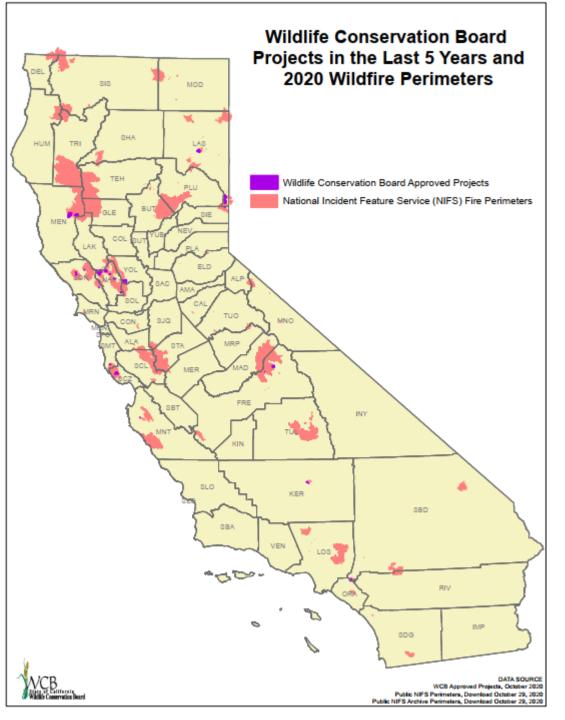


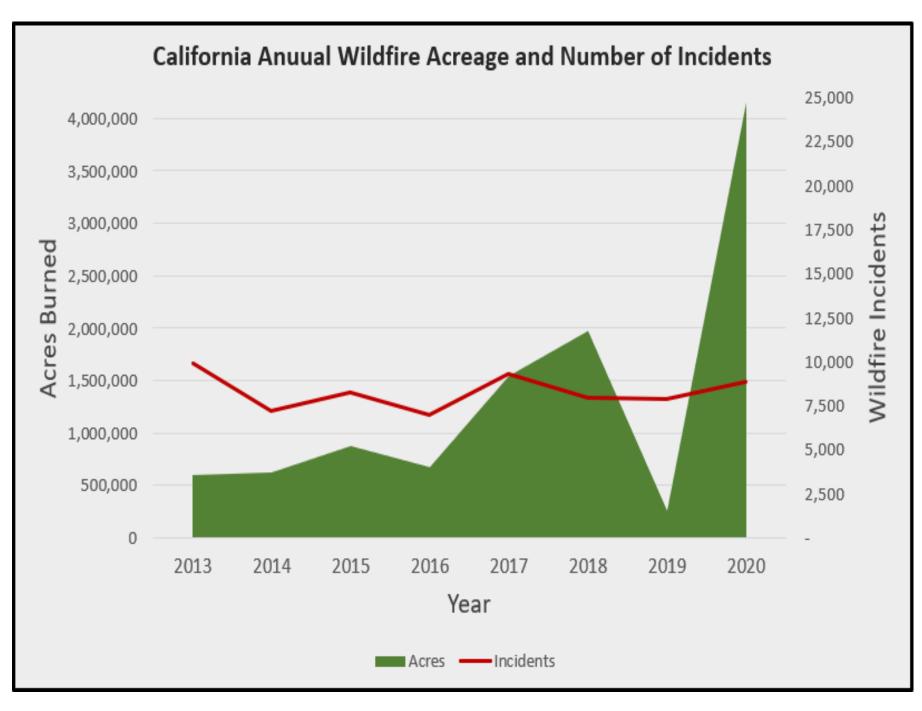


November 18, 2020



Slide 1

• Eighteen projects (7%) of WCB implementation projects funded since 2015 were impacted during the 2020 fire season.



Slide 2

 CALFIRE website data for fire seasons 2013-2020.

Slide 3

#### Is Fire Beneficial?

#### **Potential Negative Effects:**

- Reduced water quality
- Increased risk of erosion on unprotected soil
- Air quality impacts
- Destruction to property and loss of life

#### **Potential Benefits:**

- Reduction of invasive species, disease, and pest insects
- Reduction of forest underbrush and grassland debris and thatch
- Improvements to soil fertility
- Improves the age-class structure of forests
- Some plants depend on fire for reproduction

Slide 4

- Nine UC Reserves burned; primary impact was habitat.
- Photo: Zac Harlow, UCNRS Blue Oak Ranch Reserve





Slide 6

- San Ysidro Flow Enhancement and Water Conservation.
- Debris flow after the Thomas Fire of 2017.









Slide 7

#### WCB's Role:

- Continue coordination with partners, grantees, landowners
- Be flexible and help impacted grantees and landowners where we can
- Strengthen language in Grants for reporting impacts from natural causes (fire, flood, drought)
- Track natural disaster impacts in database
- Continue valuing projects that provide "Other Ecosystem Benefits"
- Prioritize fire recovery in future solicitations/

**Strategic Plan Update** 

Slide 1

Plan developed in 2014

- Update approved Aug 2019
- Staff select specific objectives
- Different timing for objectives
- Annual reporting



**Strategic Plan Update** 

Slide 2

Goal A. Environmental Protection and Conservation

Goal B. Environmental Restoration and Enhancement

Goal C. Public Use and Recreation

Goal D. Public Awareness and Education

Goal E. Fiscal and Organizational Effectiveness



### Strategic Initiatives

Slide 3

Climate Change Adaptation,
 Resiliency, and Mitigation

- Biodiversity Actions
- Public Access and Wildlifeoriented Recreation
- Ecosystem Services



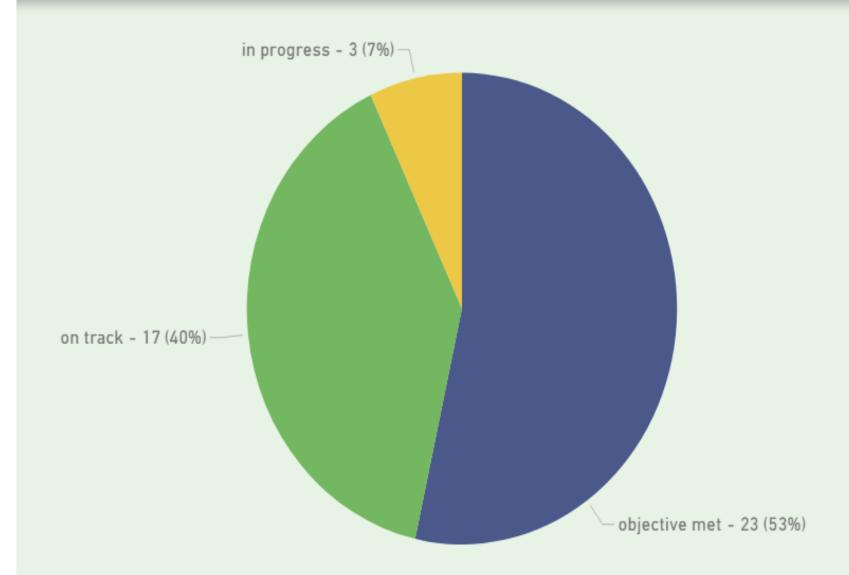
## Strategic Initiatives

Slide 4

- Partnerships
- Organization and Transparency
- Natural Resources
   Conservation Leadership
- Monitoring and Program Evaluation

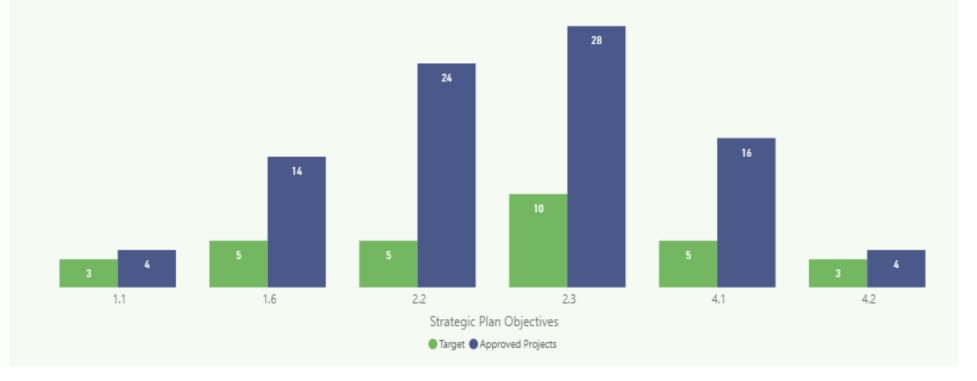


#### Strategic Plan Objectives - Staff Activity and Projects Approved since November 2019



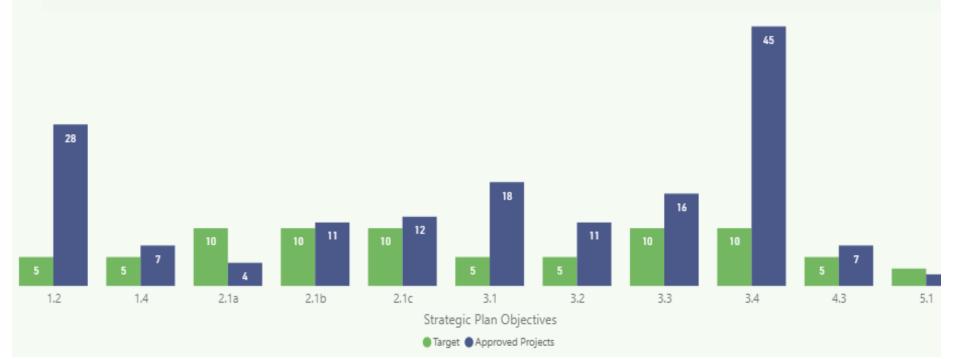
#### Strategic Plan Objectives Reported since November 2019 - Annual Target

Objective	Description	Target	Approved Projects
1.1	Wildlife under or over crossing	3	4
1.6	Upper watershed proj. for resiliance to CC	5	14
2.2	Advances targets in conservation plans	5	24
2.3	Addresses CWAP priorities (Prop 1).	10	28
4.1	Upper watershed ecosystem services	5	16
4.2	Native pollinator habitat	3	4



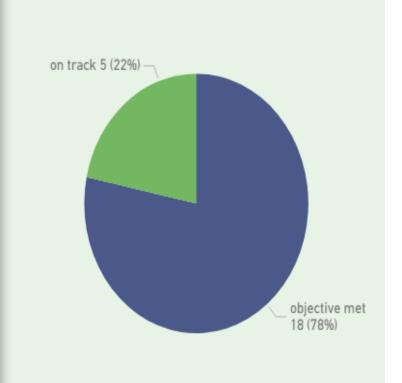
#### Strategic Plan Objectives Reported since November 2019 - Five Year Target

Objective	Description	Target	Approved Projects
1.2	Connectivity Projects	5	28
1.4	Provides long-term carbon sequestration	5	7
2.1a	Oak woodlands project	10	4
2.1b	Ripaian habitat projects	10	11
2.1c	Rangeland projects	10	12
3.1	Public access for disadvantaged communities (DAC)	5	18
3.2	Boating/fishing/hunting access for DAC, mobility-impaired; ADA	5	11
3.3	Hunting/Fishing opportunities	10	16
3.4	Non-consumptive wildlife recreation	10	45
4.3	Lower watershed ecosystem services benefits	5	7
5.1	Safe Harbor program projects	3	2



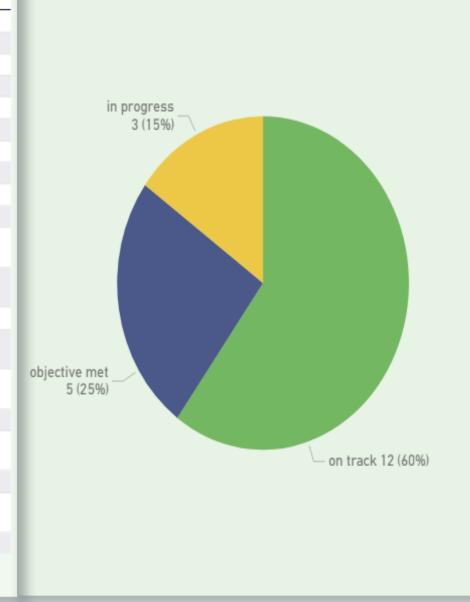
#### Strategic Plan Objectives - Projects Approved since November 2019

Objective	Description	Status
1.1	Wildlife under or over crossing	objective met
1.2	Connectivity Projects	objective met
1.3	In habitat for vuln. sp. or in CC resilient area	objective met
1.4	Provides long-term carbon sequestration	objective met
1.6	Upper watershed proj. for resiliance to CC	objective met
2.1a	Oak woodlands project	on track
2.1b	Ripaian habitat projects	objective met
2.1c	Rangeland projects	objective met
2.1f	Restoration projects on conserved land	on track
2.2	Advances targets in conservation plans	objective met
2.3	Addresses CWAP priorities (Prop 1).	objective met
2.4	Meets SWAP conservation priority	on track
2.5a	SWAP identified riparian acreage	on track
2.5b	SWAP identified wetland acreage	objective met
2.5c	SWAP identified grassland acreage	objective met
3.1	Public access for disadvantaged communities (DAC)	objective met
3.2	Boating/fishing/hunting access for DAC, mobility-impaired; ADA	objective met
3.3	Hunting/Fishing opportunities	objective met
3.4	Non-consumptive wildlife recreation	objective met
4.1	Upper watershed ecosystem services	objective met
4.2	Native pollinator habitat	objective met
4.3	Lower watershed ecosystem services benefits	objective met
5.1	Safe Harbor program projects	on track



#### Strategic Plan Objectives - Staff Activity since November 2019

Objective	Description	Status
1.5	Catastrophic natural res. events criteria for solicitations	on track
3.5	Meeting for Public Access Program	objective met
5.2	Outreach meeting with a new partner	objective met
5.3	Coordinated multi-org, solicitation	on track
6.1	WCB meetings accessible online	objective met
6.2	Standardize solicitations & develop online portal	in progress
6.3	Program goals on website	in progress
6.4	Public maps illustrating project/program relationships	in progress
6.5	WCB program/feedback workshop	objective met
6.6	Sponsored conferences or workshops	objective met
7.1	Coordinate conservancies/agencies, re. habitat solicitation priorities	on track
7.2	Attend Working lands & State Safeguarding and Scoping Plan meetings	on track
7.3	CDFW's acquisition priorities & project review process	on track
7.4	Policy meetings for fire resiliency (Forest Mgmt Task Force)	on track
7.5	Refine priority conservation areas for programs and report	on track
8.1	Define criteria for effectiveness monitoring	on track
8.2	Monitor completed projects and post summary on website.	on track
8.3	Monitoring survey platform accessible on website	on track
8.4	Monitoring data in annual report by county & SWAP habitat	on track
8.5	Update 60-year assessment	on track



# Large Tree Mapping Across the Sierra Nevada Various Counties Mishosta Large Tree Mapping Across the Sierra Nevada Various Counties

Bakersfield

Santa Barbara

Lancaster

San Diego

National Geographic, Esri, Garmin, HERE, UNEP-WCMC, USGS, NASA, ESA, METI, NRCAN, GEBCO, NOAA, increment P Corp.

Los Angeles

Santa Maria

San Luis Obispo

Saint Geor

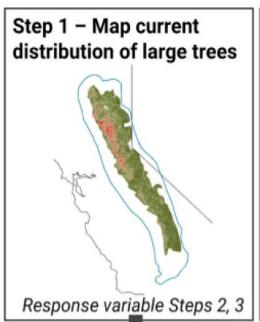
Lake Hava

San Luis F

San Francisco.

**Project Area** 

6 WCB 11/18/2020



Carbon

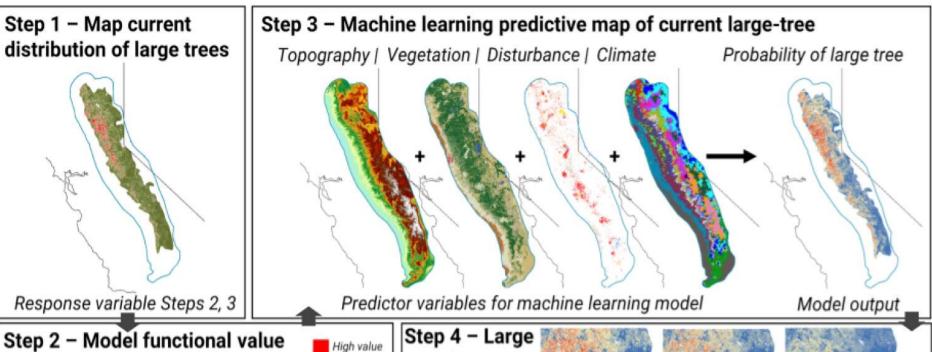
of large trees

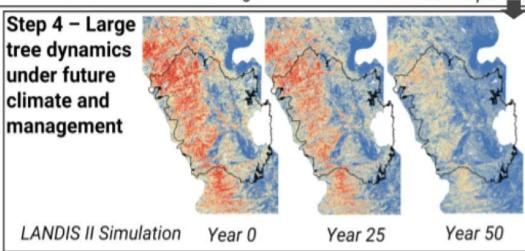
CSO

High value

Low value

Fire refugia





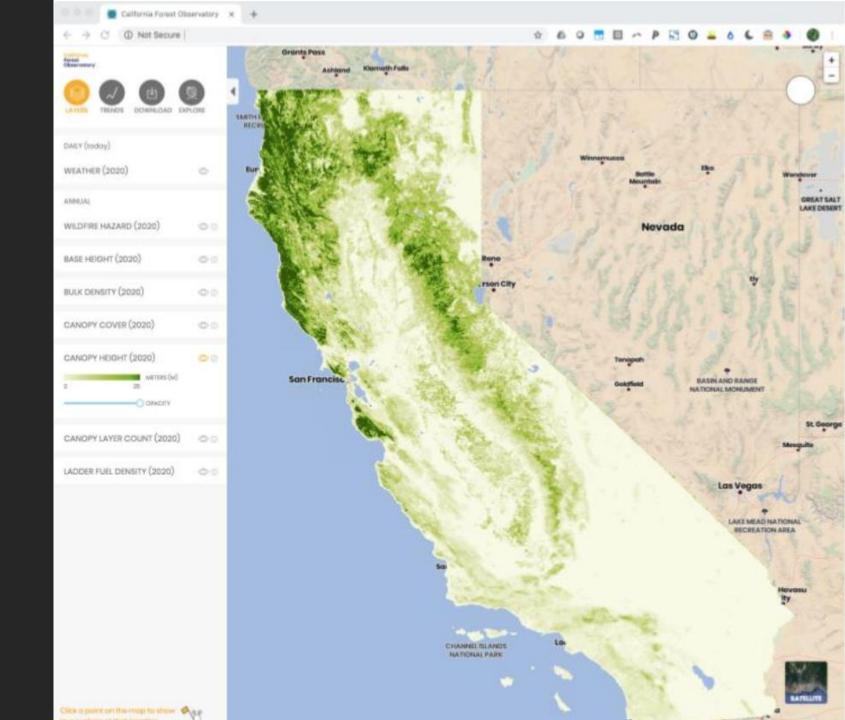
#### 6. Large Tree **Mapping Across** the Sierra Nevada Slide 1

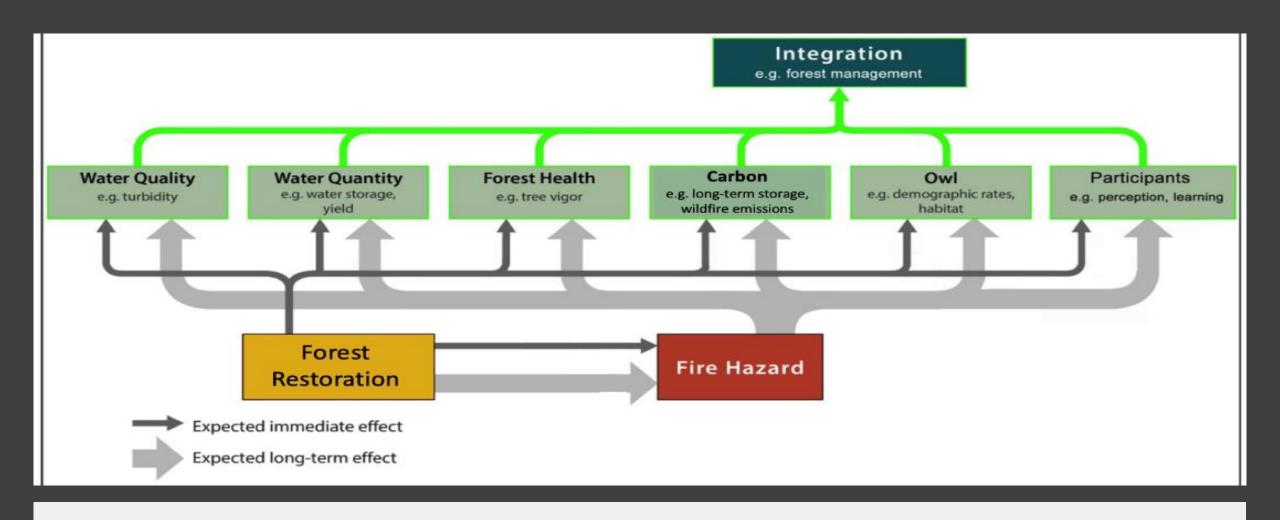
Workflow of large tree mapping analyses.

# 6. Large Tree Mapping Across the Sierra Nevada

Slide 2

California Forest Observatory online web application, where data layers will be stored and updated annually - and will be available for download by users.



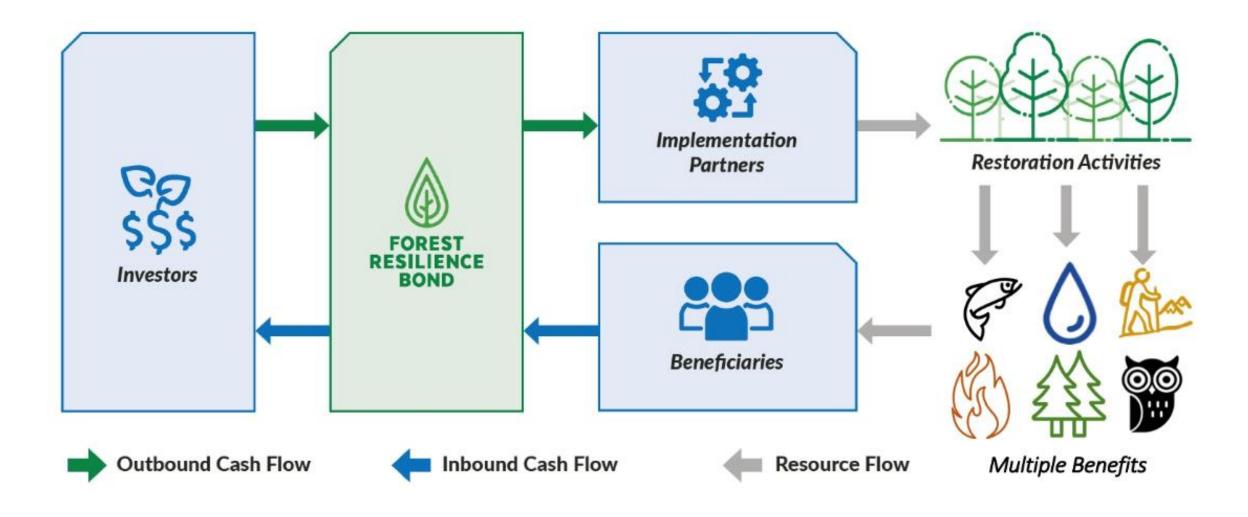


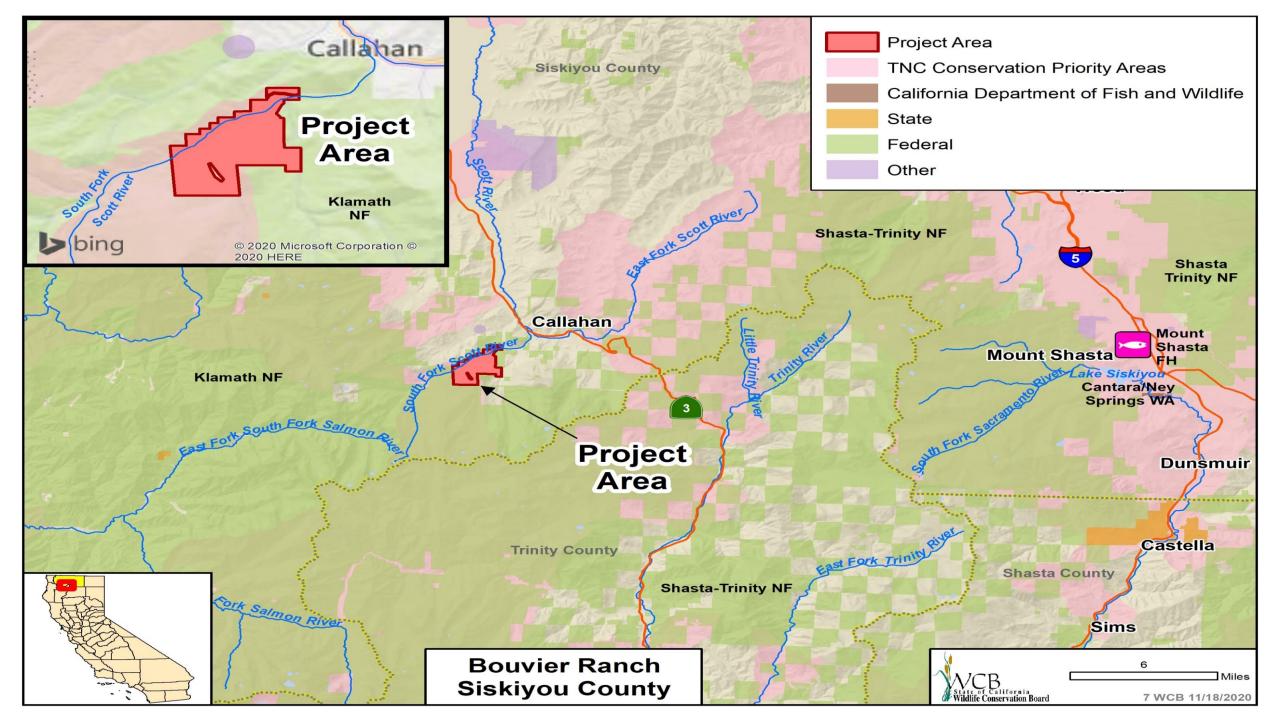
6. Large Tree Mapping Across the Sierra Nevada Slide 3

Conceptual model for the quantification of large tree locations, and their impact on carbon storage and owl habitat.

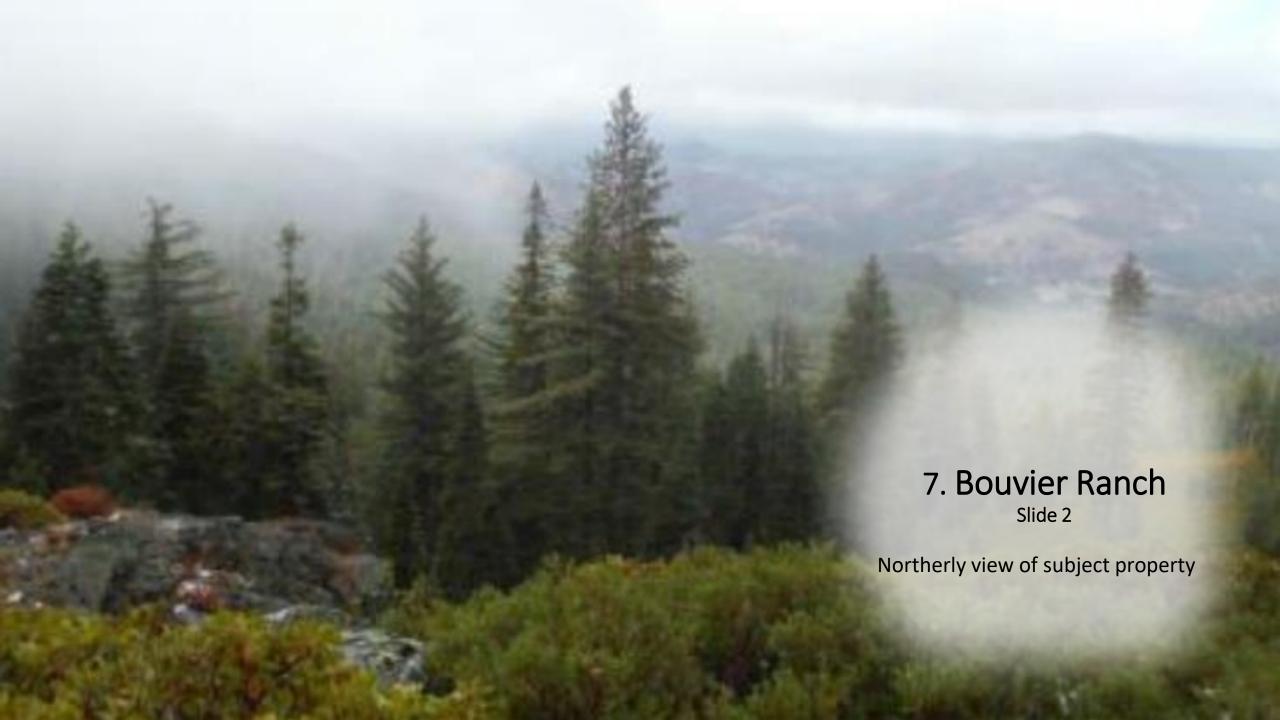
### 6. Large Tree Mapping Across the Sierra Nevada

Slide 6





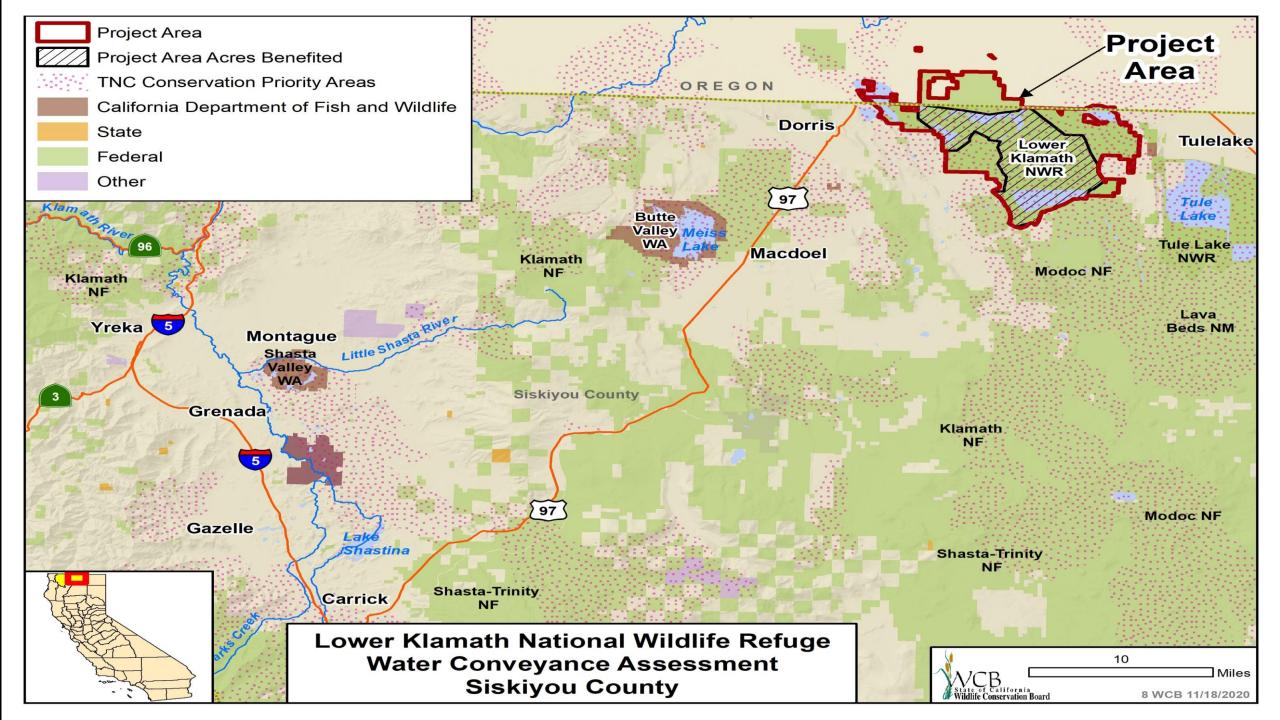


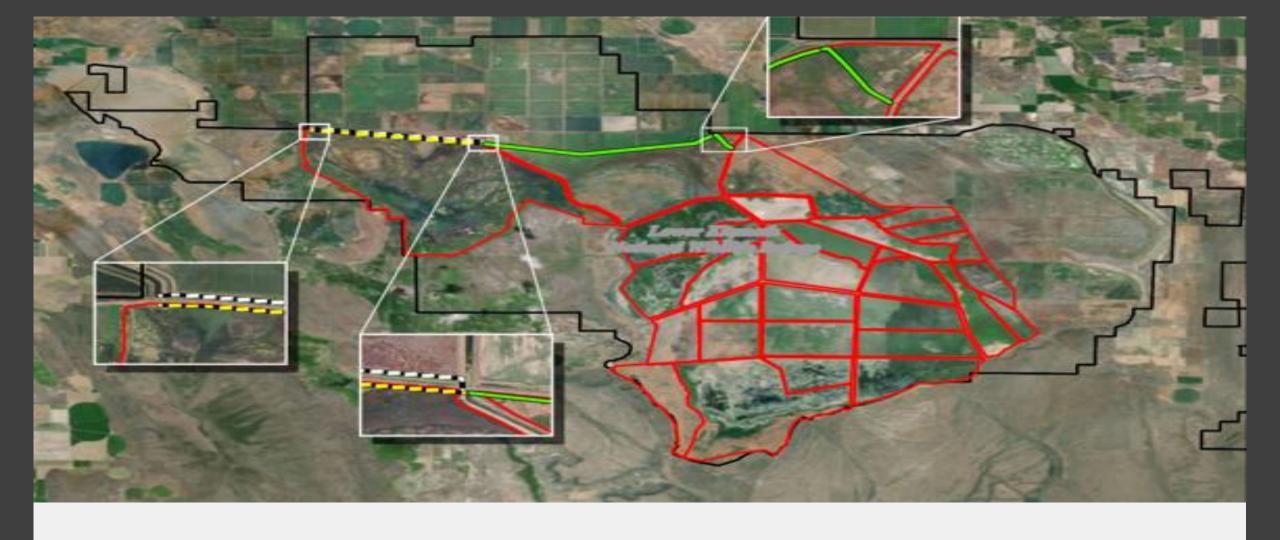












8. Lower Klamath National Wildlife Refuge Water Conveyance Assessment Slide 1

• Map of proposed water delivery canal alternatives.

# 8. Lower Klamath National Wildlife Refuge Water Conveyance Assessment

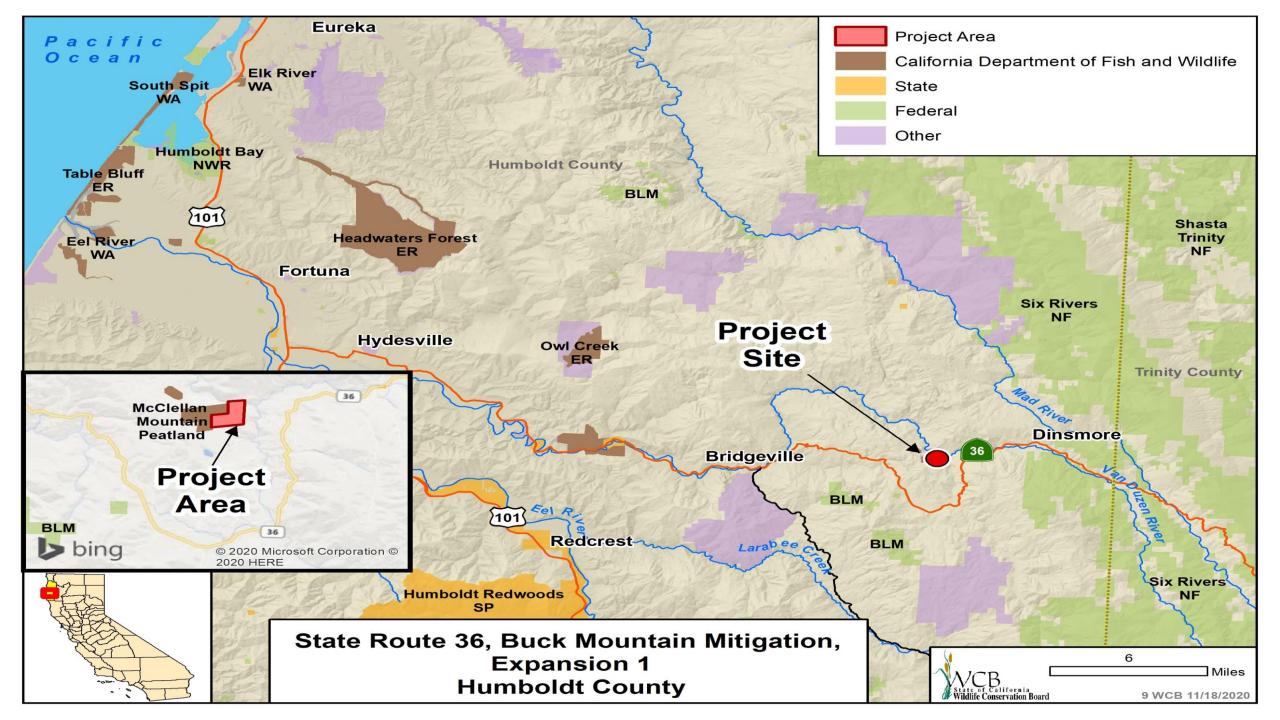
Slide 2

 Ady Canal, the main intake of water from the Klamath Reclamation Project onto LKNWR













### 9. State Route 36, Buck Mountain Mitigation, Expansion 1

Slide 2

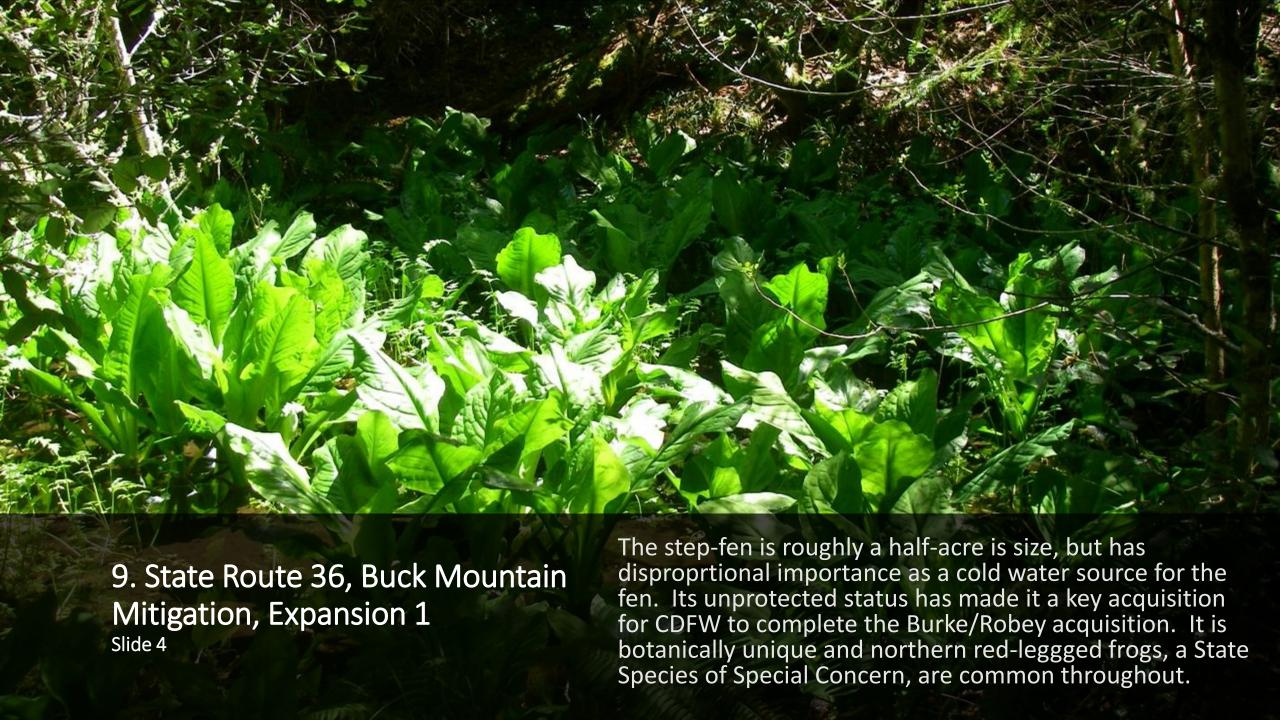
The Burke/Robey Fen in the foreground and its watershed and mountain border to the east (background) is the focus of Buck Mountain, Expansion 1



# 9. State Route 36, Buck Mountain Mitigation, Expansion 1

Slide 3

The step-fen just beyond the eastern boundary of the Burke/Robey property is the largest surface water contribution (i.e. tributary) to the fen and provides year-round flow as well and unique wetland habitat.

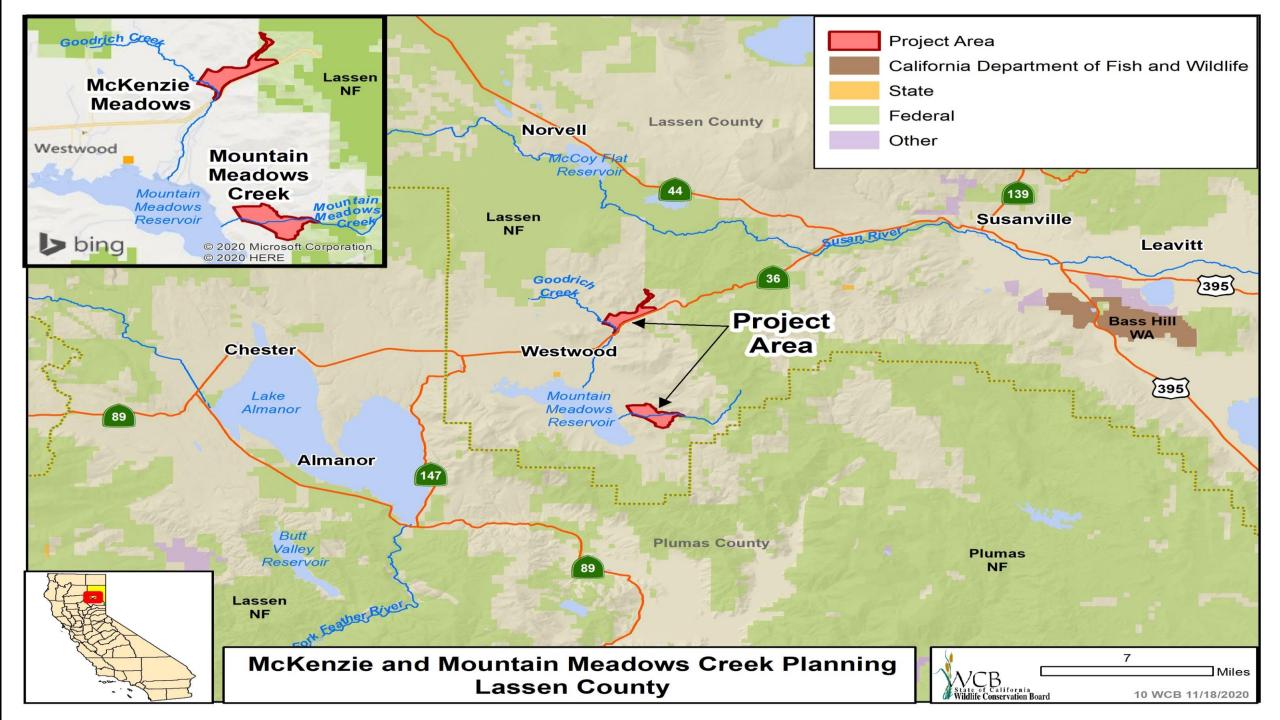




## 9. State Route 36, Buck Mountain Mitigation, Expansion 1

Slide 5

Between the step-fen and the Burke/Robey fen is a small stream, which flows year-round and is also habitat for the southern torrent salamander, a State Species of Special Concern.





10. McKenzie and Mountain Meadows Creek Planning
Slide 1

McKenzie Meadows actively eroding incised gully

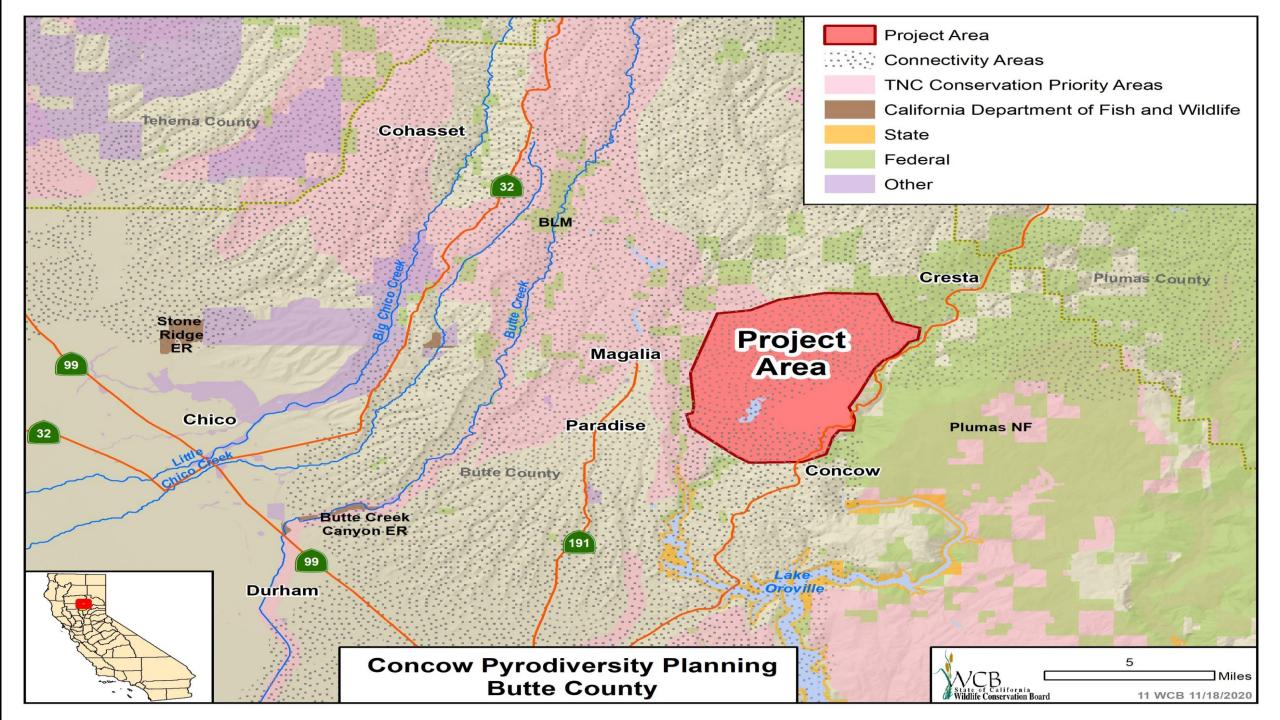


10. McKenzie and Mountain Meadows Creek Planning Slide 2

McKenzie Meadows original floodplain has converted to xeric conditions.

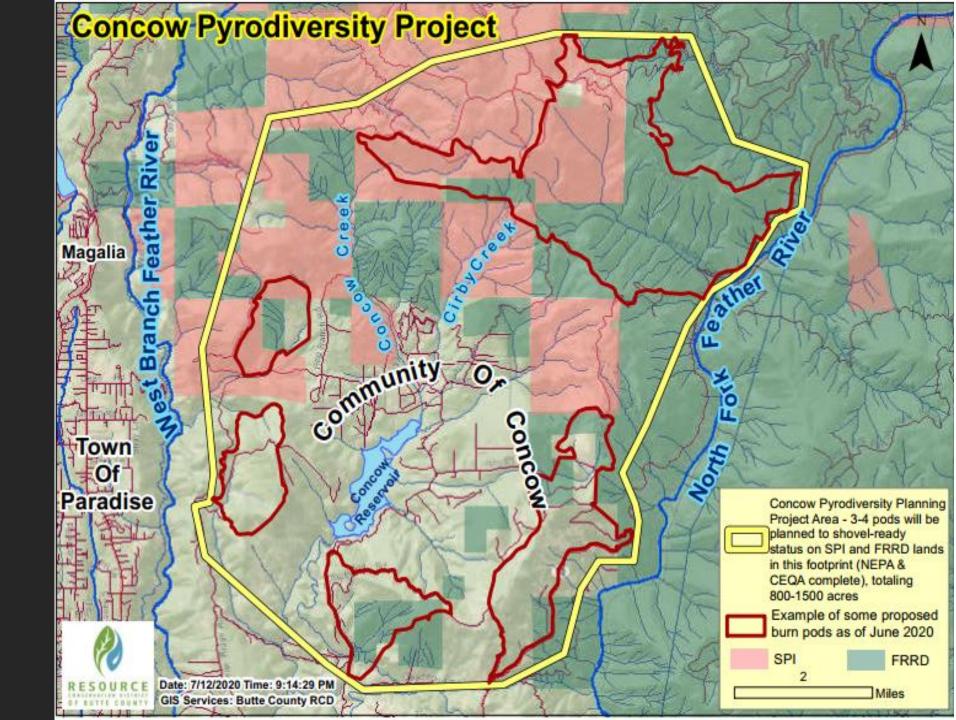






#### 11. Concow Pyrodiversity Planning Slide 1

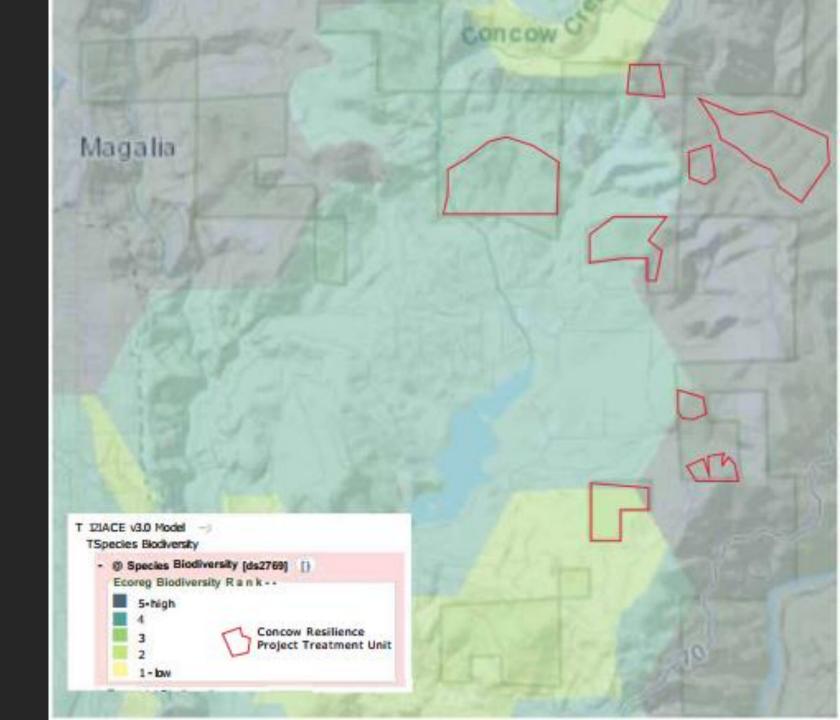
Project sites



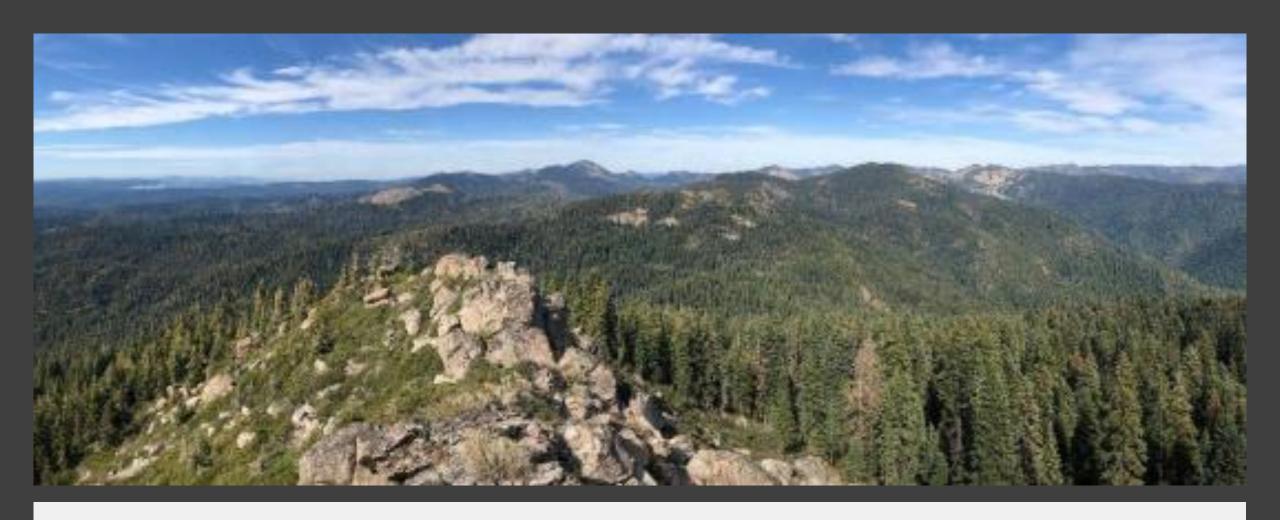
### 11. Concow Pyrodiversity Planning

Slide 2

A screenshot from ACE in BIOS shows how the entire Concow Basin scores a biodiversity rank 3, 4, or 5.



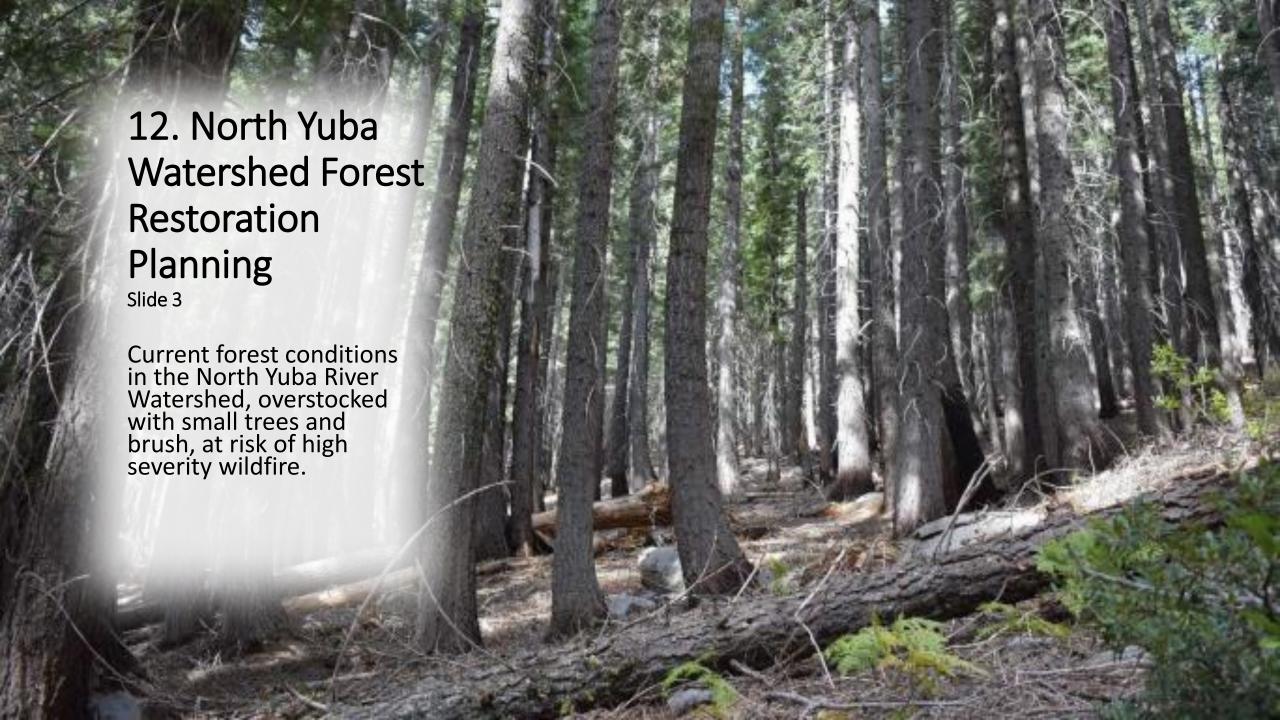


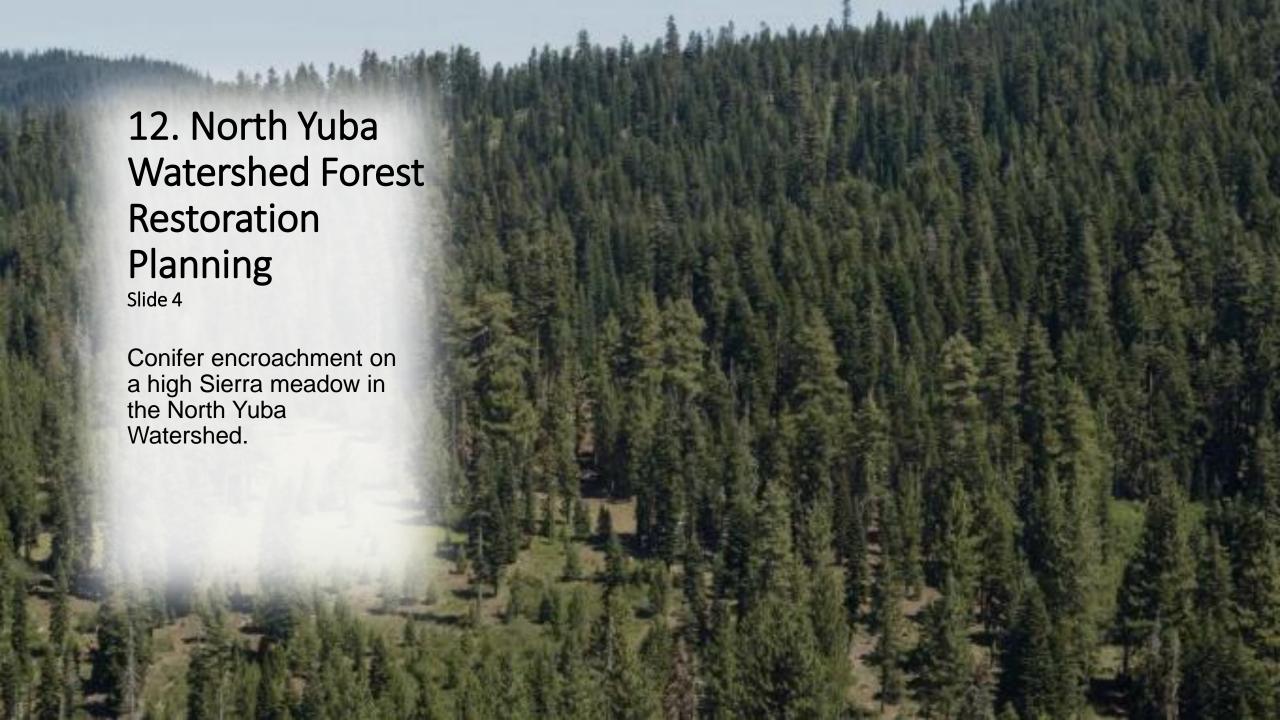


12. North Yuba Watershed Forest Restoration Planning Slide 1

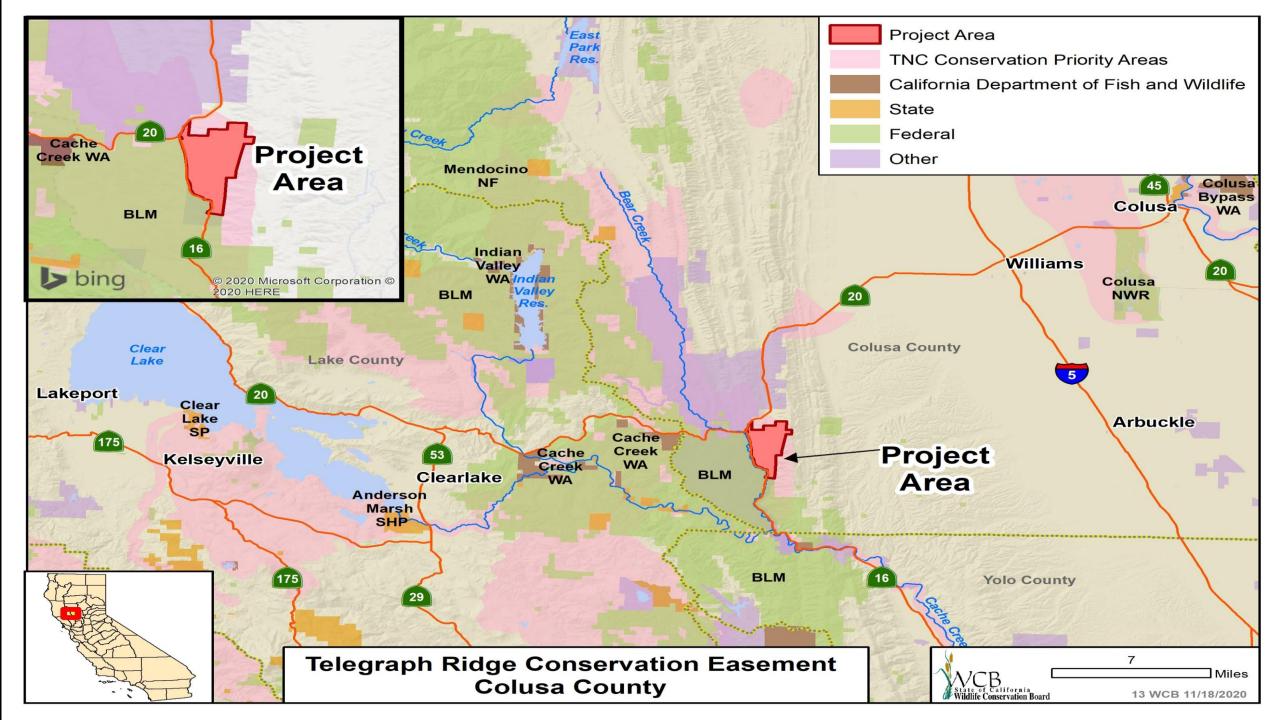
Panoramic view of the watershed planning area.





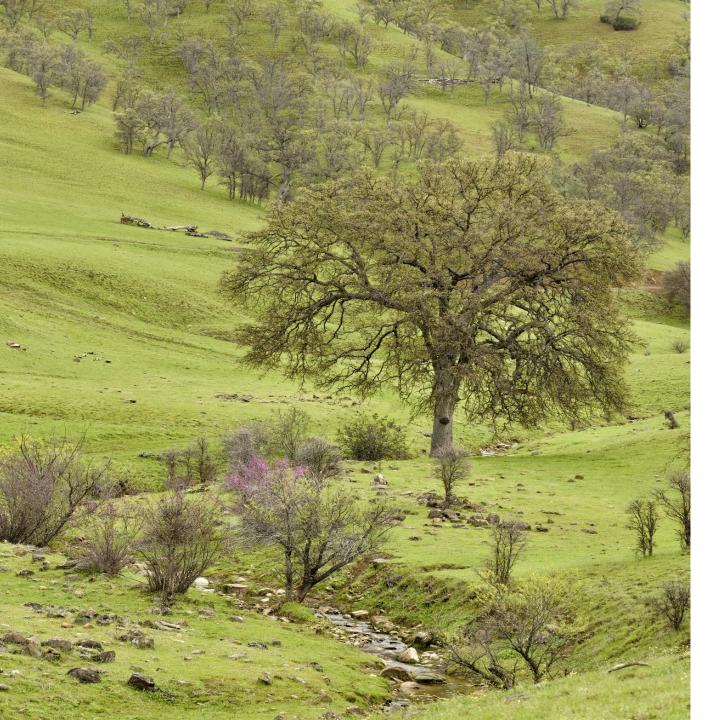










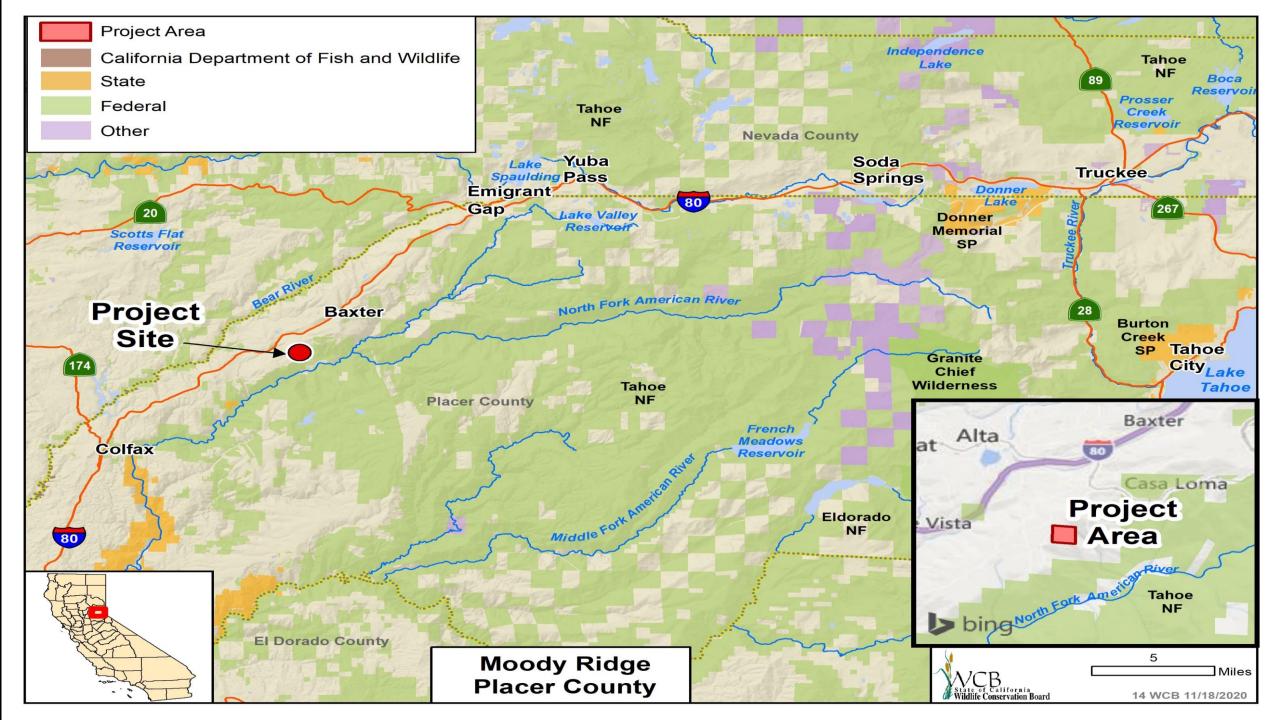


#### 13. Telegraph Ridge Conservation Easement

• Specimen Oak on lower property

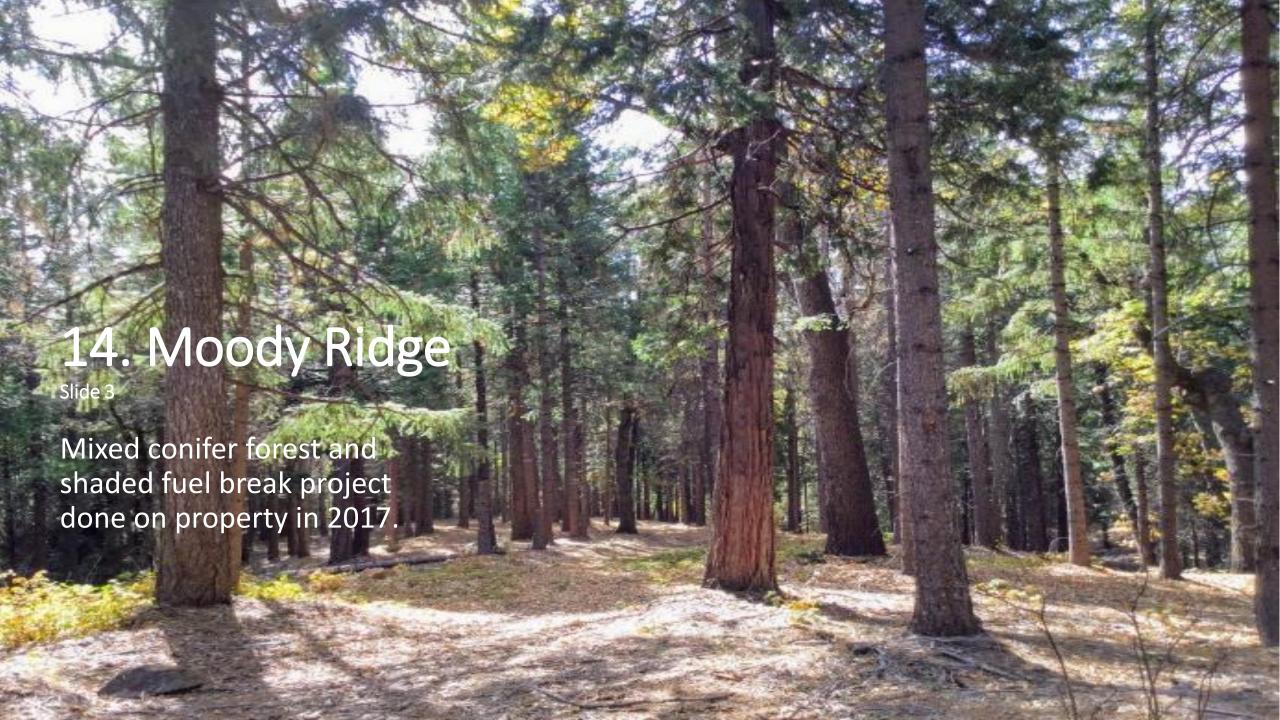










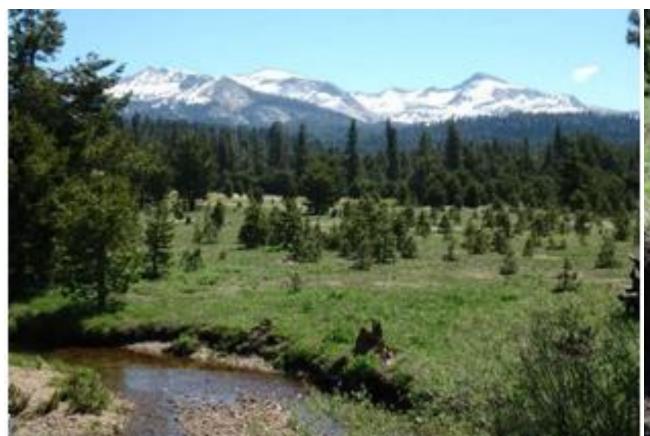






## Meadow Restoration Planning in the American and Pine Creek Watersheds Lassen and El Dorado Counties







15. Meadow Restoration Planning in the American and Pine Creek Watersheds

• Conifer encroachment in Wilson Meadow and actively eroding streambanks in the unnamed tributary to South Fork Silver Creek.





15. Meadow Restoration Planning in the American and Pine Creek Watersheds

• Undersized road crossing along Wrights Tie Road at the top of the meadow.

15. Meadow Restoration Planning in the American and Pine Creek Watersheds Slide 3

 Incised channel flowing through 75% of Wilson Ranch. Upland vegetation is seen to the right of the channel and wetter mesic vegetation is to the left of the channel.







15. Meadow Restoration
Planning in the American
and Pine Creek Watersheds
Slide 4

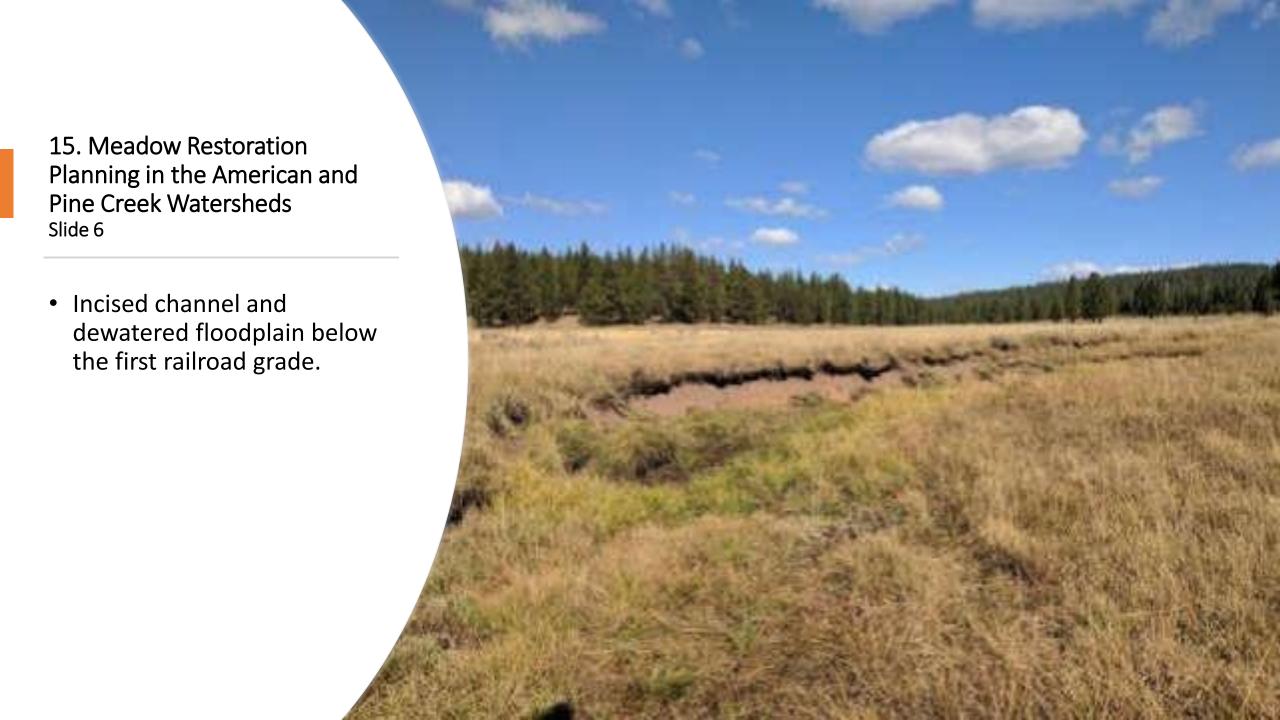
Standing in front of the ditch looking east into Calf Pasture and standing in the two meter ditch looking upstream the unnamed tributary to Bassi Fork Creek.

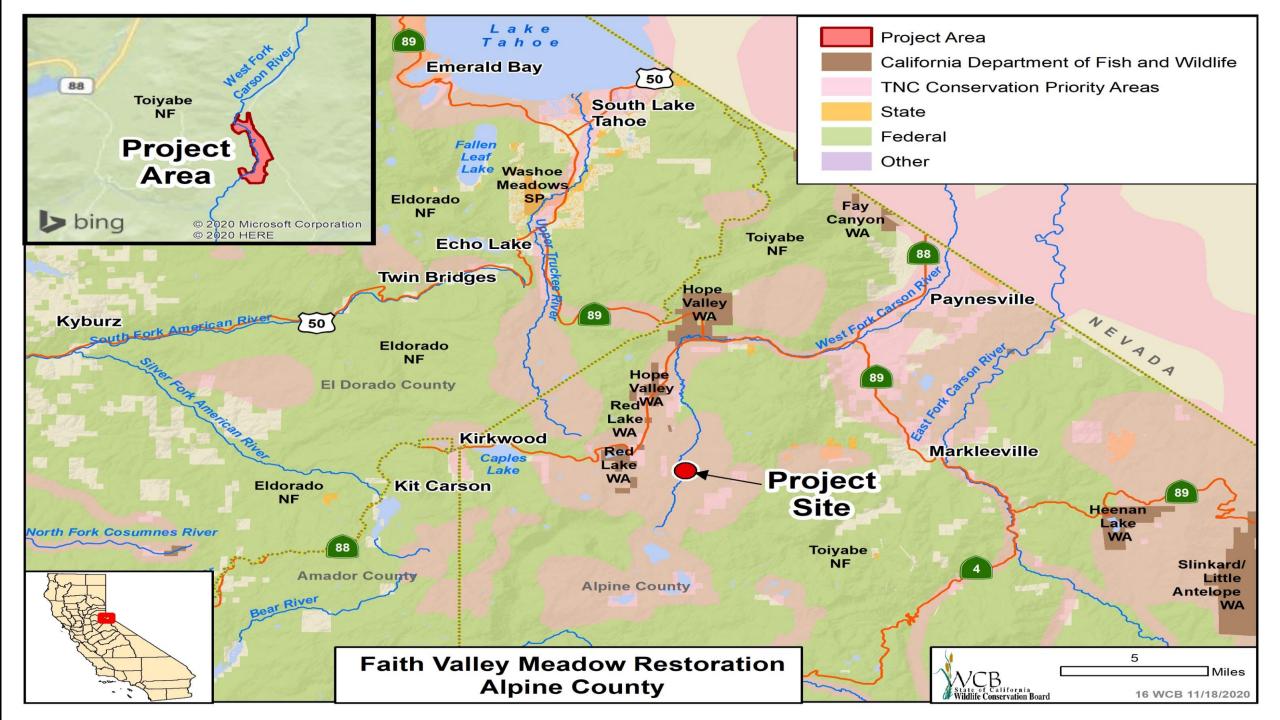




15. Meadow Restoration Planning in the American and Pine Creek Watersheds Slide 5

• Dewatered floodplain dominated by sagebrush









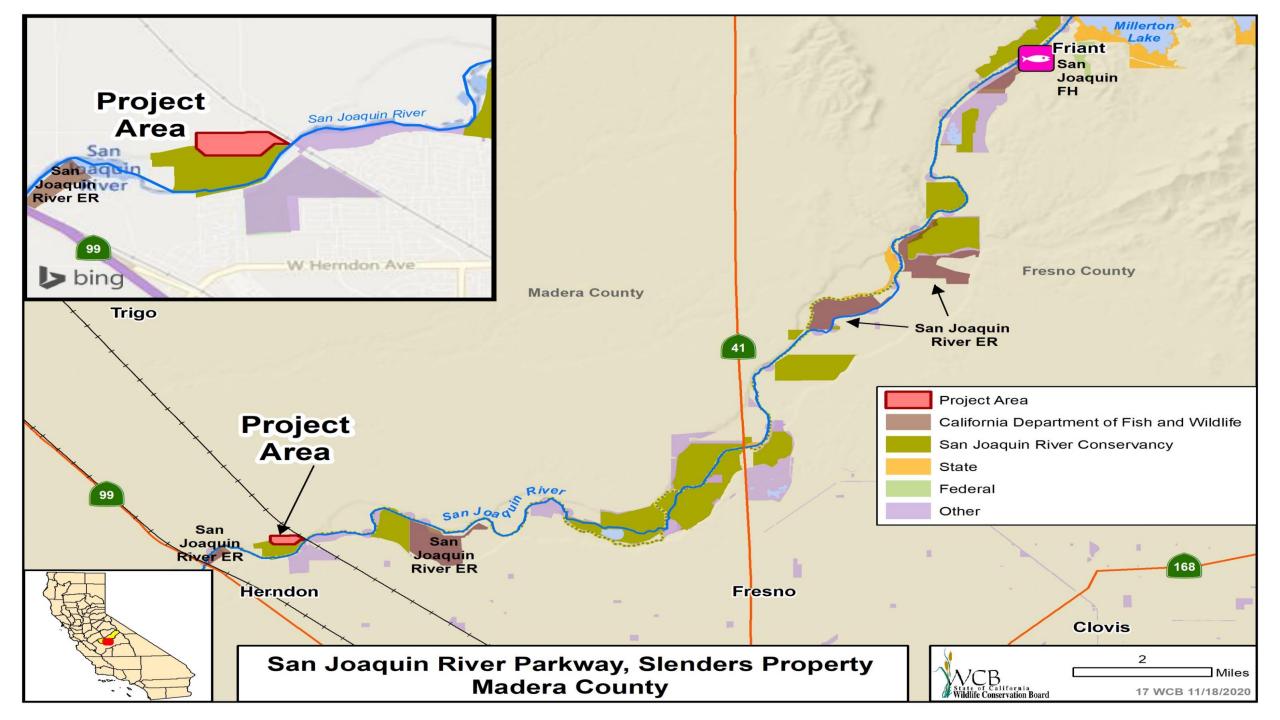


## 16. Faith Valley Meadow Restoration

Slide 4

Faith Valley: beaver dam at the downstream end of Faith Valley in 2016 that was maintaining a raised water table upstream.





## 17. San Joaquin River Parkway, Slenders Property

Slide 1

Property is adjacent SJRC's Schneider property.







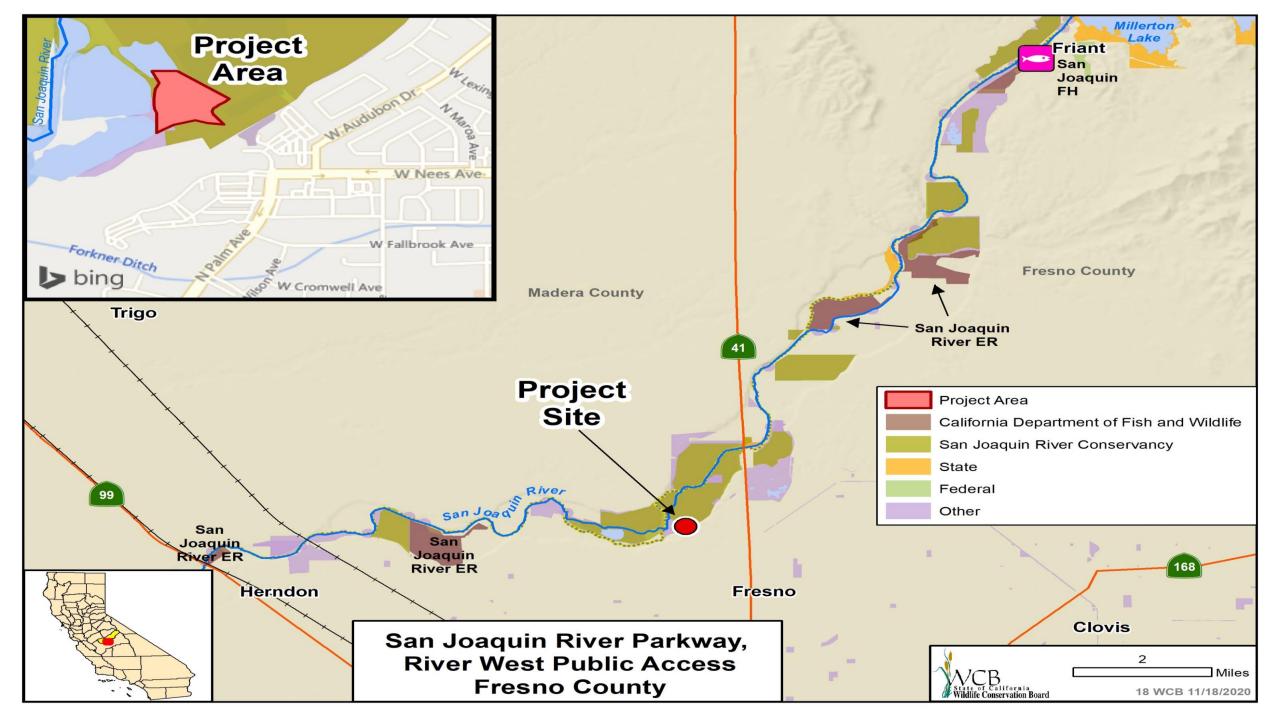
17. San Joaquin River Parkway, Slenders Property
Slide 3

Property is directly south of Avenue 7, looking east.



17. San Joaquin River Parkway, Slenders Property

Portion of the Property borders the San Joaquin River. Riparian habitat along the San Joaquin River's is in the background. Looking southeast.





#### 18. San Joaquin River Parkway, River West Public Access

Slide 1

Looking northwest at the Property from Spano Park



18. San Joaquin River Parkway, River West Public Access

Property is adjacent the San Joaquin River. Looking west

Slide 2

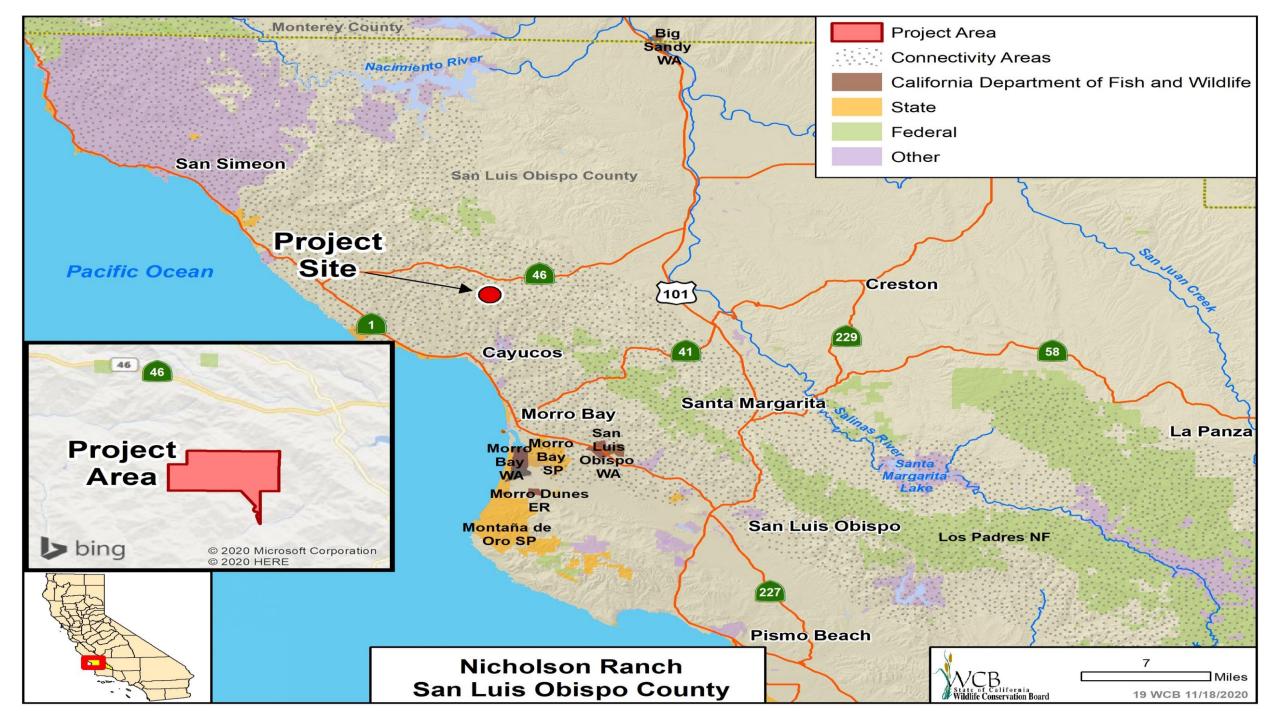




18. San Joaquin River Parkway, River West Public Access

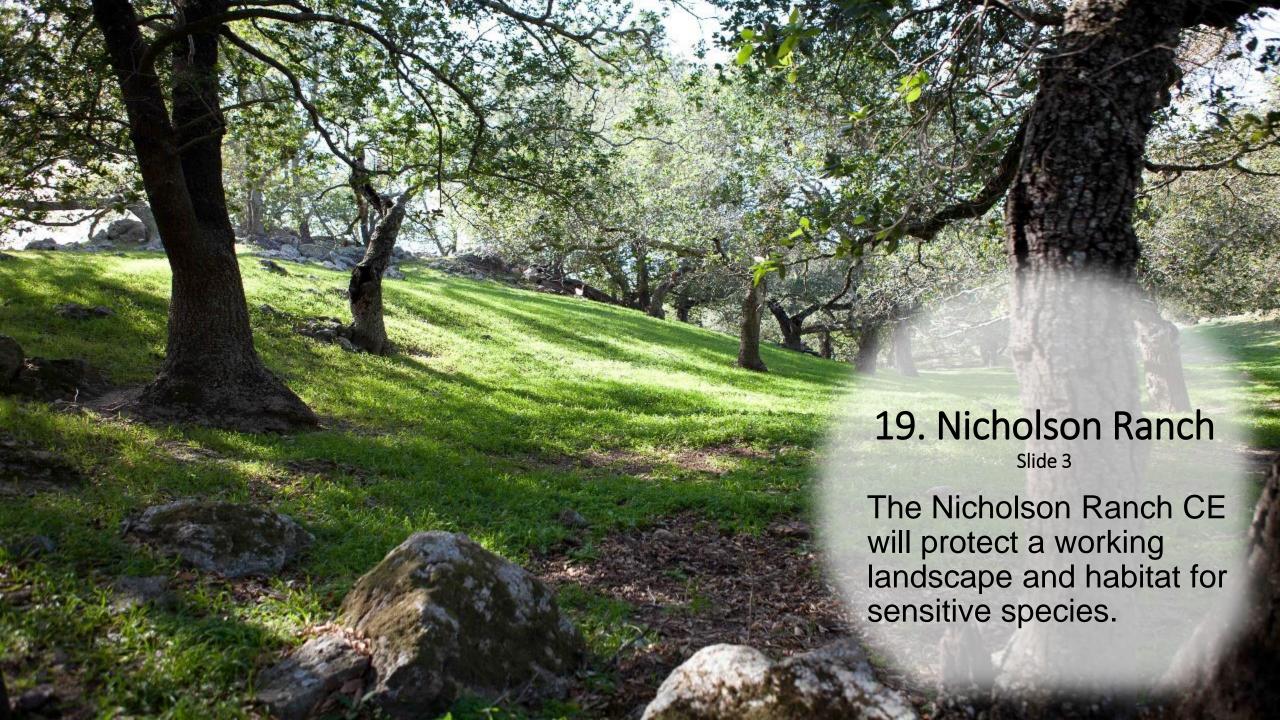
Slide 4

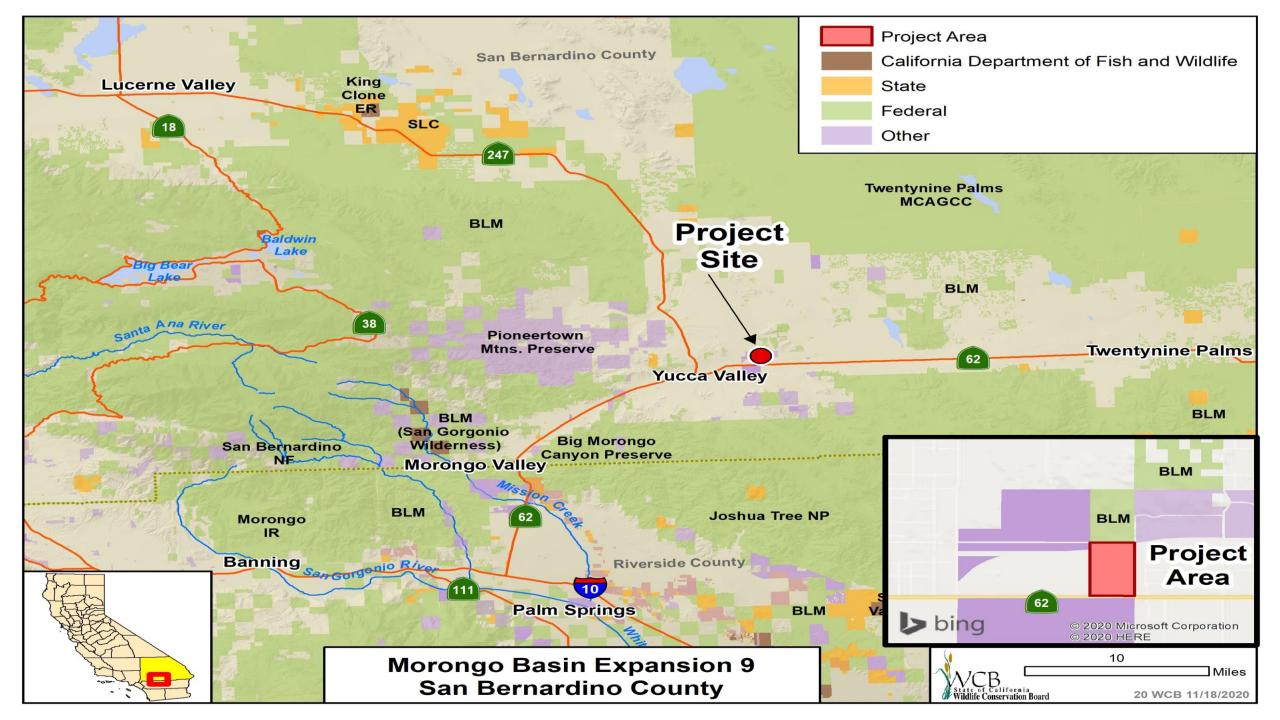
Parking lot would be located on this part of the Property. Looking north













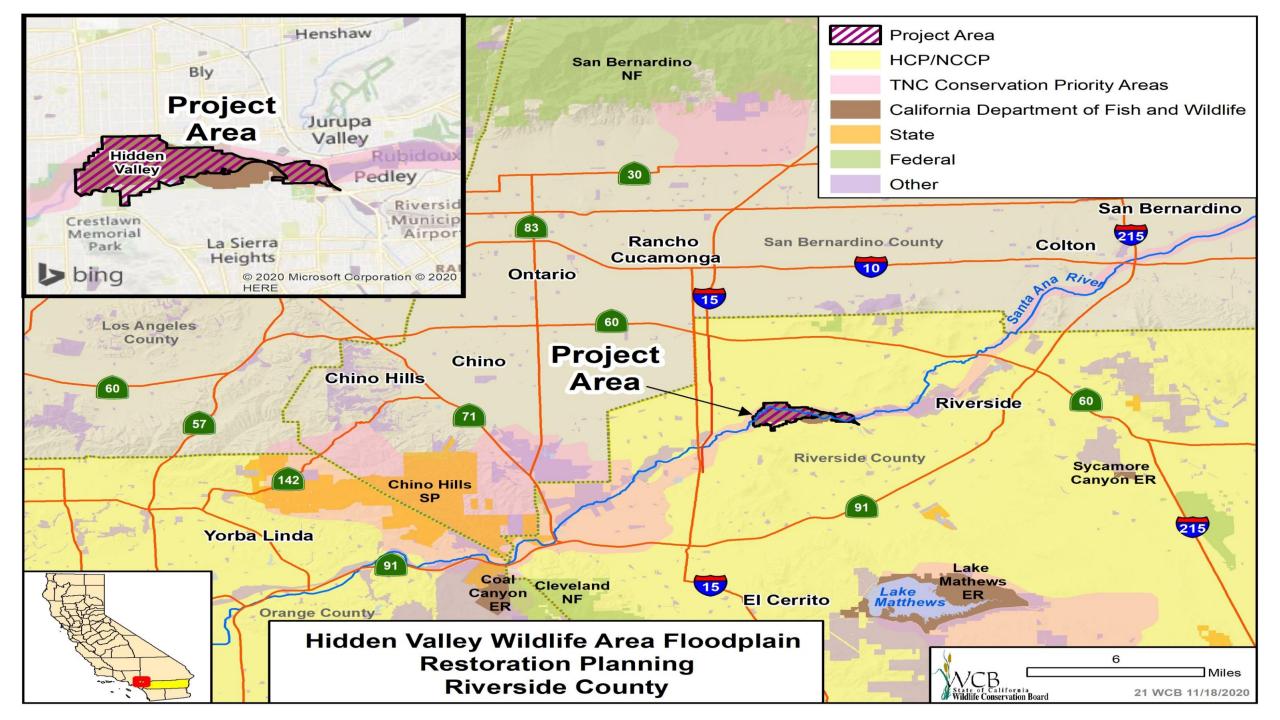


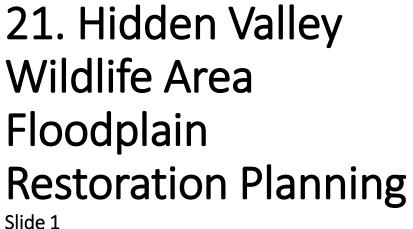
## 20. Morongo Basin Expansion 9

Slide 2

Typical desert habitat found on Jung parcels containing Joshua Trees and desert scrub

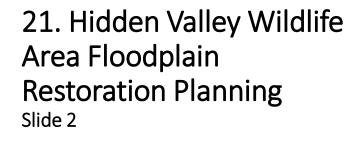






Hidden Valley Wildlife Area in 2007 before Arundo removal. Yellowish foliage is Arundo.





Hidden Valley Wildlife Area in 2007 before Arundo removal. Yellowish foliage is Arundo.



### 21. Hidden Valley Wildlife Area Floodplain Restoration Planning

Slide 3

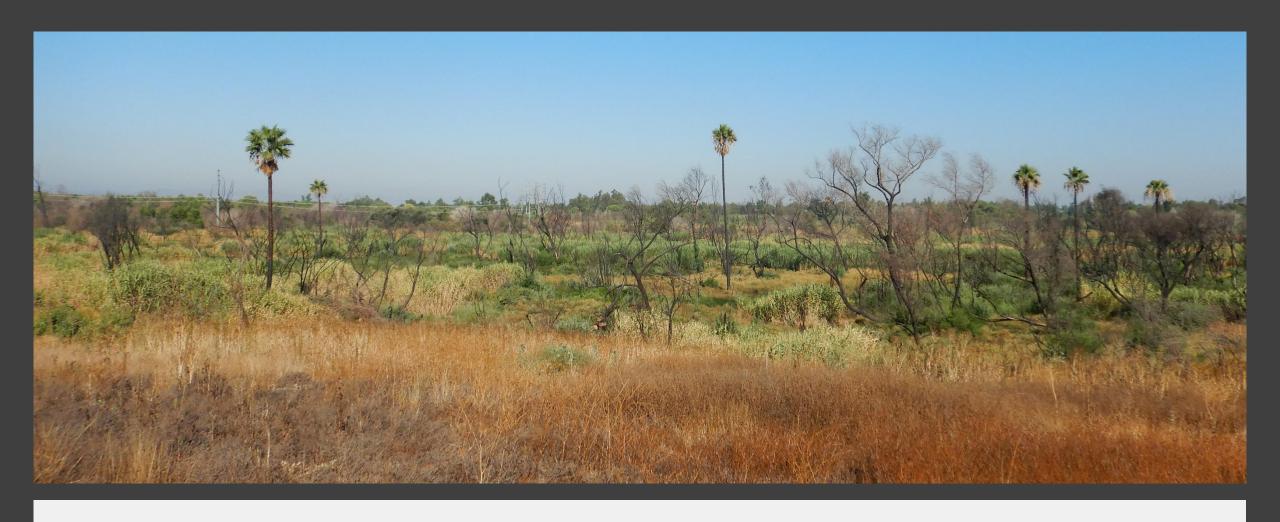
Hidden Valley Wildlife Area in 2016 after Arundo removal. Open areas are where Arundo was removed.

# 21. Hidden Valley Wildlife Area Floodplain Restoration Planning

Slide 4

Hidden Valley Wildlife Area in 2016 after Arundo removal. Open areas are where Arundo was removed.





21. Hidden Valley Wildlife Area Floodplain Restoration Planning Slide 5

• Mann Fire burn scar area in Hidden Valley Wildlife Area in July 2020 showing areas where Arundo is resprouting after fire.



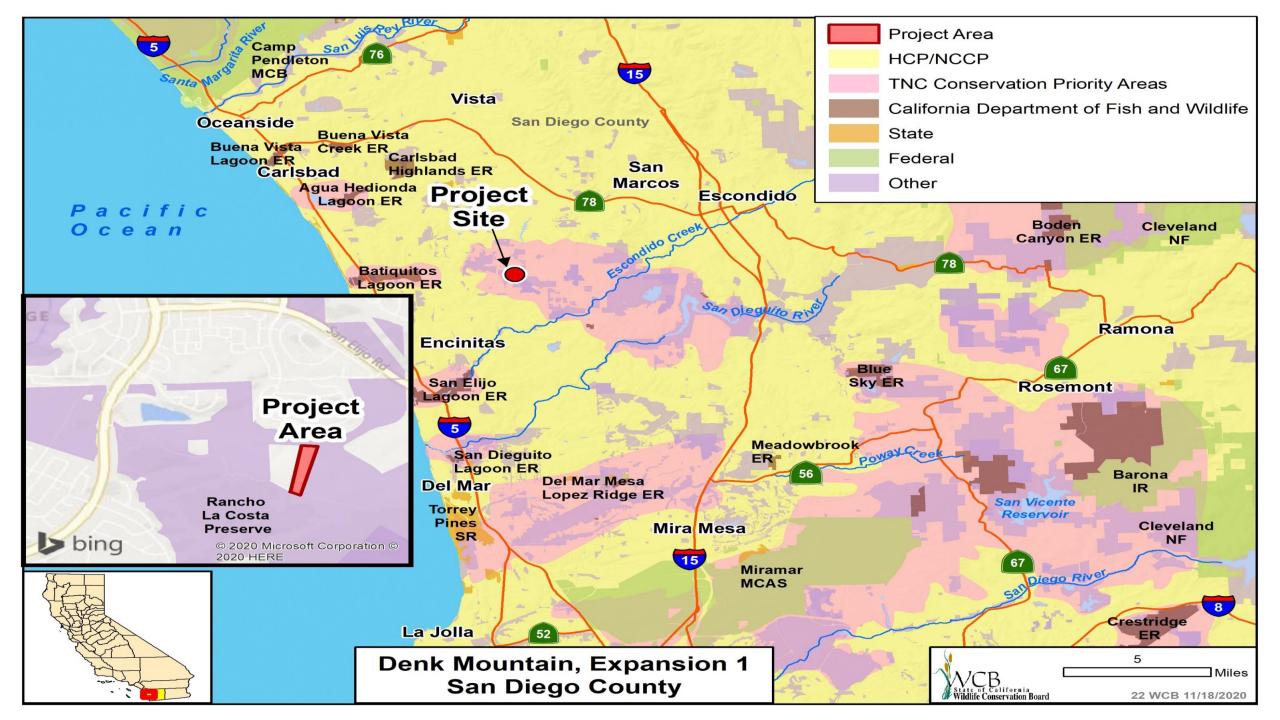
21. Hidden Valley Wildlife Area Floodplain Restoration Planning Slide 6

• Looking north from Farm Field in Hidden Valley Wildlife Area at Area East of Farm Field in July 2020.



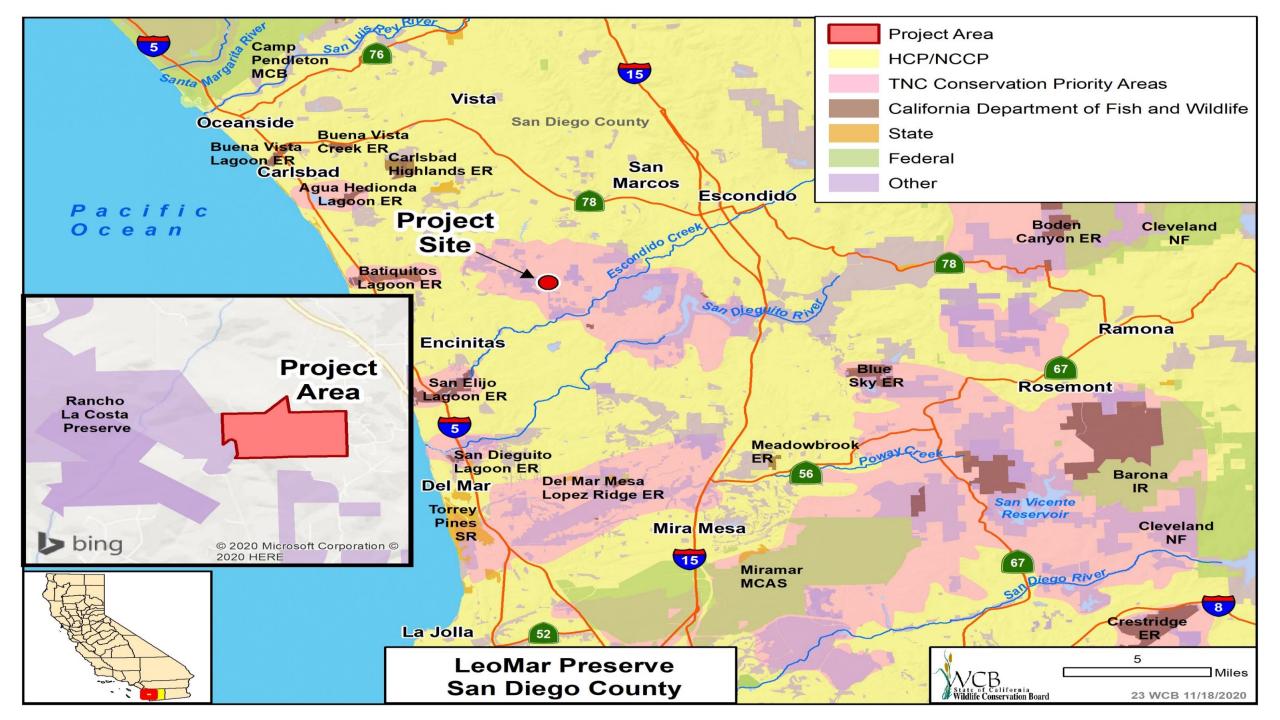
21. Hidden Valley Wildlife Area Floodplain Restoration Planning Slide 7

• Ponds Area in Hidden Valley Wildlife Area in July 2020.







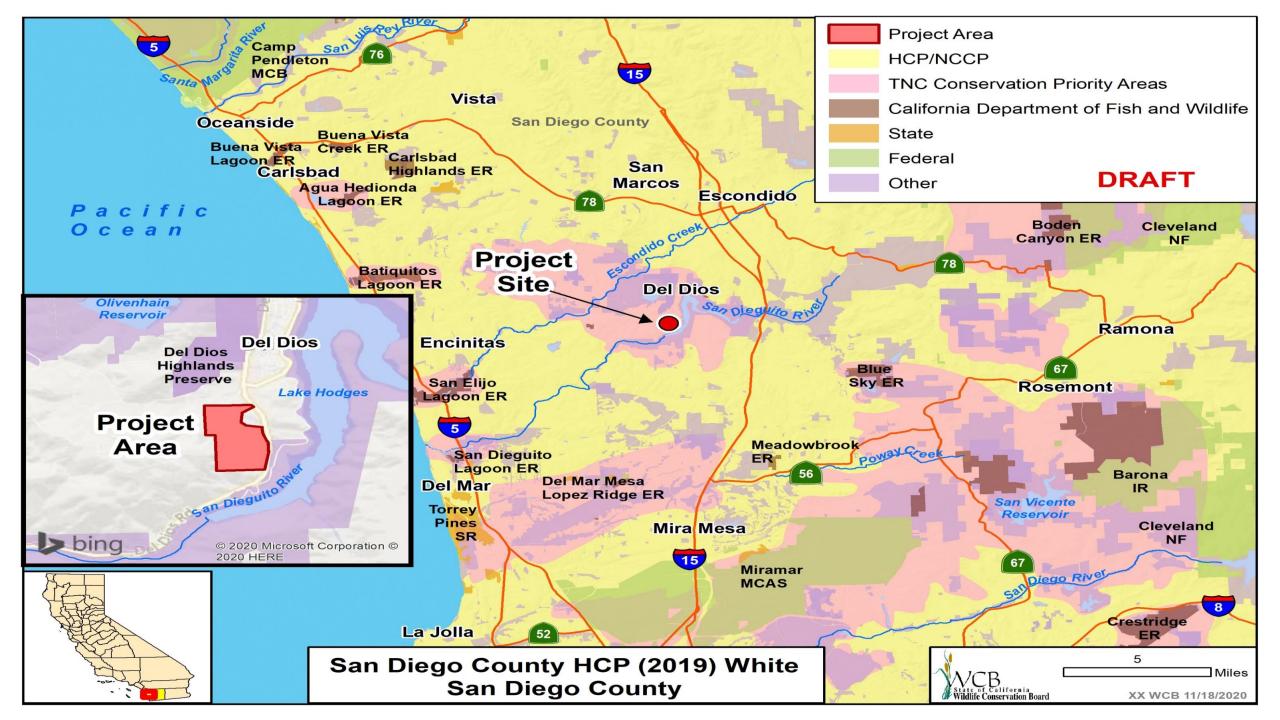








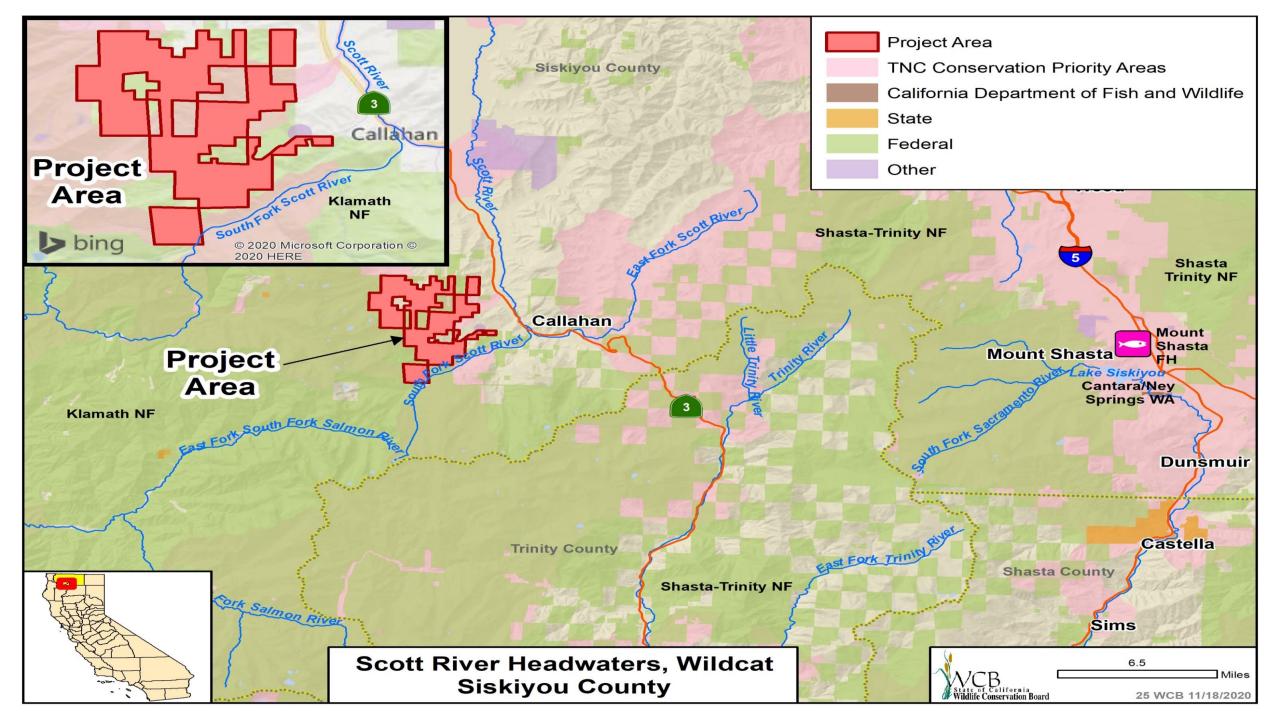






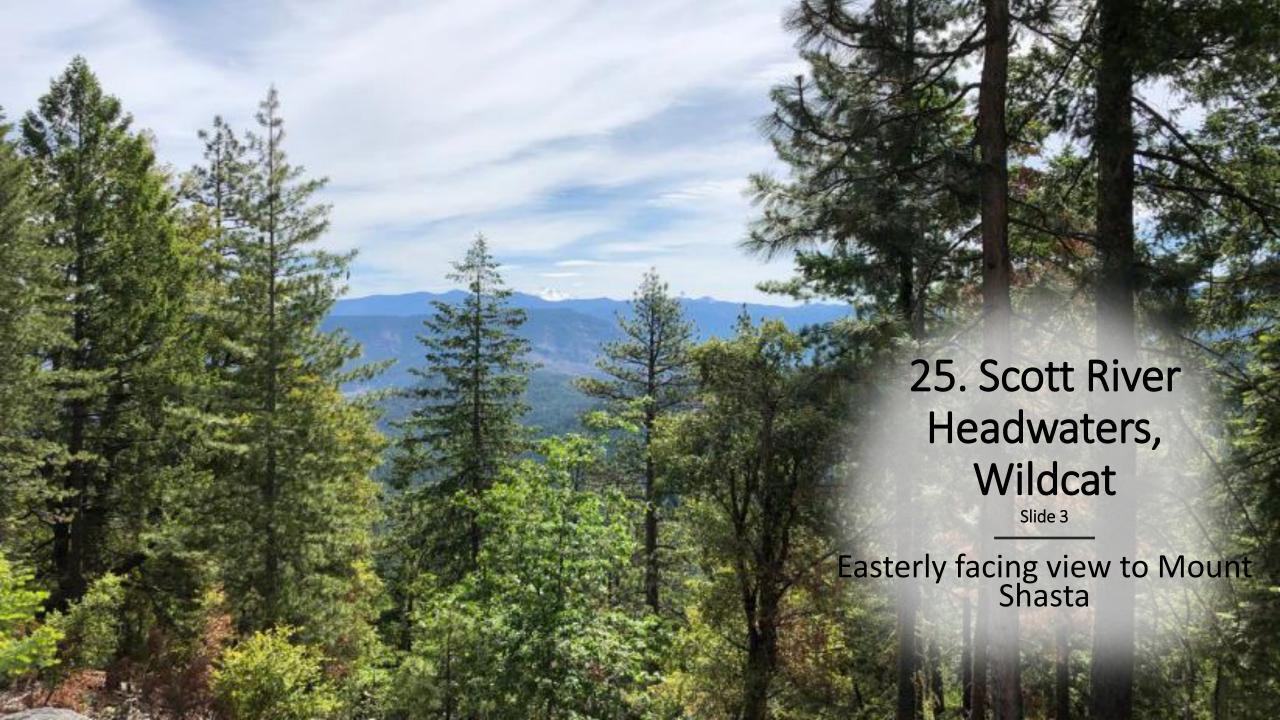


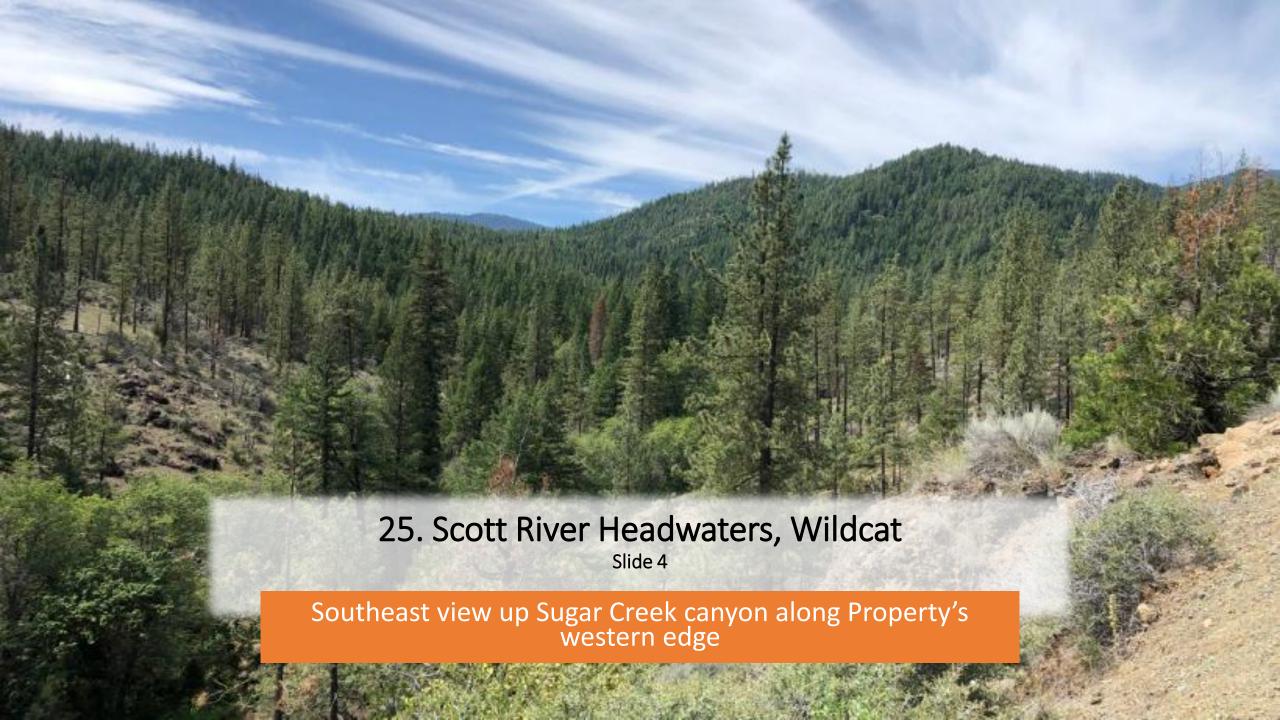


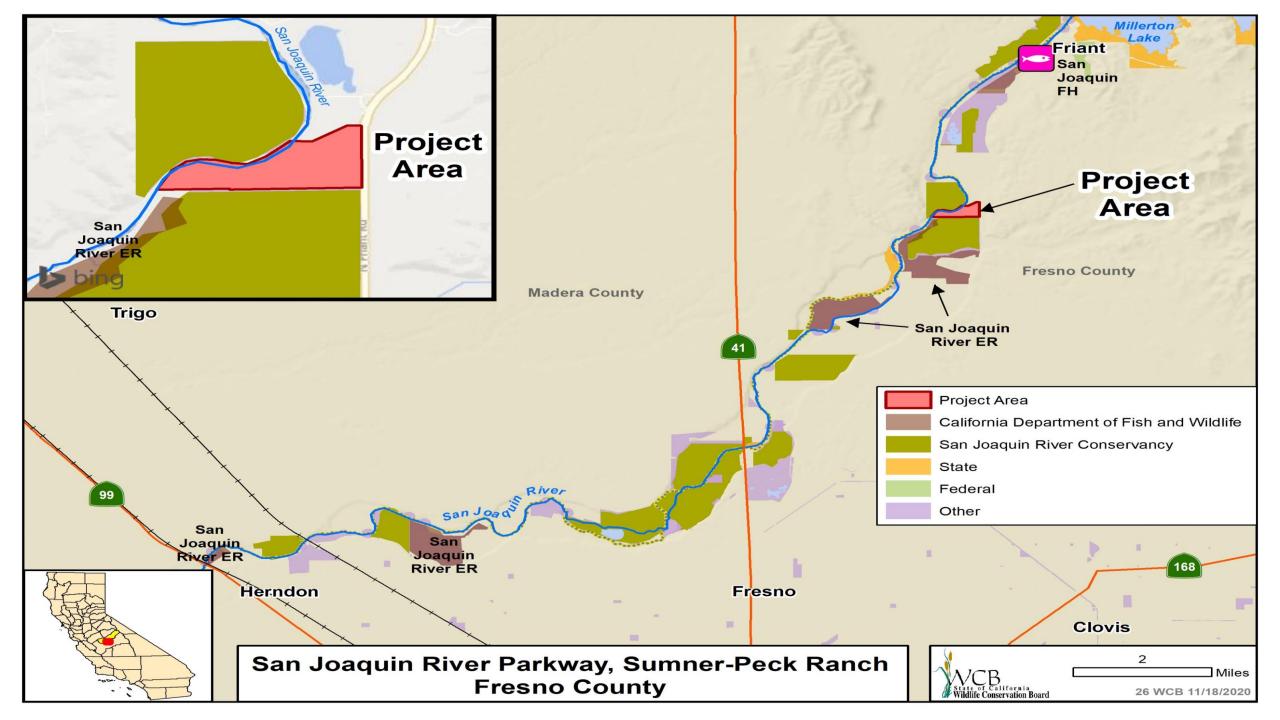
















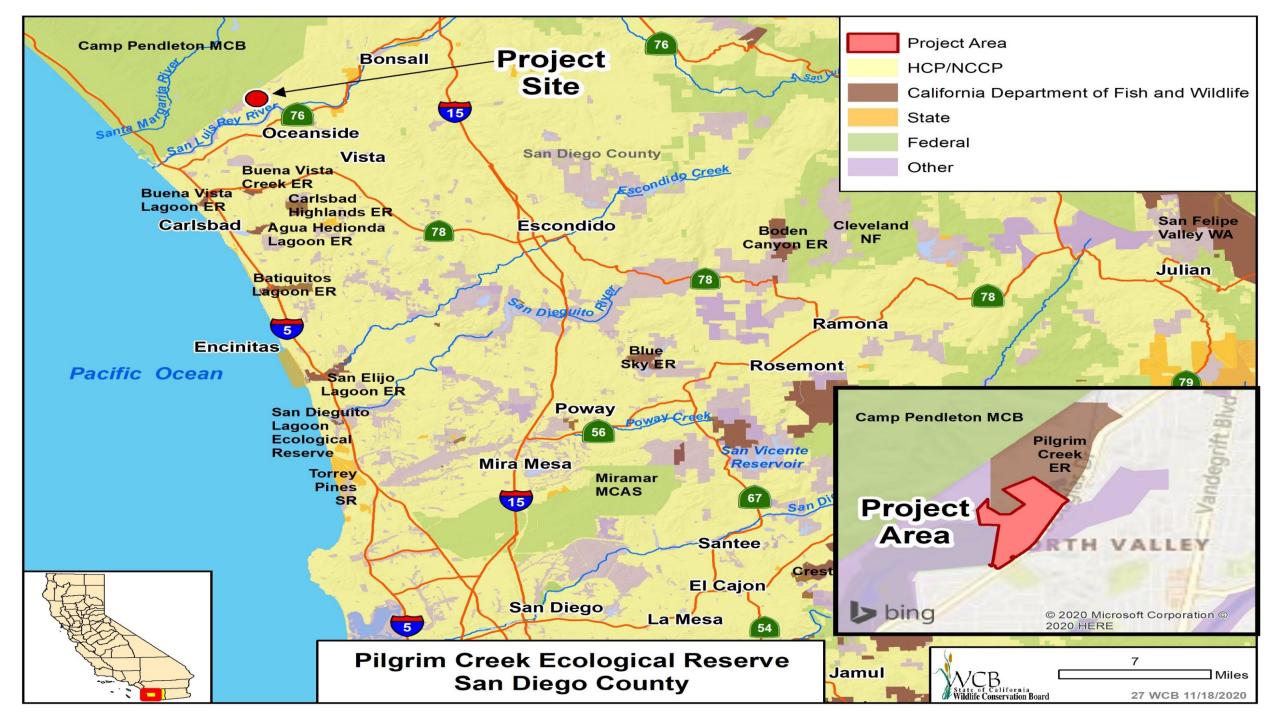
## 26. San Joaquin River Parkway, Sumner-Peck Ranch

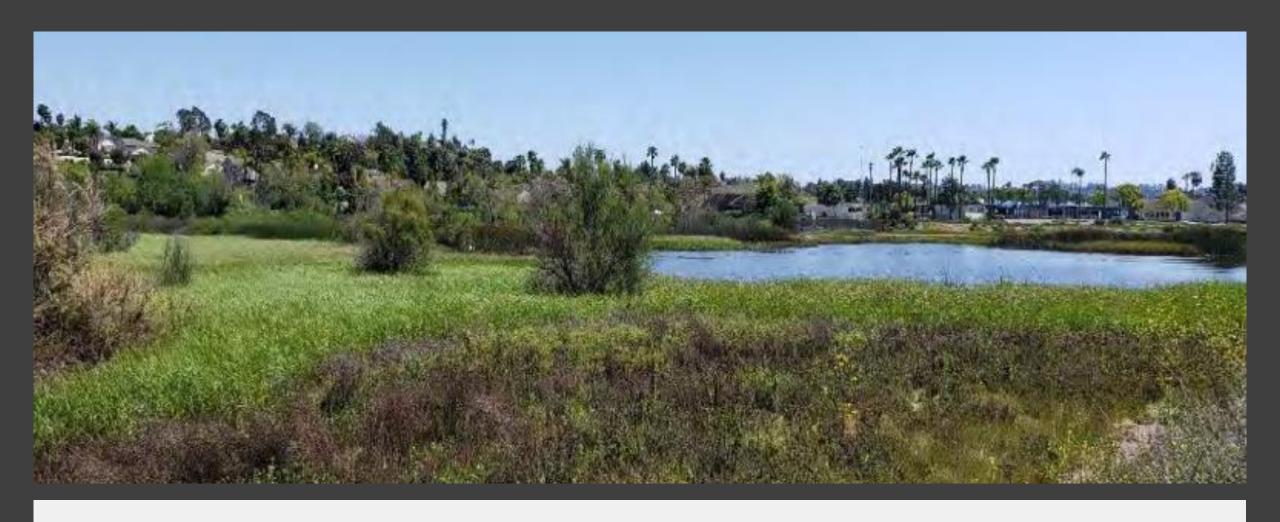
Slide 2

The Property is developed for hosting events and wine production.



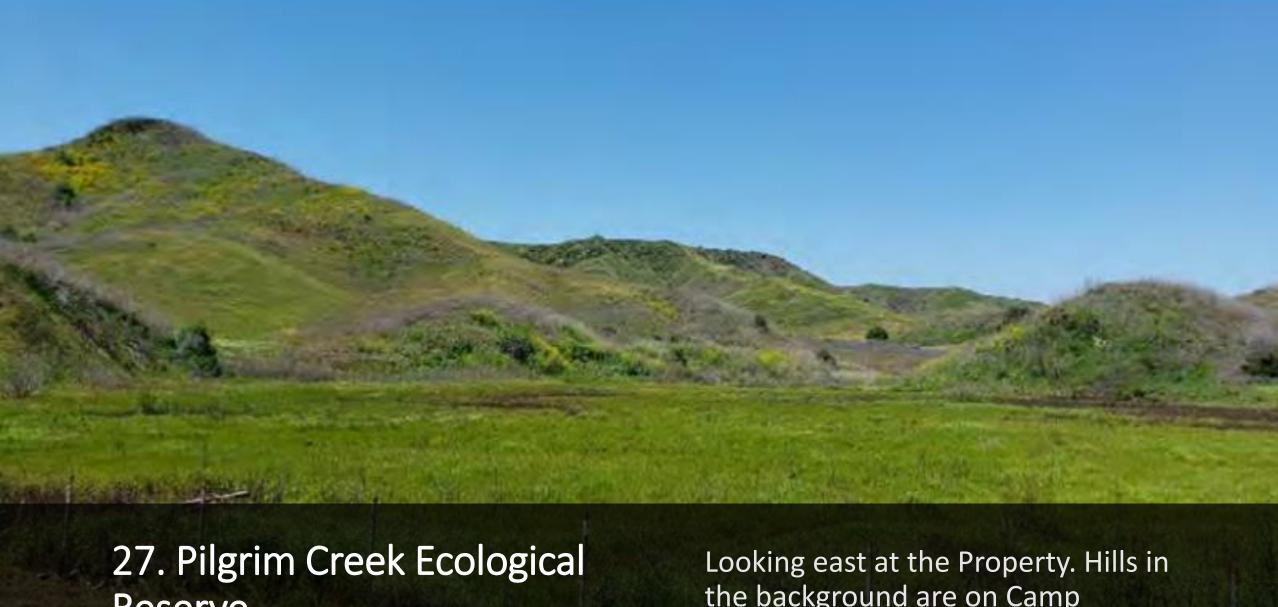






27. Pilgrim Creek
Ecological Reserve
Slide 1

Property is adjacent a residential neighborhood. Looking southwest



Reserve

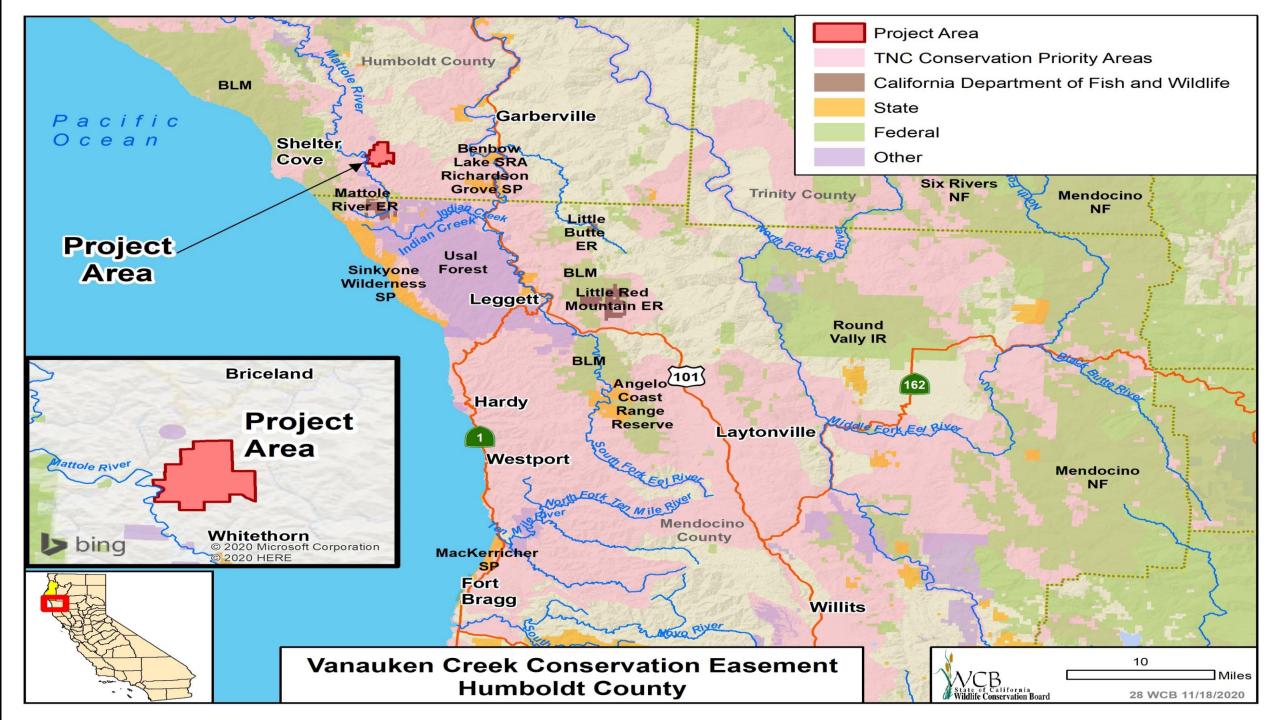
Slide 2

the background are on Camp Pendleton

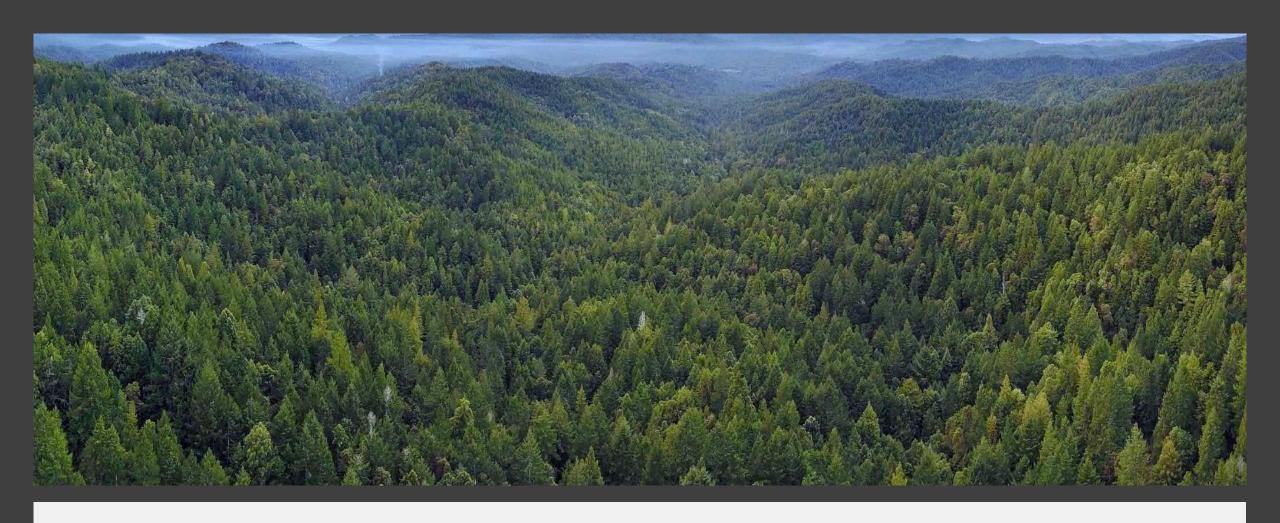


27. Pilgrim Creek
Ecological Reserve
Slide 3

Looking northwest at the Property from the South boundary







28. Vanauken Creek
Conservation Easement
Slide 2

Vanauken watershed looking down from headwaters towards confluence with Mattole River.



28. Vanauken Creek Conservation Easement Slide 3

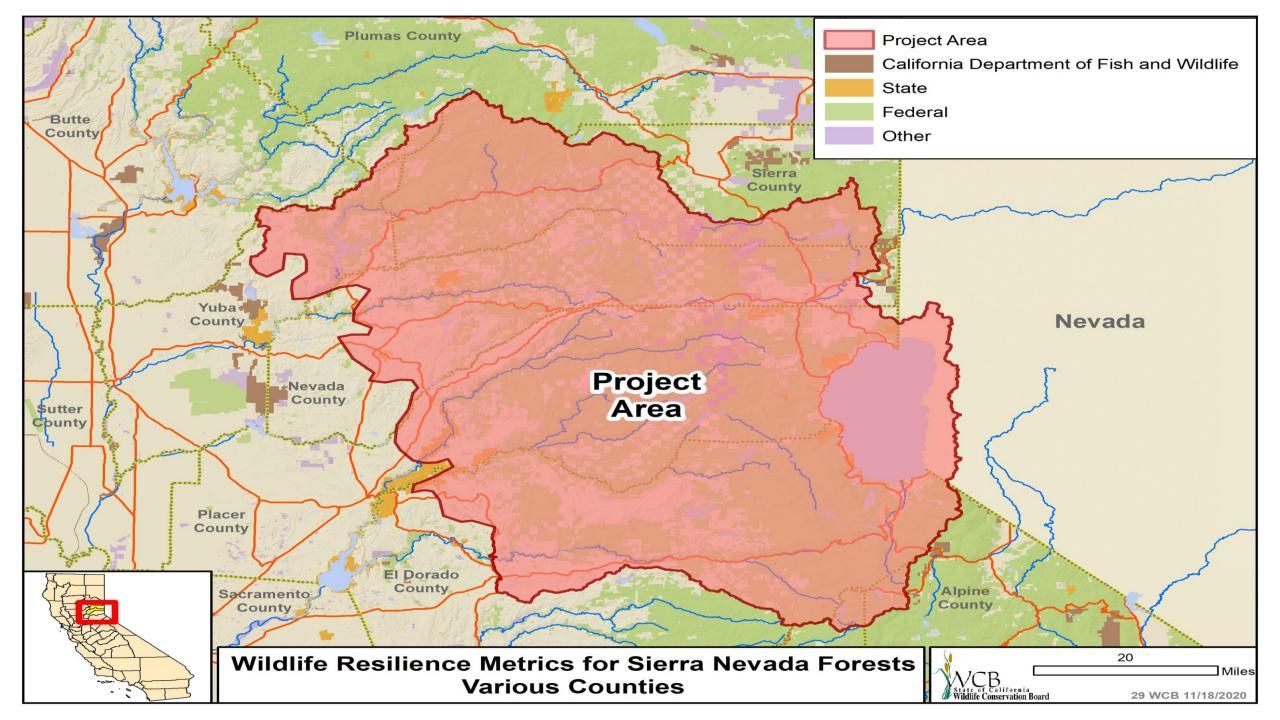
Confluence of north fork and middle fork of Vanauken Creek. Pictured from left to right: Lands Committee Chair, Mike Torbert, Lands Program Director, Galen Doherty, and Water Program Director, Tasha McKee. Spring 2018.



28. Vanauken Creek Conservation Easement Slide 4

Old growth redwood stump along south fork of Vanauken Creek. Pictured – Lands Program Director, Galen Doherty. Spring 2018.





## Climate Adaptation and Resilience Program (2020 Solicitation)

#### WILDLIFE CONSERVATION BOARD

Climate Adaptation and Resilience Program 2020 Proposal Solicitation Notice





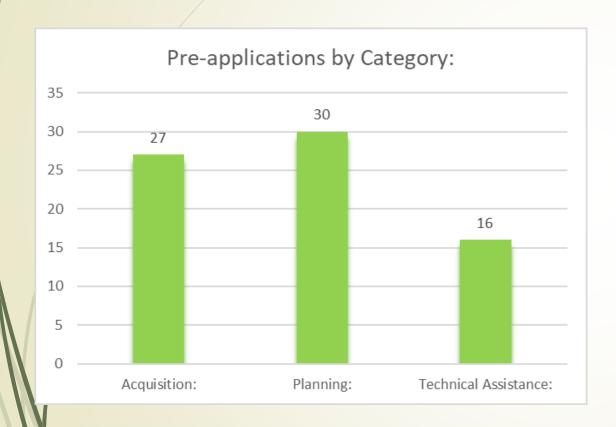


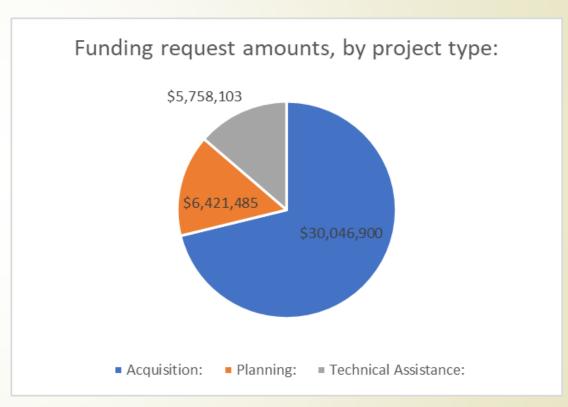
- \$8.4 million for climate adaptation and resiliency projects that result in enduring benefits.
- Three categories of projects:
  - Planning (\$1-2M)
  - Technical Assistance (\$1-2M)
  - Conservation Easement (\$6M)
- Pre-application concept paper followed by a Full Application for selected projects

#### TIMFLINE:

- March 12: Solicitation released
- April 13: Pre-applications due
- June 16: Full applications due
- September 3: Final selection meeting

## Pre-application Response:

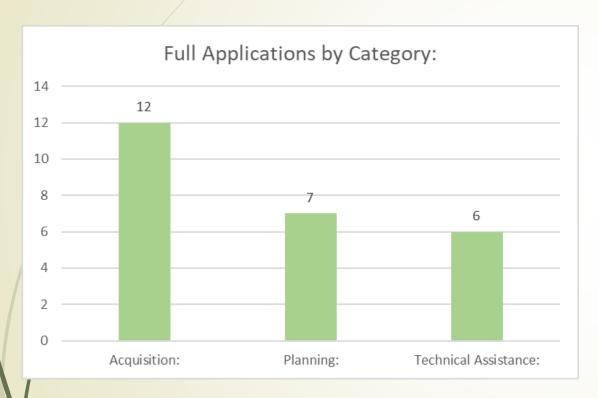




73 Pre-applications Received

\$42,226,488 in Pre-application Requests

## Full-applications:





25 Full Applications Received

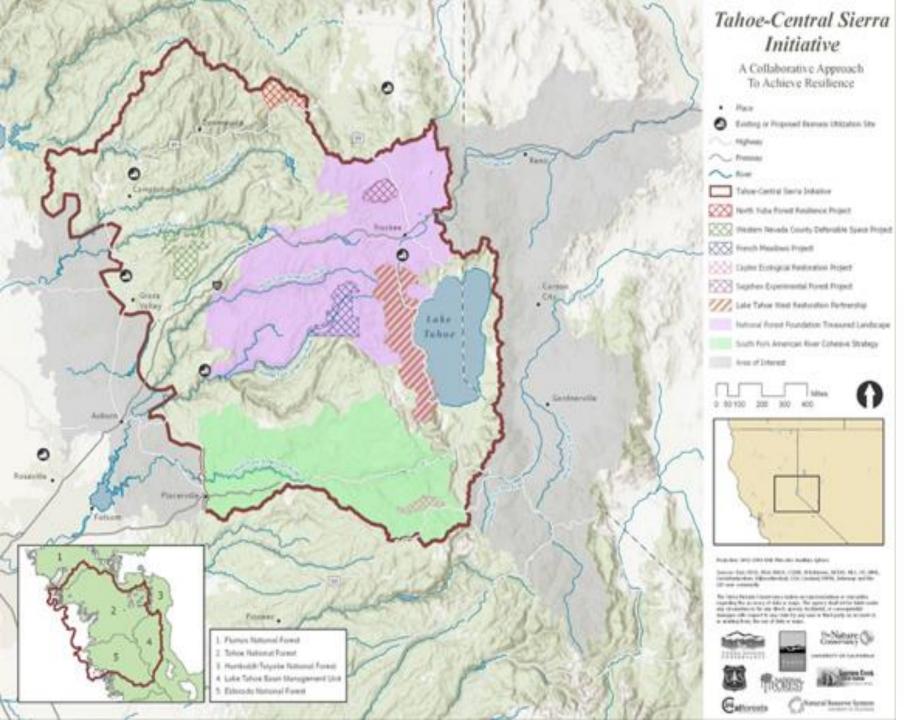
\$15,127,575 in Full Application Requests

### Final selection:

Total: 14 projects selected, \$7,633,717 in requests

- Conservation Easement Acquisition: 6 projects at \$5,529,600
- Technical Assistance: 5 projects at \$1,365,536
- Planning: 3 projects at \$738,581





# 29. Wildlife Resilience Metrics for Sierra Nevada Forests

Slide 1

The project study area lies across the 2.4M acre Tahoe Central Sierra Initiative (TCSI) regional landscape.

### 29. Wildlife Resilience Metrics for Sierra Nevada Forests Slide 2



### **California's Conservation Goals:**

- Ecosystem/Landscape-scale
- > Requires informational support:
  - Ecosystem vulnerabilities
  - Ecosystem resilience

Community-scale



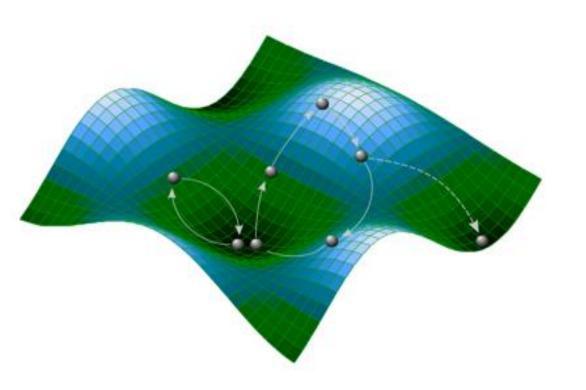
# 29. Wildlife Resilience Metrics for Sierra Nevada Forests

Slide 3

Graphical depiction of preliminary forest food web interaction matrix.

## 29. Wildlife Resilience Metrics for Sierra Nevada Forests

Slide 4

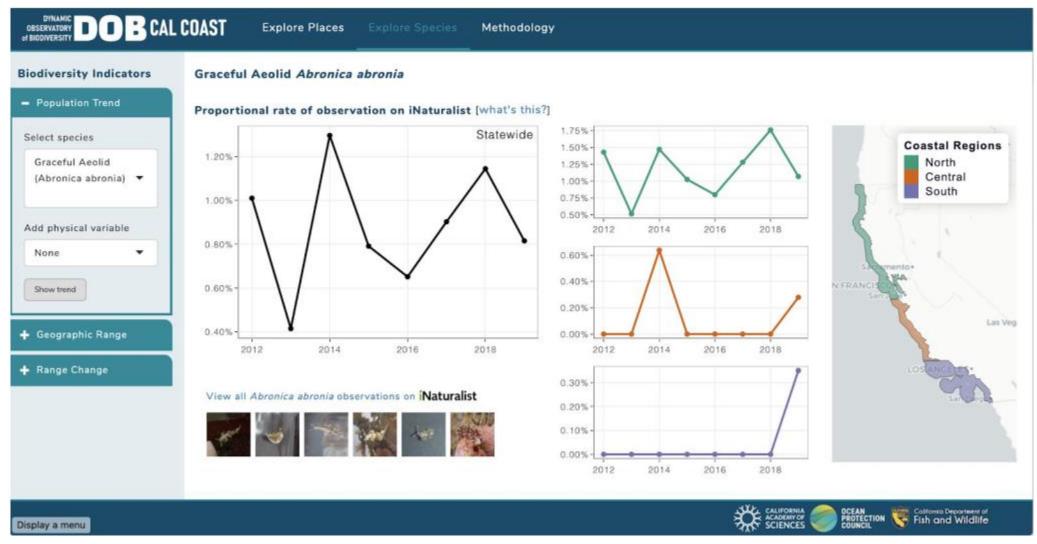


Conceptual model of ecological system stability and resilience.

### **Steps:**

- 1. Construct a dynamic food-web model
- 2. Apply model metrics at the regional scale
- 3. Apply model metrics at the watershed scale
- 4. Develop web-based tool

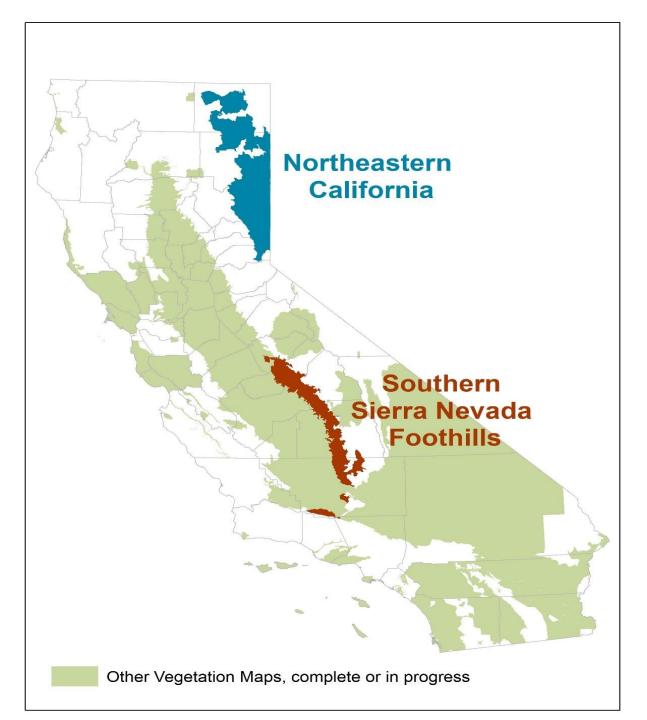
### 29. Wildlife Resilience Metrics for Sierra Nevada Forests



#### State of California Wildlife Conservation Board

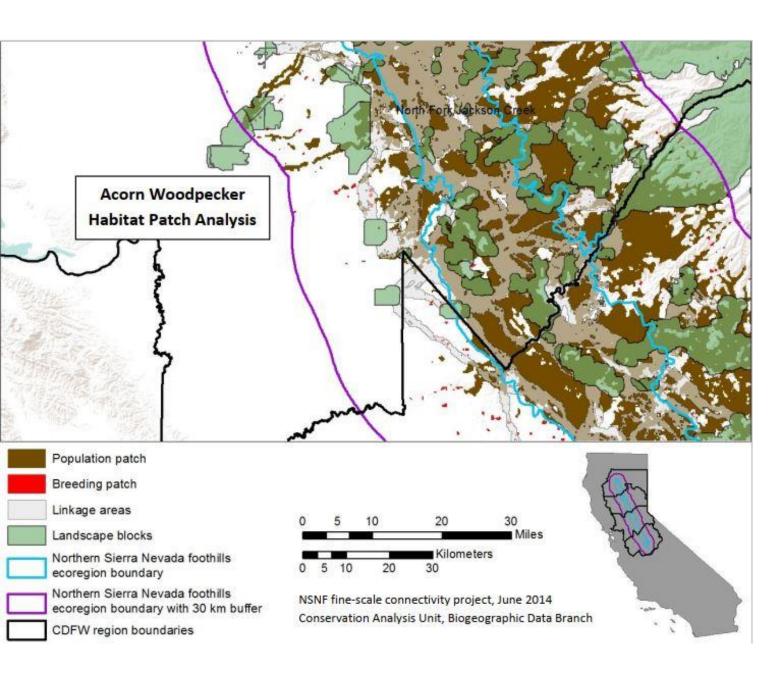
#### CDFW Vegetation Mapping, Sierra Nevada and Northeast Various Counties





 CDFW Vegetation maps which are completed or in progress

Slide 1



Slide 2

 Example of use of fine-scale vegetation map from Northern Sierra Nevada Foothills: This figure identifies important habitat linkages for the acorn woodpecker, a focal species analyzed for the 2015 CDFW report on wildlife connectivity across the northern Sierra Nevada foothills. (Krause et al 2015).

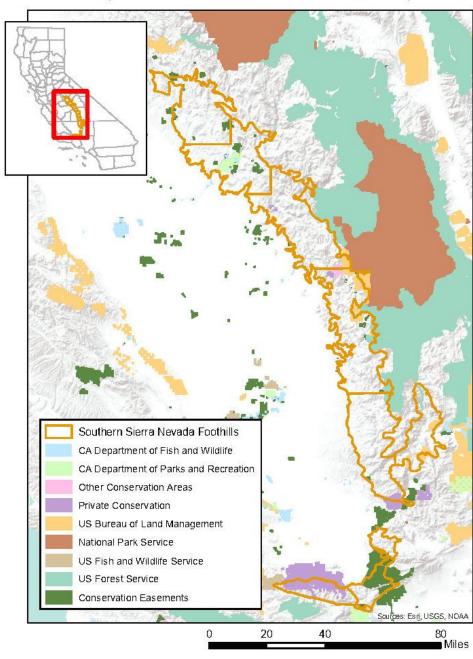
Slide 3

 Diamond Mountain, Lassen County, south of Susanville. Layered vegetation displaying the community diversity. From the foreground, Silvery Lupine, fades to a patch of Arrowleaf Groundsel followed by a thicket of Gray Alder (a Sensitive natural community in California).

Photo by Brian Kreb.

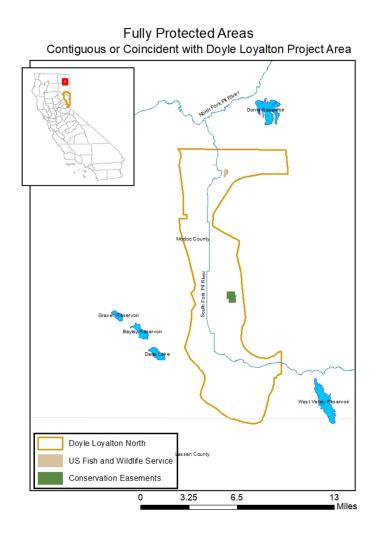


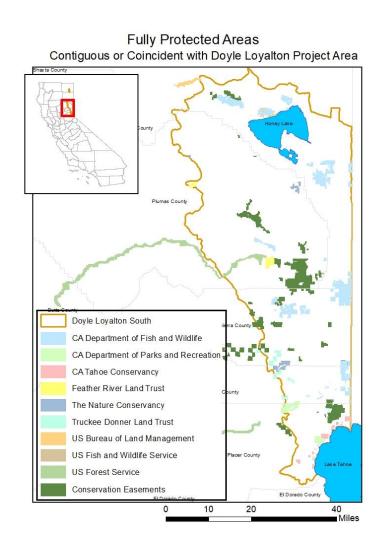
Fully Protected Areas
In Proximity to Southern Sierra Nevada Foothills Project Area



- Protected habitat areas within and in proximity to the Southern Sierra Nevada Foothills mapping area.
- (Source: California Protected Areas Database)

Slide 5





- Protected habitat areas within and in proximity to the Doyle and Loyalton-Truckee deer herd northern mapping area.
- Protected habitat areas within and in proximity to the Doyle and Loyalton-Truckee deer herd southern mapping area.



- A male Pronghorn in western Juniper (Juniperus occidentalis alliance) and big sagebrush (Artemisia tridentata alliance) habitat at the northwest edge of the Doyle-Loyalton study area.
- Photo by Todd Keeler-Wolf.

Slide 7

A lush Tufted Hairgrass meadow (Deschampsia cespitosa association), a sensitive natural community, in Red Clover Valley just north of Lake Davis in the northeastern region of the DoyleLoyalton study area.

Photos by Todd Keeler-Wolf.



## Forest Conservation Program (2020 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

(2020 solicitation) Slide 2

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



Forest Conservation Program

(2020 solicitation)

Slide 3

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

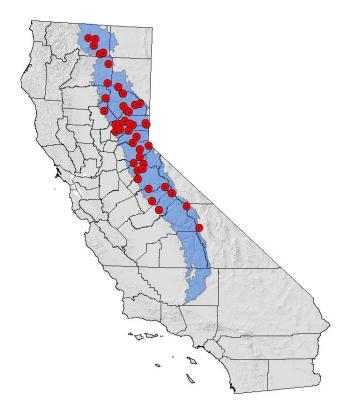


### Forest Conservation Program (2020 solicitation)

Slide 4

**Pre-Applications** 

44 proposals \$41,257,507



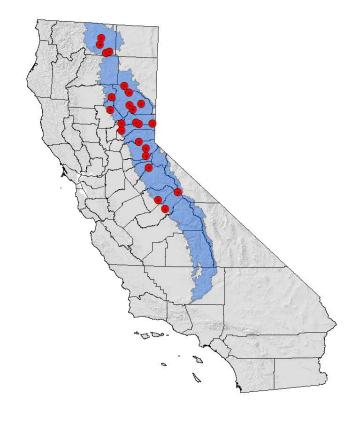
Full Applications

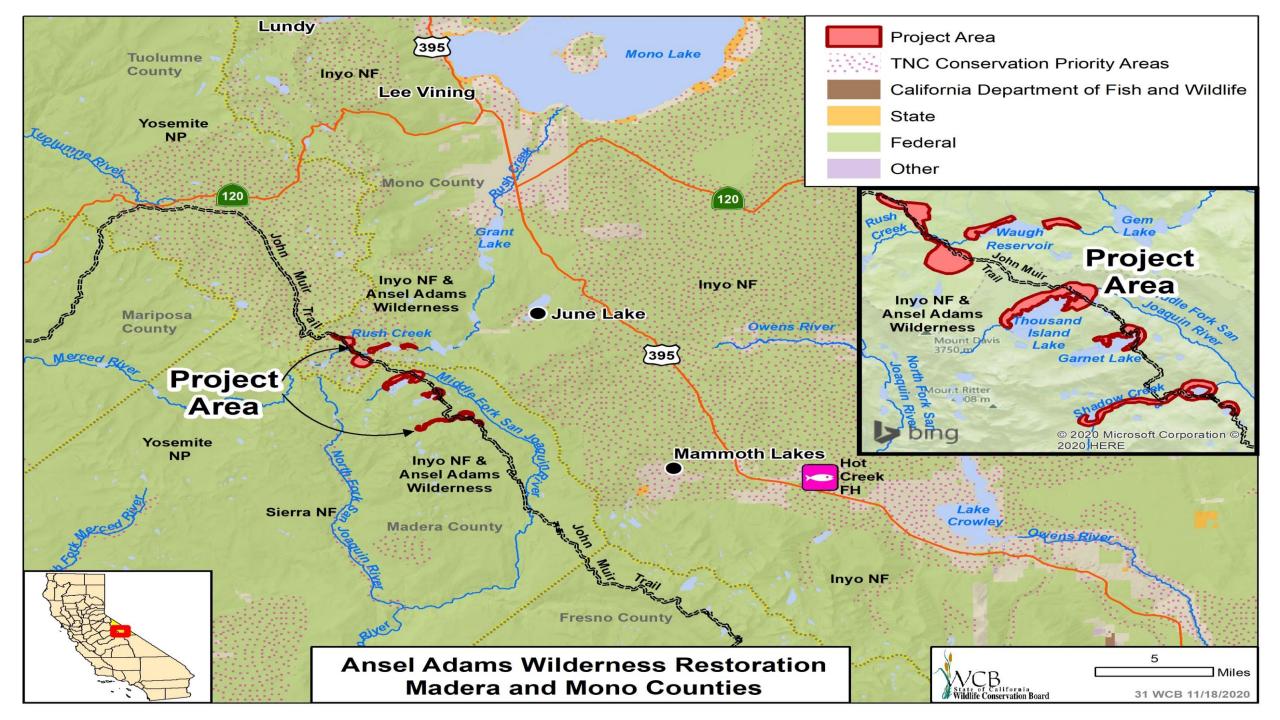
31 proposals \$32,318,802



**Selected Proposals** 

23 proposals \$25,333,526





31. Ansel Adams
Wilderness Restoration
Slide 1

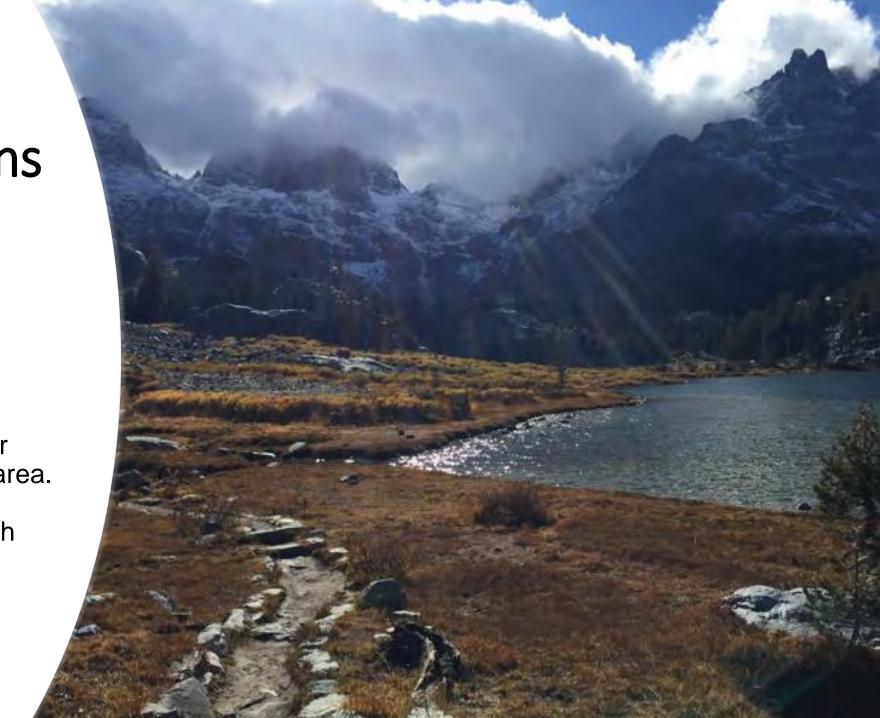
 Stream crossing where the large stepping-stone boulders were swept away. Rangers in the field put together a temporary crossing which is in need of a more durable and safe solution.



# 31. Ansel Adams Wilderness Restoration

Slide 2

 Meadow to the west side of Ediza Lake, another popular and heavily-used camping area. Campsites next to the lake banks have proliferated such that meadow function is degrading.





### 31. Ansel Adams Wilderness Restoration

Impacted by braided trails as well as illegal campsites

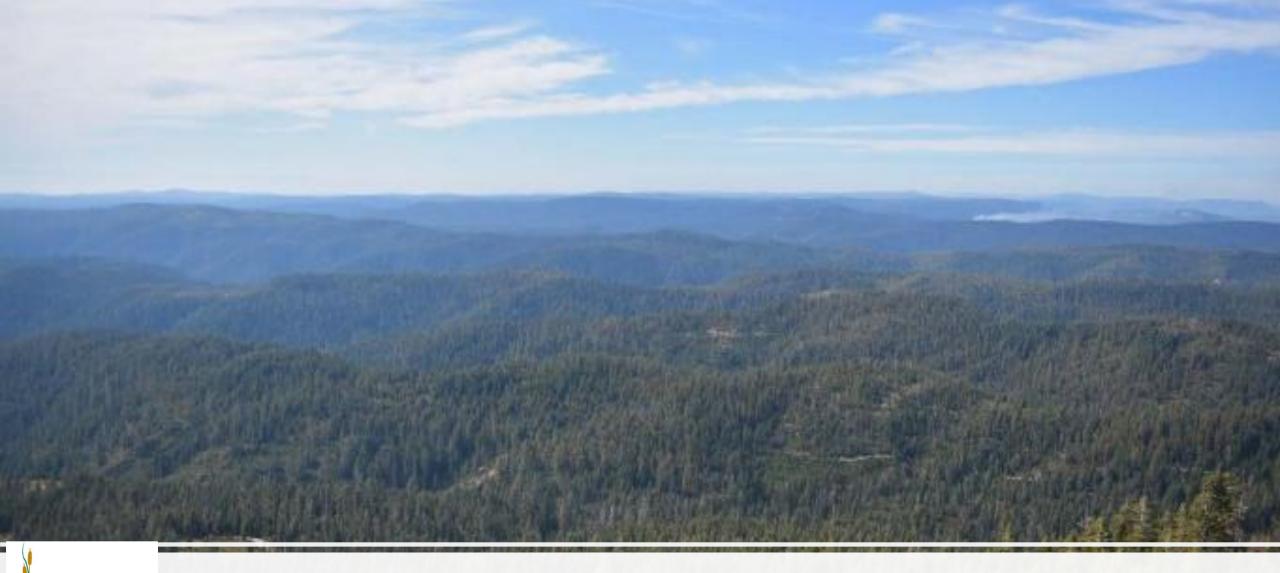


### 32. Chicago Valley

This item has been withdrawn from consideration at this time.

# 33. Ventura River Parkway

This item has been withdrawn from consideration at this time.





Meeting Adjourned. Stay Safe and Healthy, Enjoy Your Day!