



**Wildlife Conservation Board  
November 15, 2022, 10:00 am Board Meeting  
First Floor Auditorium, CNRA Headquarters Building**

Trinity Alps



## Item 2. Public Forum

China Hill



## Item 3. Funding Status

Wilson Ranch Meadow

# 3. Funding Status

Slide 1

Allocation	FY 2021/22	FY 2022/23
<b>Water Resilience Package</b>		
Drought Impacts on Fish and Wildlife (Wildlife Corridor & Fish Passage)	\$49,500,000	\$40,000,000
<a href="#">Program Delivery (Drought Impacts on Fish and Wildlife)</a>	<a href="#">\$2,000,000</a>	<a href="#">\$1,000,000</a>
Removal of Dams to CA State Parks	\$12,500,000	
Protect Fish & Wildlife Resources from changing conditions - Climate Resilience	\$31,000,000	\$221,000,000
<b>Stream Flow Enhancement</b>		
Water Supply for Environmental Flows (Stream Flow Enhancement Program)	\$99,000,000	\$149,000,000
<a href="#">Program Delivery (Stream Flow Enhancement Program)</a>	<a href="#">\$2,000,000</a>	<a href="#">\$1,000,000</a>
<b>Monarch Butterfly and Pollinator Rescue Program</b>		
Monarch Butterfly and Pollinator Rescue Program		\$5,000,000

# 3. Funding Status

## Slide 2

Allocation	FY 2022/23
<b>Nature -Based Solutions Package**</b>	
Nature-Based Solutions programs. (Biodiversity conservation adjacent/directly benefitting climate-vulnerable communities, DAC or California Native American tribes)	\$150,000,000
Resource Conservation Investment Strategies	\$2,000,000
Cascades and High Sierra Upper Watersheds Program	\$12,000,000
Land Acquisition and Habitat Enhancement Program -SoCal	\$12,000,000
<a href="#">Program Delivery (NBS Program)</a>	<a href="#">\$900,000</a>

<b>**Nature-Based Solutions Allocation Breakdown</b>	
<b>Nature-Based Solutions grant program. Biodiversity conservation adjacent/directly benefitting climate-vulnerable communities, DAC or California Native American tribes</b>	<b>\$150,000,000</b>
Forest Conservation Program (NBS)	\$10,000,000
Oak Woodlands Conservation Program (NBS)	\$34,000,000
California Desert Conservation Program (NBS)	\$30,000,000
Rangeland, Grazing Land and Grassland Protection Program (NBS)	\$25,000,000
California Riparian Habitat Conservation Program (NBS)	\$10,000,000
Natural and Working Lands Climate Adaptation and Resiliency Program (NBS)	\$35,000,000
<a href="#">Program Delivery (Administrative support cost)</a>	<a href="#">\$6,000,000</a>

# 3. Funding Status

Slide 3

Allocation	FY 2021/22	FY 2022/23
<b>Legislative Priorities</b>		
Lone Pine Ranch Acquisition	\$10,000,000	
City of Lake Elsinore for Aquatic Ecosystem	\$750,000	
West Coyote Hills Property Due Diligence	\$1,000,000	
40-Acre Conservation League for land conservation, habitat restoration		\$3,000,000
RCD of Santa Monica Mountains -southern steelhead trout		\$15,000,000
San Joaquin Valley Floodplain Restoration - River Partners		\$40,000,000
Cascades and High Sierra Upper Watersheds Program	\$16,000,000	\$67,000,000
Land Acquisition and Habitat Enhancement Program- SoCal		\$67,000,000



## **Item 4. Herbicide Discussion and Presentation on changes to the WCB Herbicide Questionnaire**

# HERBICIDE USE ON CDFW LANDS

Krista Hoffmann, Ph.D.

CDFW Lands Program

Integrated Pest Management Coordinator

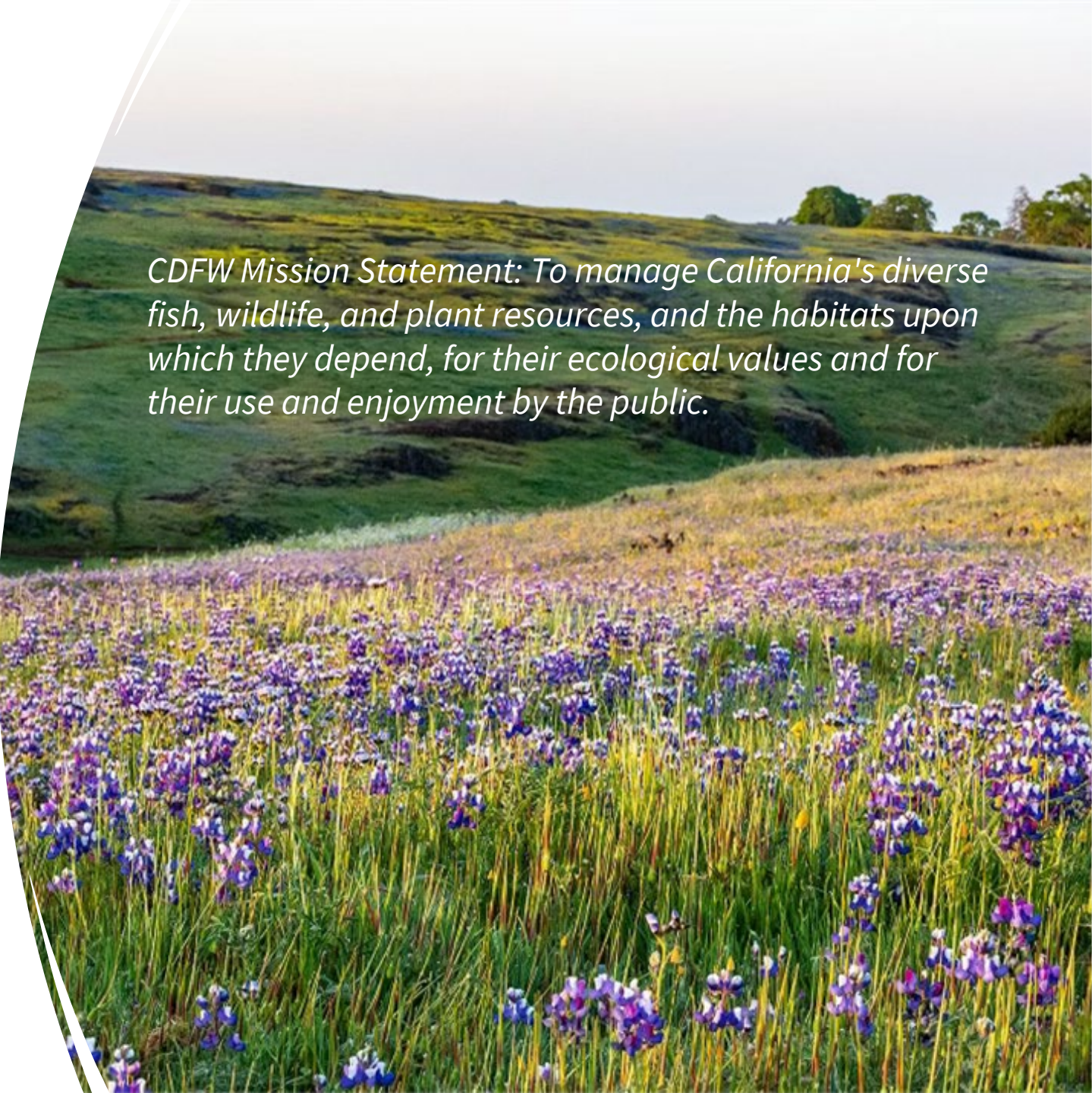




# CDFW'S MISSION

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- California is a global biodiversity hotspot and CDFW's mission is to support native species and habitat. Among the greatest threats to biodiversity is **non-native and exotic vegetation**. Herbicides are one of the many tools that the Department employs to target this threat.



*CDFW Mission Statement: To manage California's diverse fish, wildlife, and plant resources, and the habitats upon which they depend, for their ecological values and for their use and enjoyment by the public.*



## Why hasn't CDFW eliminated all herbicide use?

IPM is an ecosystem-based strategy  
that uses a combination of proven, effective techniques.

### “SOFTTEST TOUCH”

Herbicides are one of the most selective tools available and often require minimal to no ground disturbance.

### EFFICACY

Any restoration or vegetation management project will require disturbance to habitat. Sustained efficacy and long-term results are important outcomes.



## WHICH HERBICIDE PRODUCTS ARE USED BY CDFW?

### HERBICIDE RECOMMENDATIONS

CDFW's certified Pest Control Advisor helps land managers determine the most selective and effective approach for controlling specific infestations.

### "RELEASE" NATIVE SPECIES

Treatments are strategically planned to promote the regrowth and reestablishment of native species.

### FORMULATIONS ARE SELECTED BASED ON:

(1) the species and stage of the target vegetation,  
(2) the environment in which it occurs, including presence of native or listed species, and,  
(3) desired outcomes.



## WHAT KIND OF LAWS, REGULATIONS, AND GUIDELINES ARE FOLLOWED TO MINIMIZE THE POTENTIAL FOR ENVIRONMENTAL HARM FROM HERBICIDE USE?

### U.S. EPA

regulates all aspects of pesticide registration, sale, and use at the federal level through the laws in the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the regulations in the Code of Federal Regulations, Title 40 (40 CFR)

### THE CALIFORNIA DEPARTMENT OF PESTICIDE REGULATION (DPR)

is responsible for statewide regulation of pesticide in California and is the primary regulatory body for pesticide regulation under Title 3 of the California Code of Regulations (CCR).



## WHAT ARE THE RISKS ASSOCIATED WITH HERBICIDE USE AND HOW ARE THESE MITIGATED BY THE CDFW?

### HAZARD VS. RISK

Hazard is any action or tool that has the potential to cause harm, whereas risk is the likelihood of the harm occurring.

### RISK IS ASSOCIATED WITH THE MISUSE OF TOOLS

CDFW carefully follows State and Federal regulations, as well as CDFW-specific BMPs to protect applicators and the environment.

### HABITAT BMPS

Examples of BMPs include:

1. targeting a plant before it blooms to avoid exposure to pollinators;
2. using the safest formulation of a product;
3. using a backpack sprayer with a colorant to ensure sprays are targeted to the plant being removed and don't overspray onto other desirable habitat, etc.



## DO I NEED TO BE WORRIED ABOUT HERBICIDES BEING APPLIED IN OR AROUND A CDFW-OWNED PROPERTY I FREQUENT?

### SIGNAL WORD

Most products CDFW applies are in the lowest category of human risk, with a signal word “caution.”

### PUBLIC NOTICE

On CDFW properties accessible by the public, staff will close treated areas or post signs until an appropriate safety interval has passed.

### HERBICIDES ARE INHERENTLY SAFE FOR NON-PLANT TAXA

Most herbicides work by targeting proteins and enzymes that are specific to plants and do not exist in mammals; therefore, herbicides have minimal to no effects on humans.

# GLYPHOSATE PRODUCTS

## MIS/OVERUSE

Over 90% of glyphosate use is in Agriculture. Roundup ready crops and glyphosate resistance result unnecessarily high residual levels in the environment (and food).

## CARCINOGENICITY

Daily exposure to high levels of certain glyphosate products has been linked to negative health outcomes (e.g., non-Hodgkin lymphoma).

## FORMULATIONS

Many harmful effects have been linked to “inert” ingredients, such as surfactants, in formulations rather than the active ingredient (glyphosate) itself. **Aquatic formulations do not contain these surfactants and are therefore safer for humans and the environment.**

# Aquatic Toxicity

Active Ingredient	Toxicity Category		NPDES Maximum Limitation
	Fish* (ppm)	Inverts* (ppm)	
<u>Imazamox</u> (Clearcast)	>100	>100	none
Triclopyr triethylamine ( <u>Garlon</u> , <u>Vastlan</u> )	>100	>100	13.0 ppm <sup>a</sup>
Imazapyr (Habitat, Polaris)	>100	>100	11.2 ppm <sup>a</sup>
<u>Fluridone</u> (Sonar)	>1 - 10	>1 - 10	0.56 ppm
Flumioxazin (Clipper, Propeller)	>1 - 10	>1 - 10	none
<u>Carfentrazone</u> (Stingray)	>1 - 10		none
Glyphosate (Roundup Custom, Rodeo)	>1 - 10	0.1 - 1	0.70 ppm
Endothall ( <u>Aquathol K</u> )	0.1 - 1	0.1 - 1	0.10 ppm
Diquat (Reward)	>1 - 10	<0.1	0.02 ppm
2,4-D	<0.1	<0.1	0.07 ppm
Acrolein ( <u>Magnacide</u> )	<0.1	<0.1	0.021 ppm
Copper (Harpoon)	<0.1	<0.1	0.015 - 0.020 ppm
Nonylphenol (R-11, Activator 90)	<0.1	<0.1	0.0066 ppm



# SUMMARY

- Risk is associated with the misuse of any tool
- Selective and judicious applications of herbicides can be the “softest touch” in a restoration setting
- Efficiency, efficacy, and long-term results are key to minimizing habitat impacts and maximizing the benefits



# THANK YOU

- Krista Hoffmann
- 916-996-8019
- [Krista.hoffmann@wildlife.ca.gov](mailto:Krista.hoffmann@wildlife.ca.gov)
- [wildlife.ca.gov/Lands](http://wildlife.ca.gov/Lands)



# Herbicide Questionnaire Feedback

- Input accepted for 3 ½ weeks
- 25 commenters
  - *21 supportive of some herbicide use (16 with specific edits/suggestions)*
  - *4 unsupportive of herbicide use (2 focused on glyphosate, 1 with specific edits)*
- Many comments recommended a more general, simplified approach – combining questions and adjusting their order
- Many comments focused on an Integrated Pest Management (IPM) approach to describe and justify all control methods, chemical and non-chemical

# Commenters

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- Kirk Lennington, Midpeninsula Open Space District
- Erin Woolley, Sierra Club
- Megan Cleveland, TNC
- Julian Meisler, Sonoma Land Trust
- Krista Hoffman, CDFW
- Matt Frietas, American Rivers
- Kim Konte, Non-Toxic Neighborhoods
- Frank Franz, Non-Toxic Neighborhoods
- Gianna Setoudeh, South Yuba River Citizens League
- Megan Kaun, Sonoma Safe Ag Safe Schools
- Matt Gause, Westervelt
- Andrea Williams, CNPS
- Doug Johnson, Cal-IPC
- Katherine Holmes, Solano RCD
- Emily Zefferman, RCD of Monterey Co
- Kathleen Ave
- Kathryn Phillips
- Jon Kaufman, President, Claremont Canyon Conservancy
- Andrew Werner
- Craig Dremann
- Chris Carlson, Sonoma Land Trust
- Keshav
- Betsy Stapleton, Scott River Watershed Council
- David Webb

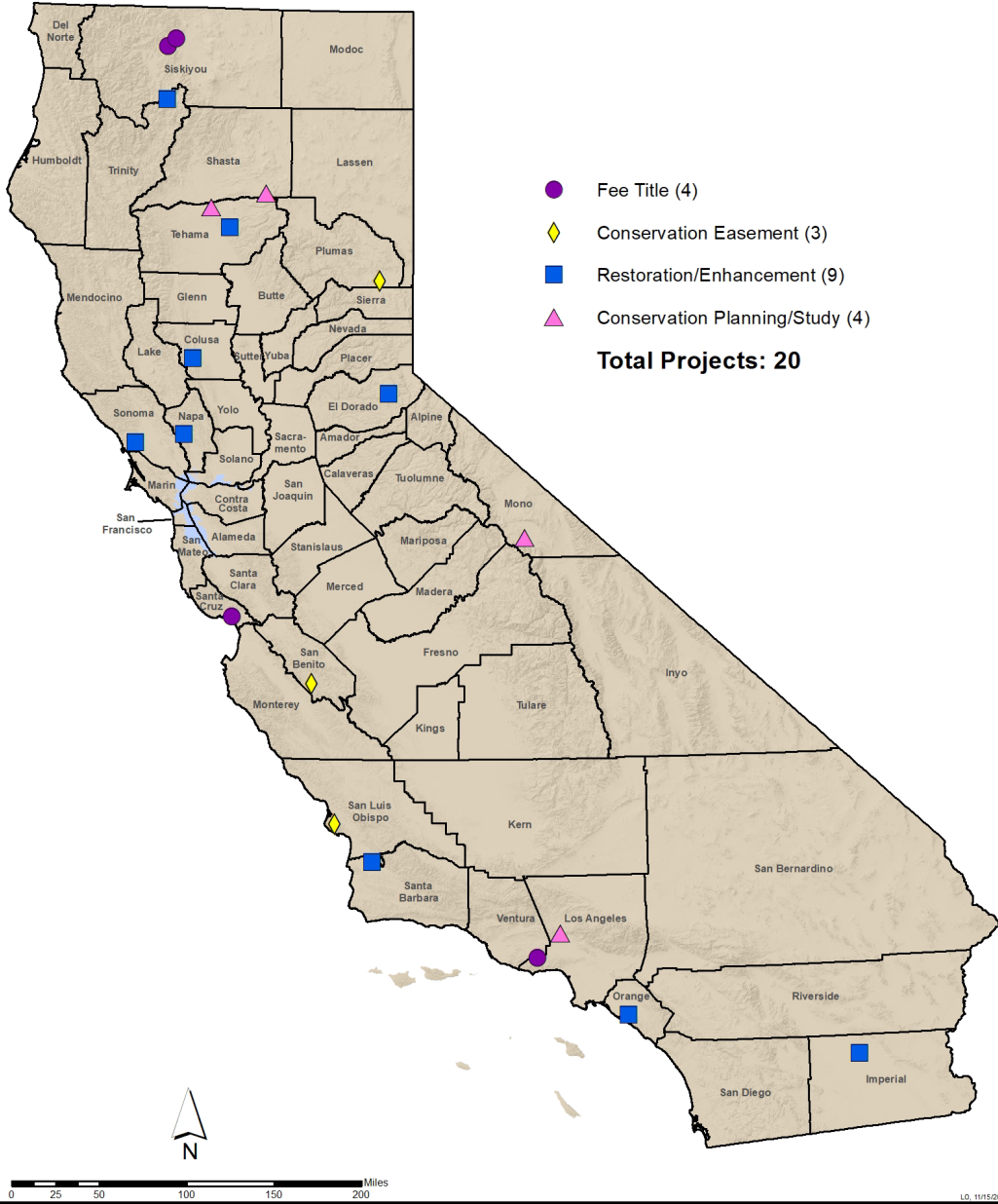
# Updates to Herbicide Questionnaire:

- Add preamble regarding overall intent
- Minor technical and grammatical edits
- Change question order to be more logical and sequential
- Describe and justify all proposed control methods, not just herbicides
- Describe potential impacts from all control methods (not just herbicides), and ways to minimize/reduce impacts
- Remove glyphosate-specific questions
- Add question on qualifications and sources
  
- *Prepare guidance for staff based on updated questionnaire*



## **Item 5. WCB Appraisal Policy Amendment - Withdrawn**

Soap Creek Ridge



# Wildlife Conservation Board Meeting November 15, 2022 Project Map



## Consent Items 6-16

Pereira Ranch



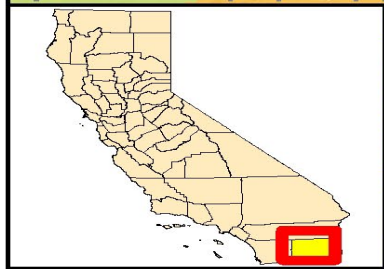


# Item 6. Recovery of Funds

<b>Fund Name</b>	<b>Amount</b>
General Fund	\$24,889.70
Safe Neighborhood Parks, Clean Water, Clean Air, and Coastal Protection Bond Fund	\$0.00
Habitat Conservation Fund	\$185,253.05
Greenhouse Gas Reduction Fund	\$0.01
California Clean Water, Clean Air, Safe Neighborhood Parks, and Coastal Protection Fund	\$7,633.20
Safe Drinking Water, Water Quality and Supply, Flood Control, River and Coastal Protection Fund of 2006	\$107,286.65
Water Quality, Supply, and Infrastructure Improvement Fund of 2014	\$398,741.58
The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access For All Act of 2018	\$7,202.00
<b><i>Total Recoveries for All Funds</i></b>	<b><i>\$731,006.19</i></b>



**Consent Items 6-16 Motion, excluding items 9 and 11**



**Imperial Wildlife Area Wetland Restoration, Units W11, W12 & Y15 Imperial County**



# 16. Imperial Wildlife Area Wetland Restoration, Units W11, W12, & Y15

Slide 1

Flooded Wetland Unit

# 16. Imperial Wildlife Area Wetland Restoration, Units W11, W12, & Y15

Slide 2



- Left: Water delivery ditch, choked with vegetation
- Right: Water delivery ditch to be replaced with pipe



# 16. Imperial Wildlife Area Wetland Restoration, Units W11, W12, & Y15

Slide 3

Invasive salt cedar removal



## 16. Imperial Wildlife Area Wetland Restoration, Units W11, W12, & Y15

Slide 4

Left: Pipeline Valve with rock to prevent erosion

Right: Pipeline Installation



**16. Imperial Wildlife Area  
Wetland Restoration,  
Units W11, W12, & Y15**

Slide 5

Desired condition with watergrass  
growing within wetland unit.

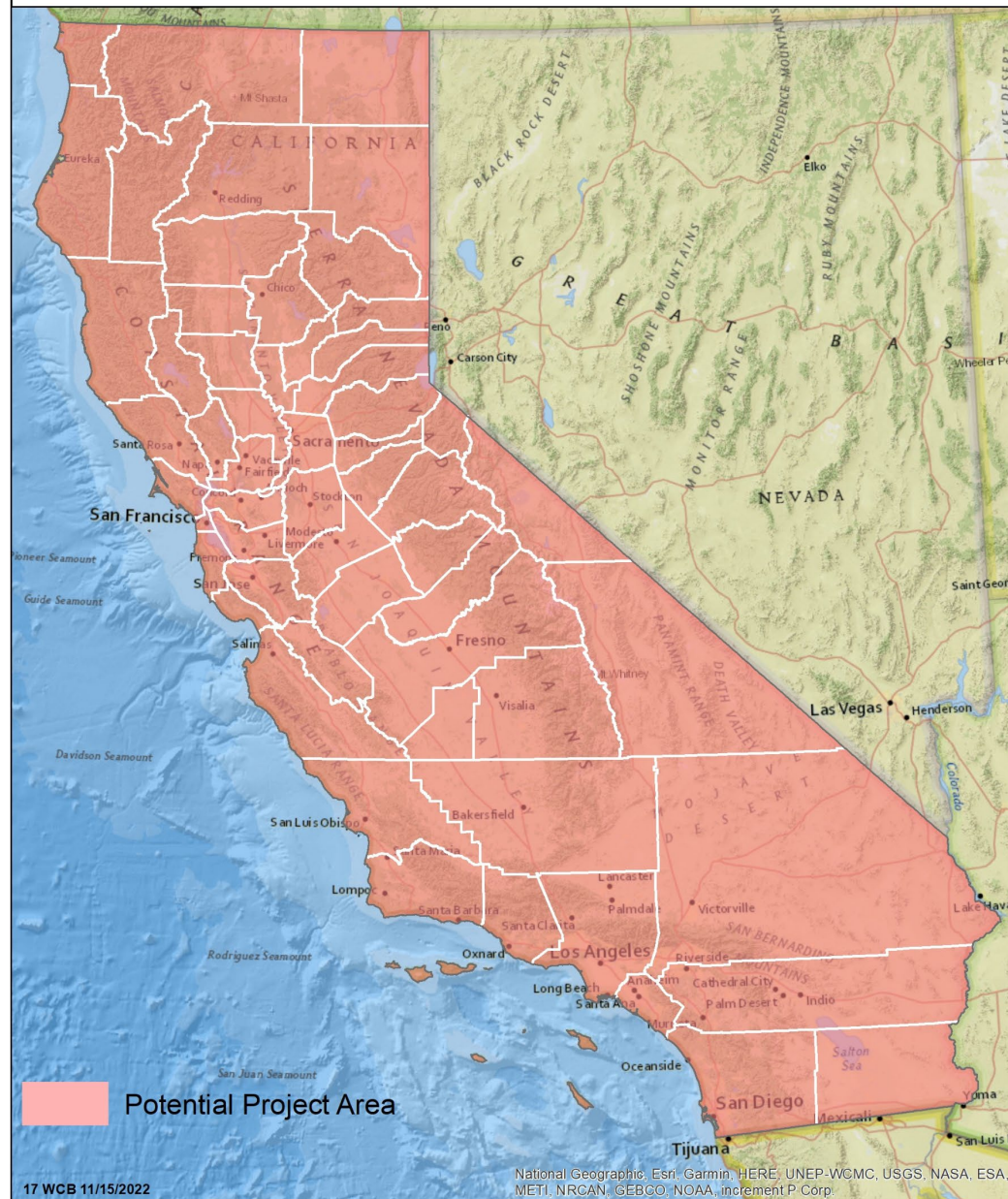




## **Proposed Calendar Items 15-25**

**Imperial Wildlife Area**

# Climate Resilience Through Habitat Restoration Statewide



# 17. Climate Resilience Through Habitat Restoration

Slide 2

## Block Grant – Context

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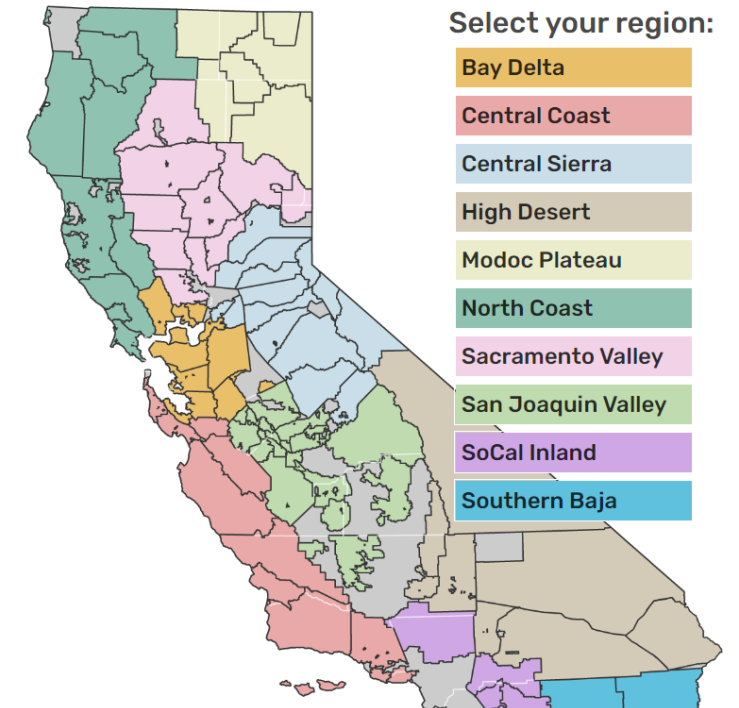
Leveraging resources to expand capacity to realize the state's natural lands conservation goals.

### CARCD

- Networking and coordination of RCDs
- Successful management of previous block grants funded by WCB
- JEDI Program Manager

### RCDs

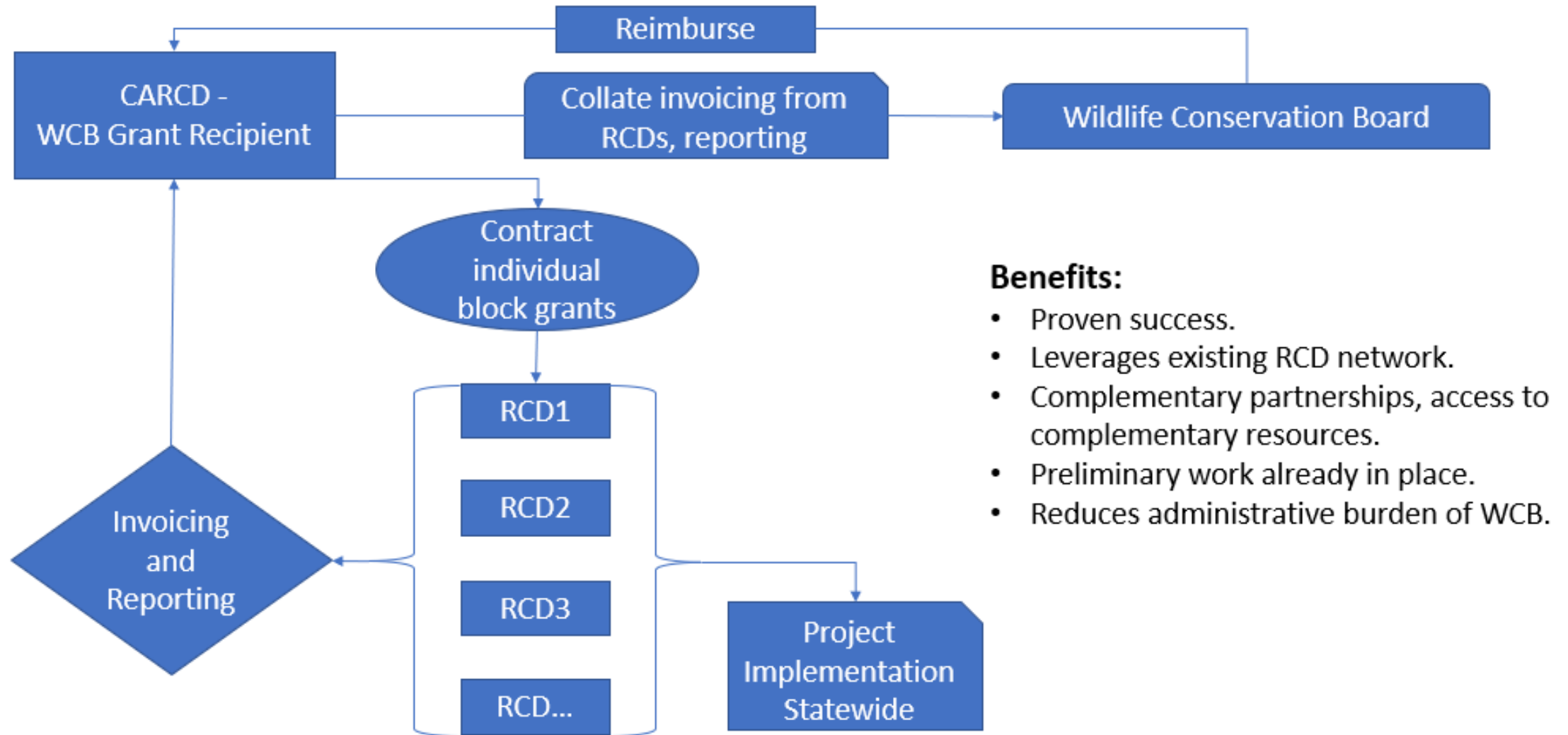
- Existing, longstanding statewide network
- Directly serving communities over multiple generations
- Longstanding and diverse partnerships
- Excellent position to increase pace and scale of conservation



CALIFORNIA ASSOCIATION OF  
**RESOURCE**  
CONSERVATION DISTRICTS

# 17. Climate Resilience Through Habitat Restoration, Slide 3

## Block Grant - Workflow



### Benefits:

- Proven success.
- Leverages existing RCD network.
- Complementary partnerships, access to complementary resources.
- Preliminary work already in place.
- Reduces administrative burden of WCB.

# 17. Climate Resilience Through Habitat Restoration

Slide 4

## Conservation Goals:

### **Monarch/Pollinator habitat:**

- 30 monarch/pollinator habitat restoration projects on working lands;
- 25 monarch/pollinator habitat restoration projects on public lands;
- Improve at least 5 monarch/pollinator overwintering sites on public lands or private property;

### **Habitat restoration:**

- 19 wildlife habitat restoration projects on public and private (wetlands, oak woodlands, riparian corridors, foothill grasslands, flood plains, desert, and forest);

### **Working lands:**

- Implement carbon farm plans on at least 40 sites.
- Develop additional carbon farm plans and implement additional projects as opportunities arise.

Common Name	Scientific Name	Flag color	Zones				Total by species
			Zone1	Zone2	Zone3	Zone4	
sq ft			18,500	7,991	3,403	5,870	
Percentage area	35764		52%	22%	10%	16%	
Calif. Buckeye	<i>Aesculus californica</i>	red	5	5			10
Big Leaf Maple	<i>Fraxinus latifolia</i>	Green	5	5			10
Coast Live Oak	<i>Quercus agrifolia</i>	light blue		5			5
Valley Oak	<i>Quercus lobata</i>	orange		3			3
CA Wild Rose	<i>Rosa californica</i>	pink		9			9
Red and Arroyo Willow	<i>Salix laevigata, Salix lasiolepis</i>				15		15
Juncus spp	<i>Juncus</i>		25	25		5	55
Sedges	<i>carex, spp.</i>		20	20		3	43
Sword ferns	<i>Polystichum munitum</i>	silver	7	5		12	24
Snowberry	<i>Symphoricarpos</i>	White	15	5	5	7	32
elk clover	<i>Aralia californica</i>	Brown	5	9			14
Ninebark	<i>Physocarpus capitatus</i>	Purple	9	5		3	17
White Alder	<i>Alnus rhombifolia</i>	yellow	9				9
<b>TOTAL BY ZONE</b>			100	96	20	30	246

# 17. Climate Resilience Through Habitat Restoration

Slide 5

Example candidate riparian area for revegetation, adjacent to cultivated vineyard.

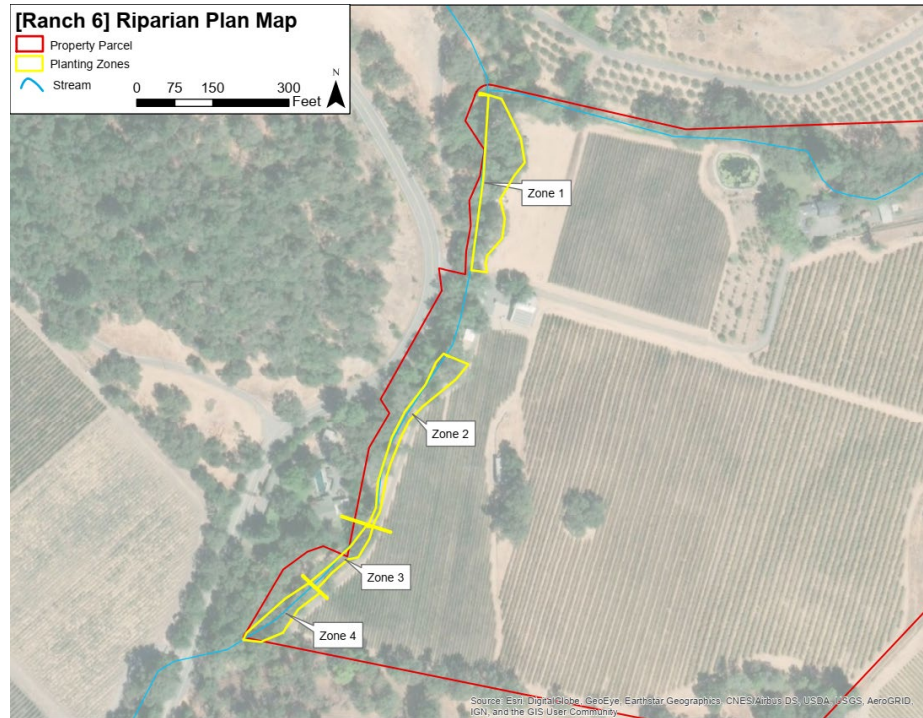
Images courtesy of California Association of Resource Conservation Districts

# 17. Climate Resilience Through Habitat Restoration

Slide 6

Left: Example riparian plan map

Right: Example soil map to determine available water capacity.



Images courtesy of California Association of Resource Conservation Districts

# 17. Climate Resilience Through Habitat Restoration

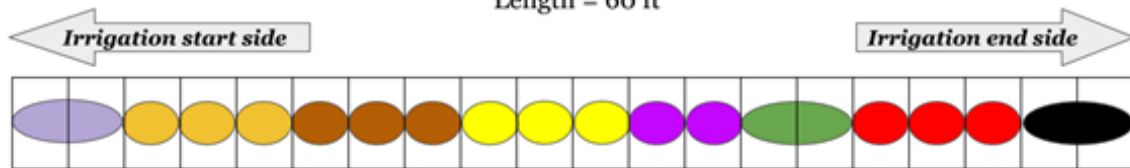
Slide 7

Left: Example hedgerow design

Right: Hedgerow planting

## [Ranch 2] Hedgerow Design

Segment #2 of 5  
Length = 60 ft



- |                        |                          |
|------------------------|--------------------------|
| ● Yarrow               | ● Prostrate coyote brush |
| ● Black sage           | ● California fuchsia     |
| ● Aster "Purple Haze"  | ● Prostrate Coffeeberry  |
| ● California Goldenrod | ● Salvia "Bee's Bliss"   |

Each box  
is 3' wide





# 17. Climate Resilience Through Habitat Restoration

Slide 8

Images courtesy of California Association of Resource Conservation Districts



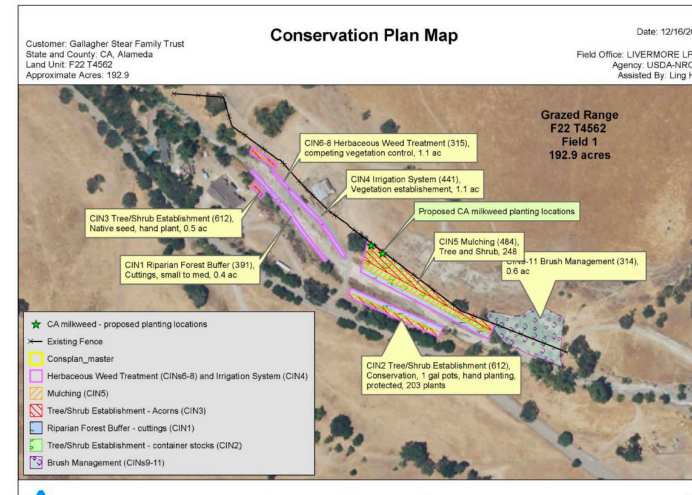
# RCDs: Boots on the ground to meet California's 30 x 30 Goals

- **Deep connections and existing relationships with stakeholders**
  - RCDs serve farmers, ranchers, and other community stakeholders like schools, parks, local non-profits, community gardens, and more
- **Local knowledge, conservation project expertise, key partnerships with agencies and NGOs, community connection, and passion for conservation**
- **On-the-ground partners, working with stakeholders to get conservation work done**



# RCD Work

- Technical Assistance and Planning
- Project Implementation on the ground
- Monitoring, Maintenance, Reporting
- Outreach & Education



TA Site: Copper Moon Ranch



### Pollinators Need Our Help

**Pollinators touch our lives in countless ways**

Pollinators are responsible for the food we eat, much of the clothing we wear, and they define our seasons — flowering meadows, summer berries, and the pumpkins we carve at Halloween. What do you think a world without pollinators would look like?

Historically, millions of monarchs overwintered along the Pacific coast — The Xerces Society estimates there were 4.5 million in the 1980s. The Xerces Society's Western Monarch Thanksgiving Count in 2020 showed less than 0.01% of the historic population remains. Not only do monarchs face stress, but other invertebrates do too, such as bumble bees, who also play an essential role in our ecosystem.

We are responsible for long term pollinator decline. It is due to stressors like habitat loss and degradation, pesticide use, and climate change.

As different pollinator populations become more at risk, we are facing the responsibility of supporting pollinators by creating habitat, food, water, and shelter for them.

**What can you do to help?**  
Growing a pollinator garden creates a habitat for these amazing creatures. It has other benefits like increasing biodiversity, adding beauty to your space, and allows for wonder and learning (great for kids and adults alike). Creating a pollinator garden is rewarding and fun for everyone who participates.



# WCB/CARCD block grant accomplishments... so far

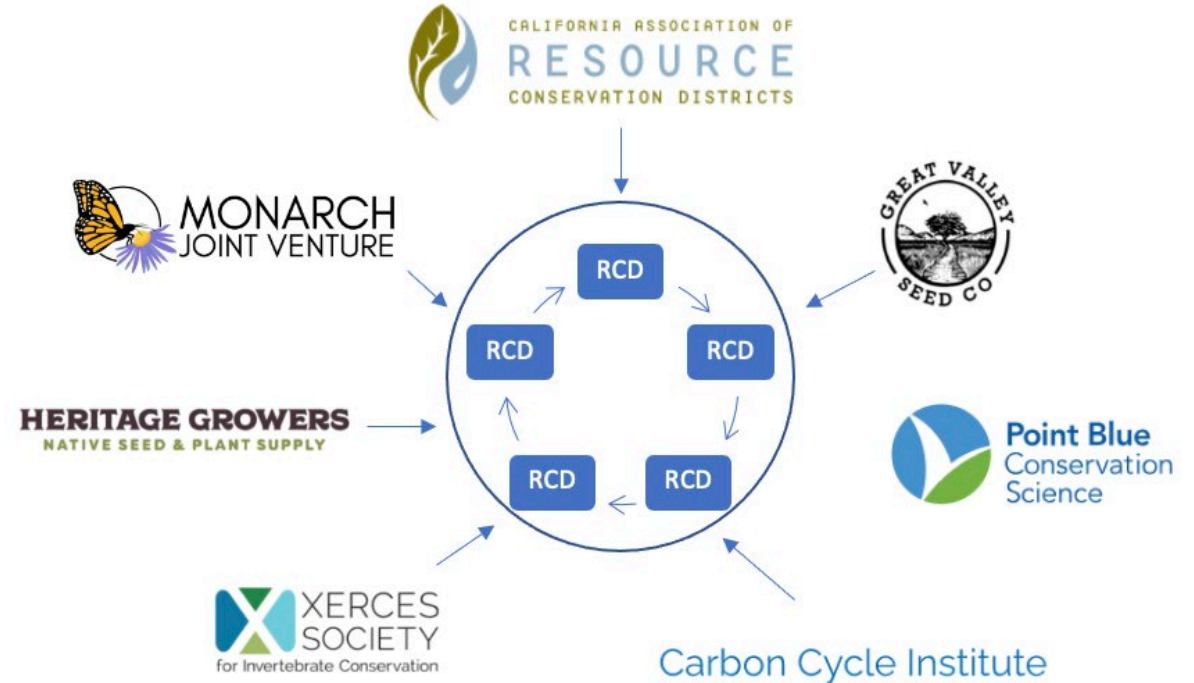
- **“Recovering and Sustaining Monarch and Pollinator Populations”  
(Completed March 2022):**
  - Grant enabled 11 RCDs to implement 13 projects which added crucial western monarch breeding, nectar, and overwintering sites
  - RCDs increased community awareness resulting in community involvement in protecting and restoring/creating habitat for monarchs in California.
  - **62 acres of breeding habitat, 58 acres of nectar habitat, and 17 acres of overwintering habitat, 62 acres under improved management**
  - Key Partner – Xerces Society
- **“Enhancing Wildlife Habitat & Carbon Sequestration on Working Lands”  
(Closing Dec. 2022):**
  - Grant enabling 10 RCDs to implement multiple CFP and habitat restoration projects
  - Surpassed target of **44 carbon farm plans – will yield 60+**
  - At least **5 streamflow enhancement plans & 5 LandSmart water plans**
  - Outreach: 100+ Site visits; workshops; demonstration days
  - Key partner – Carbon Cycle Institute



*SUCCESS AND EXPERIENCE TO BUILD ON!*

# Proposed block grant – Amplifying impact of RCDs & partnerships

- Leverage existing relationships and partners
- Collaboration among RCDs
- All RCDs benefit from expertise of partners
- Collaboration among partners
- Resource sharing
- Reduced administrative burden frees up RCI resources for project activities



# CARCD Block Grant Experience and Capacity

- **CARCD has managed block grants from the following funders:**
  - Wildlife Conservation Board
  - Bechtel Foundation
  - US Forest Service – International Programs
  - National Fish and Wildlife Foundation
  - Monarch Joint Venture
  - Resource Legacy Fund
  - CAL Fire
  - California Department of Food and Agriculture
  - US Forest Service
  - NRCS
- **CARCD is being approached by agencies to collaborate on block grants**
- **Building capacity by adding staff, streamlined systems**







# 18. Climate Smart Meadow Restoration

Slide 1

Degraded meadows

(Bottom left image credit:  
South Yuba River Citizens  
League)







# 18. Climate Smart Meadow Restoration

Slide 2

Restoration examples




# 18. Climate Smart Meadow Restoration

Slide 3

Students and Teachers Restoring A Watershed (STRAW)

(Image credit: Point Blue)





# Increasing the Pace, Scale, and Efficacy of Sierra Meadow Restoration: WCB Block Grant

## 18. Climate Smart Meadow Restoration

Slide 4



Point Blue  
Conservation  
Science

# Why Are Healthy Meadows So Important?

## Water

- improve water quality
- reduce downstream flooding
- natural reservoirs
- headwaters of most of our water

## Carbon Sinks

## Biological Diversity Hotspots

## Climate Refugia

# Biological Diversity

- Birds, fish, amphibians, pollinators, deer fawning
- Special status species
- Keystone habitat for Sierra birds



>50% (>100,000 ac.) of Meadow are Degraded



# 18. Climate Smart Meadow Restoration

Slide 7



# Sierra Meadows Partnership

Restore & protect 30,000 acres by 2030 that enhance water, carbon, and biodiversity benefits

18. Climate Smart  
Meadow Restoration

Slide 8

# Broad Coalition of NGO's, Government (federal, state, local), Universities, Private corporations



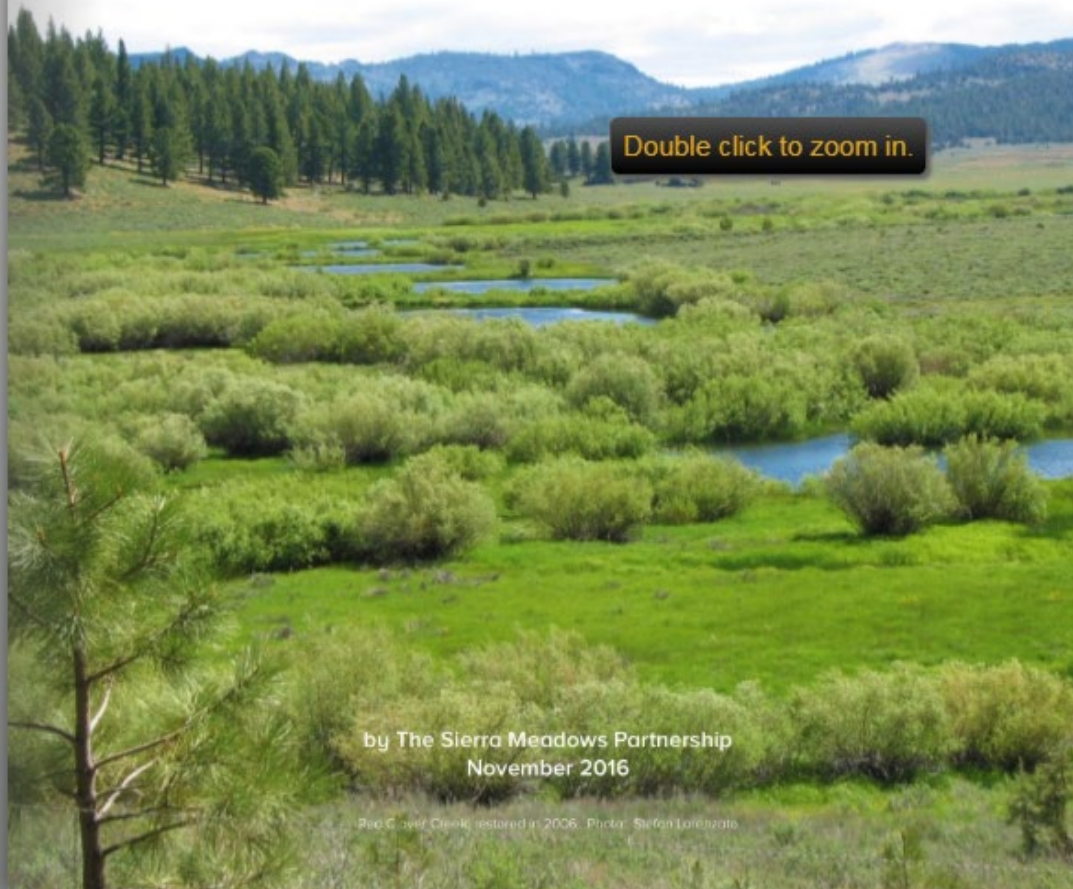
18. Climate Smart Meadow Restoration

Slide 9



# Sierra Meadows Strategy

An "all-hands, all-lands" approach to increasing the pace, scale and efficacy of meadow restoration and protection throughout the Greater Sierra Nevada.



Double click to zoom in.

by The Sierra Meadows Partnership  
November 2016

Red Clover Creek, restored in 2006. Photo: Stefan Lorenzato

## 18. Climate Smart Meadow Restoration

Slide 10

# Progress Towards 30,000-acre goal

## Restoration

- Over 3000 acres restored
- 5400 acres in implementation phase
- 2900 acres in planning phase

## Land Protection

- 4,961 acres

18. Climate Smart  
Meadow Restoration

# Accelerate Progress Increase Impact

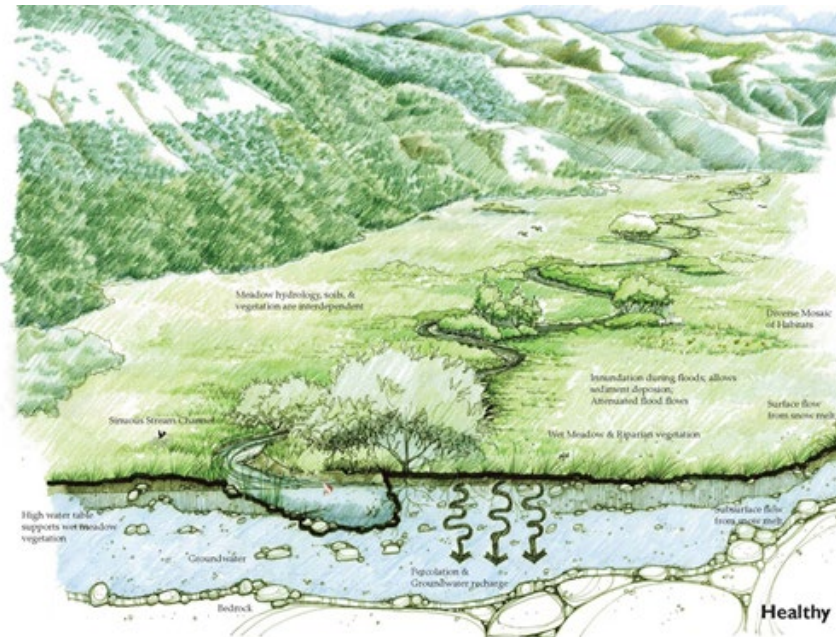
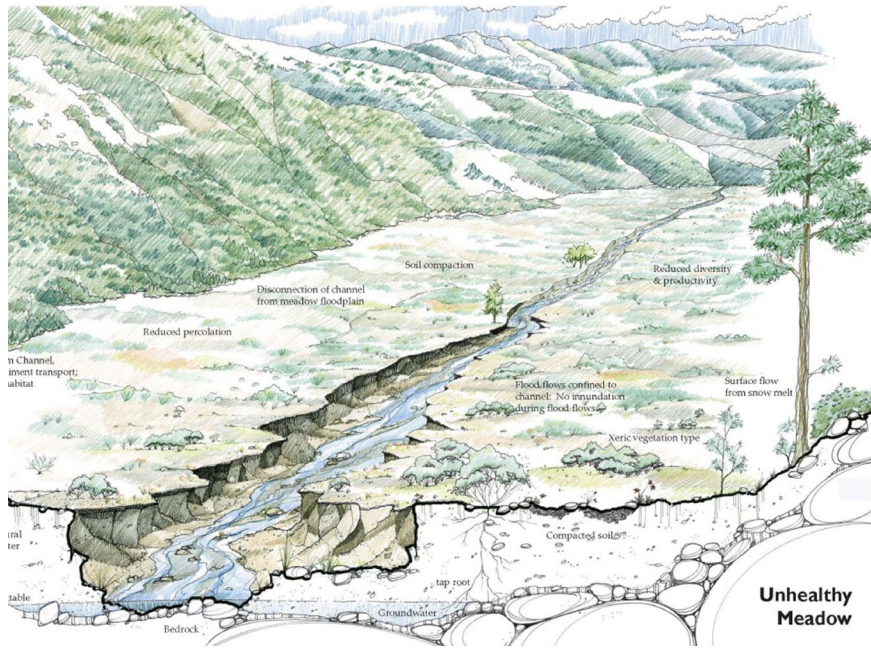
- 6,000 acres of restoration
- 4,000 acres restoration planning
- 2,500 acres of next priorities identified
- Technical assistance to advance restoration/stewardship
- Outreach/community engagement/DEI

18. Climate Smart  
Meadow Restoration

# Partnership Driven Project Selection

- SMP Management Board develops criteria and evaluates projects
- Public Solicitation Notice
- Develop a rubric to score projects based on:
  - Impact- multiple benefits
  - Durability
  - Sierra- WRAMP monitoring plan
  - DEIJ
  - Community engagement/support
  - Strengthen and grow SMP
- Collective expertise of SMP should result in greatest impact

18. Climate Smart  
Meadow Restoration

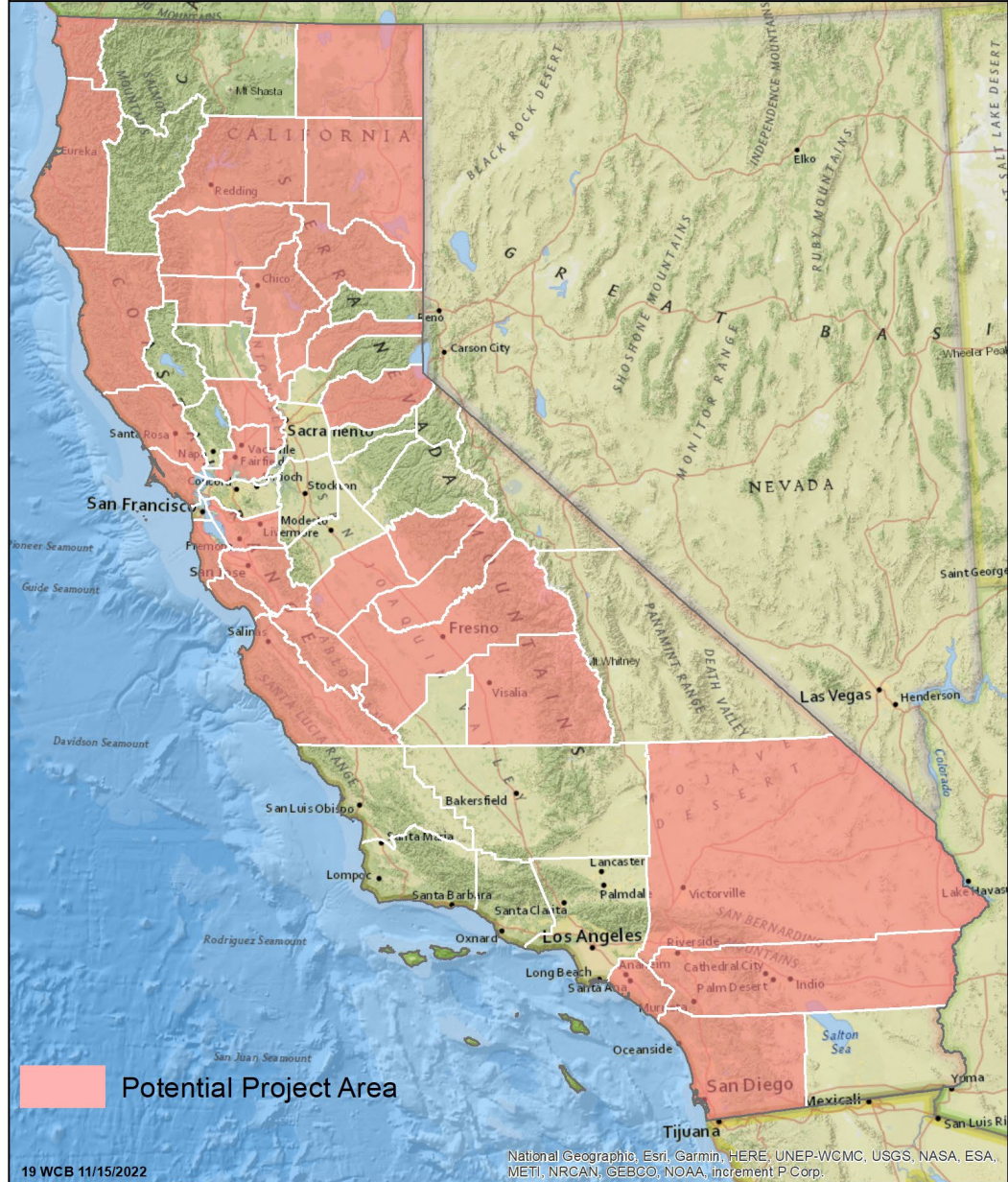


# 18. Climate Smart Meadow Restoration

Slide 14

Unhealthy meadow (top left) and healthy meadow (bottom left)  
(Image credit: American Rivers)

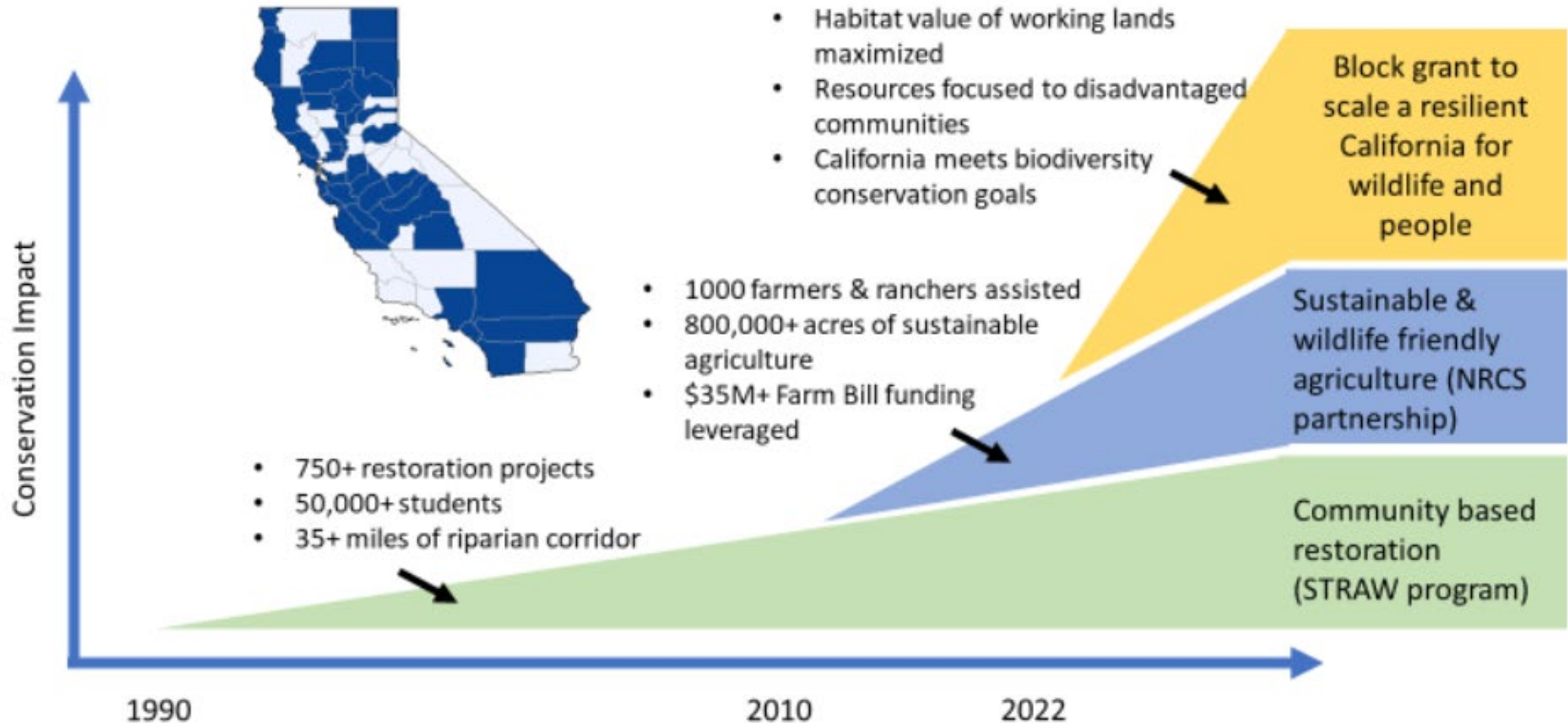
# Building Wildlife-Friendly Resilience in Working Landscapes Various Counties



Potential Project Area

# Building Wildlife-friendly Resilience and Equity in California's Working Landscapes

Slide 2

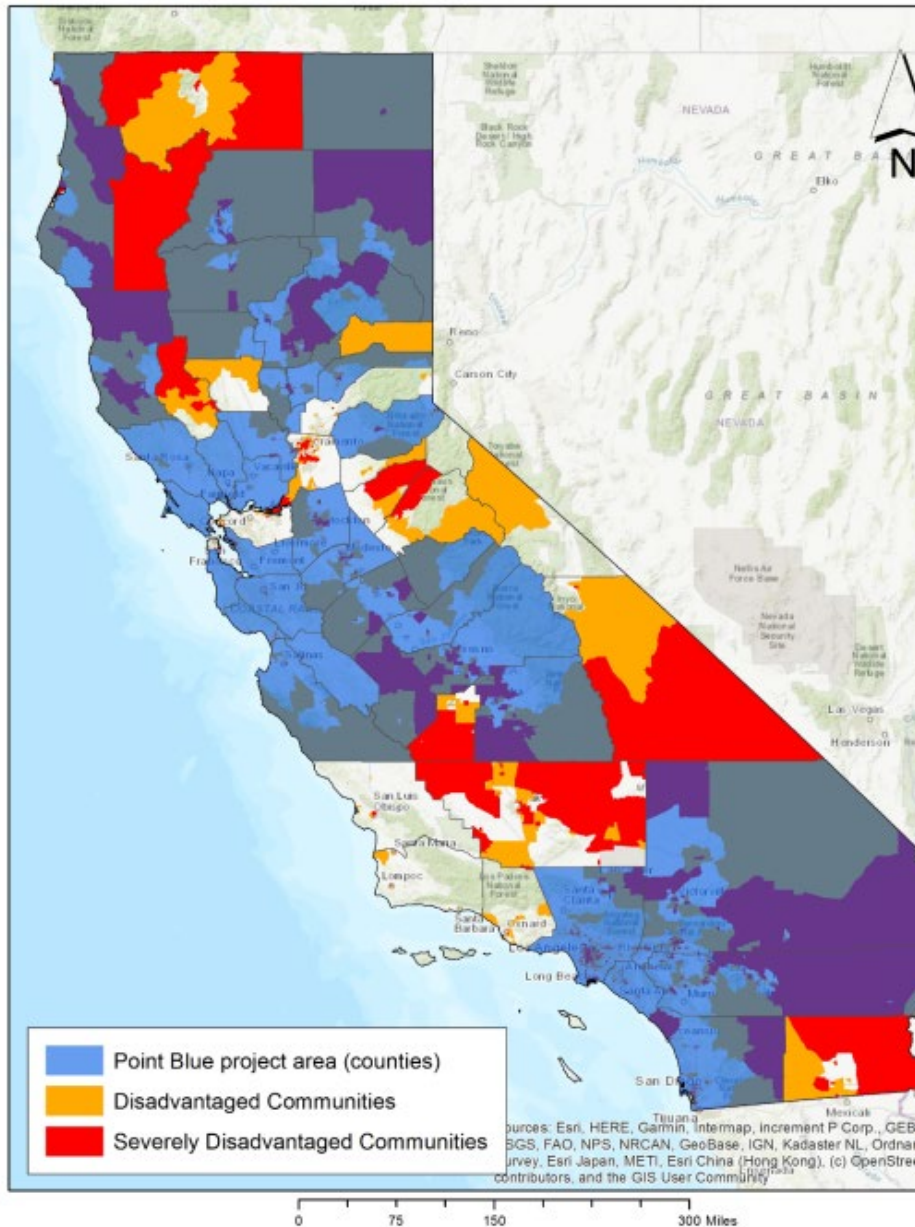


# 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 3

Image courtesy of Point Blue Conservation Science

Point Blue project area and Disadvantaged Communities.





# Building Wildlife- friendly Resilience and Equity in California's Working Landscapes

Slide 4

## **Project milestones:**

- Restore 5 mi riparian habitat
- Restore 40,000 ac of upland habitat
- Implement projects in a minimum of 35 counties across California
- Implement at least 50% of restoration projects in disadvantaged communities
- Partner with 200 land managers
- Engage a minimum of 8,000 volunteers in restoration implementation



## 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 5

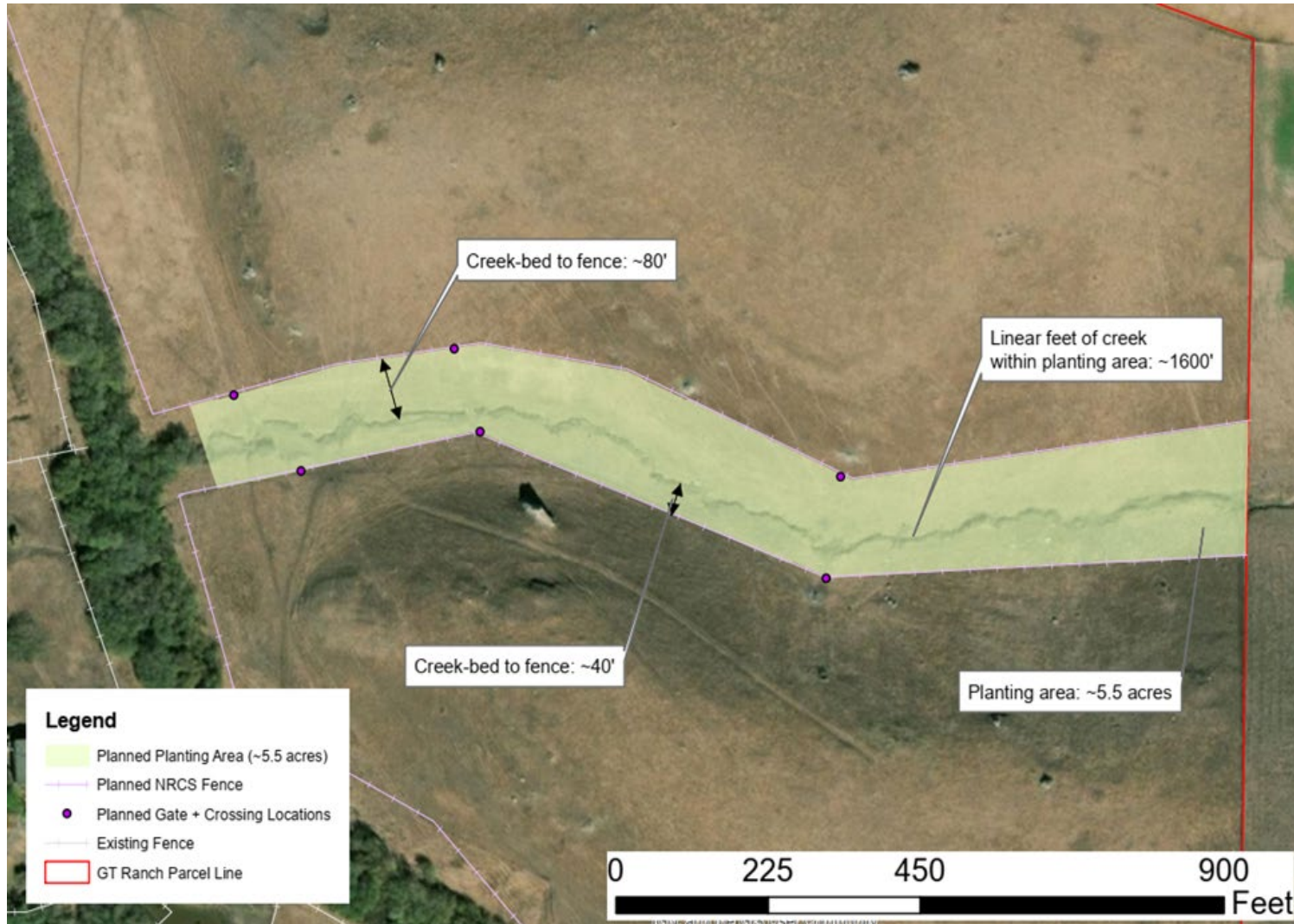
Images courtesy of Point Blue Conservation Science

Students active in restoration through STRAW Program.

# 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 6

Example riparian restoration project (cattle exclusion and planting).





## 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 7

Sample project type:  
riparian restoration (16  
years).

Images courtesy of Point Blue Conservation Science



November 2020



March 2021



November 2021



## 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 8

Sample project type:  
Beaver Dam Analog (1  
year).

Images courtesy of Point Blue Conservation Science



## 19. Building Wildlife-Friendly Resilience in Working Landscapes

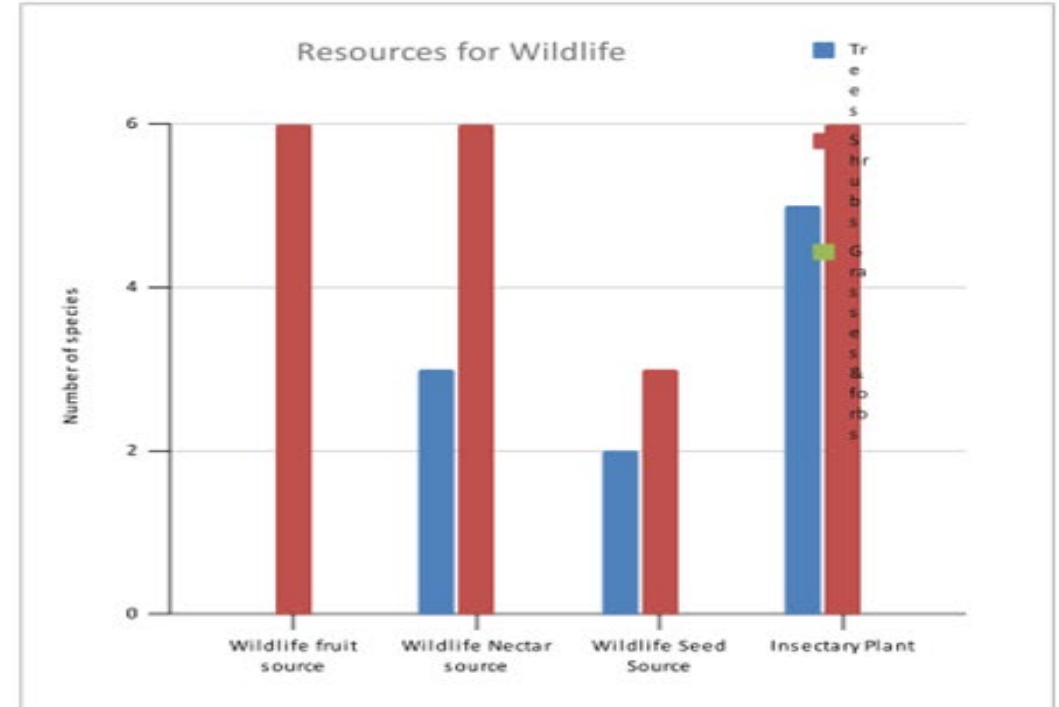
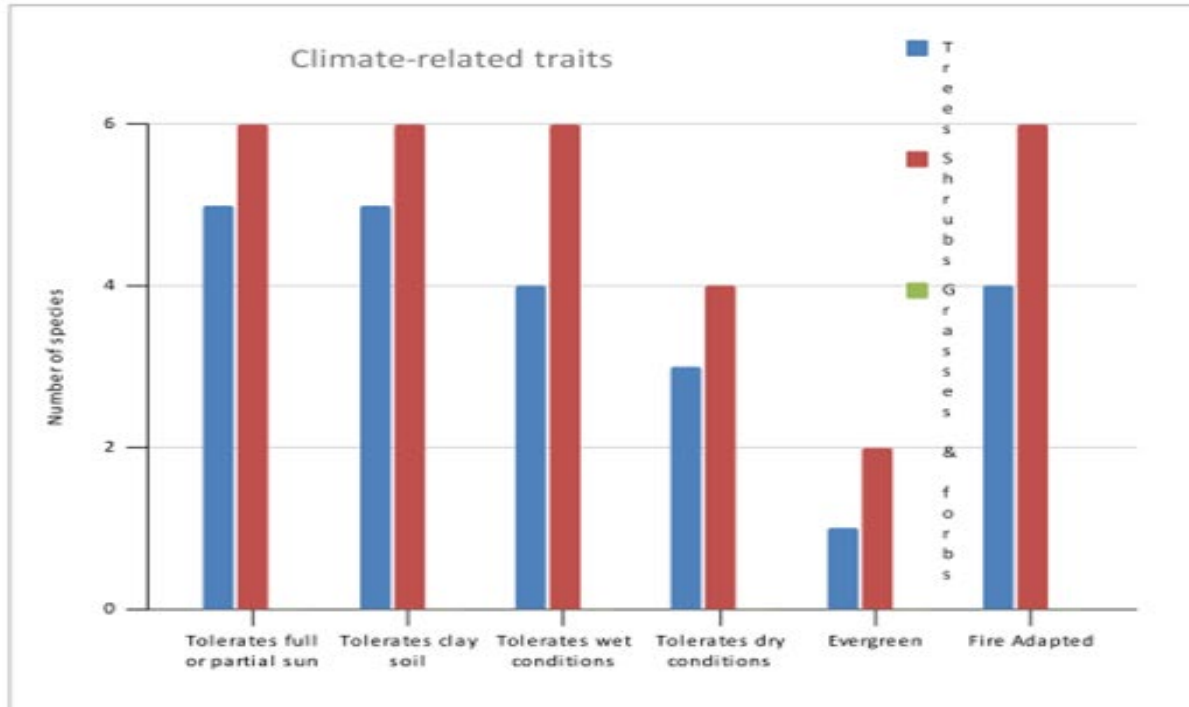
Slide 9

Sample project type:  
Zeedyk (“one-rock dam”)  
structure (1 year).

Images courtesy of Point Blue Conservation Science

# Climate-Smart Performance Analysis

Trees (5 selected)  
 Shrubs (6 selected)  
 Grasses & Forbs (0 selected)



## 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 10

Performance evaluation tool for plant success.



# 19. Building Wildlife-Friendly Resilience in Working Landscapes

Slide 11

- Images courtesy of Point Blue Conservation Science and the California Association of Resource Conservation Districts



# Building wildlife-friendly resilience and equity on California's working landscapes

Partnering with the California Wildlife Conservation Board to advance  
30x30 statewide through community-centered restoration



**Point Blue**  
Conservation  
Science

# Core Capabilities across 57 years



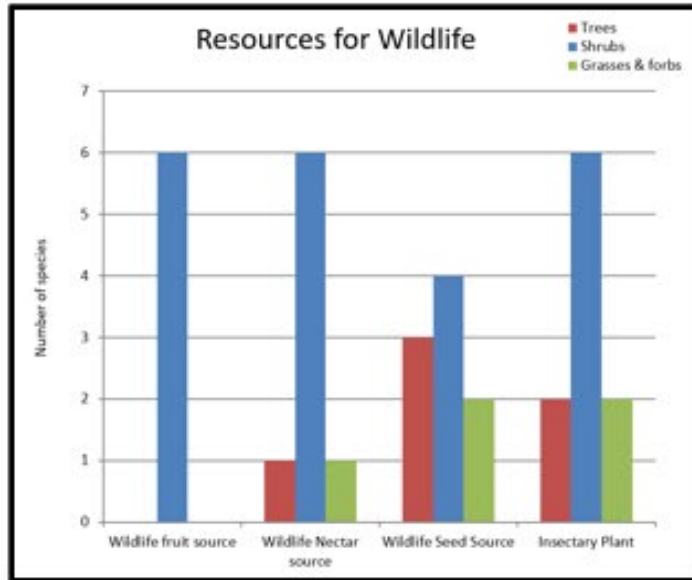
Science



Partnerships



Restoration & Education



# California's farms and ranches represent critical value for wildlife habitat, climate resilience and community engagement



48% of California's landbase is privately owned



Urgent need to address barriers to current conservation resourcing to maximize that value



Amplify impact through strong collaboration with CARCD and individual RCDs



# Leveraging 30 years of community-based restoration and conservation stewardship expertise

“Point Blue brings important biological expertise to help us achieve our mission—  
helping farmers and ranchers maintain healthy working lands.”

Carlos Suarez, State  
Conservationist, USDA NRCS  
California

30+ staff dedicated across California to  
this block grant project

Staff have leveraged over 80M in  
conservation & restoration funding

Staff have engaged more than 50,000  
students and 1000 farmers and ranchers

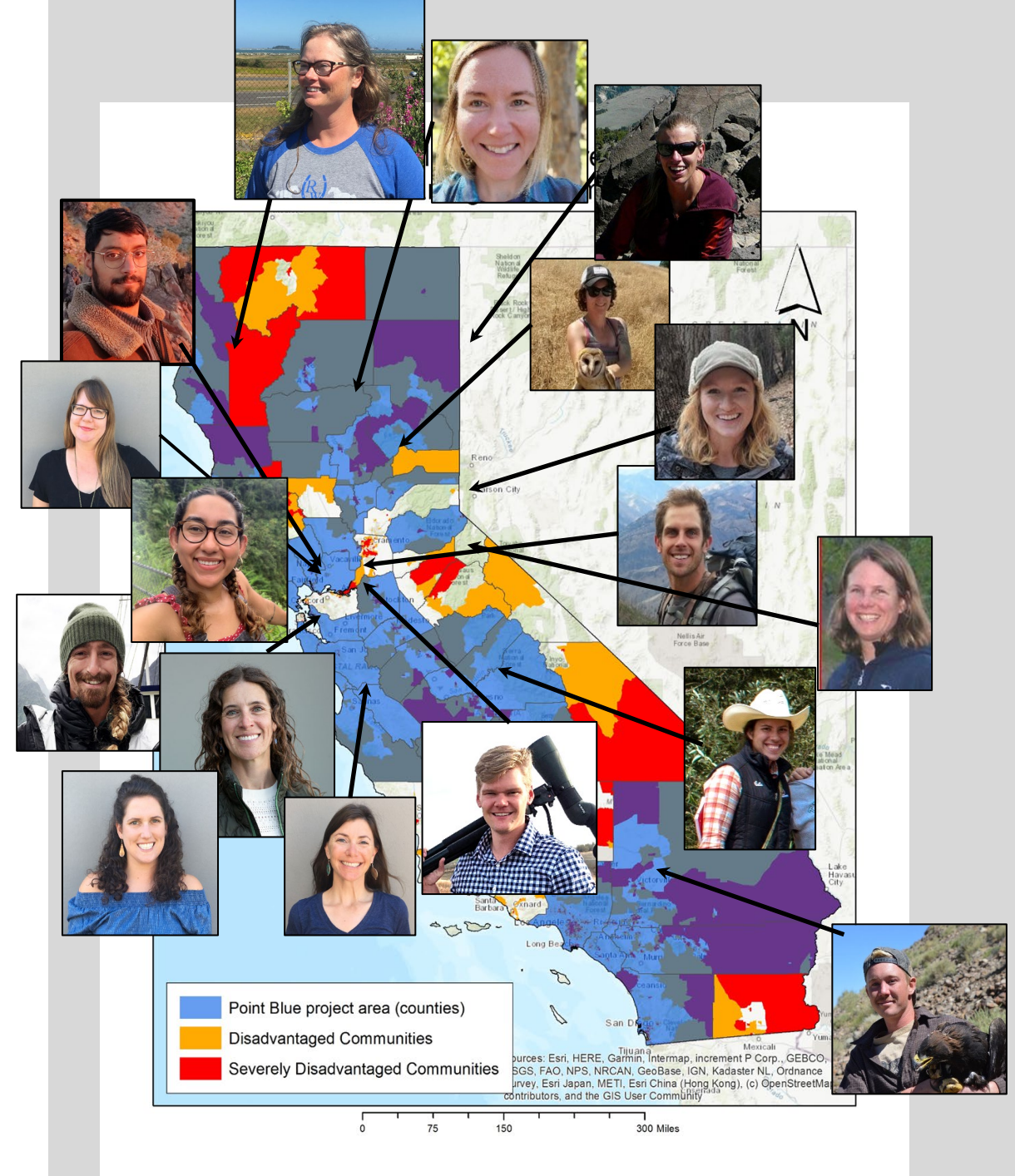
Staff have more than 185 years of  
collective experience

“We feel more confident about meeting our restoration goals on working landscapes more than ever largely due to our over 25-year history with Point Blue’s STRAW Program. Together we are designing climate smart projects ... that are beneficial to a variety of wildlife species.”

Nancy Scolari,  
Executive Director  
Marin RCD

# Dedicated staff and meaningful partnerships working across 35 counties

- Conservation planning and implementation supported on more than 800,000 acres
- Implemented 40+ miles of riparian corridor restoration implemented
- Relationships built with California Tribal Communities in more than 9 counties to date



# Project Goals

## Restore

Restore wildlife habitat on farms and ranches across California.

## Direct

Direct > 50% of funding to projects that support projects with California Native American Tribes, disadvantaged communities, and underserved individuals\*.

## Engage

Engage communities in building ecological resilience.



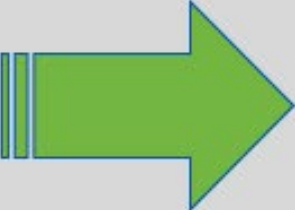
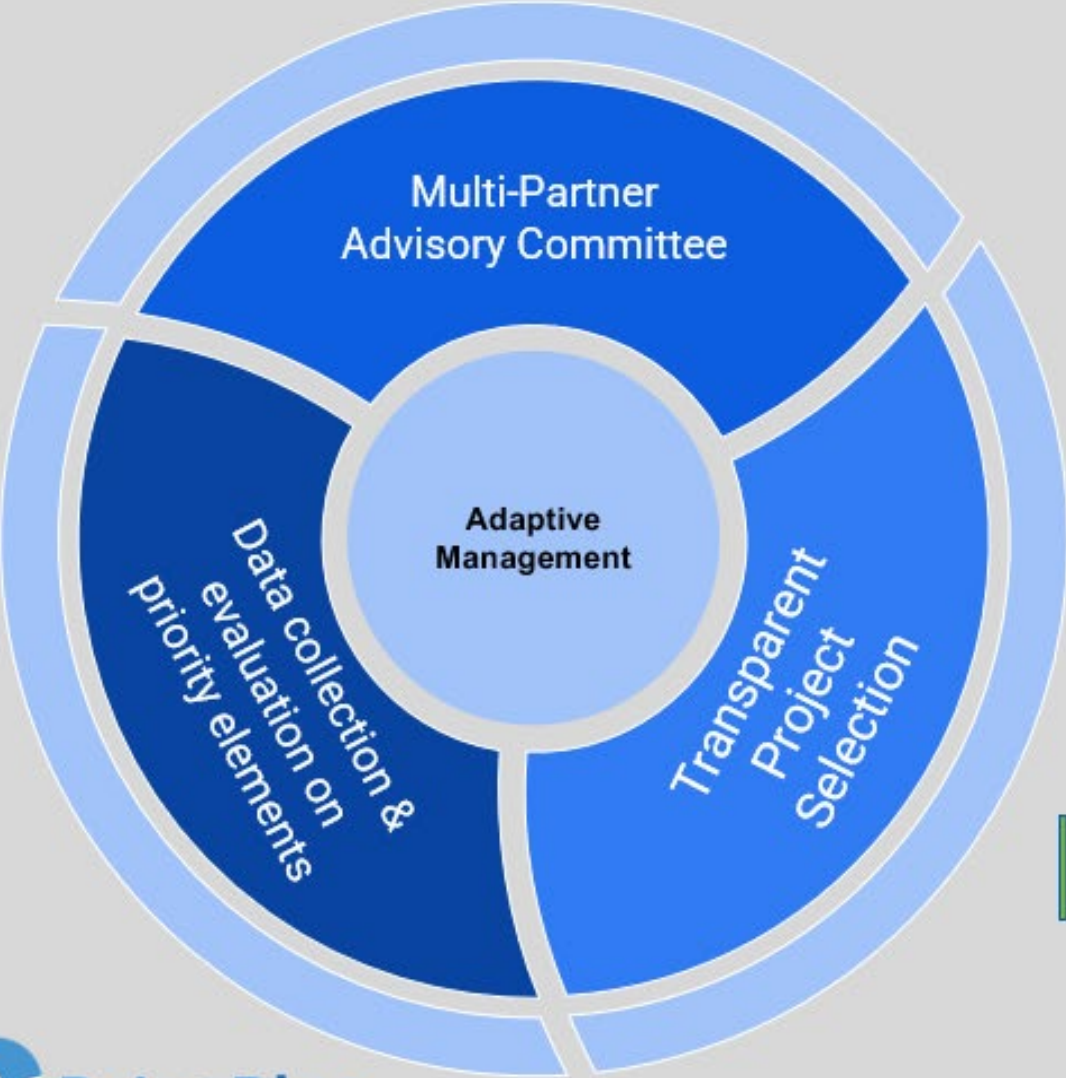
\*Underserved: self identifies as either (1) socially disadvantaged group as defined by the Farmer Equity Act (AB 1348) (2) limited resource (3) beginning farmer or rancher (4) Military Veterans or (5) qualifies for Free and Reduced Lunch Programs

# Building equity

- Prioritized in project selection & success evaluated through an equity gap analysis
- Distribution of funds prioritized to serve disadvantaged communities & California Native American Tribes
- > 2000 underserved students and teachers will participate directly in restoration



# Creating wildlife habitat through a transparent and inclusive process that we can learn from



## Rubric Ranking Categories

- Wildlife Habitat Quality & Connectivity
- Equity & Community Engagement
- Climate Resilience & Feasibility



# Community-Centered Restoration Success Metrics

At least 8,000 community volunteers & 200 producers + partners



**> 230 wildlife-beneficial restoration practices:**

> 100 riparian restorations

> 30 hedgerow plantings

> 30 oak woodland restorations

> 60 pollinator habitat restorations

> 10 beaver dam analog installations

Additional practices

# Project Outcomes: ecological and social benefits of farm and ranches increased



Habitat value of farms and ranches enhanced across all major ecoregions of California



Threatened and endangered species bolstered



Increased recognition of the value of California's farms and ranches



New communities engaged in restoration and land stewardship



Increased community engagement in restoration and conservation statewide



# Partnering across California to advance 30x30

"To conserve 30% of California's lands and coastal waters by 2030, the audacious is not only possible, it is necessary ... Point Blue brings the science that will help us meaningfully protect and restore biodiversity, expand access to nature, and build resilience to climate change. We have to move at a pace and scale like we never have before, and we look forward to working with Point Blue in showing the world that people and nature can thrive together."

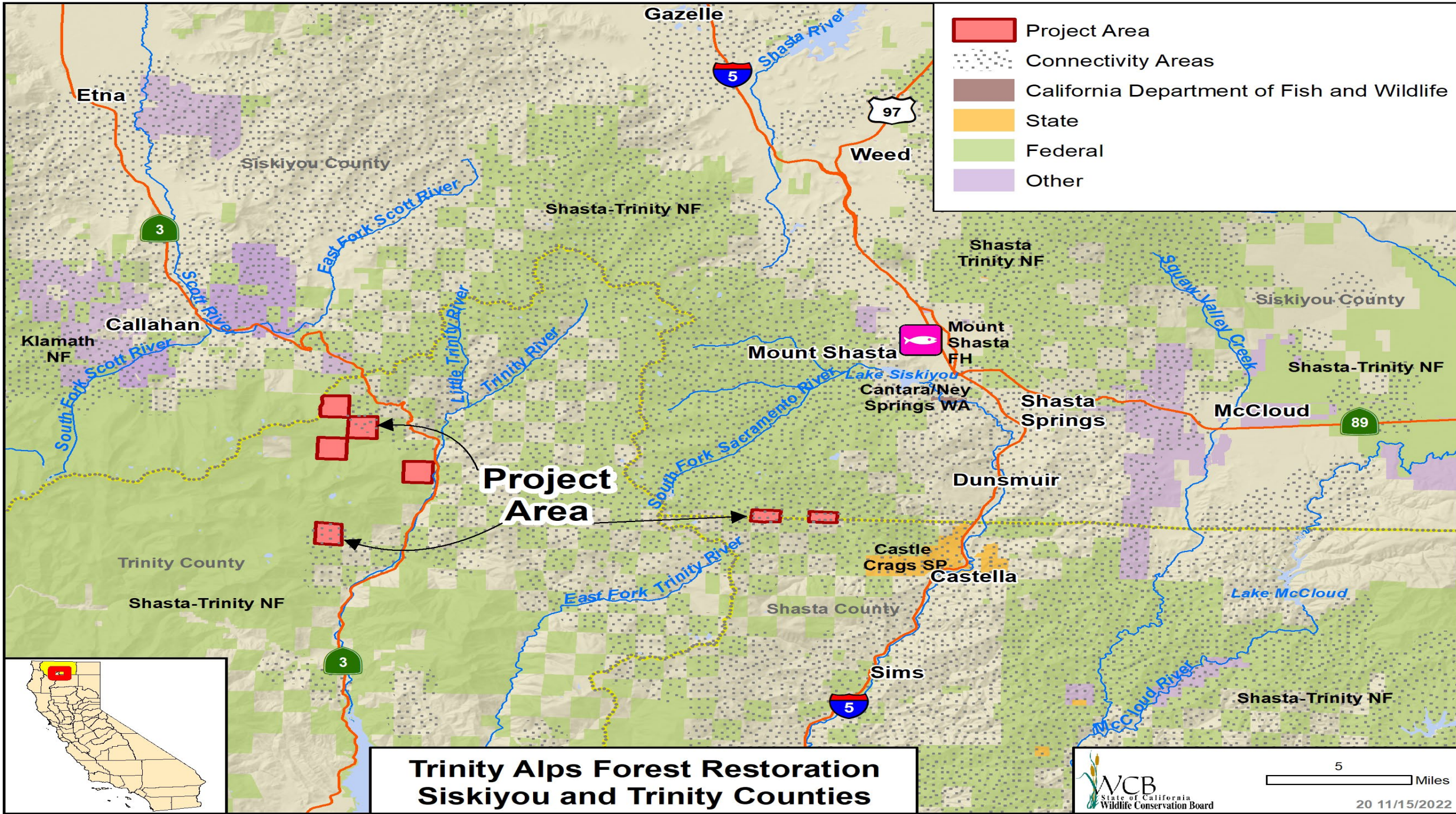
- California Natural Resources Secretary Wade Crowfoot, October 2022





# Thank You





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



**Trinity Alps Forest Restoration  
Siskiyou and Trinity Counties**

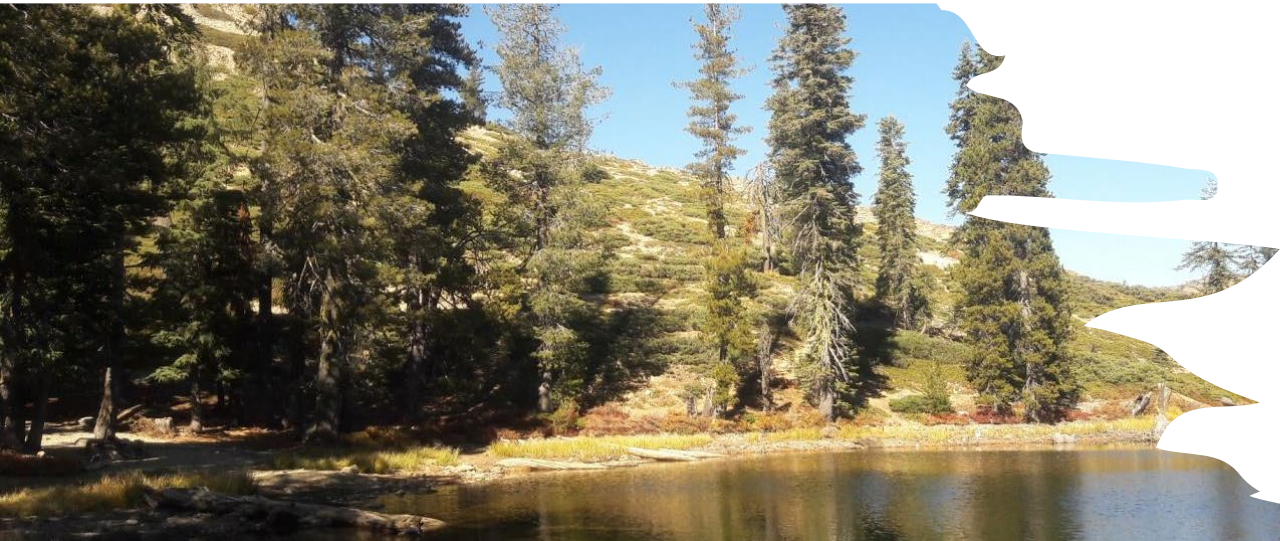
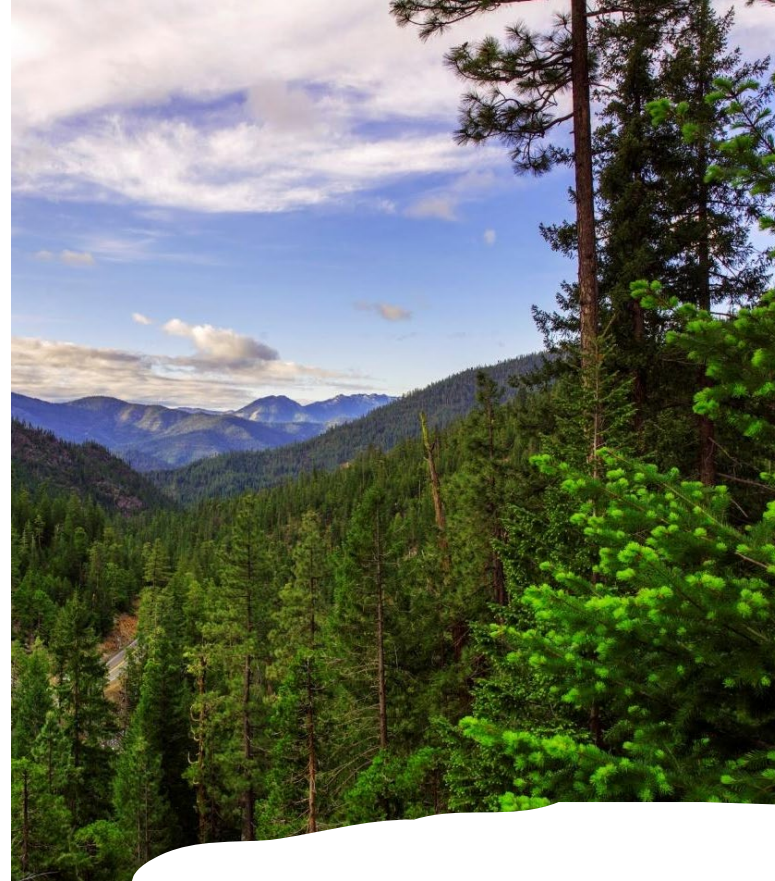


# 20. Trinity Alps Forest Restoration

Slide 1

Castle Crags viewed from the Pacific  
Crest Trail.

Image credit: Trust for Public Land



## 20. Trinity Alps Forest Restoration

Slide 2

Landscape views in the project area

(Image credit: Trust of Public Land)



## 20. Trinity Alps Forest Restoration

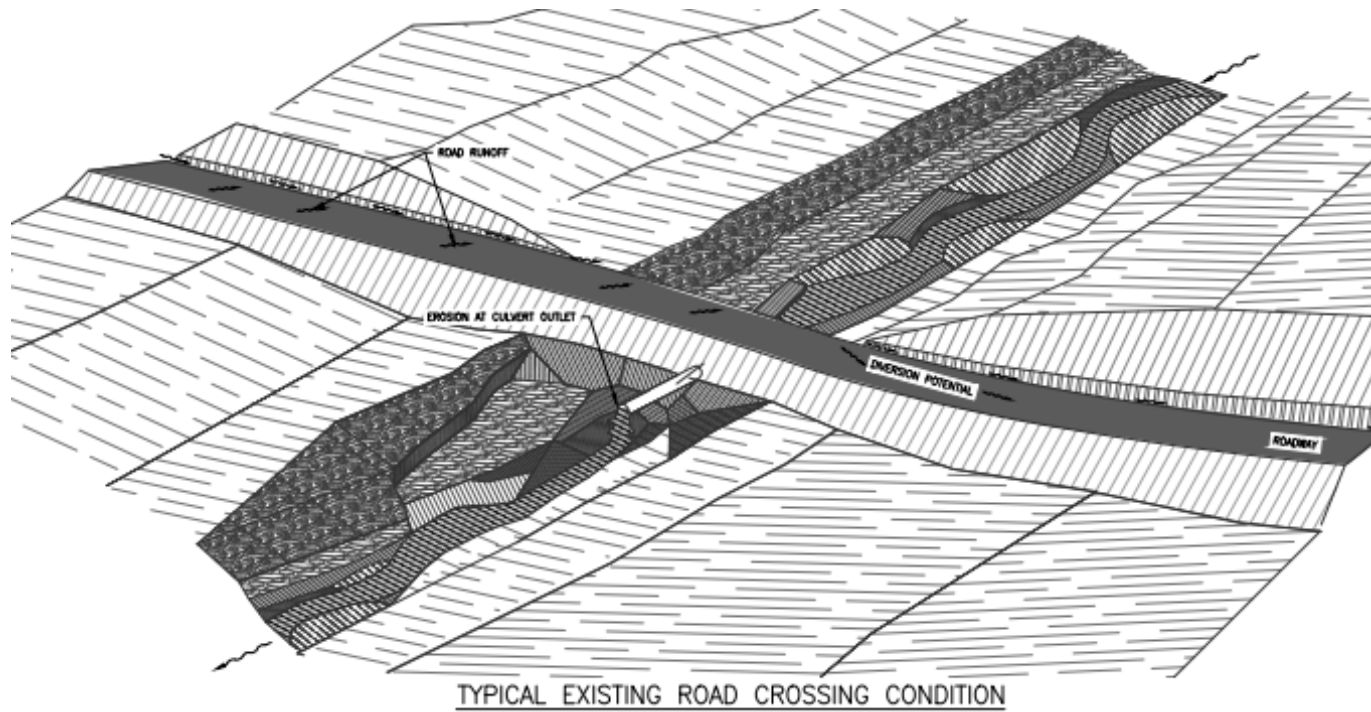
Slide 3

Above: Access road in the project area

Left: Failing culverts

(Image credit: Siskiyou Restoration Group and GeoServ, Inc.)





20. Trinity Alps  
Forest  
Restoration  
Slide 4

Culvert removal example  
(Image credit: Siskiyou Restoration  
Group and GeoServ, Inc.)



## 20. Trinity Alps Forest Restoration

Slide 5

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Culvert removal example

(Image credit: Siskiyou Restoration Group and GeoServ, Inc.)



# 20. Trinity Alps Forest Restoration

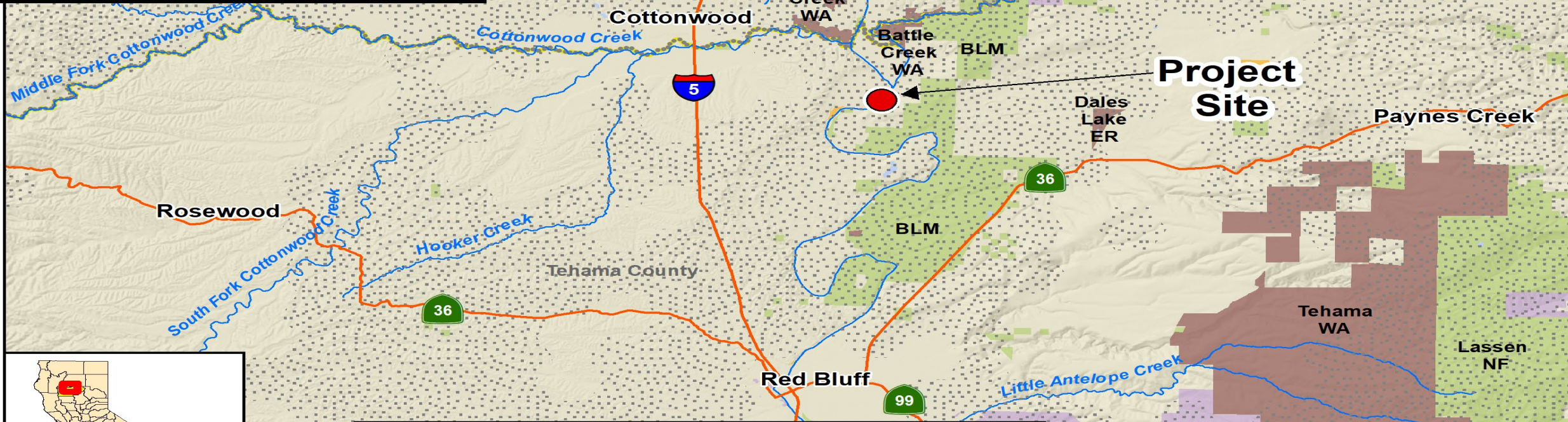
Slide 6

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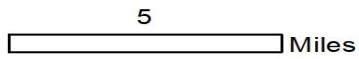
Trinity River



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



**Battle Creek Confluence Sidechannel  
Restoration Planning  
Tehama County**





21. Battle Creek  
Confluence Sidechannel  
Restoration Planning  
Slide 1

Looking upstream of the Sacramento River viewing the proposed side channel outlet (right). Backwater at the downstream end of Project site is visible at center right of photo.



# 21. Battle Creek Confluence Sidechannel Restoration Planning

Slide 2

Aerial map showing possible alternatives with multiple side channels/dimensions.



## 21. Battle Creek Confluence Sidechannel Restoration Planning

Slide 3

Example of proposed arched culvert  
with natural stream bottom.



## 21. Battle Creek Confluence Sidechannel Restoration Planning

Slide 4

Largely vegetation-free mid-site location of the side channel.

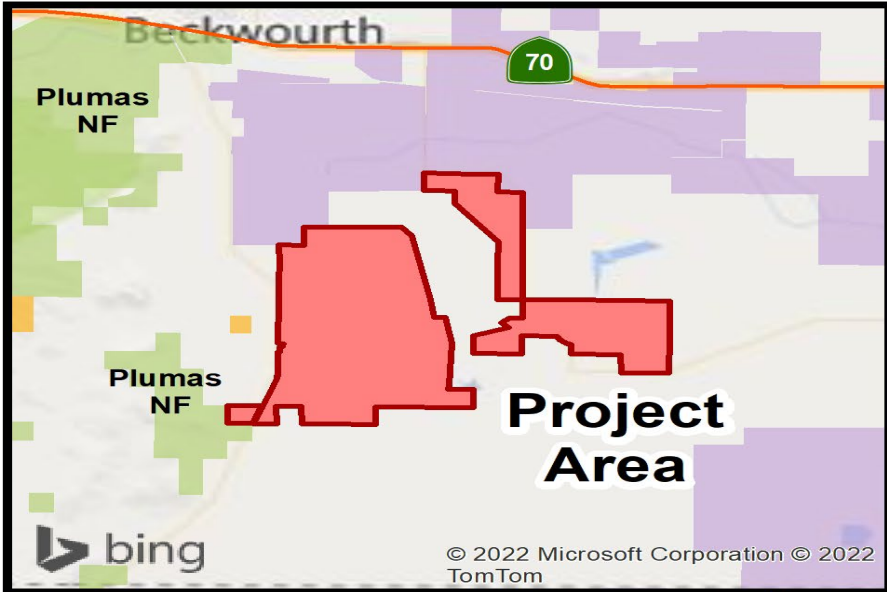


A scenic view of a riverbank. On the left, there are several large, leafless trees with intricate branch structures. The ground is covered in green grass and some dry, brown vegetation. A rocky shoreline runs along the edge of a wide, blue river that flows towards the right. In the distance, there are rolling hills under a clear blue sky with a few wispy clouds.

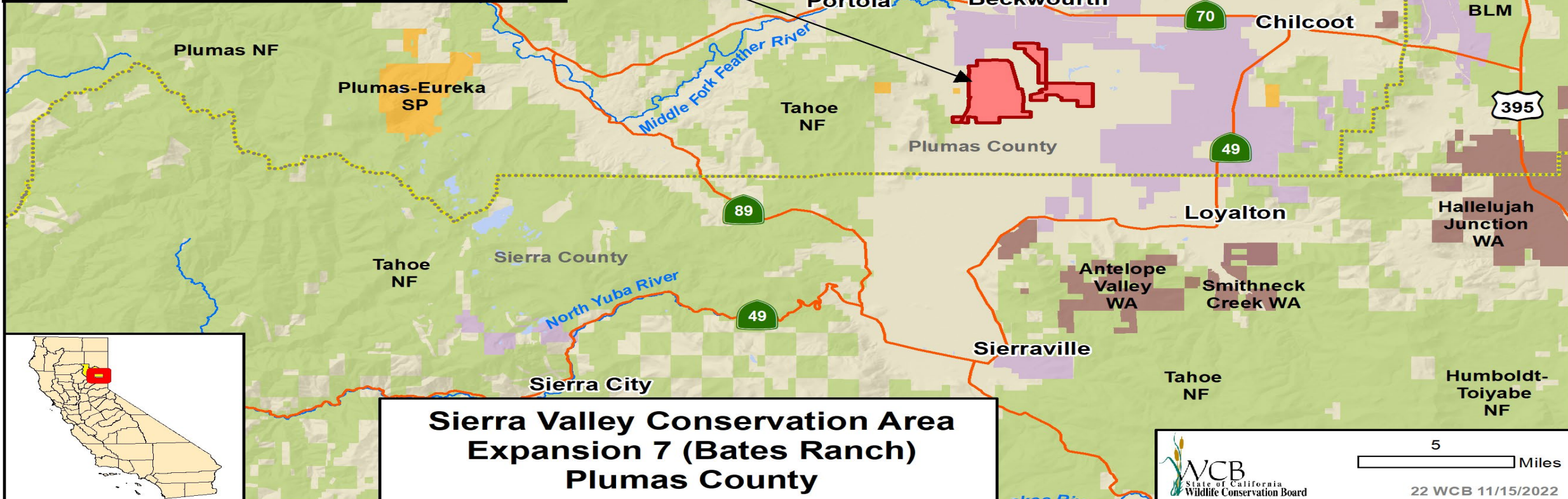
## 21. Battle Creek Confluence Sidechannel Restoration Planning

Slide 5

View from head of site looking downstream with mainstem Sacramento River visible on the right. Near the proposed inlet to be cut to allow Sacramento River water entrance to the reconnected side channel.



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





**22. Sierra Valley  
Conservation Area,  
Expansion 7 (Bates Ranch)**

Slide 1

View looking to the east over subject  
Property



**22. Sierra Valley  
Conservation Area,  
Expansion 7 (Bates Ranch)**

Slide 2

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View of wetlands looking northerly over  
the subject Property

# 22. Sierra Valley Conservation Area, Expansion 7 (Bates Ranch)

Slide 3

Spring flowers over the  
western portion of the  
Property





## 22. Sierra Valley Conservation Area, Expansion 7 (Bates Ranch)

Slide 4

---

Marble Hot Springs Road which crosses  
the Property



**22. Sierra Valley  
Conservation Area,  
Expansion 7 (Bates Ranch)**

Slide 5

---

Sandhill cranes on the subject Property



**22. Sierra Valley  
Conservation Area,  
Expansion 7 (Bates Ranch)**

Slide 6

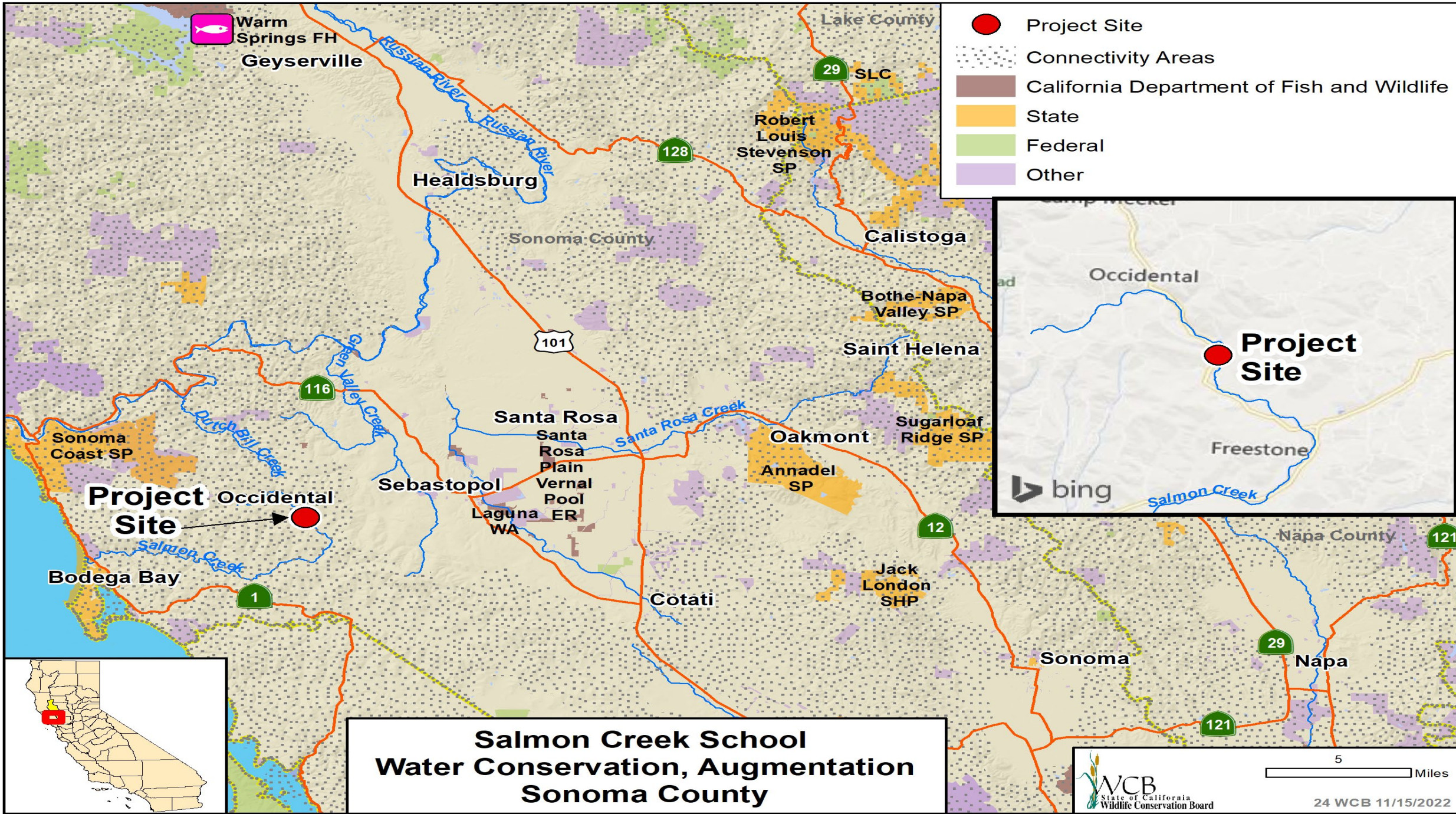
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Pronghorn grazing in the sage scrub  
habitat on the Property

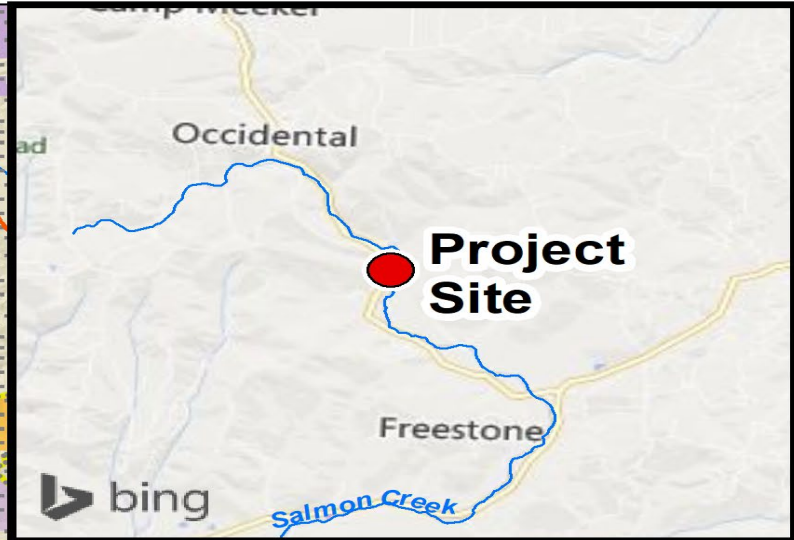


# 23. Cortina Ridge Sawato Kamitlitarro Wildlife Crossing

Withdrawn from consideration at this time.



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



**Salmon Creek School  
Water Conservation, Augmentation  
Sonoma County**



5 Miles

# 33. Salmon Creek School Water Conservation, Augmentation slide 1

- ▶ Salmon Creek is home to populations of both California central coast coho salmon (federally listed as endangered species) and steelhead trout (federally listed as threatened species)
- ▶ Assessments of water quality and instream habitat indicate that low summer stream flows is one of the primary issues impairing ecological function of Salmon Creek
- ▶ Salmon Creek typically has more than adequate streamflow during the rainy season and early summer, but following the end of spring rains, discharge drops steadily through the summer into fall
- ▶ Coho Partnership research shows that restoration of very small increments of flow in streams comparable in size to Salmon Creek can dramatically reduce the incidence of flow disconnection, and its spatial and temporal extents



Credit: Gold Ridge RCD

# 33. Salmon Creek School Water Conservation, Augmentation slide 2

- ▶ Project implementation will increase summer baseflow through the upper and middle reaches of Salmon Creek, which include areas of documented coho use and experience extremely low flows and disconnection during the late dry season
- ▶ The Project will eliminate the annual extraction of up to 1.5 million gallons of water from a shallow, near-stream alluvial well for playing field irrigation at Salmon Creek School
- ▶ The Project will implement a suite of irrigation water conservation measures and construct a 517,000-gallon rainwater catchment system




Rendering of concrete cistern from playing field, with seat wall and mural  
Credit: Prunuske Chatham, Inc.

# 24. Salmon Creek School Water Conservation, Augmentation

Slide 3

Cistern Construction

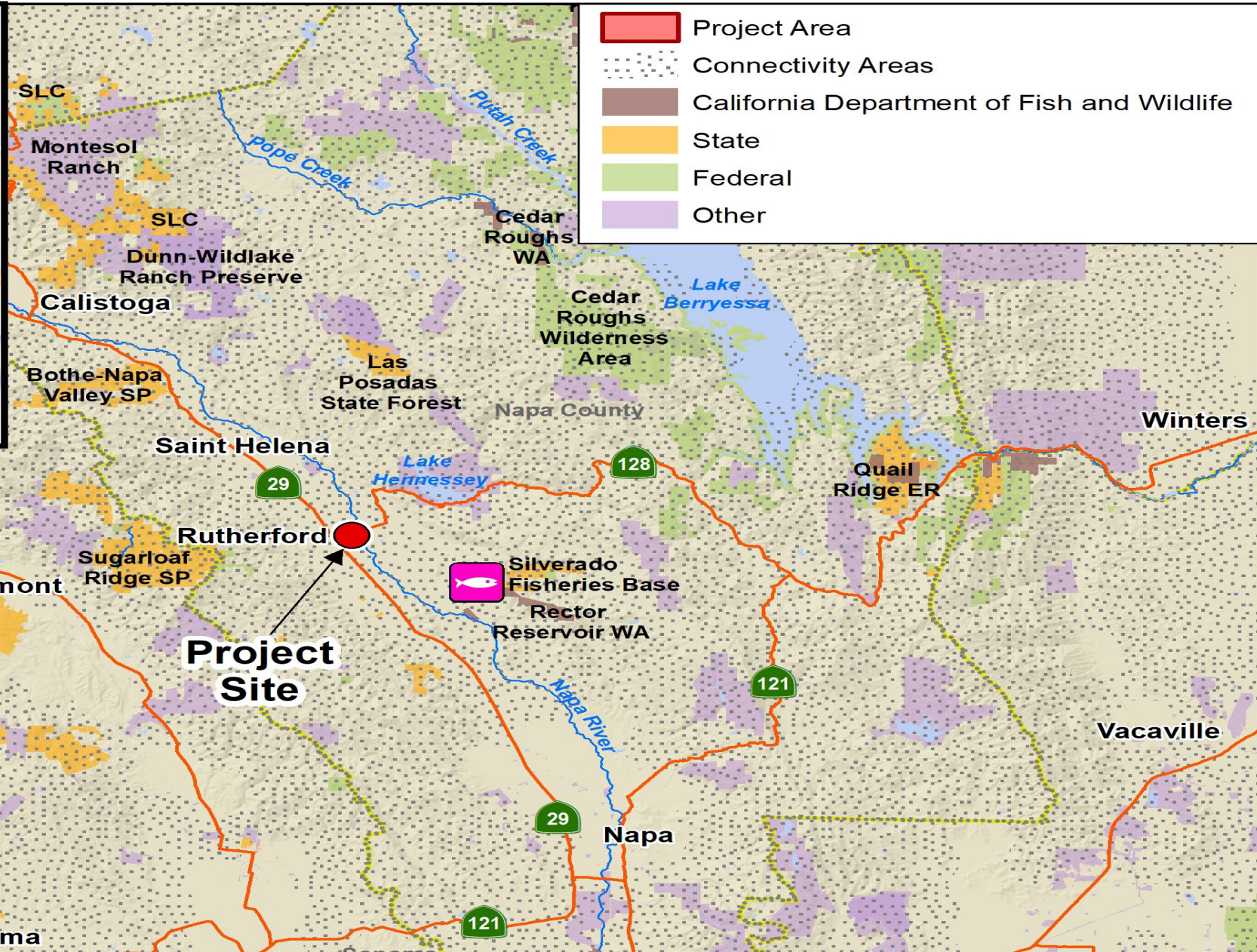




# 24. Salmon Creek School Water Conservation, Augmentation

Slide 4

- ❖ Original Project Cost \$3,755,390
  - WCB Funded \$2,067,390
- ❖ Increased Costs \$2,230,058
  - WCB Proposed Funding Increase \$1,230,000
  
- Summary of Significant Cost Increases:
  - Earthwork costs increased \$473,610
  - Concrete costs increased \$273,212
  - Cistern costs increased \$896,035
  - Utilities relocation and trenching \$269,265

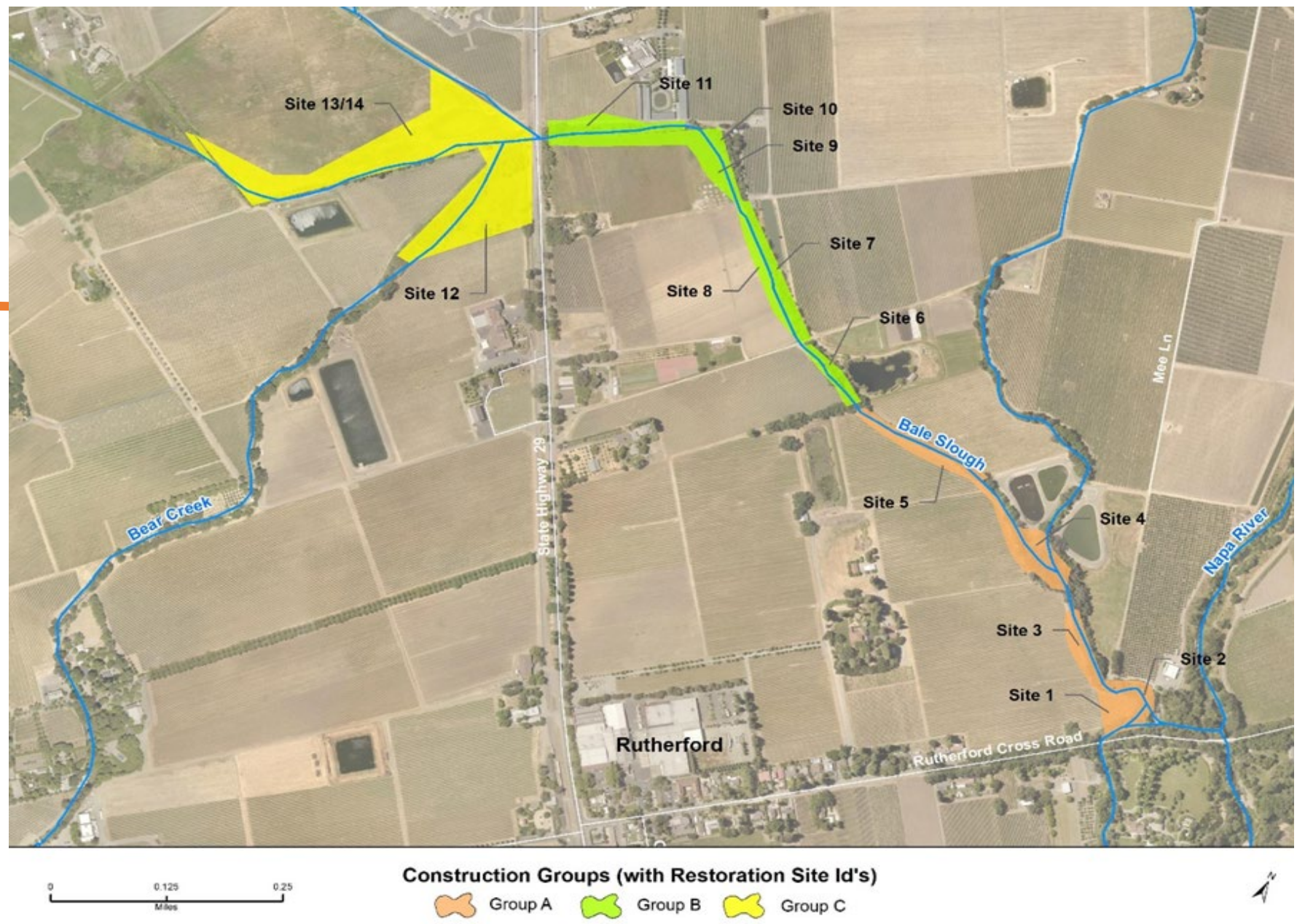


# Bale Slough - Bear Creek Tributary Restoration Napa County

# 25. Bale Slough - Bear Creek Tributary Restoration

Slide 1

- Project detail map showing the three phases of implementation. Group A is being proposed for funding.







## 25. Bale Slough - Bear Creek Tributary Restoration

Slide 2

- Existing conditions in Bale Slough during high flows. Photos are looking downstream toward the confluence with the Napa River. Credit Napa RCD.

# 25. Bale Slough - Bear Creek Tributary Restoration

Slide 3

- Severely eroded bank in Bale Slough, June 2022.



A person wearing a blue shirt and dark pants stands in a field of dry grass and sparse vegetation, pointing towards a dense line of trees in the background. The scene is outdoors with bright sunlight filtering through the trees.

## 25. Bale Slough - Bear Creek Tributary Restoration

Slide 4

Proposed site of secondary channel and “oak island”. The area shown is reclaimed vineyard donated by the landowner.

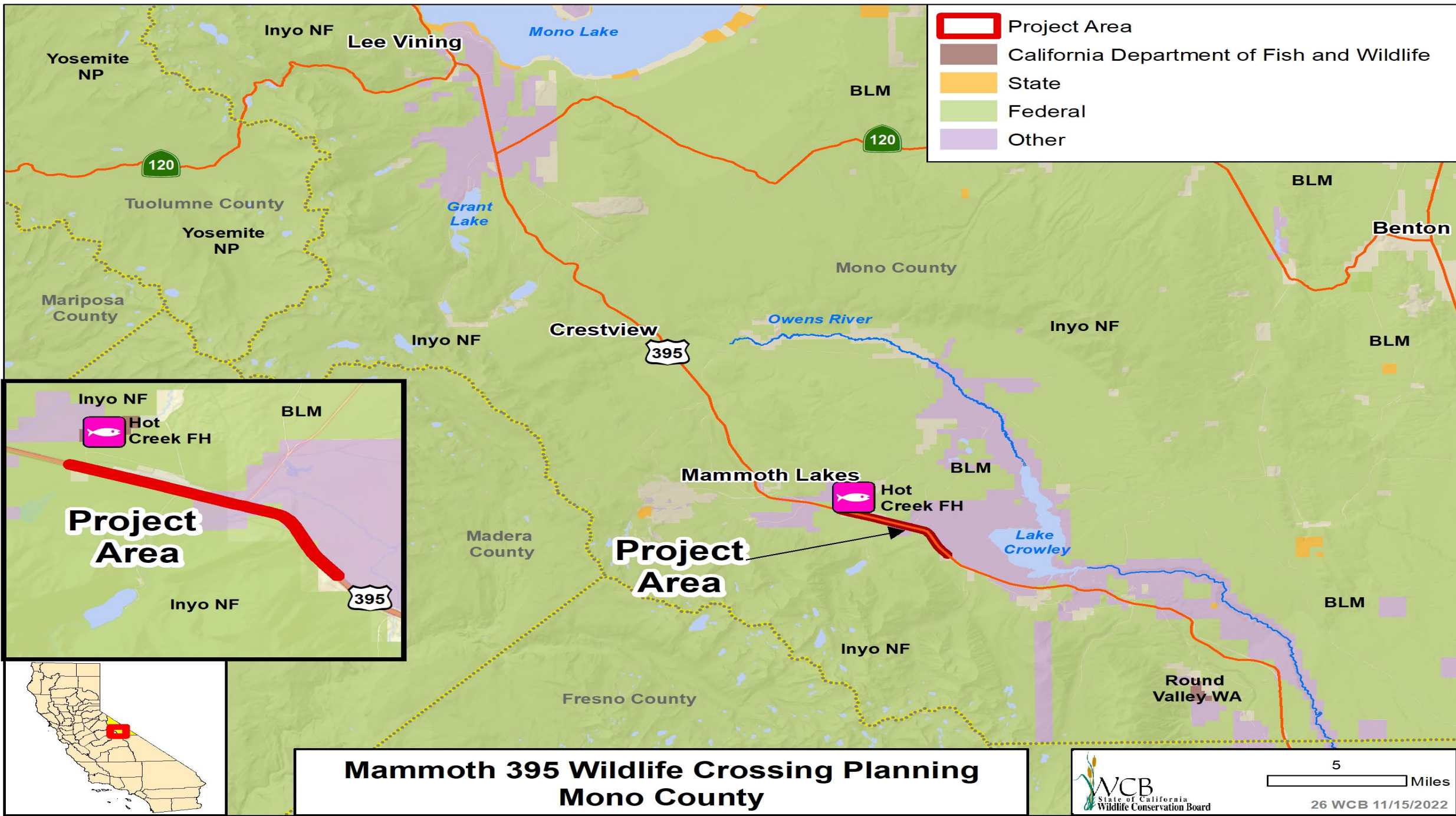


## 25. Bale Slough - Bear Creek Tributary Restoration

Slide 5



Examples of restored conditions on the Napa River, June 2022.  
Credit Napa RCD.



**Mammoth 395 Wildlife Crossing Planning  
Mono County**

## 26. Mammoth 395 Wildlife Crossing Planning

### Slide 1

- Eastern Sierra Nevada Region
  - Alpine meets high desert
  - Abundant wildlife
- Mule Deer Migration
  - Summer in High Sierra feeding grounds
  - Winter in lowlands
- Popular recreational and tourist destination
  - Hiking and camping
  - Hunting and fishing
  - Sightseeing



Eastern Sierras

## 26. Mammoth 395 Wildlife Crossing Planning

### Slide 2



Project Location

- U.S. Highway 395 Between Crowley Lake and Town of Mammoth Lakes
  - Worst Wildlife-Vehicle Collision hot spot in the Eastern Sierra Nevada
  - Annual Average of 57 Deer-Vehicle Collisions
- 55% Decline in Casa Diablo Mule Deer Herd Since 2014
- NFWF 2020 California State Action Plan
  - Area identified as a priority mule deer migration corridor
- Listed on California Department of Fish and Wildlife Barrier Priorities List
  - Mule deer
  - Mountain lion
  - Black bear
  - Sage grouse

## 26. Mammoth 395 Wildlife Crossing Planning

Slide 3



U. S. Highway 395 in Project Area



## 26. Mammoth 395 Wildlife Crossing Planning

### Slide 4



Culvert Under U. S. Highway 395

### Multifaceted Approach

- 18 Miles of Wildlife Exclusion Fencing
  - Wildlife jump-outs
  - Cattleguards
- Undercrossing Improvements
  - One existing and construction of three new undercrossings
- Construction of Two Wildlife Overcrossings
- Intelligent Transportation Systems Elements (i.e., flashing beacons).

# 26. Mammoth 395 Wildlife Crossing Planning

Slide 5

## Project Elements

- Technical Studies and Field Surveys
  - Biological, cultural, historical, visual, and paleontological resources
- Environmental Review
  - CEQA and NEPA documents
  - Eastern Sierra Wildlife Stewardship Team review
  - Public review and meeting
- Designs
  - 45% level of design for project components
  - Caltrans Project Report



Mule Deer

*Photo: CDFW*



Mountain Lion

*Photo: CDFW*



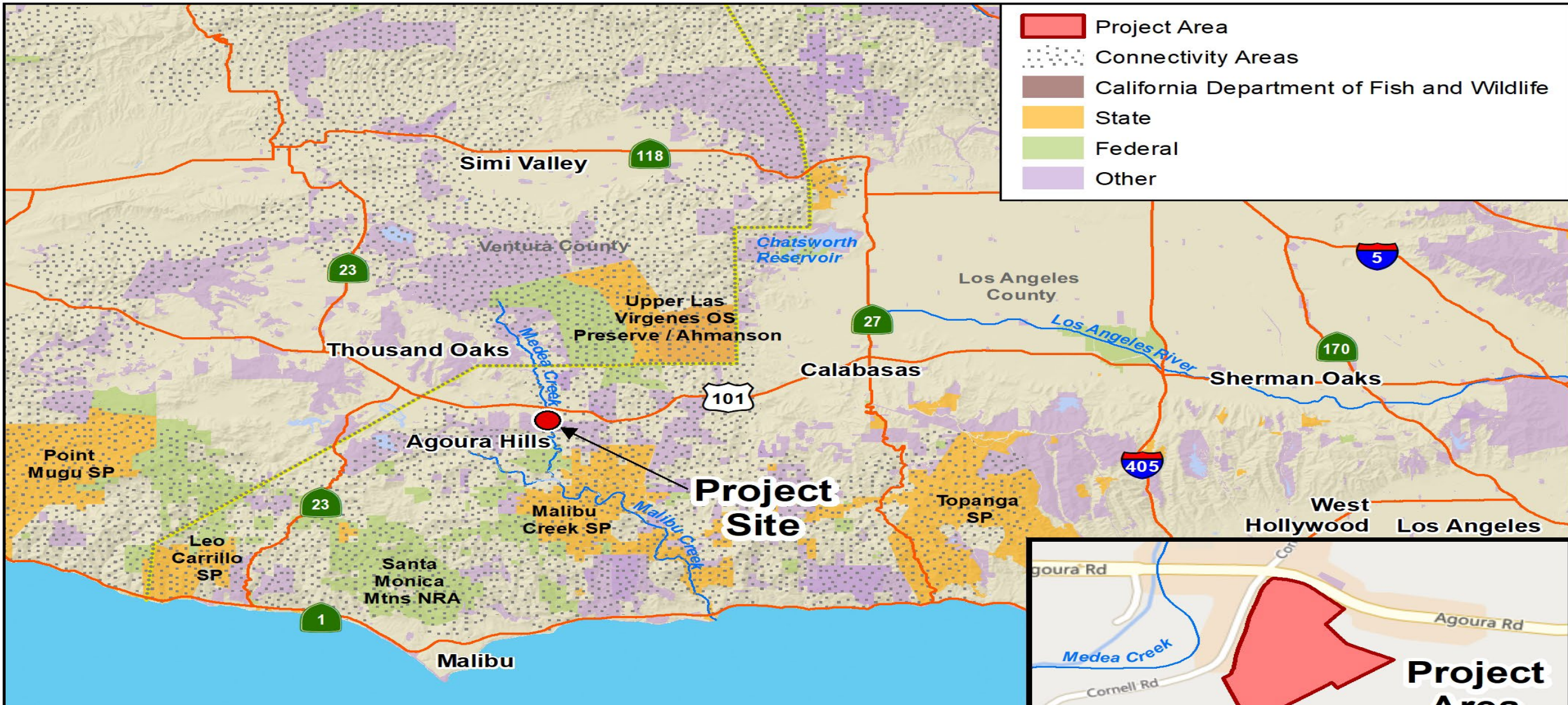
Black Bear

*Photo: CDFW*



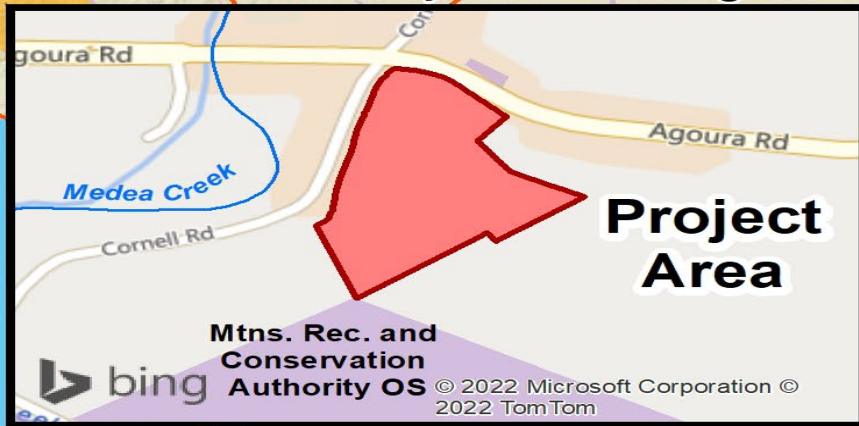
Sage Grouse

*Photo: CDFW*



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

**Agoura Hills -  
Santa Monica Mountains Gateway  
Los Angeles County**





## 27. Agoura Hills - Santa Monica Mountains Gateway

Slide 1


- View looking southwest from property with hillside savannah and oaks in front of Ladyface Mountain in background.



## 27. Agoura Hills - Santa Monica Mountains Gateway

Slide 2

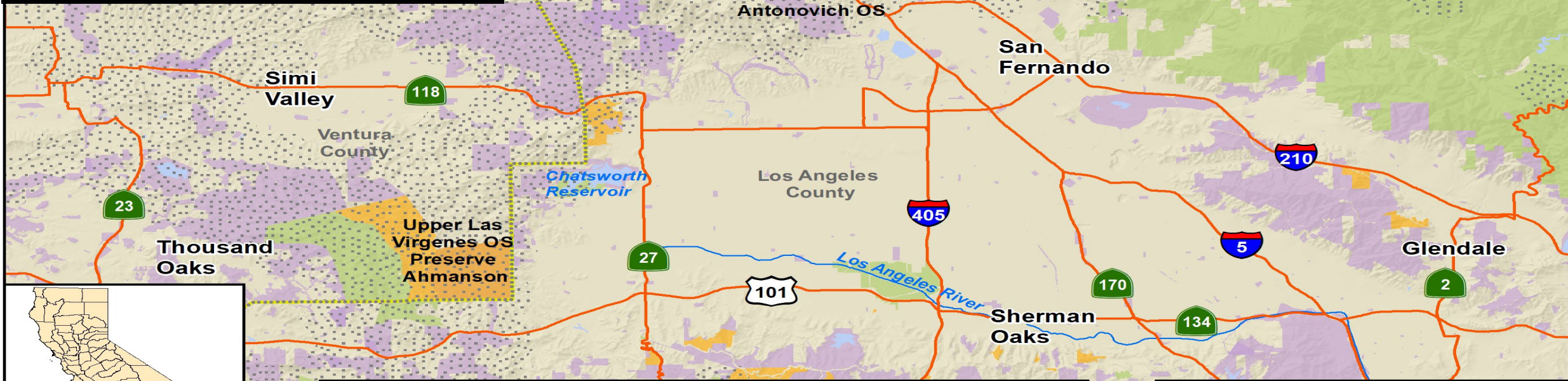
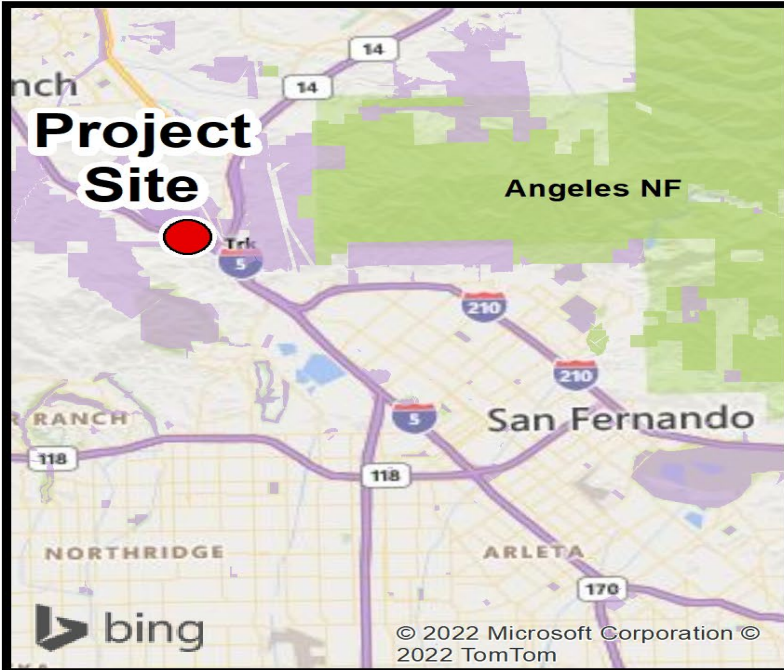
- Looking southeast up short drainage on property with blooming wildflowers and Dudleya. Subject property goes to ridgeline and MRCA's Triangle Ranch is beyond ridgeline.

An aerial photograph of a landscape in Agoura Hills, California. The image shows a large, green, grassy field in the center, surrounded by dense, dark green forested hills. A road or path winds through the field. In the foreground, there are several large, light-colored commercial buildings and parking lots. The overall scene is a mix of natural and developed areas.

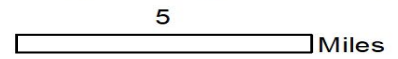
## 27. Agoura Hills - Santa Monica Mountains Gateway

Slide 3

Aerial overview looking south at subject property. Commercial development and highway 101 to the south.



**Newhall Pass I-5 Wildlife Crossing Design  
Los Angeles County**



# 28. Newhall Pass I-5 Wildlife Crossing Design

## Slide 1

### Newhall Pass

- Santa Susana Mountains
  - Oak woodlands and chapparal
  - Provide connectivity to the Santa Monica Mountains
- San Gabriel Mountains
  - 346,177 acres protected by the San Gabriel Mountains National Monument
  - High level of biodiversity
- Major Transportation Corridor
  - Interstate 5 (I-5)
  - State Route 14 (SR 14)



Project Location



## 28. Newhall Pass I-5 Wildlife Crossing Design

Slide 2



Interstate 5 at Newhall Pass

*Photo: WCB*

## 28. Newhall Pass I-5 Wildlife Crossing Design

### Slide 3



- California Essential Connectivity Area
- Regional Importance
  - Rim of the Valley Corridor
  - Los Angeles County Significant Ecological Areas
- I-5 at Newhall Pass Listed on California Department of Fish and Wildlife Barrier Priorities List (Barrier W047)
  - Mountain Lions
  - Mule Deer

## 28. Newhall Pass I-5 Wildlife Crossing Design

Slide 4

### Project Elements

- Public Outreach
- Feasibility Study and Identification of Alternatives
- 30% Designs
- 60% Designs
- Environmental Review
- Caltrans Project Initiation Documentation



## 28. Newhall Pass I-5 Wildlife Crossing Design

### Slide 5



Western Gray Squirrel

Photo: George Afghan, [www.inaturalist.org](http://www.inaturalist.org)

### Project Benefits

- Reduce risk of mountain lion extirpation due to inbreeding
- Improve habitat connectivity for several sensitive species
- Reduction of vehicle and wildlife collisions
- Increase climate change resilience



Greater Roadrunner

Photo: Jake Scott, [www.inaturalist.org](http://www.inaturalist.org)



California Quail

Photo: Taylor, [www.inaturalist.org](http://www.inaturalist.org)



American Badger

Photo: Chris Fisher, [www.inaturalist.org](http://www.inaturalist.org)

# 29. 2023 Board Meeting Dates

- Thursday, February 16, 2023, 10:00 a.m.
- Thursday, May 25, 2023, 10:00 a.m.
- Thursday, August 24, 2023, 10:00 a.m.
- Thursday, November 16, 2023, 10:00 a.m.



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

Next Board meeting – February 16, 2023, 10:00 am – CNRA HQ

Trinity Alps