OUR
WATERSHEDS
EXTEND FAR
BEYOND
OUR BORDERS
Medford
Salt Lake City
Carson City
GREAT BASIN
UTAH
Colorado
San Francisco
SAN JOAQUIN VALLEY
MOUNTAINS
Las Vegas
COLORADO
PLATEAU
MOJAVE DESERT
Los Angeles
ARIZONA
Phoenix
San Diego
Mexicali
SONORAN
DESERT
Tucson
8238
1195
3489
5068
463
SPIESS SEAMOUNT

23.1
MILLION ACRES
OF WATERSHEDS
Medford
Salt Lake City
Carson City
GREAT BASIN
UTAH
Colorado
SIERRA NEVADA MOUNTAINS
San Francisco
SAN JOAQUIN VALLEY
Las Vegas
COLORADO PLATEAU
MOJAVE DESERT
Los Angeles
ARIZONA
Phoenix
San Diego
Mexicali
SONORAN DESERT
Tucson
8238
1195
3489
241
5068
E ZONE
SPIESS SEAMO

Executive Membership

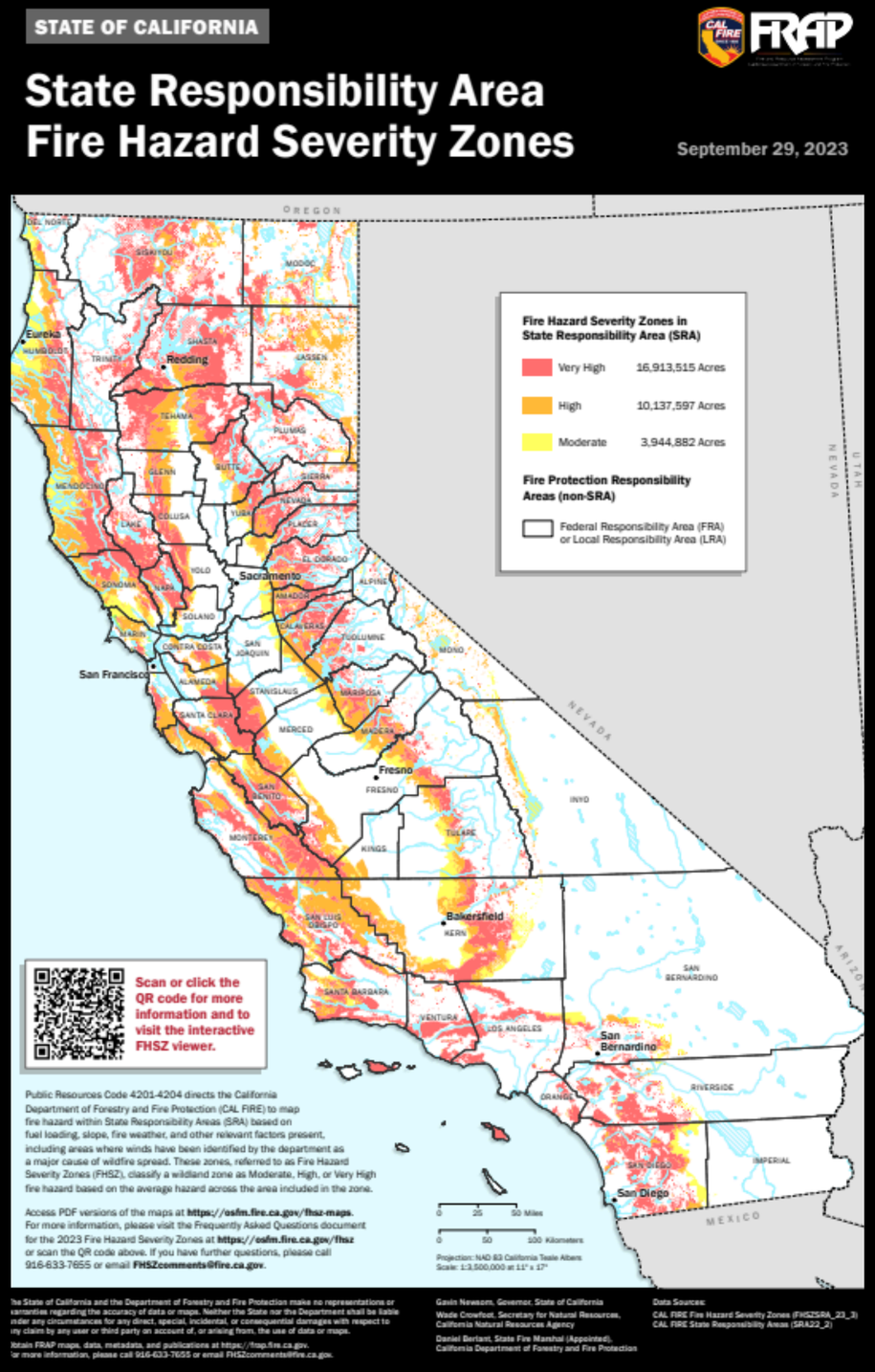
Amador Water Agency
Calaveras County Water District
County of Alpine
County of Amador
County of Calaveras
County of El Dorado
County of Nevada
County of Placer
County of Tuolumne
County of Yuba
El Dorado County Water Agency
El Dorado Irrigation District
Foresthill Public Utility District
Georgetown Divide Public Utility District
Grizzly Flats Community Services District
Jackson Valley Irrigation District
Placer County Water Agency
South Tahoe Public Utility District
Tuolumne Utilities District
Twain Harte Community Services District
Union Public Utility District
Utica Water and Power Authority
Yuba Water Agency

40%
OF THE STATES AVAILABLE WATER ORIGINATES IN THE SIERRA NEVADA REGION
California's Watershed Source Water
Medford
Salt Lake City
Carson City
GREAT BASIN
UTAH
Colorado
San Francisco
SIERRA NEVADA MOUNTAINS
SAN JOAQUIN VALLEY
Las Vegas
COLORADO PLATEAU
MOJAVE DESERT
Los Angeles
ARIZONA
Phoenix
San Diego
Mexicali
SONORAN DESERT
Tucson
8238
1195
3489
2410
5088
463
SPIESS SEAMO

The critical relationship between communities, watersheds & wildfire cannot be overstated

Over **2 MILLION** (approx. 1 in 4) California households are located within **high** or **very high** fire hazard severity zones.

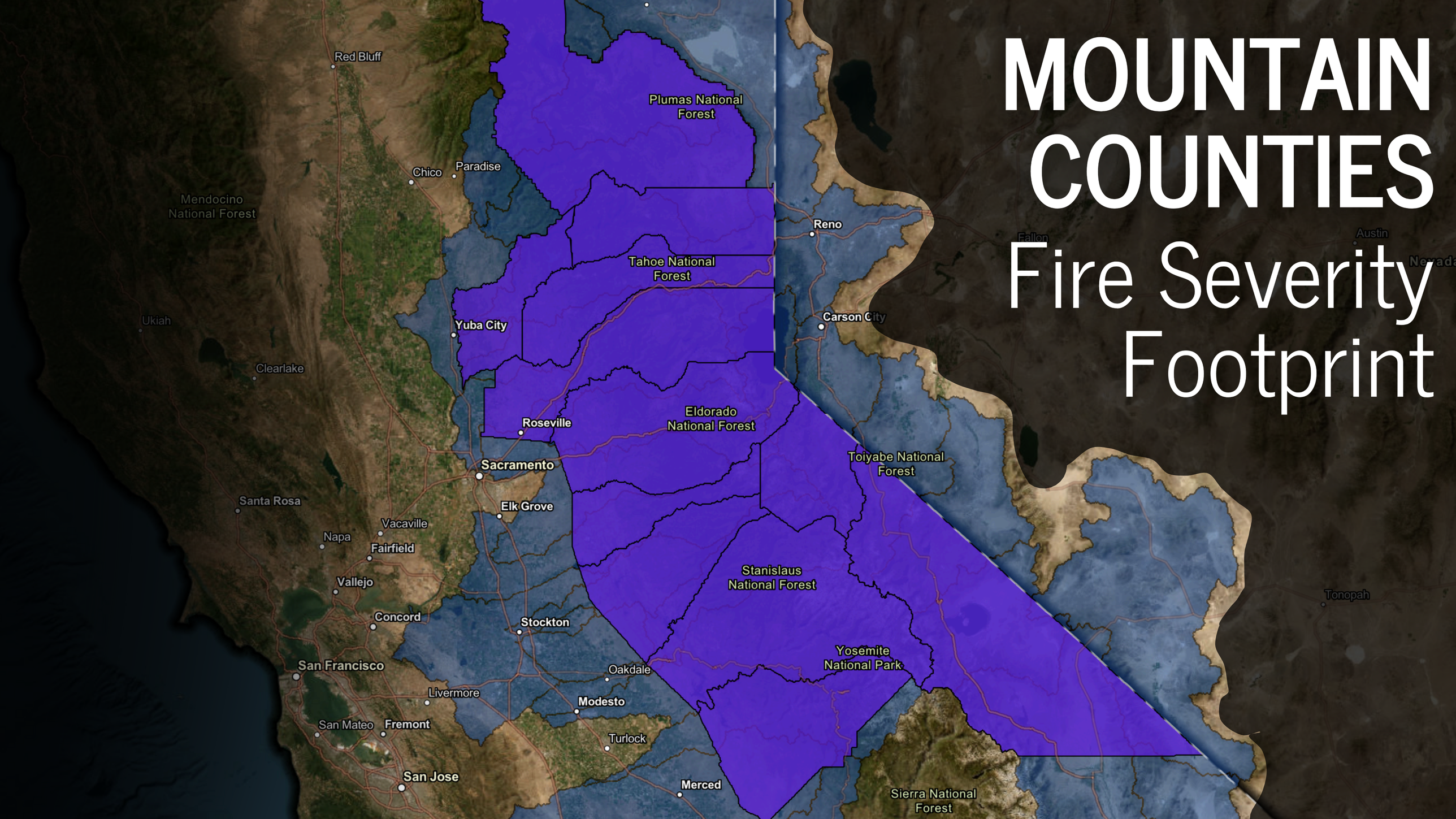
California Fire Severity Zones

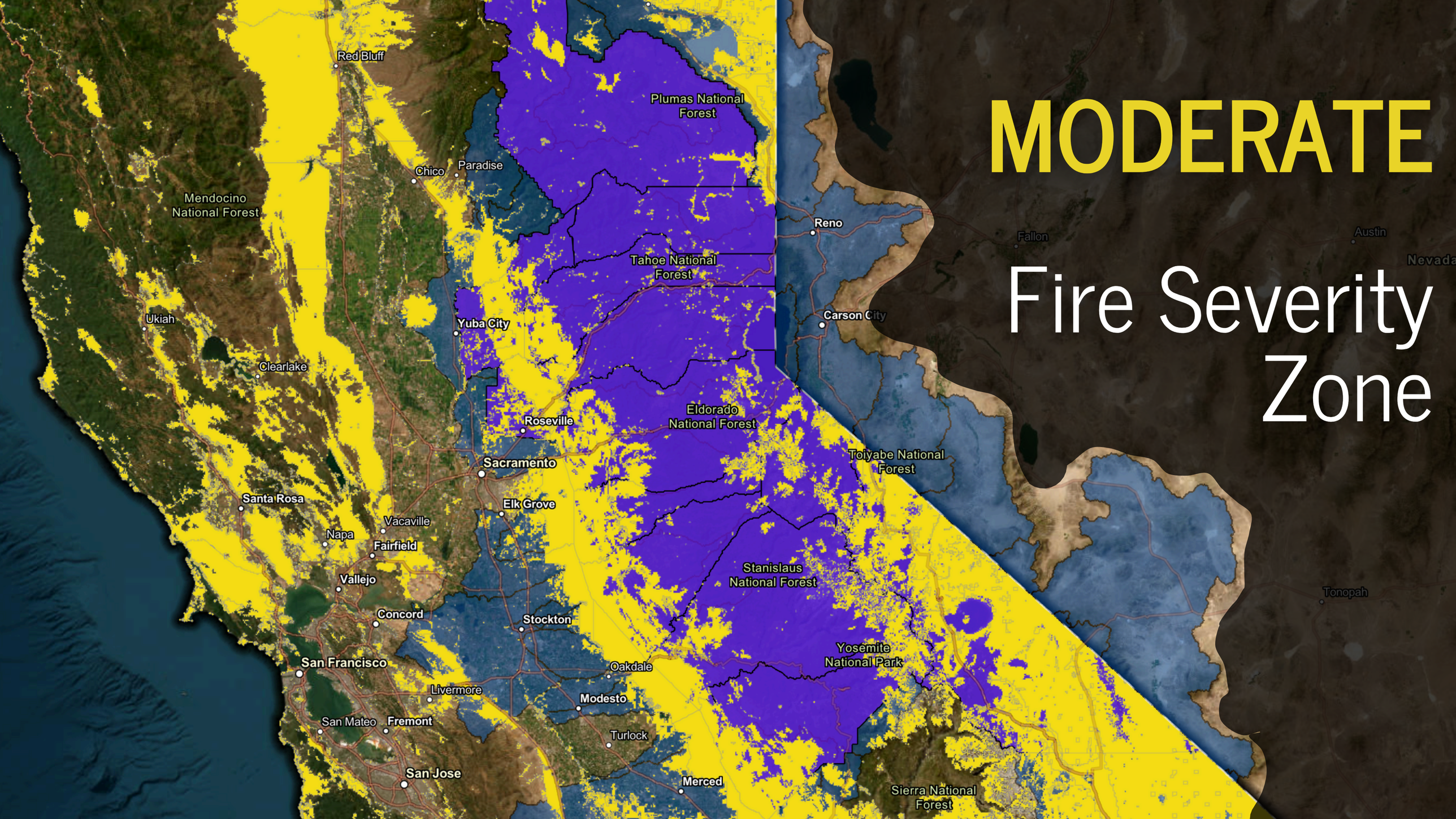


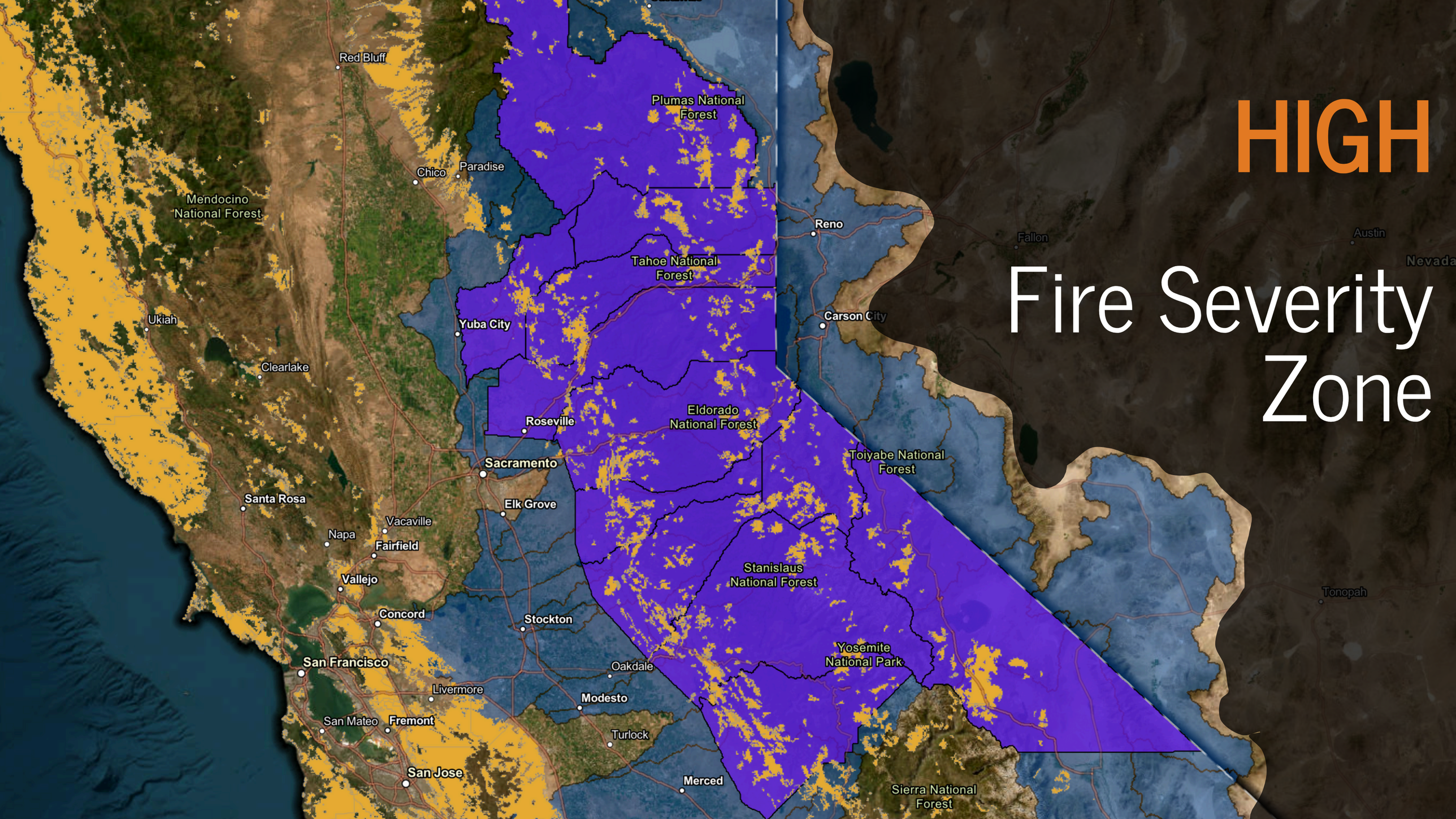
Very High 16,913,515 Acres

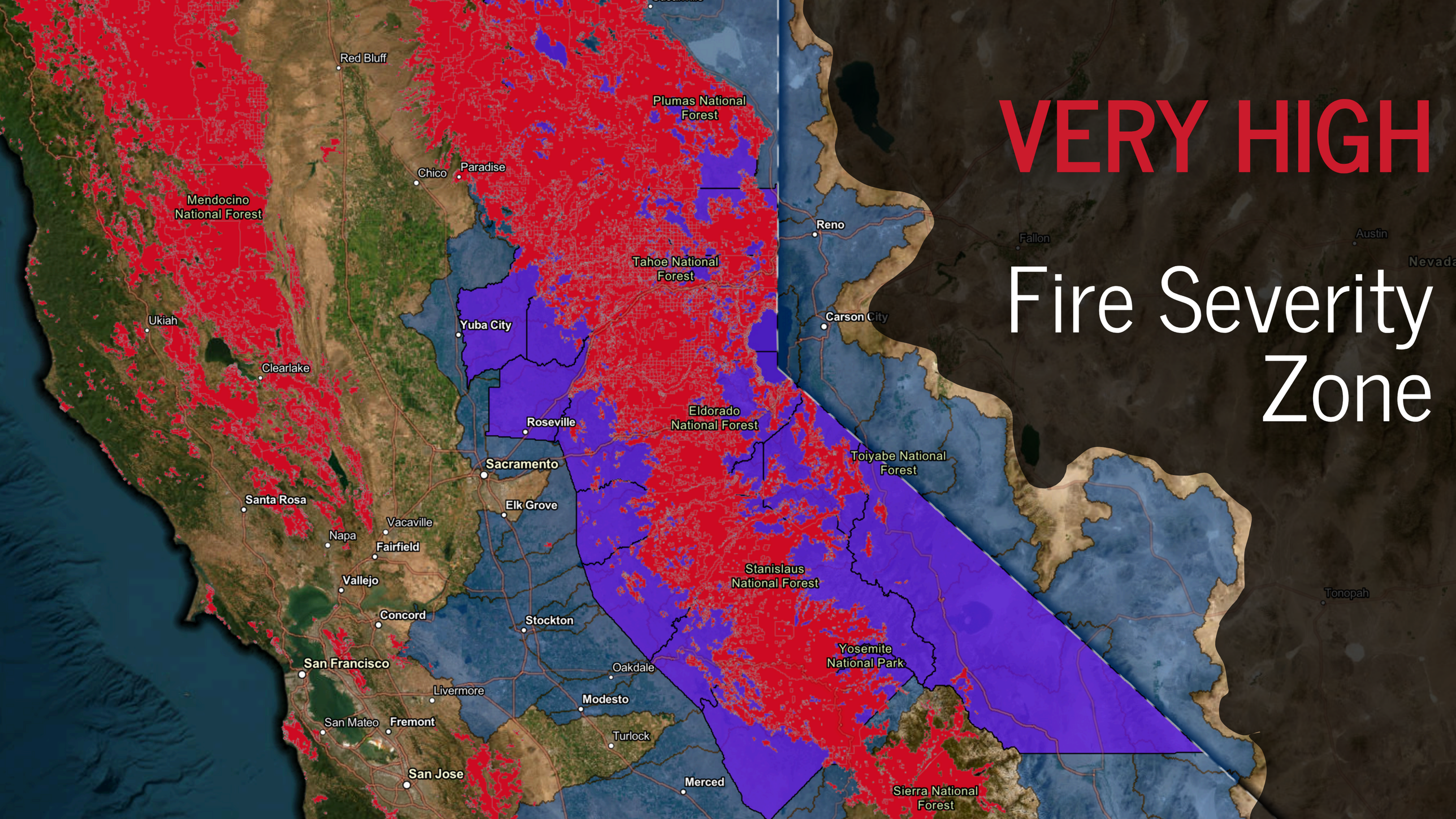
High 10,137,597 Acres

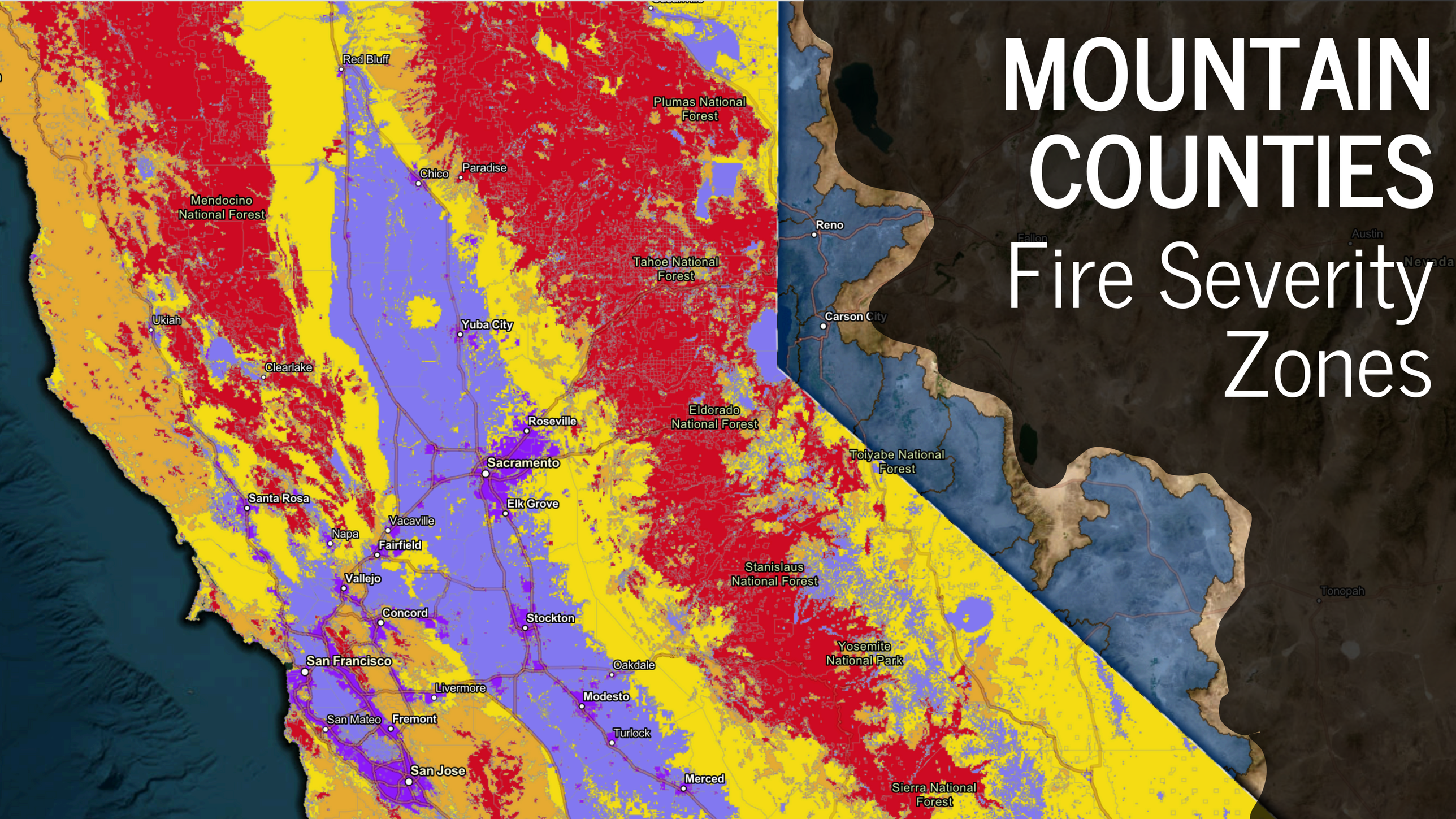
Moderate 3,944,882 Acres


MOUNTAIN COUNTIES
Fire Severity Footprint
Red Bluff
Plumas National Forest
Chico
Paradise
Mendocino National Forest
Reno
Fallon
Austin
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Roseville
Eldorado National Forest
Sacramento
Toiyabe National Forest
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest


MODERATE
Fire Severity Zone
Red Bluff
Plumas National Forest
Chico
Paradise
Mendocino National Forest
Reno
Fallon
Austin
Nevada
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Eldorado National Forest
Roseville
Sacramento
Toiyabe National Forest
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest


HIGH
Fire Severity Zone
Red Bluff
Plumas National Forest
Chico
Paradise
Mendocino National Forest
Reno
Fallon
Austin
Nevada
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Roseville
Eldorado National Forest
Sacramento
Toiyabe National Forest
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest


VERY HIGH
Fire Severity Zone
Red Bluff
Plumas National Forest
Chico
Paradise
Mendocino National Forest
Reno
Fallon
Austin
Nevada
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Roseville
Eldorado National Forest
Toiyabe National Forest
Sacramento
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest


MOUNTAIN COUNTIES
Fire Severity Zones
Red Bluff
Plumas National Forest
Chico
Paradise
Mendocino National Forest
Reno
Fallon
Austin
Nevada
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Roseville
Eldorado National Forest
Sacramento
Toiyabe National Forest
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest

Wildland Urban Interface

Wildland Urban Interface

WUI Challenges:

Fire Risk Management

- Vulnerable water infrastructure
- Ensuring water access for firefighting

Water Quality

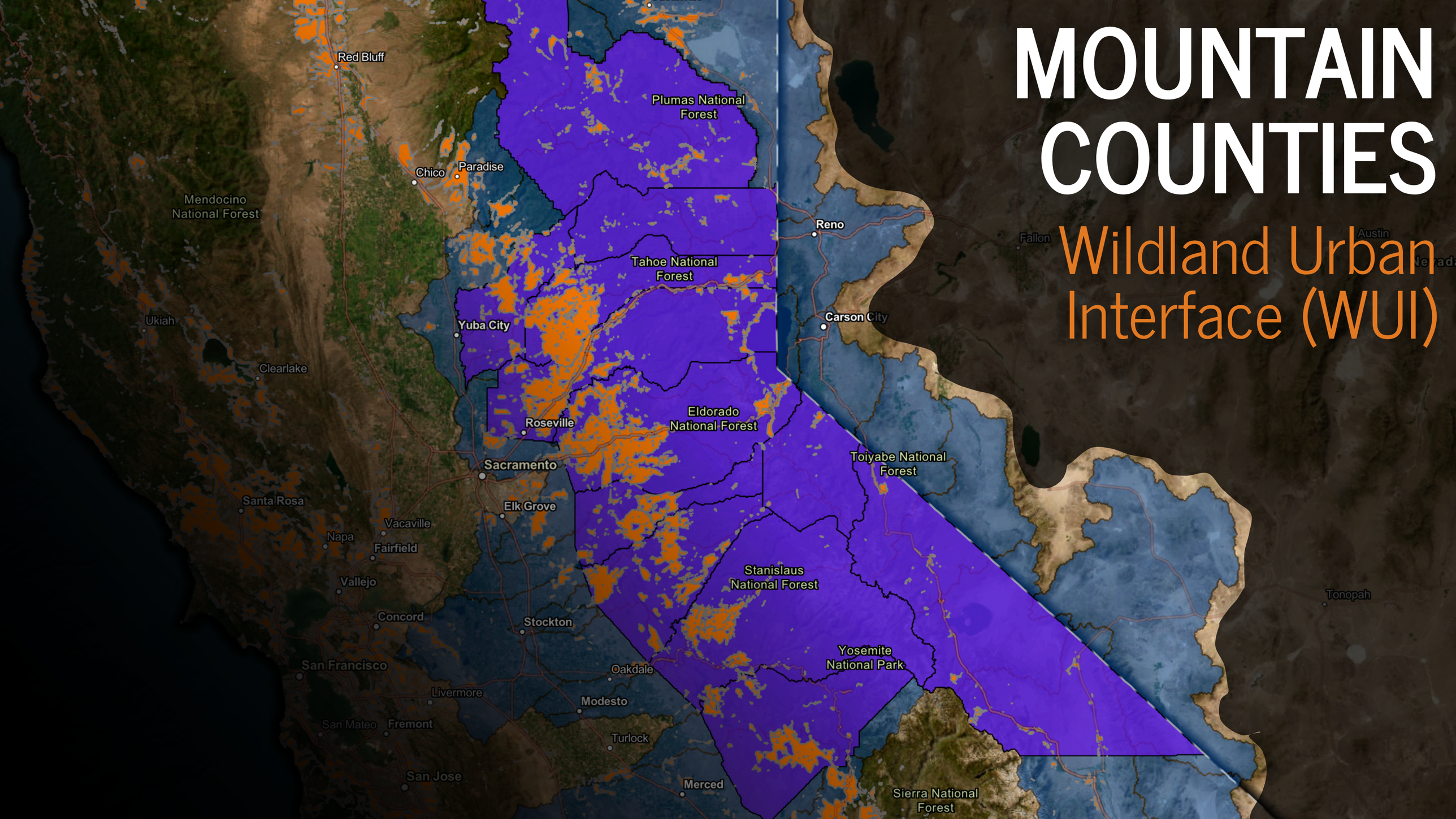
- Contamination from ash, debris, fire retardants
- Treatment challenges

Supply Reliability

- Infrastructure resilience
- Backup systems for power and supply

Emergency Response

- Coordination with fire services
- Community planning

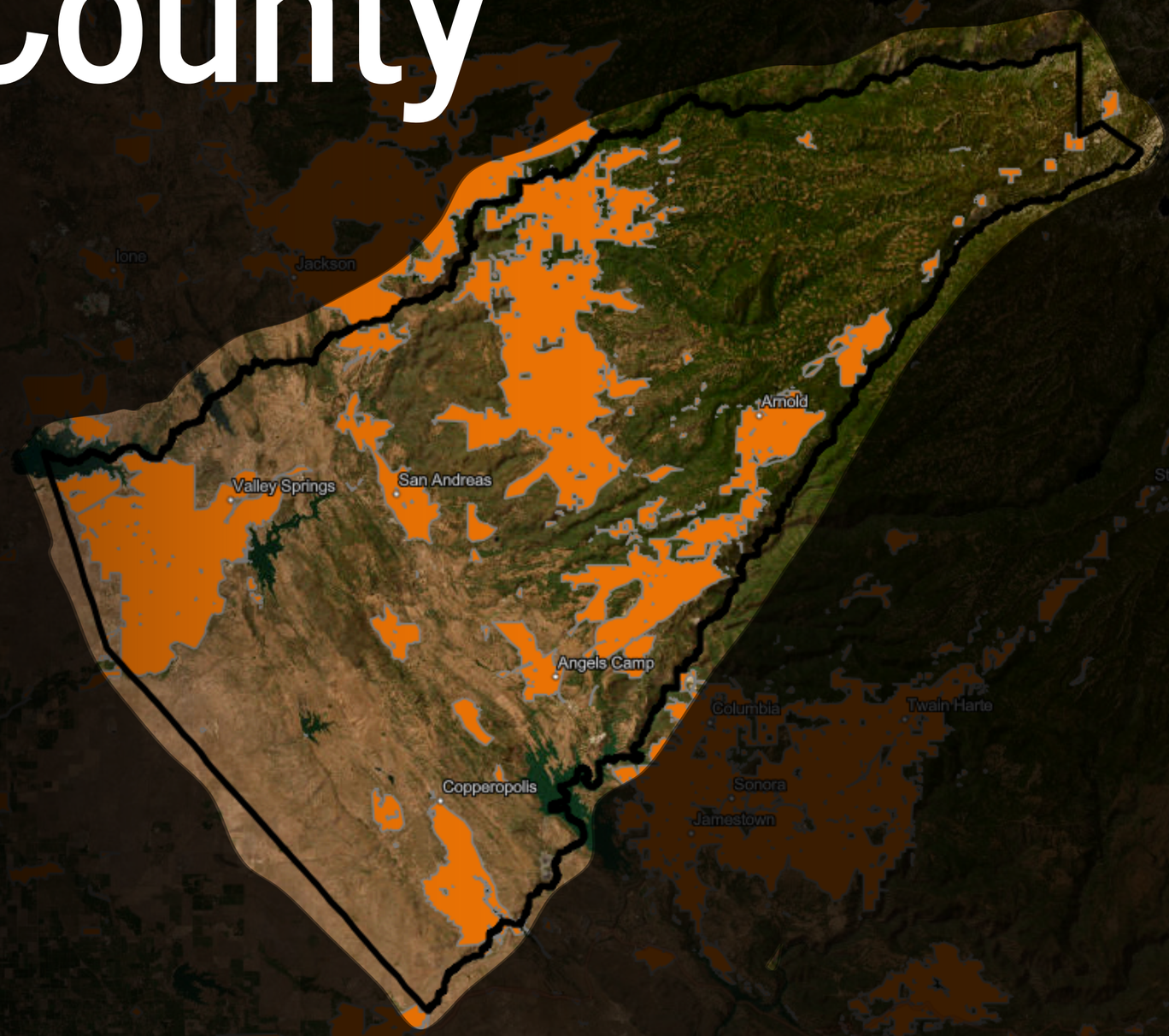

MOUNTAIN COUNTIES
Wildland Urban Interface (WUI)
Red Bluff
Chico
Paradise
Plumas National Forest
Mendocino National Forest
Reno
Fallon
Austin
Tahoe National Forest
Ukiah
Yuba City
Carson City
Clearlake
Roseville
Eldorado National Forest
Toiyabe National Forest
Sacramento
Santa Rosa
Elk Grove
Vacaville
Napa
Fairfield
Stanislaus National Forest
Vallejo
Tonopah
Concord
Stockton
Yosemite National Park
San Francisco
Oakdale
Livermore
Modesto
San Mateo
Fremont
Turlock
San Jose
Merced
Sierra National Forest

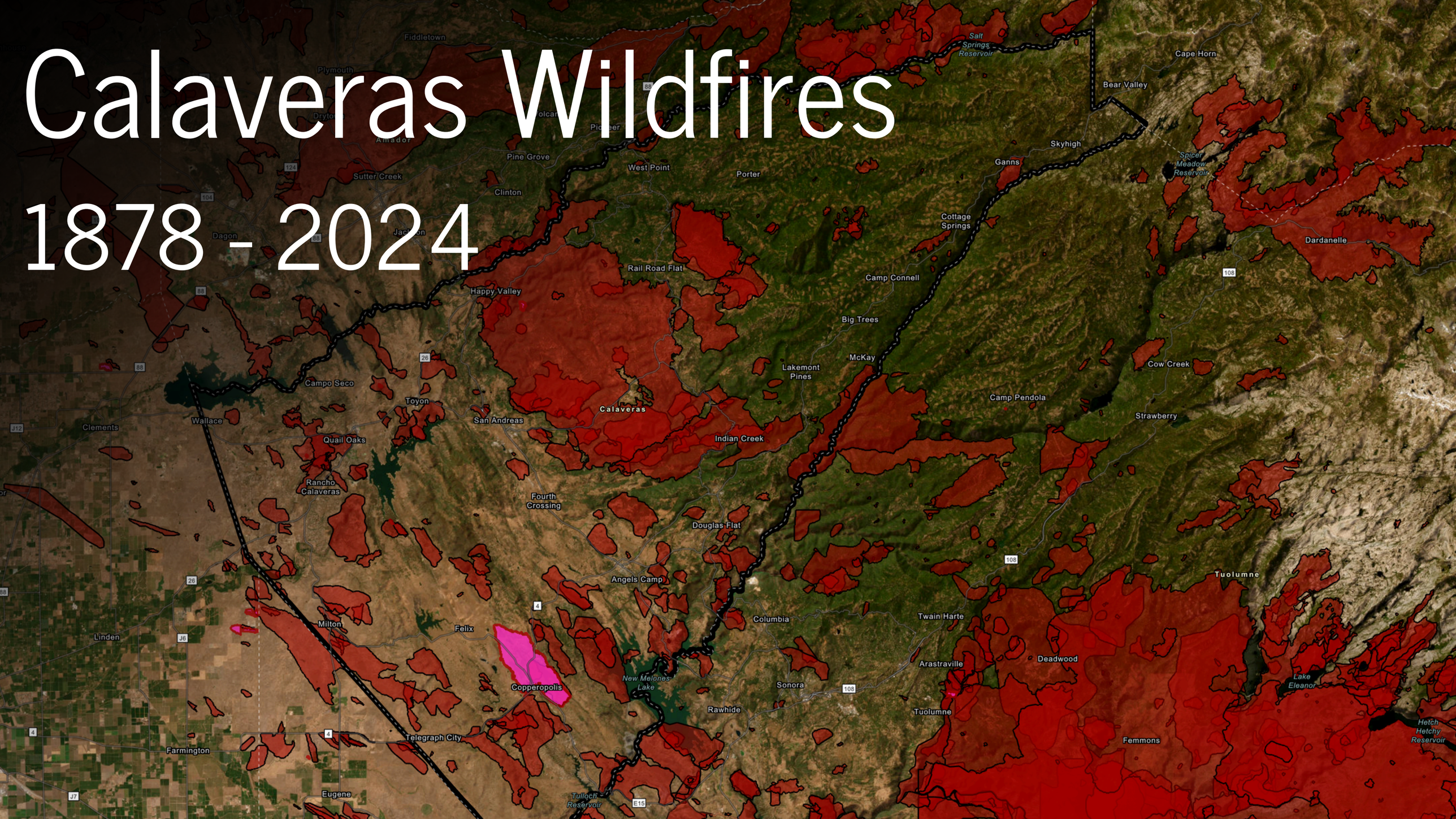
Calaveras County

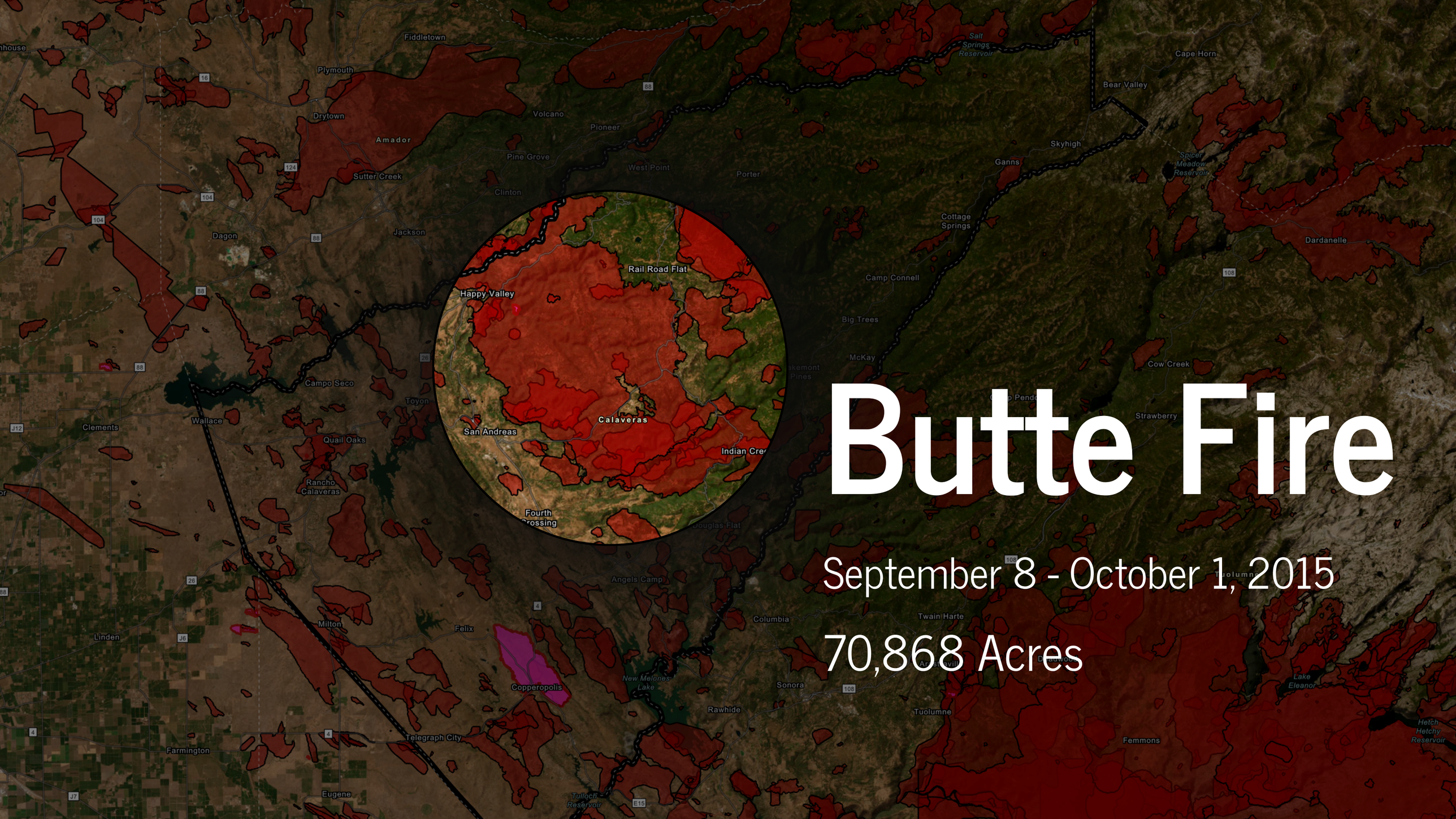
Wildland

Urban

Interface




Calaveras Wildfires
1878 - 2024
Fiddletown
Plymouth
Salt Springs Reservoir
Cape Horn
Bear Valley
Pine Grove
West Point
Porter
Skyhigh
Ganns
Spicer Meadow Reservoir
Sutter Creek
Clinton
Cottage Springs
Dardanelle
Rail Road Flat
Camp Connell
Happy Valley
Big Trees
McKay
Lakemont Pines
Cow Creek
Campo Seco
Toyon
Calaveras
Camp Pendola
Wallace
San Andreas
Strawberry
Clements
Quail Oaks
Indian Creek
Rancho Calaveras
Fourth Crossing
Douglas Flat
Angels Camp
Tuolumne
Milton
Felix
Columbia
Twain Harte
Linden
Arastraville
Deadwood
New Melones Lake
Copperopolis
Sonora
Lake Eleanor
Rawhide
Tuolumne
Hetch Hetchy Reservoir
Telegraph City
Femmons
Farmington
Eugene
Tulloch Reservoir



Butte Fire

September 8 - October 1, 2015

70,868 Acres

Darby Fire

September 5 - 16, 2001

14,280 Acres

Donnell Fire

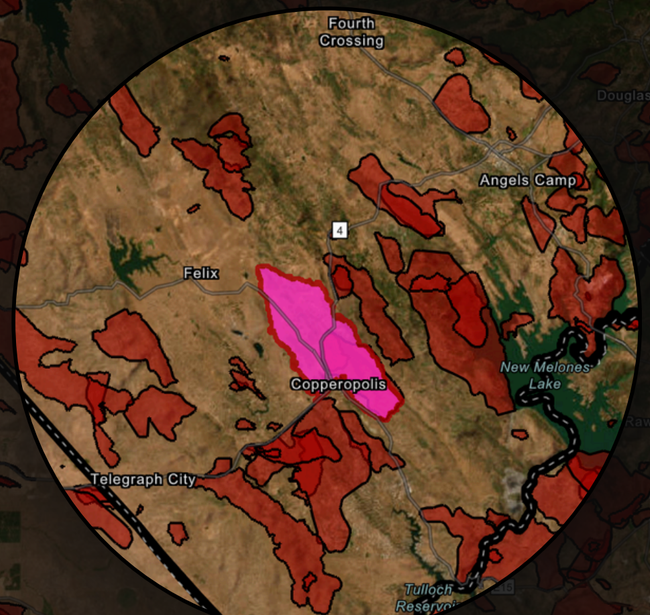
August 1 - November 28, 2018

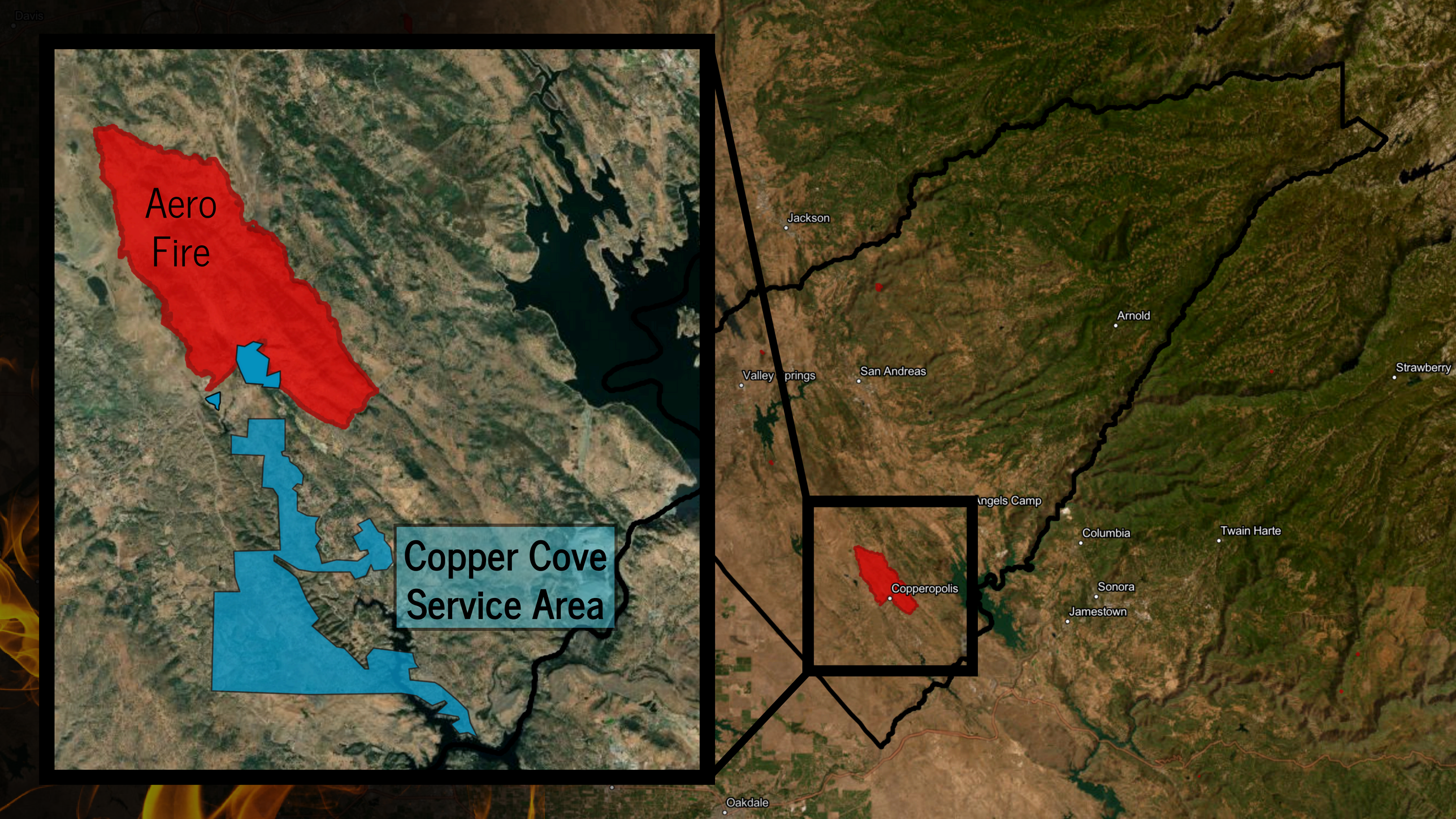
36,450 Acres

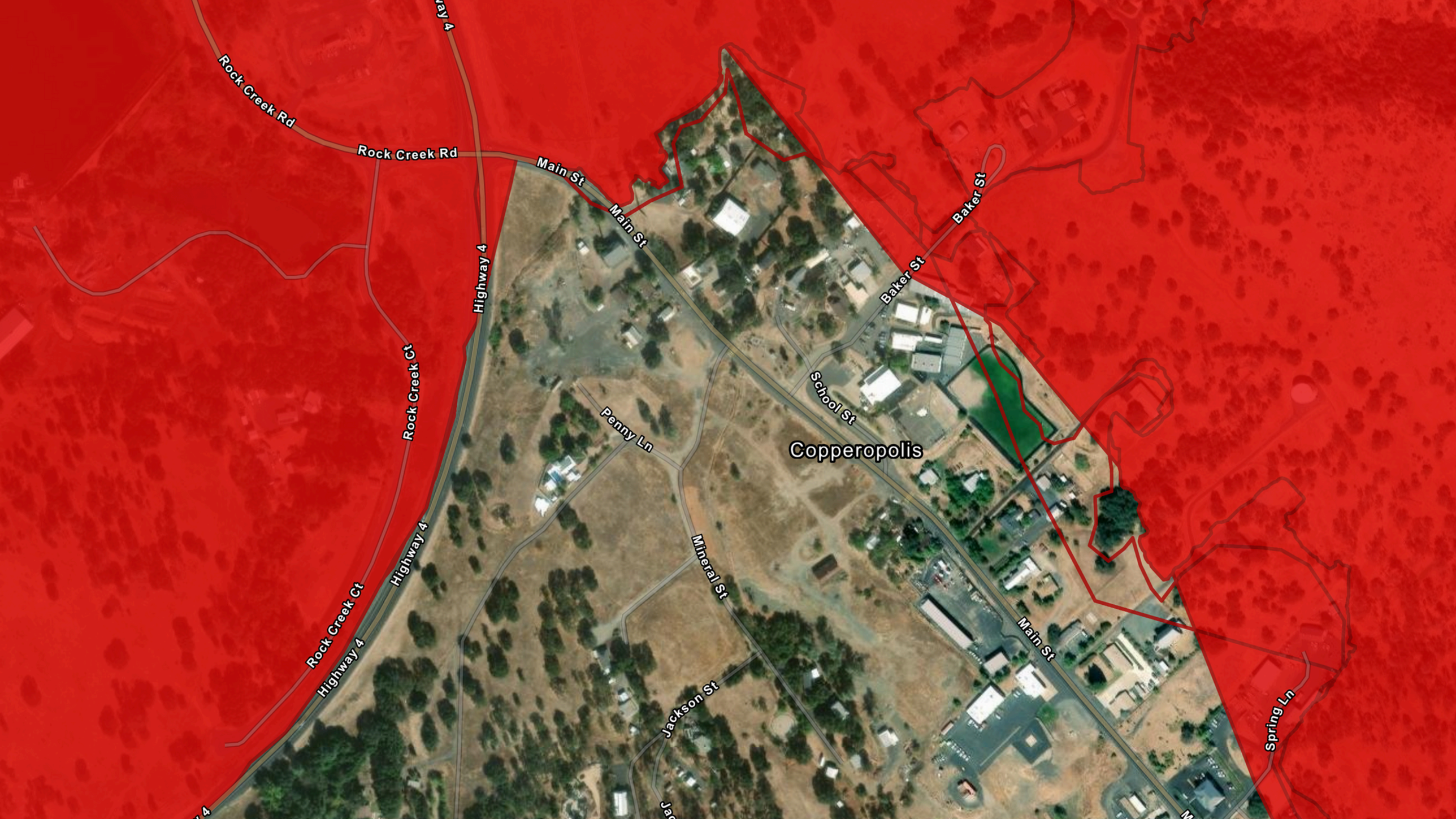
Aero Fire

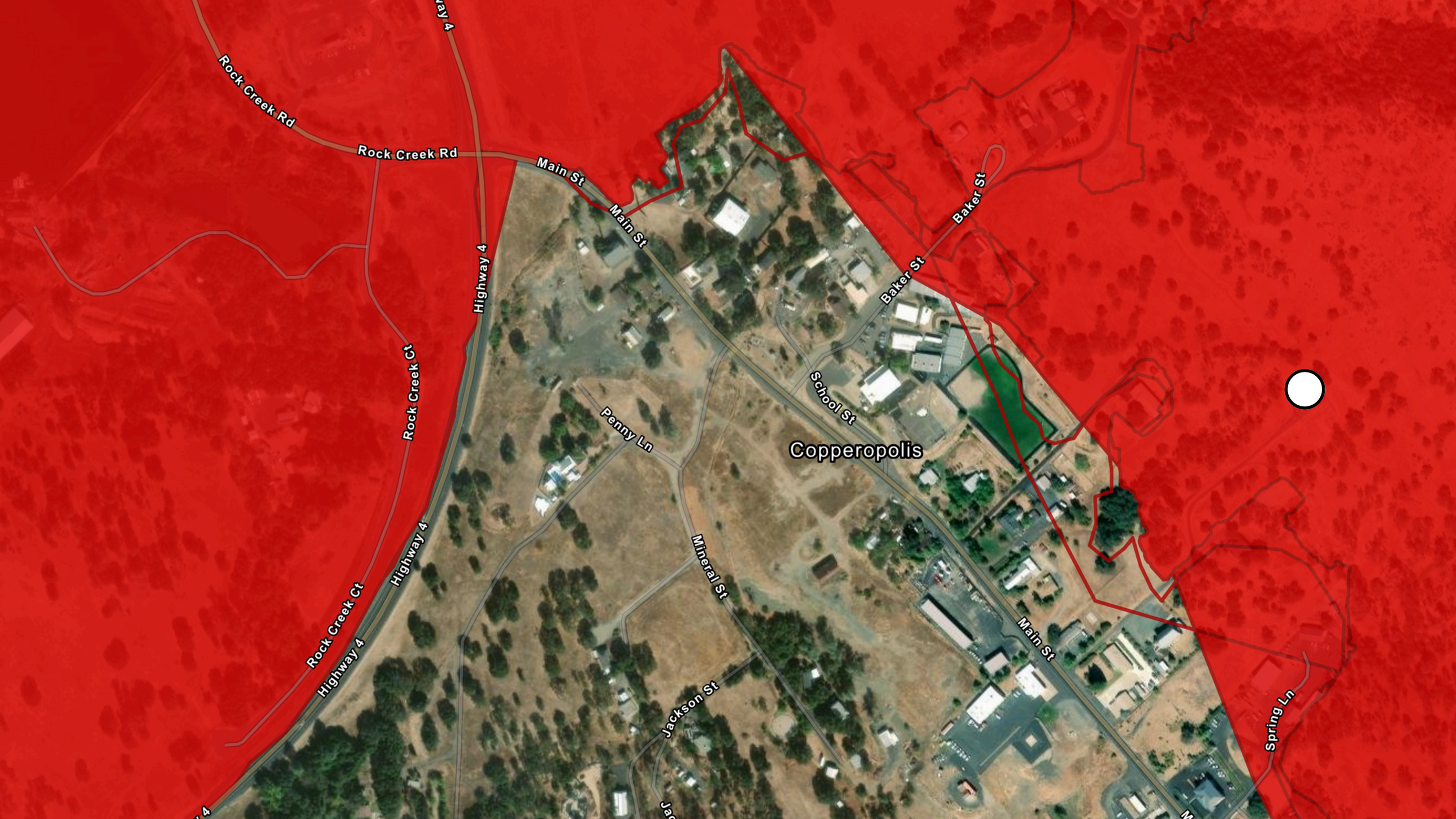
June 17 - 27, 2024

5,285 Acres




Aero
Fire
Copper Cove
Service Area
Davis
Jackson
Arnold
Valley Springs
San Andreas
Strawberry
Angels Camp
Columbia
Twain Harte
Copperopolis
Sonora
Jamestown
Oakdale


Rock Creek Rd
Rock Creek Rd
Main St
Main St
Baker St
Baker St
Highway 4
Rock Creek Ct
School St
Penny Ln
Copperopolis
Highway 4
Rock Creek Ct
Highway 4
Mineral St
Main St
Jackson St
Spring Ln


Rock Creek Rd
Rock Creek Rd
Main St
Main St
Baker St
Baker St
Highway 4
Rock Creek Ct
School St
Penny Ln
Copperopolis
Highway 4
Rock Creek Ct
Highway 4
Mineral St
Main St
Jackson St
Spring Ln

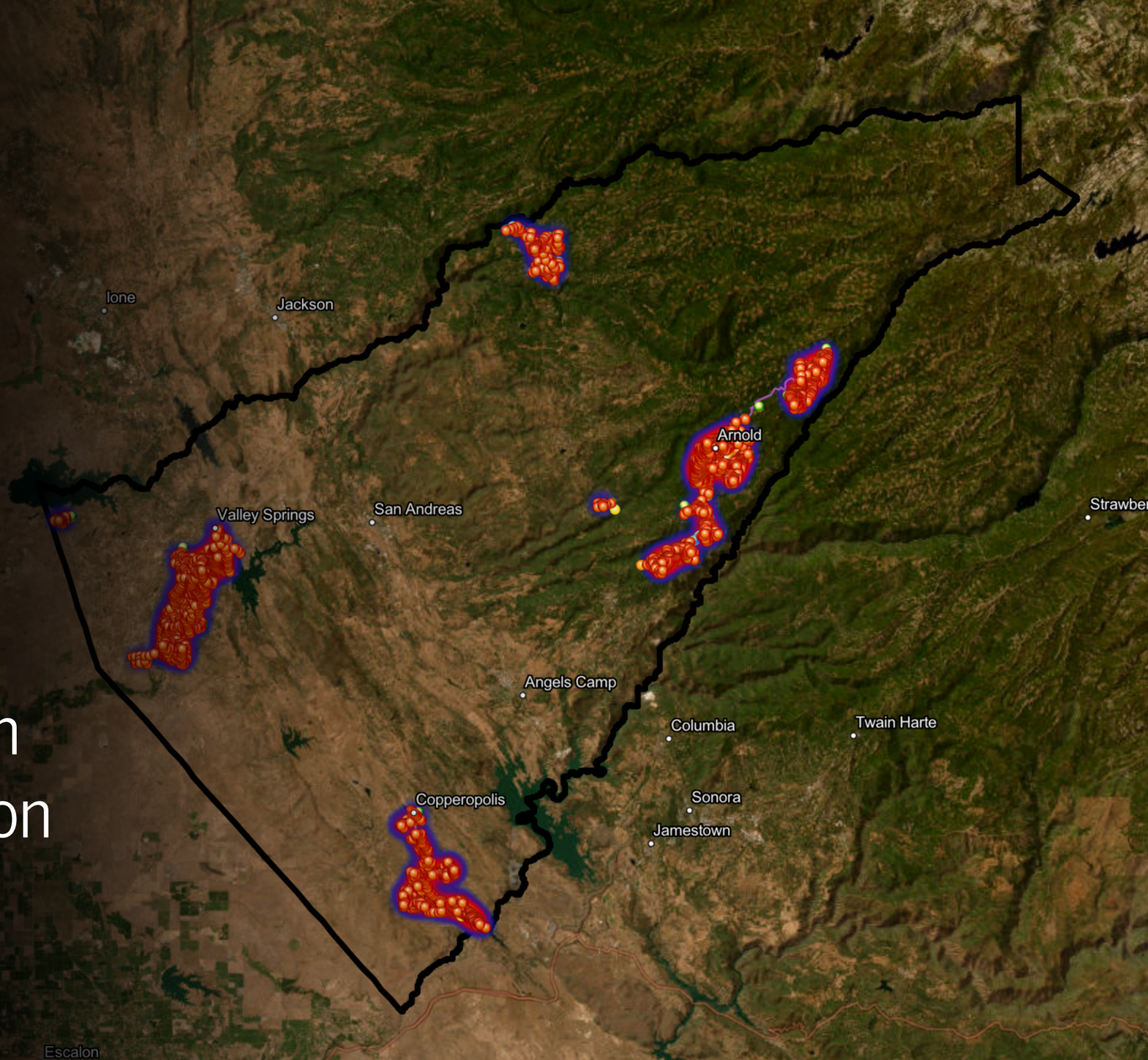
Spring Ln

SB 1088

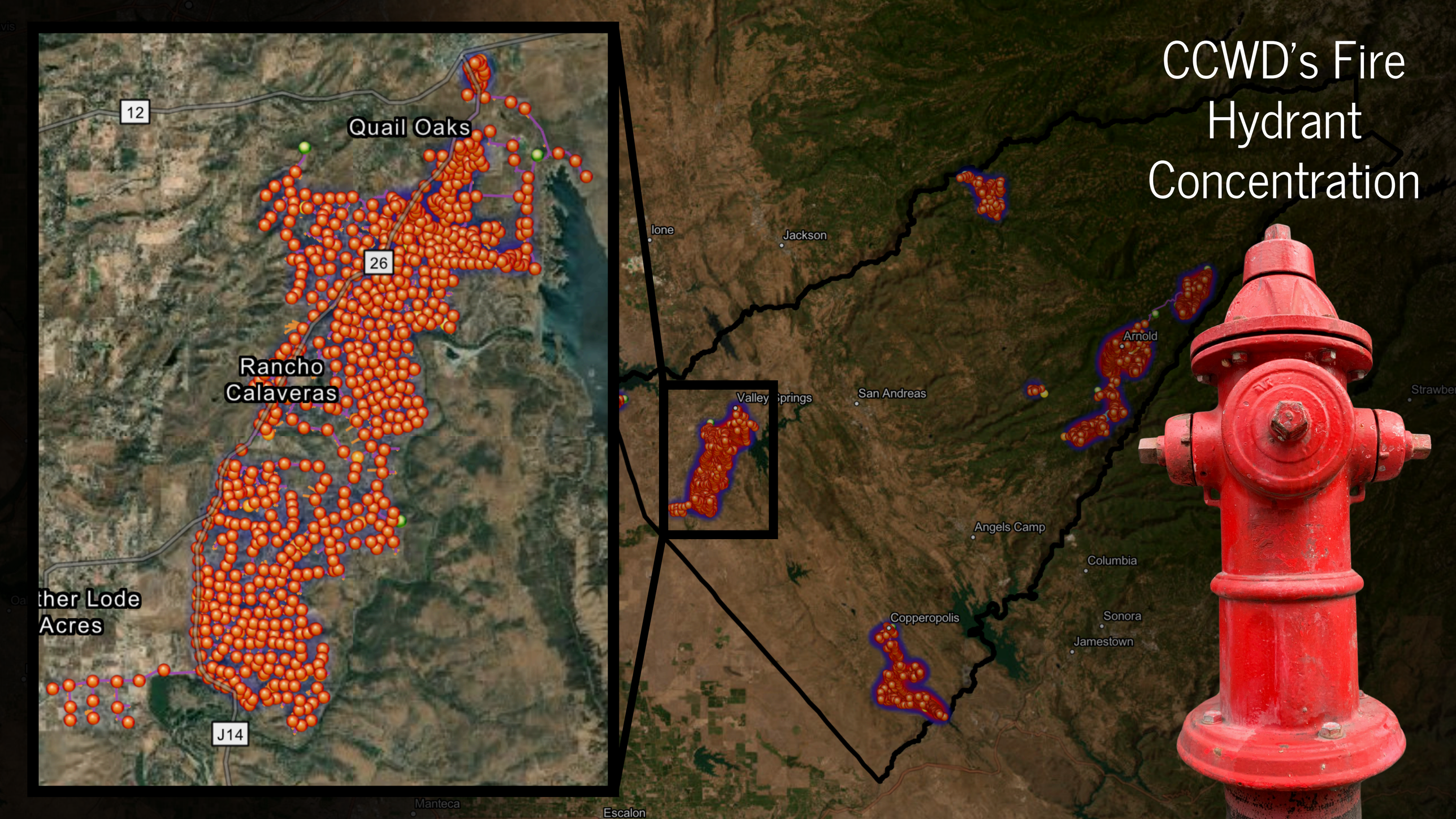
Office of Emergency Services:
State Matching Funds:
Water System Infrastructure
Improvements

SB 1088 aims to:

- Upgrade and upsize waterlines.
- Install additional fire hydrants.
- Enhance water system delivery and distribution capacity to ensure adequate fire flow.

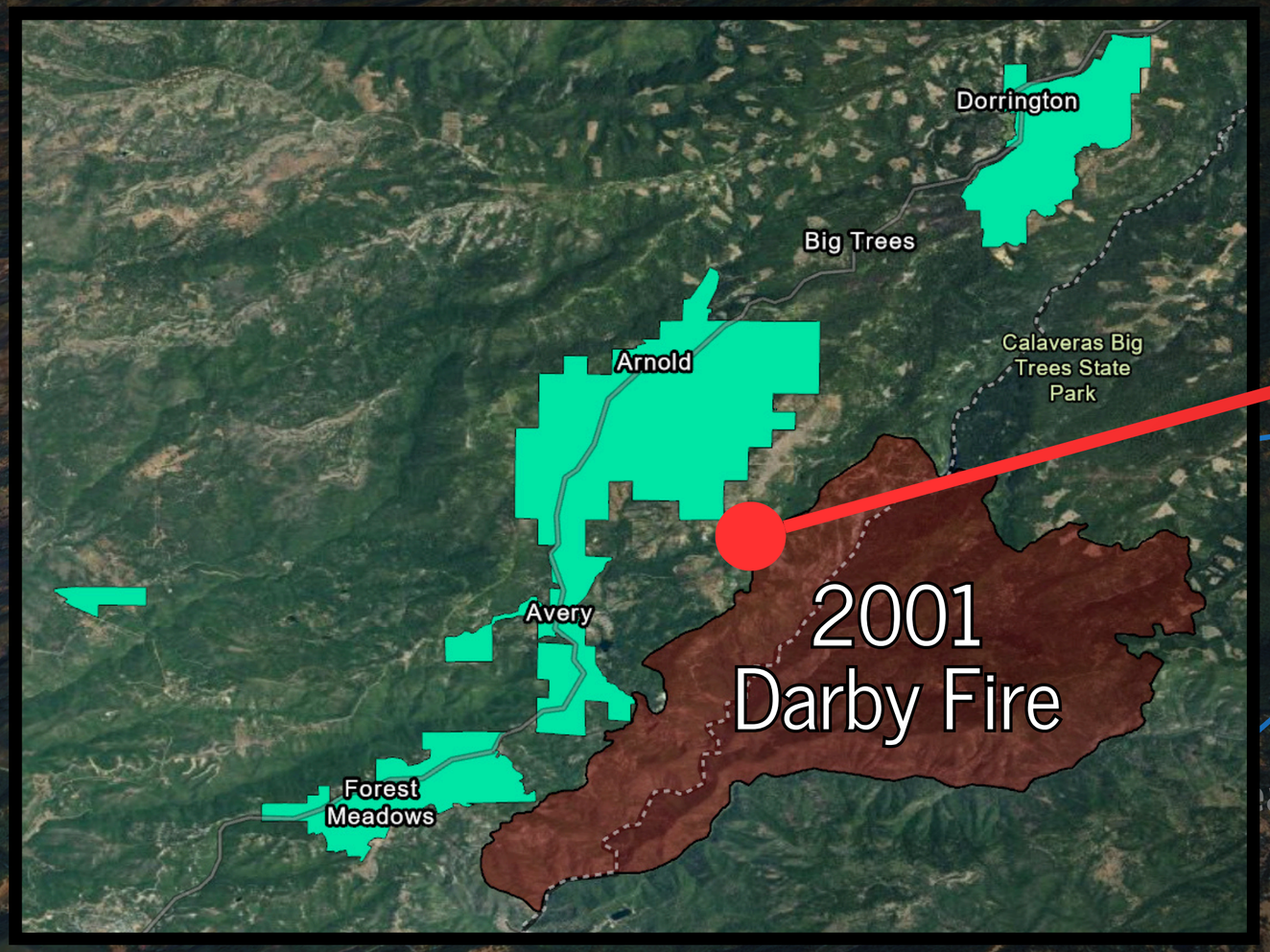


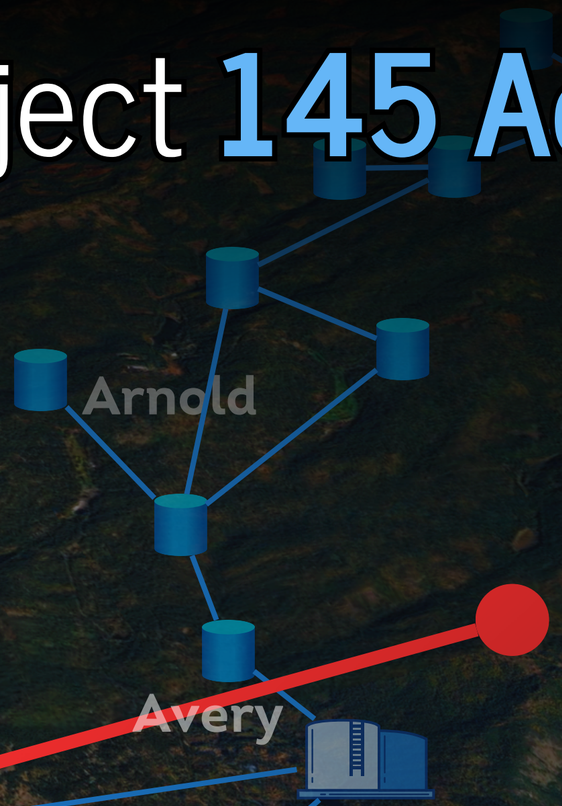
CCWD's Fire Hydrant Concentration



Watershed Health
Infrastructure Protection
&
Community Resilience

Douds Fuelbreak Project **145 Acres**





Red Apple

adows

Douds Ridge was a critical component in stopping the Darby Fire

PHOENIX ENERGY™

CALAVERAS COUNTY WATER DISTRICT

BLUE MOUNTAIN
ELECTRIC COMPANY

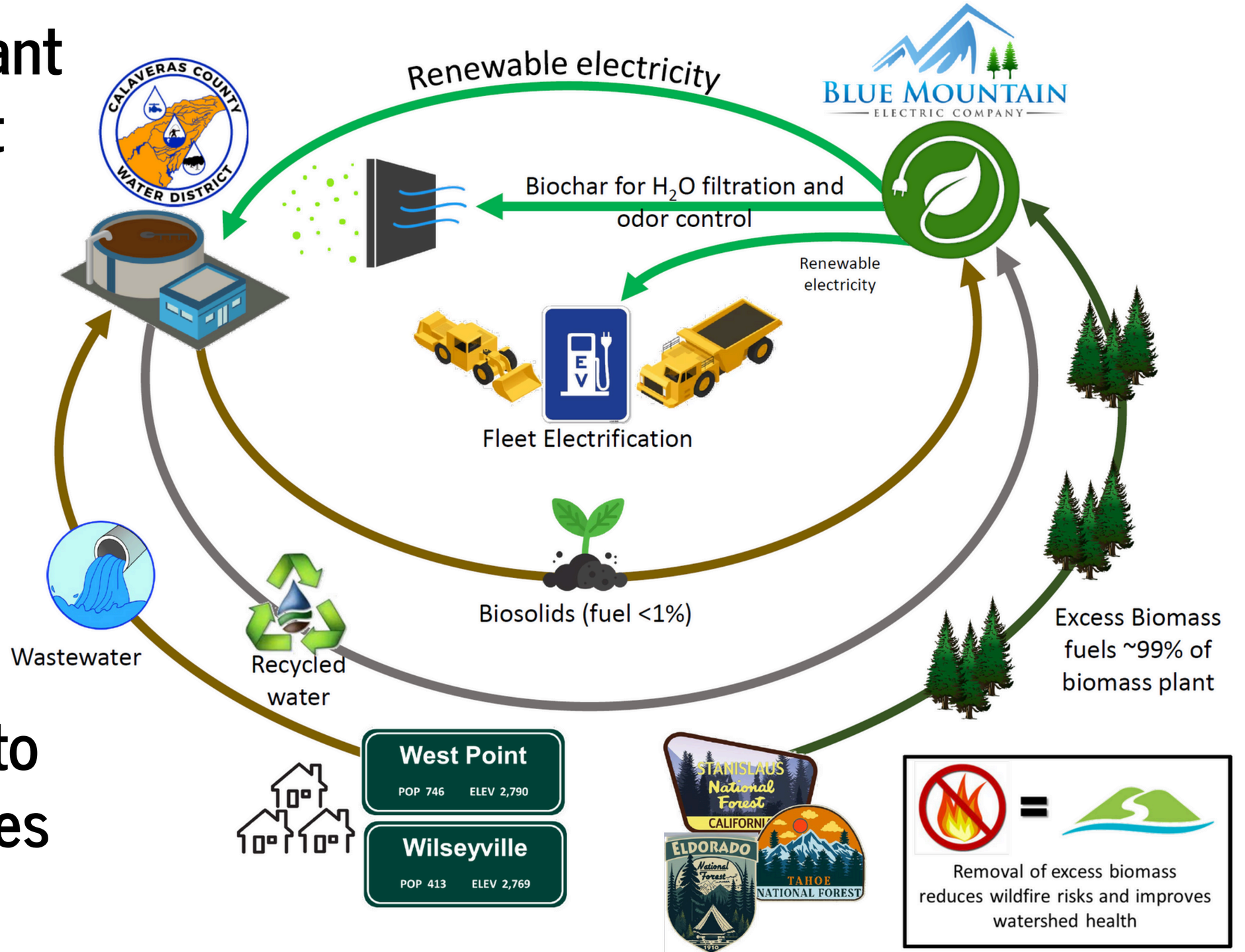
West Point Wastewater Treatment Plant

The Blue Mountain Electric Company ("BMEC") **FOREST BIOMASS** plant is a planned **3MW BioMAT** facility being developed in Wilseyville, California. Strategically located in one of the most fire threatened regions of the Central Sierra Nevada.

BMEC will be collocated near CCWD's wastewater treatment plant in West Point. The facility will be able to run nearly the entire operation with **100% reclaimed water** from the wastewater treatment plant!

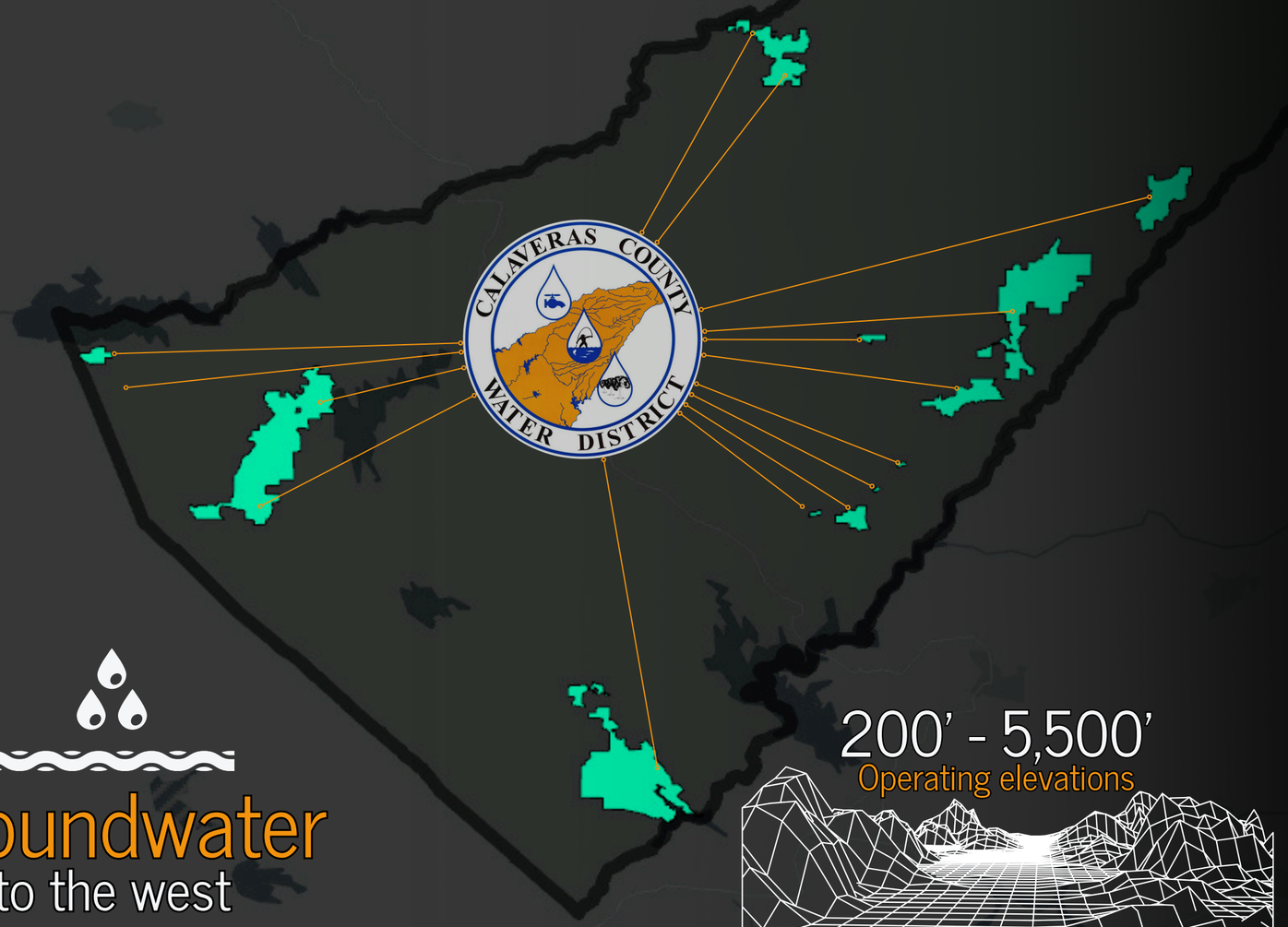
The plant will utilize advanced gasification technology to convert forest waste into clean, hydrogen-rich syngas. Annually, the plant will process around 26,000 tons of logs and chips, **reducing the risk** of catastrophic wildfire, and improve regional air quality through the reduction of open forest burning.

The biomass plant will also convert biosolids from CCWD wastewater facilities into electricity, eliminating the need to truck these biosolids to a landfill 90 miles away.



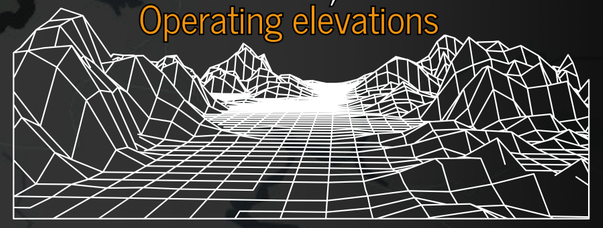
3 Watersheds

Mokelumne
Calaveras
Stanislaus



Groundwater
to the west

200’ - 5,500’
Operating elevations



INFRASTRUCTURE

6	Water Treatment Facilities
13	Wastewater Treatment Facilities
3	Reclaim Facilities
2	Hydropower Projects
9	Dams
27	Water Storage Tanks
18	Water Pump Stations
45	Sewer Lift Stations

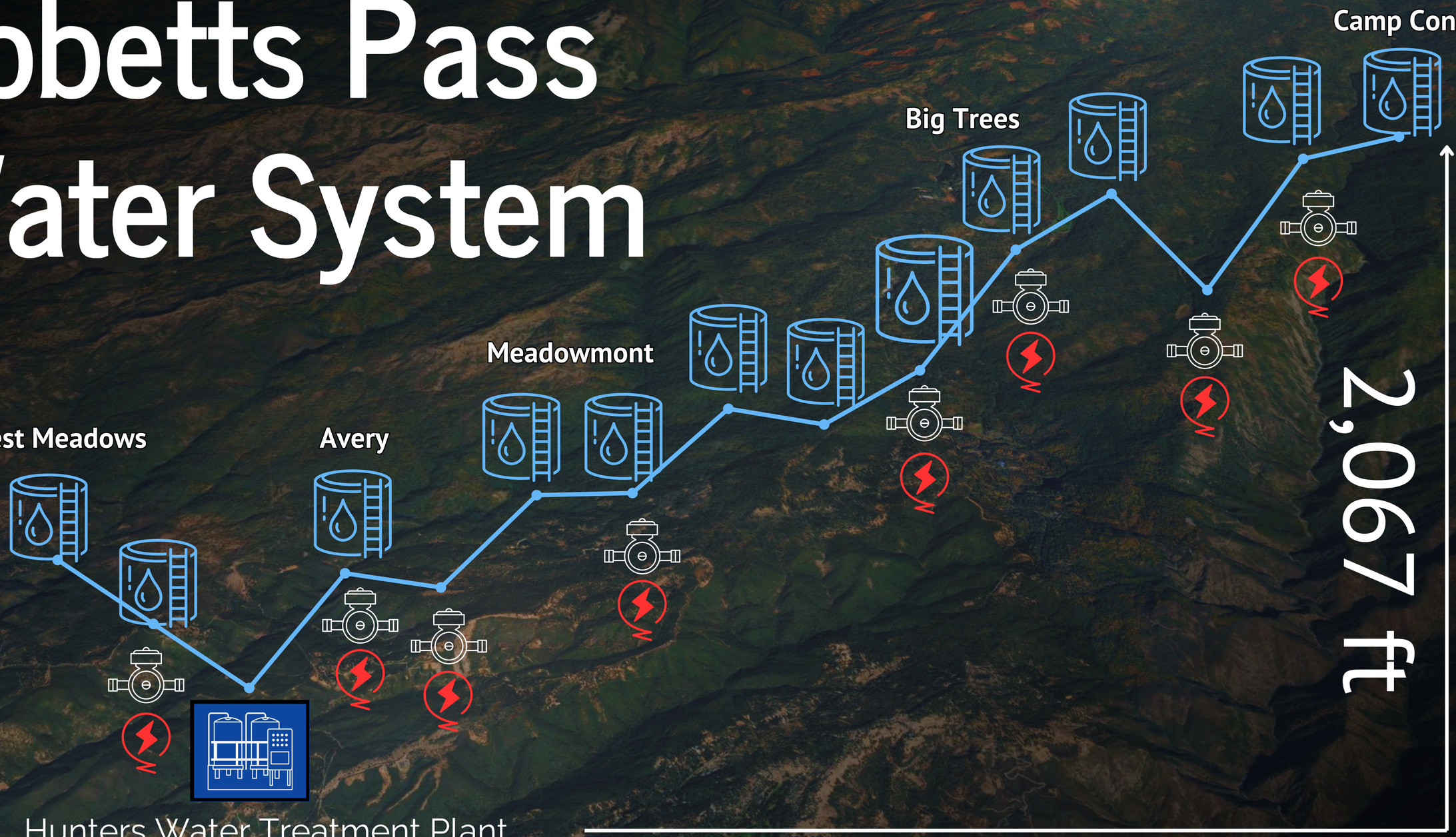
Copperopolis

Copper Cove
Treatment Plant

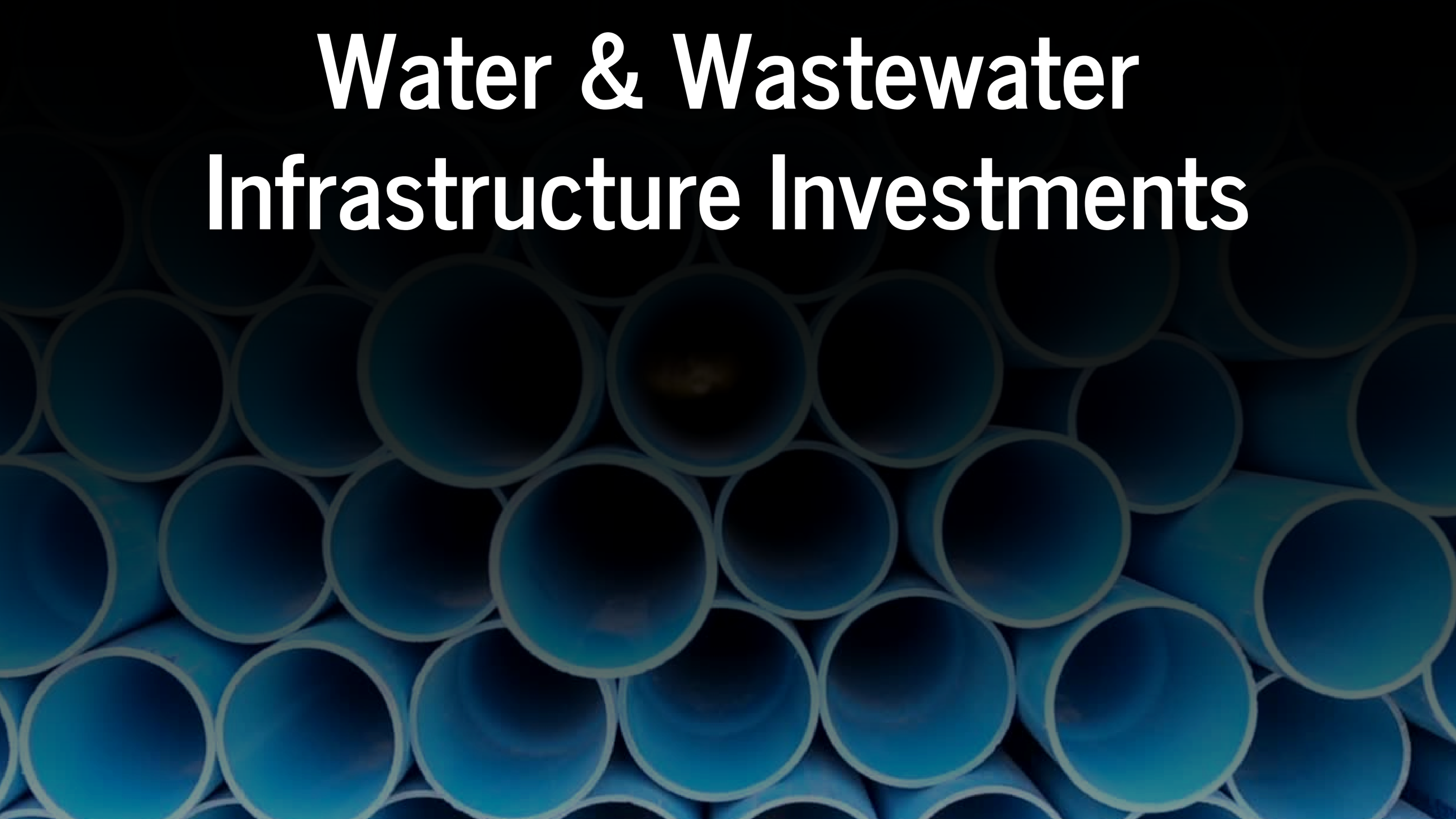
32
Lift Stations

work in series to pump wastewater to the
Copper Cove Treatment Plant

Ebbetts Pass Water System

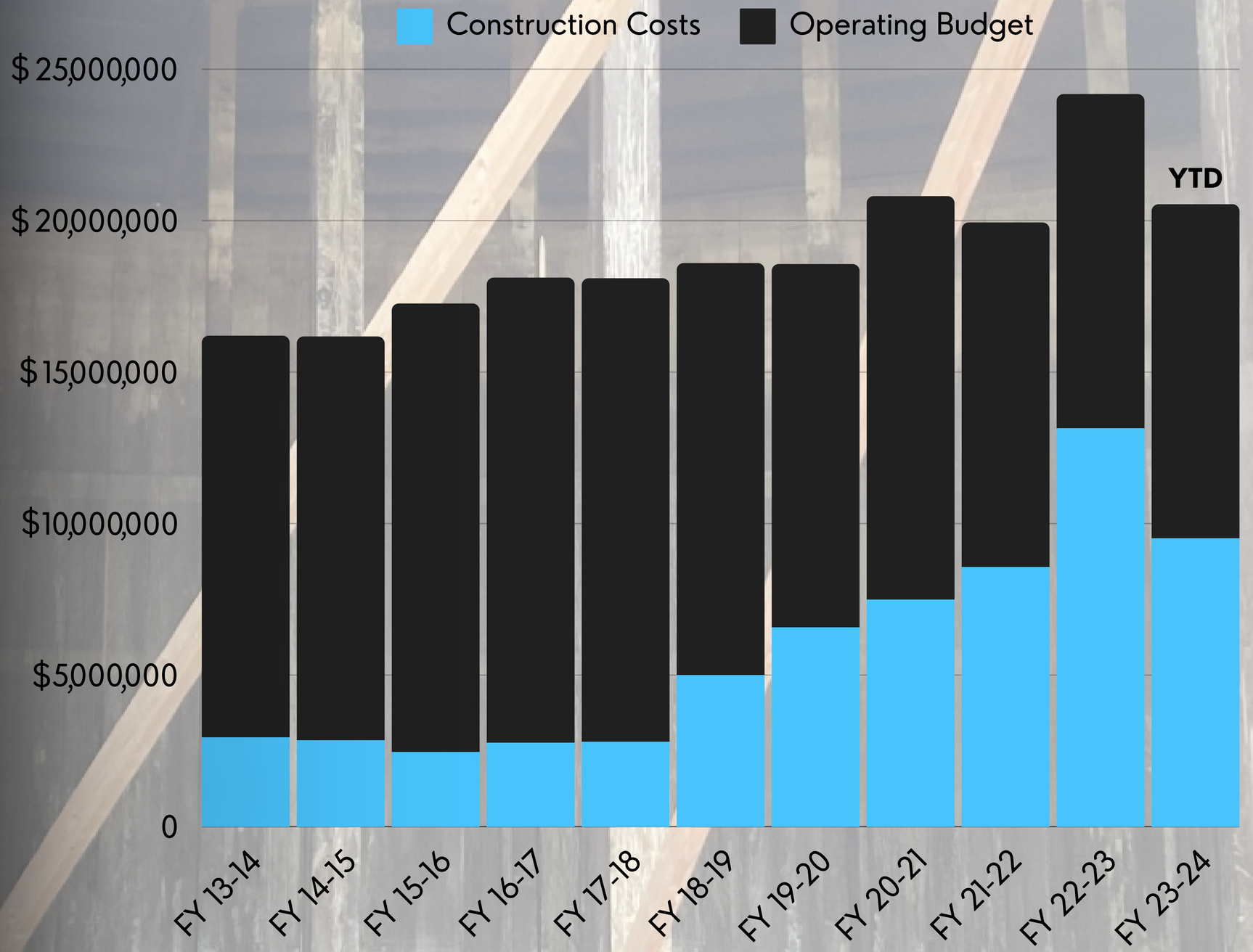


Water & Wastewater Infrastructure Investments



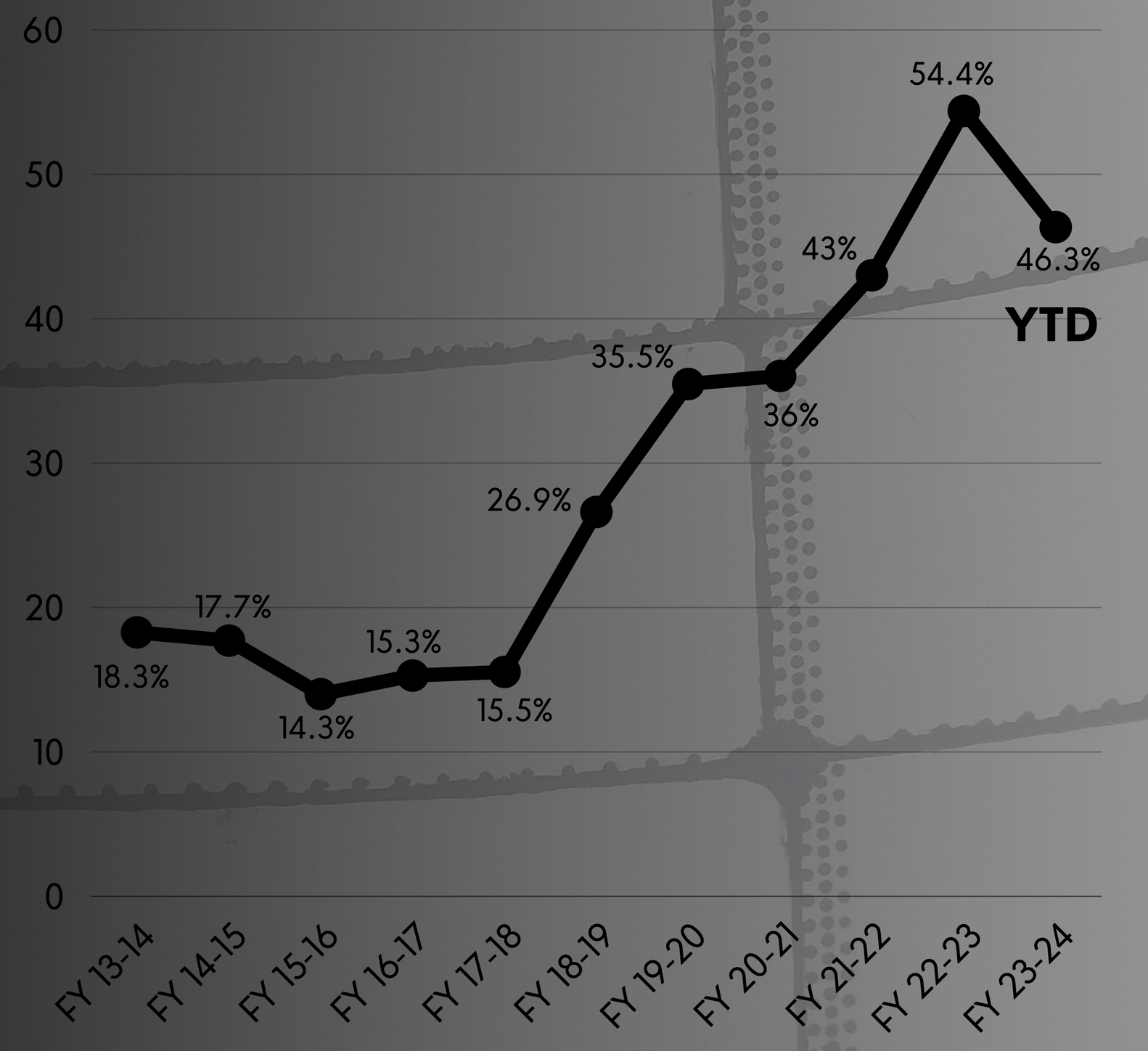
FY 13/14 - FY 23/24

Construction Costs vs. Operating Budget



FY 13/14 - FY 23/24

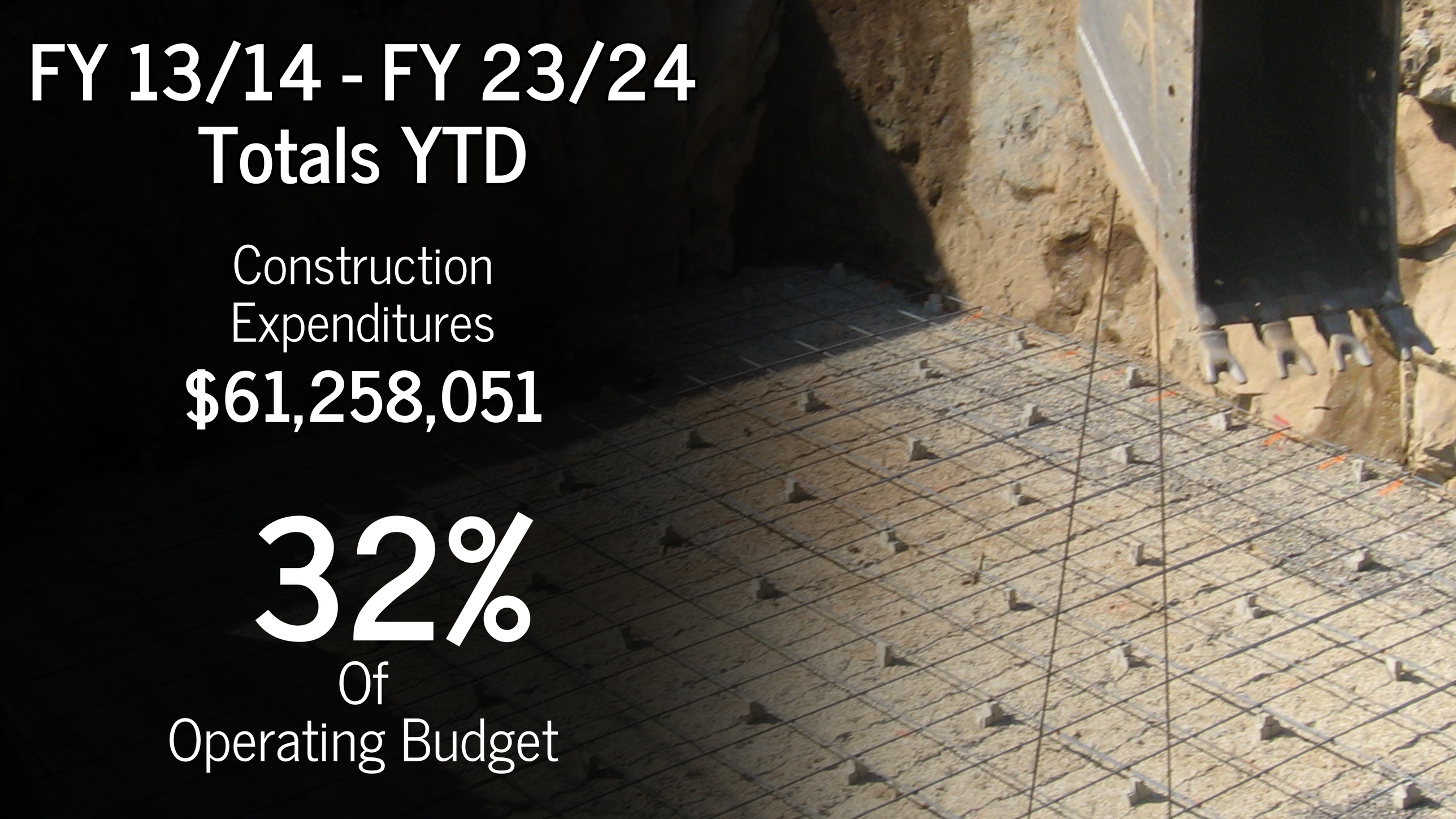
Construction Costs Percentage of Budget



FY 13/14 - FY 23/24
Totals YTD

Construction
Expenditures
$61,258,051

32%
Of
Operating Budget



Replaced **Ten Miles** of Water Main with **10** & **12** inch Ductile Iron Pipe.

In 2022, CCWD partnered with Calaveras County to install a 125,000 gallon fire suppression water tank in Sheep Ranch.

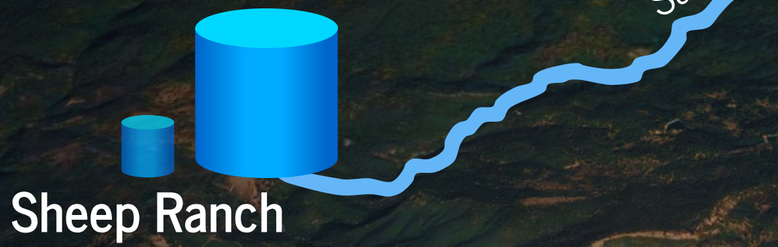
Replaced 8 Redwood Tanks with 7 Glass-Lined Steel Tanks.

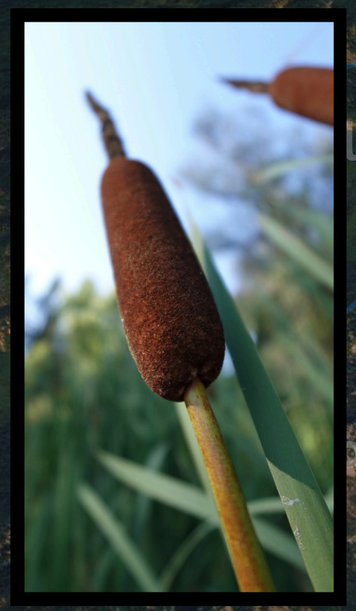
Copper Cove Lift Station Replacement Project

West Point - Wilseyville Wastewater Consolidation Project

Honoring our Watersheds
The Lifeblood of our Communities

White Pines Lake, sourced from San Antonio Creek, provides water for Sheep Ranch.

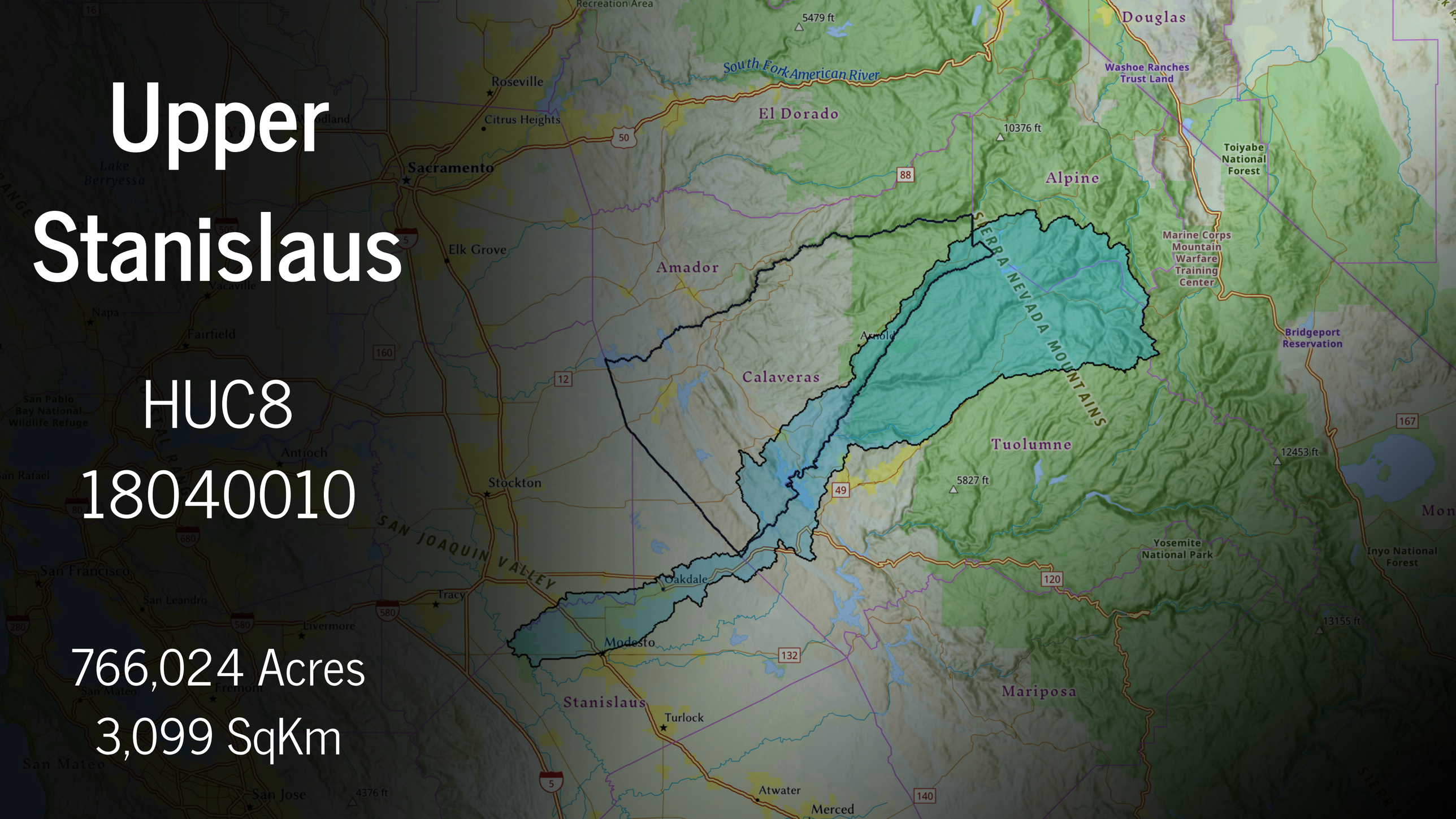




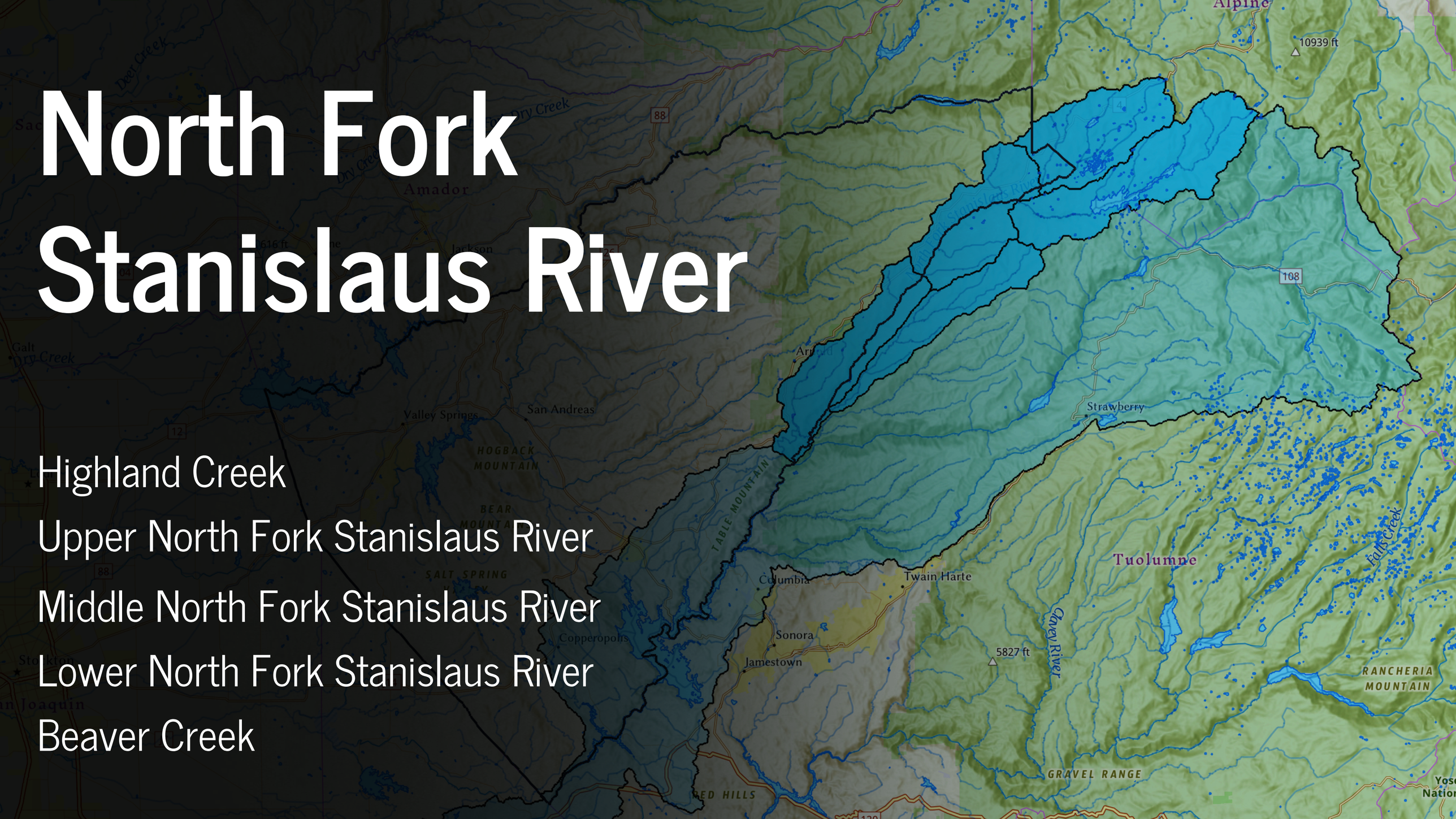
Upper Stanislaus

HUC8
18040010

766,024 Acres
3,099 SqKm



North Fork Stanislaus River



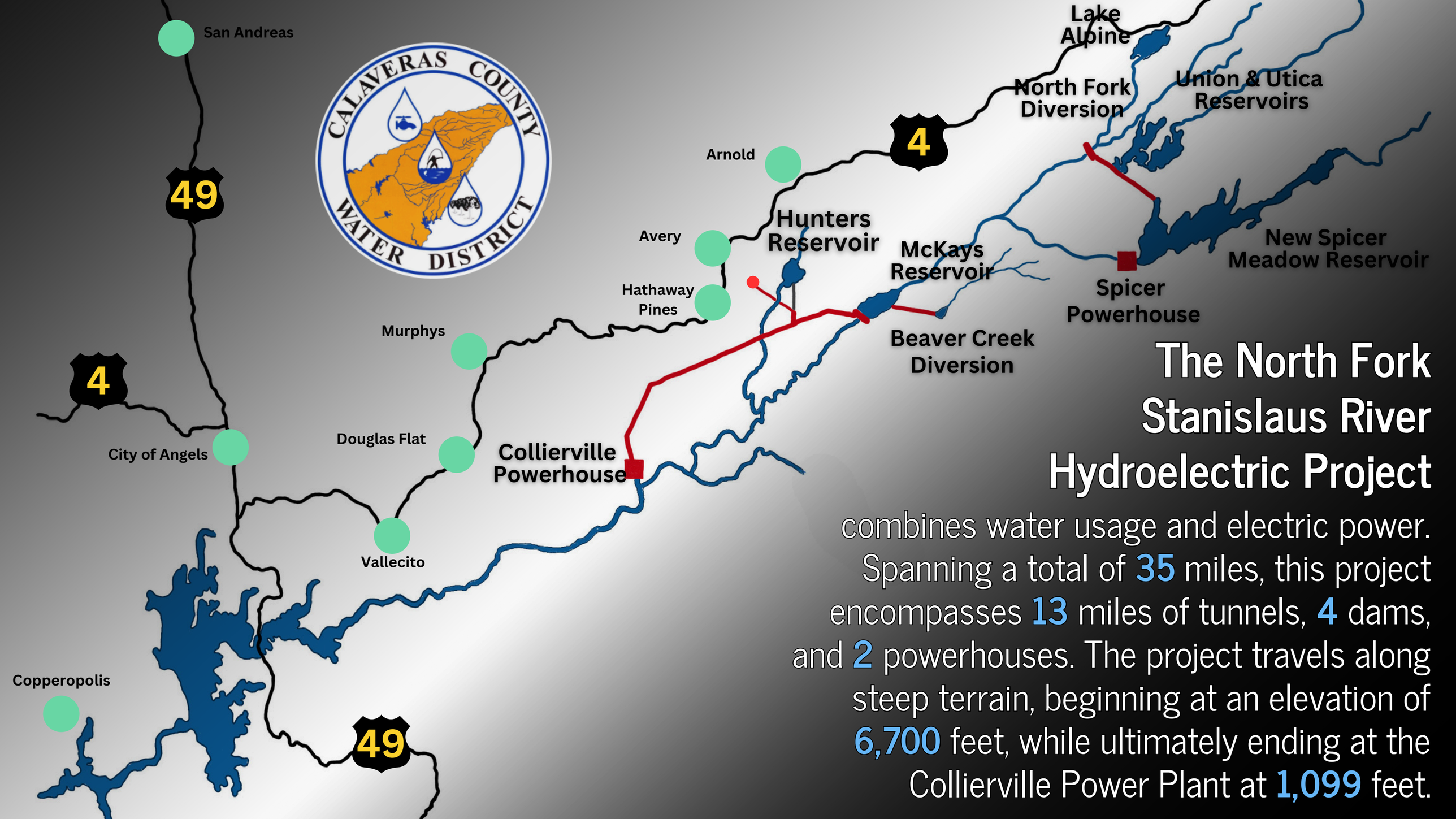
Highland Creek

Upper North Fork Stanislaus River

Middle North Fork Stanislaus River

Lower North Fork Stanislaus River

Beaver Creek

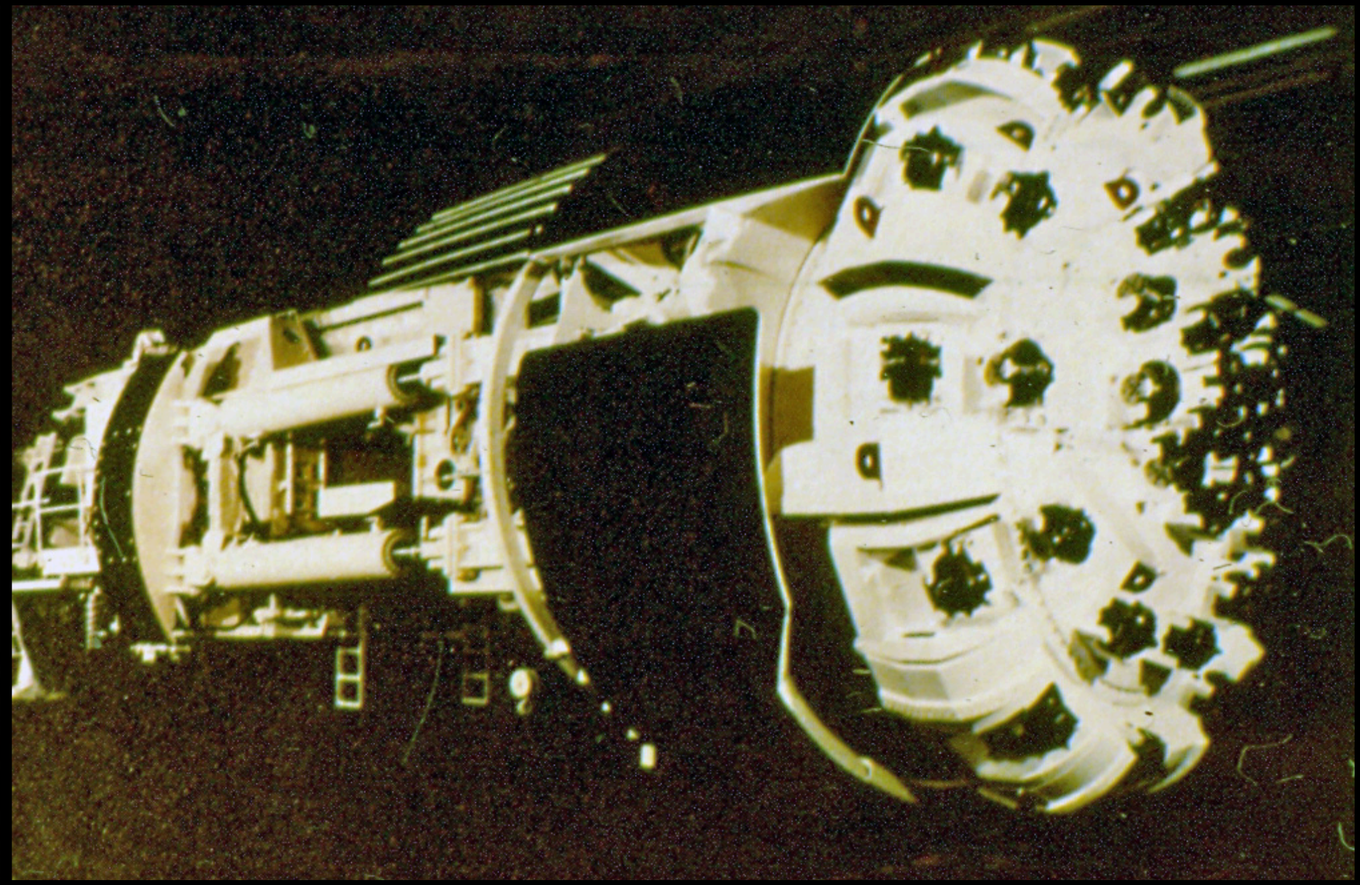


The North Fork Stanislaus River Hydroelectric Project

combines water usage and electric power. Spanning a total of **35** miles, this project encompasses **13** miles of tunnels, **4** dams, and **2** powerhouses. The project travels along steep terrain, beginning at an elevation of **6,700** feet, while ultimately ending at the Collierville Power Plant at **1,099** feet.

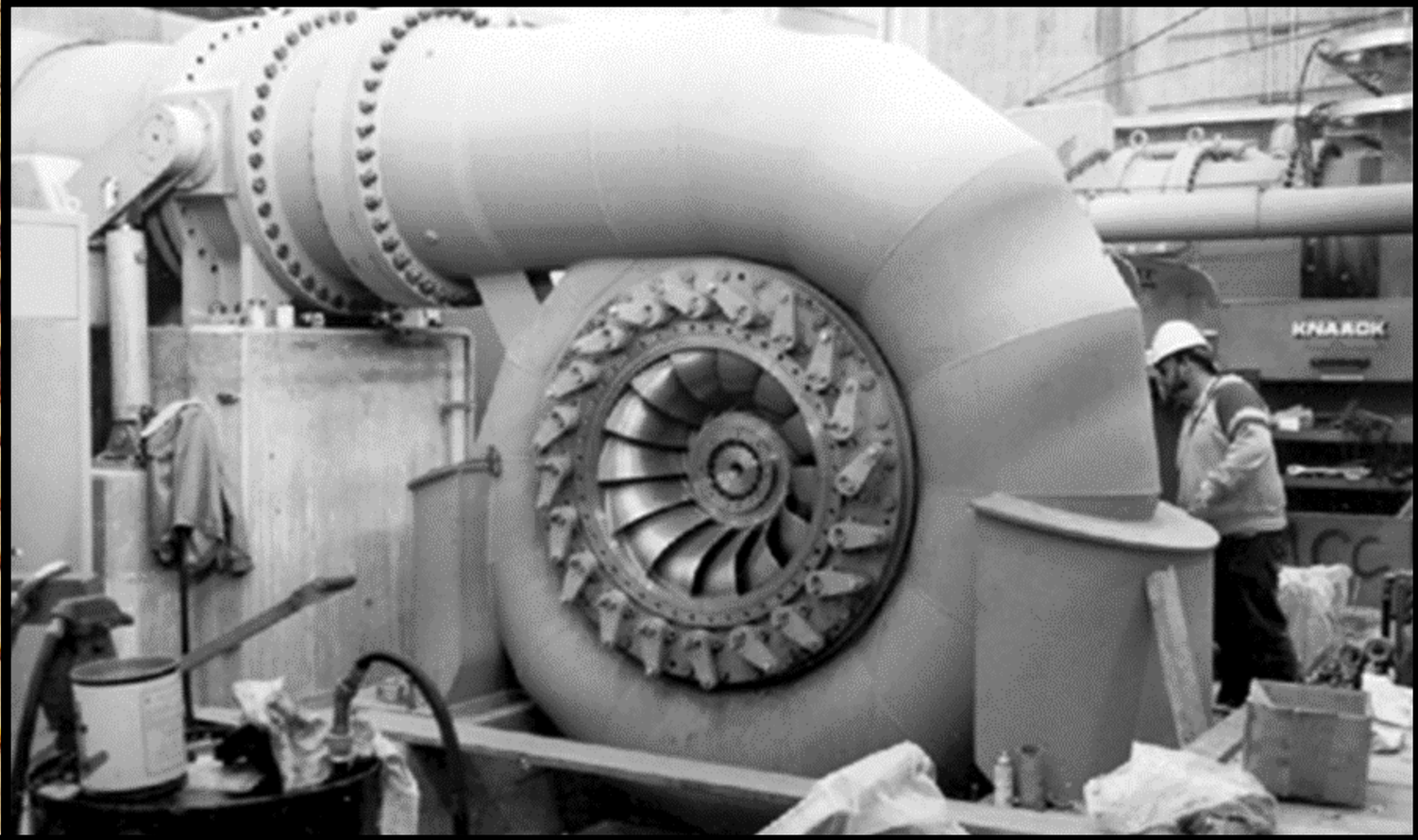
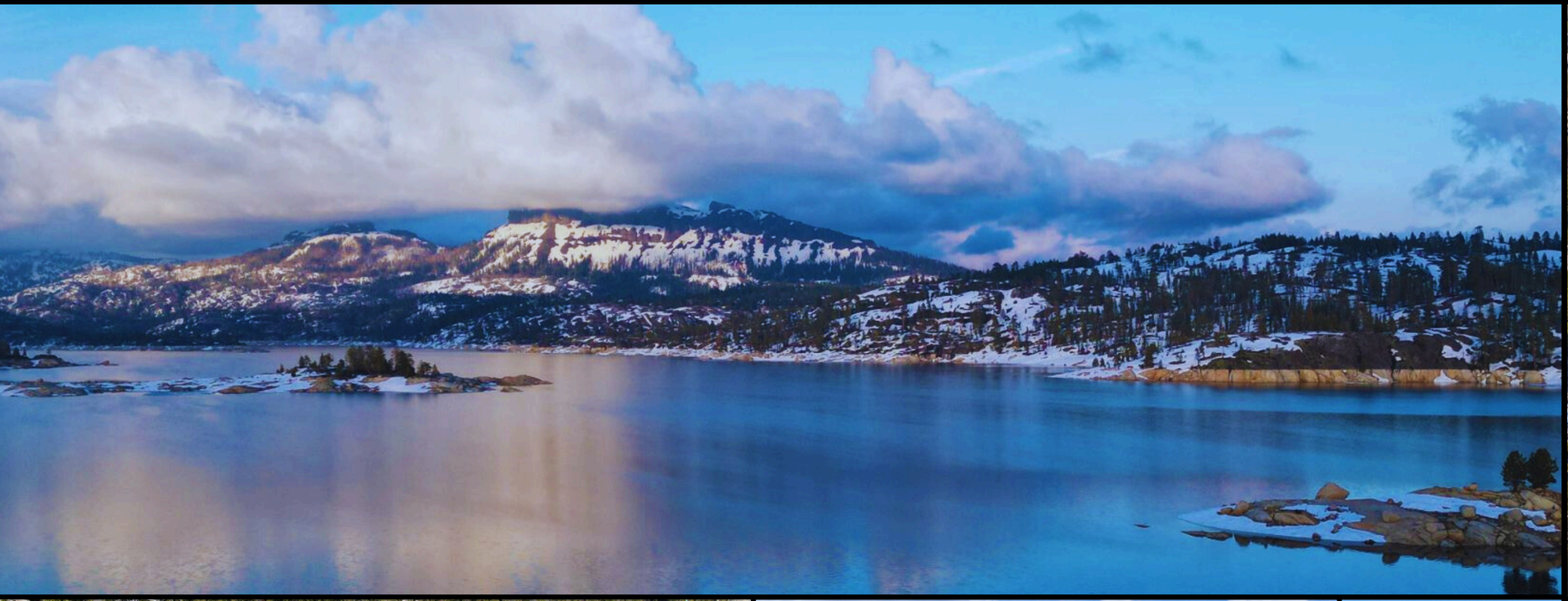
Beaver Creek Diversion
North Fork Diversion
Beaver Creek Diversion Penstock
Collierville Powerhouse
North Fork Diversion Tunnel
Spicer Powerhouse
New Spicer Meadow Reservoir
Arnold
Collierville Tunnel
McKays Point Reservoir
North Fork Stanislaus River
Highland Creek
6600
7000
4

Construction 1985-1989



The McGraw-Hill Construction Weekly August 4, 1988

ENR

TOP INTERNATIONAL DESIGN FIRMS

Turnkey hydropower takes big step up