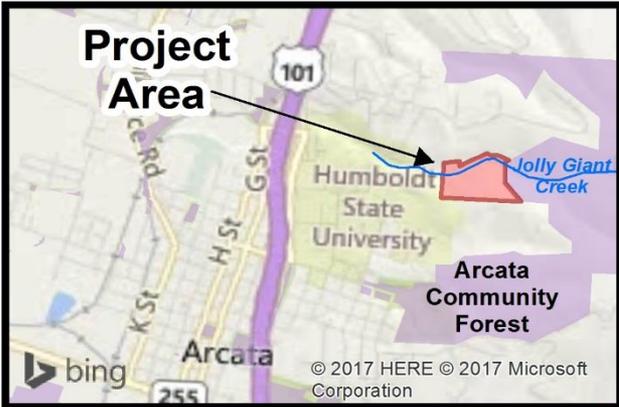


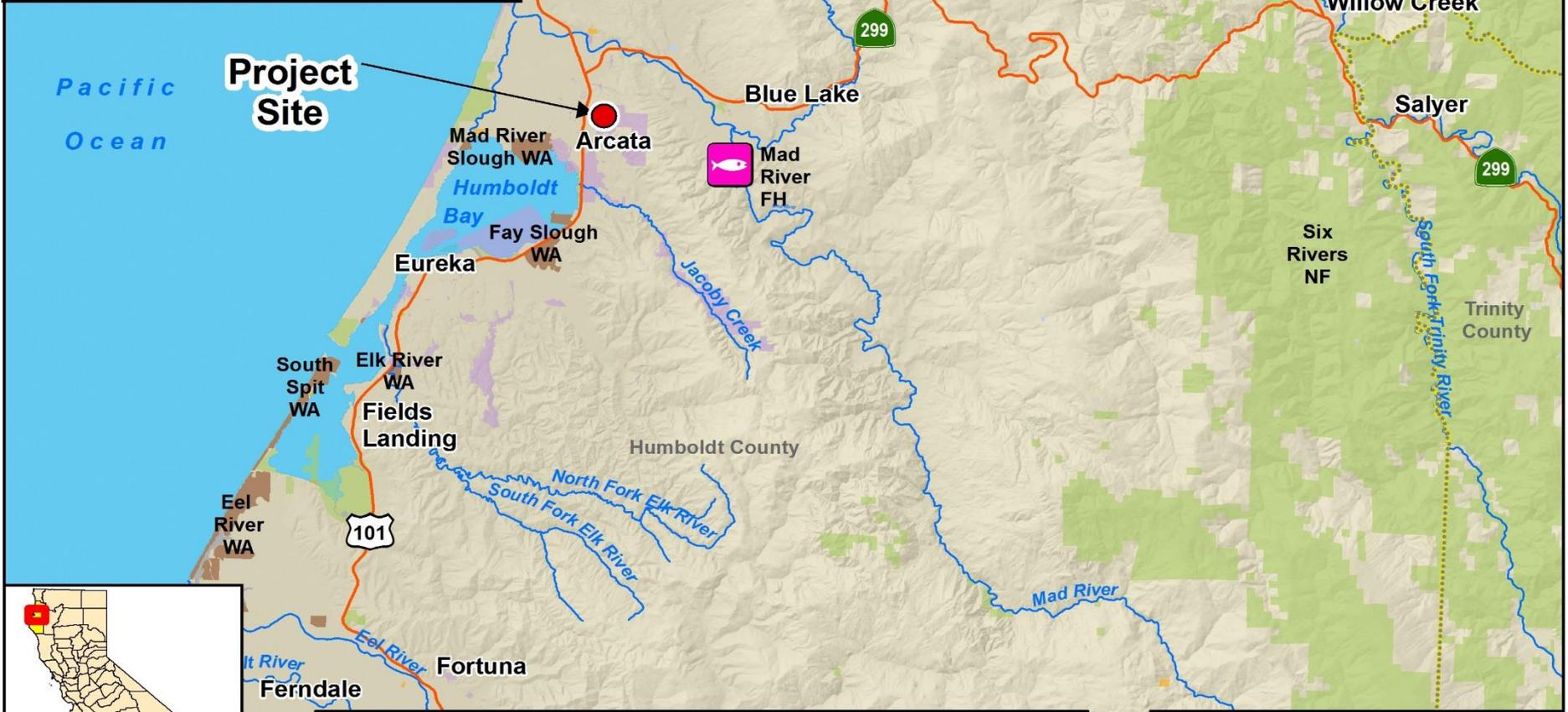


Wildlife Conservation Board Meeting
November 30, 2017, 10:00am

Natural Resources Building, First Floor Auditorium
1416 9th Street, Sacramento, California 95814



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



**City of Arcata, Lima Conservation Easement
Humboldt County**

7.5 Miles

WCB
State of California
Wildlife Conservation Board

7 WCB 11/30/2017 lo/WLB

#7. City of Arcata, Lima Conservation Easement



Second growth redwood forest on the Lima property

#7. City of Arcata, Lima Conservation Easement

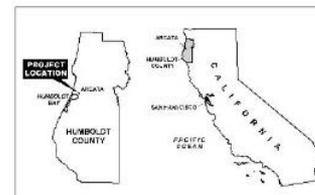
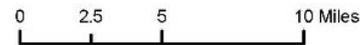


Uneven-aged forest structure. This high quality redwood site provides wildlife habitat and carbon sequestration rates of approximately 6 metric tonnes/acre/year.

#7. City of Arcata, Lima Conservation Easement



Project location



#7. City of Arcata, Lima Conservation Easement

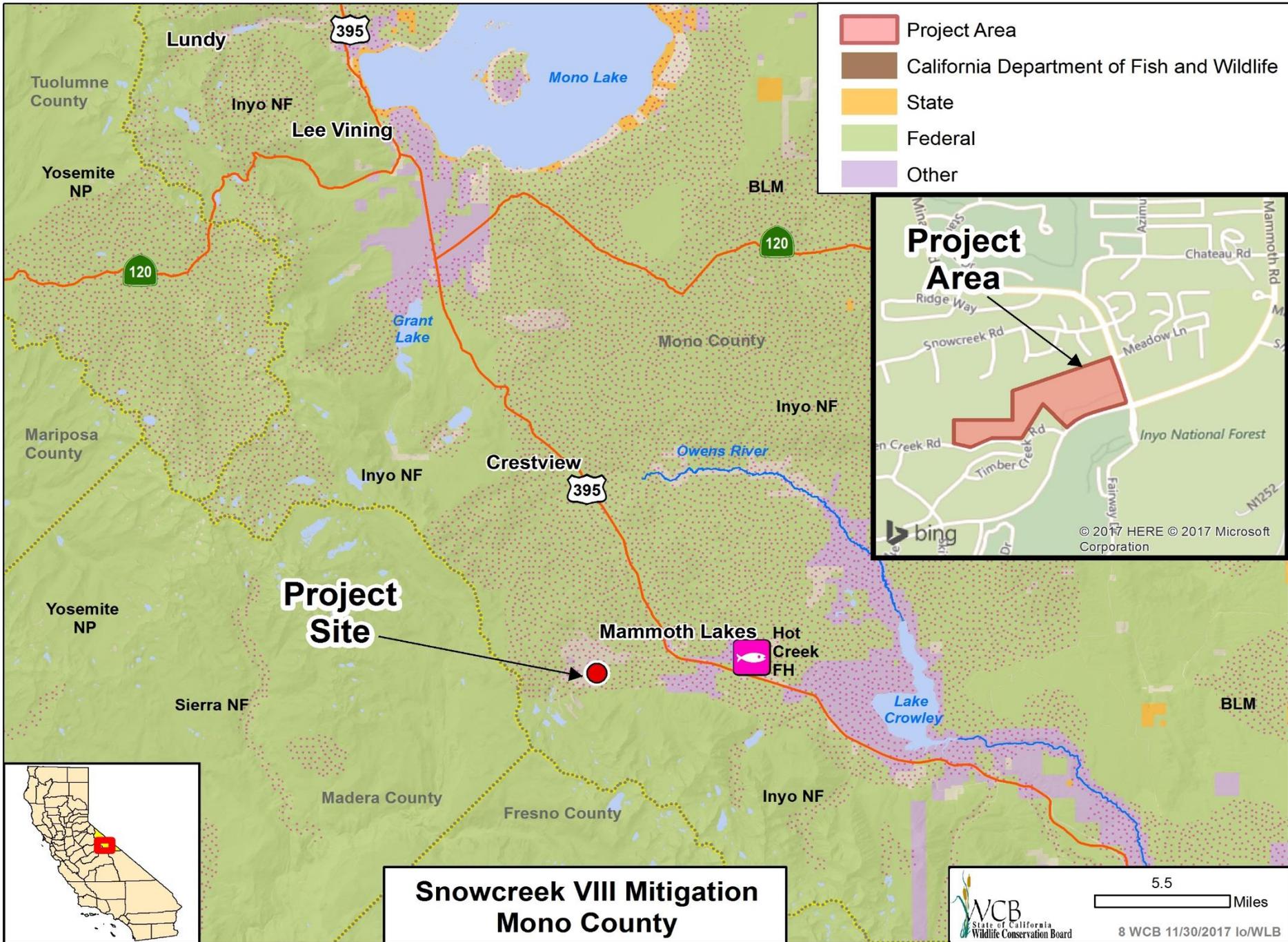


Existing logging road adjacent to creek. Note existing unauthorized recreational use on private land.

#7. City of Arcata, Lima Conservation Easement



Upper Jolly Giant Creek is a fish bearing stream (Coastal Cutthroat Trout) on the Lima property



#8. Snowcreek VIII Mitigation

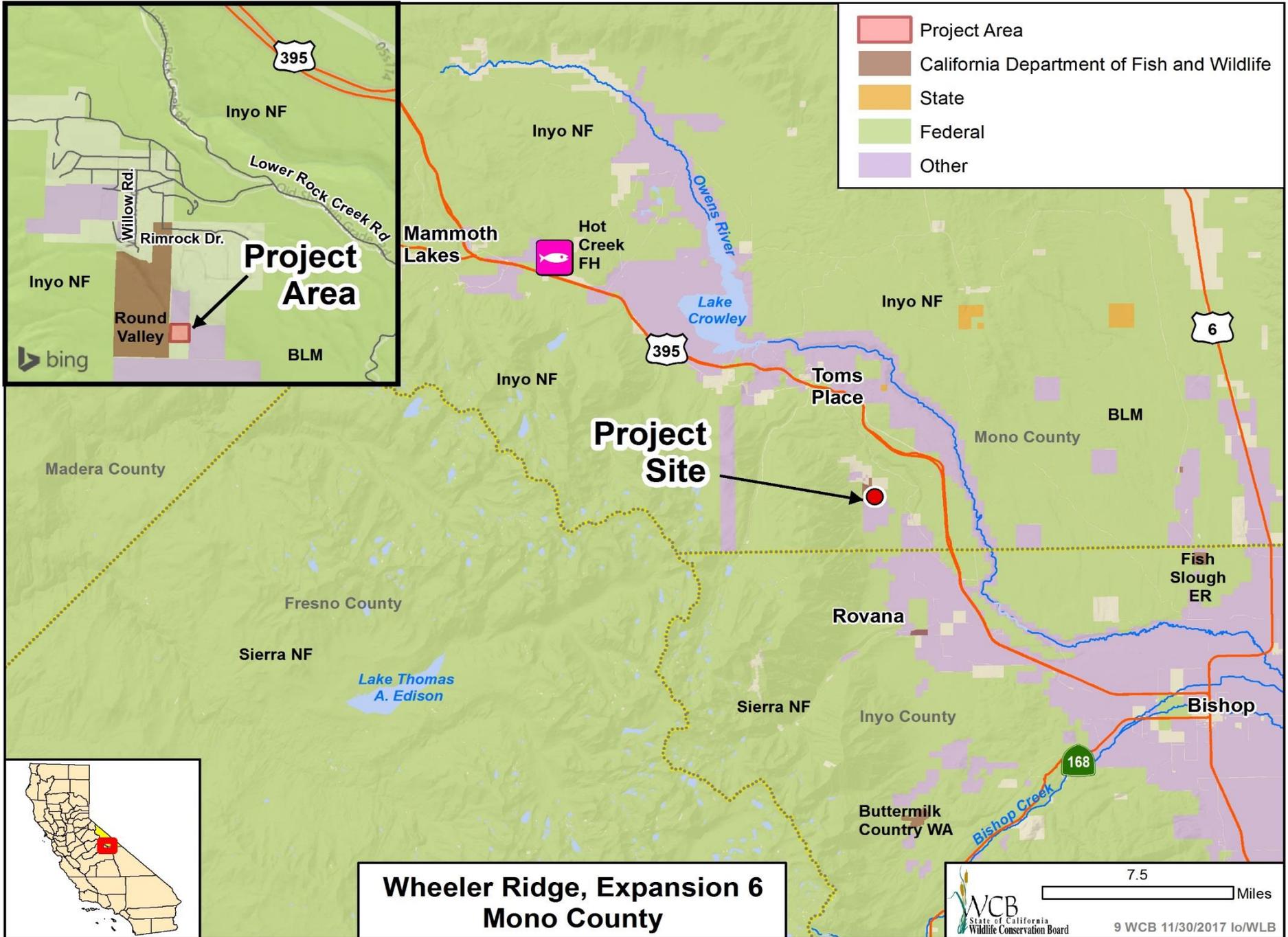


Looking towards the Sherwin mountains from the subject property

#8. Snowcreek VIII Mitigation



View from subject property, Mammoth Mountain in the background



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



Project Area

Project Site

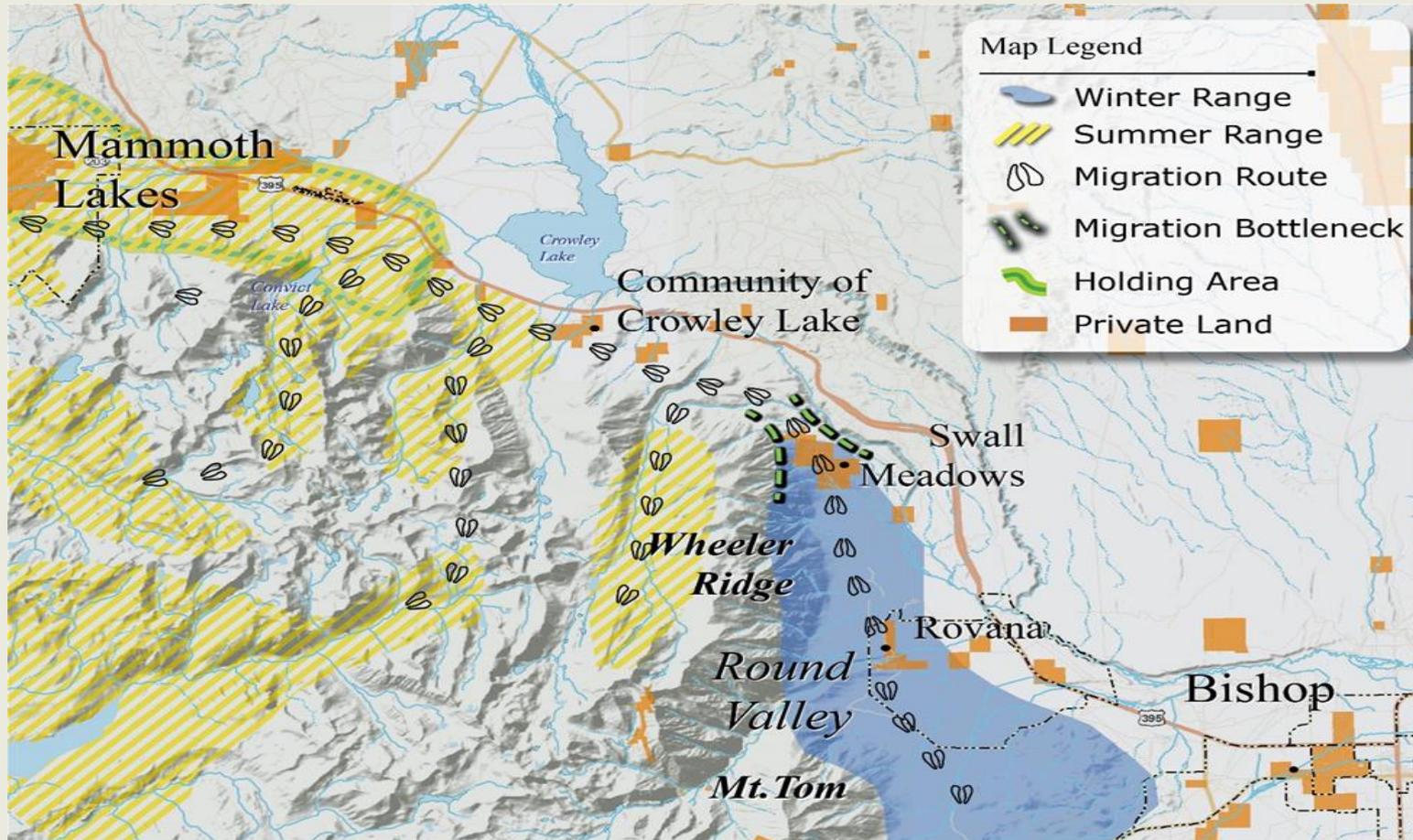
**Wheeler Ridge, Expansion 6
Mono County**

7.5
Miles

WCB
 State of California
 Wildlife Conservation Board

9 WCB 11/30/2017 Io/WLB

#9. Wheeler Ridge, Expansion 6



Deer ranges and mitigation routes

#9. Wheeler Ridge, Expansion 6



Wheeler Ridge to the west

#9. Wheeler Ridge, Expansion 6

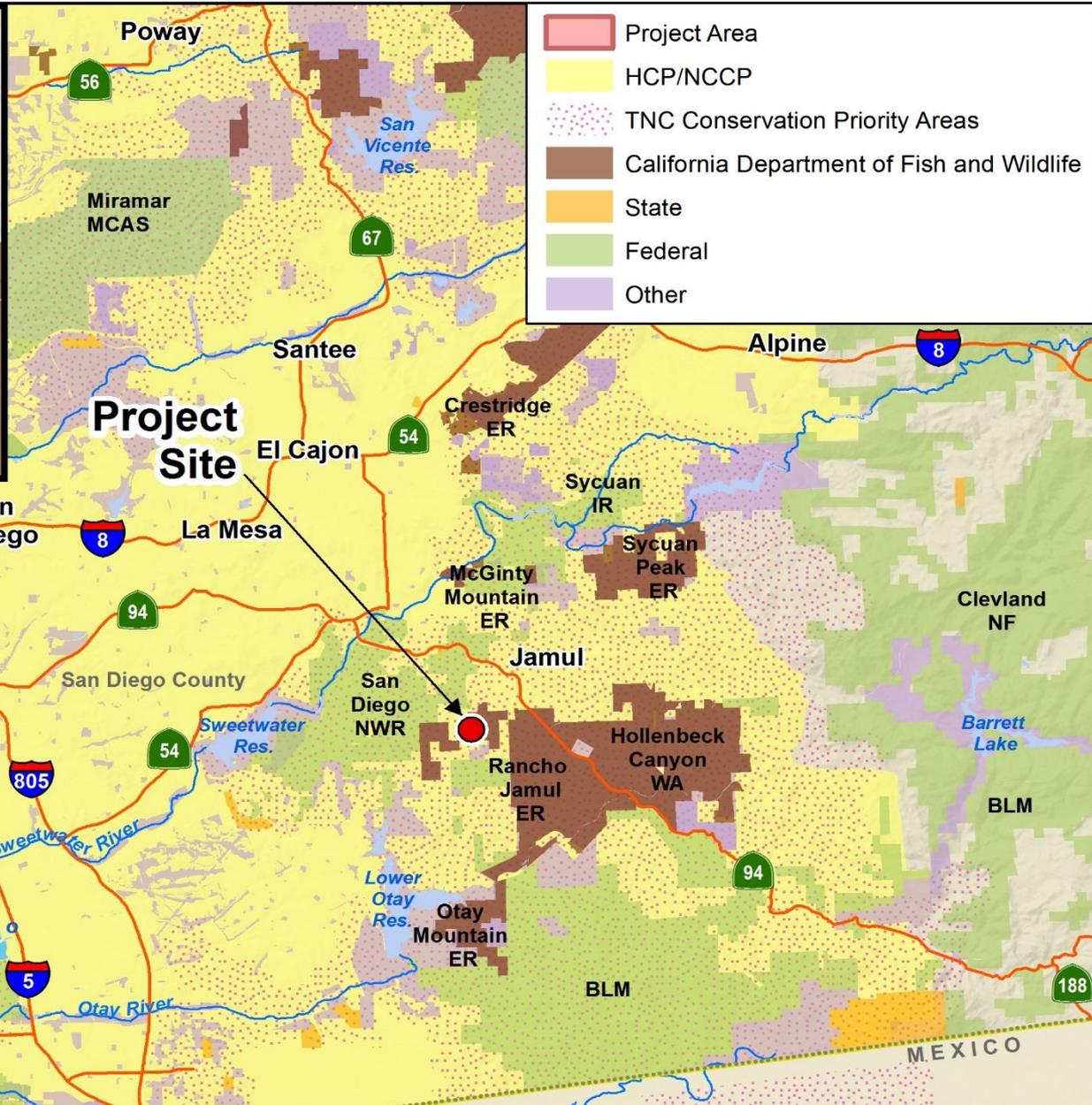
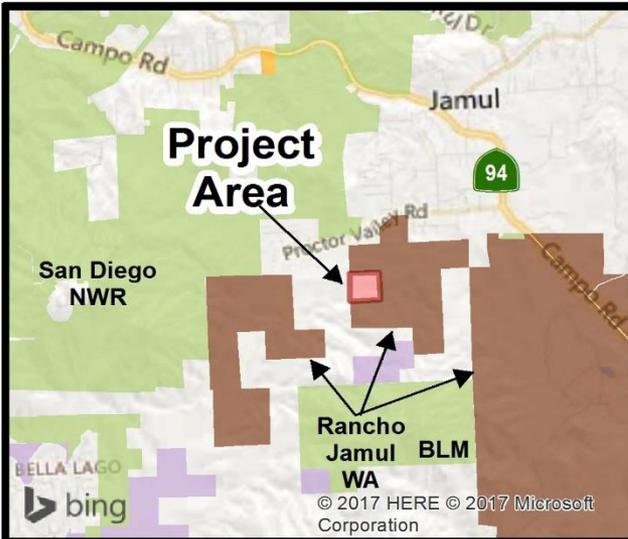


Drainage on the property with Mt. Tom and Round Valley to the south

#9. Wheeler Ridge, Expansion 6



View of the property facing southeast



**Rancho Jamul Ecological Reserve, Expansion 3
San Diego County**

#10. Rancho Jamul Ecological Reserve, Expansion 3



Looking east at the property

#10. Rancho Jamul Ecological Reserve, Expansion 3

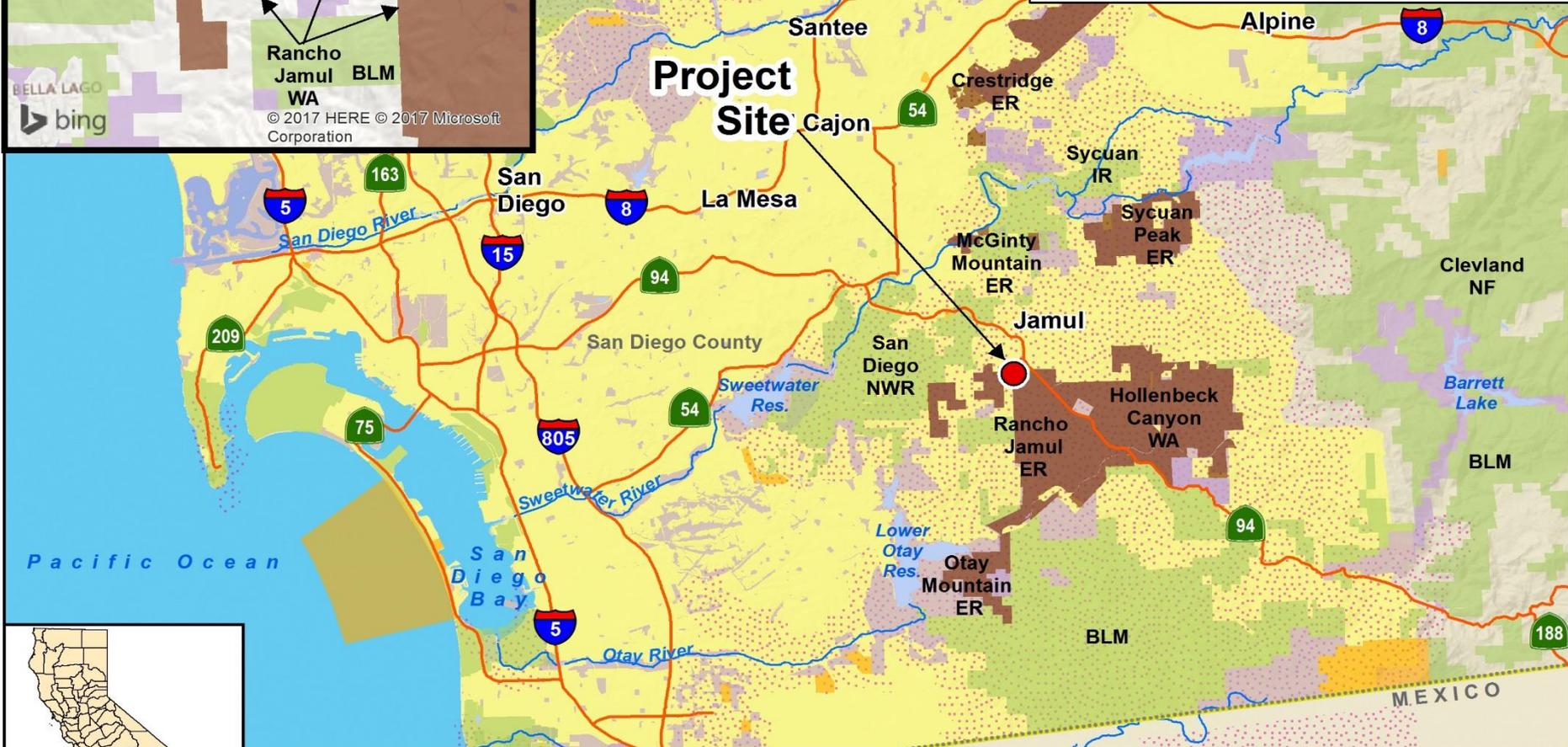
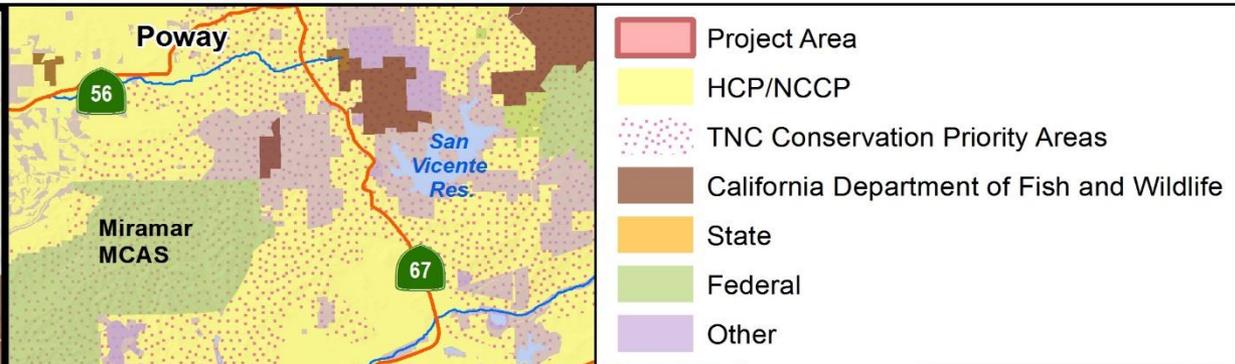


Looking east at the property

#10. Rancho Jamul Ecological Reserve, Expansion 3



Looking southeast at the property



**Rancho Jamul Ecological Reserve, Expansion 4
San Diego County**

WCB
State of California
Wildlife Conservation Board

5 Miles

11 WCB 11/30/2017 lo/WLB

#11. Rancho Jamul Ecological Reserve, Expansion 4

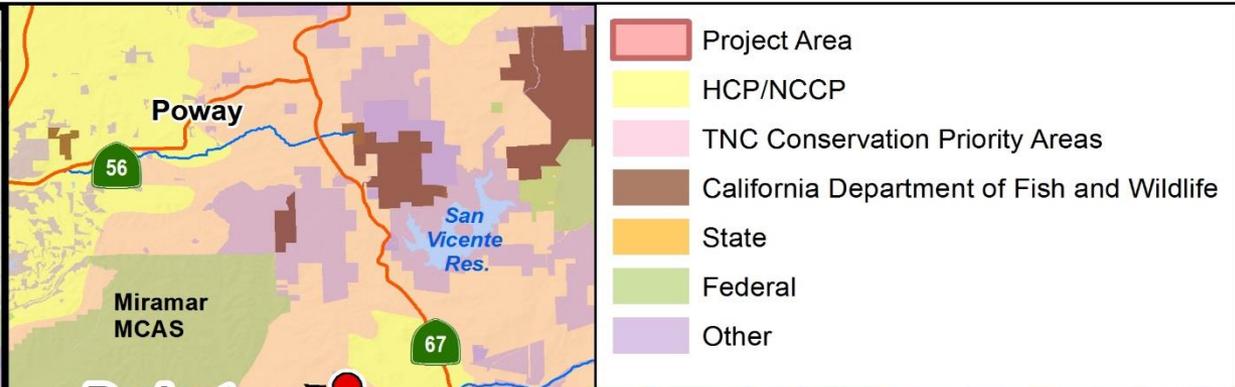
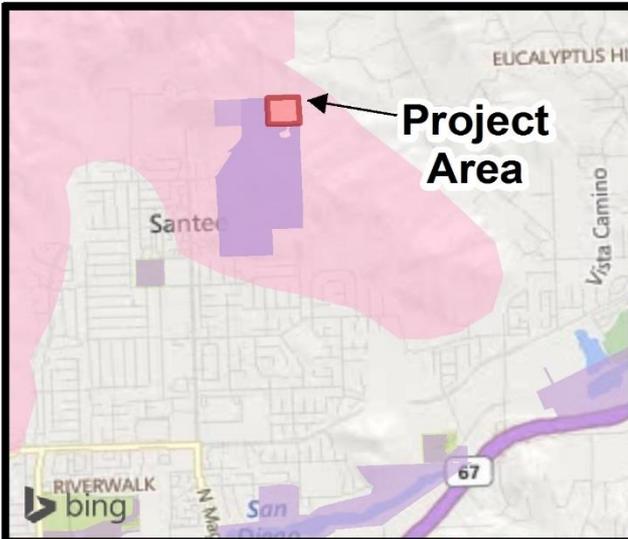


Northerly view of canyon containing coastal sage scrub

#11. Rancho Jamul Ecological Reserve, Expansion 4



Westerly view of coastal sage scrub with rock outcrops



**County of San Diego
Multiple Species Conservation Program 2015
(Brown)
San Diego County**

#12. County of San Diego Multiple Species Conservation Plan 2015 (Brown)



View to the southeast over the subject property from a point near the northwest corner of the land

#12. County of San Diego Multiple Species Conservation Plan 2015 (Brown)

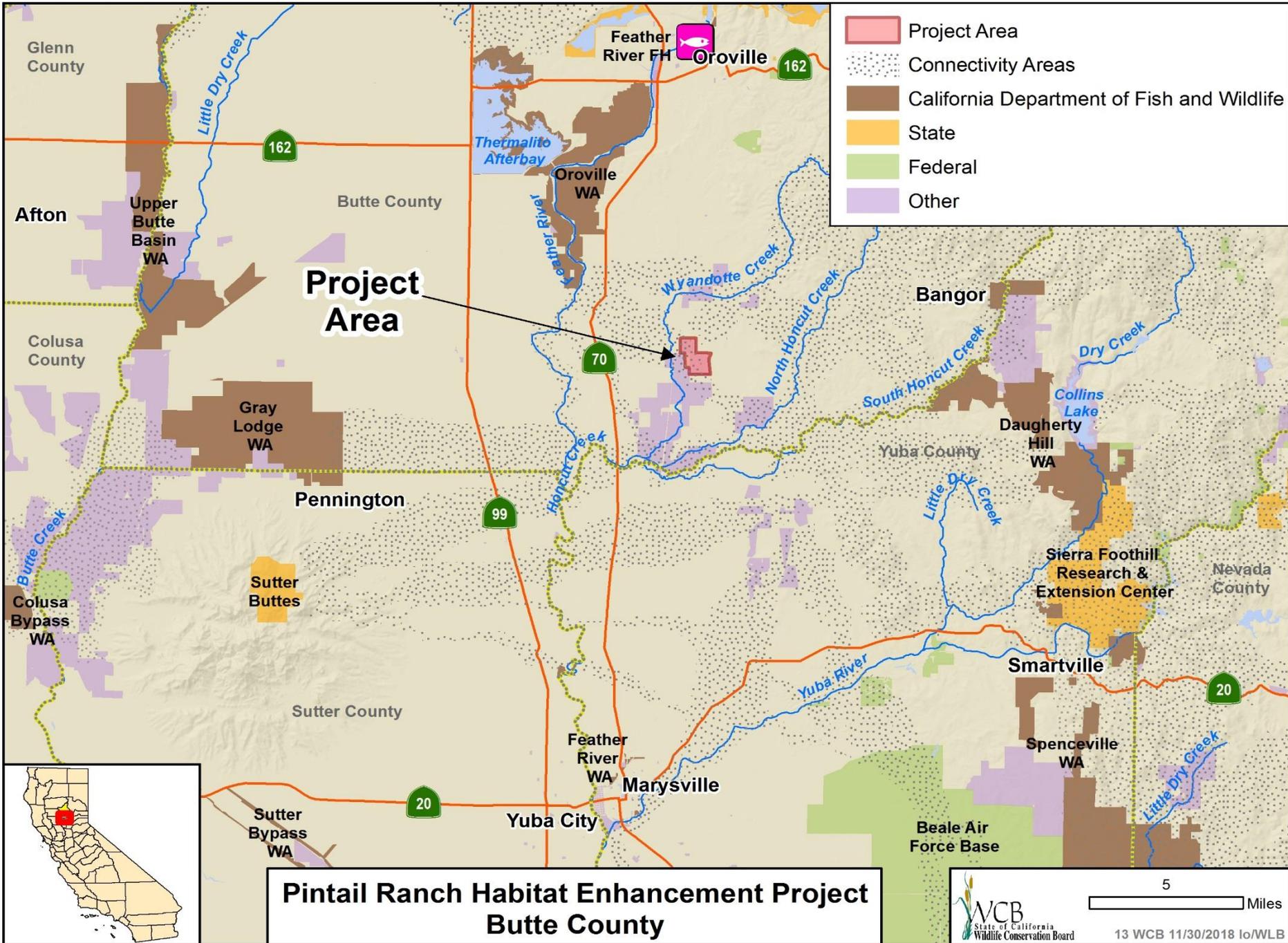


Looking southwesterly toward the west side of the subject parcel

#12. County of San Diego Multiple Species Conservation Plan 2015 (Brown)



View to the northwest over the subject land

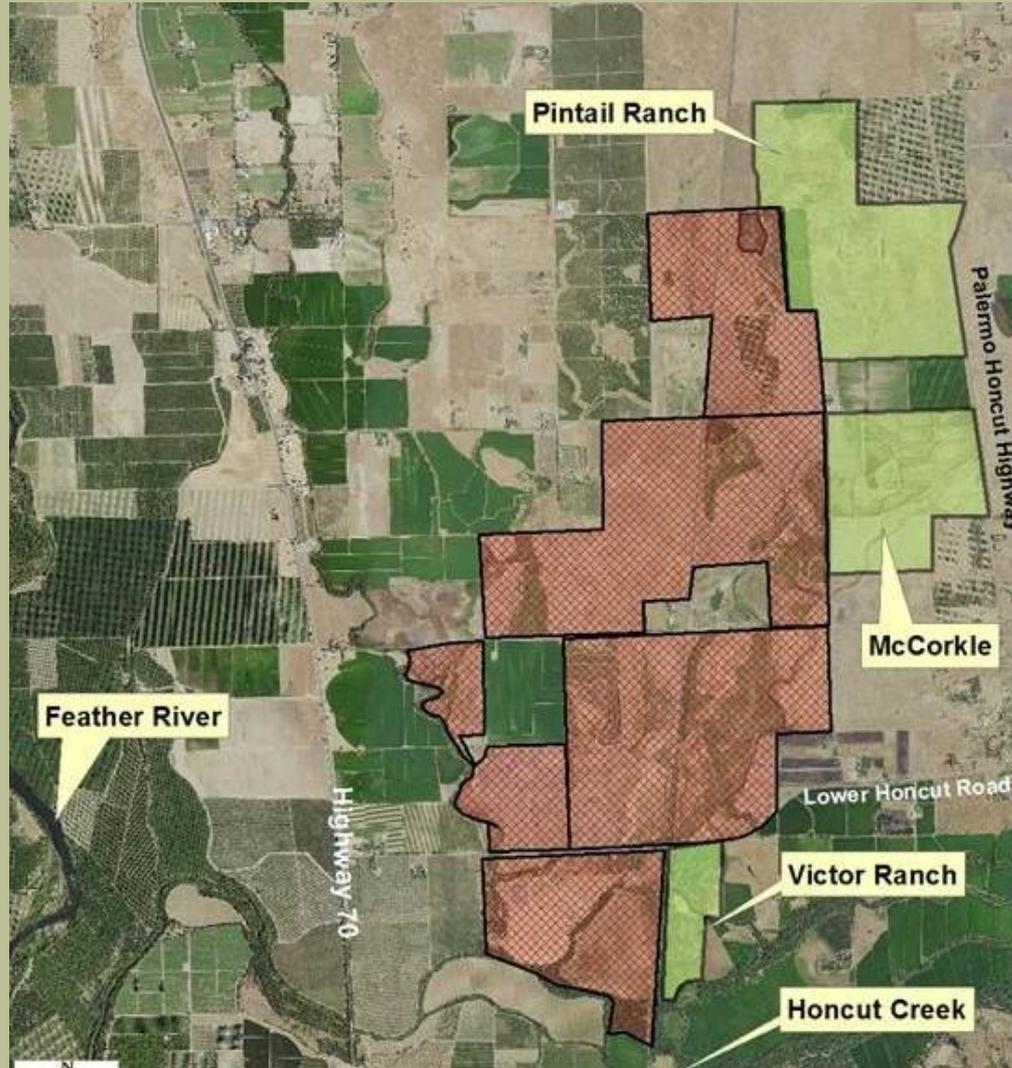


**Pintail Ranch Habitat Enhancement Project
Butte County**

5 Miles
 13 WCB 11/30/2018 Io/WLB



#13. Pintail Ranch Habitat Enhancement Project

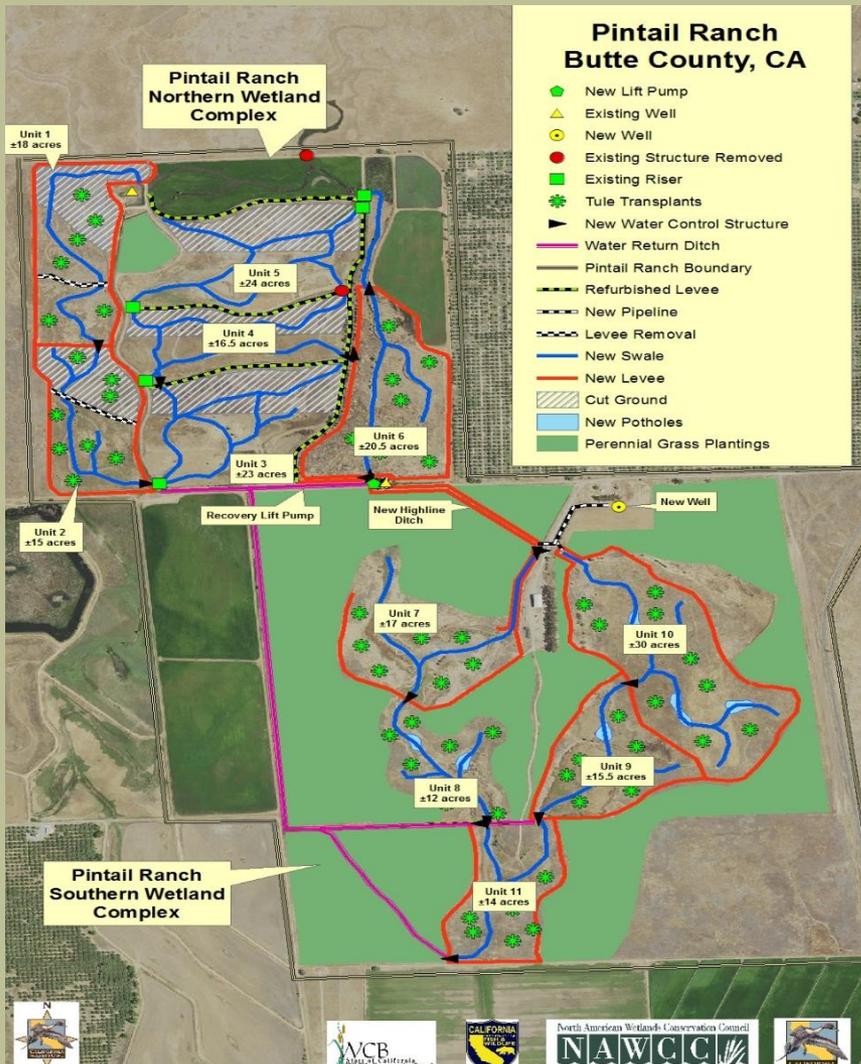


A Corridor of Protected Habitat in the northern American Basin Butte County, CA

-  State Perpetual Easement = ±920 acres
-  NRCS WRP Perpetual Easement = ±2,480 acres

This photo shows Pintail Ranch and the corridor of protected habitats in the Northern American Basin.

#13. Pintail Ranch Habitat Enhancement Project



This map shows the habitat enhancement of both the north and south parcels. Wetlands will be enhanced and uplands will be disturbed and seeded to promote nesting habitat. Water conveyance infrastructure will be constructed.

#13. Pintail Ranch Habitat Enhancement Project



Northern wetland units that will be completely reconstructed with NAWCA and landowner funds to improve management.

#13. Pintail Ranch Habitat Enhancement Project



This photo shows the area of wetlands to be enhanced.

#13. Pintail Ranch Habitat Enhancement Project

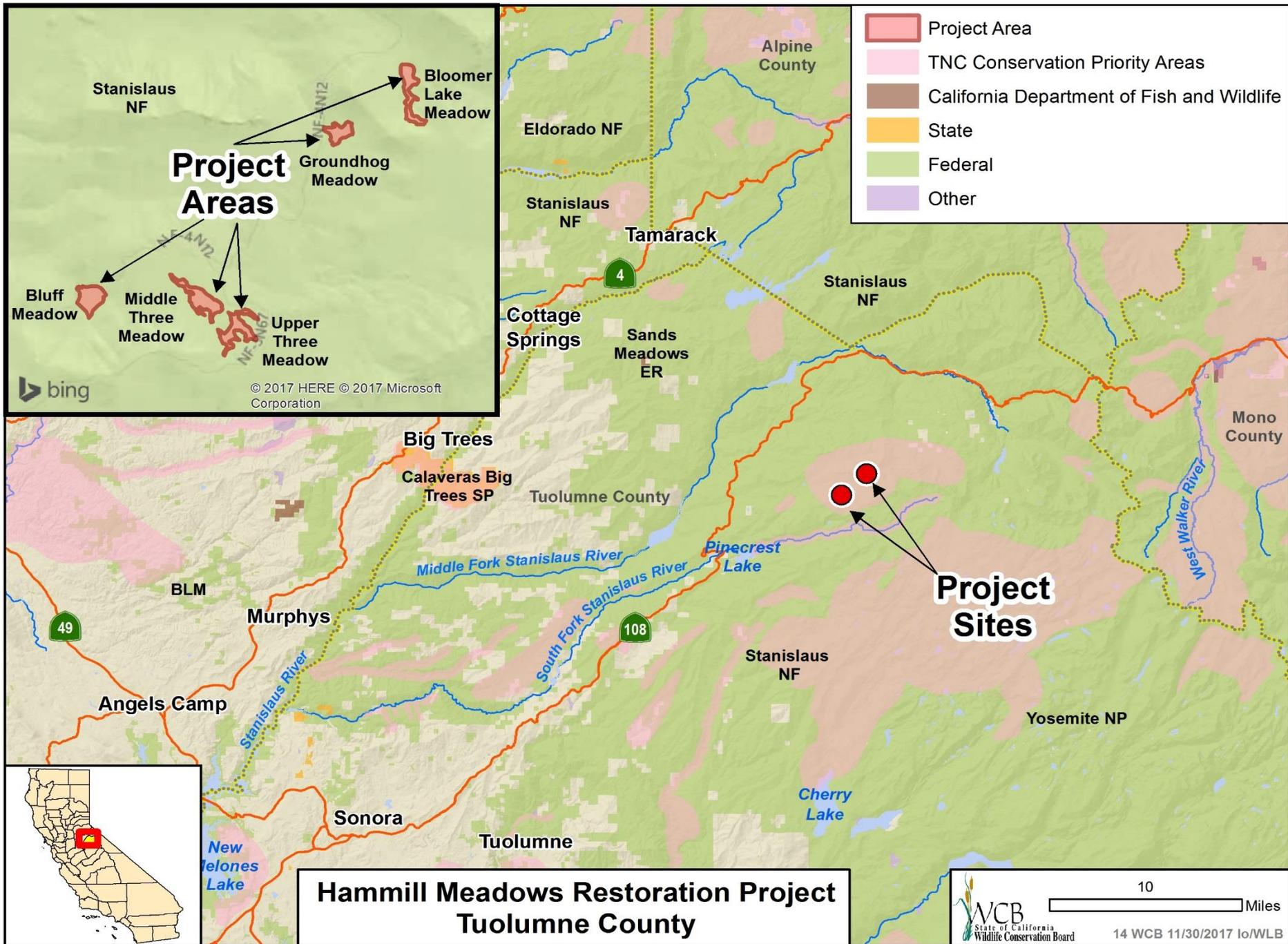


Picture of the southern wetland units after being mowed for fall floodup

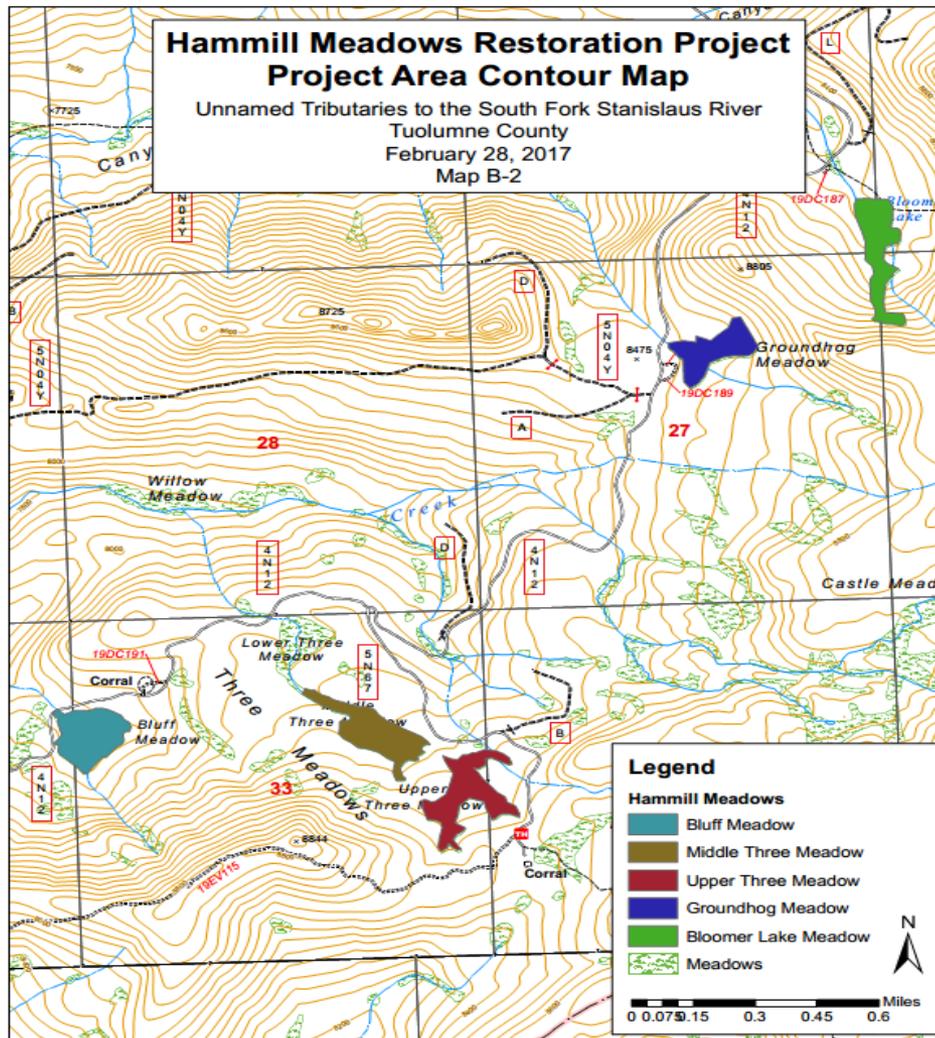
#13. Pintail Ranch Habitat Enhancement Project



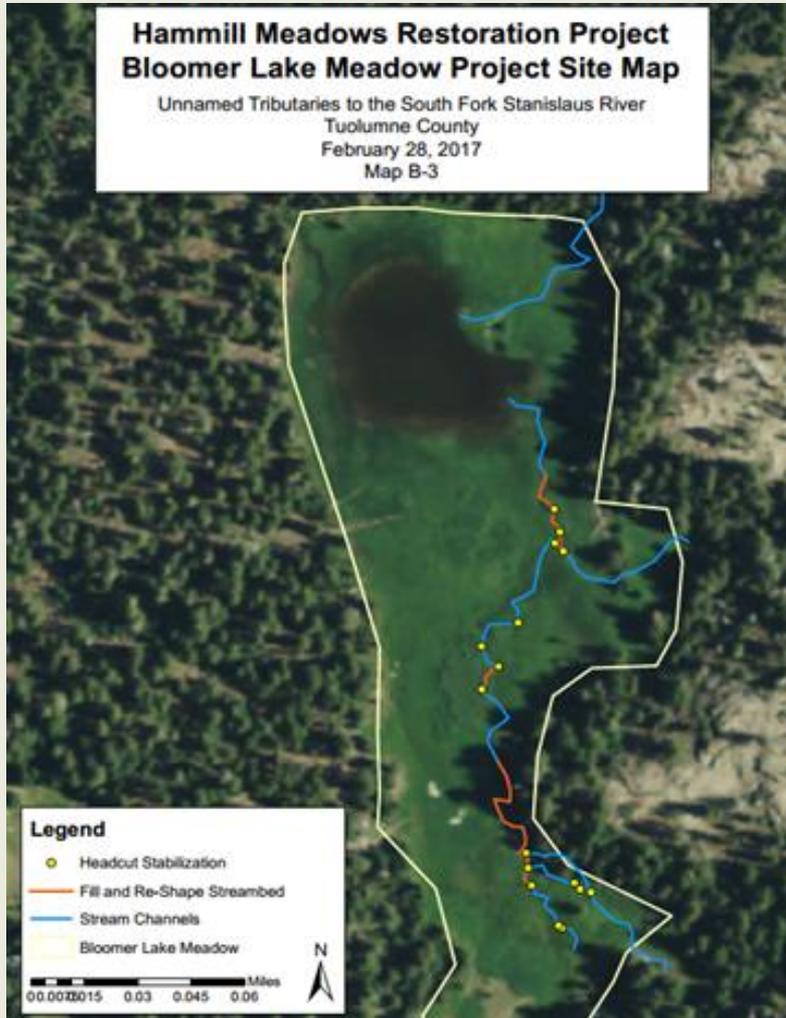
The uplands at Pintail Ranch dominated by rye and medusahead grass and will be prepped and seeded with perennials.



#14. Hammill Meadows Restoration Project

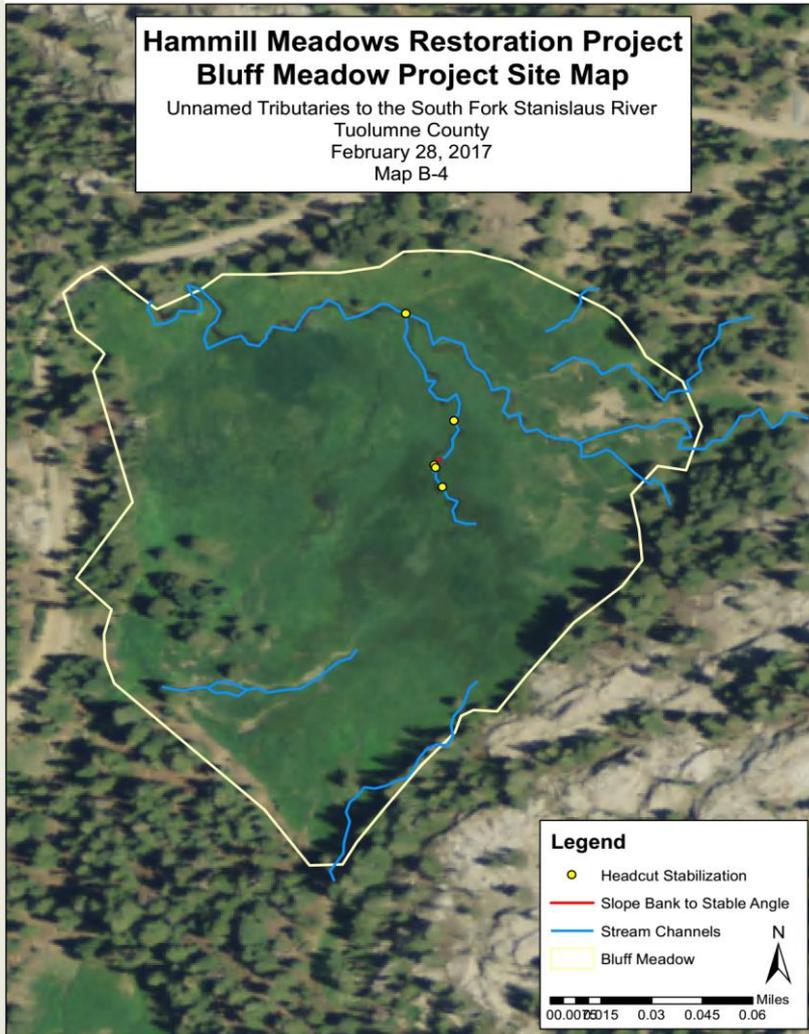


#14. Hammill Meadows Restoration Project



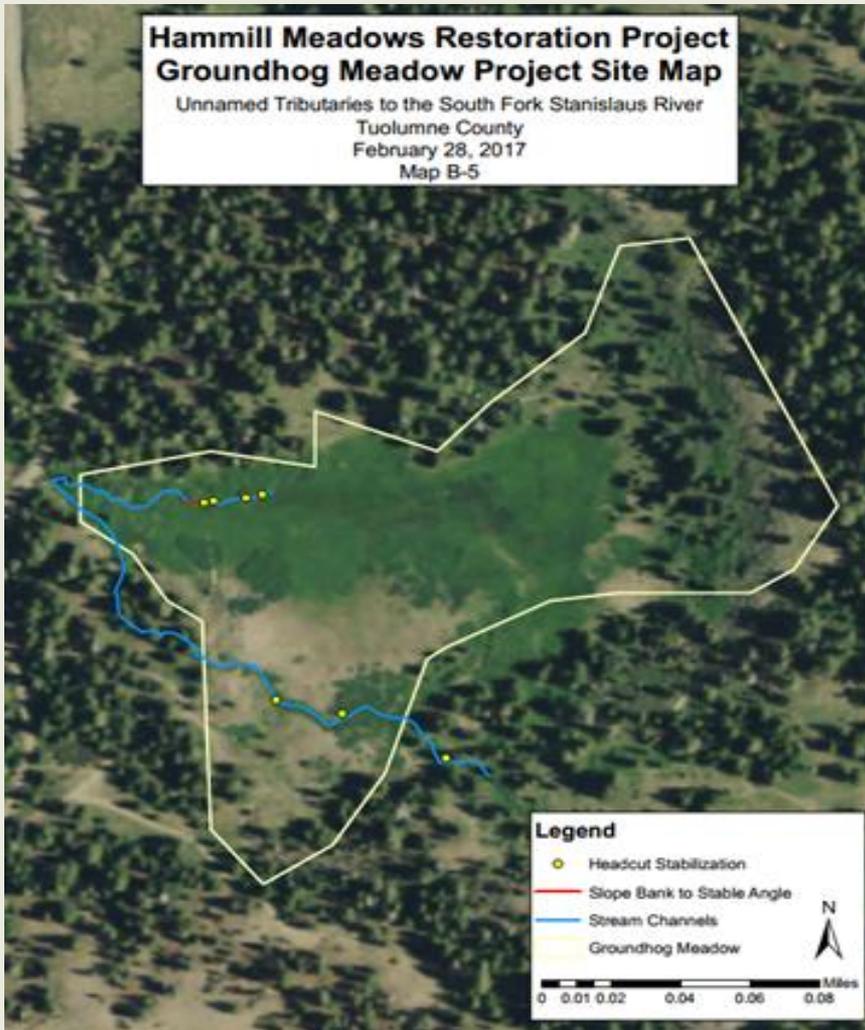
Bloomer Lake Meadow –
example of incised channel in
section of meadow

#14. Hammill Meadows Restoration Project



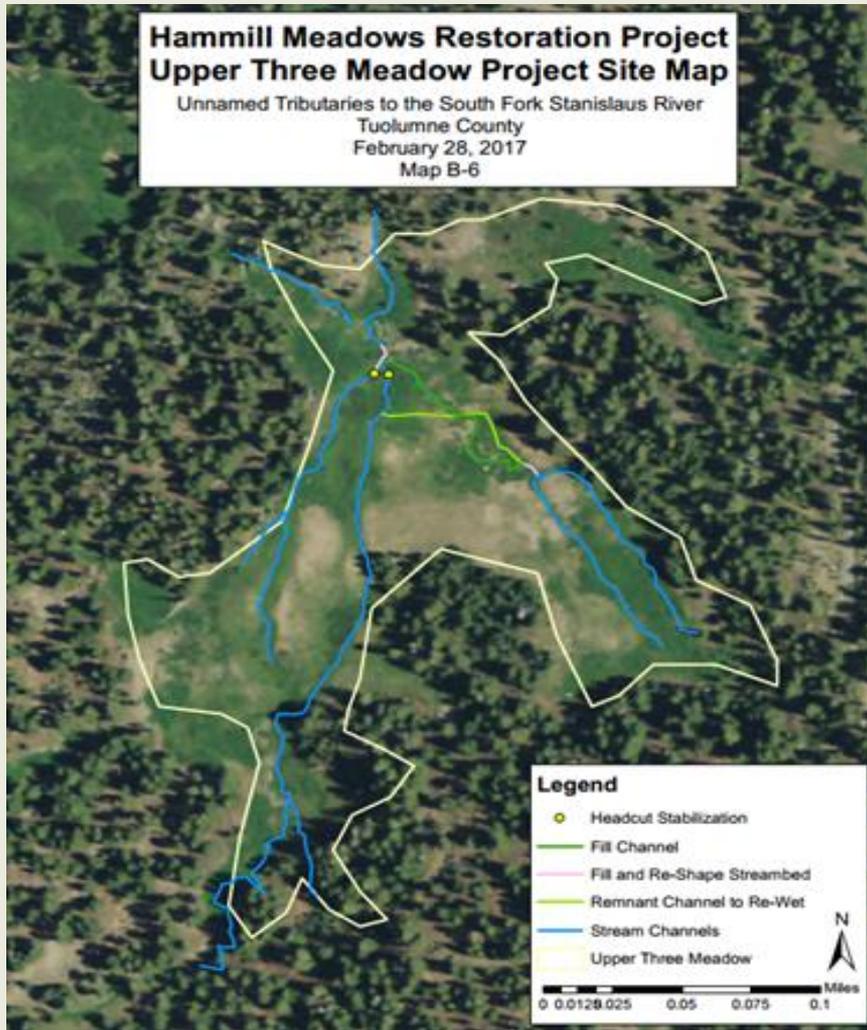
Bluff Meadow – Main headcut in meadow

#14. Hammill Meadows Restoration Project



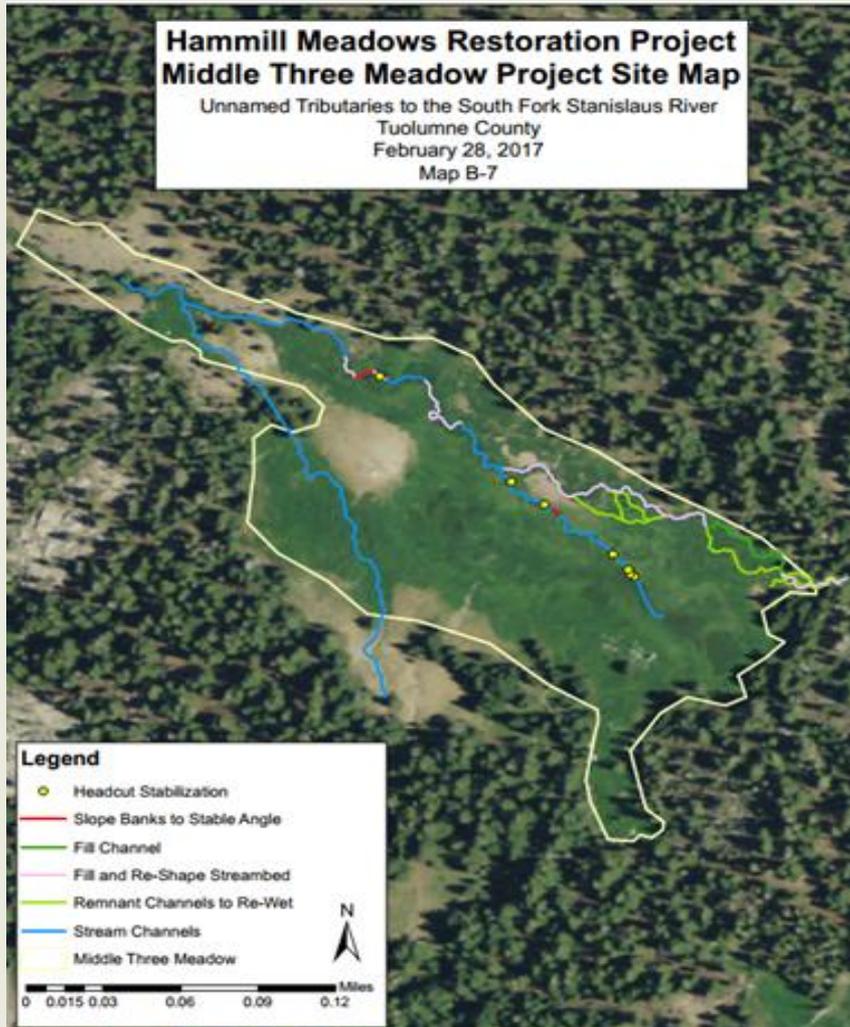
Groundhog Meadow – Two main headcuts in meadow

#14. Hammill Meadows Restoration Project



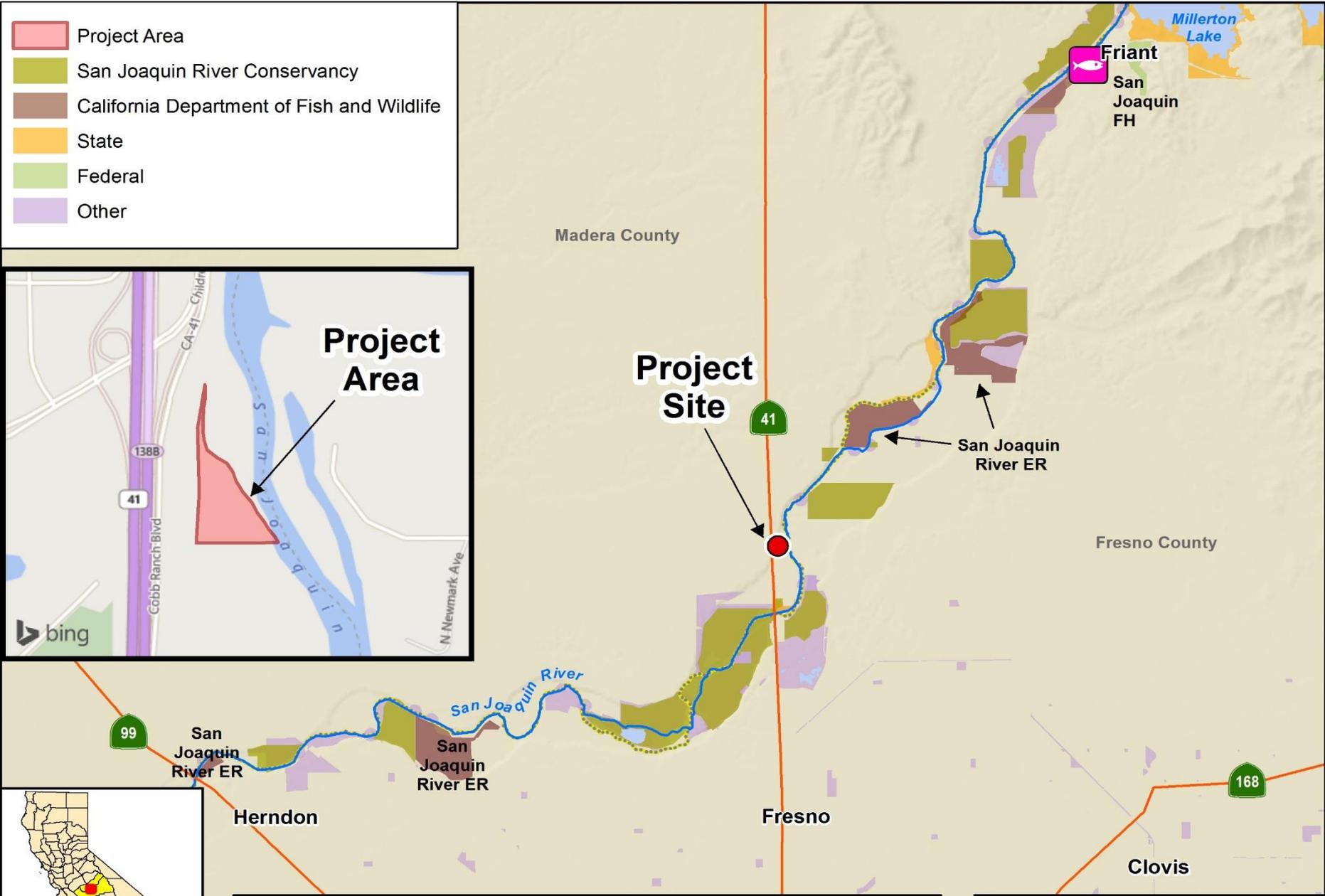
Upper Three Meadows –
Incised Channel

#14. Hammill Meadows Restoration Project



Middle Three Meadows – A small headcut in the tributary channel that has the potential to continue advancing and result in channel incision

- Project Area
- San Joaquin River Conservancy
- California Department of Fish and Wildlife
- State
- Federal
- Other



**San Joaquin River Parkway (County of Madera)
Madera County**

WCB
State of California
Wildlife Conservation Board

2 Miles

15 WCB 11/30/2017 lo/WLB

#15. San Joaquin River Parkway (County of Madera)



View of property facing north

#15. San Joaquin River Parkway (County of Madera)



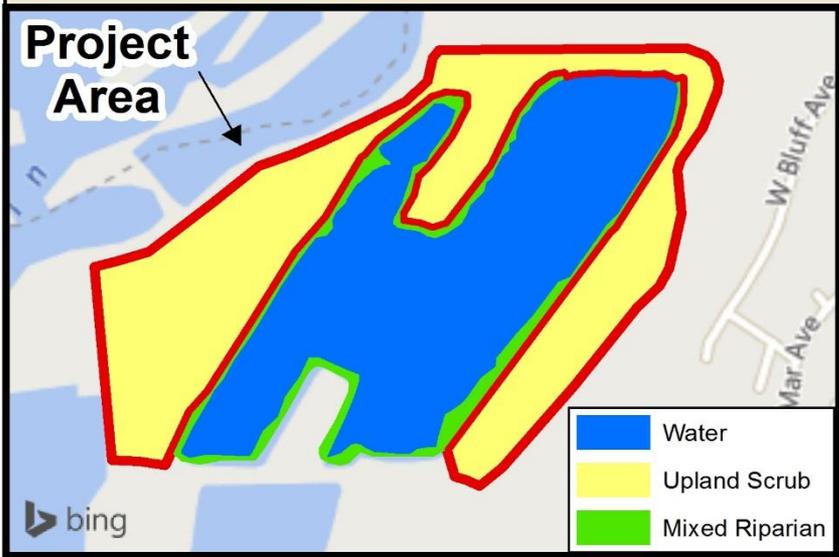
View from property facing northeast

#15. San Joaquin River Parkway (County of Madera)



View of property facing east

-  Project Area
-  San Joaquin River Conservancy
-  California Department of Fish and Wildlife
-  State
-  Federal
-  Other

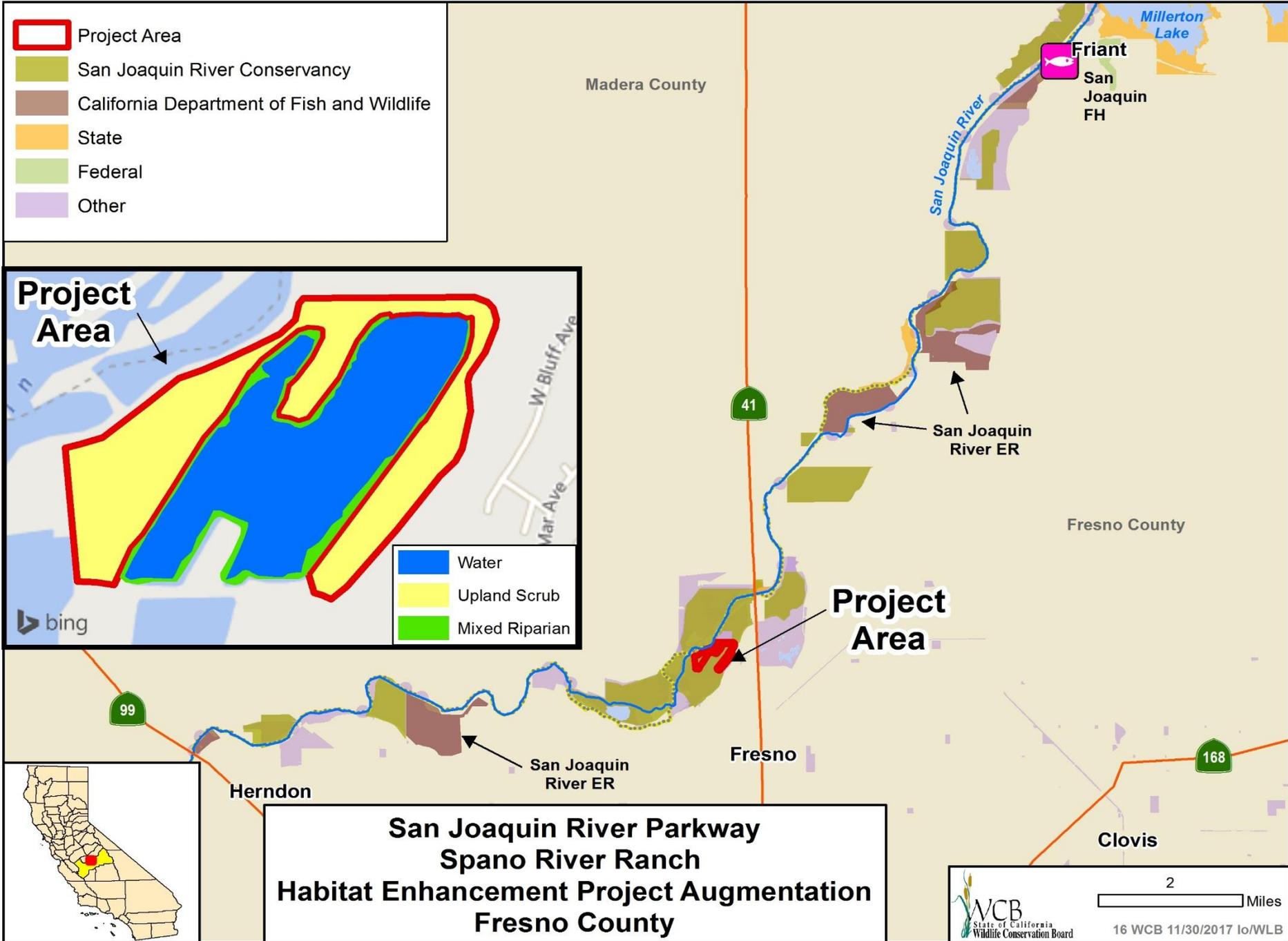


**San Joaquin River Parkway
Spano River Ranch
Habitat Enhancement Project Augmentation
Fresno County**



2 Miles

16 WCB 11/30/2017 lo/WLB



#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



Aerial view of project site around H Pond on the SJRC Spano River Ranch Property.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



High plant survival in the portion of the project site between H Pond and the San Joaquin River.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



Heavy rains during Winter 2016-2017 resulted in saturated soils and inundation and led to the death of tree and shrub species planted at the project site.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



A planted shrub that was killed by voles girdling the stems.



Girdled stem of one of the planted species used at the restoration site.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



A planted western redbud adjacent to an area that sustained heavy vole damage between H Pond and the bluffs.



An area that sustained heavy vole damage between H Pond and the river.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



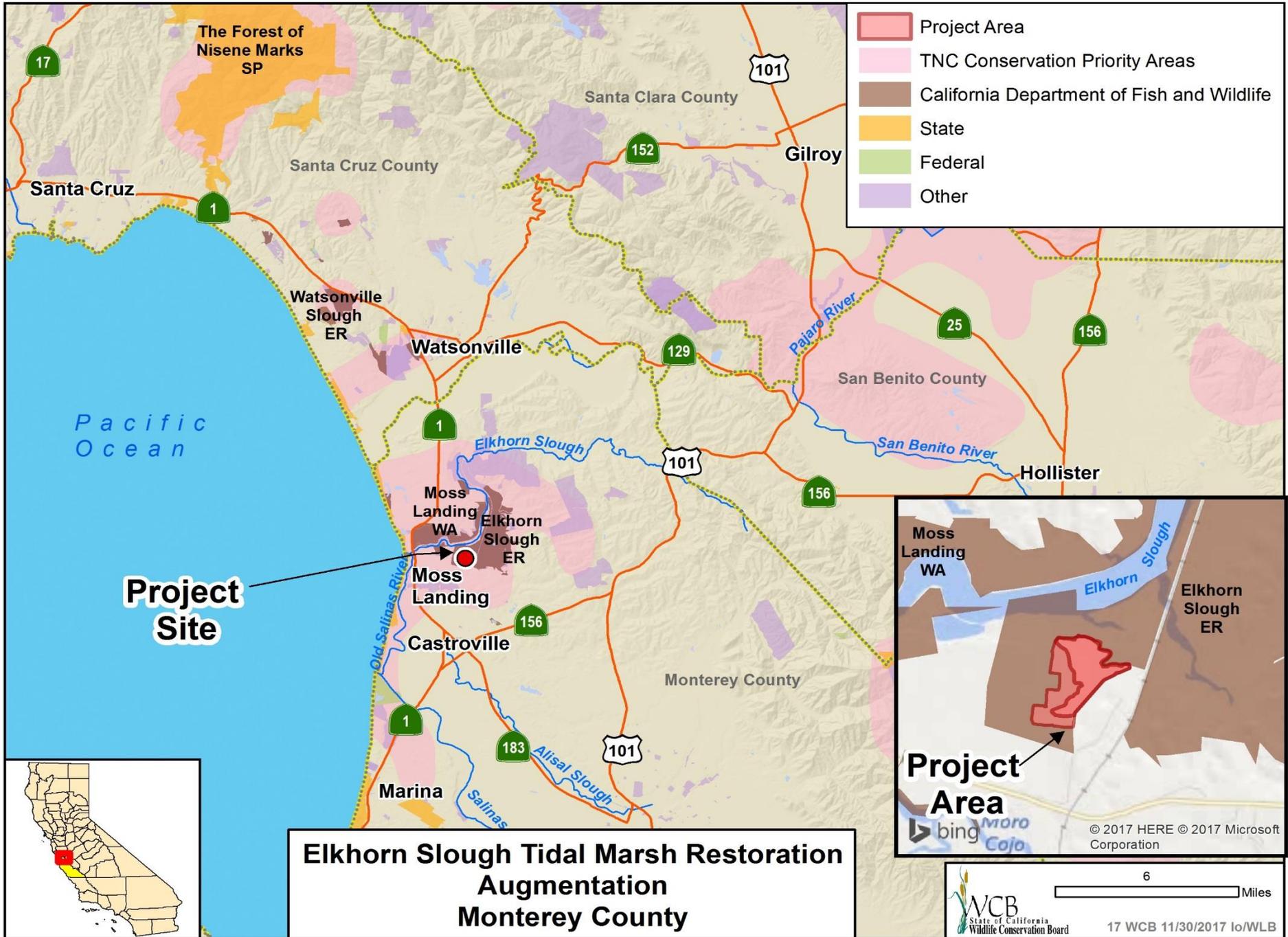
Vole management consisted of an additional weed treatment, vole trapping, and the installation of raptor perches at the project site.

#16. San Joaquin River Parkway, Spano River Ranch Habitat Enhancement Project Augmentation



The augmented project:

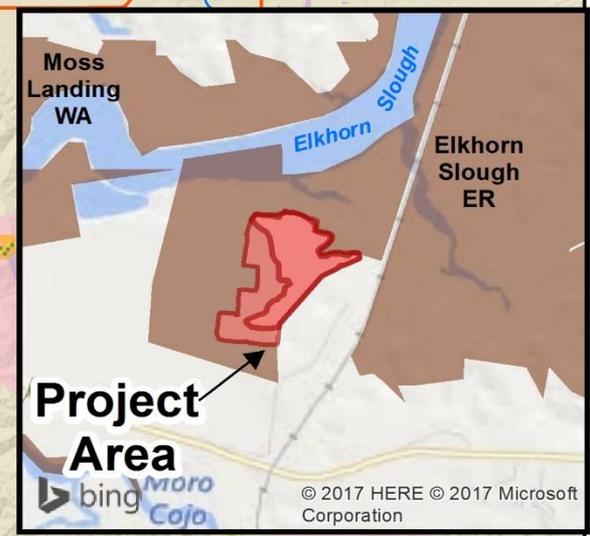
- Incorporates adaptive management
- Improves habitat quality for wildlife and the enjoyment of the recreating public
- Cultivates self-sustaining riparian and upland scrub habitat that contributes to habitat connectivity along the river



	Project Area
	TNC Conservation Priority Areas
	California Department of Fish and Wildlife
	State
	Federal
	Other

Project Site

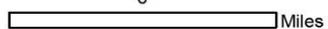
Elkhorn Slough Tidal Marsh Restoration Augmentation Monterey County



Project Area

© 2017 HERE © 2017 Microsoft Corporation





State of California
 Wildlife Conservation Board

17 WCB 11/30/2017 Io/WLB

#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



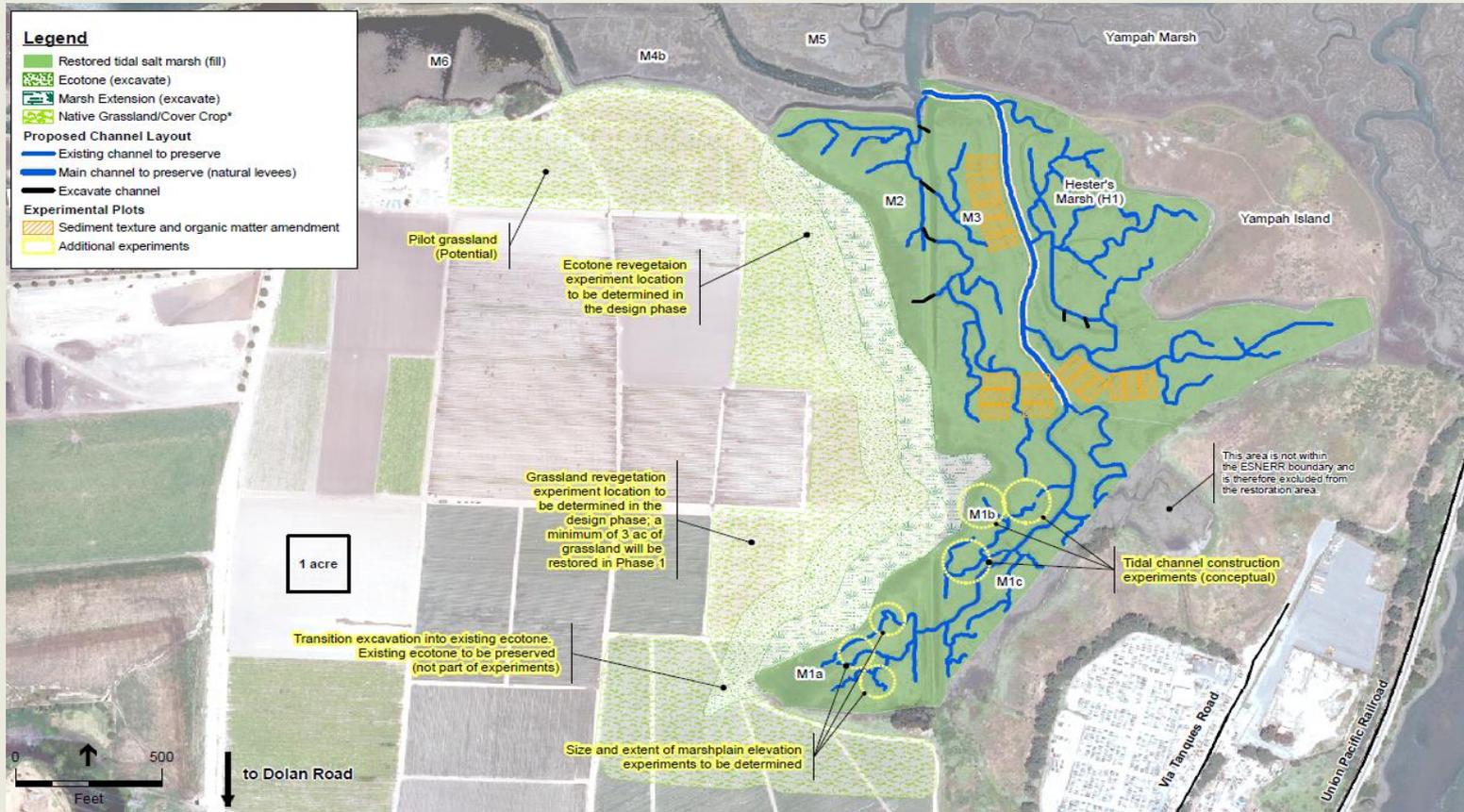
Sediment Source Site

#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



Tidal Marsh Restoration Site

#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



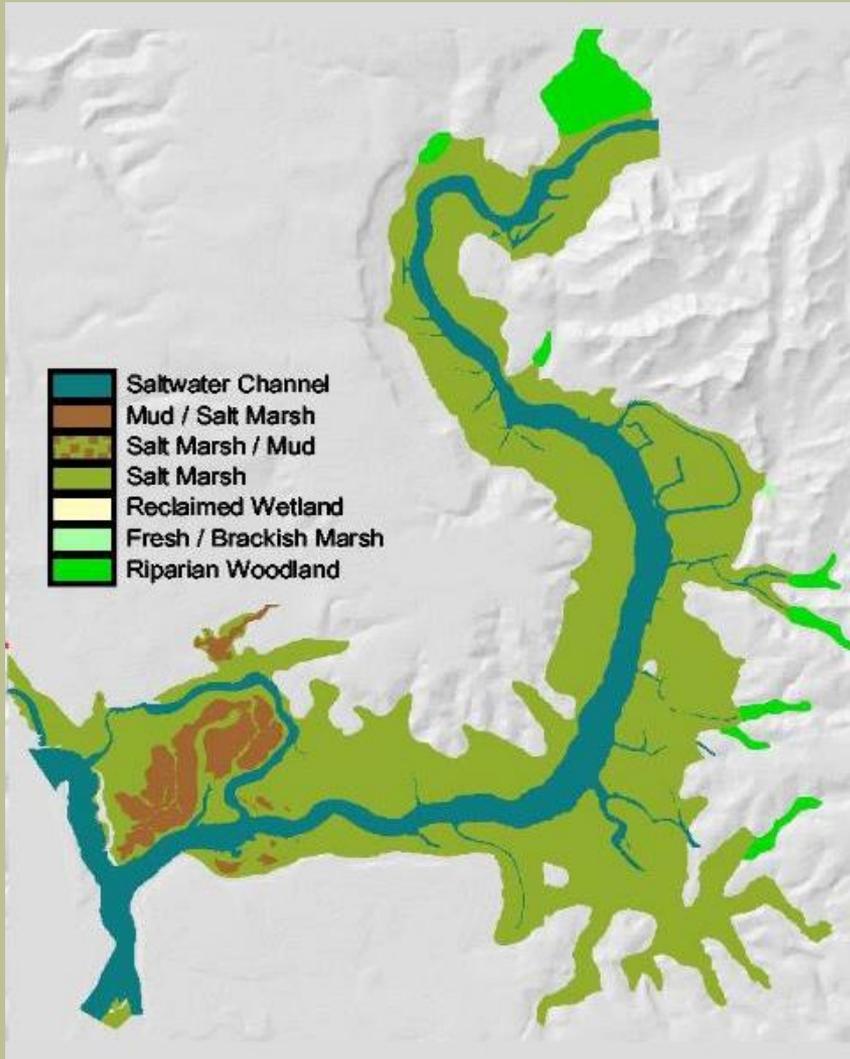
Proposed Tidal marsh Restoration

#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



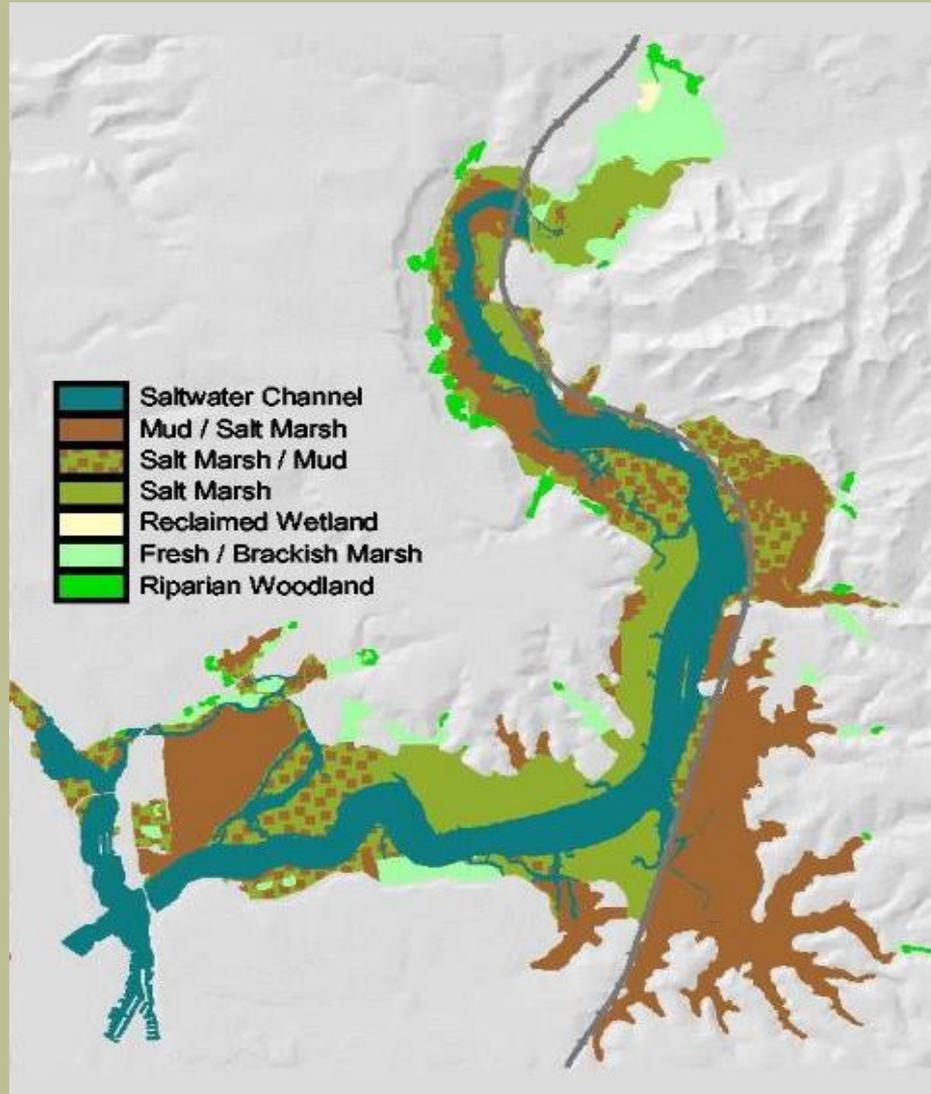
Project site – then and now

#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



Elkhorn Slough 1870

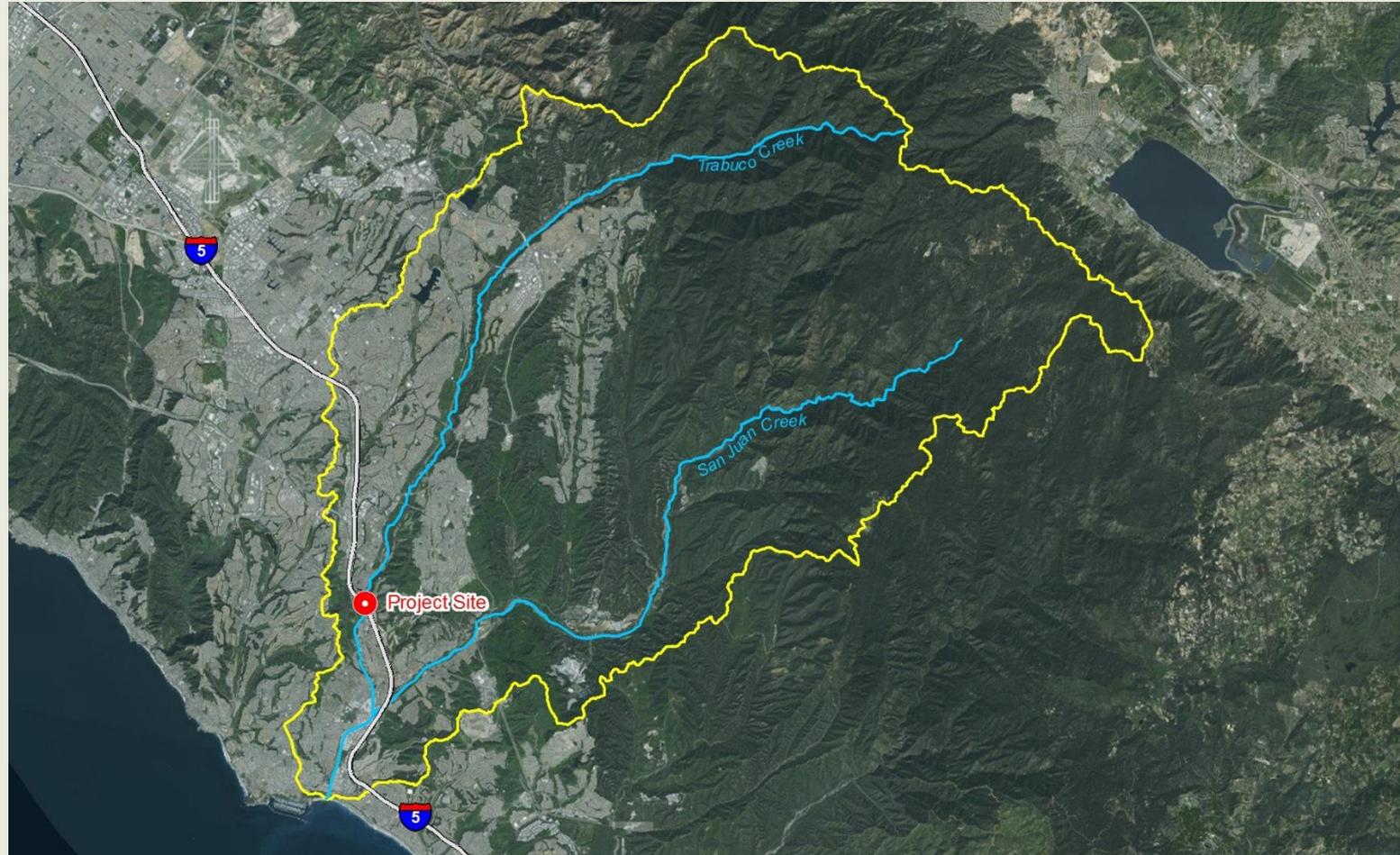
#17. Elkhorn Slough Tidal Marsh Restoration, Augmentation



Elkhorn Slough 2000



#18. Trabuco Creek Fish Passage Design



San Juan Creek Watershed

#18. Trabuco Creek Fish Passage Design



Project site
(Interstate 5
Bridge Array)

#18. Trabuco Creek Fish Passage Design



Trabuco Creek downstream of I-5 crossing looking upstream at concrete channel

#18. Trabuco Creek Fish Passage Design



Downstream end of flood control structure

#18. Trabuco Creek Fish Passage Design



Trabuco Creek downstream of I-5 and Camino Capistrano crossings looking downstream at flat water area

#18. Trabuco Creek Fish Passage Design



Trabuco Creek looking upstream at I-5 crossing and concrete channel

#18. Trabuco Creek Fish Passage Design



Trabuco Creek entering structure upstream of I-5

#18. Trabuco Creek Fish Passage Design



Trabuco Creek looking upstream at I-5 crossing

#18. Trabuco Creek Fish Passage Design



Two different scale physical models will be constructed and tested to fully address study objectives.

- A relatively small scale model, encompassing nearly the entire project reach (about 1,500 feet of it), used to evaluate the performance at high discharges;
- A larger scale model encompassing a critical section of the proposed fishway complex.



#18. Trabuco Creek Fish Passage Design



- Evaluate and refine the proposed fishway design at the I-5 bridge array to ensure the design meets fish passage requirements throughout the juvenile and adult fish passage windows;
- Evaluate the influence of the fishway on flood capacity in the flood control channels;
- Mitigate impacts of the proposed fishway to the bridge structures;
- Estimate the flow split between the proposed fishway and the existing flow control channels and refine the fishway exit design to provide acceptable fish passage flows;
- Assess movement of sediment into the fishway exit and flood control channels and adjust the design to keep the fishway clear of excessive sediment depositions;
- Provide a hands-on demonstration of the design concept to project stakeholders.

#18. Trabuco Creek Fish Passage Design



Permits

- US ACE (Clean Water Act Section 404)
- National Marine Fisheries Service/United States Fish and Wildlife Service FWS (Endangered Species Act Section 7 Consultation)
- CDFW (California Endangered Species Act, Incidental Take Permit)
- Caltrans (Encroachment Permit)
- RWQCB (Clean Water Act Section 401)
- Orange County Flood Control District (channel improvements)
- Moulton Niguel Water District (Encroachment Permit)

#18. Trabuco Creek Fish Passage Design



Endangered Species That Will Benefit



Least Bell's Vireo



Southern California Steelhead Trout



Southwestern Willow Flycatcher



Arroyo Toad



Western Snowy Plover

STRATEGIC PLAN – MEASURABLE GOALS



CDFW Planning and Evaluation Tools:

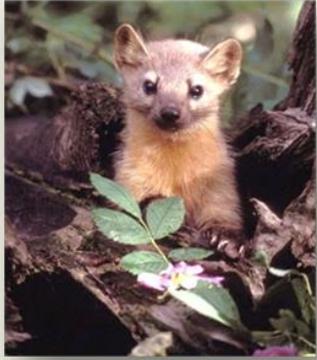
- Land Acquisition Evaluations and Conceptual Area Protection Plans (LAE/CAPP)
- Areas of Conservation Emphasis (ACE)



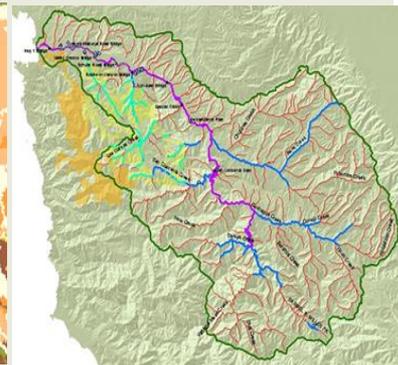
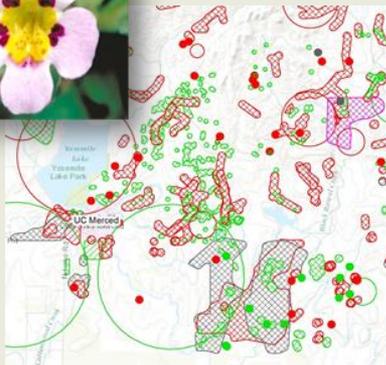
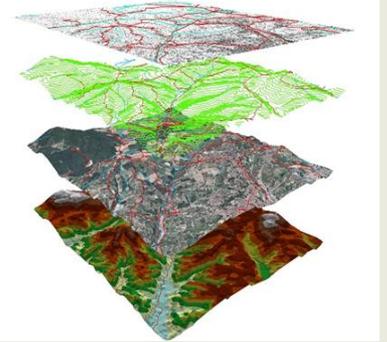
AREAS OF CONSERVATION EMPHASIS ACE VERSION 3.0



ACE: GOALS AND PURPOSE



- Best-available, conservation-relevant spatial data
- Non-regulatory maps and viewer tool
- ACE-II 2009, data refreshed annually (<https://map.dfg.ca.gov/ace/>)
- 2017-2018 update (ACE 3)
 - Revise and add new models
 - Aquatic and recreational data
 - Add 2015 SWAP priorities



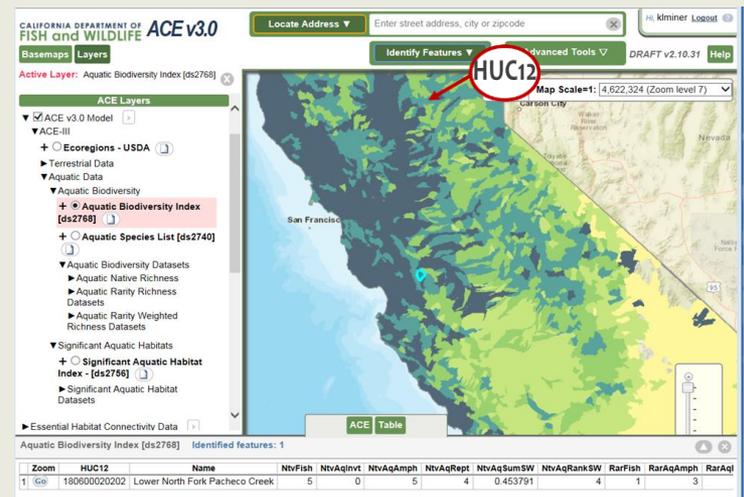
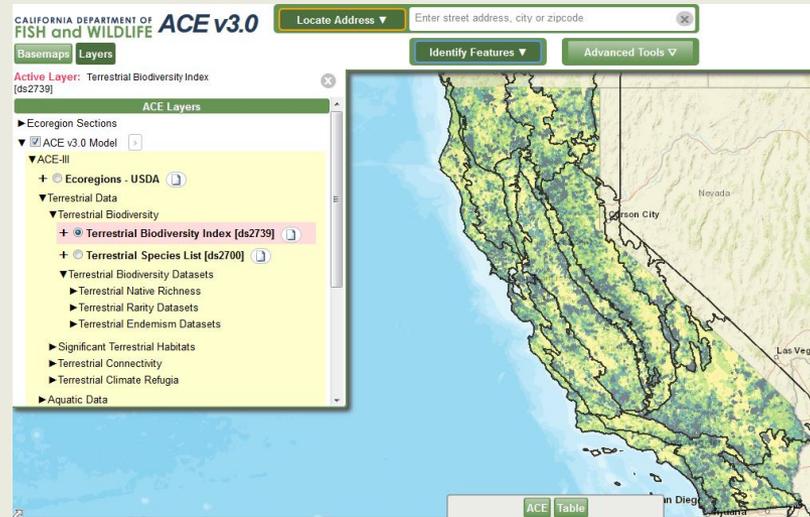
ACE DATA DEVELOPMENT



- Terrestrial (2.5 mi² hexagons)
 - by ecoregion
- Aquatic (Huc12 variable sizes)
 - Statewide

Both include:

- Biodiversity Index
- Significant Habitats Index
- Connectivity
- Climate refugia
- SWAP and other conservation priorities
- Stressors and land conservation status (overlays)



Updated ACE Viewer Anticipated Available December 2017



CALIFORNIA DEPARTMENT OF FISH and WILDLIFE **ACE v3.0**

Locate Address

Hi, guest [Logout](#)

Basemaps Layers Identify Features Advanced Tools

DRAFT v2.10.31 Help

Active Layer: Terrestrial Biodiversity Index [ds2739]

Graphics and Selections

Identify Graphic

ACE Layers

- Ecoregion Sections
- ACE v3.0 Model
 - ACE-III
 - Ecoregions - USDA
 - Terrestrial Data
 - Terrestrial Biodiversity
 - Terrestrial Biodiversity Index [ds2739]
 - Terrestrial Species List [ds2700]
 - Terrestrial Biodiversity Datasets
 - Terrestrial Native Richness
 - Terrestrial Rarity Datasets
 - Terrestrial Endemism Datasets
 - Significant Terrestrial Habitats

Map Scale=1: 288,895 (Zoom level 11)

ACE Table

Terrestrial Biodiversity Index [ds2739] Identified features: 1

Zoom	HEX25_ID	ECO_SECT	COUNTY	SQ_MILES	ECO_NAME	JEPSON_ECO	NativeCount	GameCount	ClimVulCount	NtvAmph	NtvRept	NtvBird	NtvMamm	NtvPlnt	RarAmph	RarRept	RarBird	RarMamm	
1	Go	31202	261A	SANTA CRUZ	2.499999	Central California Coast	SnFRB	261	17	33	13	20	183	45	1388	3	1	17	

For more information, contact:

Karen Miner, Karen.Miner@wildlife.ca.gov or

Melanie Gogol-Prokurat, Melanie.Gogol-Prokurat@wildlife.ca.gov

STRATEGIC PLAN – MONITORING GOALS



Stratified Random Sampling

# Projects to Monitor	1624
# Samples	91
Sample Percentage	5.6%
Confidence Interval	±10
Visits/Staff	7

Grantees ≈12% (of 353)

Examples:

85% Compliance Rate = 1,381 projects (±10) are compliant

97% Compliance Rate = 1,576 projects (±10) are compliant

STRATEGIC PLAN – MONITORING GOALS



Where will this take us?

- Look for Trends
 - Compliance by WCB Function Type
 - Compliance over time
 - Grantee success

- Adapt WCB policies or adjust monitoring efforts to be more effective over time.



#20. Eden Landing Ecological Reserve Wetland Restoration Construction



2002



#20. Eden Landing Ecological Reserve Wetland Restoration Construction



2017

#20. Eden Landing Ecological Reserve Wetland Restoration Construction

