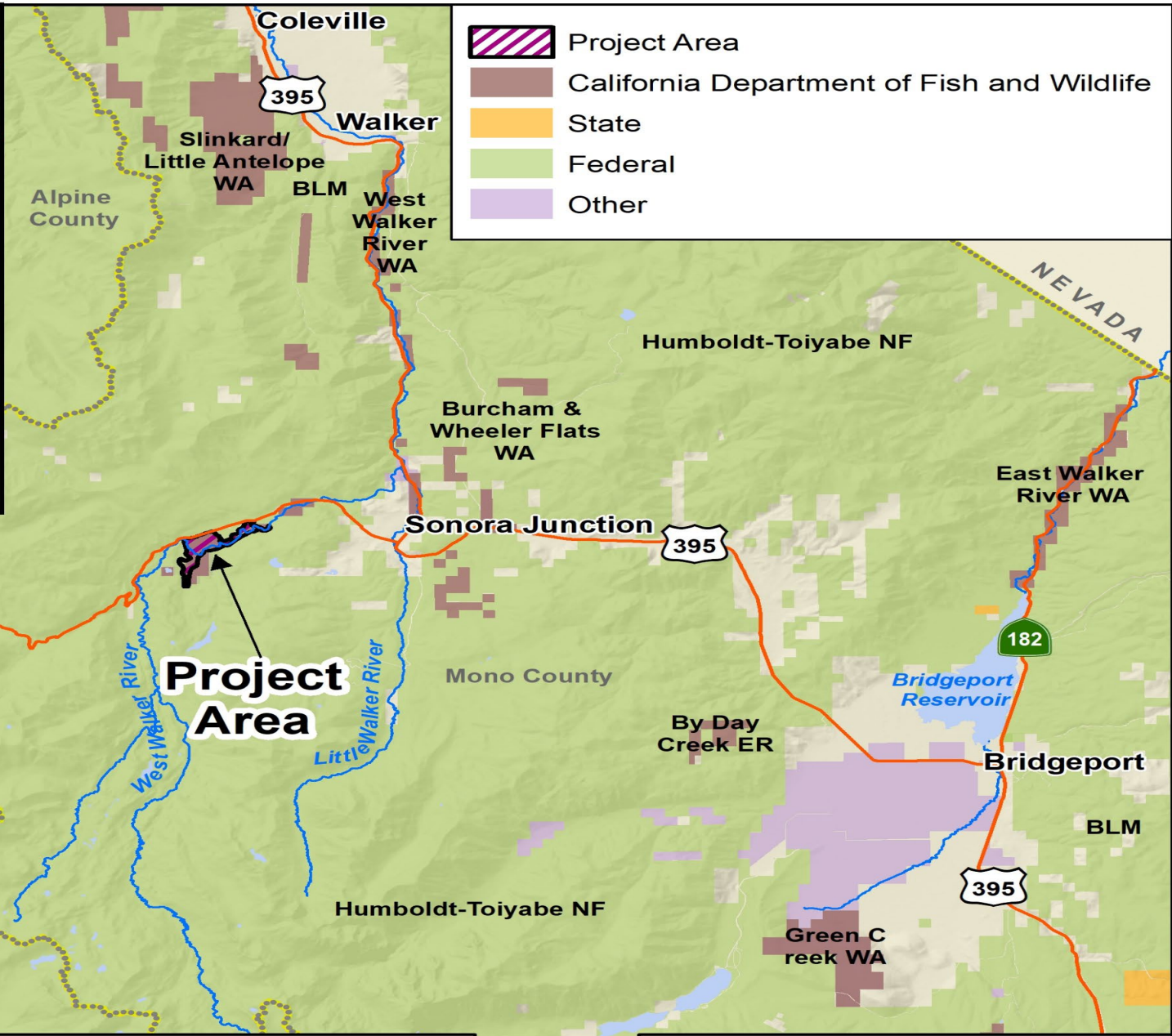
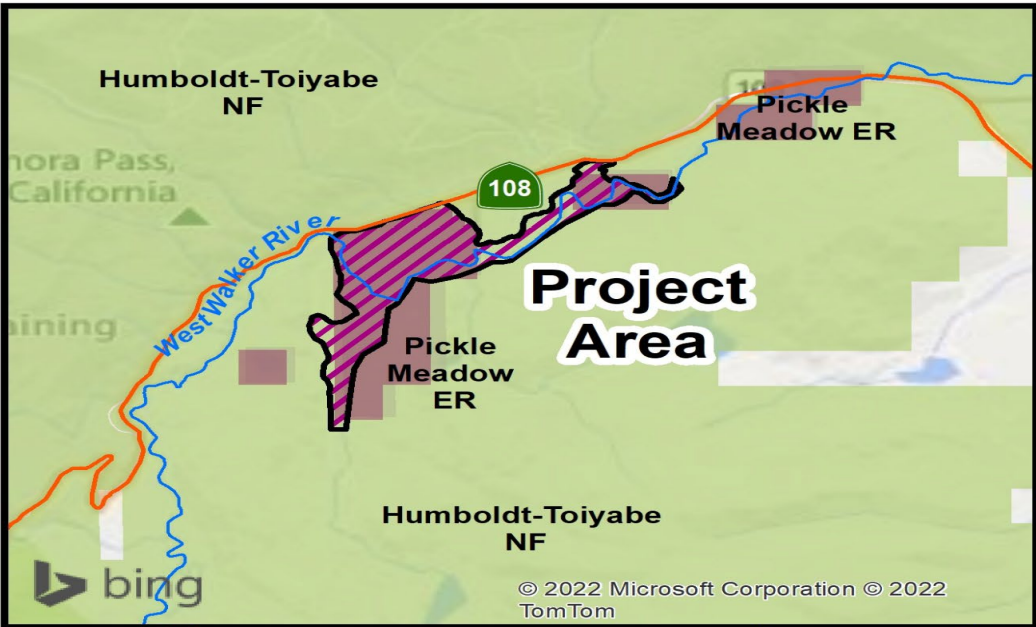


## 20. Mattley Meadow and Riparian Restoration

Slide 2

Restoration design that shows plug and pond method that will be used to correct site's hydrology and restore floodplain connectivity





**Pickel Meadow Restoration Planning  
Mono County**

WCB  
State of California  
Wildlife Conservation Board

5 Miles

21 WCB 5/26/2022



# 21. Pickel Meadow Restoration Planning

Slide 1

West Walker River and Pickel Meadow. Facing downstream at two locations. Incised and widened river channel with limited floodplain connectivity. Active headcuts on left bank in bottom photo. Limited riparian shrub cover limits habitat suitability for meadow dependent species.







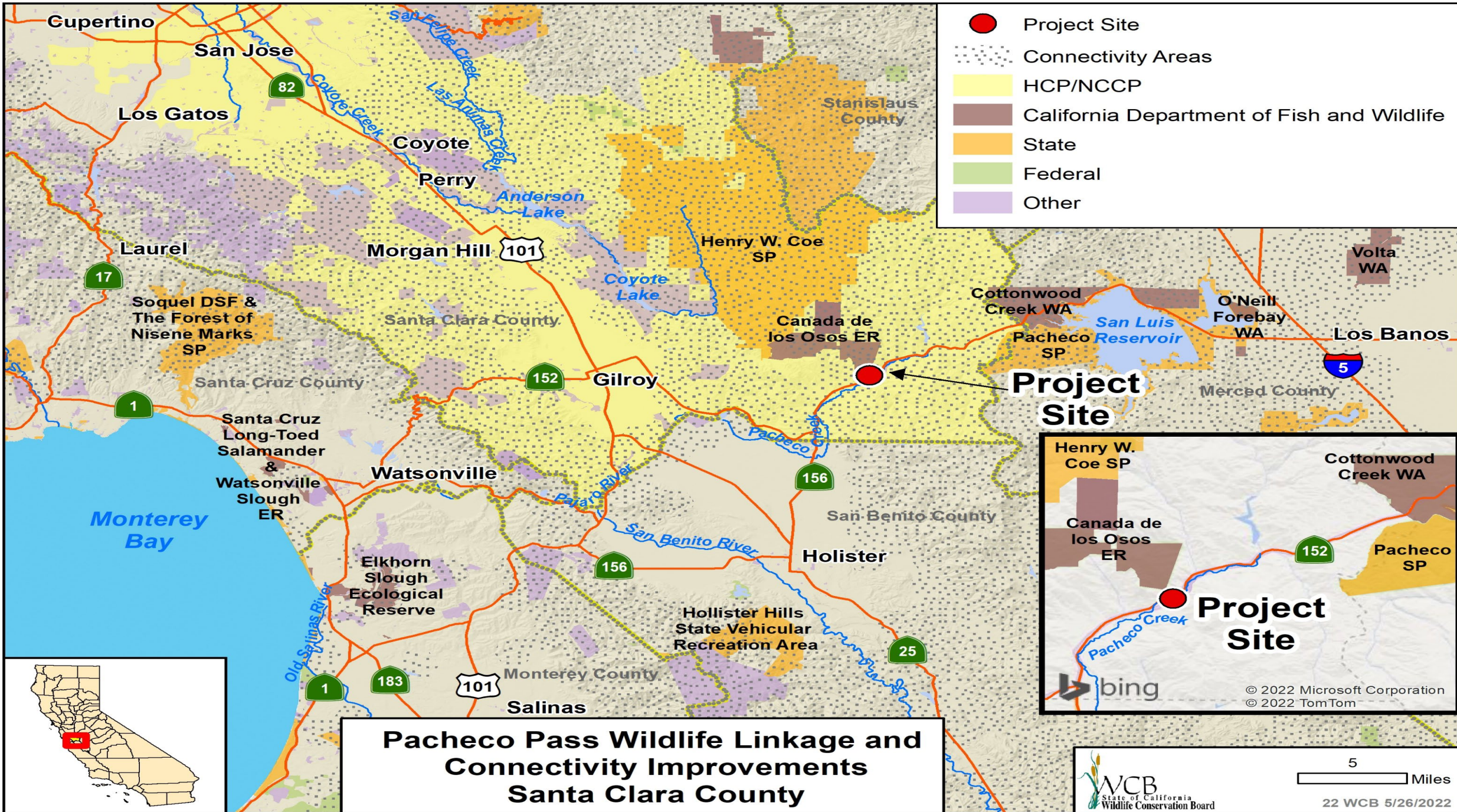
## 21. Pickel Meadow Restoration Planning

Slide 2

Left: Pickel Meadow historic alluvial fan. This alluvial fan has been disconnected from the West Walker River by an artificial berm and the alluvial fan has transitioned to dry upland vegetation and is drying out the meadow below.

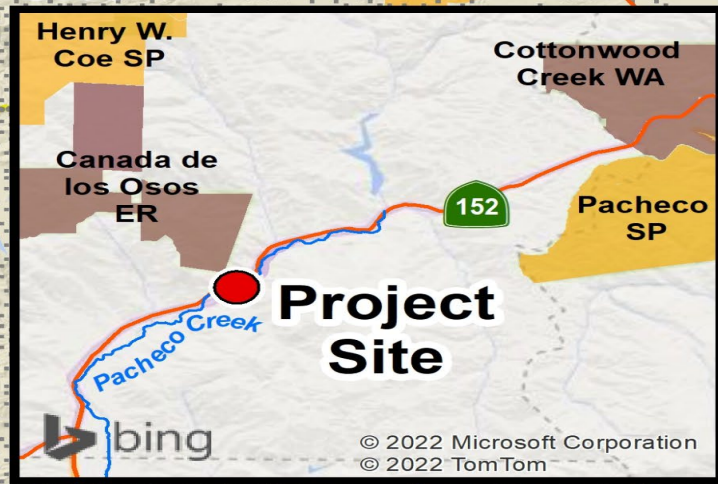
Right: Artificial berm on West Walker River that blocks historical alluvial fan in Pickel Meadow.





- Project Site
- Connectivity Areas
- HCP/NCCP
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Project Site**



**Pacheco Pass Wildlife Linkage and Connectivity Improvements  
Santa Clara County**



5 Miles



## 22. Pacheco Pass Wildlife Linkage and Connectivity Improvements

Slide 1



Deer using passage under the midsection of the  
SR-152 Pacheco Creek Reserve Bridge



## 22. Pacheco Pass Wildlife Linkage and Connectivity Improvements

Slide 2



Multiple species use of the SR-152 Pacheco Creek Reserve culvert.





Mountain lion recorded heading south from the Pacheco Creek Reserve Bridge



**STEALTH CAM**<sup>®</sup>

12:10 AM 06/27/19

41 °F



Photo: Santa Clara Valley Habitat Agency

**PACHOBORGNE**



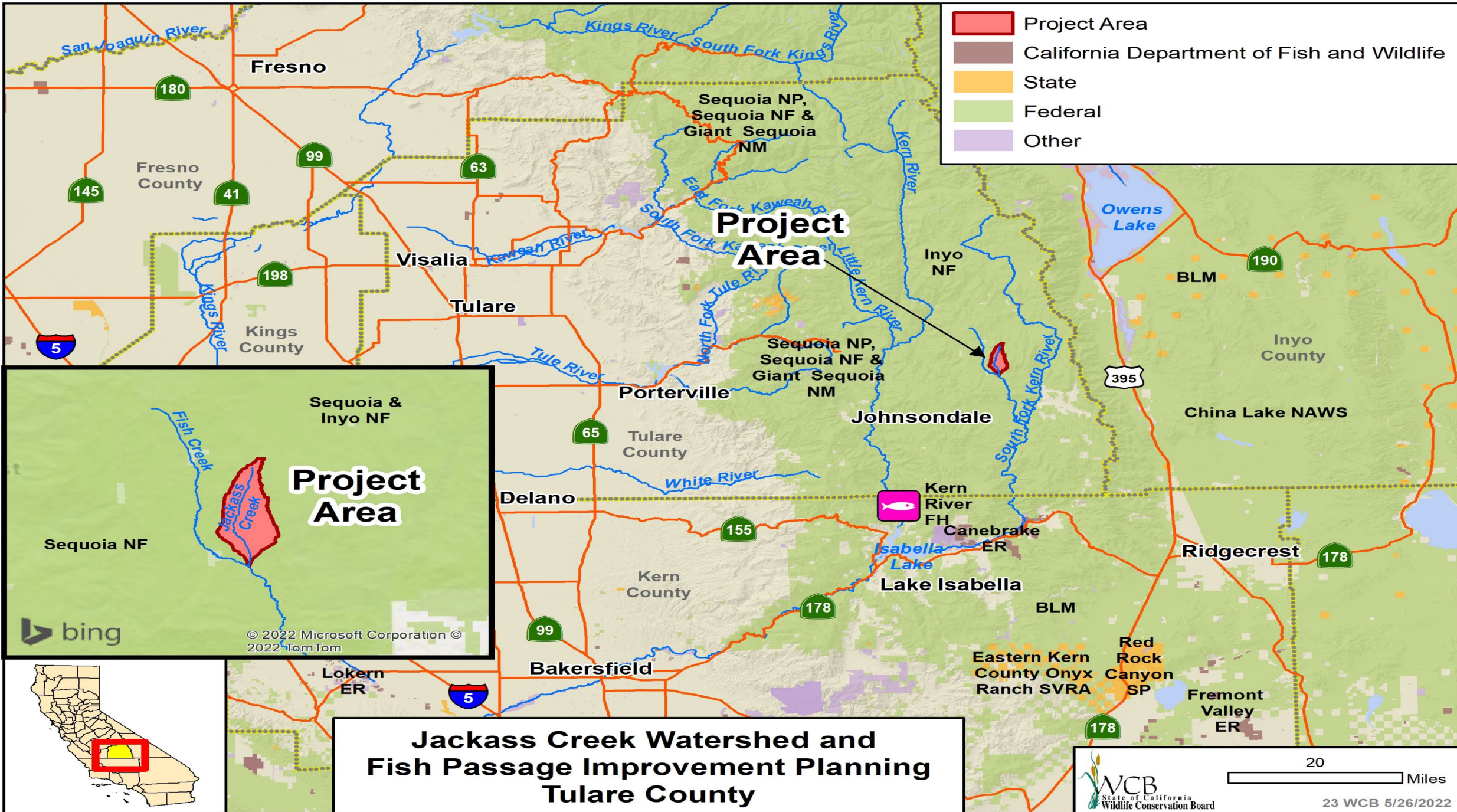
## 22. Pacheco Pass Wildlife Linkage and Connectivity Improvements

Slide 4



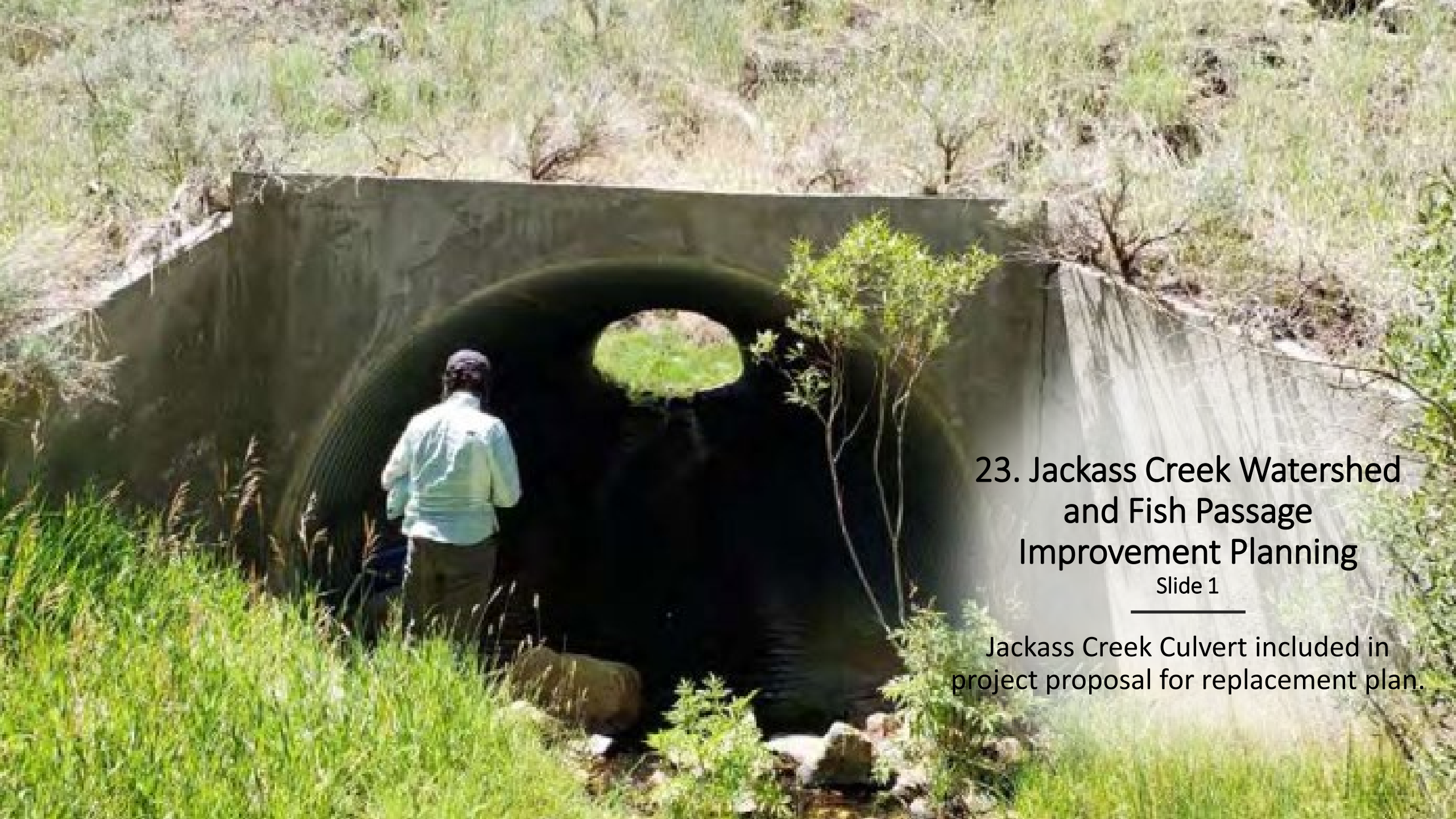
Project Area





**Jackass Creek Watershed and  
Fish Passage Improvement Planning  
Tulare County**





## 23. Jackass Creek Watershed and Fish Passage Improvement Planning

Slide 1

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Jackass Creek Culvert included in  
project proposal for replacement plan.





## 23. Jackass Creek Watershed and Fish Passage Improvement Planning

Slide 2

- Jackass Meadow – The active headcut working its way past the rock designed to stop it. This is a threat to the hydrologic function and habitat integrity in the meadow.





## 23. Jackass Creek Watershed and Fish Passage Improvement Planning

Slide 3

- Jackass Meadow – The channelized feature continues as fairly homogenous channel habitat. This is likely the result of cattle trailing that captured flow.





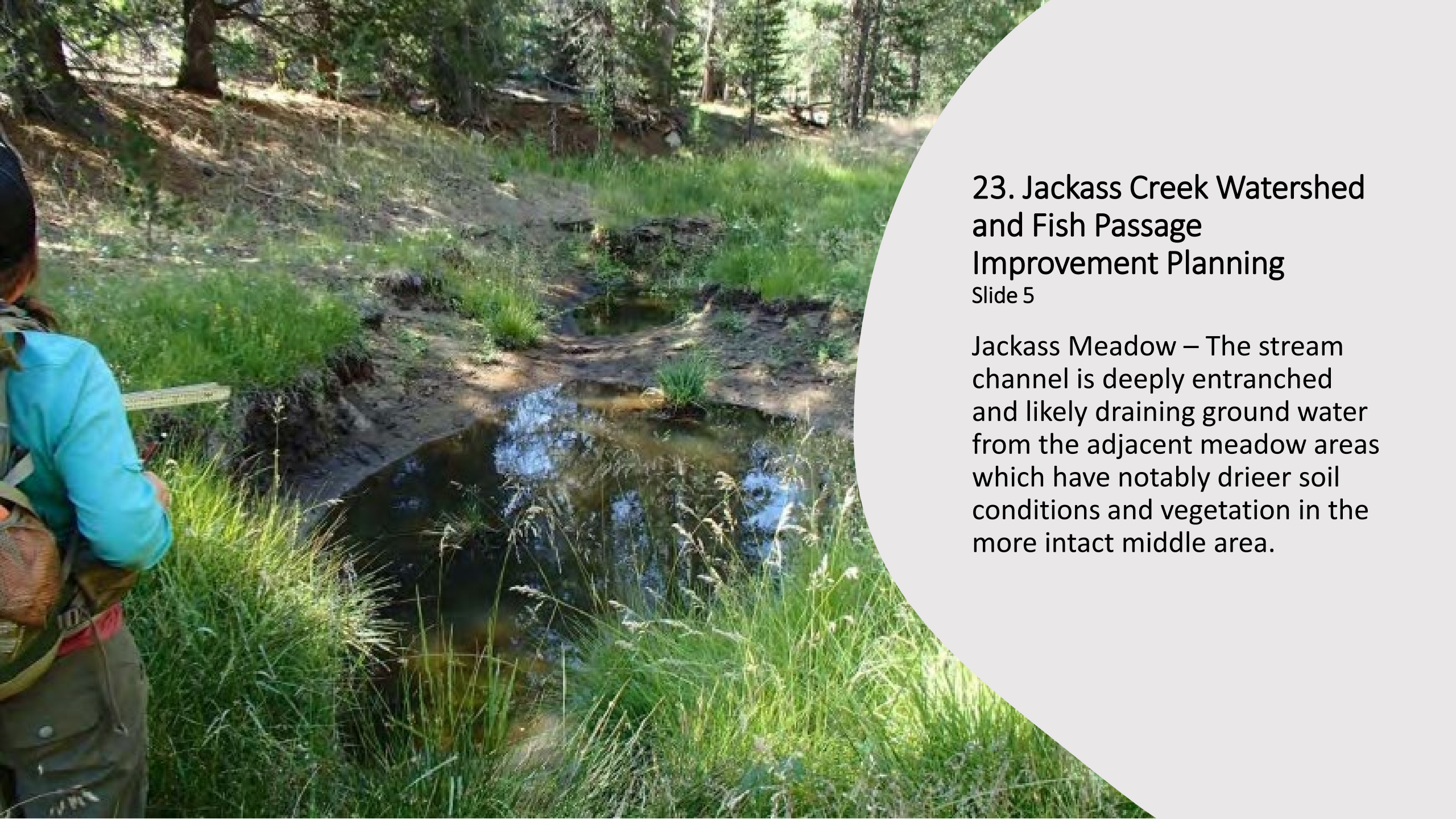
## 23. Jackass Creek Watershed and Fish Passage Improvement Planning

Slide 4

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Jackass Meadow – Deep incision has resulted  
in residual pools fed by ground water.



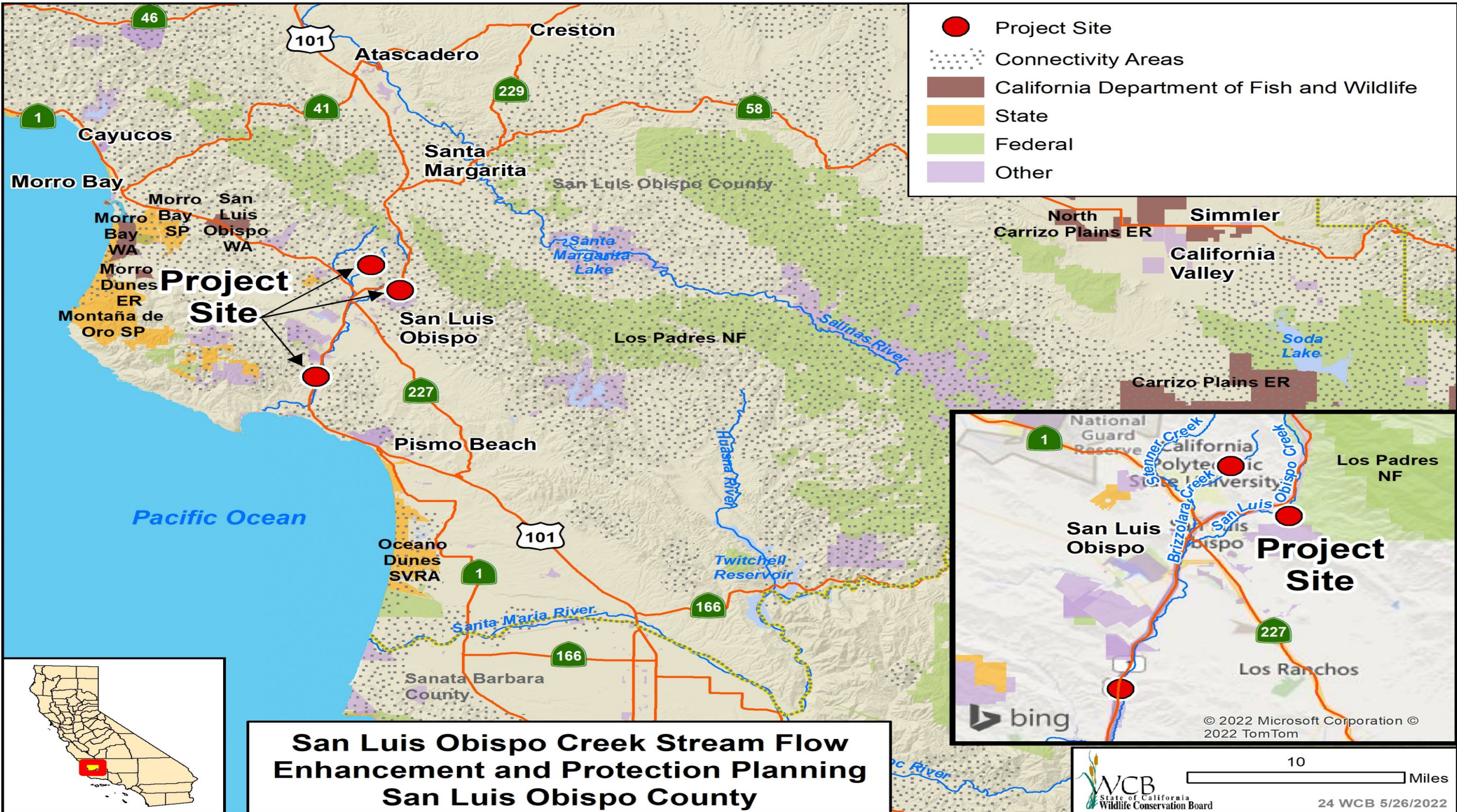


## 23. Jackass Creek Watershed and Fish Passage Improvement Planning

Slide 5

Jackass Meadow – The stream channel is deeply entrenched and likely draining ground water from the adjacent meadow areas which have notably drier soil conditions and vegetation in the more intact middle area.





**San Luis Obispo Creek Stream Flow  
Enhancement and Protection Planning  
San Luis Obispo County**





## 24. San Luis Obispo Creek Stream Flow Enhancement and Protection Planning

Slide 1

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- Land Conservancy of San Luis Obispo floodplain project on Lower San Luis Obispo Creek
- Photo Credit: Land Conservancy of San Luis Obispo County





## 24. San Luis Obispo Creek Stream Flow Enhancement and Protection Planning

Slide 2

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- Brizzolari Creek on Cal Poly property, above campus buildings
- Photo credit: Wikimedia Commons





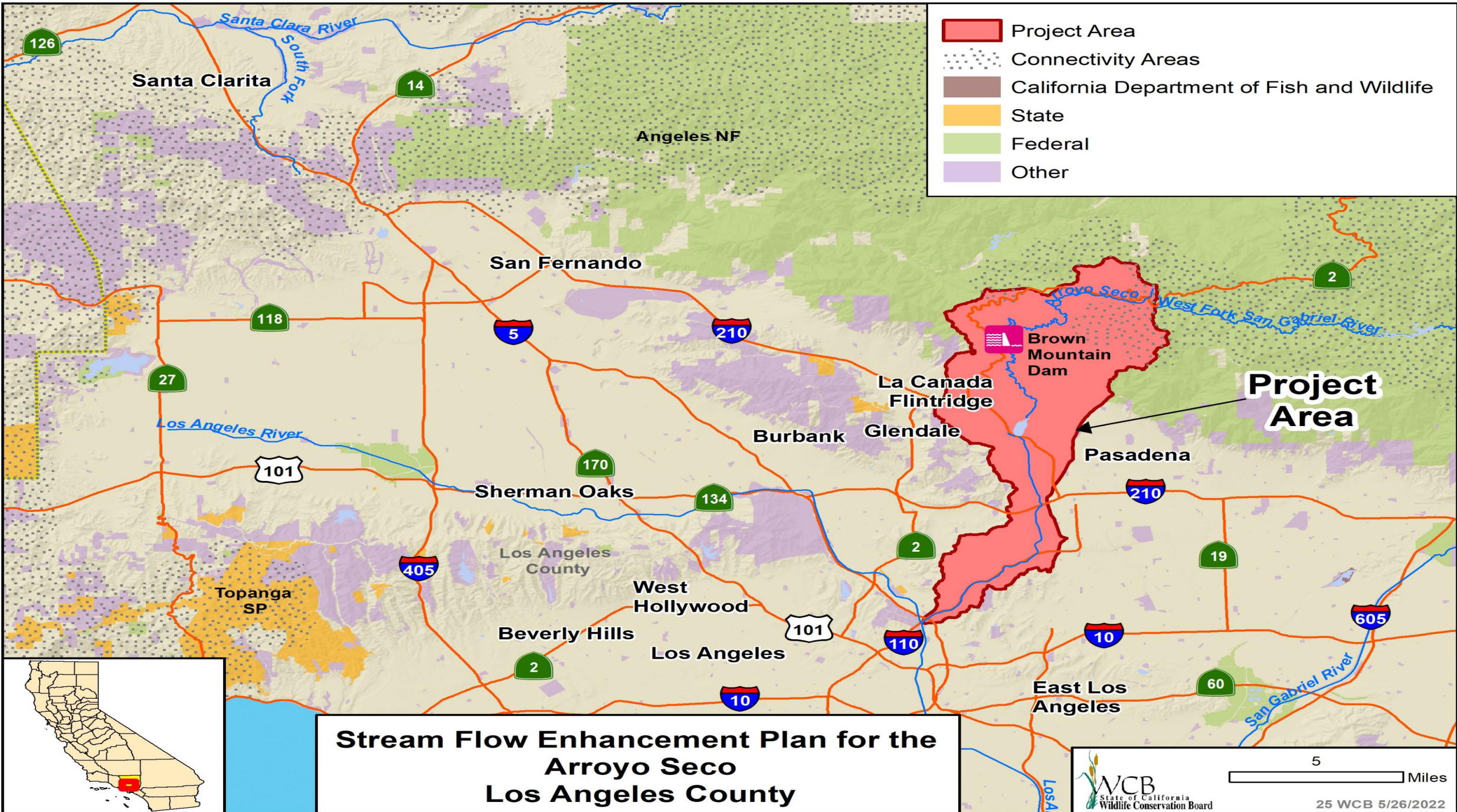
## 24. San Luis Obispo Creek Stream Flow Enhancement and Protection Planning

Slide 3

- Composite of steelhead observed at upper reach of Stenner Creek on Cal Poly property February 2017
- Photo credit: Creek Lands Conservation








- Project Area
- Connectivity Areas
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Stream Flow Enhancement Plan for the  
Arroyo Seco  
Los Angeles County**





## 25. Stream Flow Enhancement Plan for the Arroyo Seco

Slide 1

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- Upper Watershed Stream
- Photo Credit: Arroyo Seco Foundation



# 25. Stream Flow Enhancement Plan for the Arroyo Seco

Slide 2

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Brown Canyon Dam

Photo credit: Arroyo Seco Foundation







## 25. Stream Flow Enhancement Plan for the Arroyo Seco

Slide 3

- Steelhead trout survey in Arroyo Seco Creek
- Photo credit: Carolyn Cole, Los Angeles Times



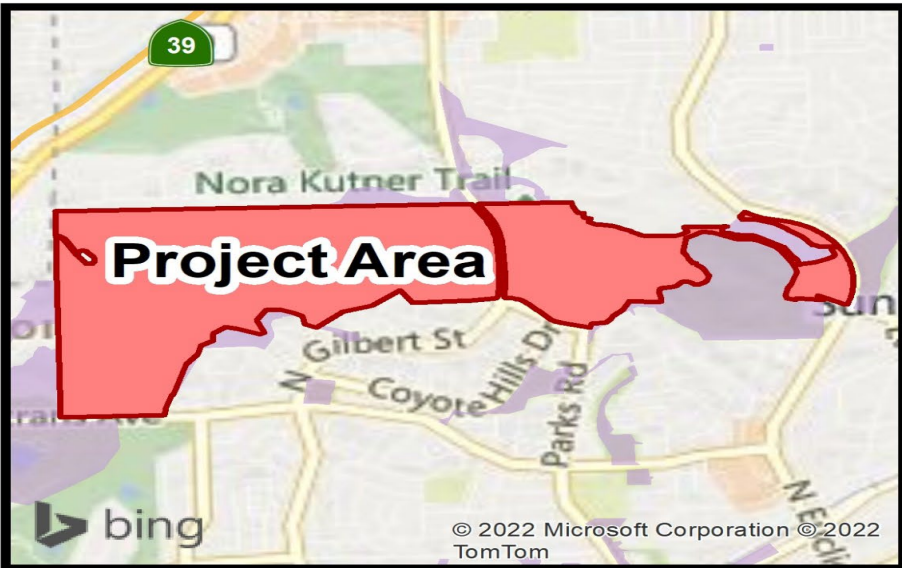


## 25. Stream Flow Enhancement Plan for the Arroyo Seco

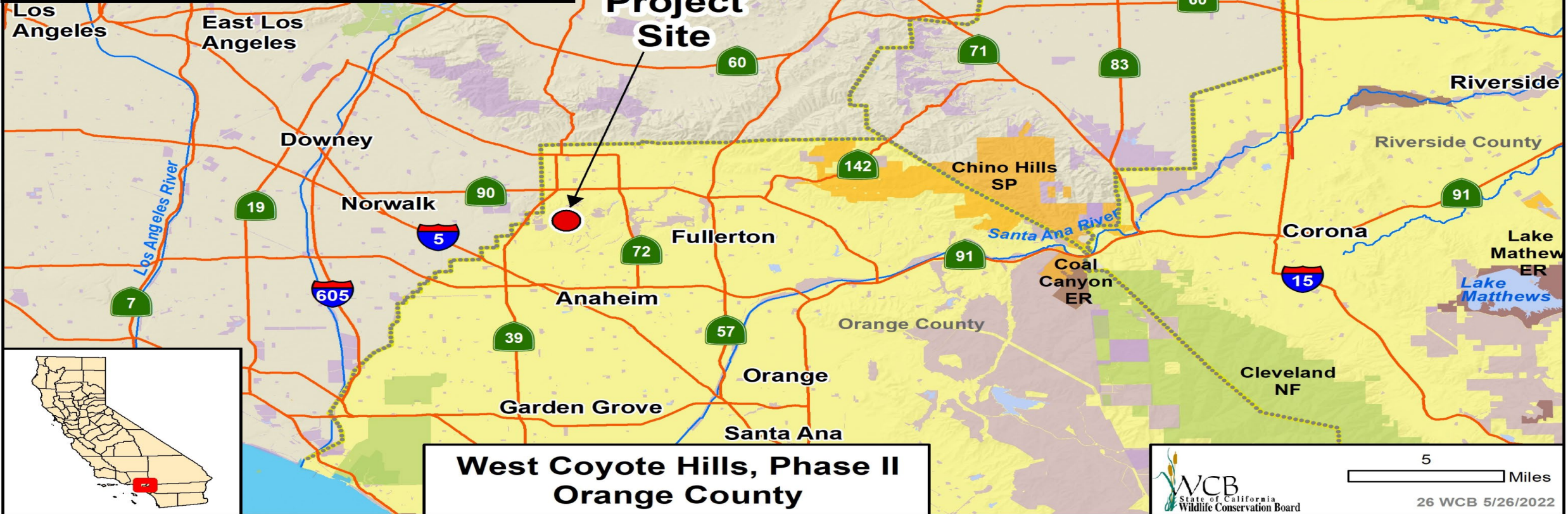
Slide 4

- Arroyo Seco Stream Team volunteers are trained on how to assess stream habitat for steelhead trout and aquatic species by Stillwater Sciences
- Photo credit: Arroyo Seco Foundation



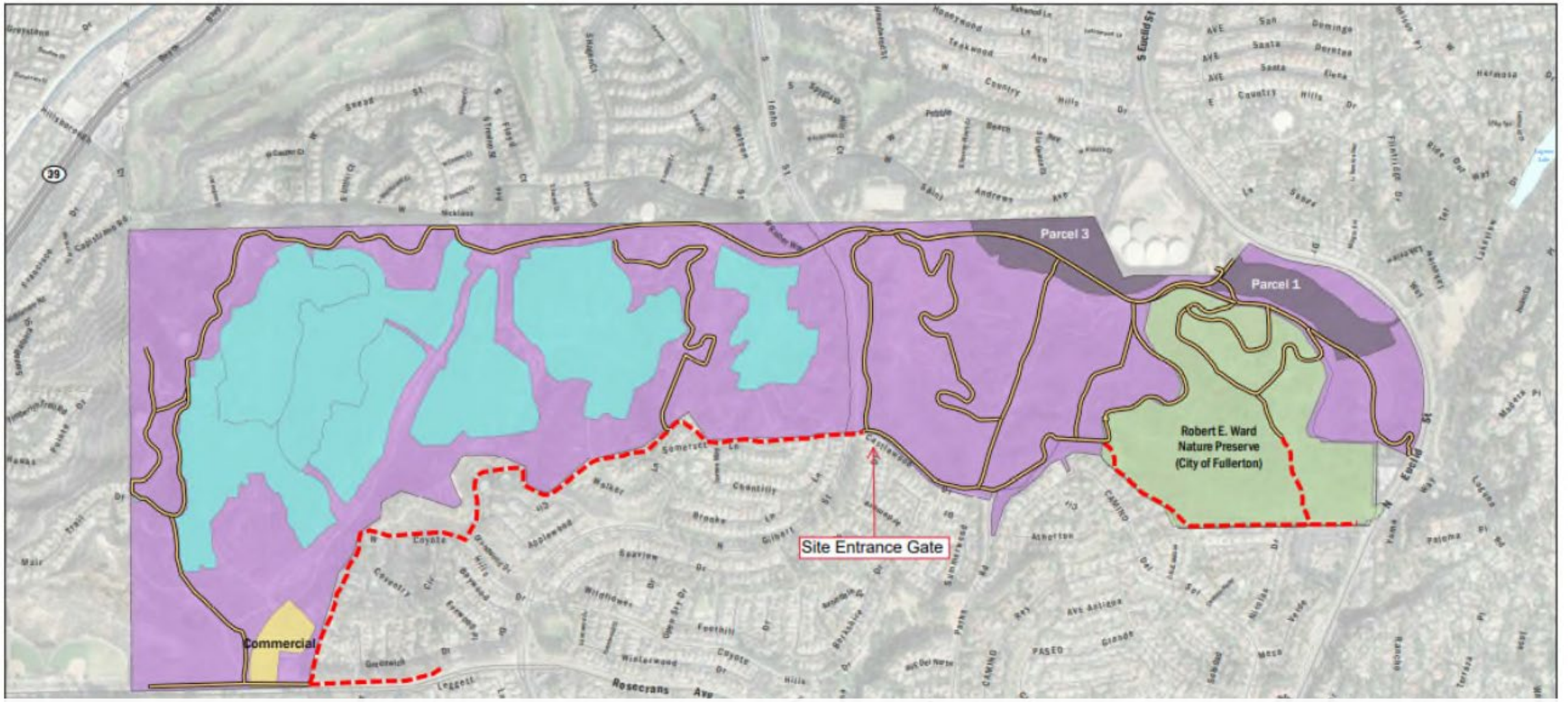


- Project Area
- HCP/NCCP
- California Department of Fish and Wildlife
- State
- Federal
- Other



**West Coyote Hills, Phase II  
Orange County**



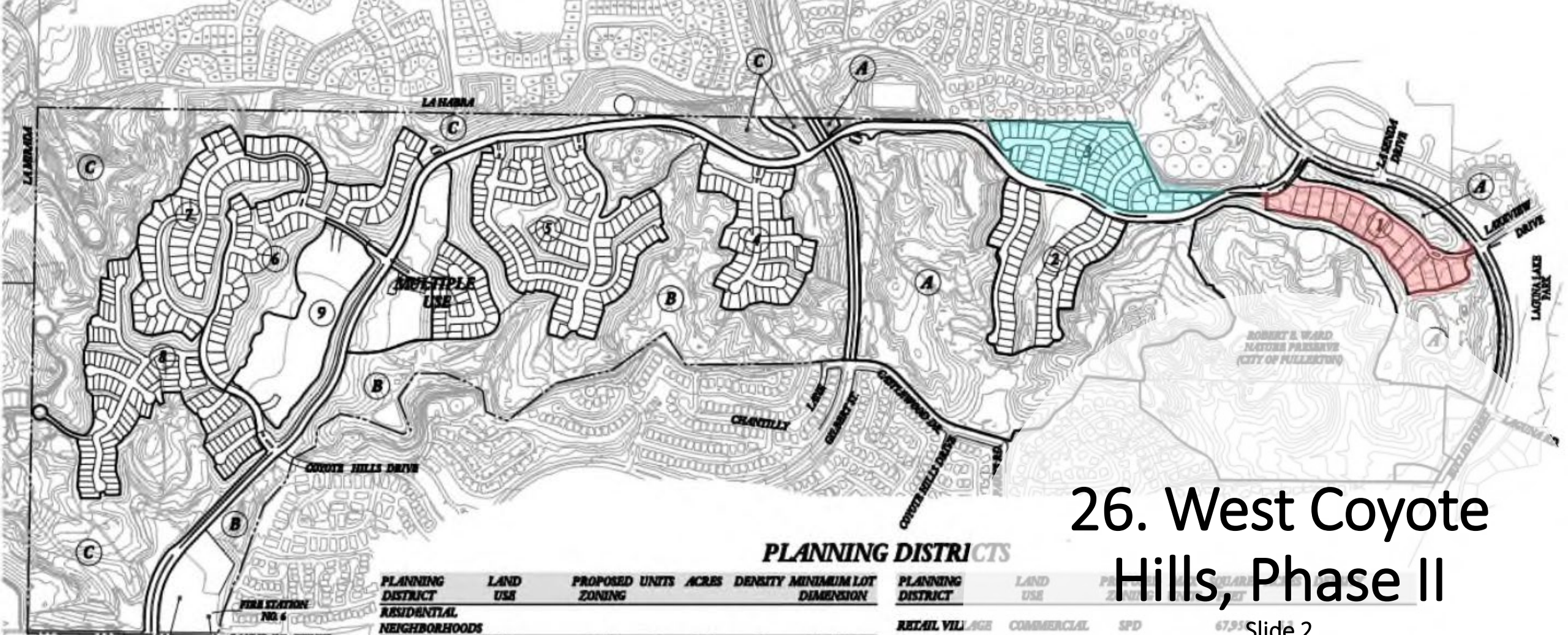


## 26. West Coyote Hills, Phase II

Slide 1







# 26. West Coyote Hills, Phase II

Slide 2

## PLANNING DISTRICTS

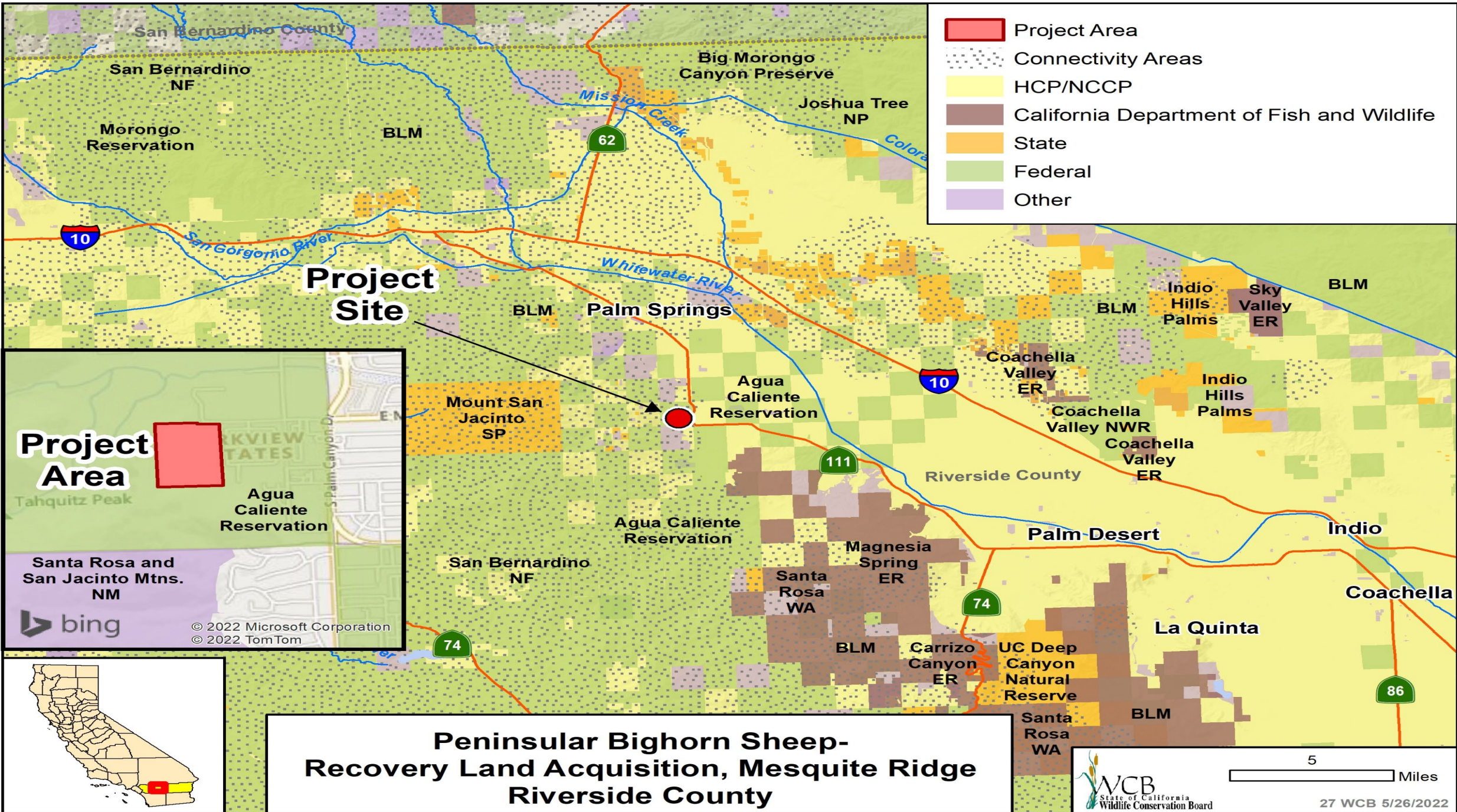
PLANNING DISTRICT	LAND USE	PROPOSED ZONING	PROPOSED UNITS	ACRES	DENSITY	MINIMUM LOT DIMENSION
<b>RESIDENTIAL NEIGHBORHOODS</b>						
1	S.F.D.	SPD	16	10.4	1.5	1/2 ACRE
2	S.F.D.	SPD	59	18.5	3.2	55' x 100'
3	S.F.D.	SPD	60	13.7	4.4	50' x 90'
4	S.F.D.	SPD	53	14.2	3.7	55' x 100'
5	S.F.D.	SPD	125	30.8	4.1	50' x 80', 55' x 100'
6	S.F.D.	SPD	71	26.3	2.7	50' x 100'
7	S.F.D.	SPD	63	22.1	2.9	60' x 100'
8	S.F.D.	SPD	109	24.3	4.5	40' x 100'
			<b>SUB-TOTAL</b>	<b>556</b>	<b>160.3</b>	<b>3.5</b>
9	S.F.A.	SPD	204	19.0	10.7	
			<b>TOTAL RESIDENTIAL</b>	<b>760*</b>	<b>179.3</b>	<b>4.2</b>
<b>MULTIPLE</b>	<b>MULTIPLE USE</b>	<b>SPD</b>	<b>70*</b>	<b>17.1</b>		
	<b>FIRE STATION</b>	<b>SPD</b>	<b>1.3</b>			
			<b>SUB-TOTAL</b>	<b>18.4</b>		

PLANNING DISTRICT	LAND USE	PROPOSED ZONING	PROPOSED UNITS
<b>RETAIL VILLAGE</b>	<b>COMMERCIAL</b>	<b>SPD</b>	<b>67,950</b>
<b>OPEN SPACE</b>			
<b>AREA A</b>	<b>OPEN SPACE</b>	<b>SPD</b>	<b>102.3</b>
<b>AREA B</b>	<b>OPEN SPACE</b>	<b>SPD</b>	<b>81.3</b>
<b>AREA C</b>	<b>OPEN SPACE</b>	<b>SPD</b>	<b>99.3</b>
		<b>SUB-TOTAL</b>	<b>282.9</b>
<b>CIRCULATION</b>			<b>23.3</b>
			<b>509.1</b>
<b>TOTAL WEST COYOTE HILLS</b>			<b>760*</b>
<b>CITY OF FULLERTON NATURE PRESERVE</b>			<b>72.3</b>

\* THE MAXIMUM NUMBER OF UNITS IS 760. SEE SECTION 2.2.2.B FOR DENSITY TRANSFER PROVISIONS.







- Project Area
- Connectivity Areas
- HCP/NCCP
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Project Area**

Agua Caliente Reservation

Santa Rosa and San Jacinto Mtns. NM

bing

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**Peninsular Bighorn Sheep-  
Recovery Land Acquisition, Mesquite Ridge  
Riverside County**

5 Miles

WCB  
State of California  
Wildlife Conservation Board

27 WCB 5/26/2022



A landscape photograph showing a dirt road winding through a desert valley. The foreground is filled with dry, brownish scrub brush and sandy soil. In the middle ground, there are more bushes and a few palm trees on the left. The background features a large, rugged mountain range under a clear blue sky. The sun is visible in the upper center, creating a lens flare effect.


27. Peninsular Bighorn  
Sheep-Recovery Land  
Acquisition, Mesquite  
Ridge

Slide 1

---

Southerly of subject property. Photo by  
Chris Bell





27. Peninsular Bighorn  
Sheep-Recovery Land  
Acquisition, Mesquite Ridge  
Slide 2

---

Westerly view of subject property from E.  
Mesquite Avenue. Photo by Chris Bell



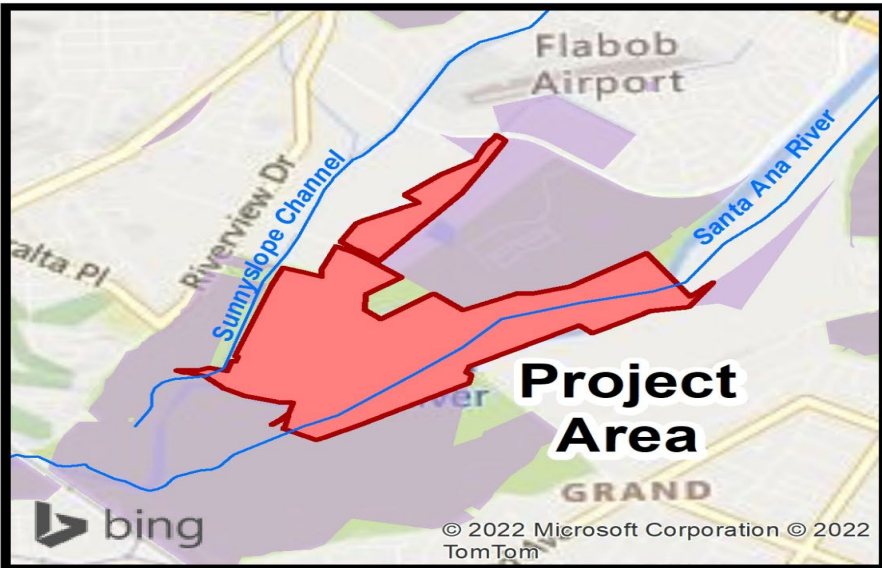


## 27. Peninsular Bighorn Sheep-Recovery Land Acquisition, Mesquite Ridge

Slide 3

Peninsular Bighorn Sheep lambs perched on the hillside of the Property.





- Project Area
- HCP/NCCP
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Sunnyslope Creek Riparian Restoration Planning  
Riverside County**

WCB  
State of California  
Wildlife Conservation Board

5 Miles

28 WCB 5/26/2022





## 28. Sunnyslope Creek Riparian Restoration Planning

Slide 1

---

- Looking upstream on the Santa Ana River within the Project Area.
- Photo Credit: Chris Jones, SBVMWD. 2021 April 1.



# 28. Sunnyslope Creek Riparian Restoration Planning

Slide 2

Aerial image of Sunnyslope Creek and vicinity following the 46 Fire.

Photo Credit: Cameron MacBeth, OCWD. 2019.





# 28. Sunnyslope Creek Riparian Restoration Planning

Slide 3

---

- Pond located to the east of Sunnyslope Creek. Both least Bell's vireo and the southwestern pond turtle have been documented in the immediate vicinity of this pond.
- Photo Credit: Kai Palenscar, SBVMWD. 2021 April 1.





# 28. Sunnyslope Creek Riparian Restoration Planning

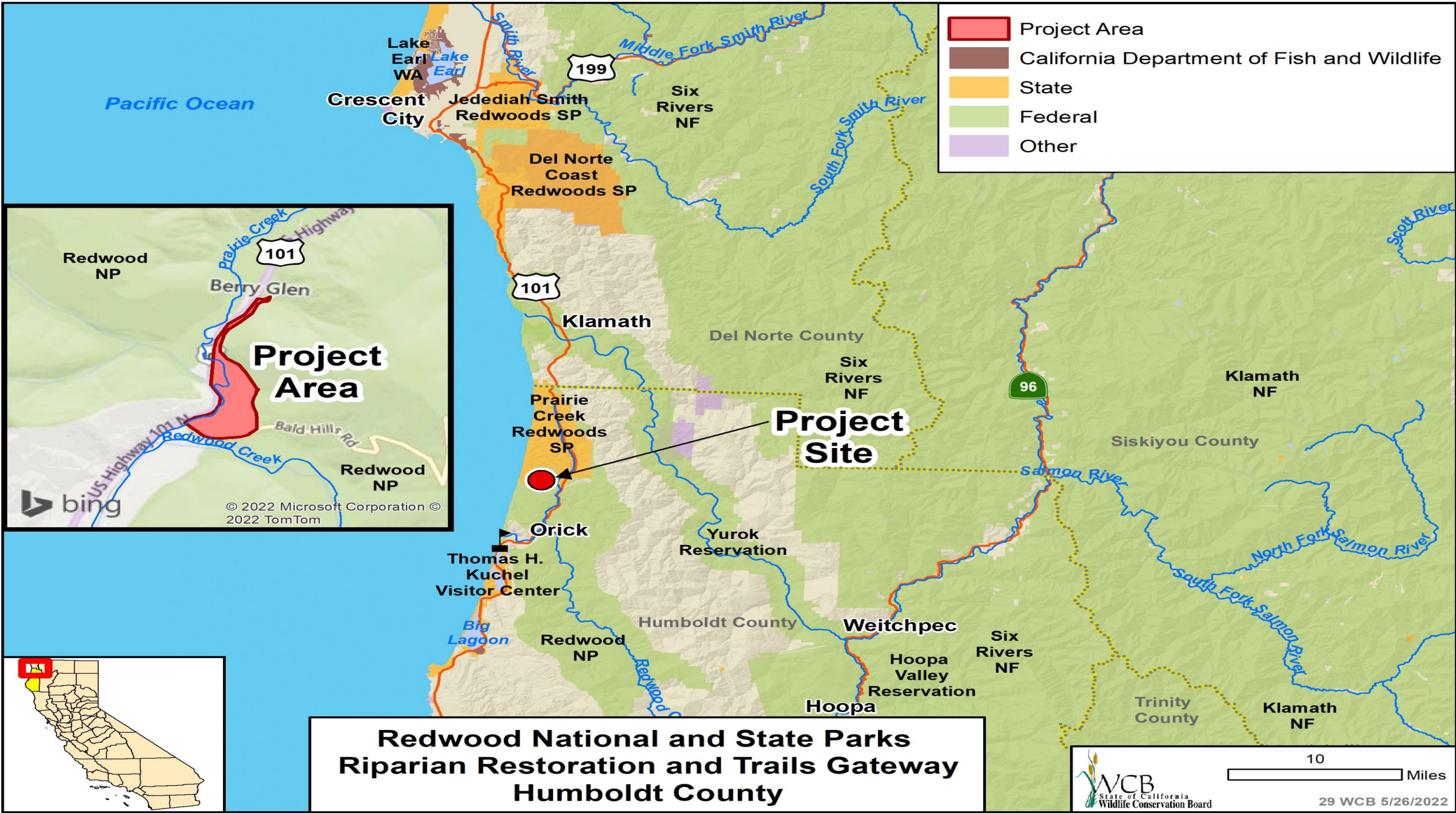
Slide 4

Looking downstream at Sunnyslope Creek. Note open canopy following fire and trash on banks.

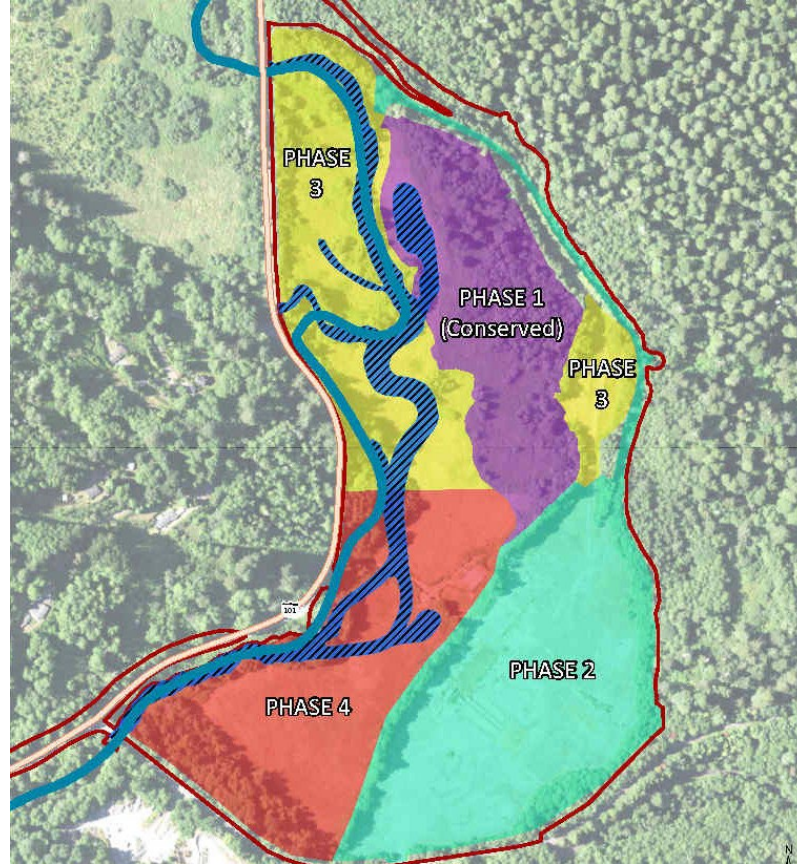
Photo Credit: Kirsten Wallace,  
SBVMWD. 2022 January 11.











29. Redwood National and State Parks Riparian Restoration and Trails Gateway - Slide 1

---

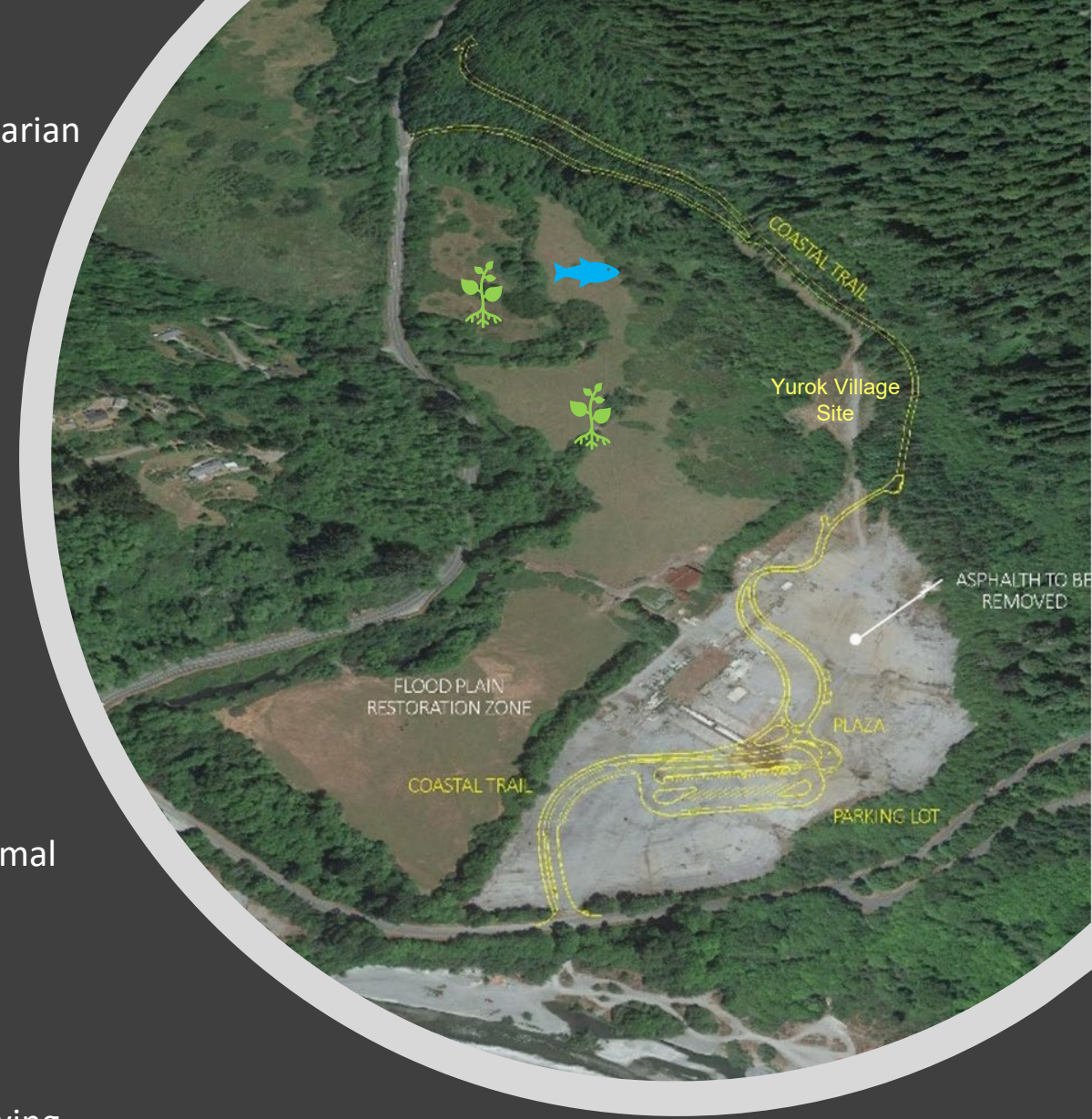


## RIPARIAN

- Conduct biological monitoring for vegetation, birds, and wetland and riparian health
- Control invasive plants via mechanical and manual methods
- Restore 11.5 acres of riparian and transitional habitat
- Connect 1,000 feet of Prairie Creek to its historical floodplain
- Create 800 feet of new stream channel
- Backfill 500 feet of incised channel
- Create 1 acre of backwater refugia
- Increase fish habitat complexity with large wood features

## PUBLIC ACCESS

- Fine grading of visitor center site and Yurok site
- Construct two-way asphalt roadway including pull-off areas and 21 informal parking spaces
- Construct 6" curb to separate vehicular zone and pedestrian zone
- Construct 30-car parking lot, including 3 accessible parking spaces
- Pave 11,458 square foot accessible plaza to serve as an arrival and orientation space, ample room for group gatherings, on-site wildlife viewing opportunities, and a trailhead.







# Stream Flow Enhancement Program 2021 Solicitation – Proposition 1





# Stream Flow Enhancement Program 2021 Solicitation

Slide 1

## Overview:

- Goal: Fund projects that enhance stream flows (i.e., a change in the amount, timing and/or quality of the water flowing down a stream to benefit fish and wildlife.
- Area: Statewide

## Priorities:

- Acquisition or long-term dedication of water rights
- Projects located in southern California
- Evaluation of previous SFEP projects
- Consistent with the California Water Action Plan



# Stream Flow Enhancement Program 2021 Solicitation

Slide 2

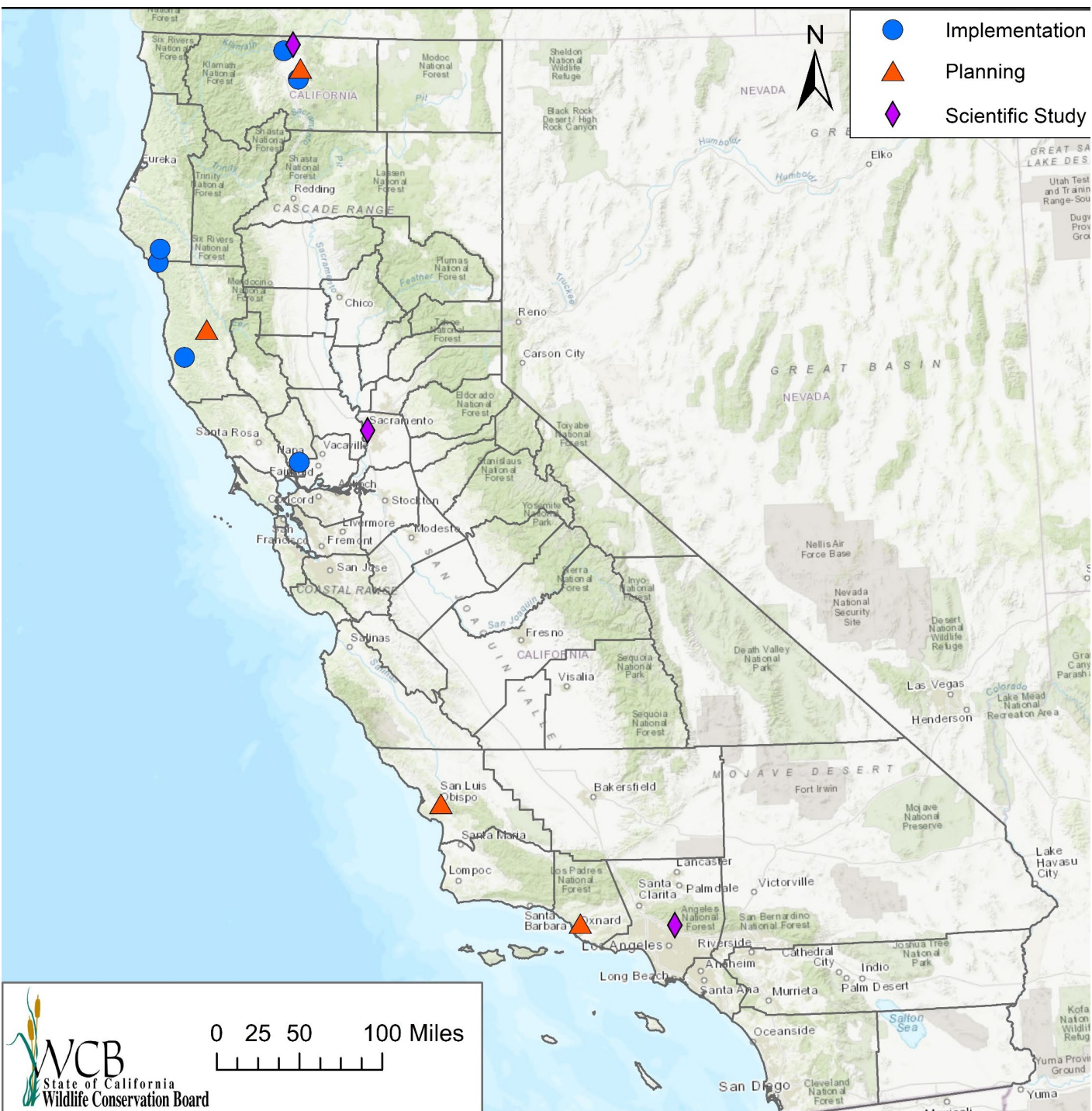
### Timeline:

- Proposal Solicitation Notice: released September 20, 2021
- Concept Proposals (NEW): due October 18, 2021
- Full Proposals: due January 14, 2022
- Selection panel: March 3, 2022

	Number of Applications	WCB Requested Funds
Concept Applications	56	\$62.8 Million
Full Applications Invited	22	\$42.4 Million
Full Applications Submitted	16	\$22.0 Million
Applications Recommend to the Board	13	\$13.8 Million

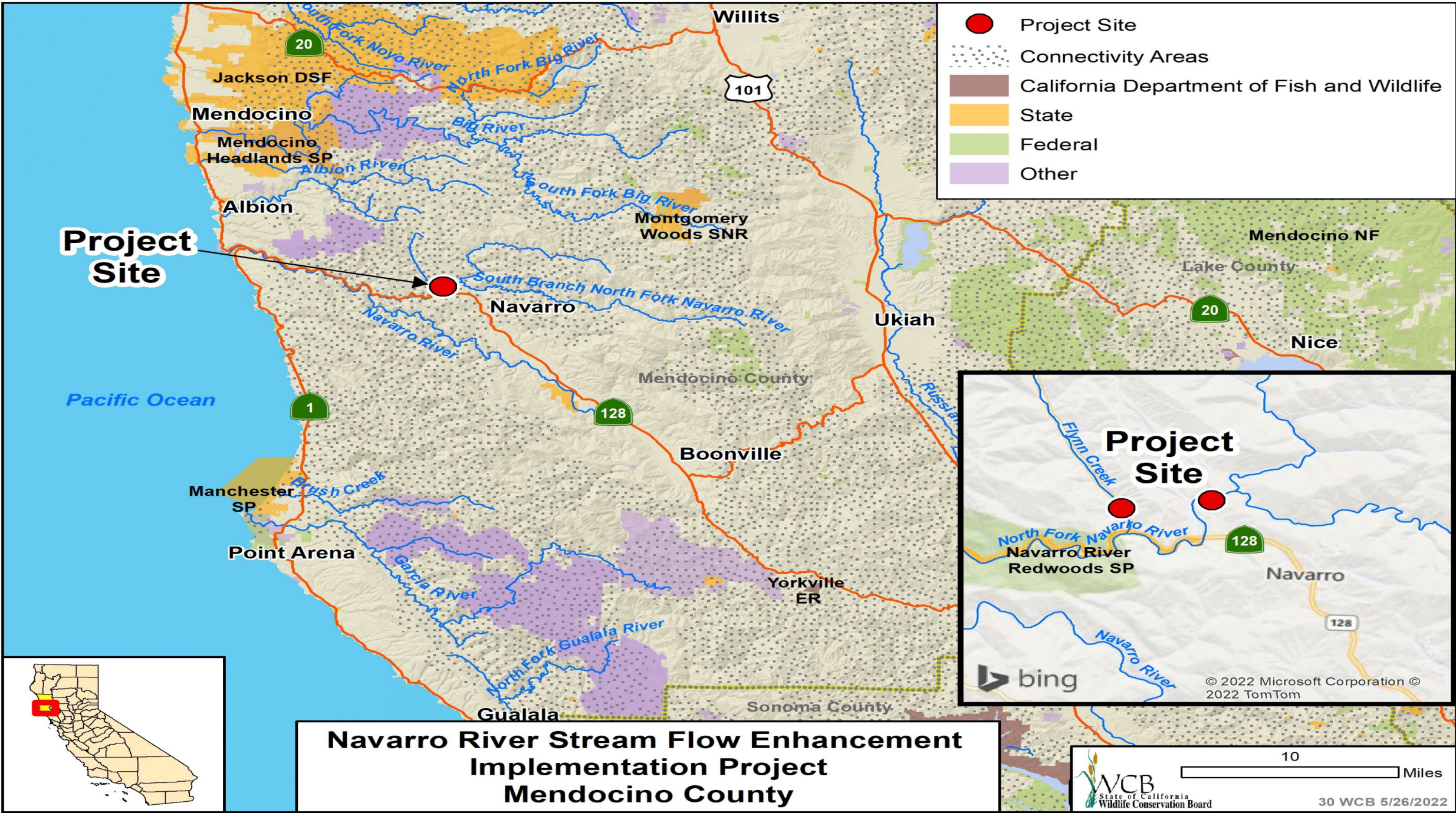






# 2021 SFEP Full Proposal Locations







# 30. Navarro River Stream Flow Enhancement Implementation Project

Slide 1







## 30. Navarro River Stream Flow Enhancement Implementation Project

Slide 2

Location: Near the confluence of  
the North Fork Navarro River and  
Flynn Creek

Project has two main  
components:

- Camp Navarro Rainwater  
Catchment
- Flynn Creek Groundwater  
Infiltration





Camp Navarro Lodge

### Camp Navarro Project Goals:

- Install a 120,000-gallon rainwater catchment system on the 6,000 square foot roof of the lodge at Camp Navarro.
- Water will be stored in tanks similar to those in the example photo on this slide.



Example Tanks

## 30. Navarro River Stream Flow Enhancement Implementation Project





Incised channel along  
Flynn Creek

## Flynn Creek Project Goals:

- Install Large woody debris in stream channels to reverse channel incision, reconnect channel and floodplain, and increase groundwater infiltration.

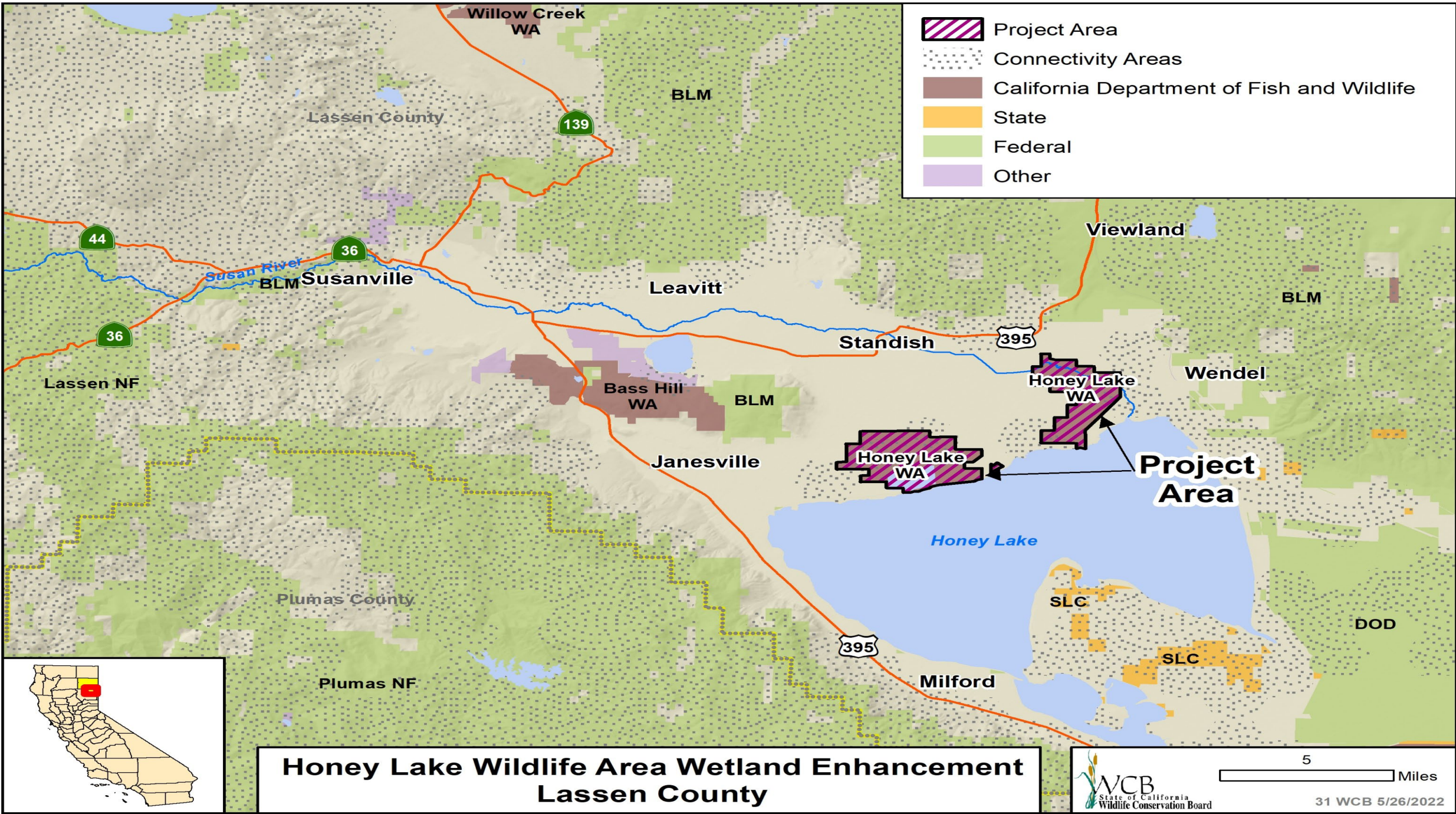


Incised channel and disconnected  
floodplain along Flynn Creek

## 30. Navarro River Stream Flow Enhancement Implementation Project

Slide 4





-  Project Area
-  Connectivity Areas
-  California Department of Fish and Wildlife
-  State
-  Federal
-  Other



**Honey Lake Wildlife Area Wetland Enhancement  
Lassen County**



5 Miles



# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 1

---

Wetland unit within Honey  
Lake Wildlife Area





# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 2

- Water control structure from existing well which is one of the main water delivery points on the wildlife area.





# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 3

Degraded levee slope needing rehabilitation  
between Units 25 and 26.



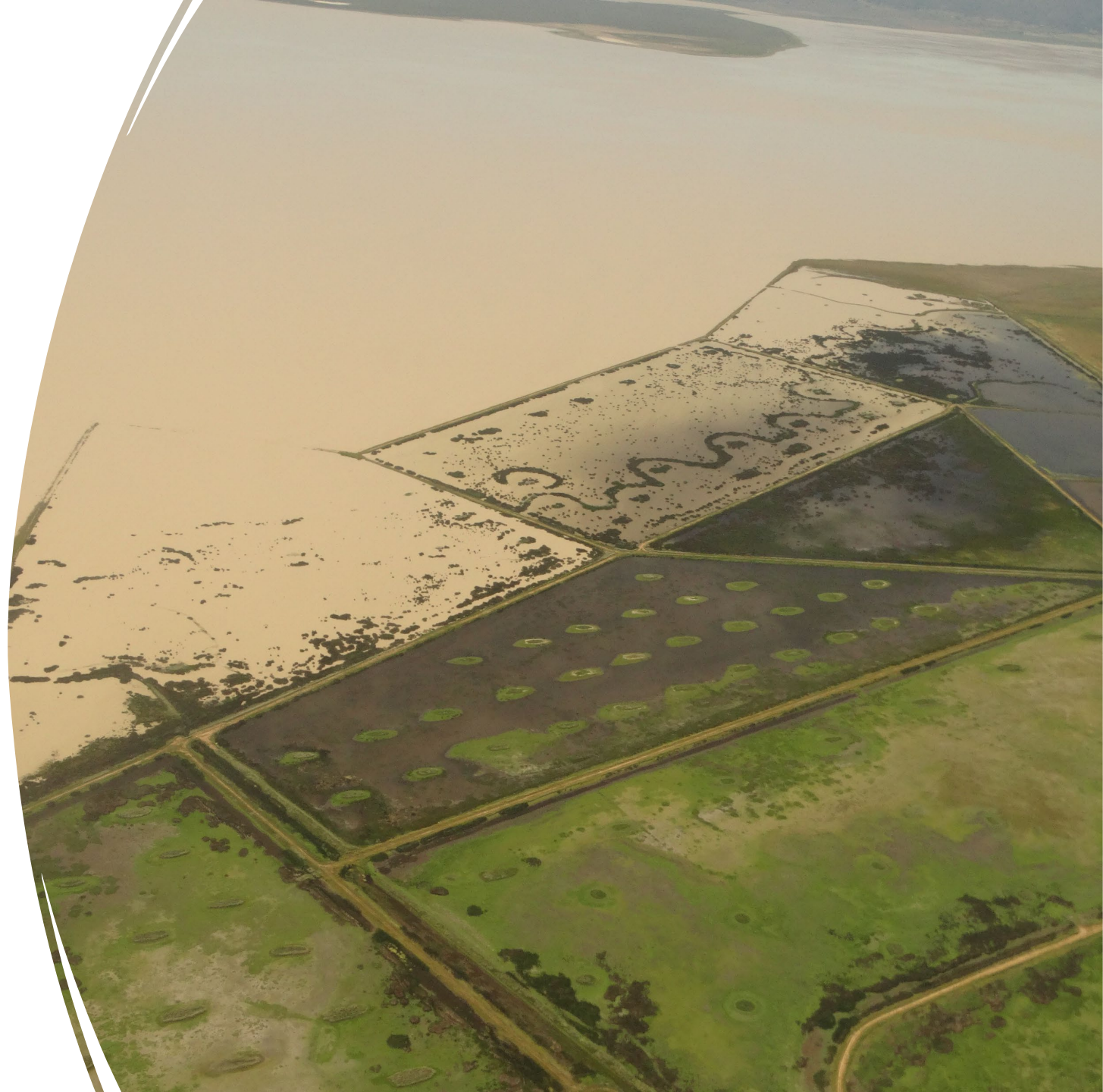


# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 4

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Degraded levees  
overtopped and flooded





# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 5

Water control structures within Unit 26 that will be replaced with more durable modern structures.





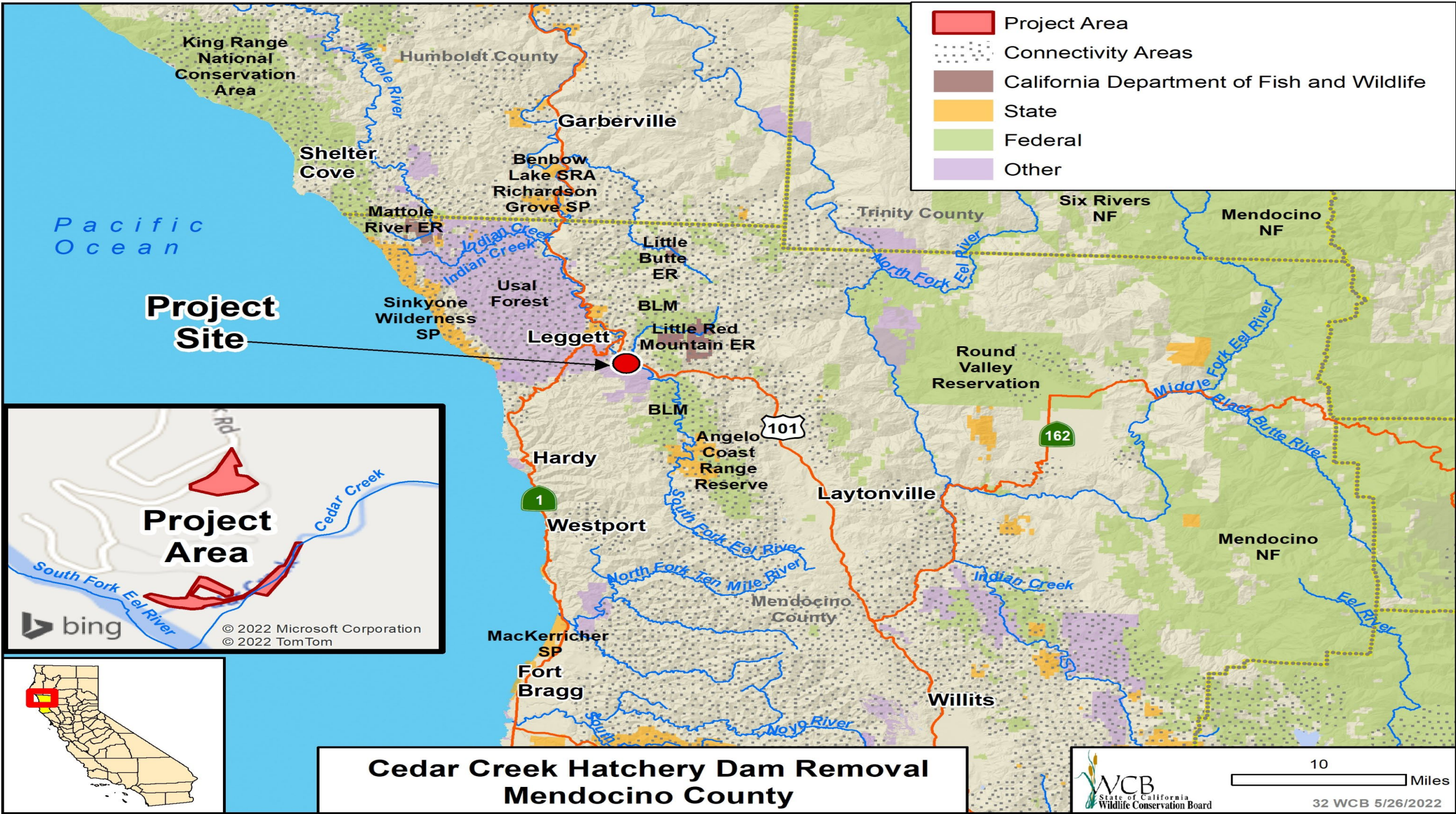
# 31. Honey Lake Wildlife Area Wetland Enhancement

Slide 6

Canada geese within wetland unit on  
Honey Lake Wildlife Area









## 32. Cedar Creek Hatchery Dam Removal

### Slide 1

- CDFW (then CDFG) built the Cedar Creek Experimental Station in 1949
  - Combination fish hatchery, and stream improvement and fish rescue headquarters.
- Hatchery was closed after a 1964 flood
- Partially demolished in the 1970's
  - A concrete diversion dam remained
- Only partial migration of large adult salmon and steelhead
- Juvenile migration is not possible past the dam structure at any streamflow

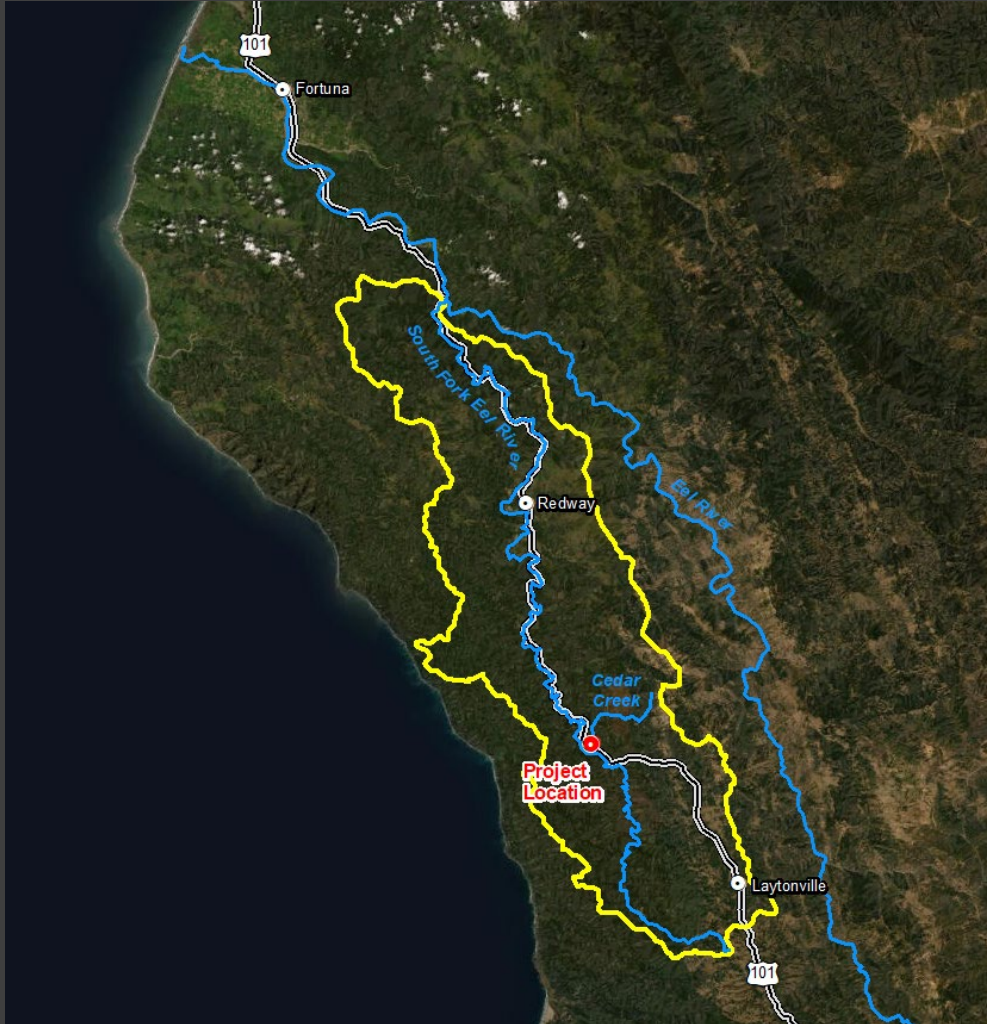


Cedar Creek Dam and Ladder at Hatchery Circa 1960



## 32. Cedar Creek Hatchery Dam Removal

### Slide 2



South Fork Eel River Watershed

- Three native salmonid populations listed as threatened under the federal Endangered Species Act
  - California Coastal Chinook Salmon
  - Southern Oregon and Northern California Coho Salmon
  - Northern California Steelhead
- CDFW's North Coast Salmon Project
- Cedar Creek chosen as hatchery site due to year-round cold-water flows
- CDFW Fish Passage Barrier Priority List
- CDFW-FRGP grant "Cedar Creek Hatchery Dam Removal: Planning and Design to 100%" awarded in March 2020



## 32. Cedar Creek Hatchery Dam Removal

Slide 3

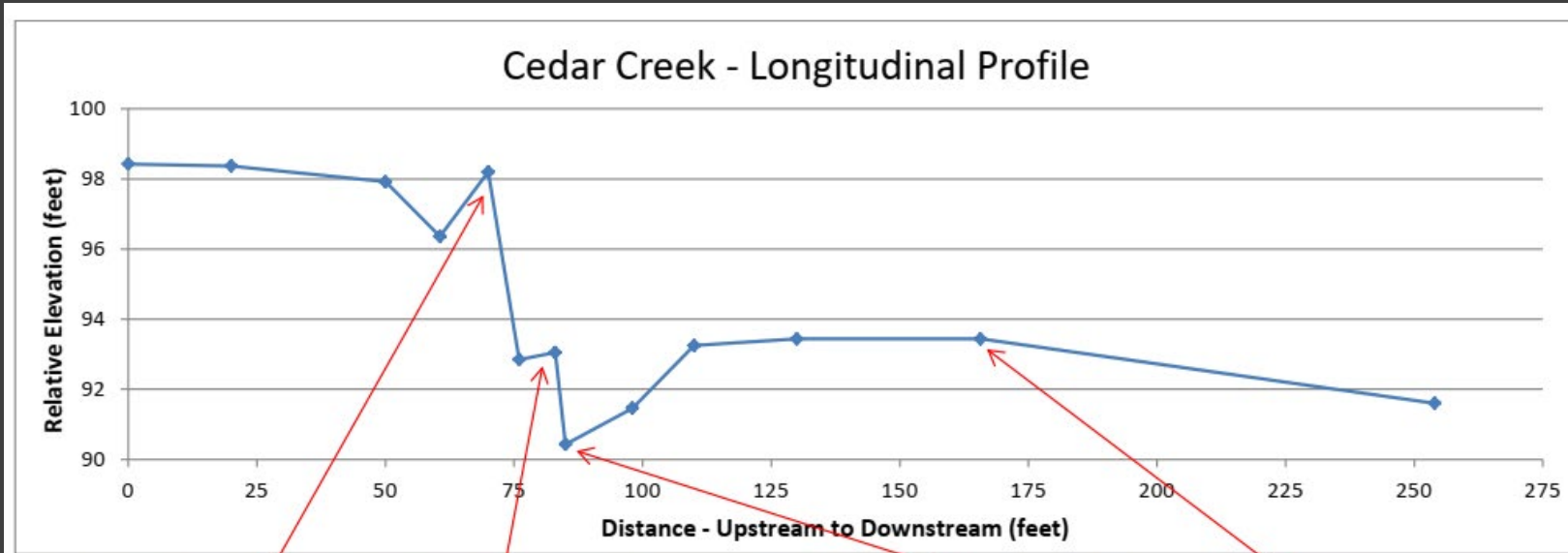


Concrete Diversion Dam



# 32. Cedar Creek Hatchery Dam Removal

Slide 4



Fish Passage Barrier Profile



## 32. Cedar Creek Hatchery Dam Removal

Slide 5

### Project Elements

- Demolition and removal of the Cedar Creek Hatchery weir
- Regrading the stream channel
- Installation of large woody debris
- Restoration of riparian habitat



Cedar Creek Upstream of Hatchery Barrier



## 32. Cedar Creek Hatchery Dam Removal

### Slide 6

#### Project Benefits

- Access to high-quality spawning habitat
  - 1.56 miles coho salmon habitat
  - 3.87 miles Chinook salmon habitat
  - 9.31 miles steelhead habitat
- Drought refugia
- Reduced habitat fragmentation
- Multi-species benefits
  - Pacific Lamprey

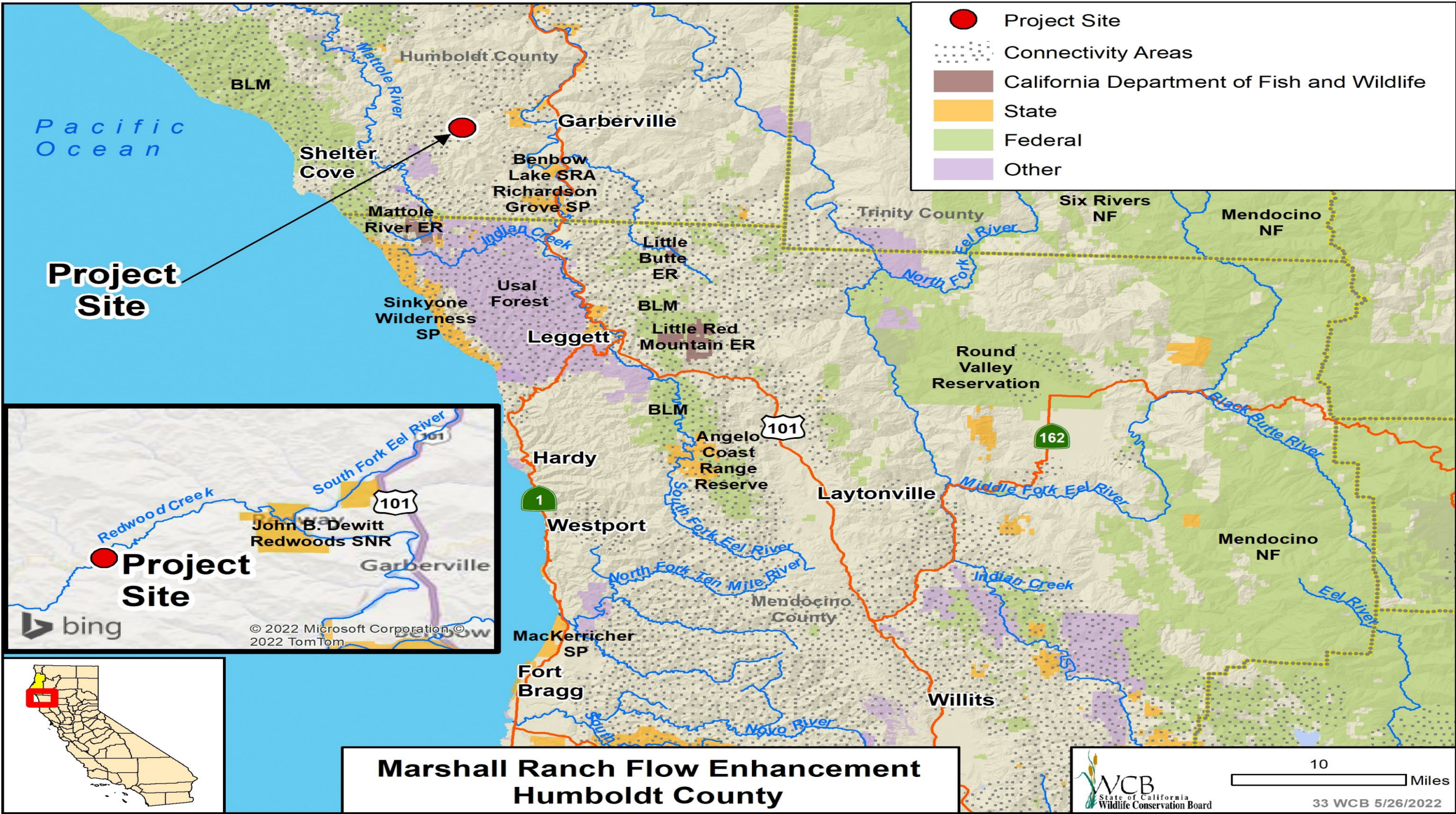


Steelhead trout



Spawning salmon





**Marshall Ranch Flow Enhancement  
Humboldt County**



# 33. Marshall Ranch Flow Enhancement

Slide 1

---

Redwood Creek in summer, downstream from proposed flow delivery point. Credit: Stillwater Sciences





# 33. Marshall Ranch Flow Enhancement

Slide 2

---

Intermediate terrace, looking west across proposed pond site. Incised east-side tributary visible in foreground. Credit: Stillwater Sciences.

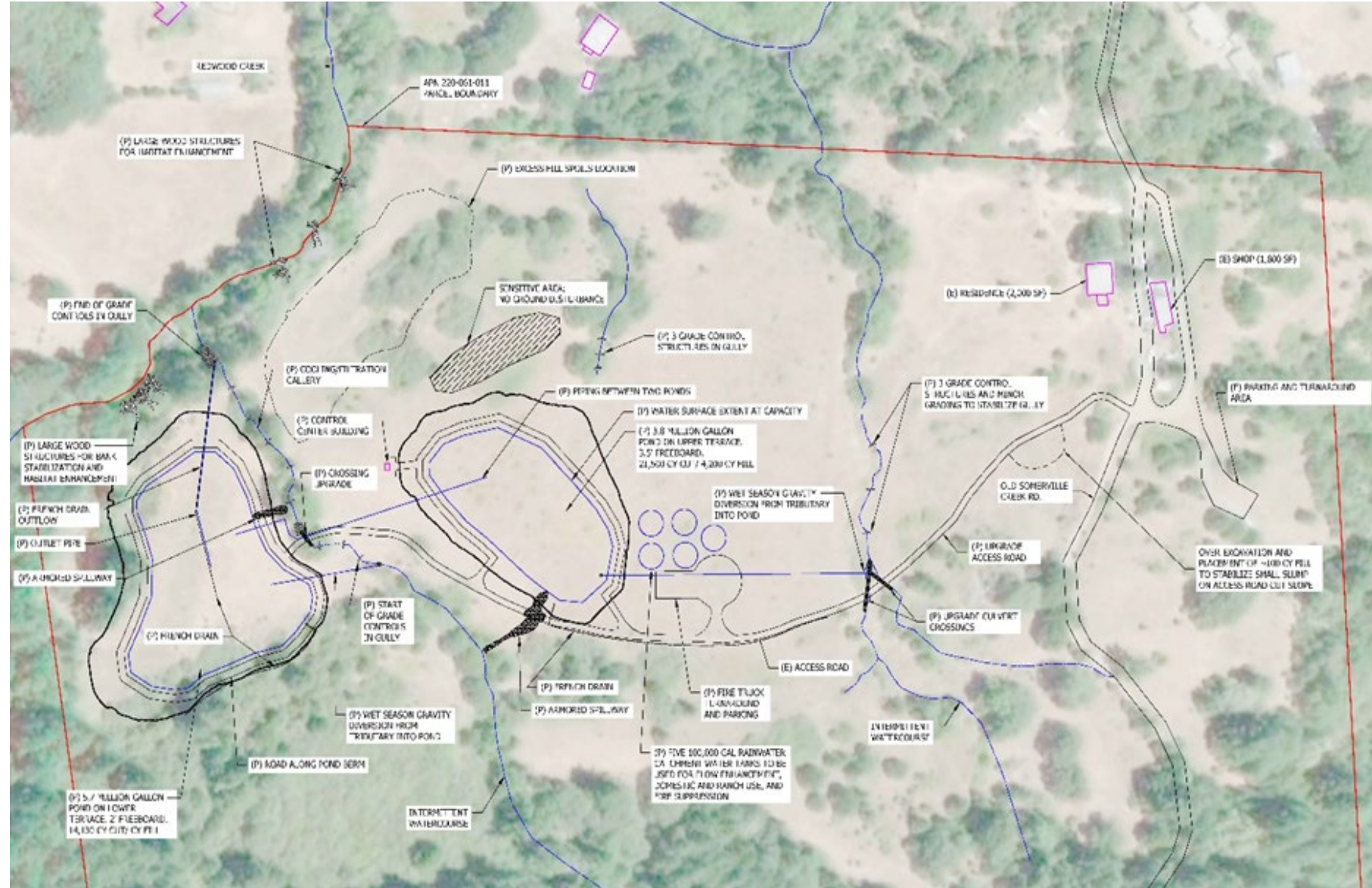




# 33. Marshall Ranch Flow Enhancement

Slide 3

- Design drawing indicating proposed locations of the ponds, tanks and other features.
- Credit: Stillwater Sciences







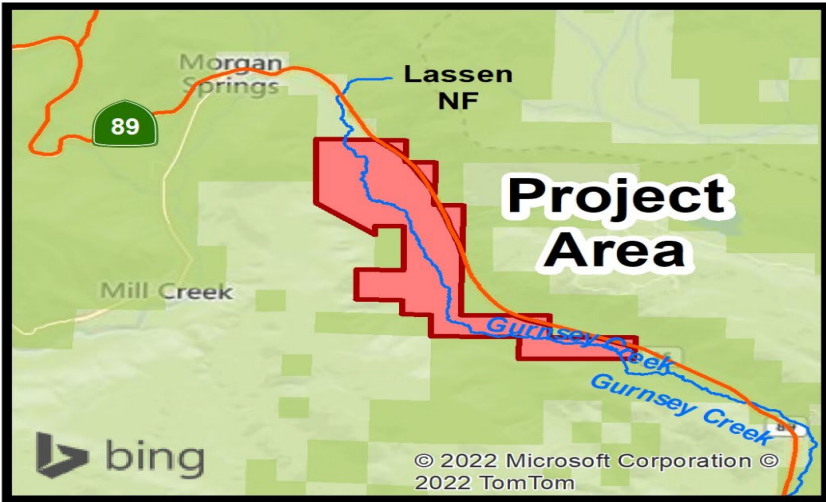
## 33. Marshall Ranch Flow Enhancement

Slide 4

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Intermediate floodplain, looking  
northeast. Credit: Stillwater Sciences





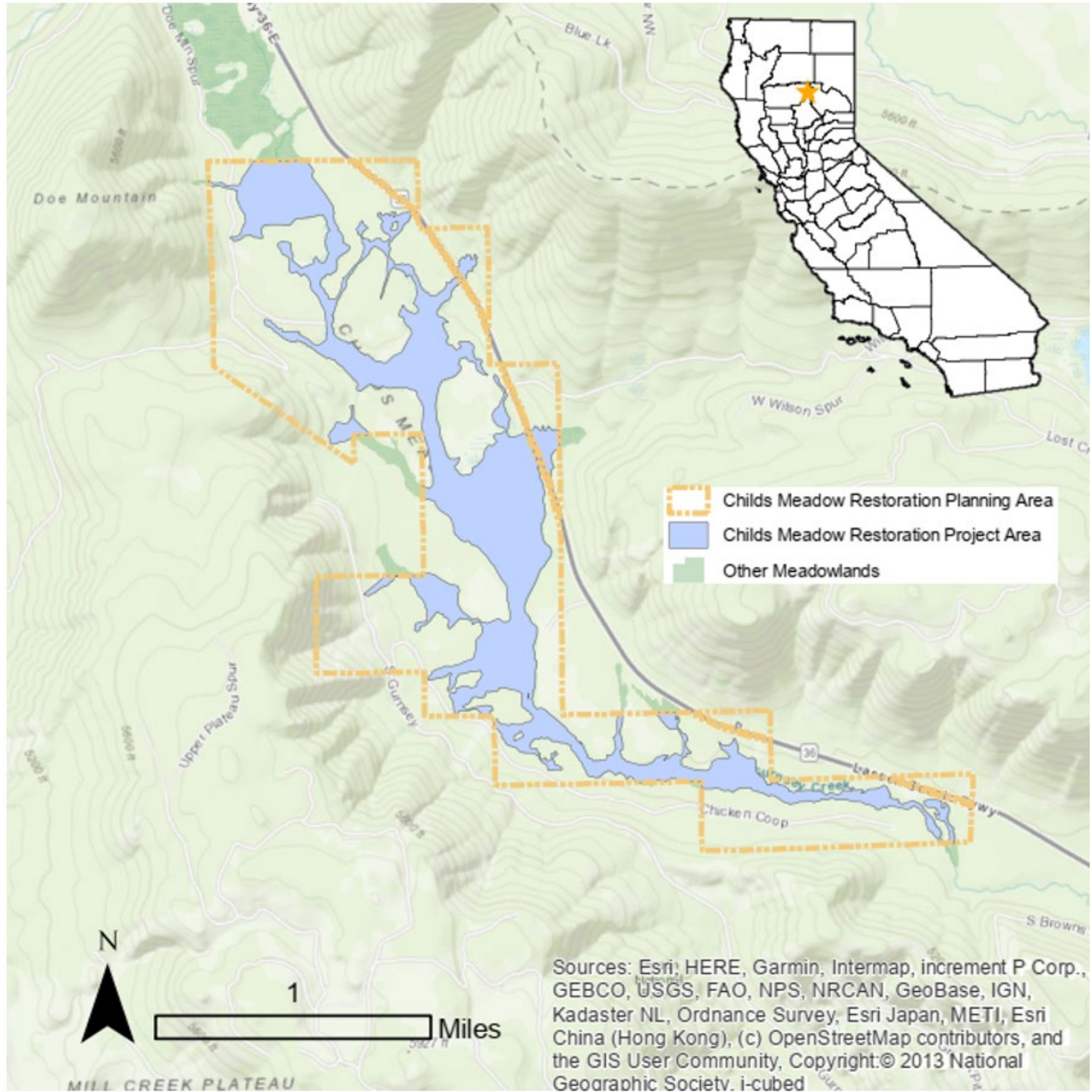
- Project Area
- Connectivity Areas
- California Department of Fish and Wildlife
- State
- Federal
- Other





# 34. Childs Meadow Restoration

Slide 1





# 34. Childs Meadow Restoration

Slide 2

---

Active head cutting in Childs Meadow.







## 34. Childs Meadow Restoration

Slide 3

Dewatered wetland habitat around active head cutting areas  
in upper Childs Meadow.





## 34. Childs Meadow Restoration

Slide 4

Left: Cattle exclusion fencing.

Right: Beaver Dam Analog installation.





## 34. Childs Meadow Restoration

Slide 5

---

Beaver-occupied reference reach of Gurnsey Creek in lower Childs Meadow.





## 34. Childs Meadow Restoration

Slide 6



Left: STRAW students after a planting day at Childs Meadow.

Right: Project Manager Ryan Burnett instructing students during a STRAW planting event at Childs Meadow.





# 34. Childs Meadow Restoration

Slide 7

Reach of Gurnsey Creek  
through Childs Meadow with  
Lassen Volcanic National Park  
in the background.



# Forest Conservation Program (2021 solicitation)

Slide 1

California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018 (**Proposition 68**)

“...protection, restoration, and improvement of **upper watershed lands** in the **Sierra Nevada** and **Cascade Mountains**, including forest lands, meadows, wetlands, chaparral, and riparian habitat, in order to protect and improve water supply and water quality, improve forest health, reduce wildfire danger, mitigate the effects of wildfires on water quality and supply, increase flood protection, or to protect or restore riparian or aquatic resources.”



# Forest Conservation Program

(2021 solicitation)

Slide 2

- Proposition 68
- Sierra Nevada and Cascade ecoregions
- \$60 million for upper watershed





# Forest Conservation Program

(2021 solicitation)

Slide 3

- Selection Process
  - Pre-Applications
  - Full Proposals
  - Selection Committee
- Solicitation Priorities
  - Meadows and streams
  - Post-fire recovery
  - Aspen stands





# Forest Conservation Program (2021 solicitation)

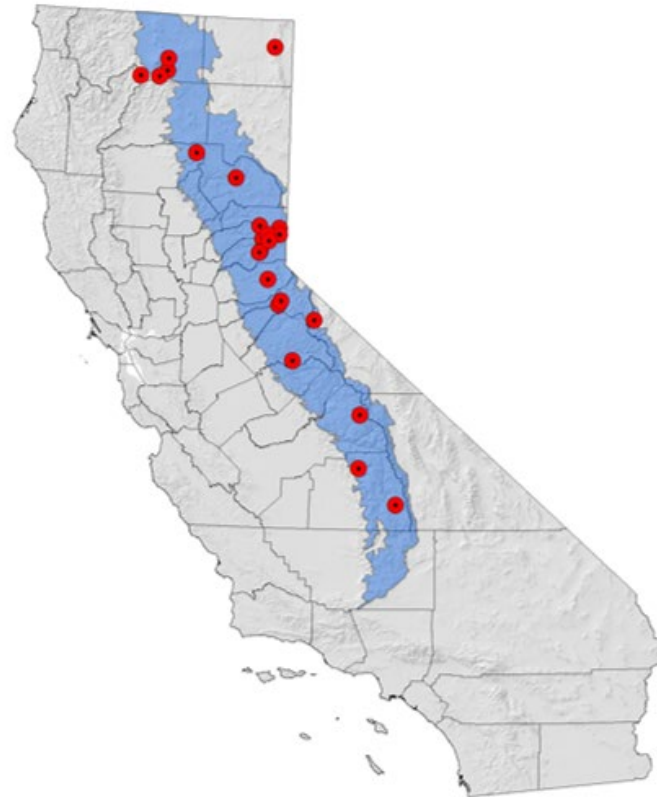
Slide 4



## Full Applications

23 proposals

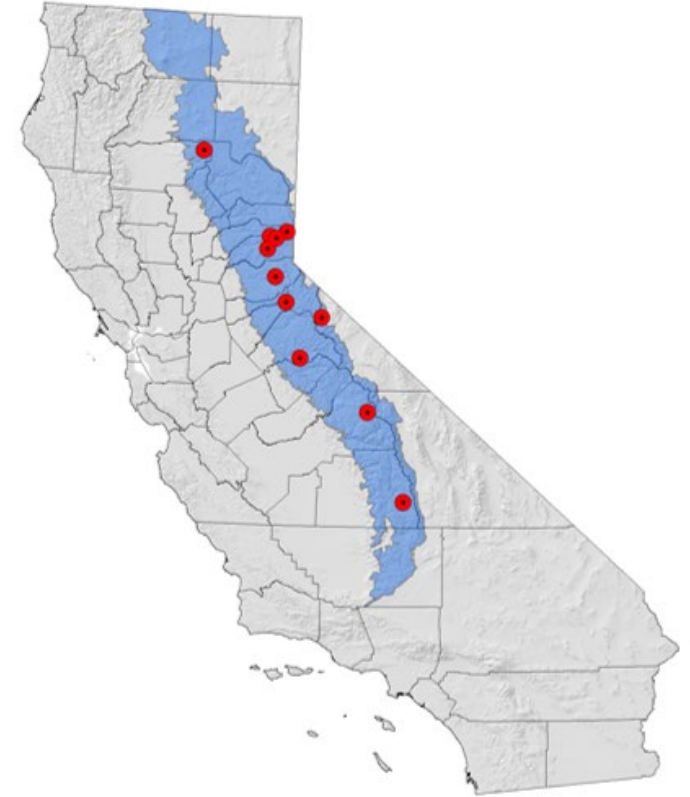
\$29,733,348



## Selected Proposals

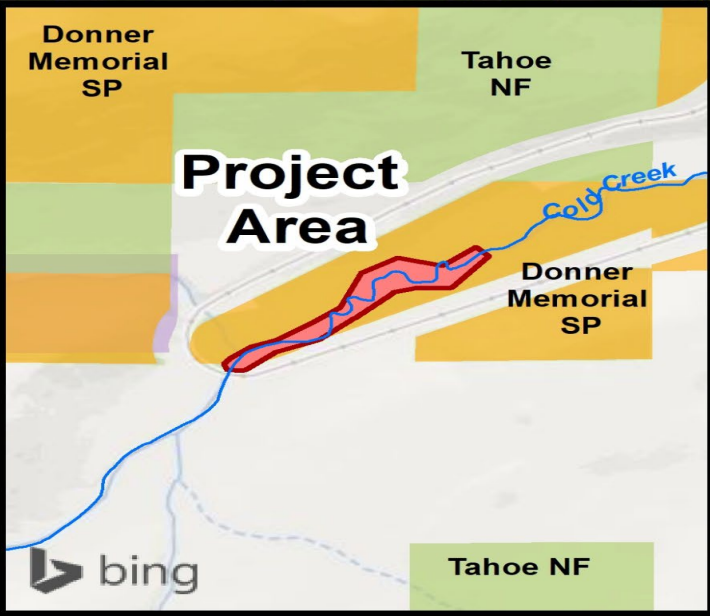
11 proposals

\$13,918,588





- Project Area
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Coldstream Canyon Restoration  
Placer County**

WCB  
State of California  
Wildlife Conservation Board

5 Miles

35 WCB 5/26/2022



# 35. Coldstream Canyon Restoration

Slide 1

Union Pacific Railroad culvert across Cold Creek (right) and map of project area (bottom)

Image credit: Waterways Consulting (bottom) and Eben Swain (right)





# 35. Coldstream Canyon Restoration

Slide 2

Mid-reach lacking riparian vegetation (bottom) and culvert passing under railroad and constraining flow path for Cold Creek (right)

Image credit: Cyndi Walck (bottom) and Eben Swain (right)





# 35. Coldstream Canyon Restoration

Slide 3

Heavily eroded stream bank and lack of floodplain connectivity

Image credit: Eben Swain





# 35. Coldstream Canyon Restoration

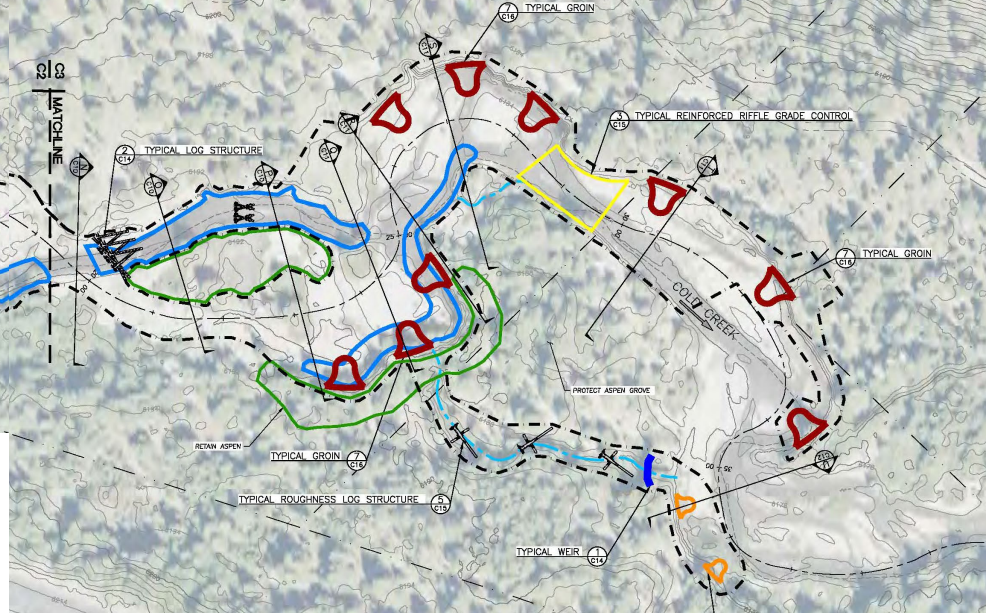
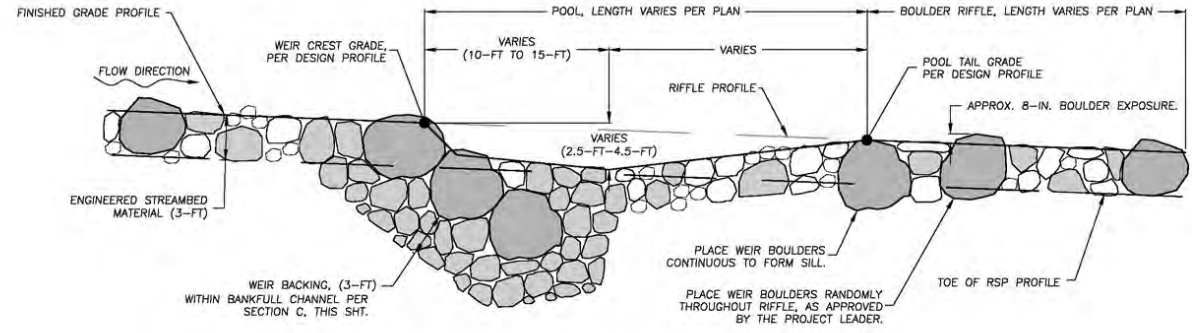
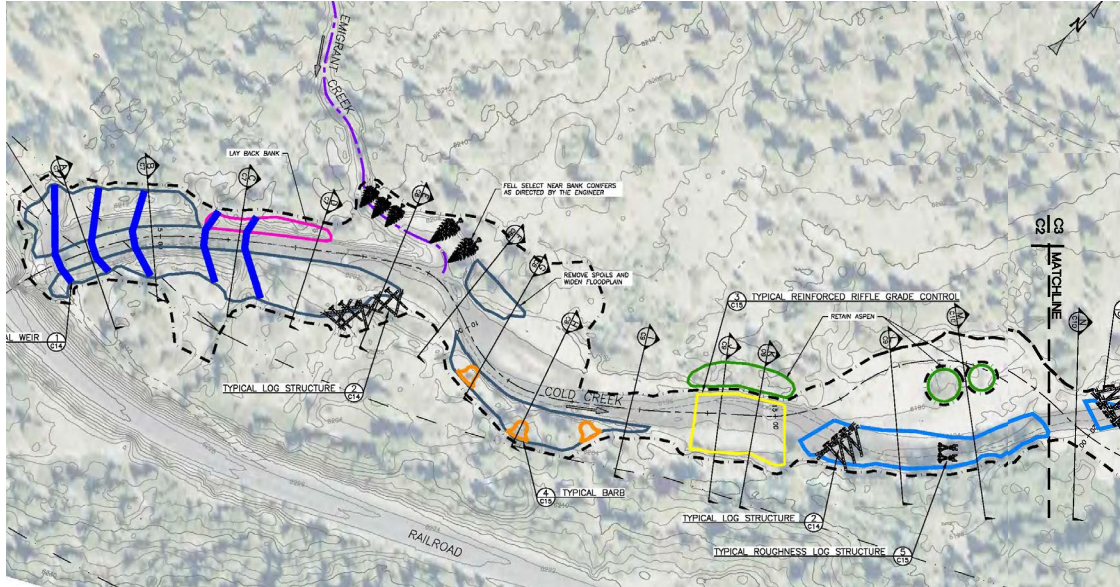
Slide 4

Degraded stream banks  
downstream of culvert  
showing channel instability  
and lack of floodplain  
connectivity

Image credit: Eben Swain







# 35. Coldstream Canyon Restoration

Slide 5

Design drawing excerpts

Image credit: Waterways Consulting

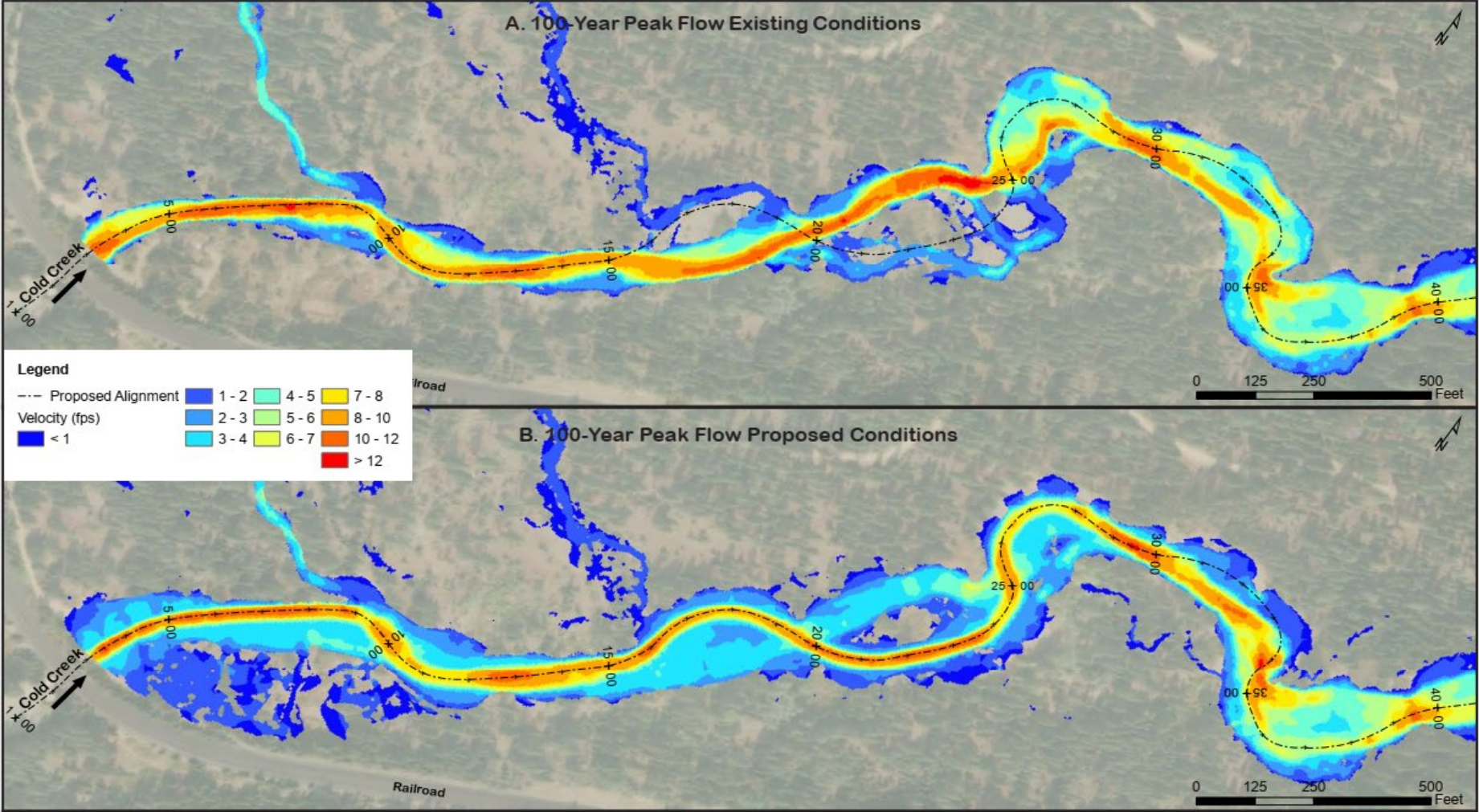


# 35. Coldstream Canyon Restoration

Slide 6

100-year predicted velocity model; existing (top) vs. proposed (bottom) conditions

Image credit: Waterways Consulting







## 35. Coldstream Canyon Restoration

Slide 7

Post-restoration examples from Blackwood Canyon

Image credit: Eben Swain





# 35. Coldstream Canyon Restoration

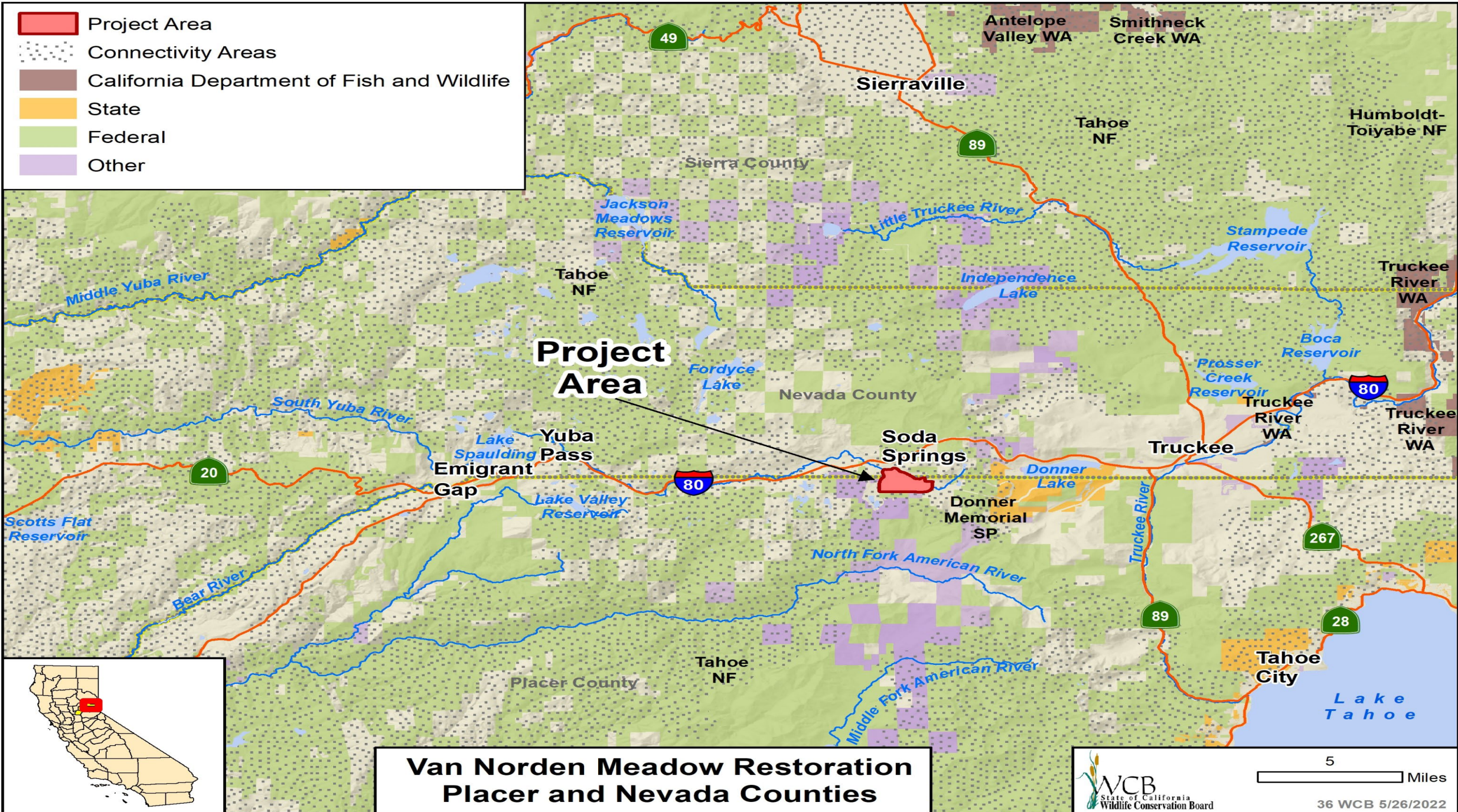
Slide 8

Reference site showing target condition

Image credit: Eben Swain



- Project Area
- Connectivity Areas
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Van Norden Meadow Restoration  
Placer and Nevada Counties**



5  
Miles



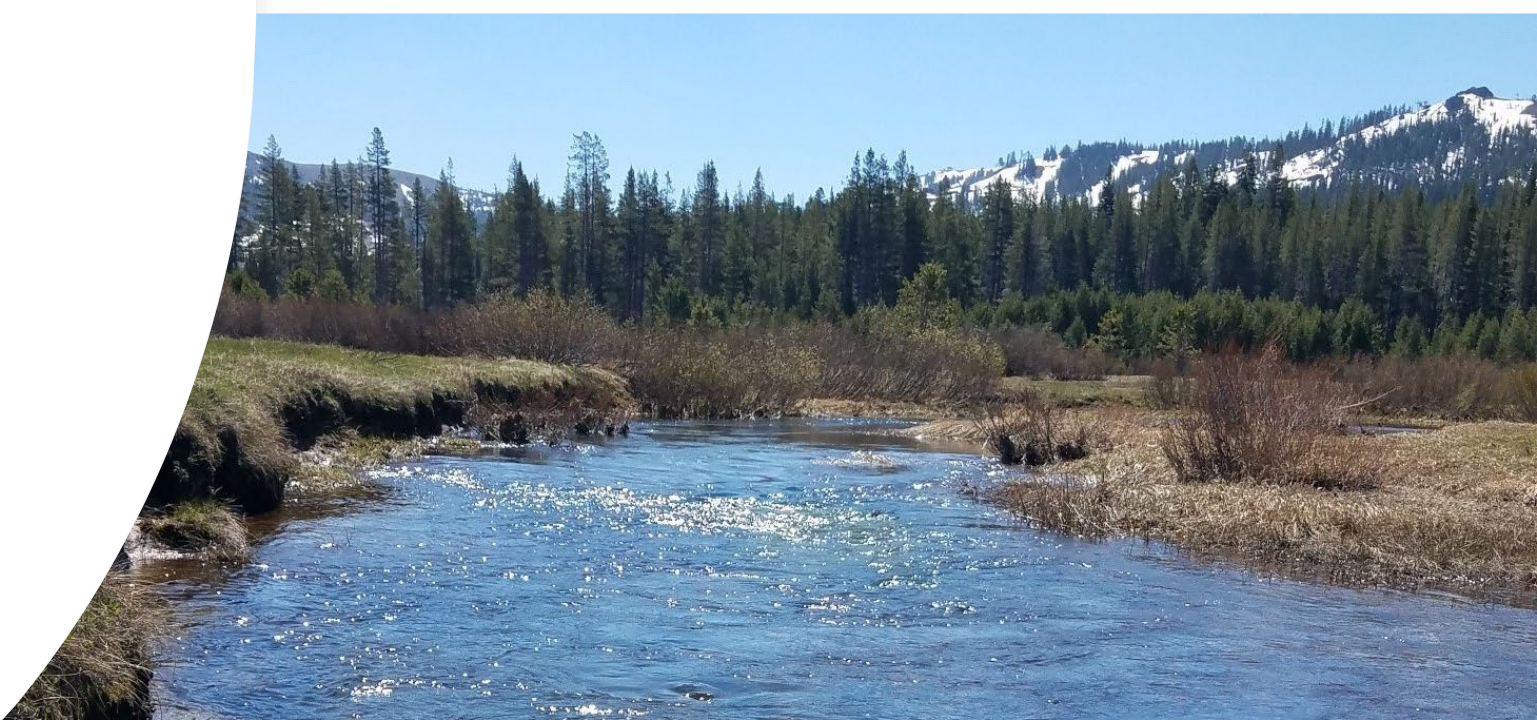


# 36. Van Norden Meadow Restoration

Slide 1

Van Norden Meadow showing South Yuba Channel and road bisecting the meadow

Image credit: SYRCL



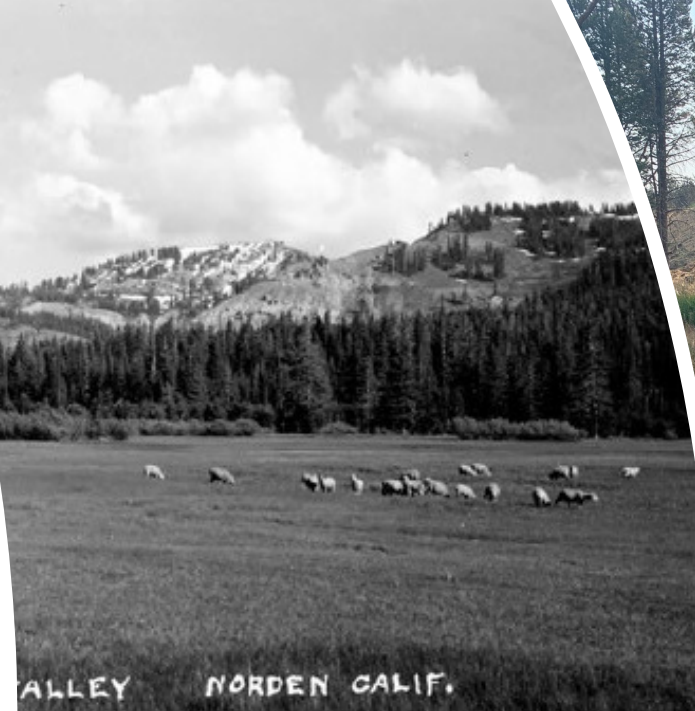


# 36. Van Norden Meadow Restoration

Slide 2

Multiple factors contributed to  
meadow degradation

Image credit: Donner Summit Historical Society (top left),  
SYRCAL (top right and bottom)







# 36. Van Norden Meadow Restoration

Slide 3

---

Erosion along Castle Creek

Image credit: SYRCL





## 36. Van Norden Meadow Restoration

Slide 4

Erosion along South Yuba Channel

Image credit: SYRCL





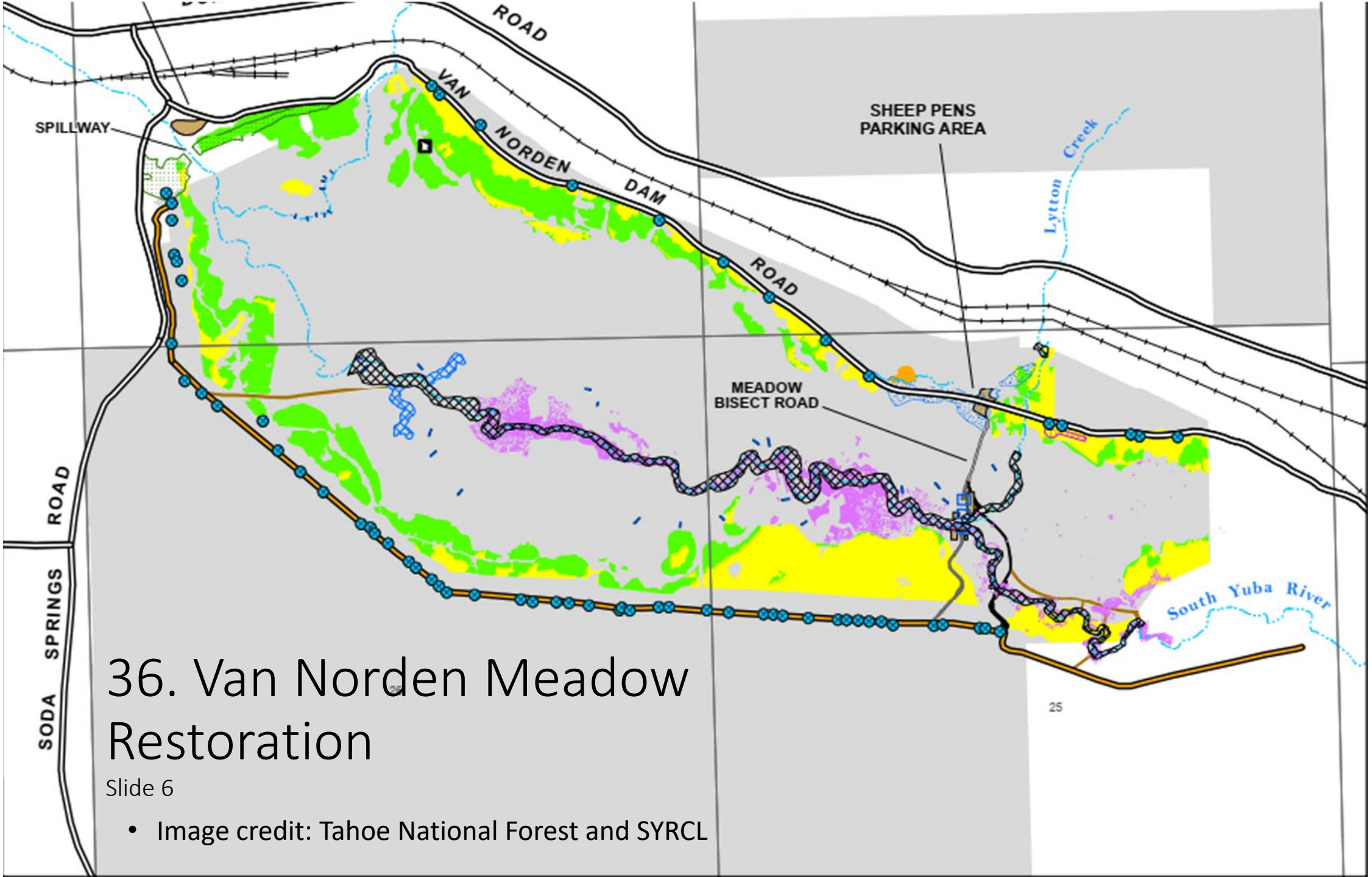
## 36. Van Norden Meadow Restoration

Slide 5

Culvert and channelized flows exacerbate erosion and impact water quality

Image credit: SYRCL (left and center) and UC Davis Center for Watershed Sciences (right)



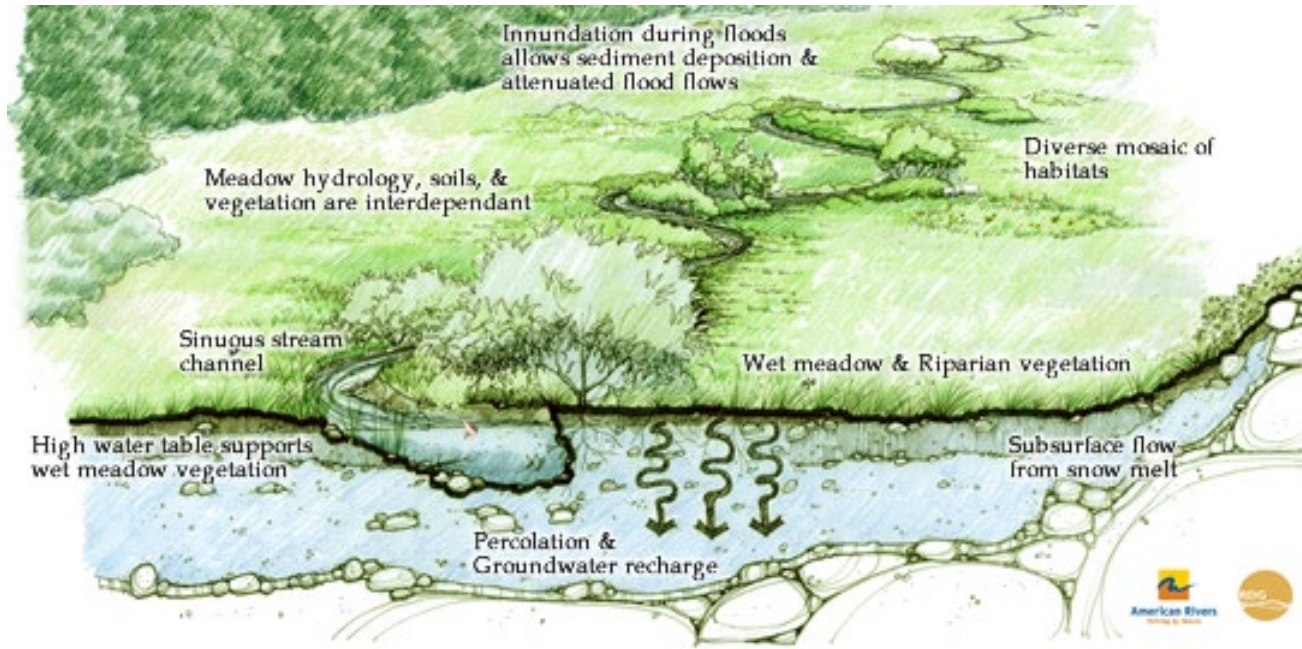


# 36. Van Norden Meadow Restoration

Slide 6

- Image credit: Tahoe National Forest and SYRCL





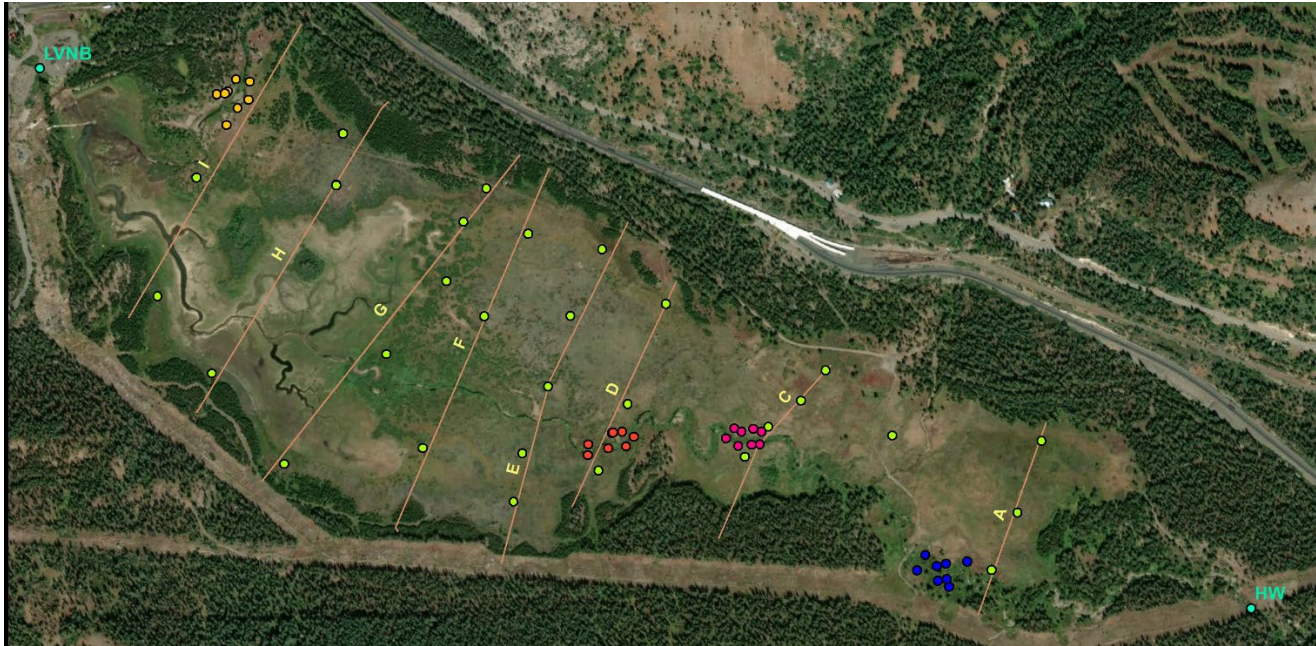
## 36. Van Norden Meadow Restoration

Slide 7

### Goals of meadow restoration

Image credit: American Rivers (top), SYRCL (right)





## 36. Van Norden Meadow Restoration

Slide 8

Restoration monitoring

Image credit: SYRCL







# 36. Van Norden Meadow Restoration

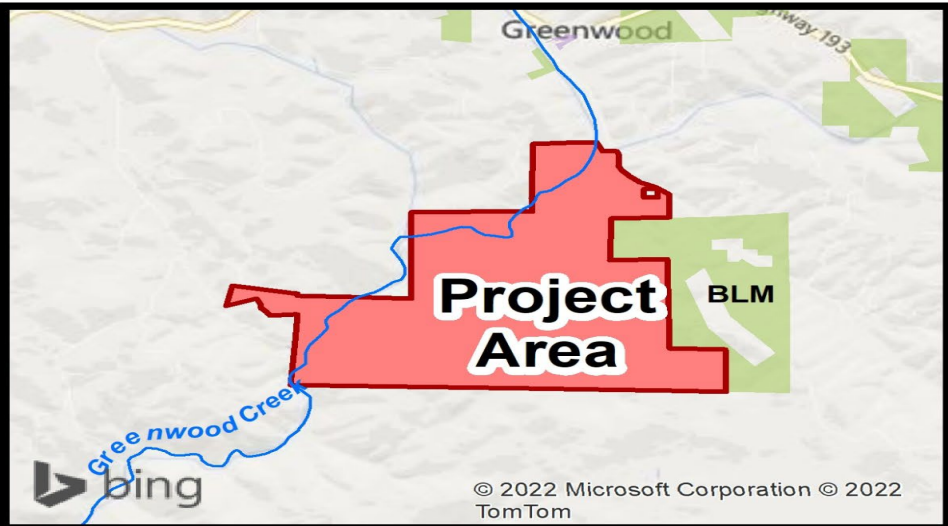
Slide 9

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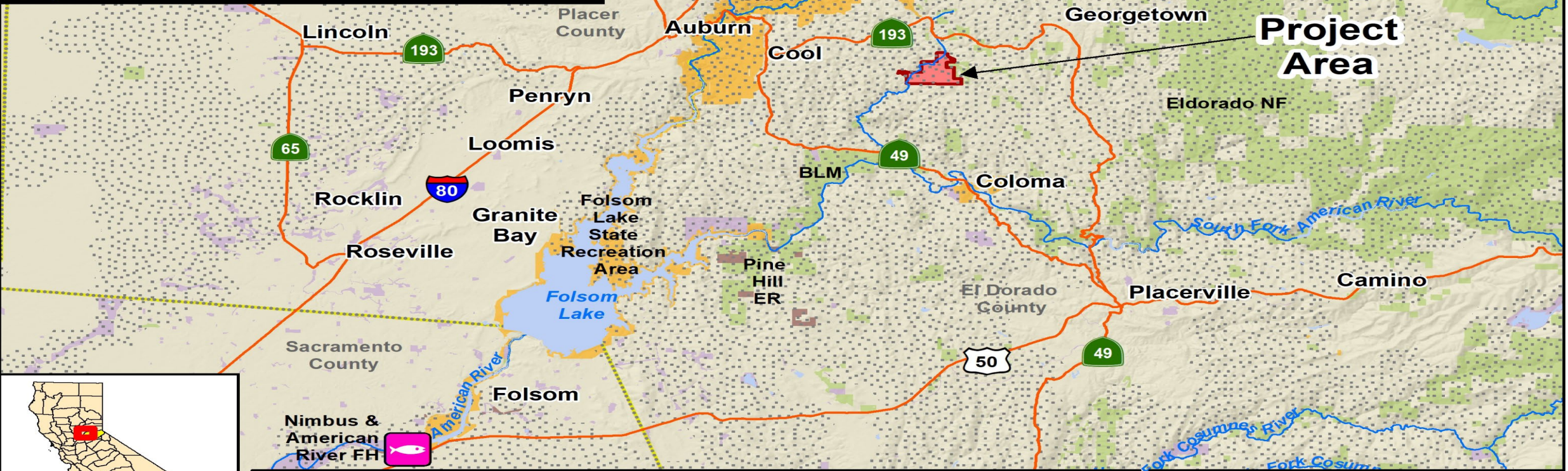
Van Norden Meadow from the northeast

Image credit: Aliya Ingersol





- Project Area
- Connectivity Areas
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Greenwood Creek Conservation Area (Lewis Ranch)  
El Dorado County**

5 Miles

37 WCB 5/26/2022





# 37. Greenwood Creek Conservation Area (Lewis Ranch)

Slide 1

Waterfalls on Greenwood Creek at the Southwestern corner of the Lewis Ranch property.






## 37. Greenwood Creek Conservation Area (Lewis Ranch)

Slide 2

Greenwood Creek, a perennial tributary to the South Fork American River, supports a diverse native wildlife community.





## 37. Greenwood Creek Conservation Area (Lewis Ranch)

Slide 3

The upland portions of the ranch provide a diversity of mixed conifers, oak woodland, hardwood montane and grassland.



A scenic view of a pond in a wooded area. The pond is surrounded by dense green trees and shrubs. In the foreground, there are tall grasses and numerous bright yellow flowers. The water in the pond is calm and reflects the surrounding greenery. The sky is clear and blue.

## 37. Greenwood Creek Conservation Area (Lewis Ranch)

Slide 4

One of five ponds on the property  
several of which provide suitable  
habitat for western pond turtle and  
California red-legged frog.





37. Greenwood Creek  
Conservation Area (Lewis Ranch)

Slide 5

Lewis Ranch is a working landscape.  
Cattle graze under the oaks from  
October through May.



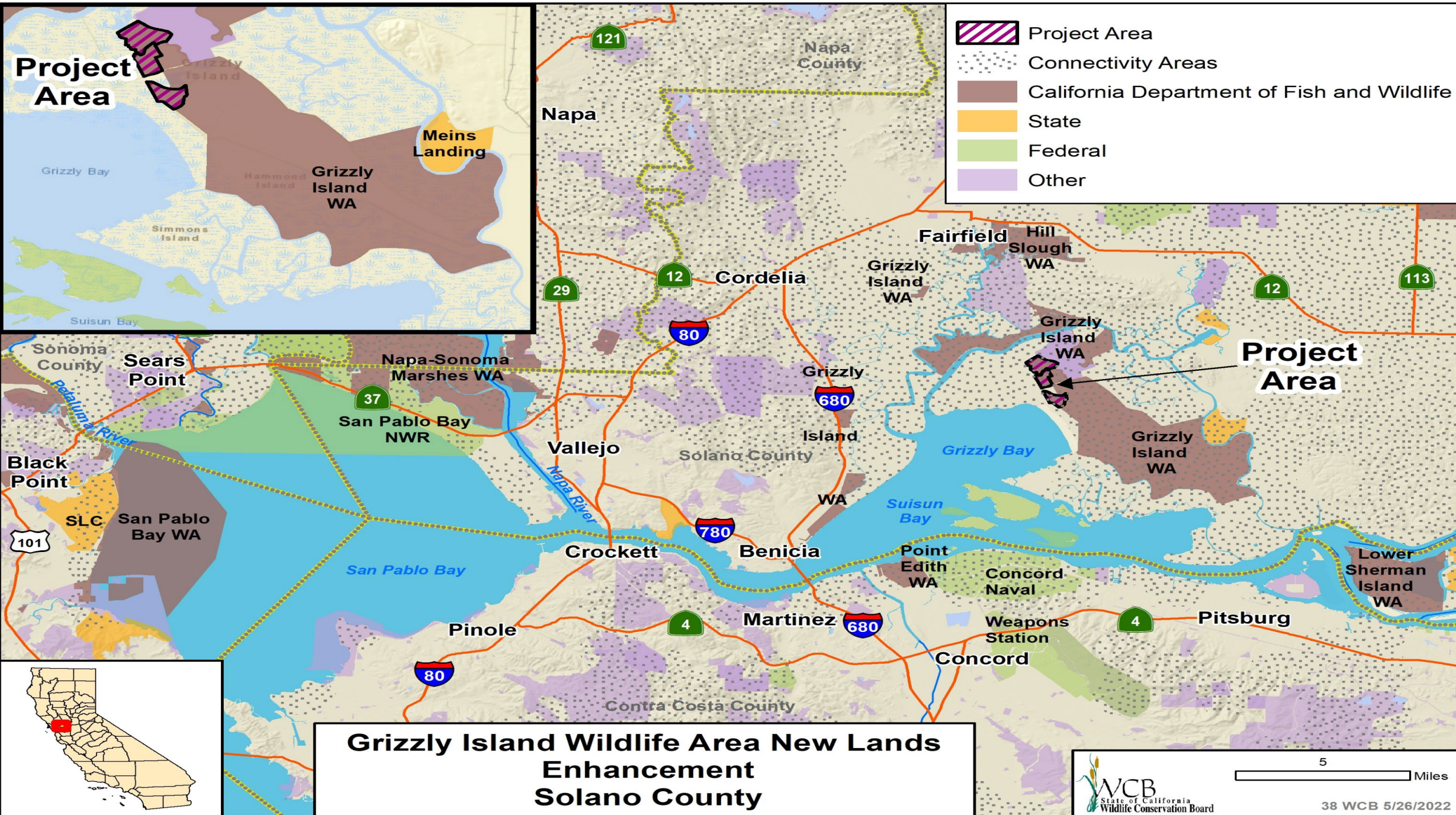


## 37. Greenwood Creek Conservation Area (Lewis Ranch)

Slide 6

The Ranch is situated at the transition zone between oak woodland and mixed conifer habitat types.





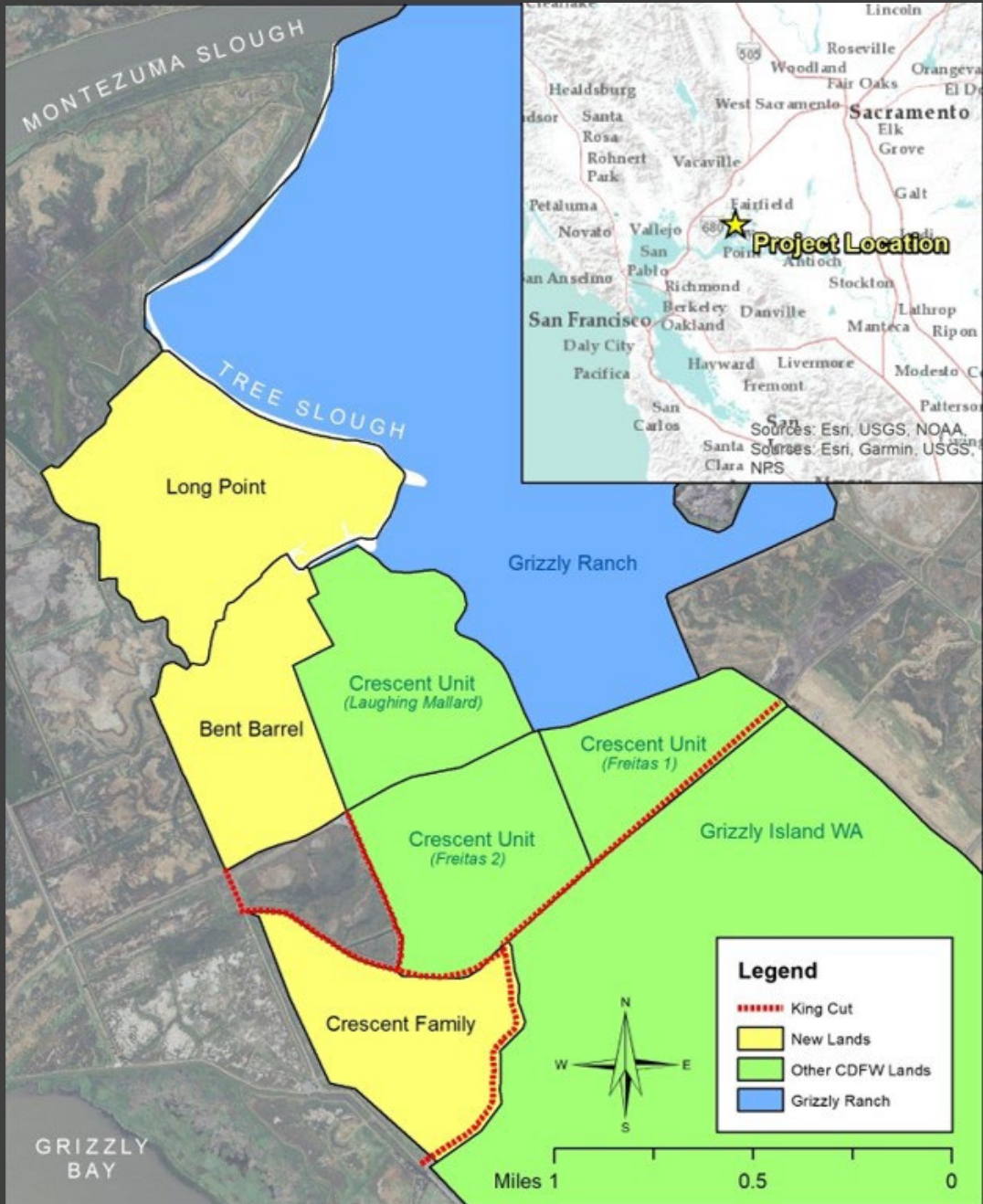
-  Project Area
-  Connectivity Areas
-  California Department of Fish and Wildlife
-  State
-  Federal
-  Other

**Grizzly Island Wildlife Area New Lands  
Enhancement  
Solano County**



5 Miles





# 38. Grizzly Island Wildlife Area New Lands Enhancement

Slide 1

Project location showing the “New Lands”:  
Long Point, Bent Barrel, Crescent Family





## 38. Grizzly Island Wildlife Area New Lands Enhancement

Slide 2

Narrow overgrown levee that is inaccessible by full-size tractor





## 38. Grizzly Island Wildlife Area New Lands Enhancement

Slide 3

Dilapidated hunting blind to be  
removed





## 38. Grizzly Island Wildlife Area New Lands Enhancement

Slide 4

Dilapidated shed to be removed



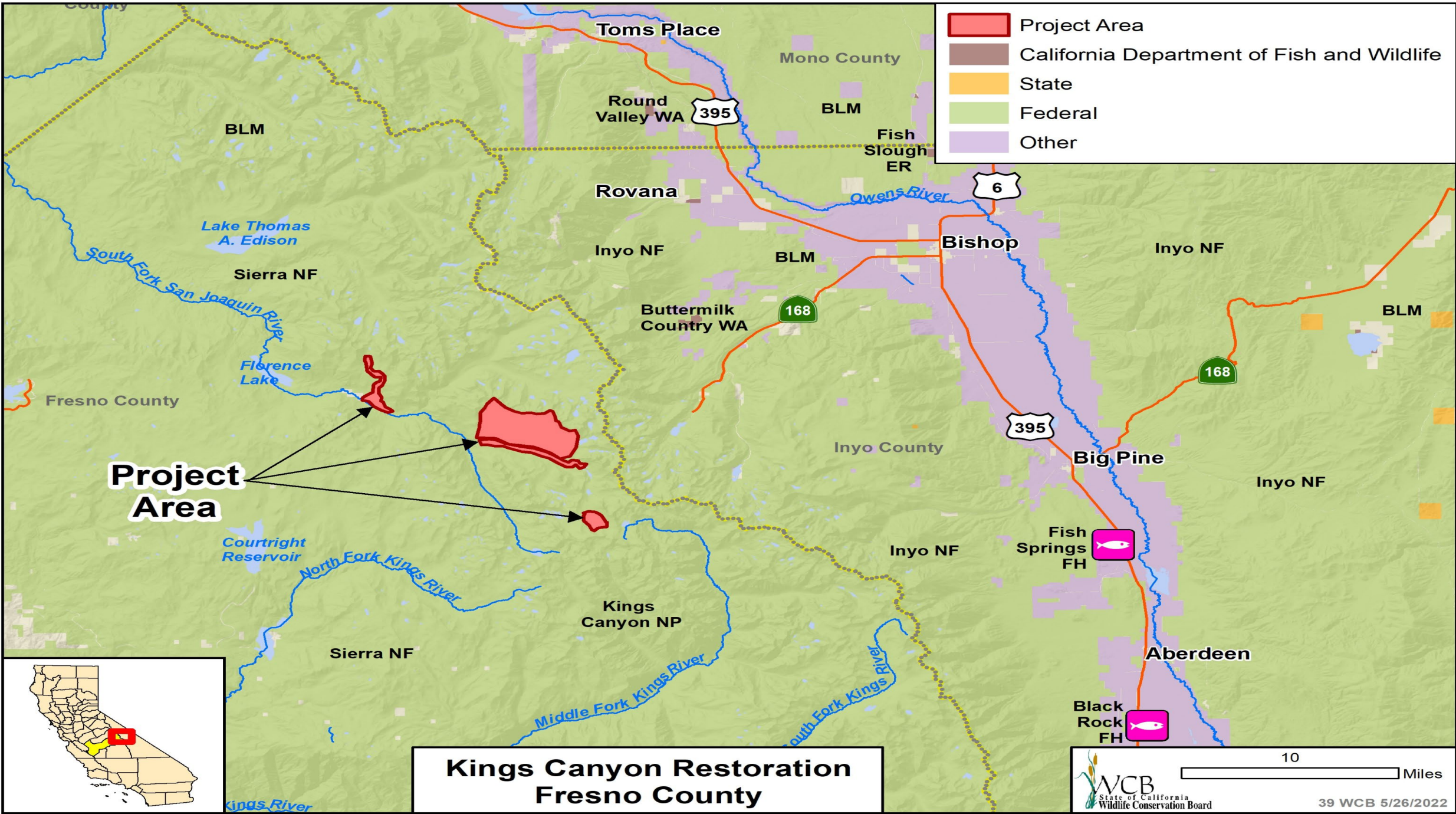


## 38. Grizzly Island Wildlife Area New Lands Enhancement

Slide 5

Water control structure with failed  
control gate





- Project Area
- California Department of Fish and Wildlife
- State
- Federal
- Other

**Project Area**

**Kings Canyon Restoration  
Fresno County**



# 39. Kings Canyon Restoration

Slide 1

Braided trail near McDermand  
Lake (left) and Wanda Lake (right)

Image credit: JMTWC



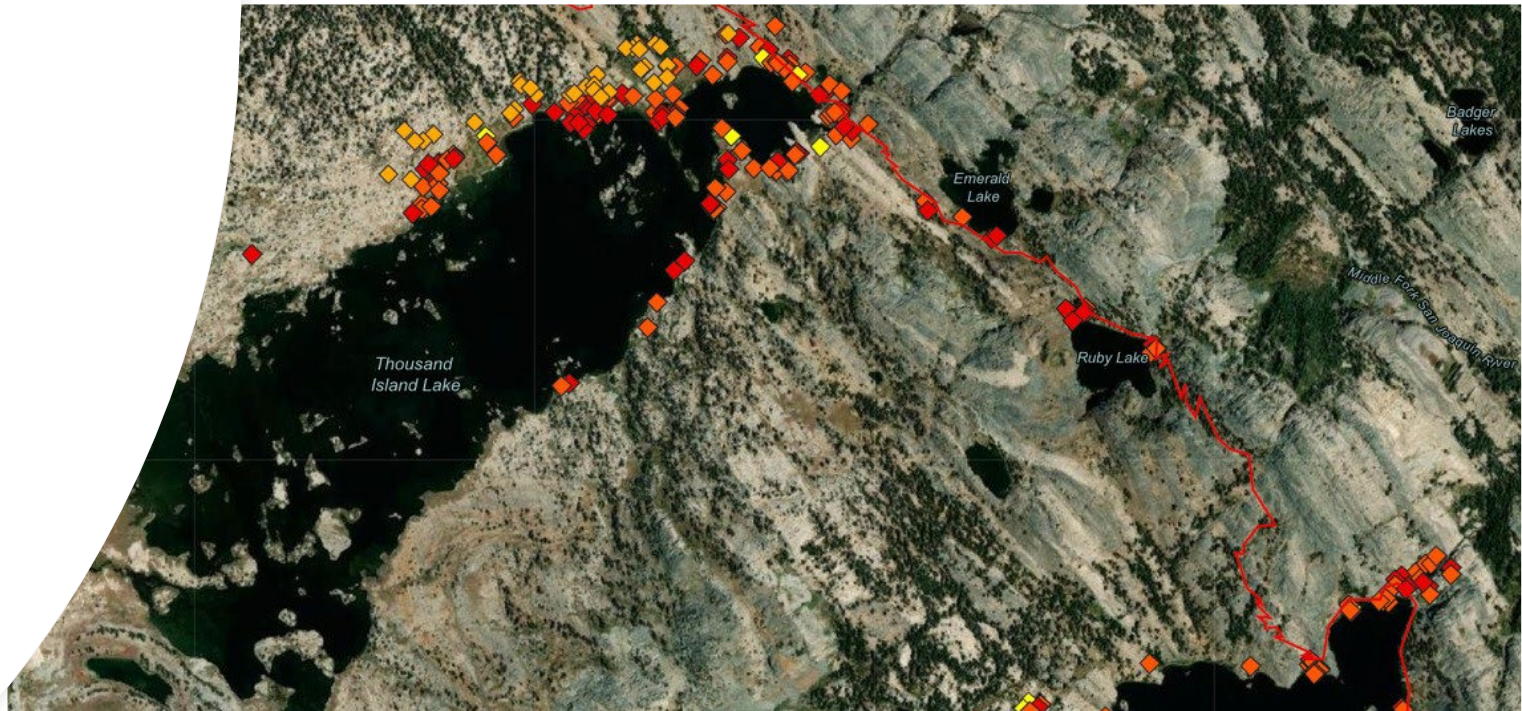


# 39. Kings Canyon Restoration

Slide 2

Illegal campsite at Evolution Meadow in Kings Canyon National Park (top) and map of similar sites around Thousand Island Lake and Garnet Lake in Inyo National Forest

Image credit: JMTWC





# 39. Kings Canyon Restoration

Slide 3

Degraded meadows in Sierra National Forest (bottom) and at Wanda Lake in Kings Canyon National Park (right)

Image credit: JMTWC







# 39. Kings Canyon Restoration

Slide 4

Before restoration (left) vs.  
After restoration (right)

Image credit: JMTWC



# 39. Kings Canyon Restoration

Slide 5

McClure Meadow, Kings Canyon National Park

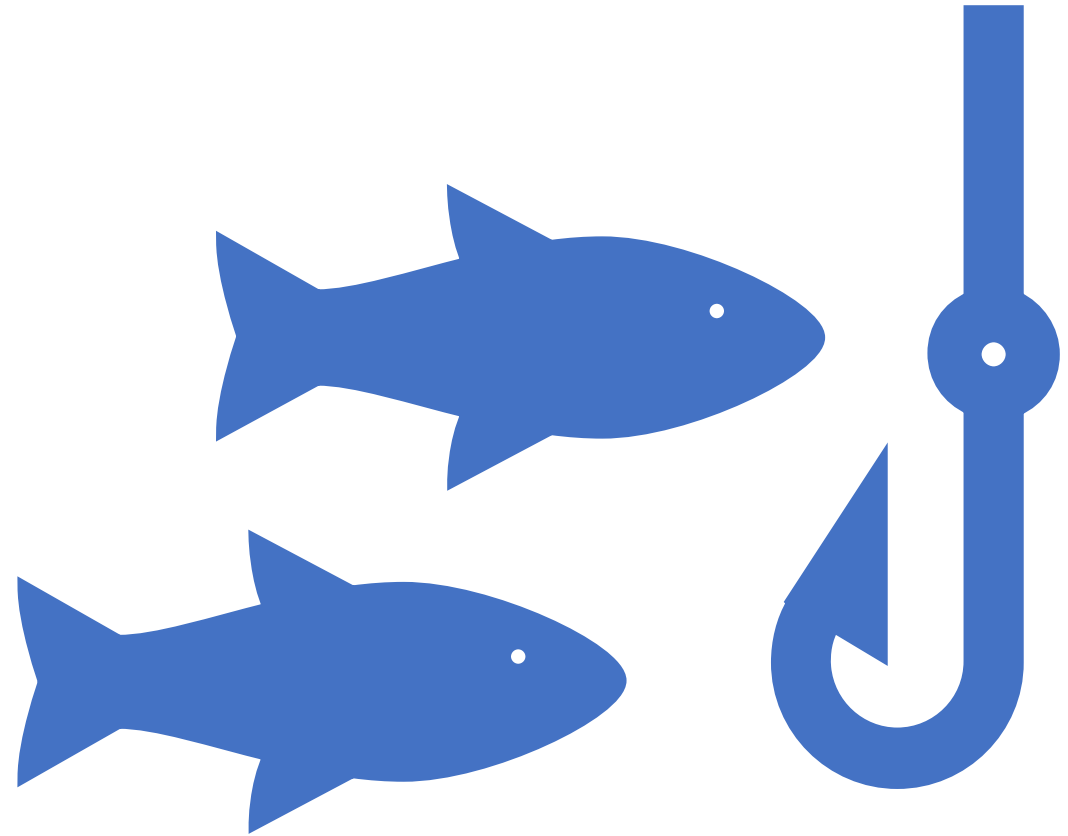
Image credit: JMTWC



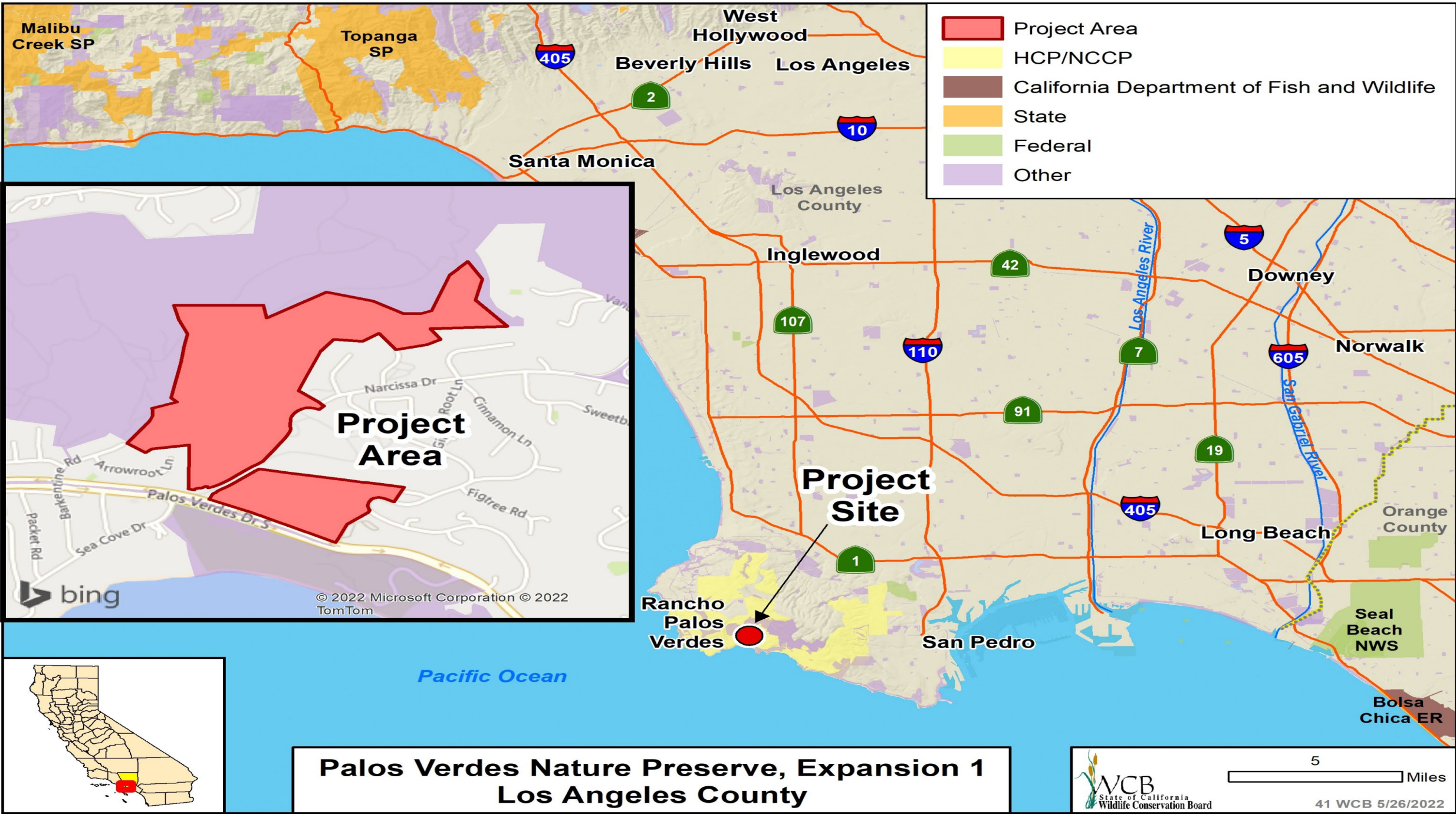


# 40. Bonelli Regional Park Fishing Pier Replacement

Withdrawn from  
consideration at  
this time







Malibu Creek SP

Topanga SP

West Hollywood  
Beverly Hills Los Angeles

Santa Monica

Los Angeles County

Inglewood

Downey

Norwalk

Long Beach

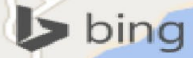
Orange County

Seal Beach NWS

Bolsa Chica ER



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# 41. Palos Verdes Nature Preserve, Expansion 1

Slide 1

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Aerial view of 96 acre land acquisition in  
Rancho Palos Verdes.





# 41. Palos Verdes Nature Preserve, Expansion 1

Slide 2

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Southwest view looking across the property.





## 41. Palos Verdes Nature Preserve, Expansion 1

Slide 3

Northwest view from the  
property ridgeline.



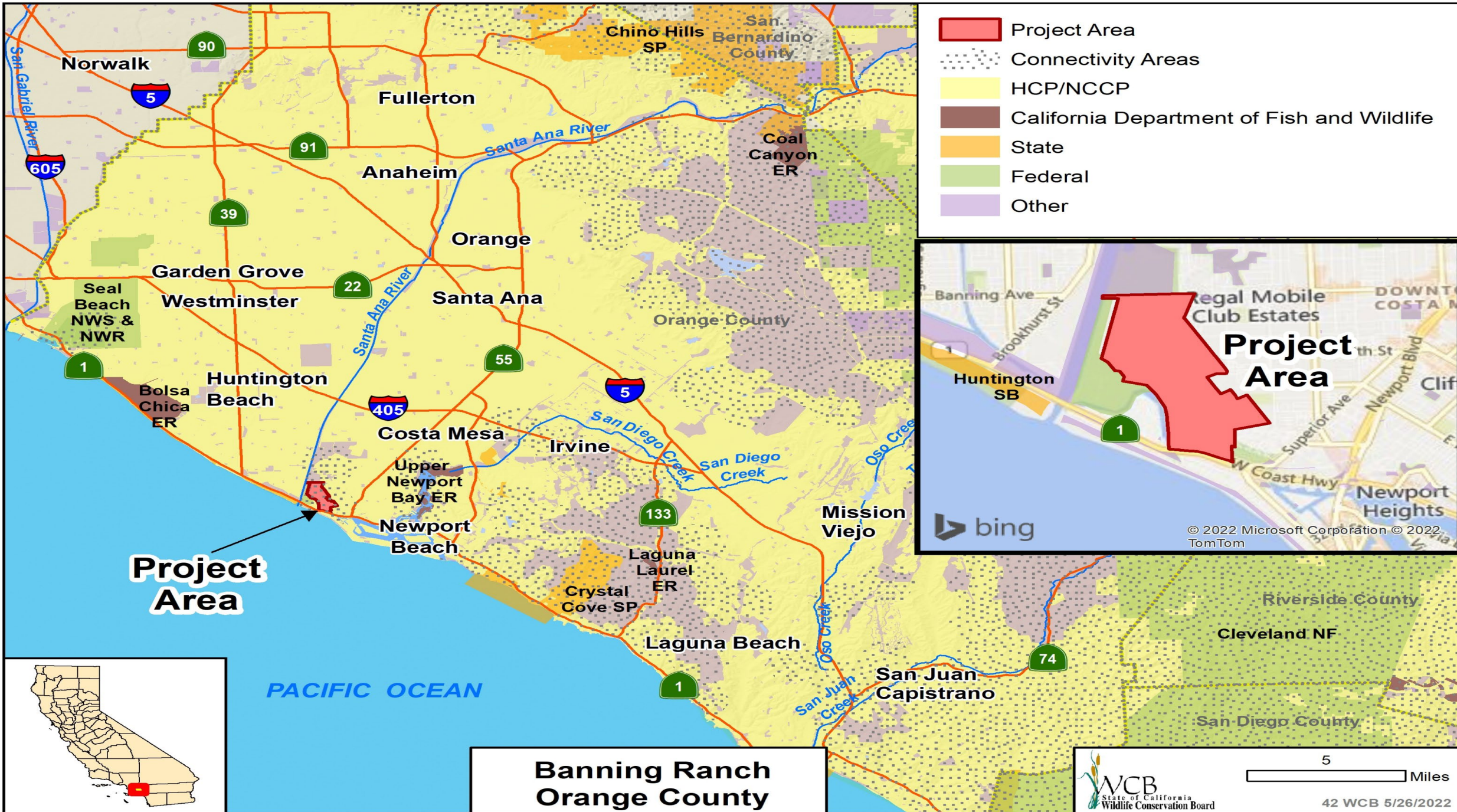


# 41. Palos Verdes Nature Preserve, Expansion 1

Slide 4

Southwest view looking across the property.





- Project Area
- Connectivity Areas
- HCP/NCCP
- California Department of Fish and Wildlife
- State
- Federal
- Other



**Project Area**

**Banning Ranch  
Orange County**

WCB  
State of California  
Wildlife Conservation Board

5 Miles

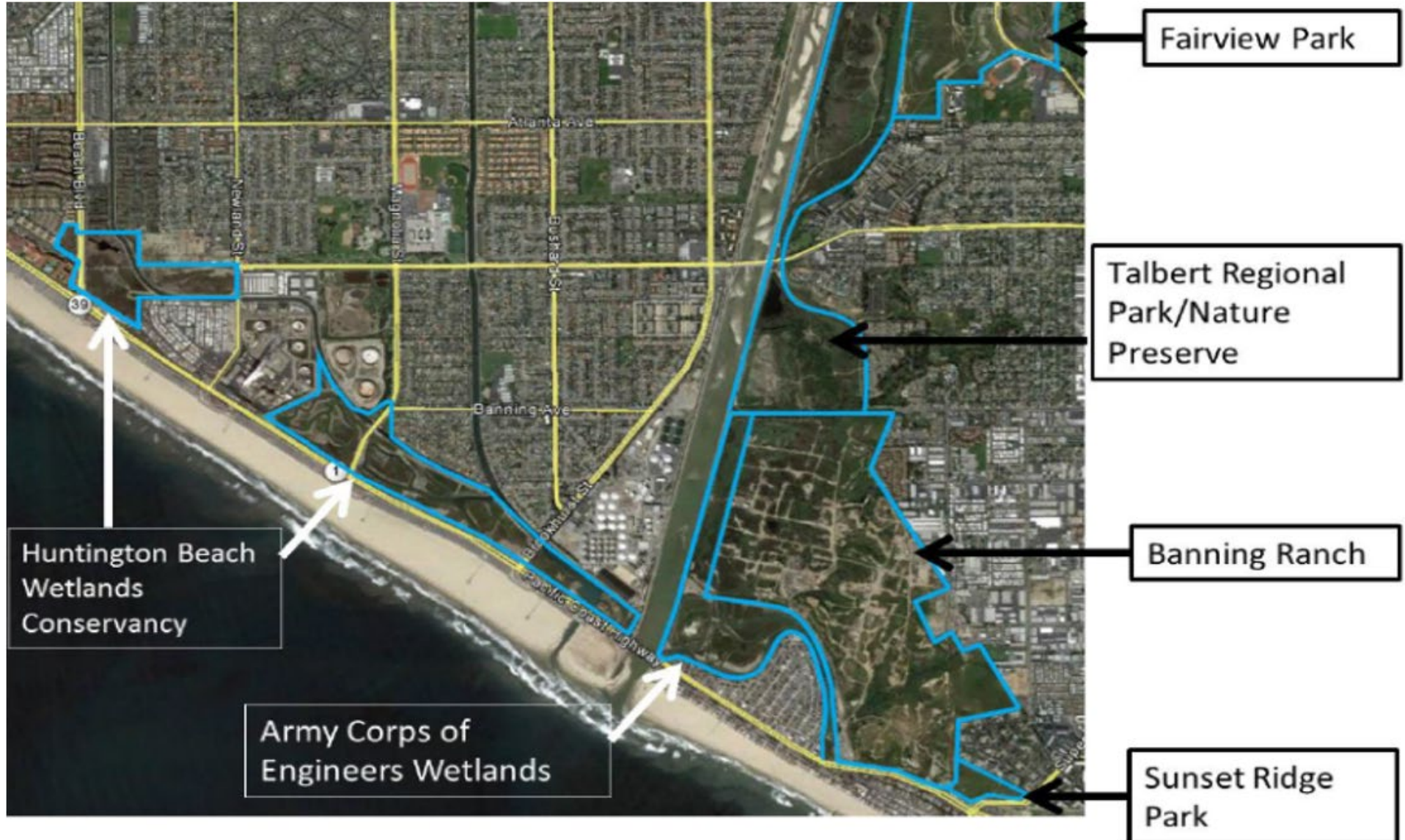
42 WCB 5/26/2022





# 42. Banning Ranch

Slide 1







# 42. Banning Ranch

Slide 2

Westerly overview of the Property from the upper bluff overlooking into lowland area.



A wide-angle photograph showing a vast, flat landscape covered in low-lying green and grey vegetation. In the distance, a range of mountains with significant snow cover is visible under a clear blue sky. A few palm trees and other shrubs are scattered across the middle ground. A thin utility pole is visible in the center-left background.

# 42. Banning Ranch

Slide 3

Easterly view of the Property with Big Bear snowcap mountains in the background.



A photograph of a marshland habitat. The foreground is filled with dense, dry, brownish vegetation. In the middle ground, there is a small, dark, reflective pool of water. The background shows a flat landscape with several utility poles under a blue sky with light, wispy clouds.

# 42. Banning Ranch

Slide 4

Marshland habitat located in the central portion of the Property.





# 42. Banning Ranch

Slide 5

Southerly view with residential development bordering the eastern border of the Property.





# 42. Banning Ranch

Slide 6

Northerly view of the Property on the upper bluff.



# 43. State Route 91 B Canyon Wildlife Crossing

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Withdrawn from  
consideration at this  
time.






**Proposed Items 29-43  
Motion**



San Luis Obispo Creek





## Item 44. Executive Director's Report

- WCB 75th Anniversary Celebration Update
- WCB June Workshop
- Lower American River Advisory Committee Tour





## Stay Safe and Healthy, Enjoy the Rest of Your Day!

- Board workshop – June 17<sup>th</sup> 1:00pm
- Board meeting – August 25 10:00 am – CNRA HQ
- 75-year Celebration – August 25 after Board meeting