



ASSEMBLY MEMBER

Steve Bennett

ASSEMBLY DISTRICT 38



COUNTY *of* VENTURA

California's Climate Change



and Local Response Forum

Explore climate change adaptation, disaster preparedness efforts and mitigation practices in the community.



Steve Bennett

Assemblymember, 38th District





Cal OES

GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

Climate Change Adaptation and Disaster Assistance

Robyn Fennig, CFM

Assistant Director

*Hazard Mitigation Section,
Recovery Directorate*



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GOVERNOR'S OFFICE
OF EMERGENCY SERVICES

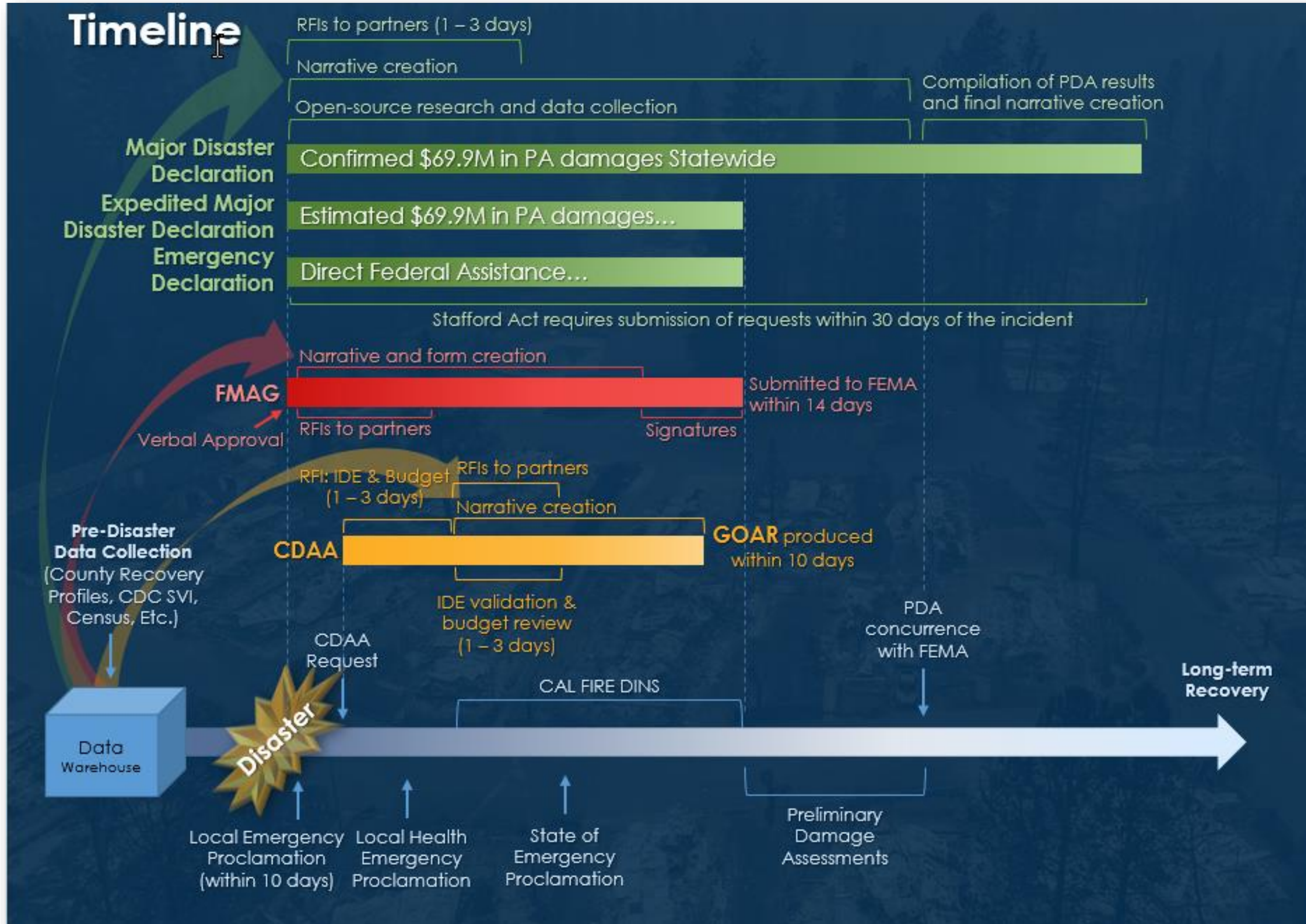


FEMA

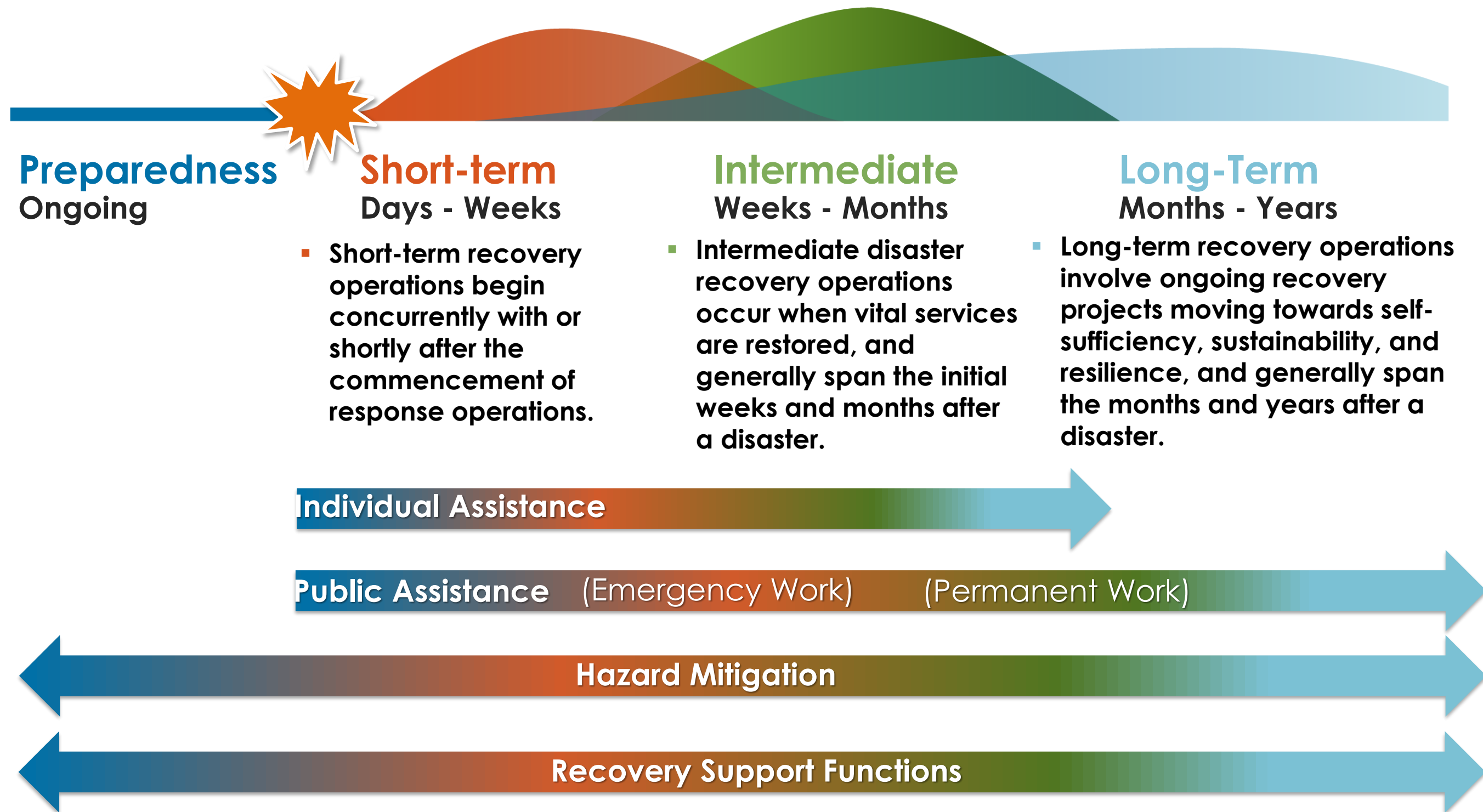


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Disaster Declaration Timeline



Disaster Recovery Timeline

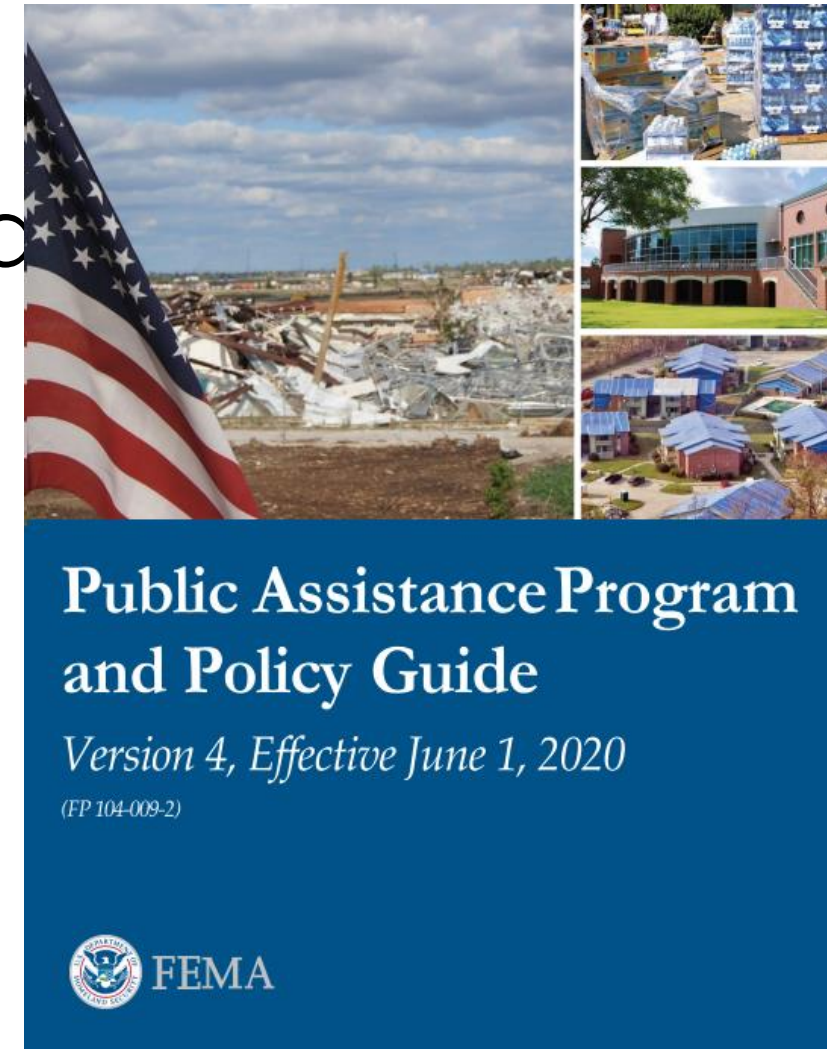


Public Assistance Grants

Public Assistance (PA) provides grant funding to State, local, Tribal and local governments, and certain types of private non-profits to quickly respond and recover from major disasters or emergencies declared by the President.

FEMA provides supplemental assistance for:

- Debris removal
- Emergency protective measures/response costs
- Restoration of disaster-damaged, publicly-owned facilities

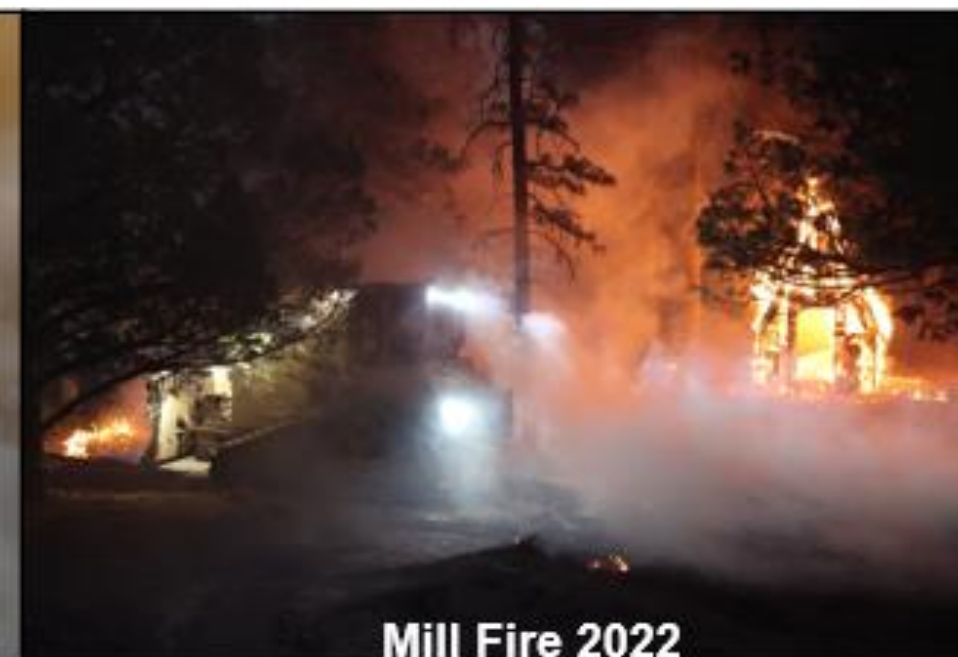


Public Assistance Grants

Fire Management Assistance Grant (FMAG) provides grant funding for management and control of fires.

Eligible firefighting costs may include:

- Expenses for field camps
- Equipment use, repair, and replacement
- Tools, materials, and supplies
- Mobilization and demobilization activities

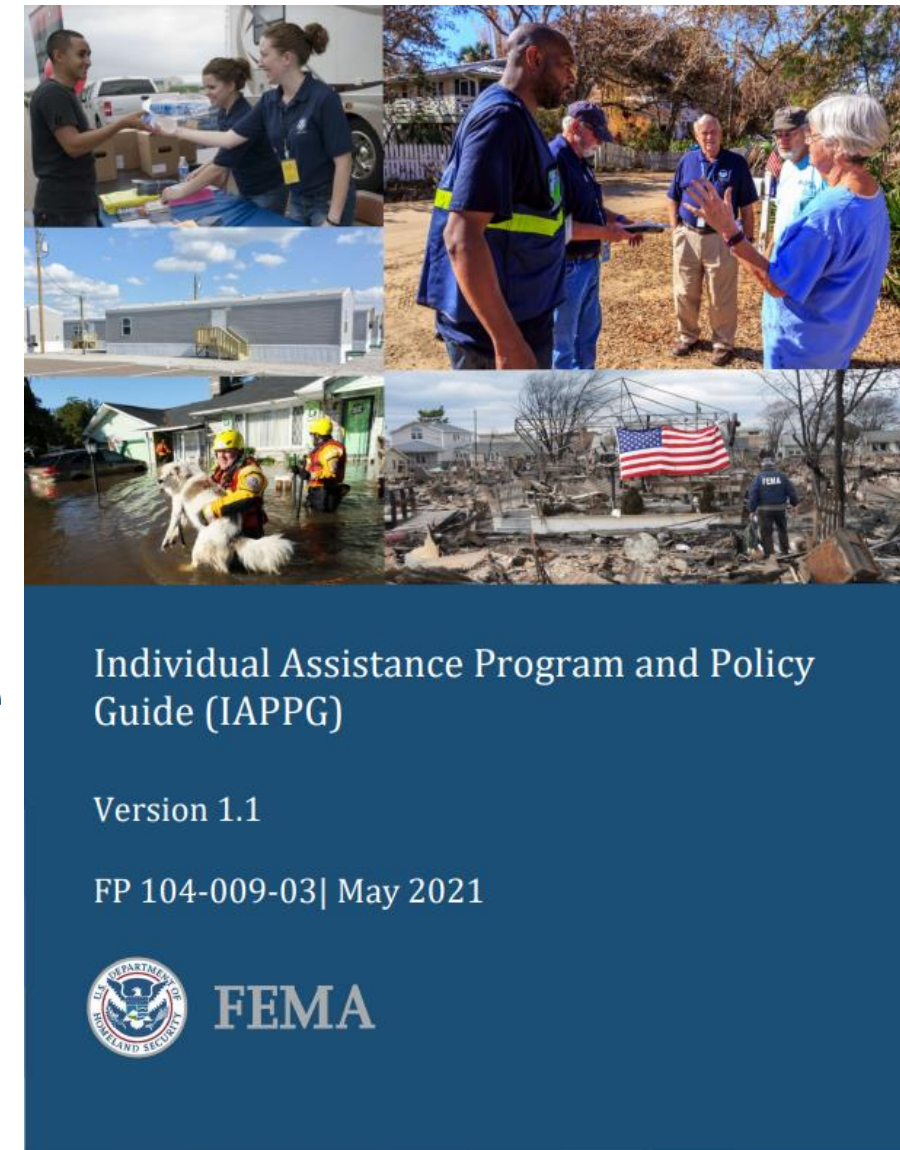


Individual Assistance Program

Individual Assistance (IA) provides grant funding and certain types of other programs to units of governments, certain types of private non-profits, or to individuals and households to support individual survivors to assist in recovery from certain major disasters or emergencies declared by the President.

FEMA provides assistance based on the needs of the specific disaster:

- Mass care/emergency services
- Disaster Case Management
- Crisis Counseling Assistance
- Disaster Legal Services
- Voluntary Agency Coordination
- Individuals and Households Program



Hazard Mitigation

Hazard mitigation is defined as long-term, independent solutions to reduce future risk to life and property from natural hazard events.

MITIGATE HAZARDS



This is an on-going process that occurs before, during, and after disasters and serves to break the cycle of repeated damage and repair.

Hazard Mitigation Assistance Programs

- **Hazard Mitigation Grant Program (HMGP):** Funding for California hazard mitigation actions. Available as result of major disaster declarations. Ongoing acceptance of proposals (Notice of Interest)
- **Building Resilient Infrastructure and Communities (BRIC):** Annual, nationally-competitive program funding all-hazard mitigation actions. Process starts each year in August/September.
- **Flood Mitigation Assistance (FMA):** Annual, nationally-competitive program funding mitigation actions that protect properties insured by National Flood Insurance Program. Process starts each year in August/September.



Eligibility Requirements

- Eligible Subapplicants
 - State Agencies
 - Local Governments: Counties, Cities, Towns, etc.
 - Special Districts
 - Federally Recognized Tribes
 - Some Private Non-profits (PNPs) ***not eligible for BRIC/FMA**
- Must have participate in and adopt a FEMA-approved Local Hazard Mitigation Plan (LHMP) ***PNPs in HMGP are exempt**
- Projects must reduce risk to human life, structures, or improved infrastructure
- Projects cannot be dependent on a contingent action to be effective



Sample Mitigation Activities

Flood

- Drainage improvements
- Elevation
- Acquisition/demolition

Earthquake

- Structural and non-structural retrofits (e.g. “Brace and bolt” programs)

Coastal

- Sea-level rise protection
- Coastal stabilization

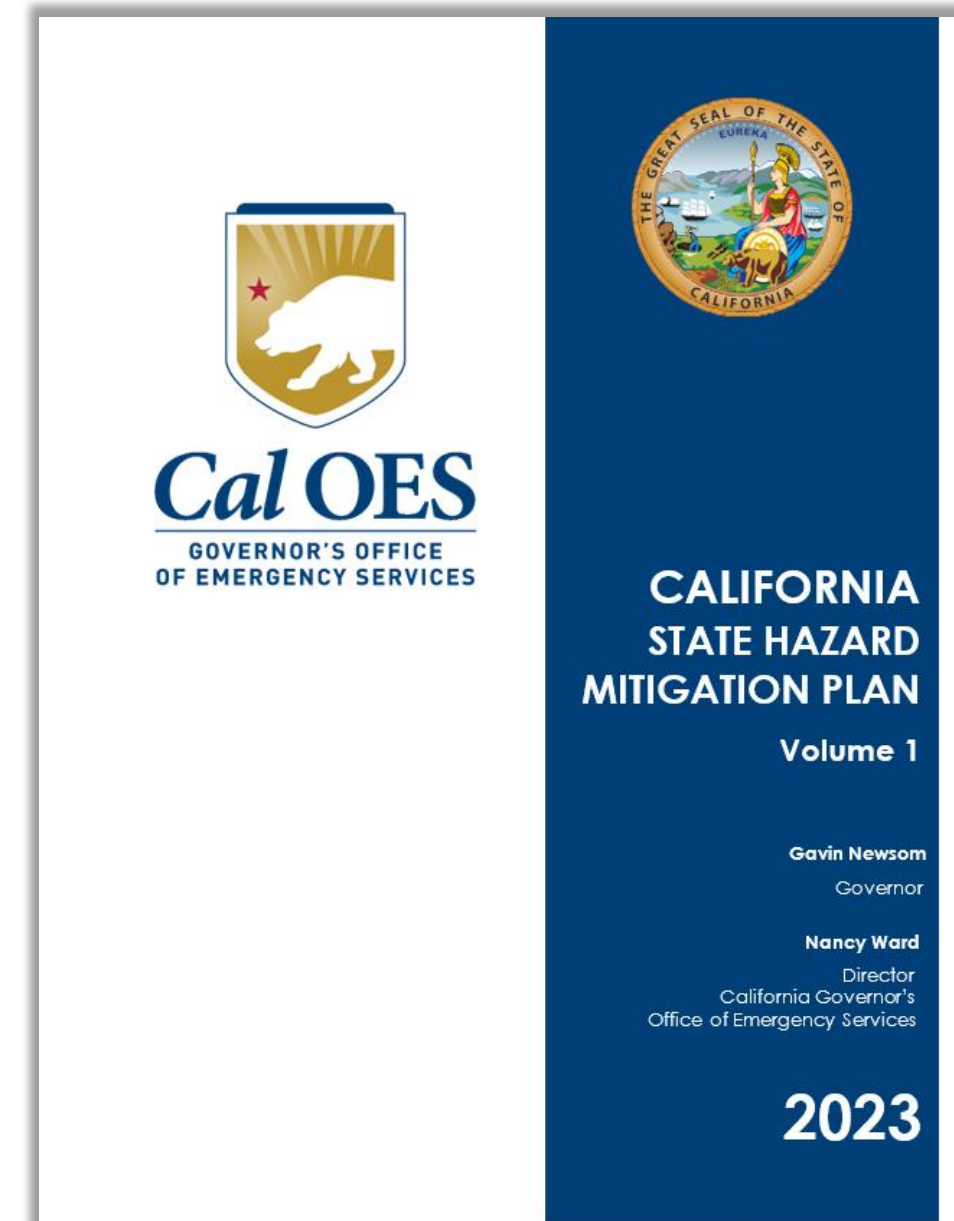
Wildfire

- Hazardous fuels reduction/vegetation management
- Defensible space
- Ignition resistant construction



State Mitigation Planning

- Sets statewide mitigation priorities and documents statewide program efforts
- Profiles and assesses 34 hazards
- Provides the foundation for strategies that should be considered in the Local Mitigation Plans (LHMPs)
- Approved August 30, 2023
- Provides eligibility for billions of dollars in funding across recovery and hazard mitigation grant programs



County Mitigation Actions and Priorities

County HMPs included 2,256 individual mitigation actions

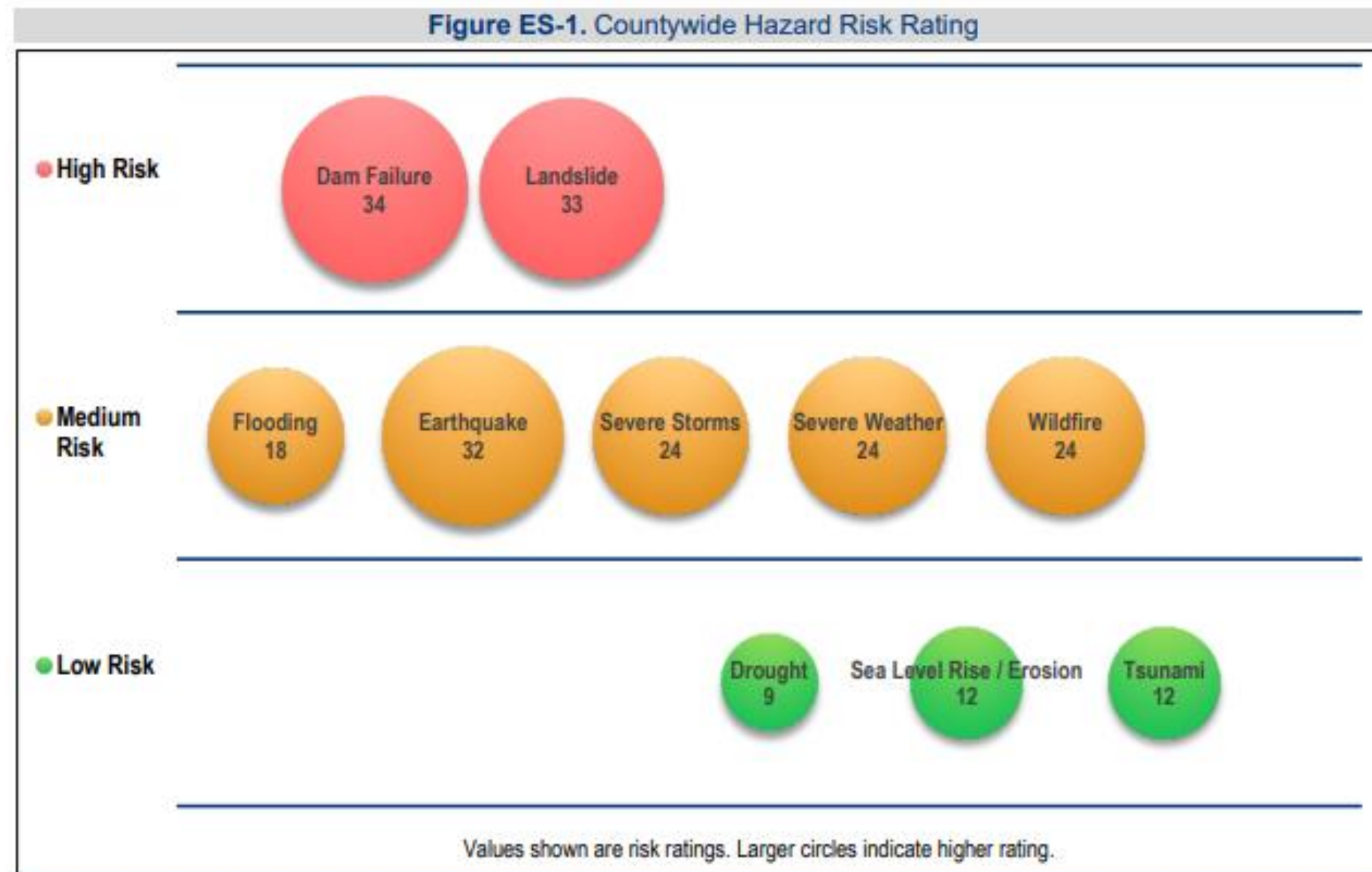
Hazard	Statewide Assessment of County Plan Mitigation Actions by Hazard		Assessment of Counties Addressing a Specific Hazard in Mitigation Actions	
	# of Actions	% of All Actions	# of Counties	% of All Counties
All Hazards/ Multi-Hazard	921	41%	55	95%
Wildfire	367	16%	48	83%
Earthquake	166	7%	43	74%
Flood	367	16%	41	71%
Drought	96	4%	30	52%
Dam Failure	49	2%	26	45%
Severe Weather	60	2%	23	40%
Climate Change	54	2%	17	30%
Extreme Temperatures	22	1%	14	24%
Landslide	35	2%	12	21%

Local Hazard Mitigation Plans (LHMP)

- Assesses risks to natural hazards experienced at the local level
- Sets local mitigation priorities
- Provides eligibility for to apply for HMA grants
- Updated every 5 years
- **Most Ventura County jurisdictions covered until 2027**



Ventura County Hazard Ratings

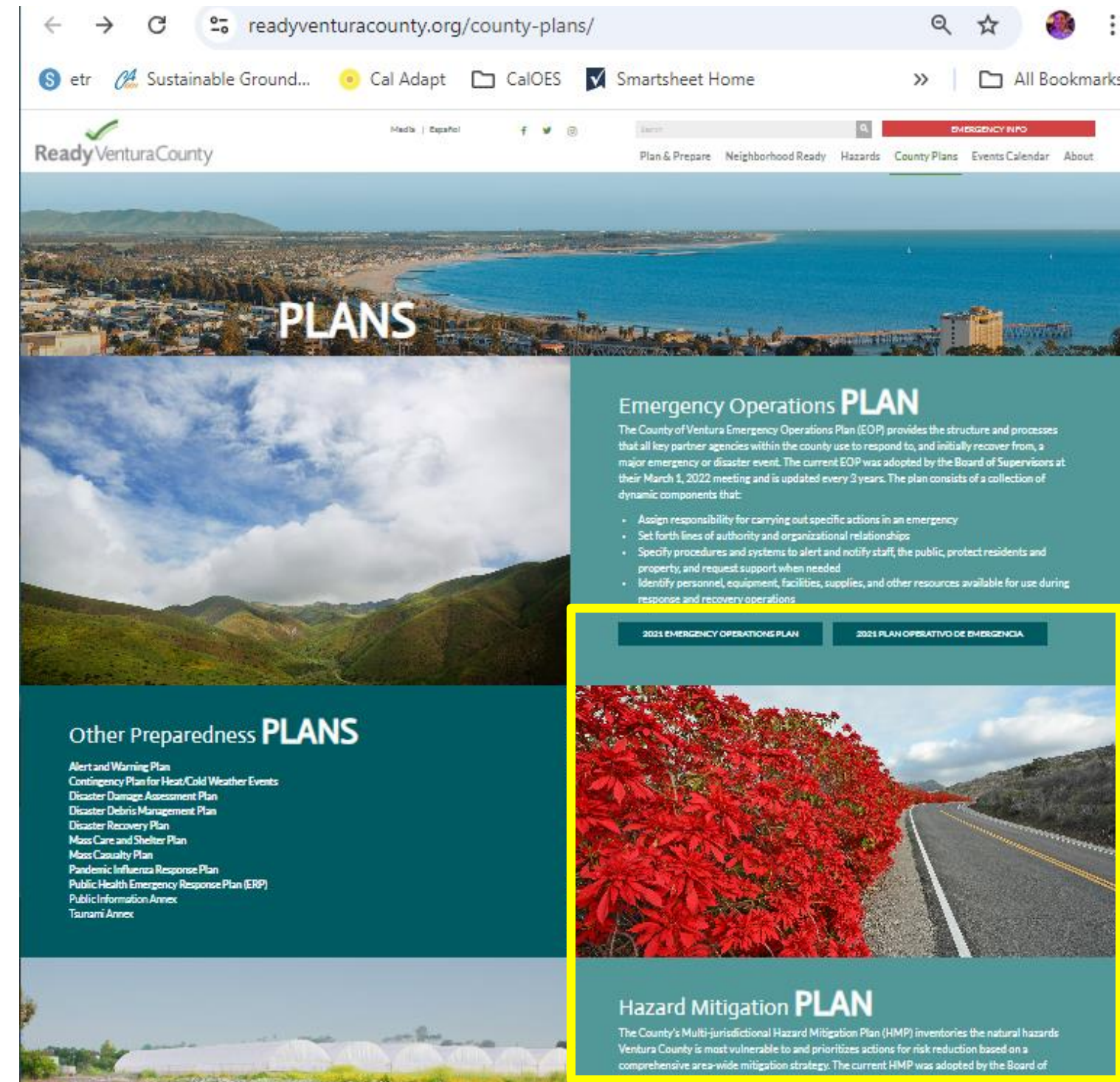


Source: Ventura County Plan, 2022, "Executive Summary"

Participate in your LHMP!

<https://www.readyventuracounty.org/county-plans/>

- Familiarize yourself with the current (2022) Ventura County LHMP
- Ventura County plan expires in 2027 – planning will likely begin in 2025 or 2026
- Community or special-district specific annexes!



Chief Frank Bigelow & Unit Chief John Owens Cal FIRE





Casey De Shong

Federal Emergency Management Agency



FEMA





**VENTURA COUNTY
FIRE DEPARTMENT**

2024

LOCAL PREPAREDNESS & RESPONSE

**Joe Morelli,
Fire Marshal**

DEPARTMENT OVERVIEW

- Established in 1928, as a special district, today operating under the Fire Protection District Law of 1987.
- All-hazard, full-service department.
- 623 total personnel (~500 uniformed members)
- Coverage area of 848 sq. miles.
- 33 Stations / 5 Battalions (45 total facilities)
- 53,661 calls for service in 2023.



**VENTURA COUNTY
FIRE DEPARTMENT**

VCFD ALL HAZARD RESPONSE

- Medical (EMS)
 - EMTs and Paramedics
- Fire
 - Structural
 - Wildland
- Haz-Mat
- Rescue
 - Ocean
 - Swift Water
 - Aircraft
 - US&R
- Public Service



VENTURA COUNTY
FIRE DEPARTMENT

MITIGATION RESOURCES

- VCFD has increased air suppression by the purchase of 2 Firehawk helicopters
 - 1000 gallons water dropping capacity
 - Larger room for crews to insert into fire areas
- 2 hand crews increased to 4 hand crews
- MTZ agreements with LA County and LA City



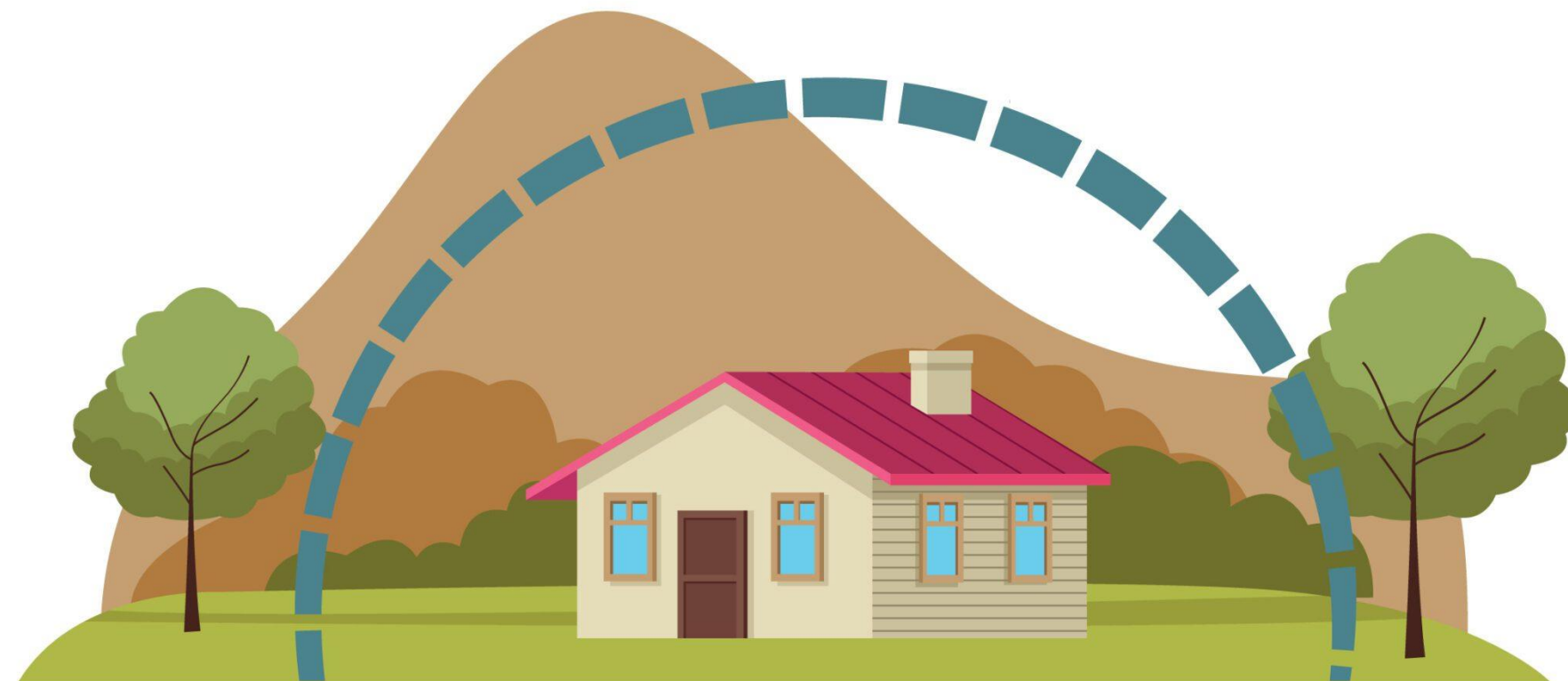
VEGETATION MANAGEMENT

- Community Fire Breaks
- Vegetation Removal and Modification
- VCFD maintains 340 miles of Fire, Utility, and Ranch Roads for Fire Access
- 335 acres of fuel reduction projects in 2023
- 7 community chipping events



LOCAL VEGETATION MANAGEMENT ORDINANCE

- 19,000 parcel inspections annually
- Defensible space ordinance is more restrictive than state law; we enforce the full 100-foot defensible space zone.
- VCFD new landscape plan reviews to ensure correct plants in 100' zone
- VCFD has a Zone 0 (0-5 feet around home) requirement for all new landscaping.





FIREWISE USA[®]
RESIDENTS REDUCING WILDFIRE RISKS

- Firewise USA[®] Communities raise awareness, organize at the community level, coordinate work parties, and take action to create fire-adapted communities through the implementation of defensible space standards.
- VCFD is on the Board of Forestry Fire Risk Reduction Communities (FRRC) list for 2024-2026.



**VENTURA COUNTY
FIRE DEPARTMENT**

LOCAL COLLABORATION

- VCFD works with 5 Fire Safe Councils within the County



- 2 Resource Conservations Districts, Parks and Open Space Agencies, Ranchers, and other community groups regarding wildfire preparedness and educational outreach to our communities
- Involved in the review of Countywide CWPP and local area CWPPs



VENTURA COUNTY
FIRE DEPARTMENT



American Red Cross Responding to the Climate Crisis

September 2024



**American
Red Cross**

Marketing &
Communications



Our Mission

The American Red Cross prevents and alleviates human suffering in the face of emergencies by mobilizing the power of volunteers and the generosity of donors.

Every day, we alleviate suffering for thousands of people:



Helping **175 families** affected by home fires or other disasters.



Collecting **12,000 blood donations** to help people facing medical crises.



Providing **1,400 services to military members, veterans and their families** facing emergencies.

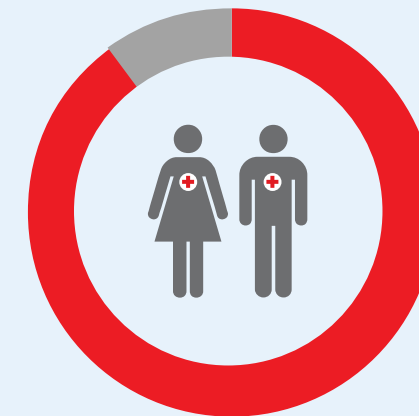


Delivering measles and rubella vaccinations to **320,000 children** worldwide.



Training **14,000 people** in lifesaving skills.

With the power of volunteers, we are incredibly efficient.

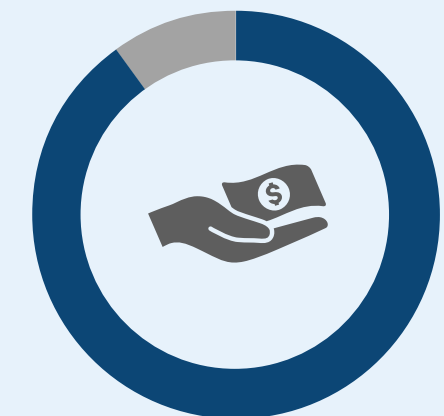


90%

of our workforce is volunteer.

90¢

of every dollar we spend delivers care.



Pacific Coast Chapter Efforts in FY24

San Luis Obispo, Santa Barbara and Ventura Counties

- Provided relief and recovery support, including financial assistance, to nearly/more than **215** households impacted by **84** disasters, including the *Ventura County December floods*.
- Supported over **851** military heroes and their families through personal crises.
- Trained more than **21,430** people in first aid, CPR and AED, water safety, babysitting and other lifesaving skills.
- Supported by **1,400** volunteers, with half of our volunteer base youth under 24.



Delivering Care During Life's Darkest Moments

Last year, nearly 2.5 million people in the U.S. were displaced from their homes due to disasters.¹



In the past 10 years, more than 88% of U.S. counties have been impacted by a disaster.²

The American Red Cross is now launching nearly two times as many relief operations for major disasters than we did a decade ago.

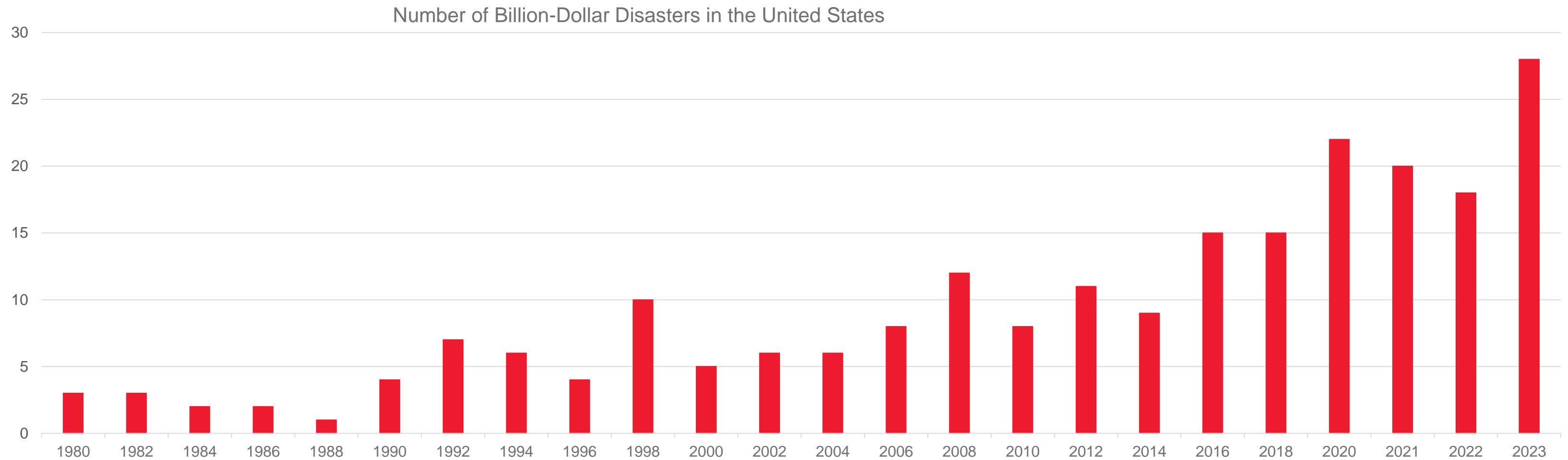


¹ Disasters Displaced 2.5 Million People In US In 2023 | Weather.com

²Forbes Advisor, "Counties Most at Risk for Natural Disasters, Ranked," June 2023.

An Exponential Increase in Billion-dollar Disasters

A **six-fold** increase in major disasters since the 1980s has occurred – causing **exponentially more human suffering.**



“Billion-Dollar Weather and Climate Disasters,” National Oceanic and Atmospheric Administration, National Centers for Environmental Information, 2023

Greater Obstacles for Vulnerable Communities

Climate-caused disasters disproportionately harm those with pre-existing social inequities.

- When facing an unexpected \$400 expense, more than 30% of U.S. adults would borrow money or sell personal items to cover it.¹
- When forced from their homes, people from low-income communities — including those of color, older adults and people with disabilities — are unable to return for longer periods of time.



Red Cross Services

As a local, community-based organization with a powerful network of support, the Red Cross is always ready to provide immediate relief.

Warm meals and **vital relief supplies**, delivered directly to families in devastated neighborhoods.



Individuals can rest and receive **health and mental health support**.

A **safe shelter** for the whole family – including pets.



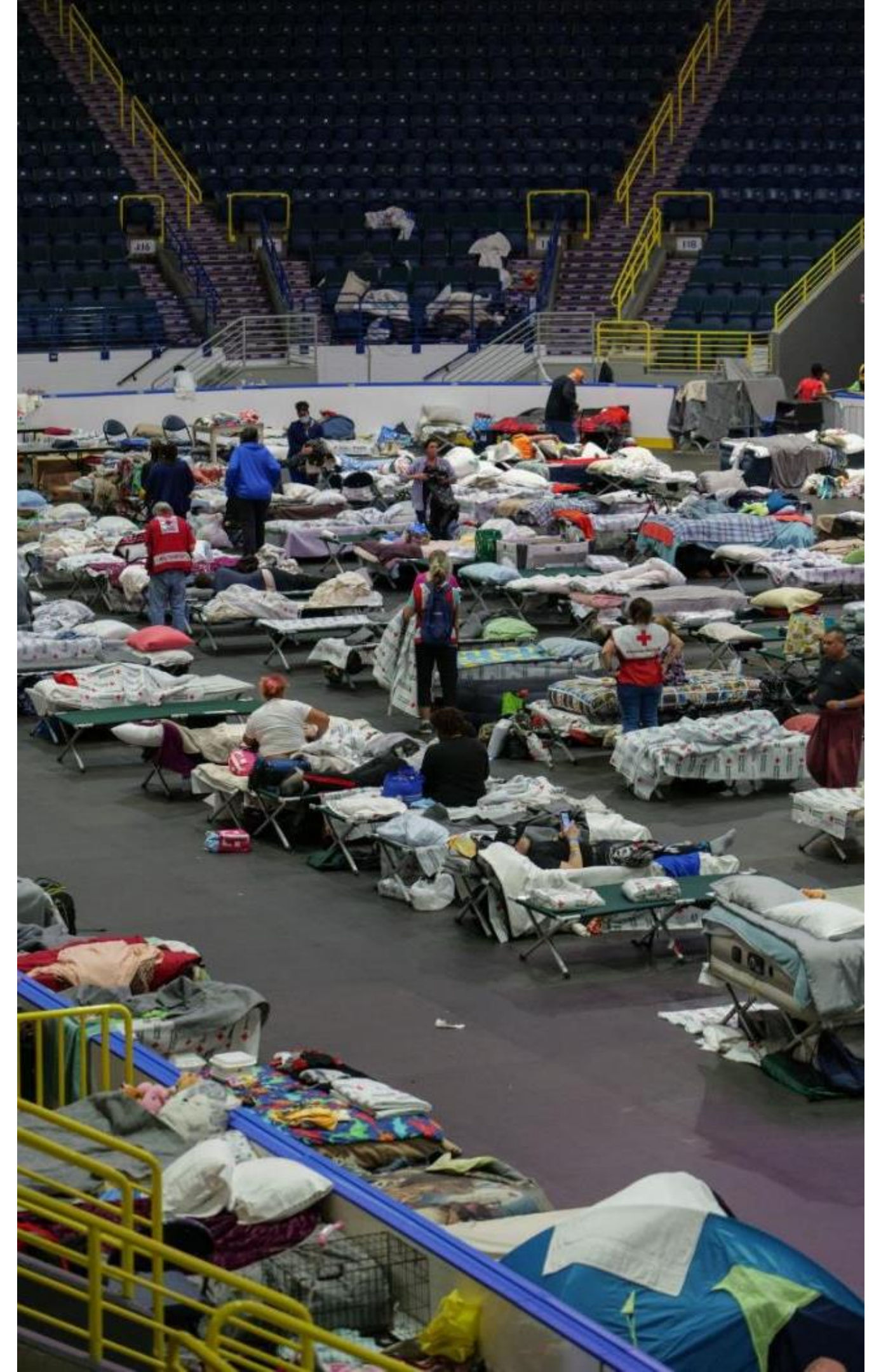
Financial assistance, allowing those who qualify to make critical purchases, housing deposits and necessary repairs to their homes.



Safely Sheltering Those in Need

With our national infrastructure of thousands of pre-identified shelters, the Red Cross provides meals and safe lodgings for the whole family, including pets.

- At our emergency shelters, disaster survivors meet with caseworkers who can **respond to immediate needs** – such as replacing lost prescriptions, eyeglasses or clothes – and help set them up for recovery.
- Trained volunteers are also on hand to deliver **spiritual care and health and mental health support**, offering sorely needed comfort to those reeling from a traumatic event.



We Are Disaster-Ready 24/7

We can mobilize a scaled response, meeting people's urgent and immediate needs, when they need us most by:

- Training our workforce, 90% of whom are volunteers.
- Maintaining our fleet of mission critical vehicles.
- Resourcing our strategically located warehouses.
- Pre-identifying shelters.
- Keeping our technological systems up-to-date.



Preparing Communities to Stay Safer from Disasters

Always ready, the Red Cross also works to build strong, resilient communities that can bounce back faster after a disaster hits by:

- Investing in technology and tools to provide lifesaving resources and information to keep people safe.
- Focusing on vulnerable groups disproportionately impacted by disasters.
- Making the next generation safer through programs like the Pillowcase Project and Prepare with Pedro.
- Convening local community members and stakeholders to identify and fill preparedness gaps.



Plan to Stay Safe

- Depending on the emergency, you may need to stay where you are or go somewhere else to stay safe.
- If you may need to leave, think about where you will go, how you will get there, where you will stay and what you'll take with you.
- Plan well in advance if you'll need help leaving or use public transportation. Don't forget to include pets in your plans.
- Some disasters, like floods and fires, can happen anywhere, while others are more common in certain areas. To learn what disasters may affect your community, download the Red Cross Emergency app, visit [redcross.org/hazardmap](https://www.redcross.org/hazardmap) or contact your local office of emergency management.



How You Can Help

The need to help during disasters has never been greater. Join us to provide relief and hope when it matters most.

- Help people affected by disasters big and small by making a gift to American Red Cross Disaster Relief at [redcross.org](https://www.redcross.org) or by calling 1-800-RED CROSS.
- Our volunteers are at the heart of our mission and represent 90% of our workforce. Visit [redcross.org/volunteertoday](https://www.redcross.org/volunteertoday) to sign up for opportunities with your local chapter.

Help us respond to the
**climate
crisis.**

Sign up to
become a
volunteer.



Resources

- Download the free [Red Cross Emergency app](#) today for real-time weather alerts and expert preparedness and safety advice in both English and Spanish.
- Visit [redcross.org/prepare](https://www.redcross.org/prepare) to learn how to be prepared for local hazards, such as wildfires, earthquakes, floods and more.
- Your local Red Cross offers a series of preparedness trainings for youth, adults and organizations. Learn more at [redcross.org/CCR](https://www.redcross.org/CCR)

3 ways to find a shelter:

→ Call **1-800-RED CROSS**

→ Visit **www.redcross.org**

→ Download the free **Red Cross Emergency App**



Thank you



**American
Red Cross**



VRFSC's Programs



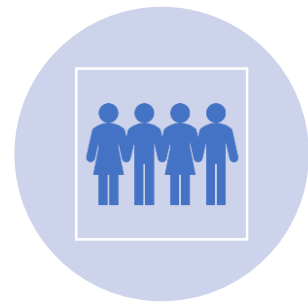
Home Hardening



Resident Grant Program



Chipper Events /
Hazardous Fuel
Reduction



Firewise Community
Development



Local and
Countywide Planning



Education and
Workshops

CONTACT US

info@venturafiresafe.org



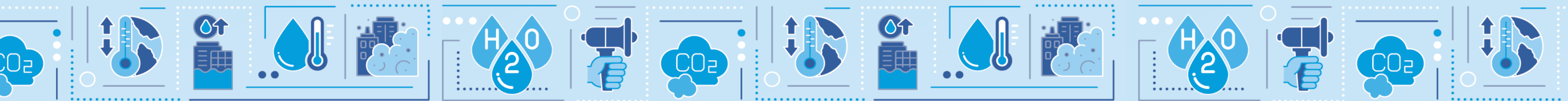
(805) 746 - 7365



@venturaregionalfsc



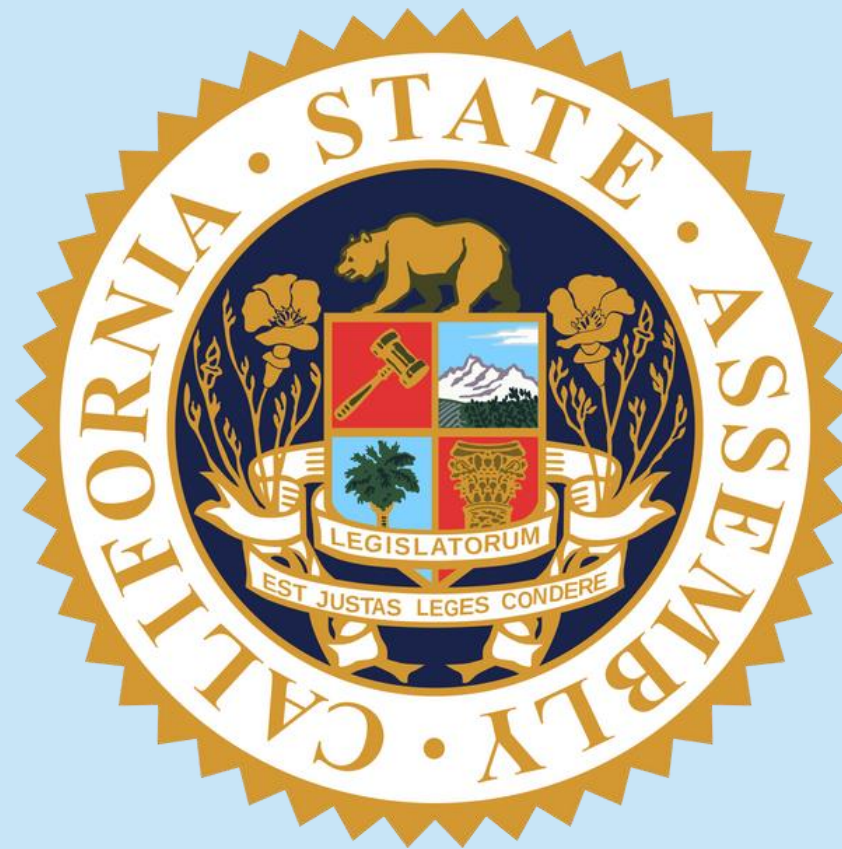
@venturafiresafe





Steve Bennett

Assemblymember, 38th District





County of Ventura Public Works - Water Outlook and Disaster Planning

Arne Anselm, Deputy Director

Ventura County Public Works Agency

Overview

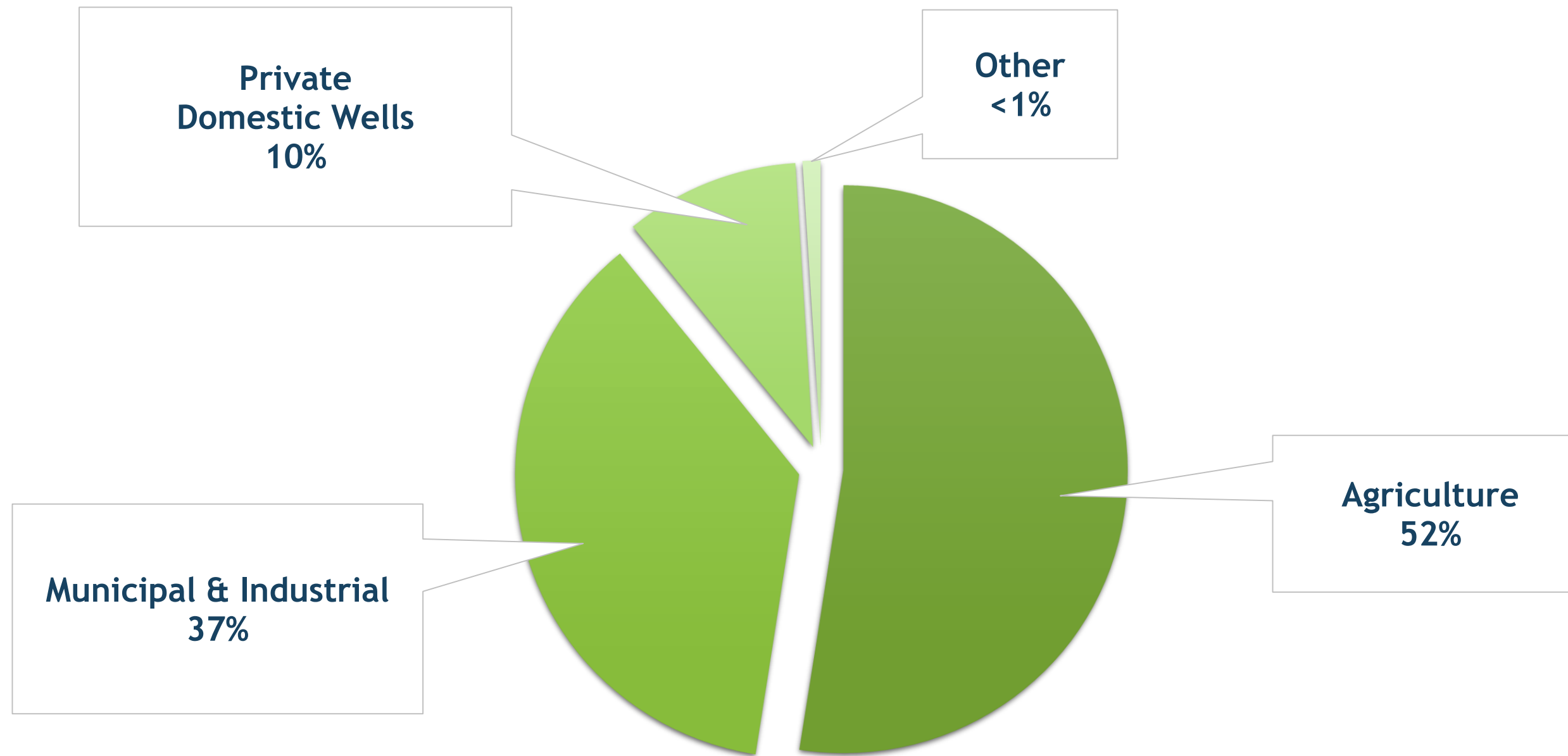
- ▶ Outlook of water resources throughout Ventura County
- ▶ Watershed management and sustainability
- ▶ Disaster planning

Water is an Concern

- ▶ Demands in Ventura County are approaching available supplies
 - ▶ In some areas demands exceed supply
- ▶ New controls on supplies
 - ▶ Increasing environmental regulations
 - ▶ Sustainable Groundwater Management Act
 - ▶ Drought impacts (local and statewide)
- ▶ **County strategy: Increase supply and decrease demand**

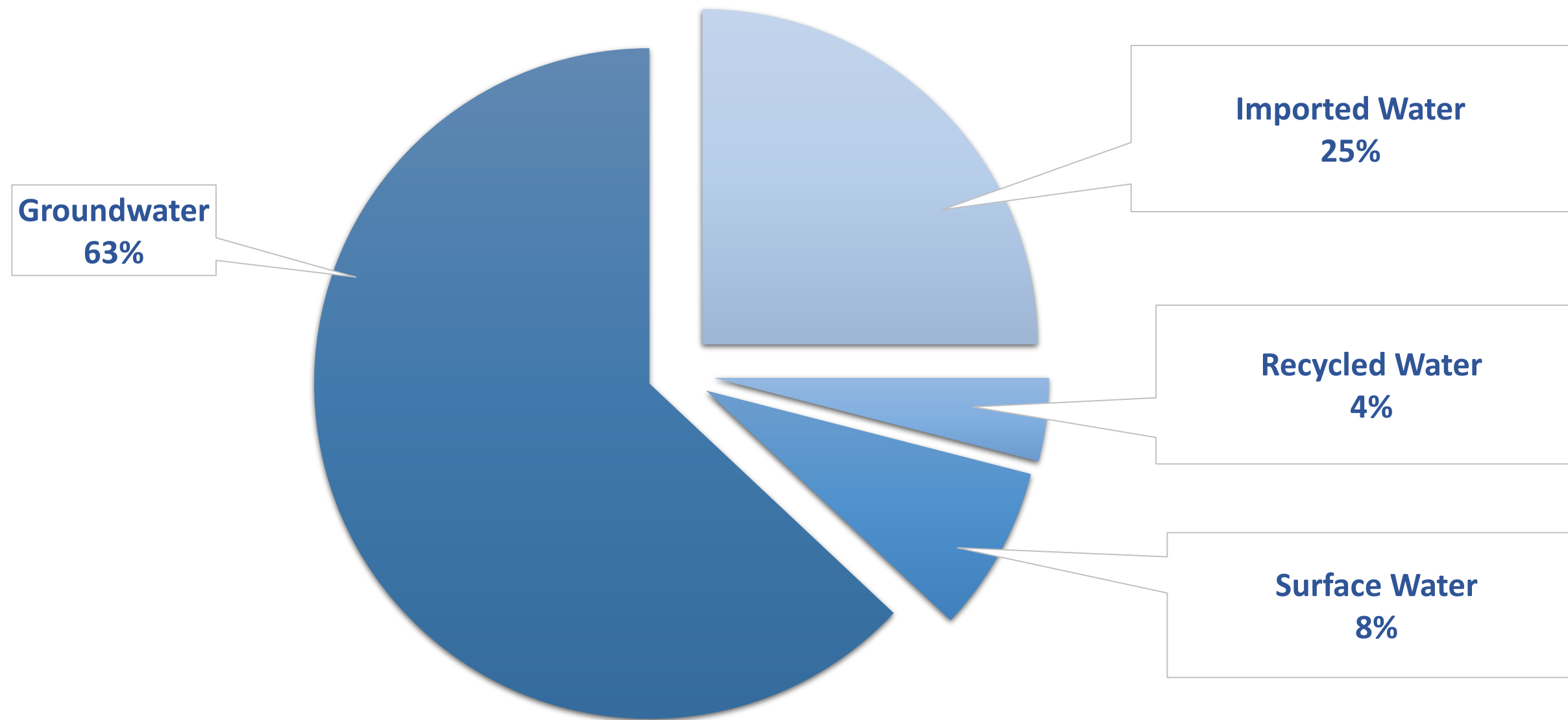
Water Supply and Demand Study 2020

Countywide Water Demand by Sector



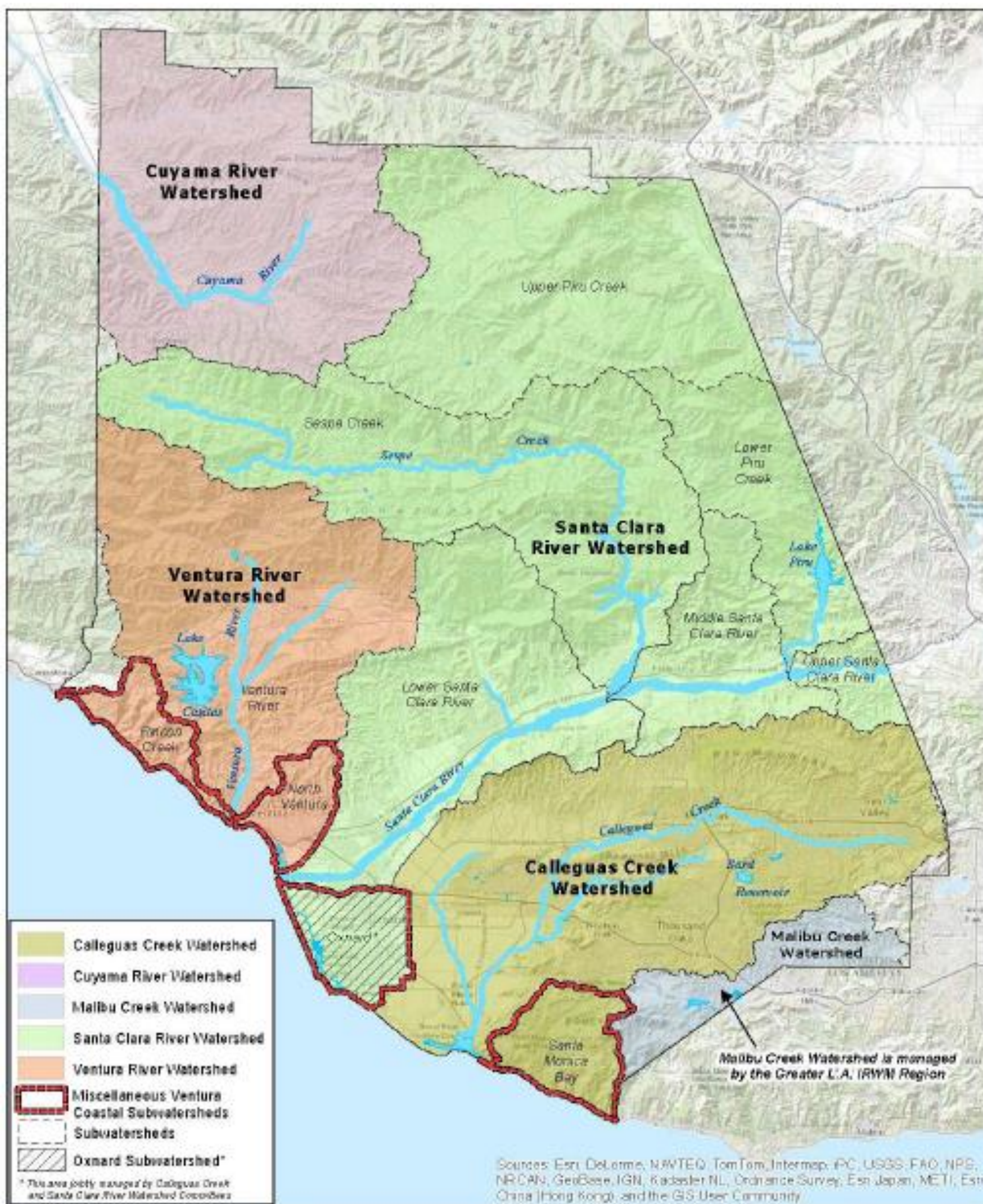
Water Supply and Demand Study 2020

Countywide Water Supplies by Source



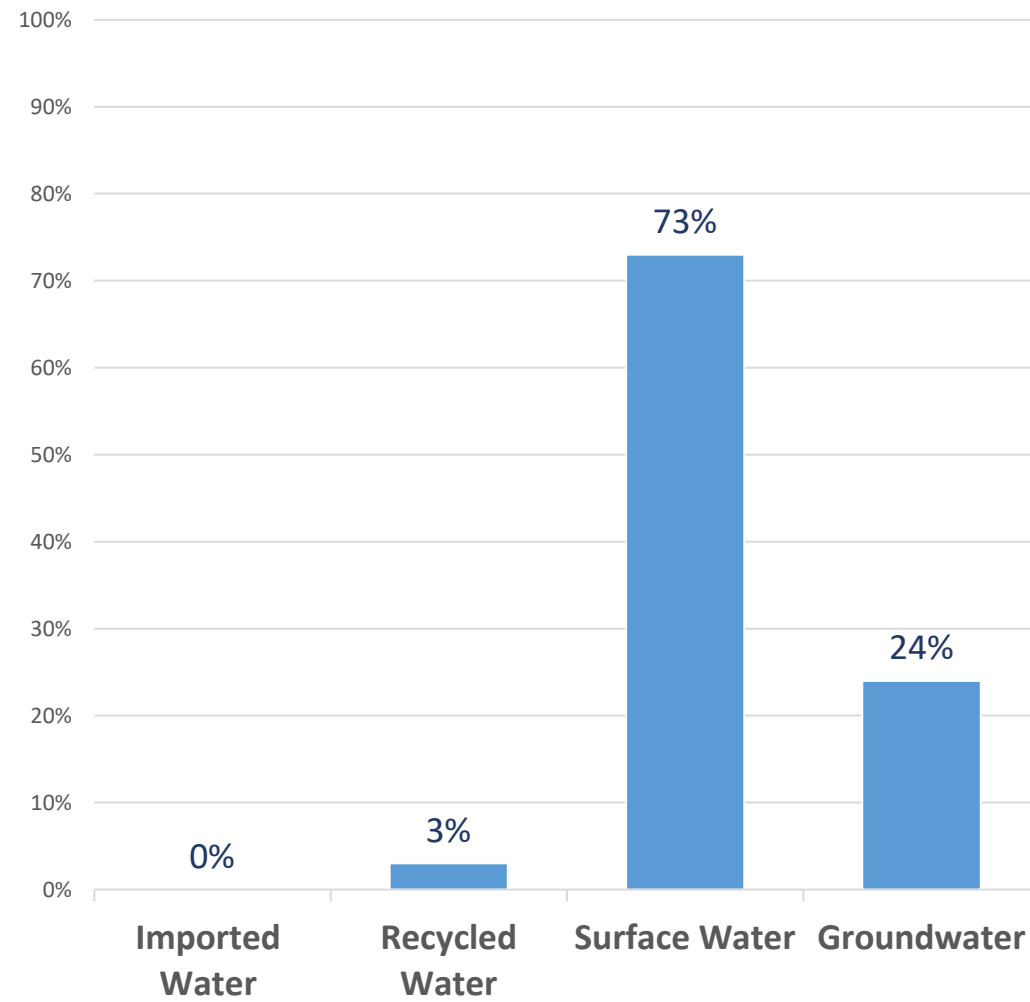
Ventura County Watersheds

- ▶ Ventura River
- ▶ Santa Clara River
- ▶ Calleguas Creek
- ▶ Cuyama River
- ▶ Malibu Creek
- ▶ Coastal

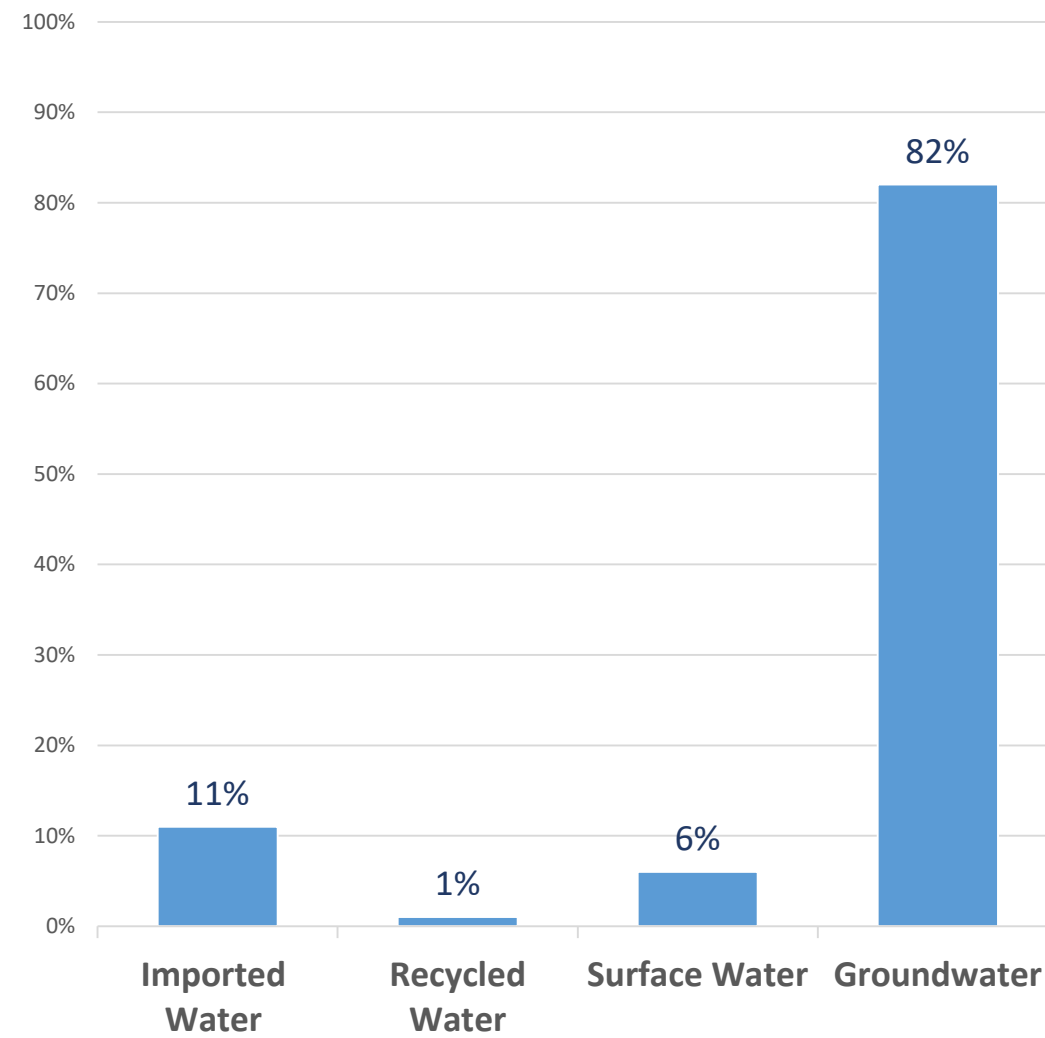


Water Supply by Watershed

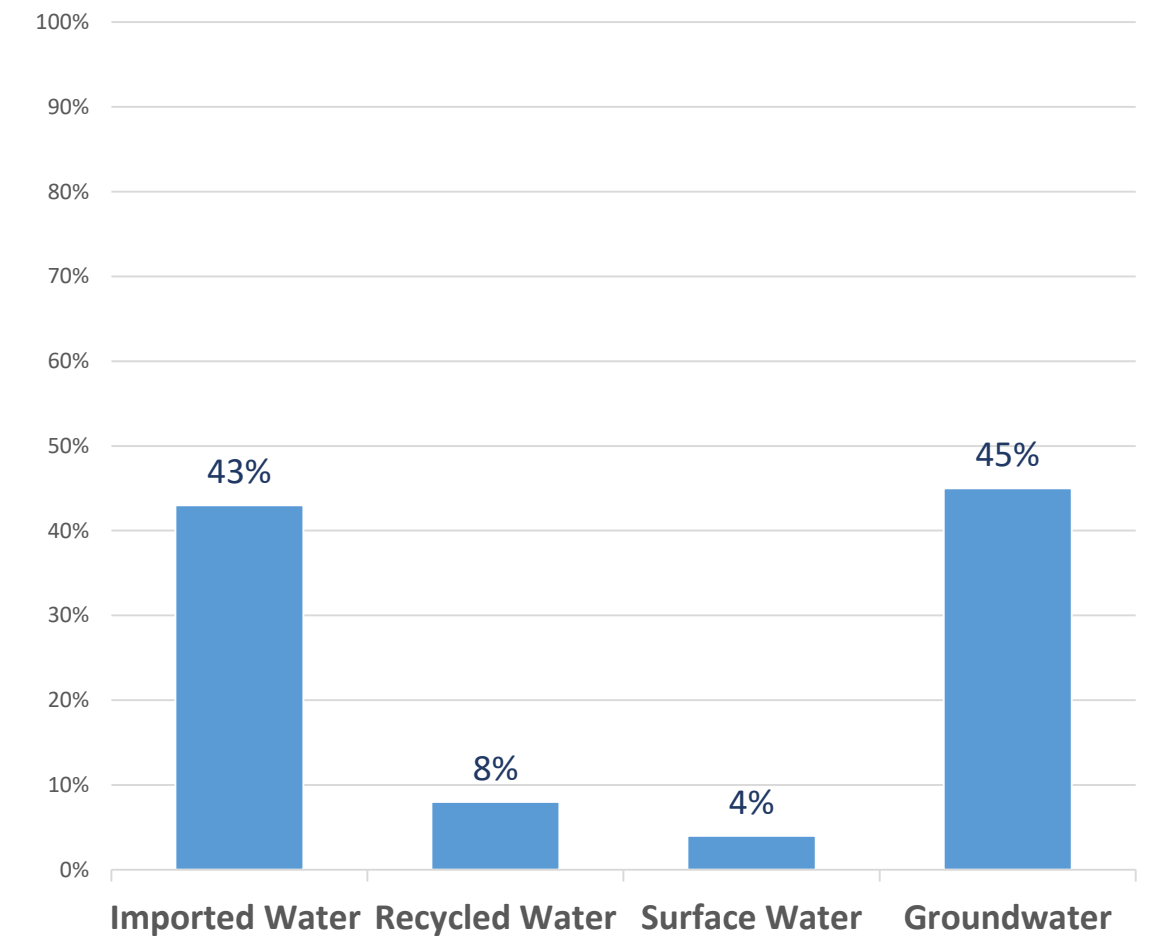
Ventura River Watershed



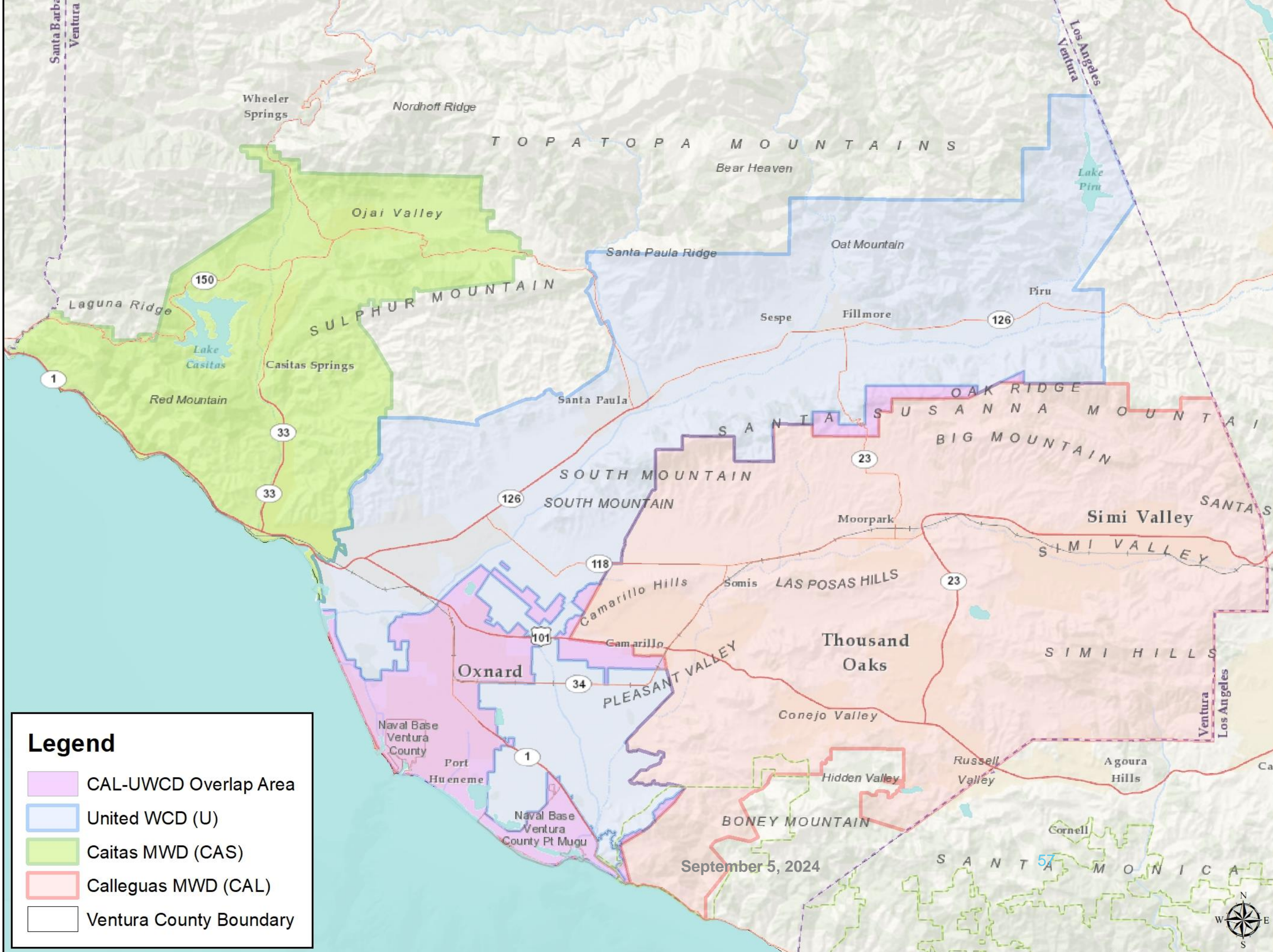
Santa Clara River Watershed



Calleguas Creek Watershed



Water Wholesalers



Legend

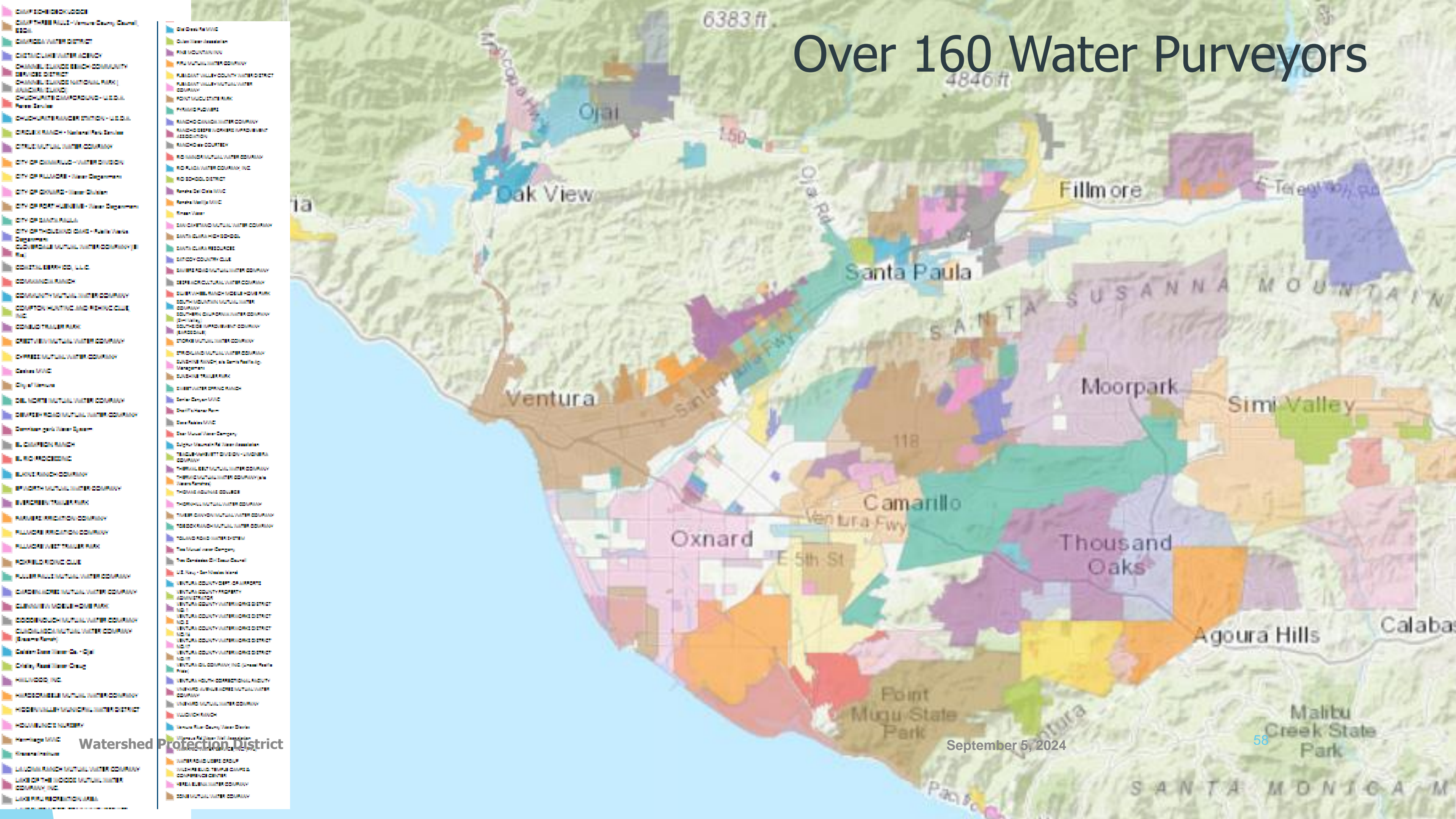
- CAL-UWCD Overlap Area
- United WCD (U)
- Casitas MWD (CAS)
- Calleguas MWD (CAL)
- Ventura County Boundary

Watershed Protection District

September 5, 2024



Over 160 Water Purveyors



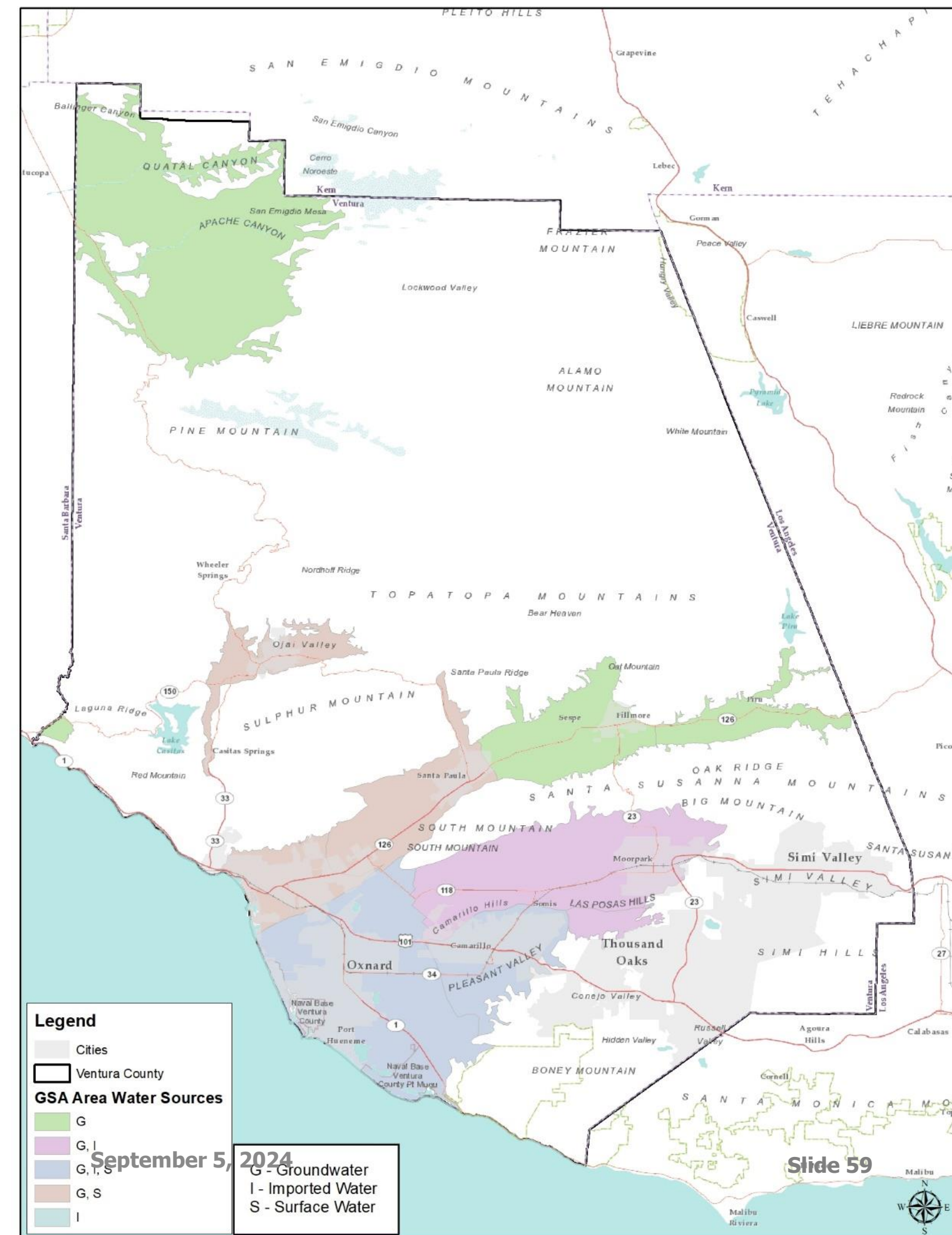
Watershed Protection District

September 5, 2024

58

Groundwater Sustainability Agencies

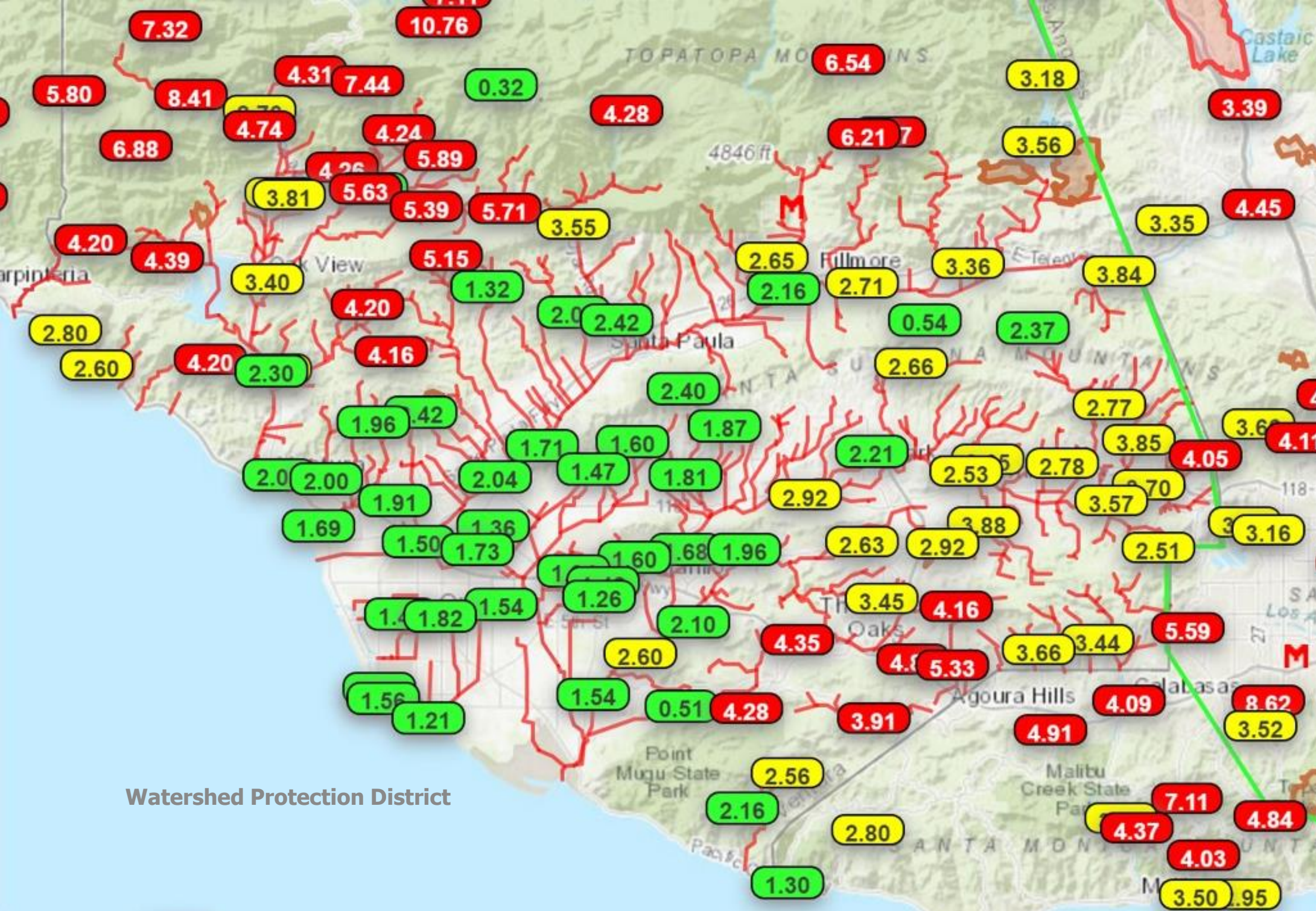
Groundwater Basin	Supervisor District
Cuyama	District 1
Carpinteria	District 1
Upper Ventura River	District 1
Fillmore and Piru	District 3
Mound	Districts 1 and 5
Arroyo Santa Rosa	District 2
Fox Canyon Las Posas Oxnard Pleasant Valley	All Districts



DISASTER PLANNING WATERSHED PROTECTION HYDROLOGY TEAM DISCHARGE MEASUREMENT



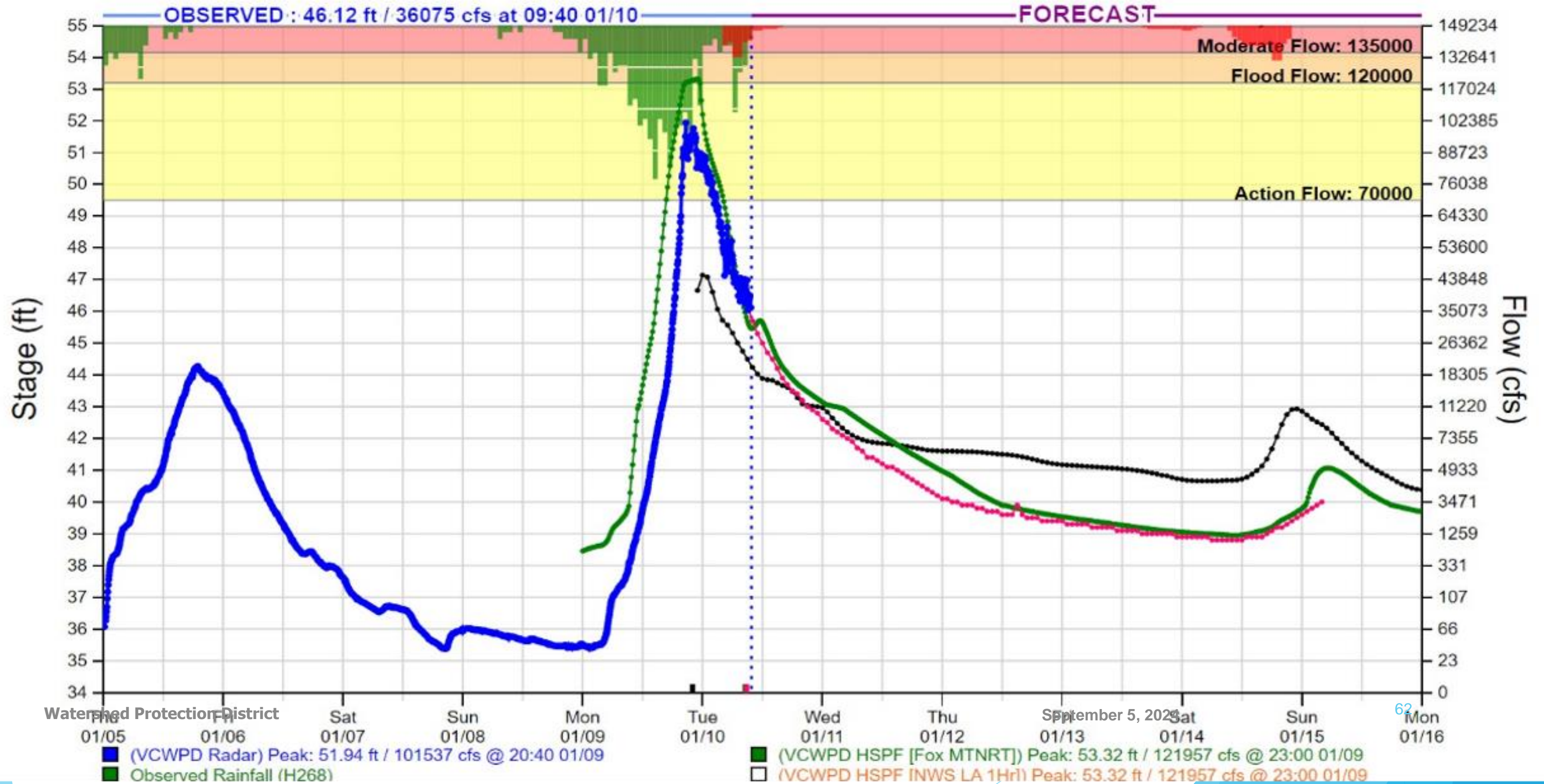
RAINFALL and STREAMFLOW MAPS



Observed and Forecast Stream Levels Santa Clara River at Victoria Ave (723)

FLOODING IS OCCURRING IN THE VICINITY OF THIS STREAM GAGE.

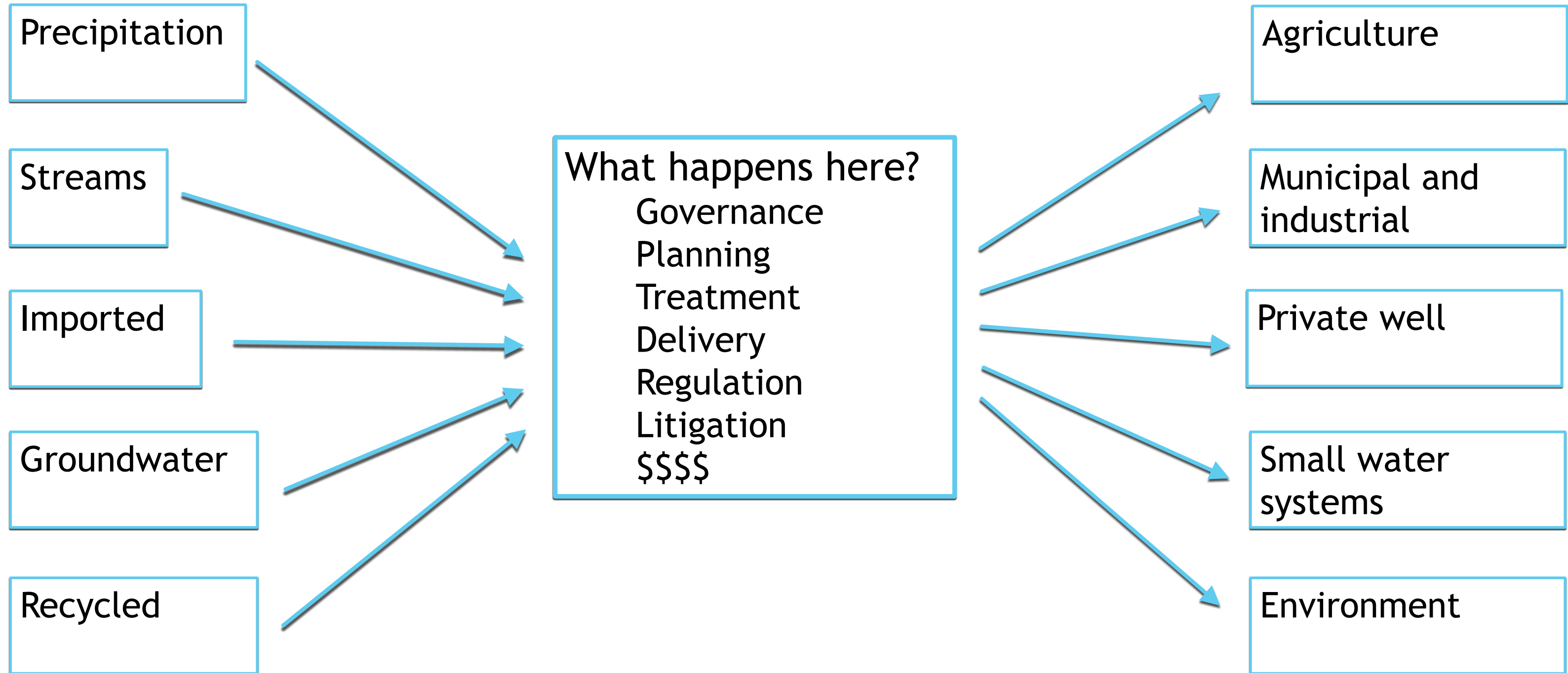
PREPARE: FLOODING IS POSSIBLE IN THE VICINITY OF THIS STREAM GAGE.



Supply



Demand





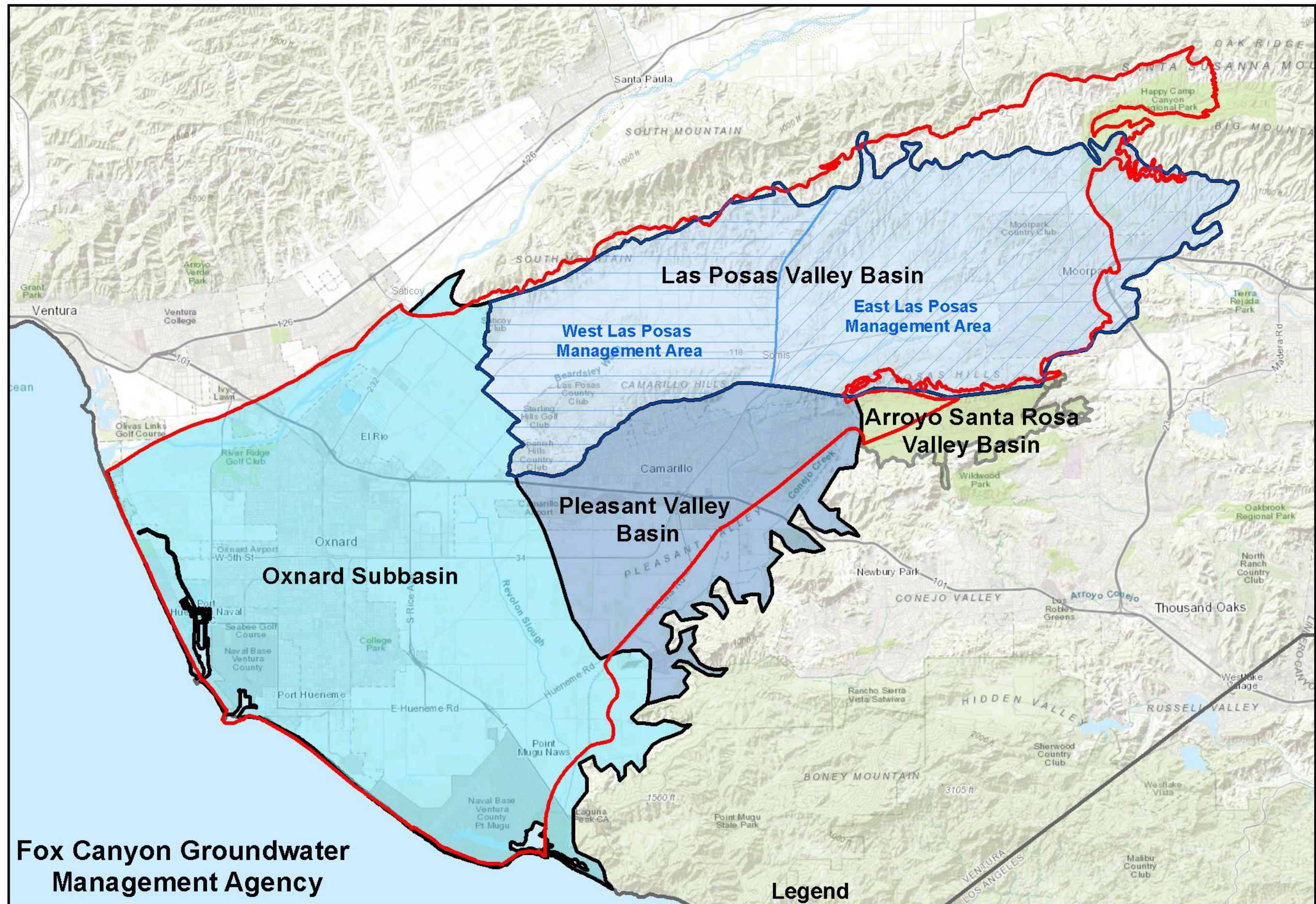
Questions?

Fox Canyon Groundwater Management Agency Sustainable Management

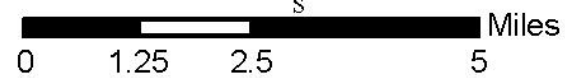
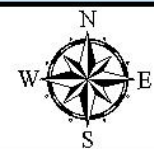
Forum on Ventura County's Water Crisis & California's Drought
September 5, 2024



Arne Anselm,
Interim Executive Officer

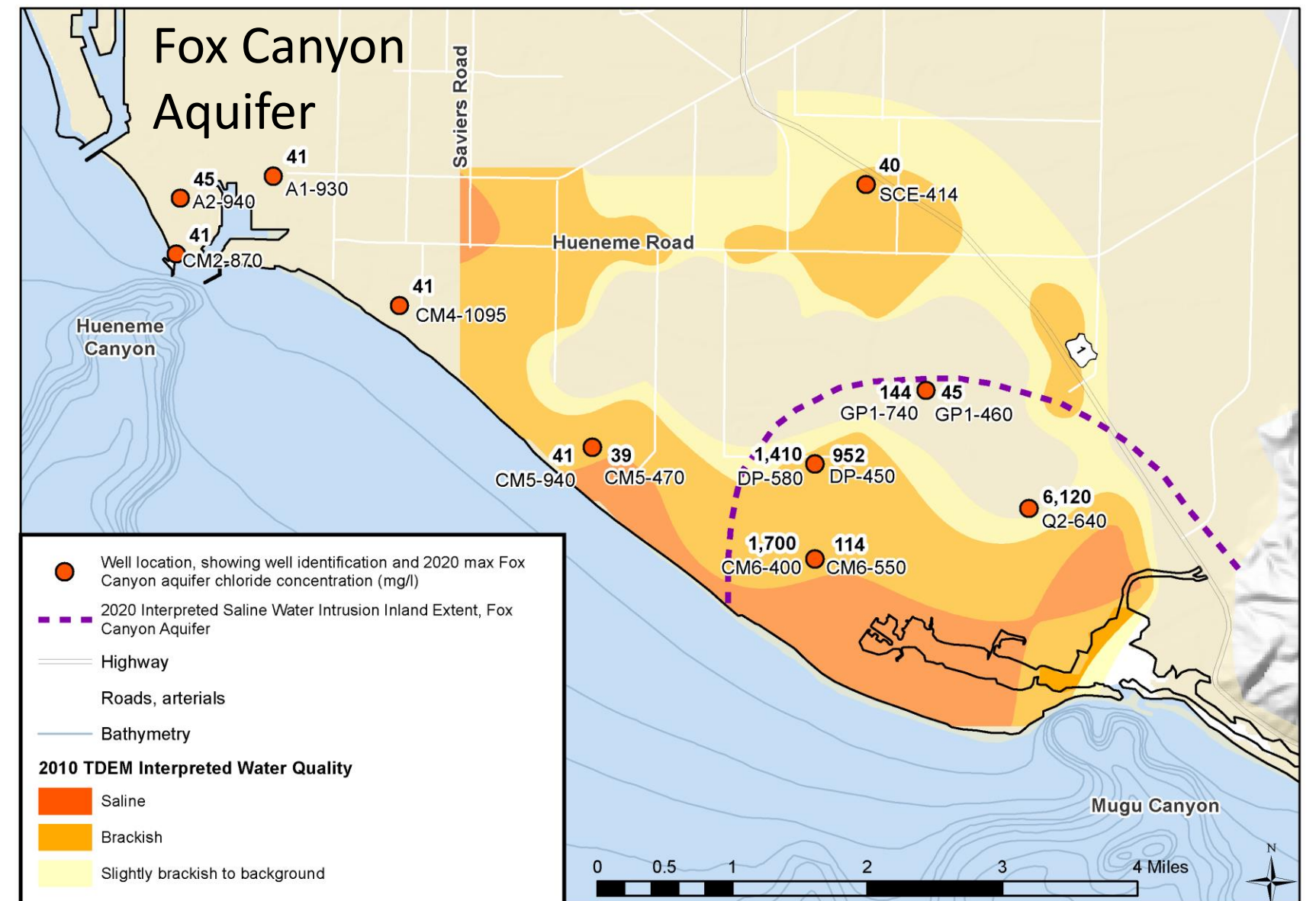
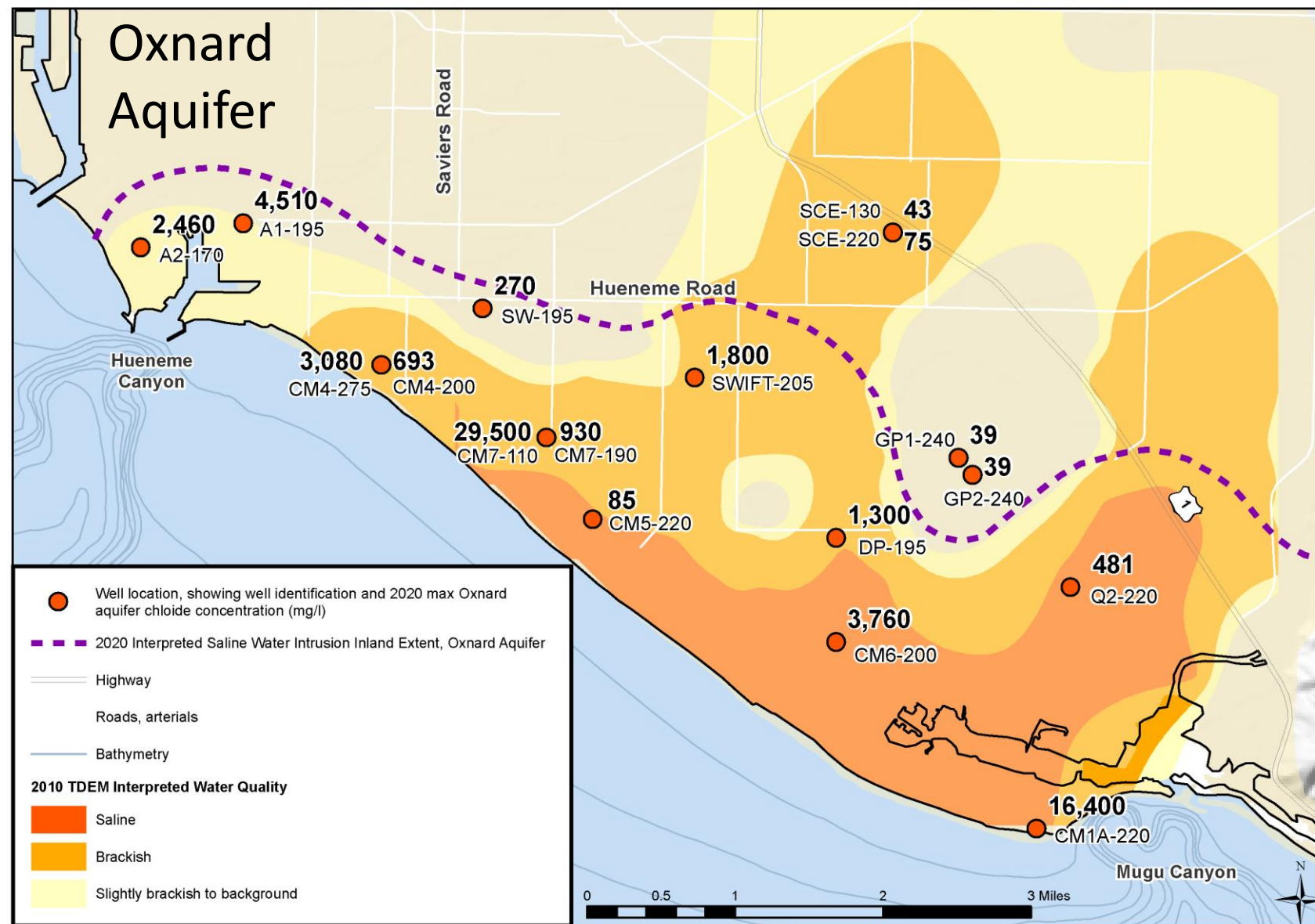


800 S. Victoria Avenue
 Ventura, CA 93009-1600
 Phone: (805) 654-2088
 Fax: (805) 677-8762
www.foxcanyongma.org
www.publicworks.countyofventura.org/fcgma



- Fox Canyon Groundwater Agency Boundary
- Ventura County Boundary
- Oxnard Subbasin
- Pleasant Valley Basin
- Las Posas Valley Basin
- Arroyo Santa Rosa
- Las Posas Valley Basin

Seawater Intrusion

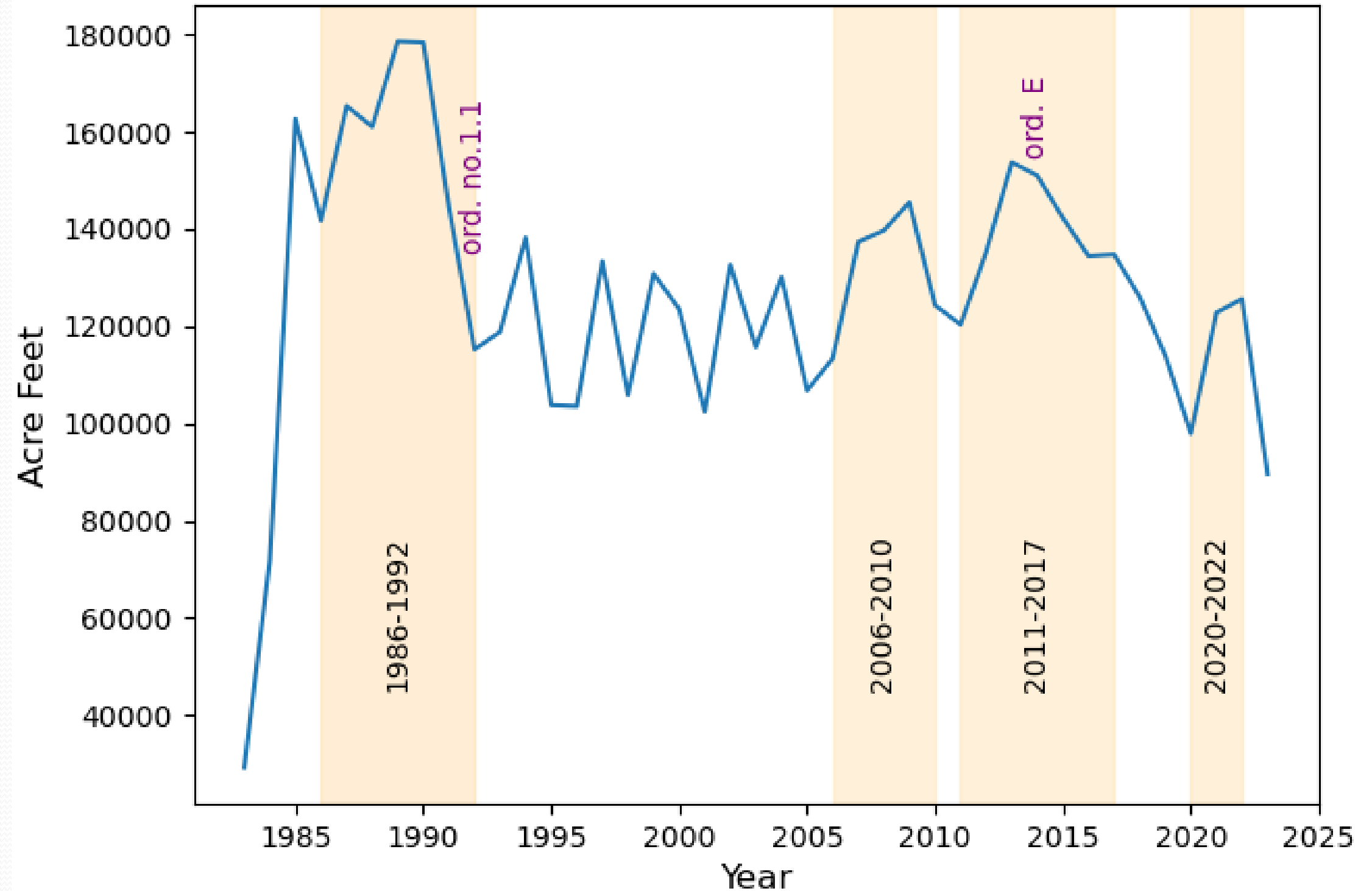


Figures: UWCD OFR 2021-03, November 2021

FCGMA Brief History

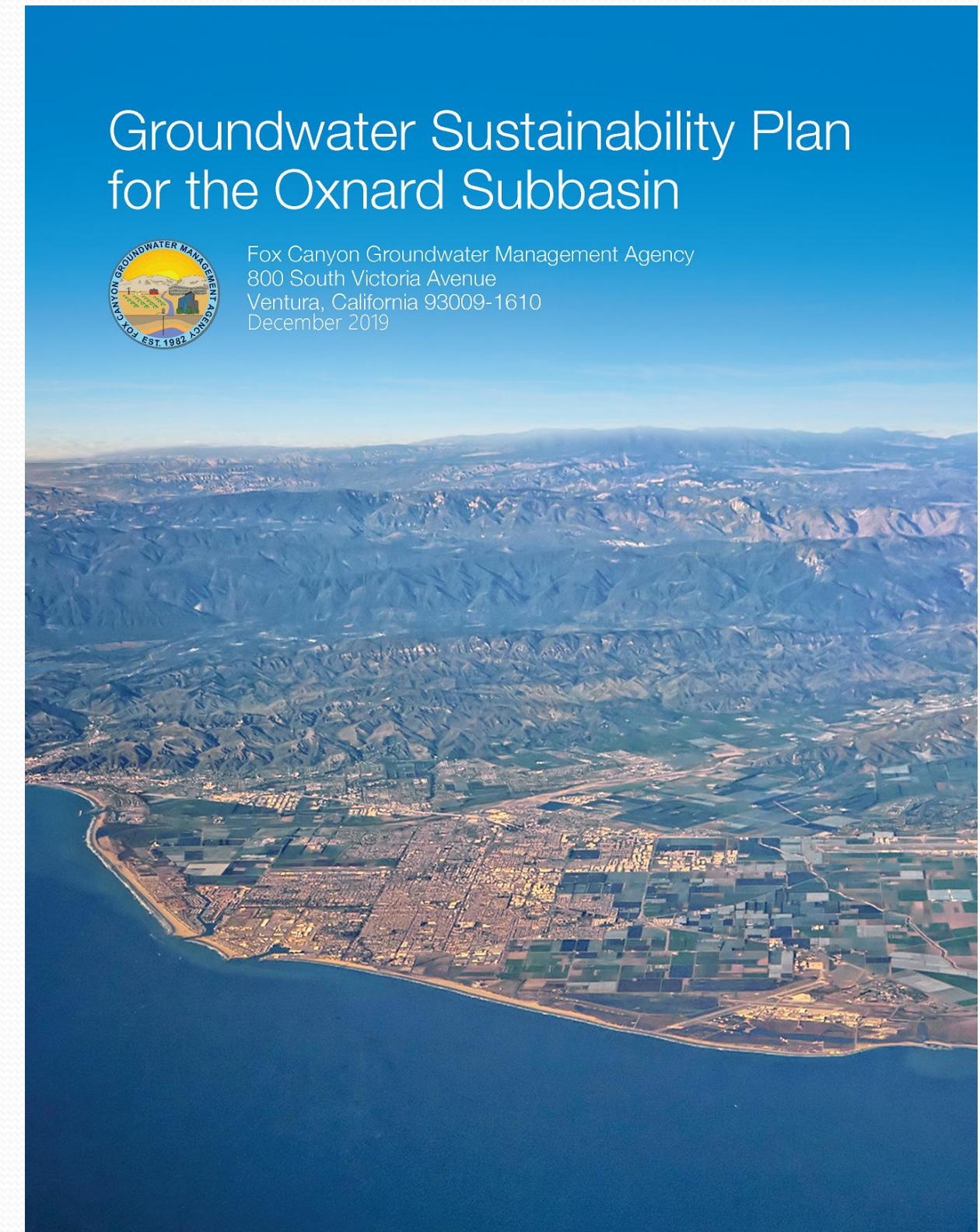
- AB 2995 (1982)
- Fox Canyon Aquifer
- Multiple basins
- Hydrological connectivity
- Complicated

Agency Policy Effect on Groundwater Extractions

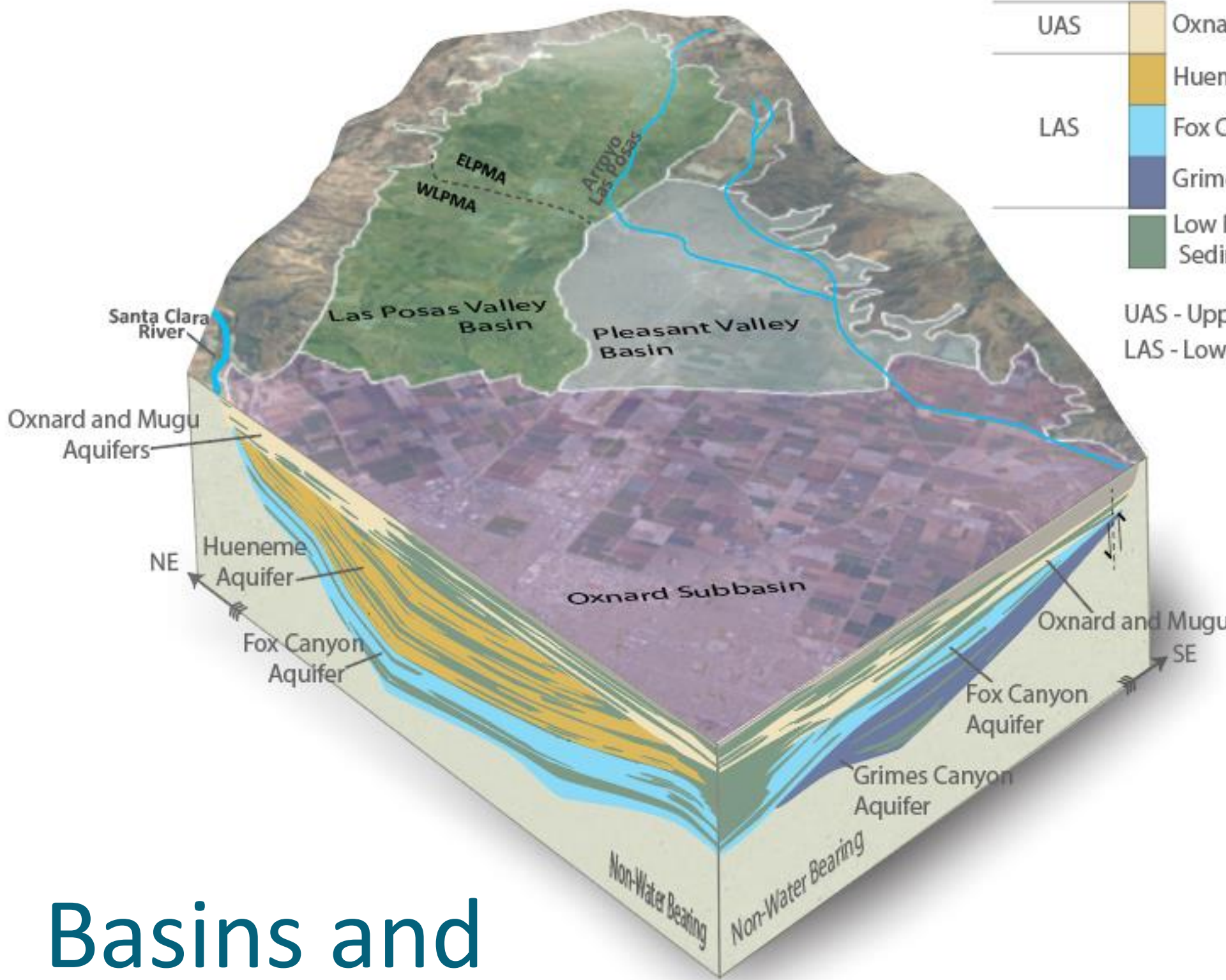


SGMA & GSPs

- Sustainable Groundwater Management Act (SGMA)
 - Effective January 2015
 - Requires sustainable management by 2040
 - New authority for Fox Canyon GMA to implement projects
- Groundwater Sustainability Plans (GSPs)
 - Adopted Dec 2019
 - Approved by DWR Nov 2021 & Jan 2022
 - Technical information about basins
 - Undesirable results and sustainable yield
 - Plan to sustainable management
 - **Reviewed and updated minimum of every 5 years**



Complicated hydrogeology



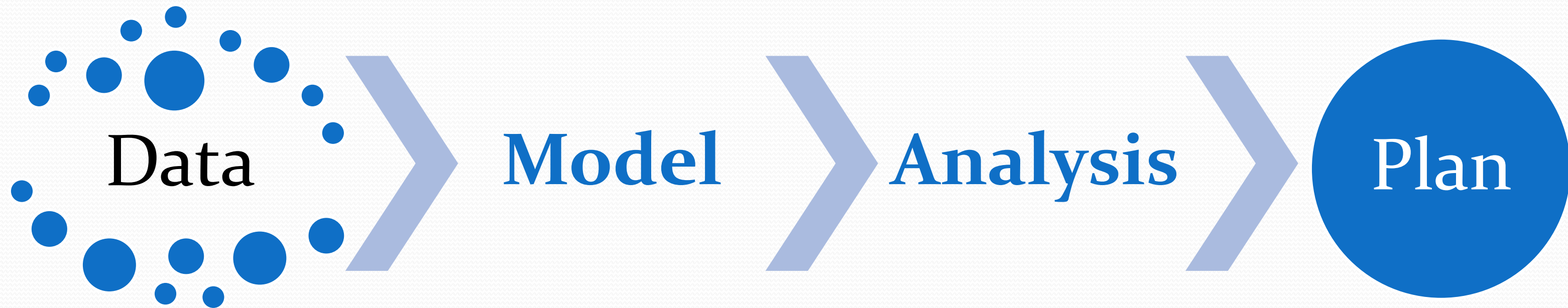
Basins and Aquifers are interconnected



GSP Evaluation Timelines



Groundwater Sustainability Plans



- Sustainability requires actions
 - Management actions
 - Supply projects
 - Demand reductions
 - Future evaluations with more and better data

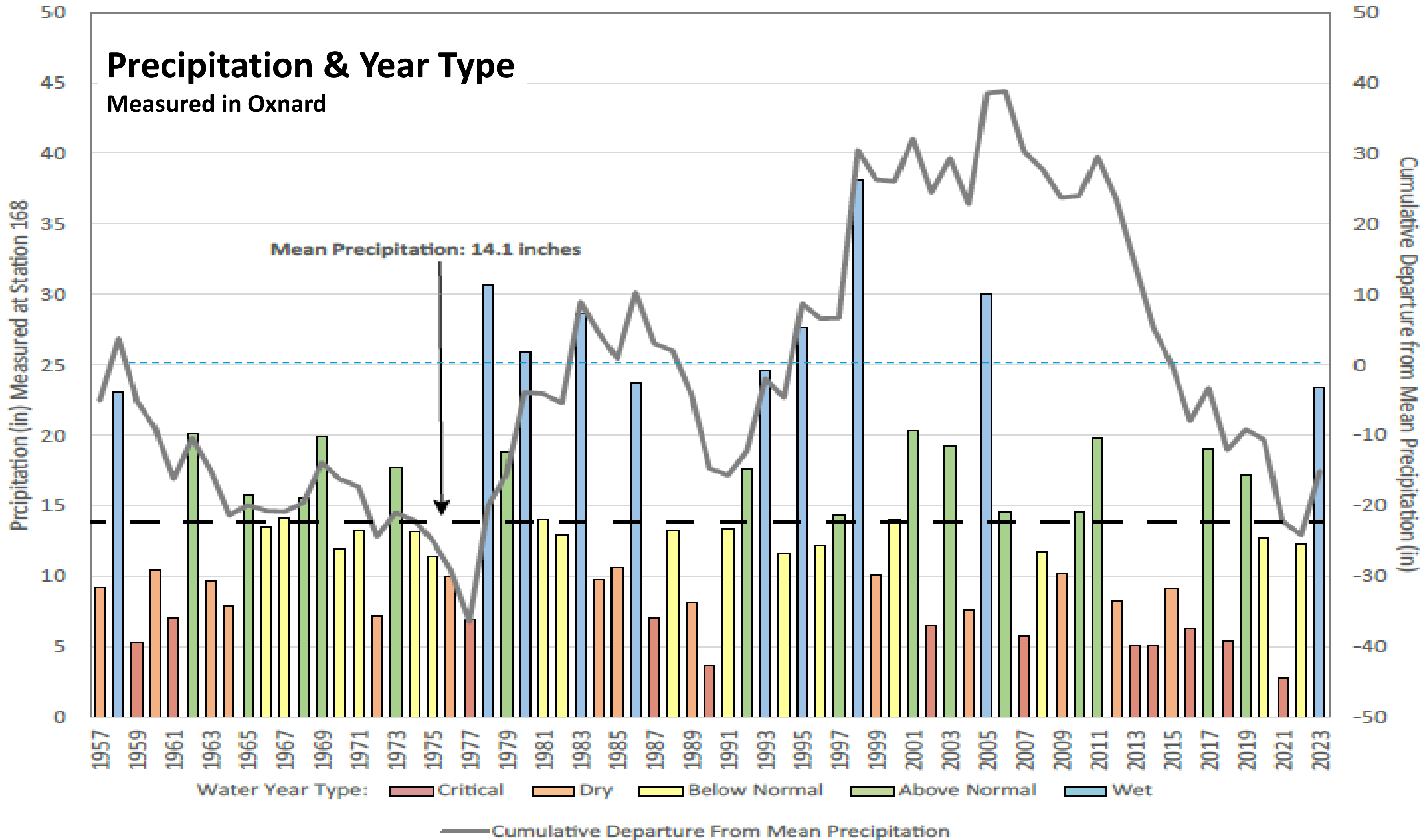
Challenges

- Groundwater use exceeds sustainable yield – will lead to undesirable results
- No “low hanging fruit” – easy stuff has been done
- Future uncertainties
 - Precipitation
 - Flows in the Santa Clara River
 - Availability of State Water Project imported water
- Project planning
 - Feasibility, environmental permitting / restrictions
 - Funding / cost
((\$100s of millions for projects under consideration))

OPV Sustainable Yield \approx 51,000 AFY
Avg Extractions \approx 88,000 AFY

Precipitation & Year Type

Measured in Oxnard



Opportunities & Solutions

Projects

- **Water Supply Projects**
 - Recycled water
 - Brackish / saline desalting
 - Imported water
 - Stormwater capture
(recharge limited by clays in many areas)
- **Mitigation Projects**
 - Seawater intrusion barriers
- **Infrastructure Projects**
 - Pipelines for interconnection

Management Actions

- Stakeholder Engagement
- Regional Partnerships
- Water Market
- Extraction Reductions

\$15.2 Million SGM Grant award to FCGMA for projects in Oxnard & PV Basins

- Camarillo Stormwater Diversion Feasibility Study
- UWCD Ferro-Rose Recharge Basin
- UWCD Recycled Water Interconnection Pipeline
- UWCD Monitoring Wells
- PVCWD Recycled Water Connection Pipeline
- PVCWD Private Reservoir Program
- FCGMA Monitoring Wells – more and better data

5-Year GSP Workshops September 9 & 10, 2024

When:

Las Posas Valley Basin (LPV): *Monday, September 9, 2024, from 6 - 8 pm*

Oxnard & Pleasant Valley Basins (OPV): *Tuesday, September 10, 2024, from 6 - 8 pm*

Where:

Lower Plaza Assembly Room (LPAAR), 800 S. Victoria Ave, Ventura, CA 93009

Drafts available at [FCGMA.ORG](https://www.fcgma.org)

Las Posas Valley Basin

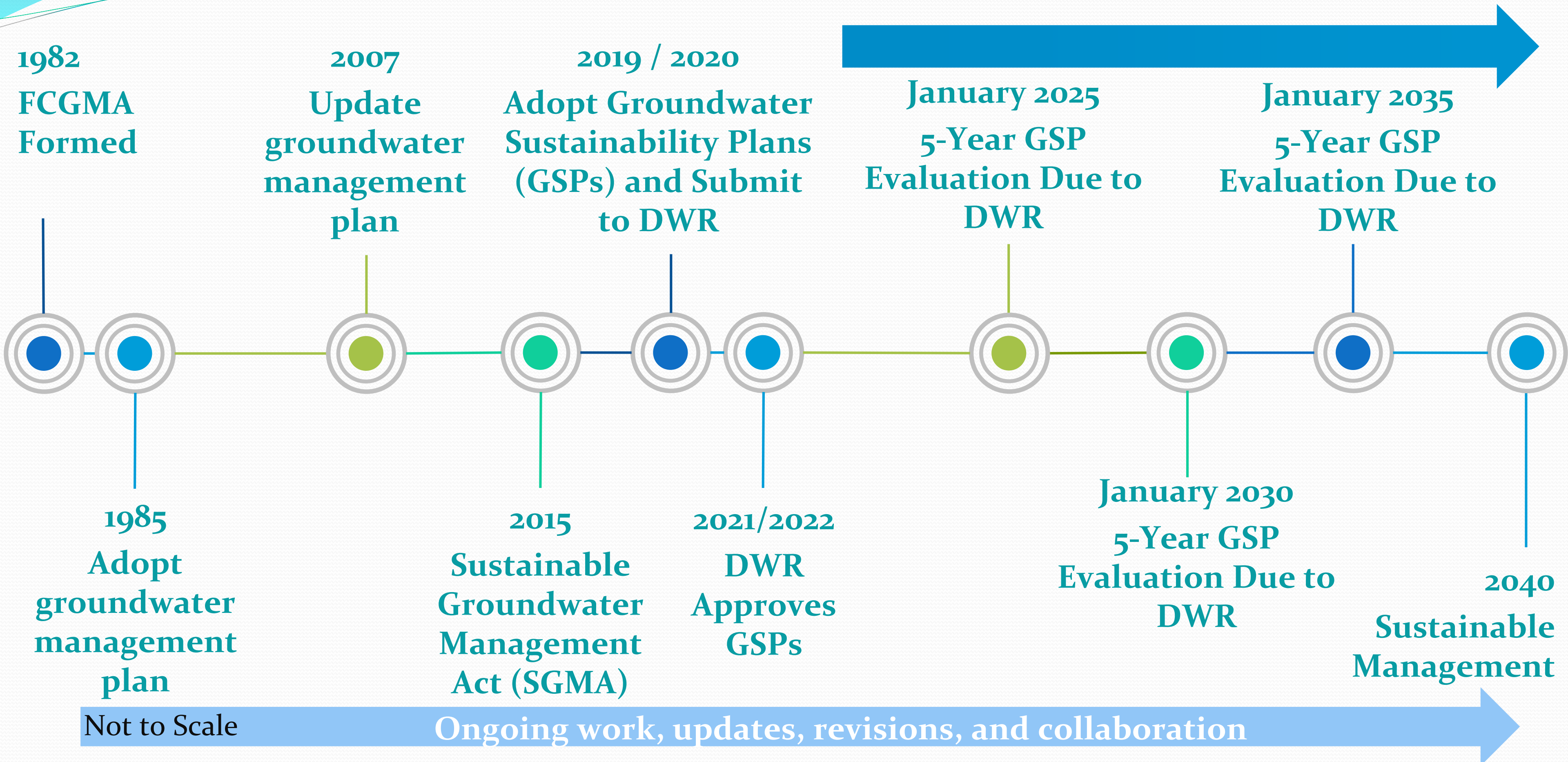
Oxnard Basin

Pleasant Valley Basin

Written comments received on or before October 7 will be considered for inclusion in the final draft evaluations.

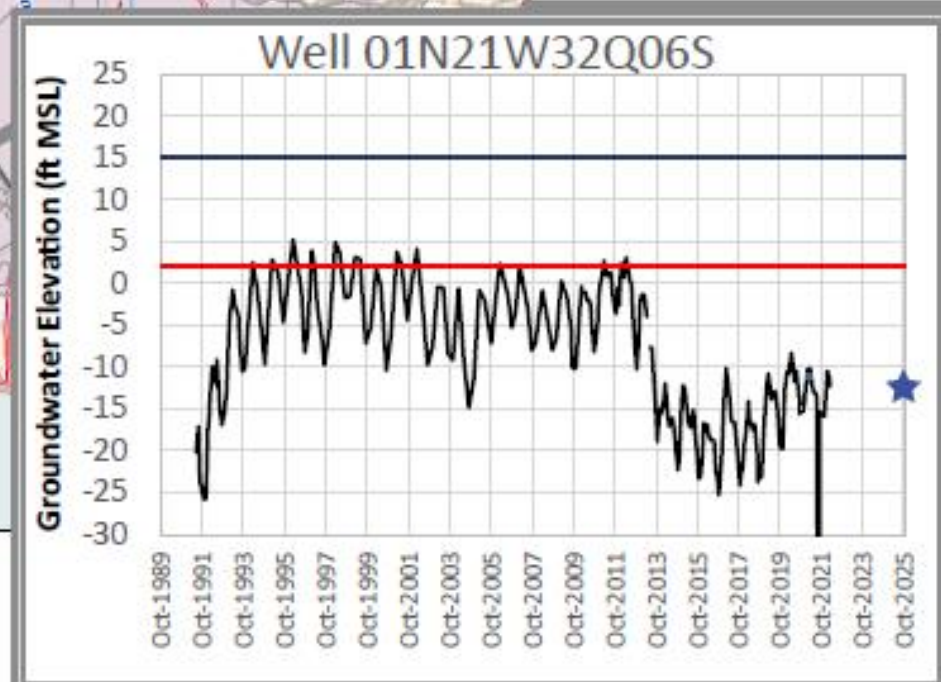
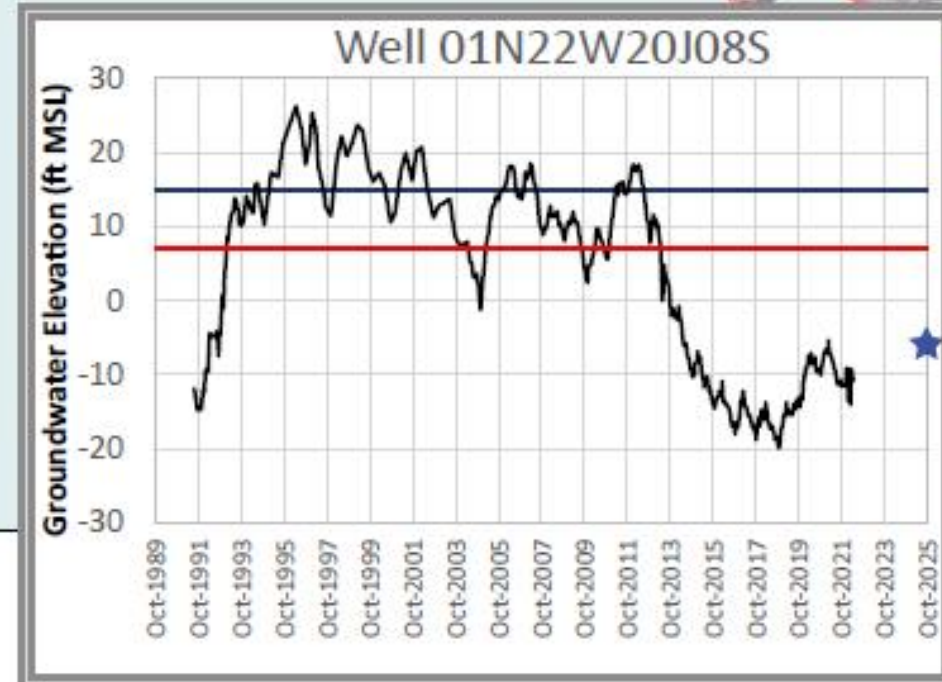
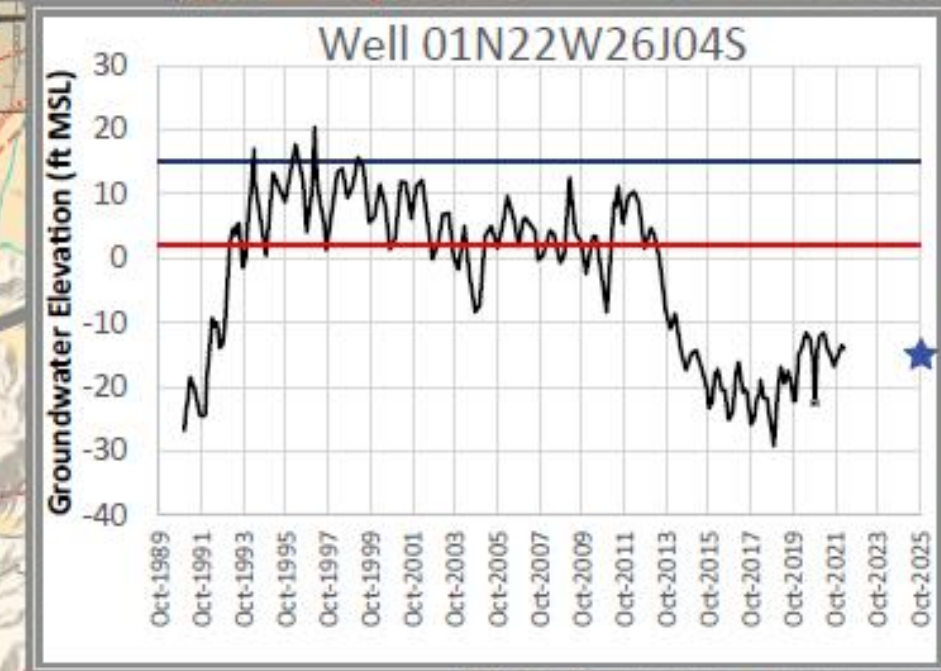
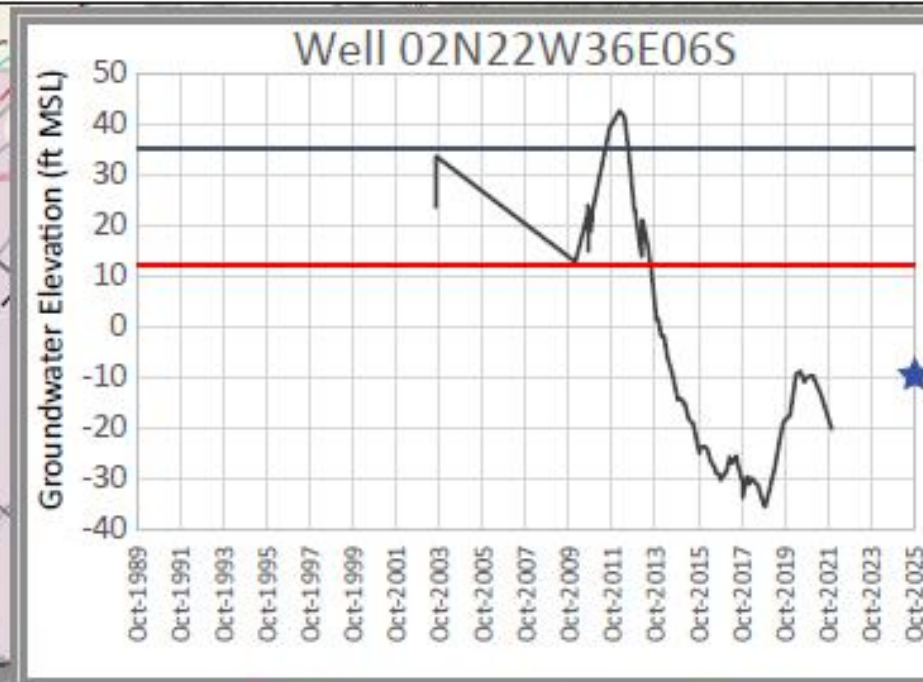
Please send written comments to FCGMA@ventura.org.

Management Timeline



OXNARD AQUIFER

- ★ Interim Milestone
- Measurable Objective
- Minimum Threshold



01C05
0.25

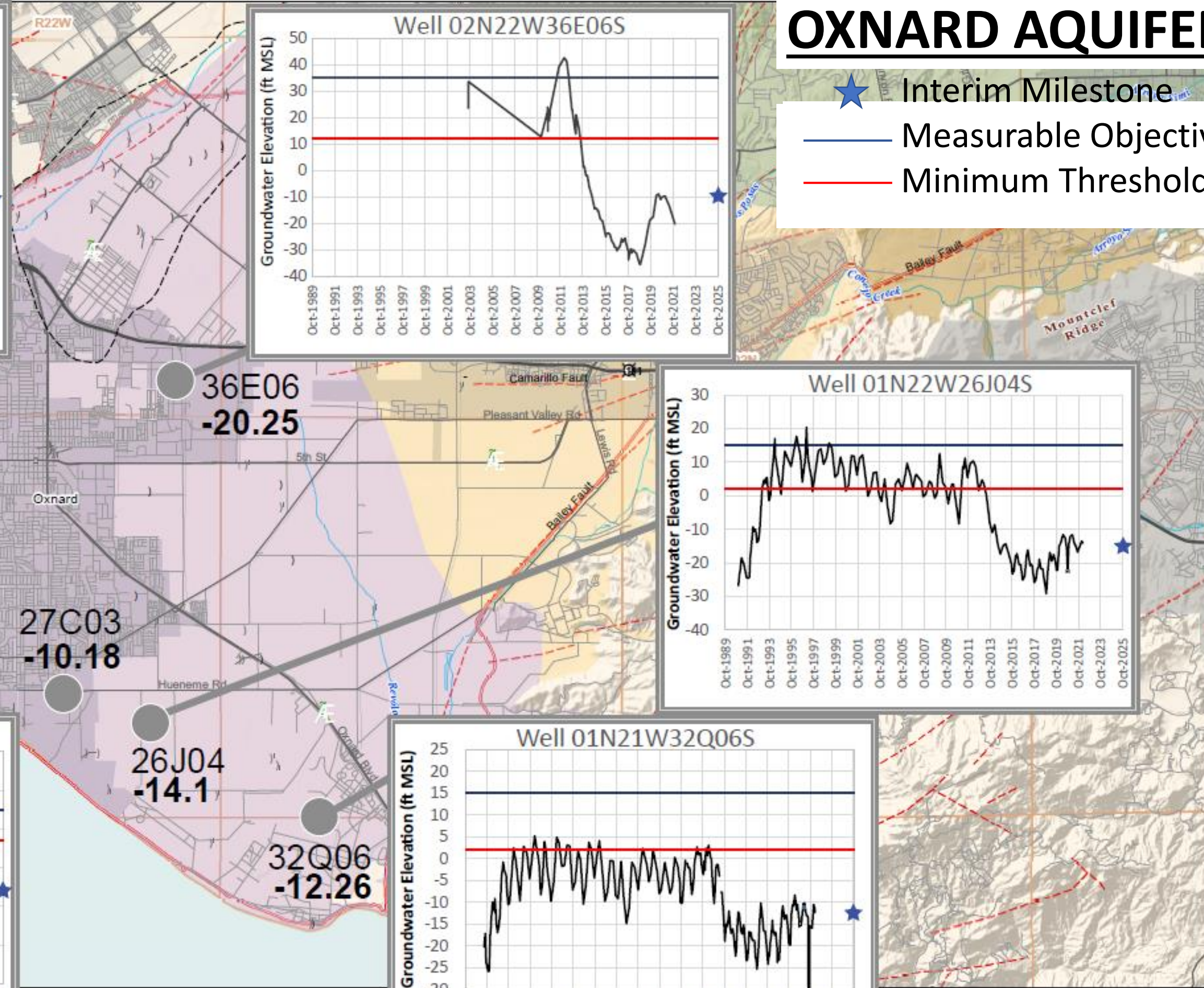
36E06
-20.25

20J08
-10.8

27C03
-10.18

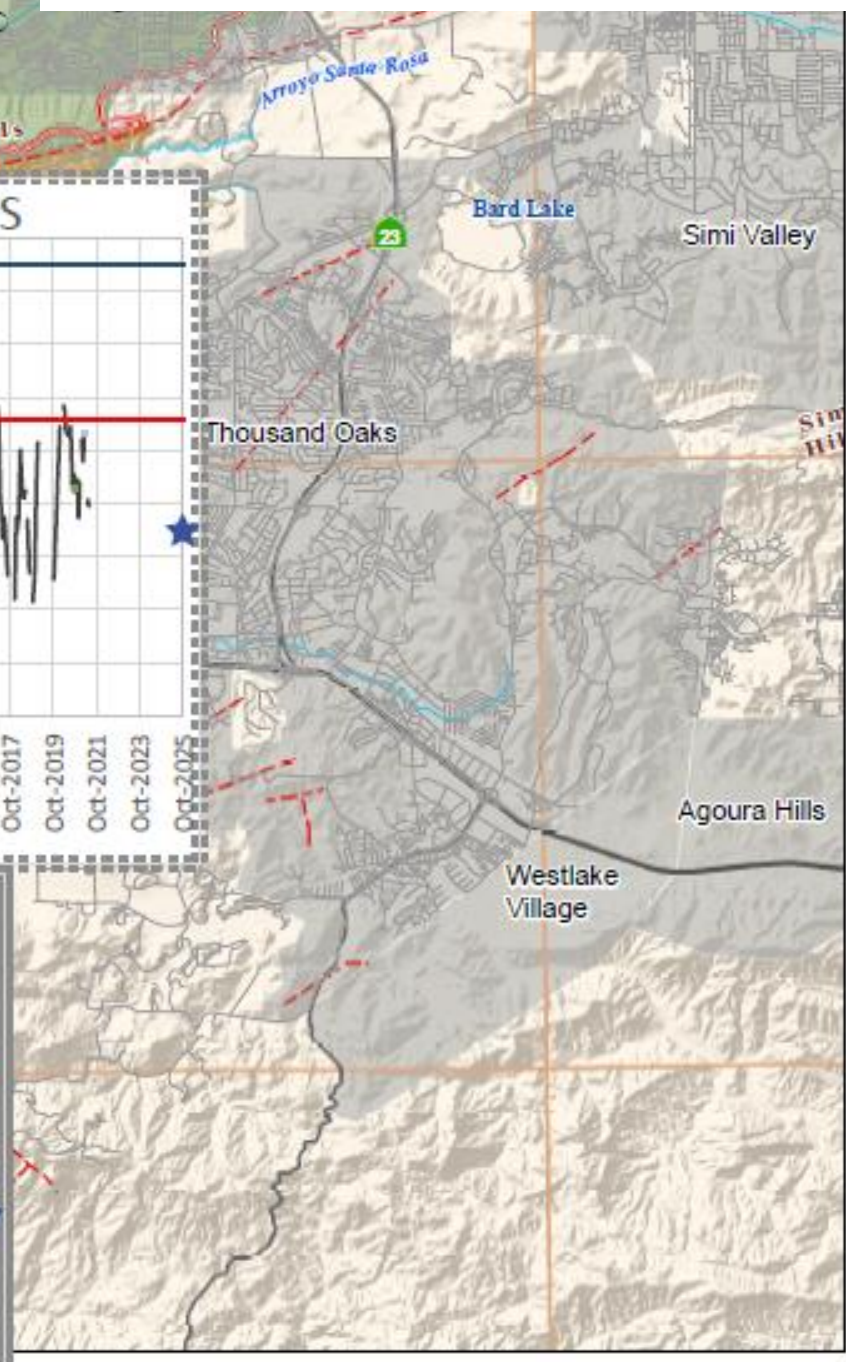
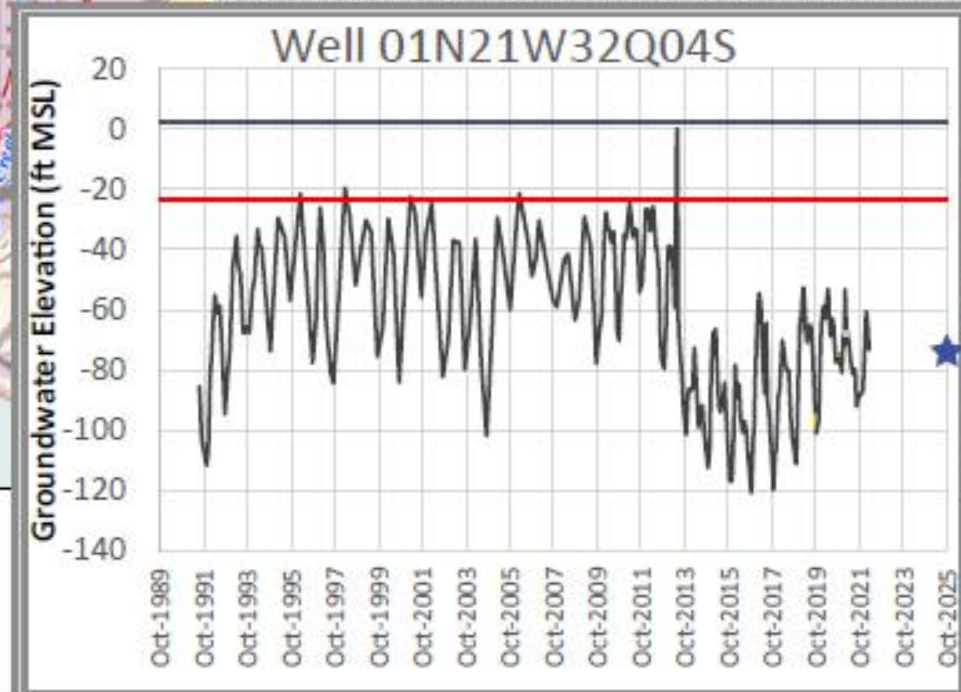
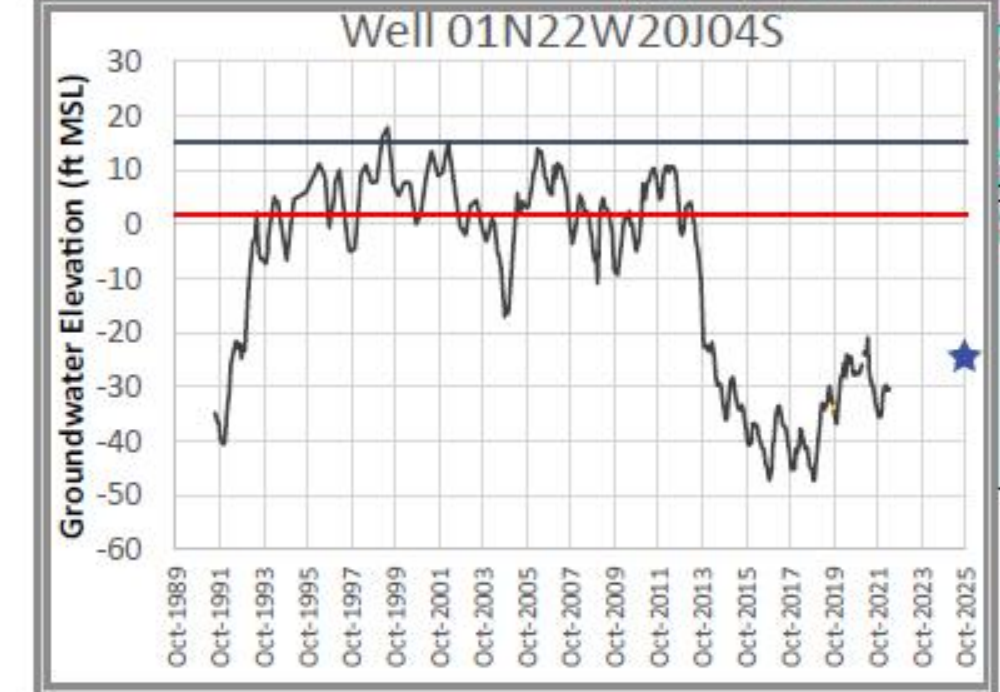
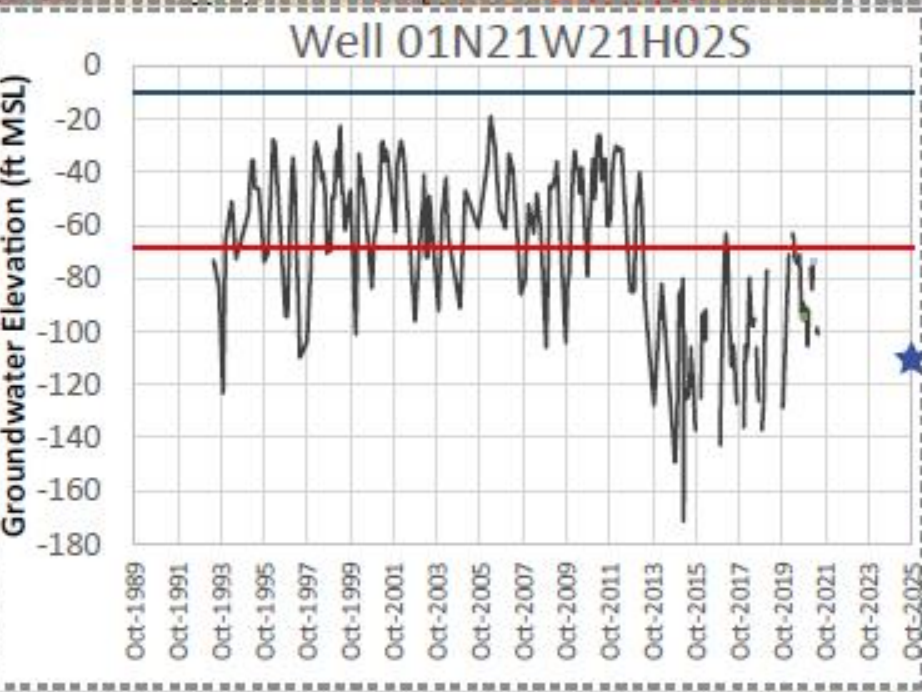
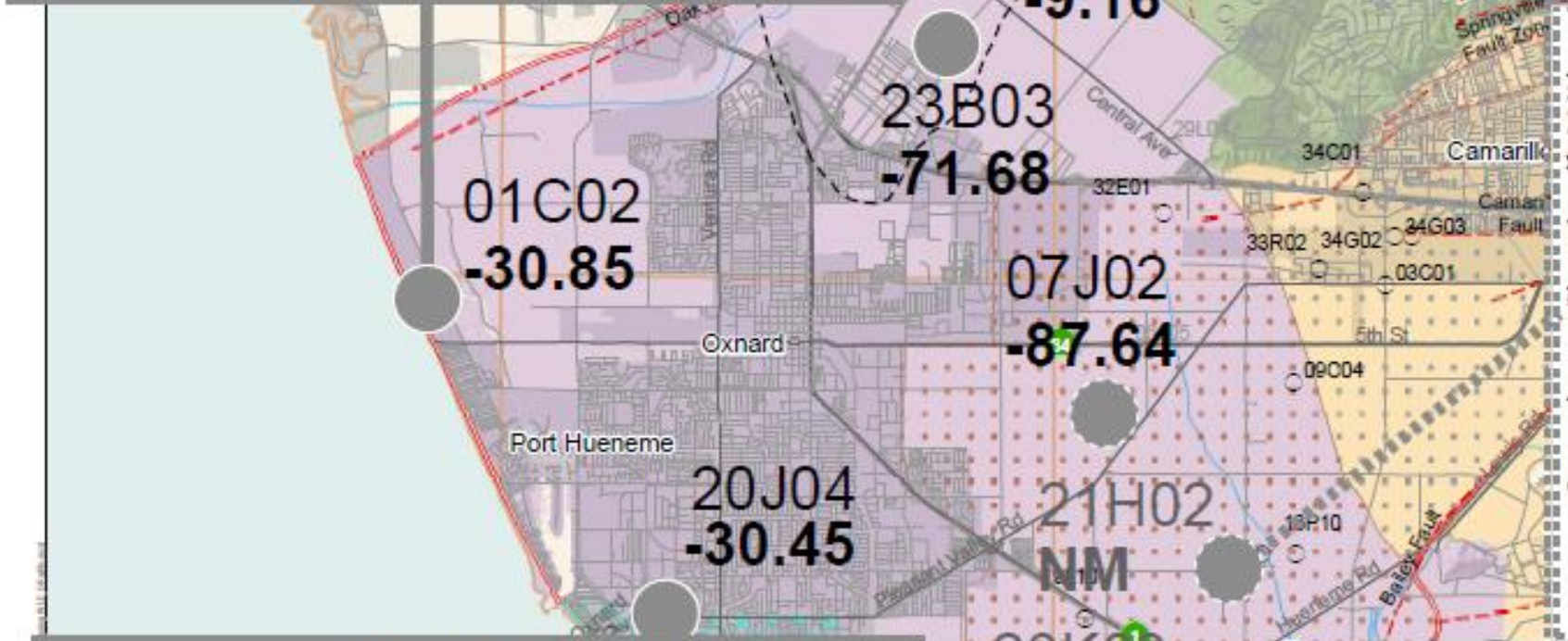
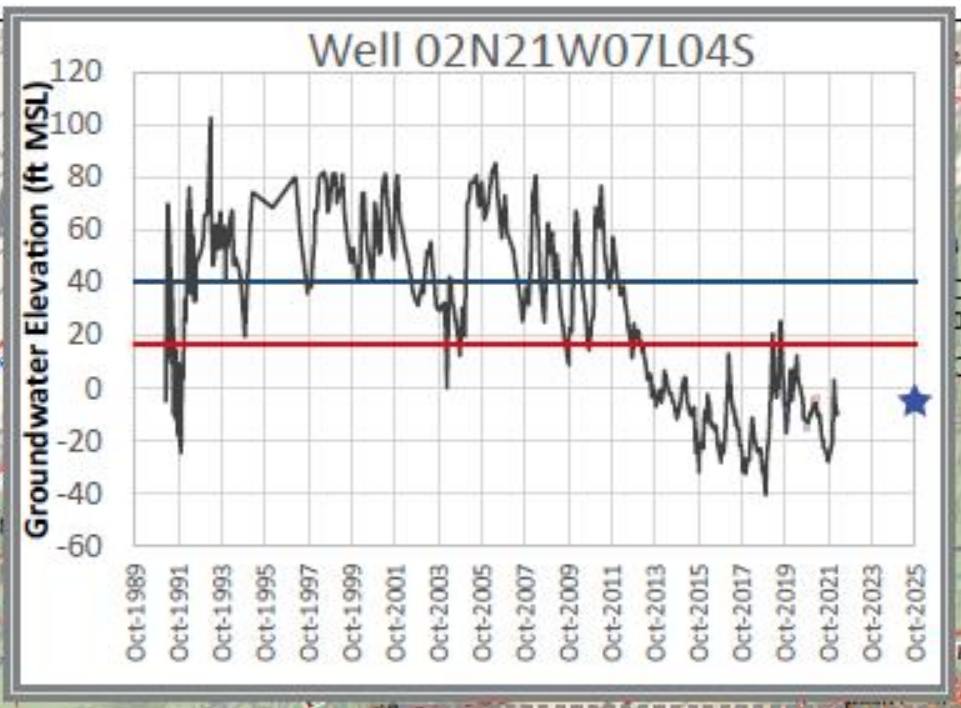
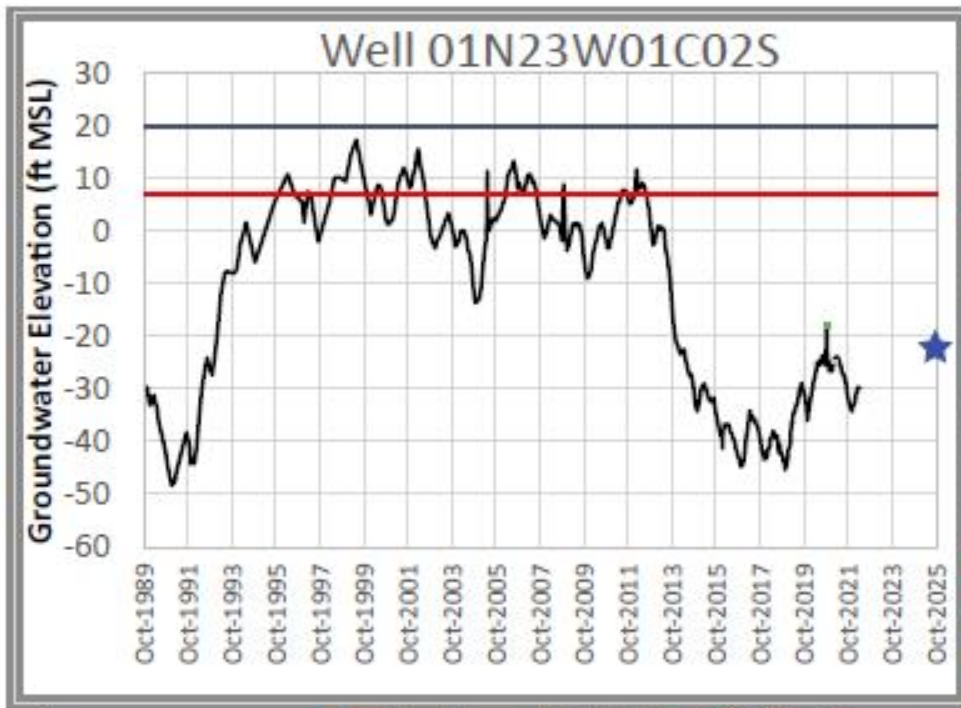
26J04
-14.1

32Q06
-12.26



FOX CANYON AQUIFER

- ★ Interim Milestone
- Measurable Objective
- Minimum Threshold
- Screened in Multiple Aquifers



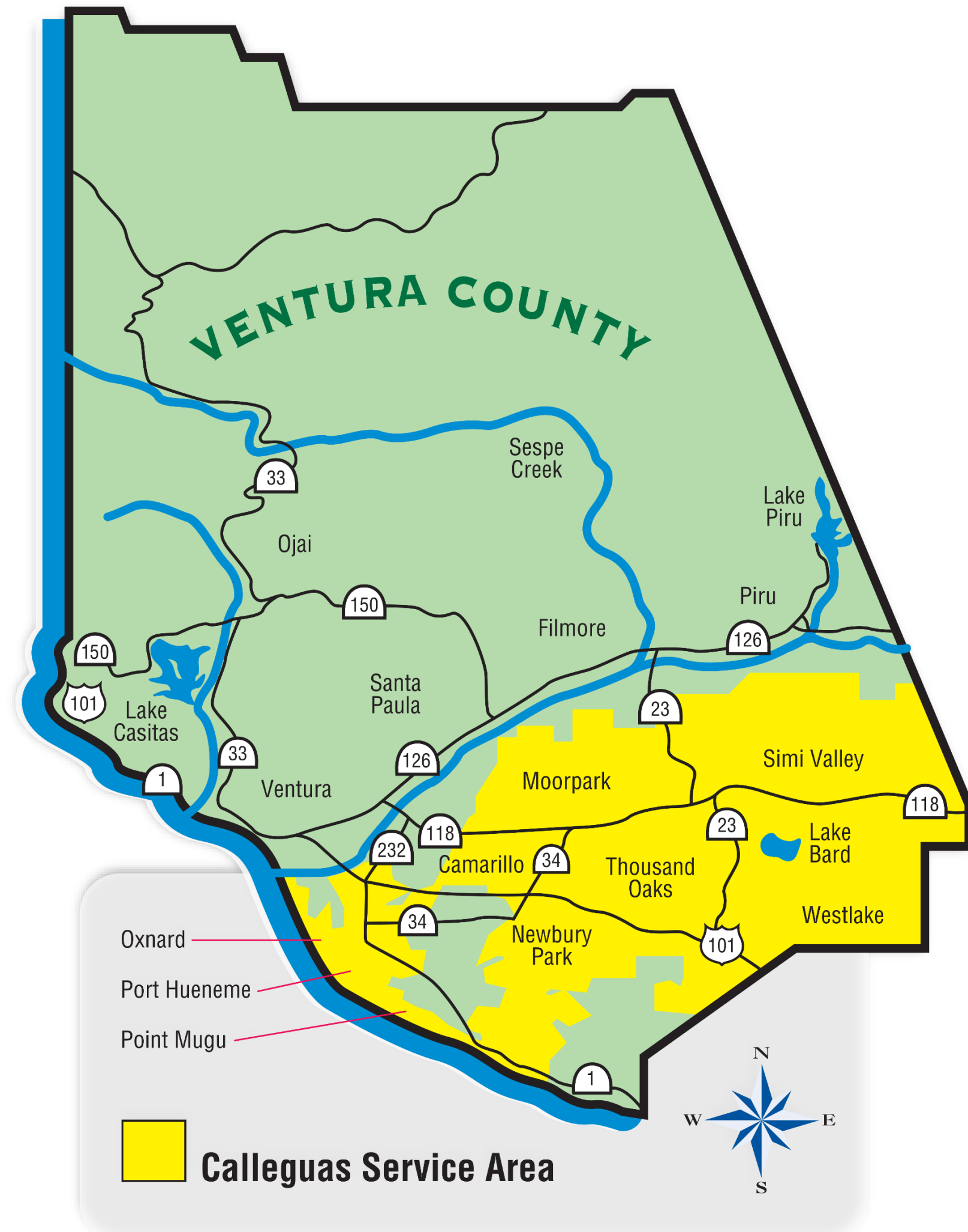


Assemblymember Steve Bennett
Forum on California's Climate Change and Local Response

September 5, 2024

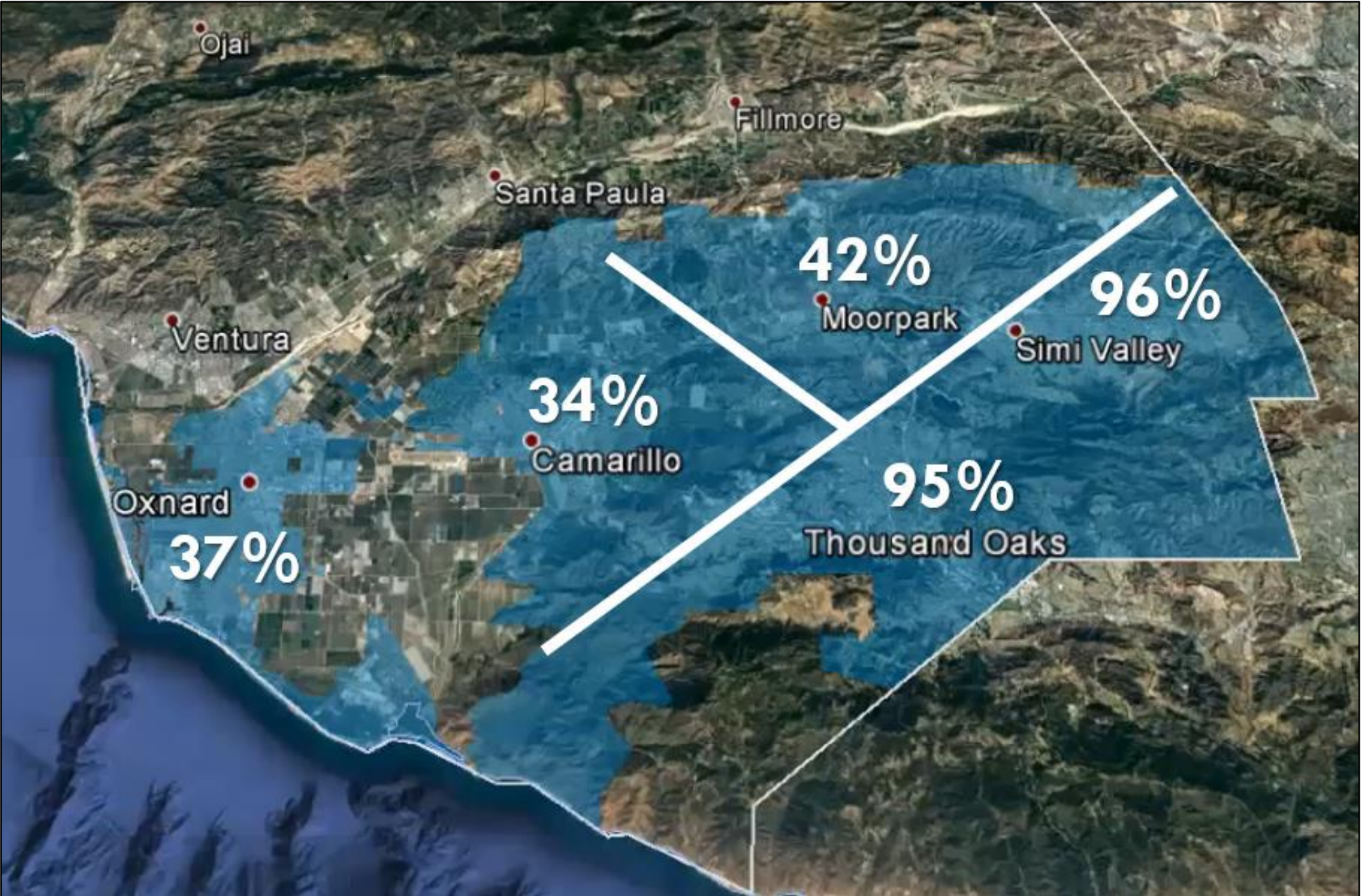
Calleguas MWD

- Water wholesaler importing primarily State Water Project (SWP) water from the Metropolitan Water District of Southern California (Metropolitan).
- Delivers water to 19 purveyors serving 640,000+ people, 3/4 of the population of Ventura County.



Calleguas Purveyors

**Dependence on Imported Water Supplies
(includes non-potable)**



Upper Zone:

Logos for water purveyors in the Upper Zone:

- Golden State Water Company (A Subsidiary of American States Water Company)
- TRIUNFO WATER & SANITATION DISTRICT
- CALIFORNIA AMERICAN WATER (WE KEEP LIFE FLOWING™)
- CALIFORNIA WATER SERVICE
- American Jewish University (AJU) (1947)
- CITY OF SIMI VALLEY
- PUBLIC VENTURA COUNTY WORKS
- City of Thousand Oaks

Lower Zone:

Logos for water purveyors in the Lower Zone:

- PUBLIC VENTURA COUNTY WORKS
- CAMROSA WATER DISTRICT
- CALIFORNIA AMERICAN WATER (WE KEEP LIFE FLOWING™)
- CITY OF OXNARD CALIFORNIA
- CITY OF CAMARILLO CALIFORNIA (LOS PERSONAS SON LA CIUDAD)
- CITY OF PORT HUENEME VENTURA COUNTY, CA
- NAVAL BASE VENTURA COUNTY
- HANNEL ISLANDS BEACH COMMUNITY SERVICES DISTRICT
- P.V.M.W.C. (PLEASANT VALLEY MUTUAL WATER COMPANY) (QUALITY SINCE 1924)
- ZONE MUTUAL WATER COMPANY
- Crestview Mutual Water Co. (328 VALLEY VISTA)
- SOLANO VERDE MWC
- BERYLWOOD HEIGHTS MWC
- BUTLER RANCH MWC



Water Supply Sources

Primary

- Metropolitan water (SWP water) via the Santa Susana Tunnel in Chatsworth

Stored Imported Water for Outages

- Las Posas Aquifer Storage and Recovery Wellfield
- Lake Bard and Lake Bard Water Filtration Plant

Interconnections

- Calleguas-Ventura Interconnection (in design)
- Crestview Mutual Water Co. (available for operation)
- Las Virgenes Municipal Water District (under construction)

Metropolitan Water District

- Nation's largest wholesale water provider
- 19 million people/5,200 square miles
- 26 member agencies in 6 counties
- Calleguas joined in 1960
- Supports \$1 trillion regional economy (ranks 13th in the world)
- Imports water from SWP and the Colorado River
- Invests in local projects and conservation



Drought Challenges...

- 2021 and 2022 were two of the driest on record and had the lowest back-to-back allocations (5%) on the SWP.
- Metropolitan could not physically deliver its stored water to Calleguas and five other Member Agencies.
- Metropolitan's Emergency Water Conservation Program (June 2022-March 2023) mandated reduced demands for these Member Agencies only, requiring one-day-per-week outdoor watering in the Calleguas service area.



...And Drought Solutions

- Since 2022-23 Metropolitan has made:
 - Operational changes
 - Infrastructure improvements
- Additional infrastructure improvements underway



A nameplate for an AC Generator and Water Turbine. The AC Generator section includes fields for Type, Output, Voltage, Armature Amps, Frame, and Serial No. The Water Turbine section includes fields for Type, Output Max, Serial No., and Manufacturer.

AC Generator	
Type	9P80222-60
Output	2543 kW
Voltage	480 V
Armature Amps	1155 A
Frame	480000
Serial No.	480000

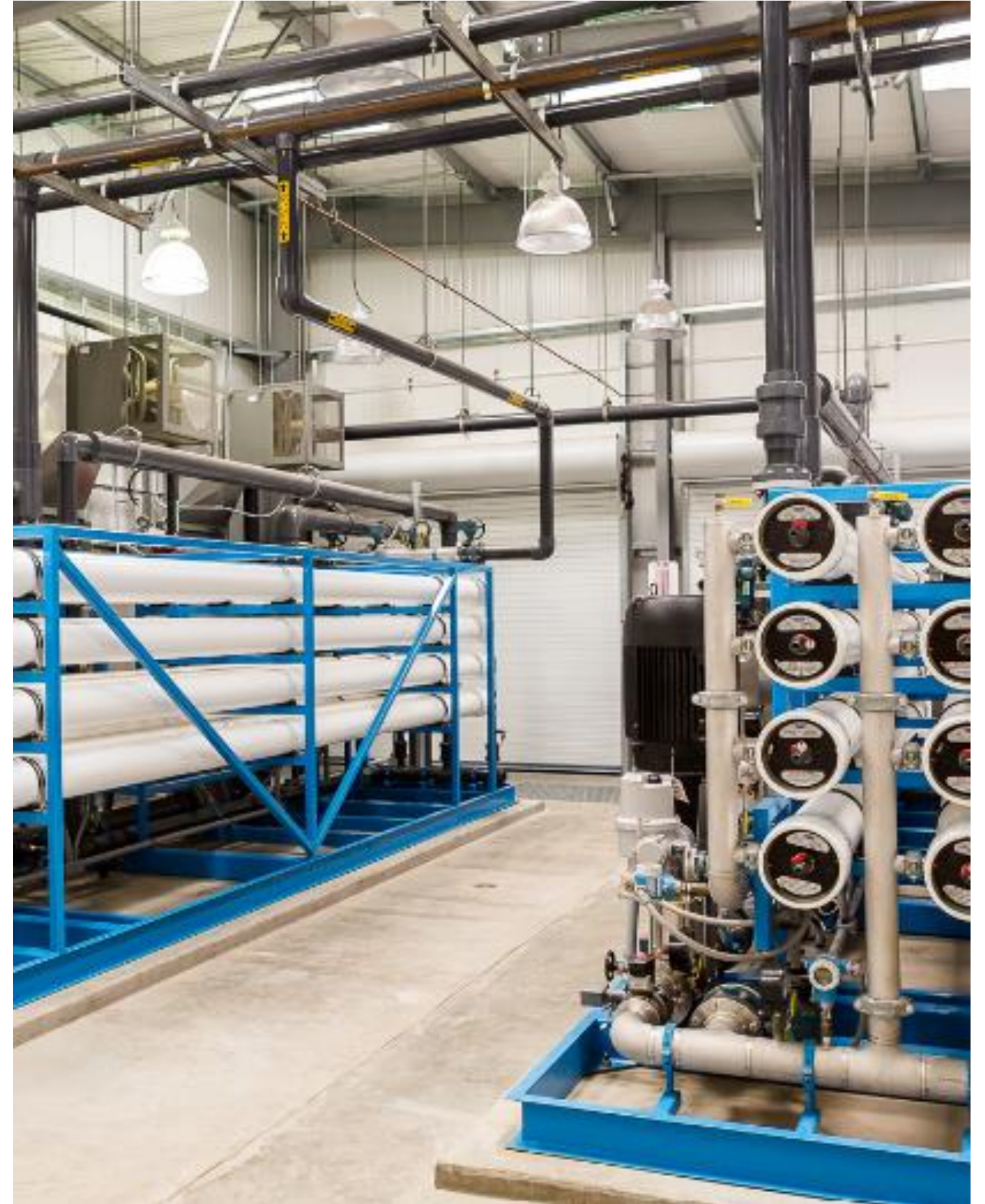
Water Turbine	
Type	VP-580
Output Max	1155 kW
Serial No.	480000
Manufacturer	1981





A New Model for Resilience

Calleguas's Board determined that its future will involve greater resilience through partnerships and regional collaboration to develop water supply, storage, and programs.



Water Resources Implementation Strategy (WRIST)

- Build on history of extensive regional collaboration to enhance existing partnerships and forge new ones.
- Address long-term water supply reliability and resiliency along with outages.
- Acknowledge risks and uncertainties and address them.



Water Resources Implementation Strategy (WRIST)

- Currently in Phase 1 (of 3) – Characterize and evaluate portfolios of projects with a regional focus.
- Initial findings indicate investing in water supply projects at the local level is anticipated to be cost competitive with future imported water costs and can be adaptable and implemented in phases.



How Calleguas Supports Firefighting Efforts

- Lake Bard is both backup drinking water source **and** supply for firefighting aircraft.
- Since start of fire season on June 30, firefighting aircraft have utilized water from Lake Bard for 9 fire events.
- Other areas of partnership:
 - VCFD Urban Search & Rescue use of confined space training facility
 - Dip tank construction at wellfield
 - Funding for pump pods



Promoting Water Use Efficiency



Embrace change, collect rain!

RAIN BARREL SALE

Price: \$65-95 + tax

9AM - 11AM
SATURDAY, DEC 9TH

CALLEGUAS MWD
2100 OLSEN RD.
THOUSAND OAKS, CA

The advertisement features a large orange rain barrel in the center. To the left is a monarch butterfly icon, and to the right is a water drop icon containing various plants. A clock icon is next to the time, and a location pin icon is next to the address.

Lose the Lawn... Gain a Garden!

\$2 per square foot turf removal rebate!

Save water & money. Reserve your rebate at:

bewaterwise.com

A QR code is located in the bottom right corner of the advertisement. The background shows a lush garden with various plants and a house in the distance.

GARDEN LANDSCAPES FOR VENTURA COUNTY

AN ECOSYSTEM APPROACH TO CREATING A THRIVING AND WATER-WISE GARDEN LANDSCAPE

The graphic features a large white water drop shape on a green background. Inside the drop are images of pink and purple flowers. Below the drop is a blue wavy line. The logo for Garden Landscapes for Ventura County is at the bottom.

NATIVE GARDEN KIT PROGRAM

TreePeople

The advertisement shows a cardboard box filled with several potted plants, including a small tree and various shrubs. The logo for the Native Garden Kit Program, featuring a stylized plant and the name "TreePeople", is in the top right corner.



CALLEGUAS
**MUNICIPAL WATER
DISTRICT**

City of Ventura

Forum on California's Climate Change and Local Response

Gina Dorrington, General Manager, Ventura Water

Water Supply and Challenges

Future decreases to existing sources

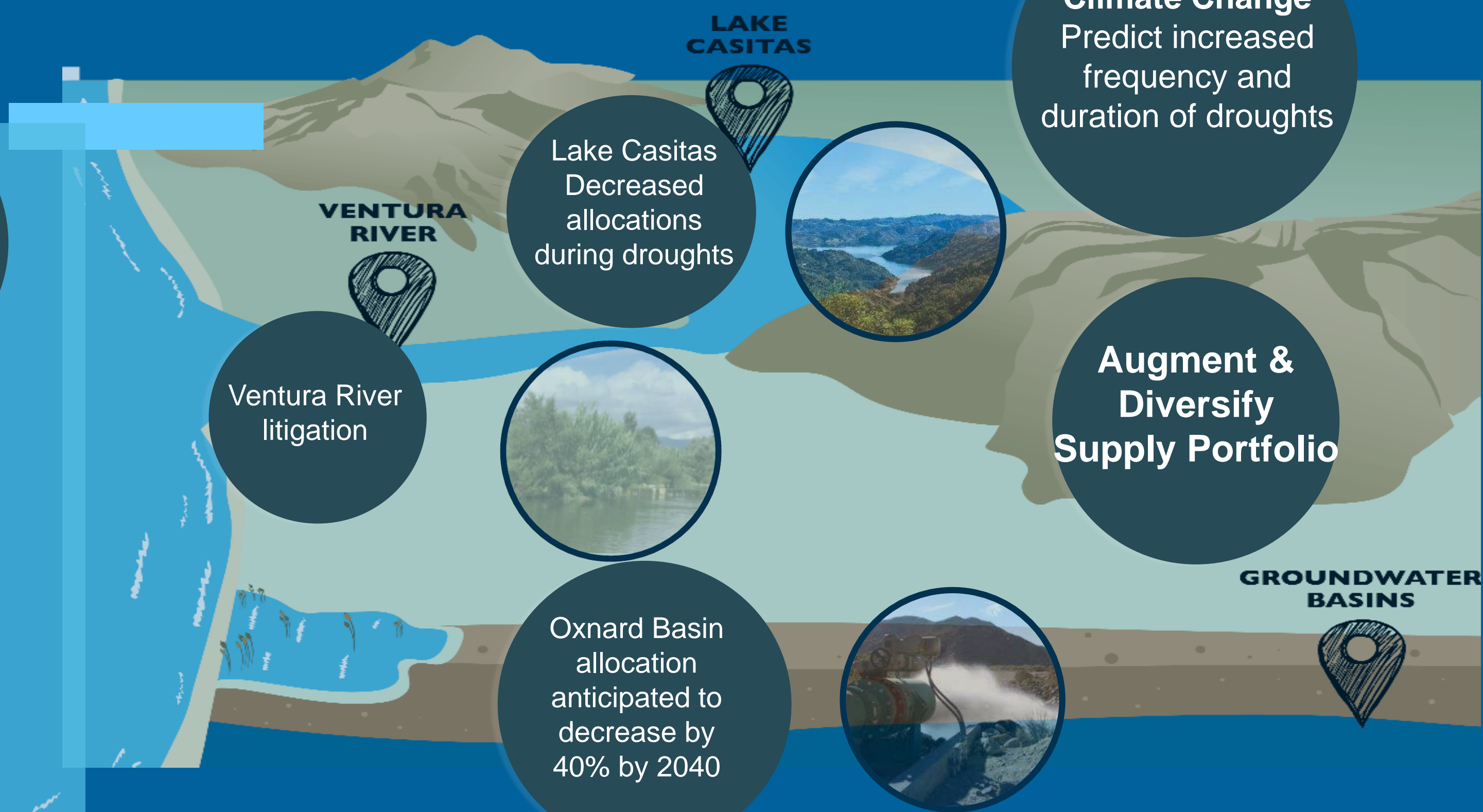
Ventura River litigation

Lake Casitas Decreased allocations during droughts

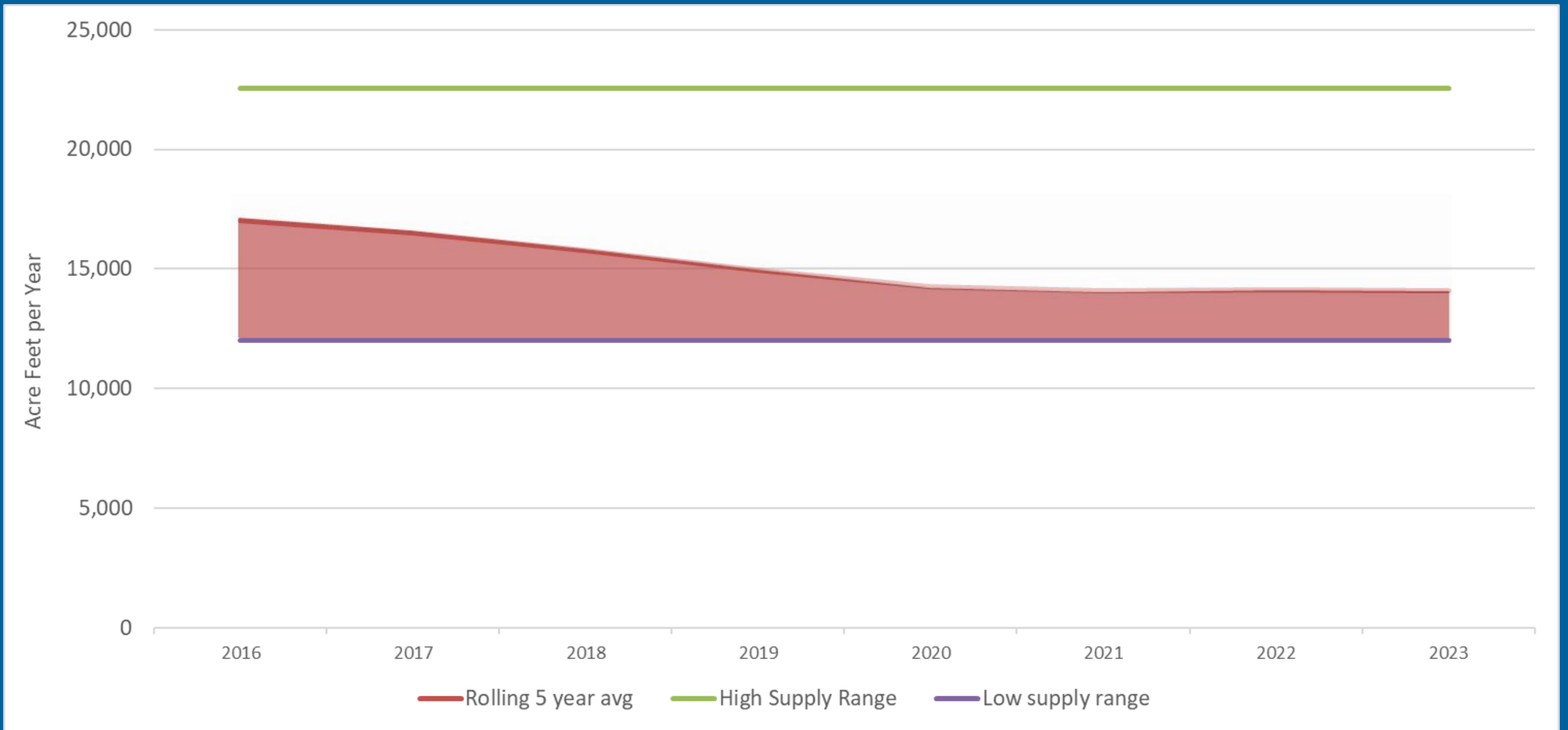
Oxnard Basin allocation anticipated to decrease by 40% by 2040

Climate Change Predict increased frequency and duration of droughts

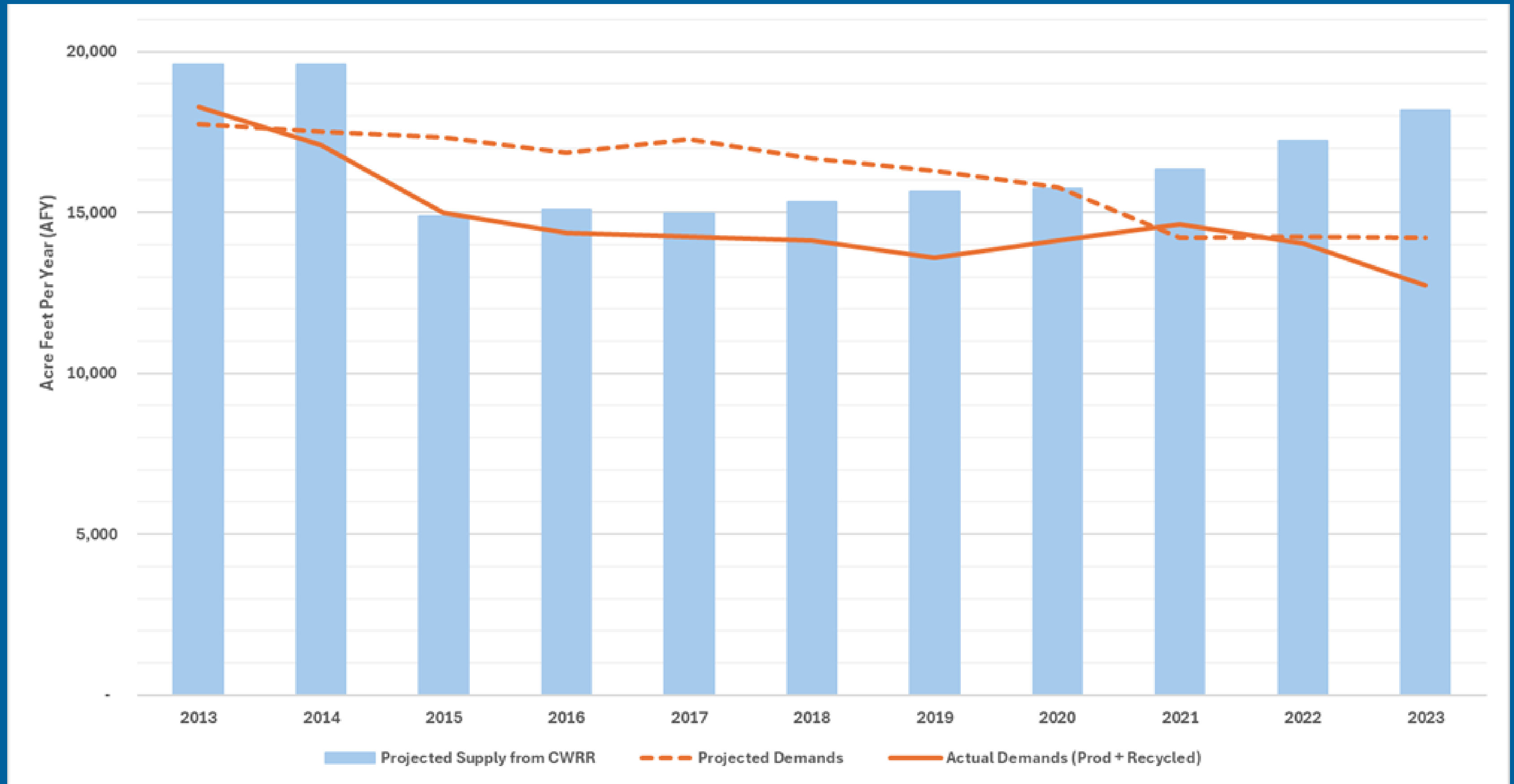
Augment & Diversify Supply Portfolio

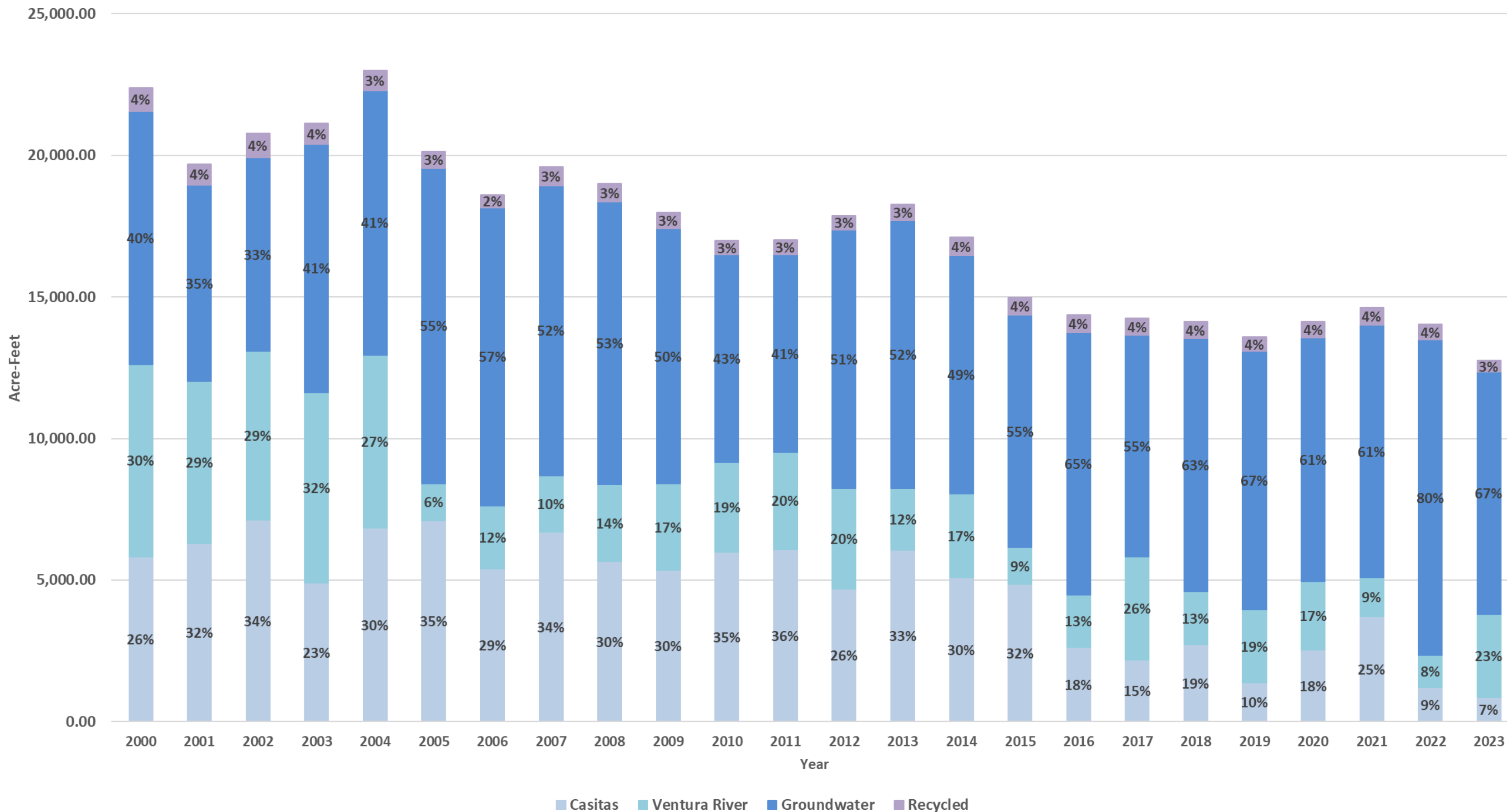


Range of Water Supply Availability



Water Supply and Demand Through Drought

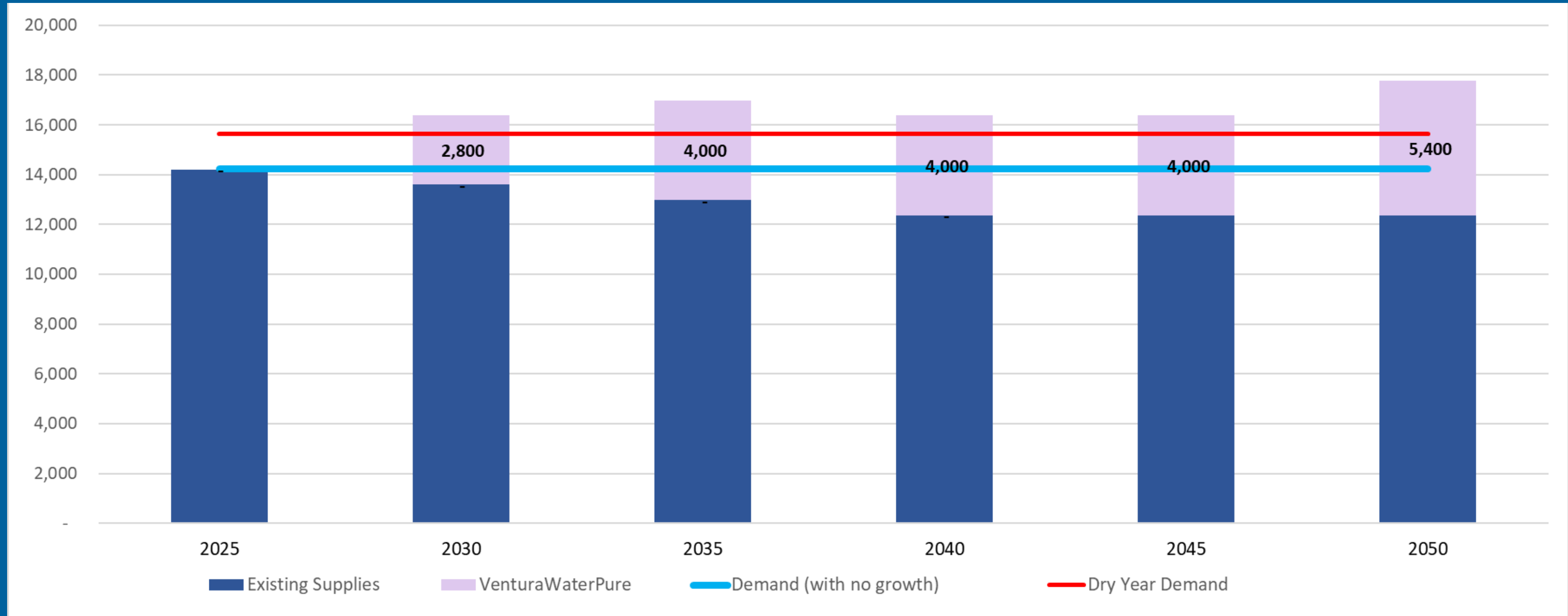




Conservation as A Way of Life Impacts

Evaluating Compliance with Making Conservation a California Way of Life			
	<u>Current Standards</u>	<u>2025 Standards</u>	<u>2030 Standards</u>
Residential Indoor Standard (gpcd) ¹	55 gpcd x pop x 365 days	47 gpcd x pop x 365 days	42 gpcd x pop x 365 days
Residential Outdoor Standard ²	0.80 x Net Eto x landscape area x 0.62	0.80 x Net Eto x landscape area x 0.62	0.80 x Net Eto x landscape area x 0.62
CII Landscape with DIMS ²	0.80 x Net Eto x landscape area x 0.62	0.80 x Net Eto x landscape area x 0.62	0.63 x Net Eto x landscape area x 0.62
Water Loss Standard (gpcd) ³	21.6 gpcd x # conn x 365 days	21.6 gpcd x # conn x 365 days	21.6 gpcd x # conn x 365 days
Total Residential Water Use 2022 (acre feet)	8,522	8,522	8,522
CII Landscape with DIMS 2022 (acre feet)	1,693	1,693	1,693
Water Loss 2022 (acre feet)	839	839	839
Total Water Demand 2022 (acre feet)	13,958	13,958	13,958
Actual Urban Water Use ⁵ (acre feet)	11,055	11,055	11,055
Urban Water Use Objective ⁴ (acre feet)	12,503	11,486	10,850
Meeting the standard?	YES	YES	NO ⁶

Long-Term Demand and Supply Projections



Timeline for Water Supply Planning

2012

- Planning for potable reuse project begins.

2015

- Supply and demand equal.

2015-
2020

- Extraordinary conservation measures (20%+).

2023

- Lake Casitas reaches historic low.

2023-
2024

- Back to back wet years.

2024

- Lake Casitas spills.

2030

- Anticipated operation of Advanced Water Purification Facility Design.

- **Ventura Water continually evaluates water supply and demand.**
- **Current water supplies face many challenges and future availability is highly uncertain.**
- **Water Demands have decreased over the last 20 years but are unlikely to decrease significantly in the future.**
- **It takes decades to plan, design, and construct new water supplies.**
- **Water supplies benefit generations of customers but require significant long-term financial investment.**
- **Future water supply projects coming online to strengthen water resiliency.**

Water Resilience Through Indirect Potable Reuse

Forum on California's Climate Change and Local Response

September 5, 2024

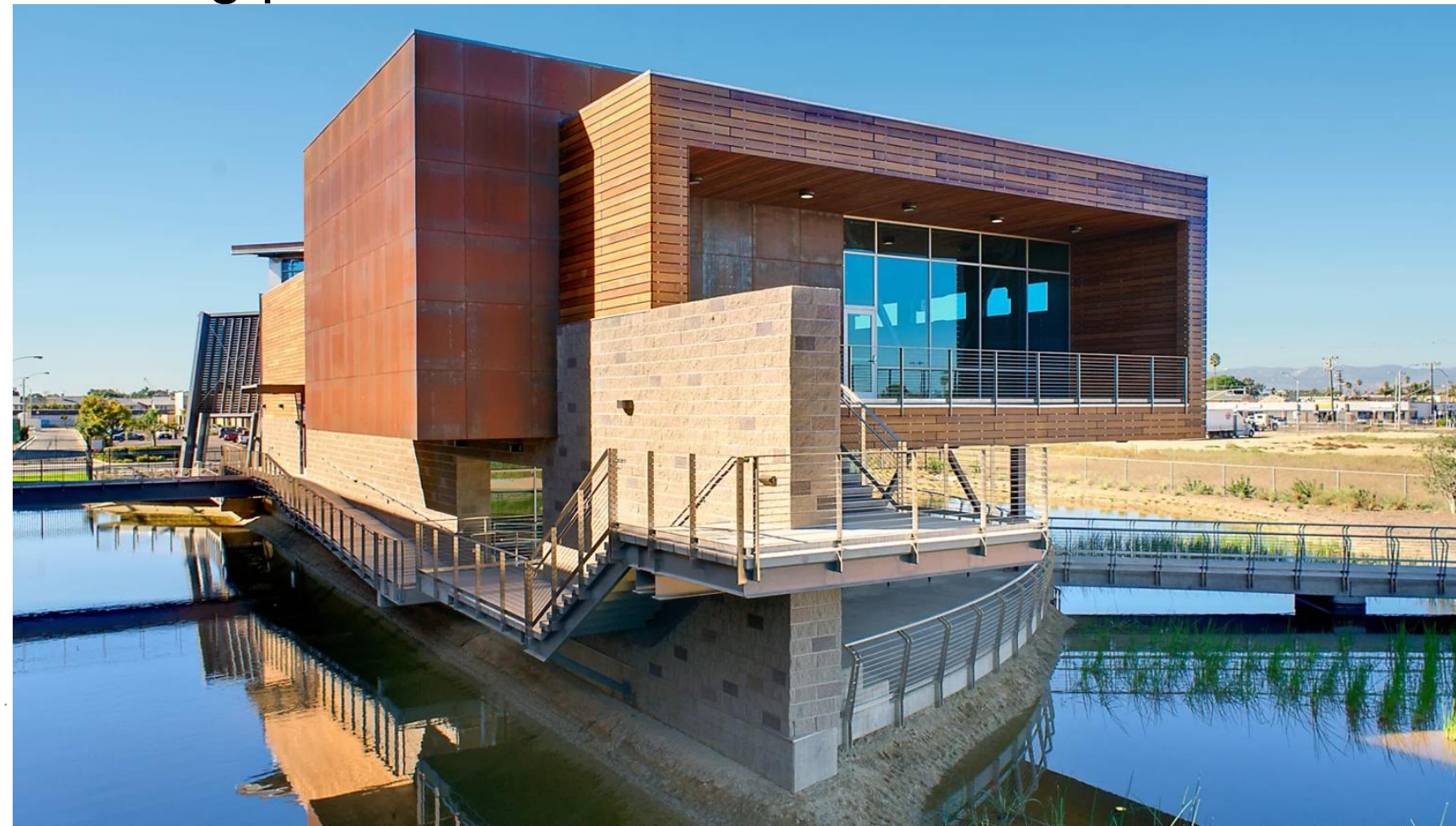
Tim Beaman, PE

Assistant Director of Public Works - Water and Wastewater



OXNARD - ADVANCED WATER PURIFICATION FACILITY

- 6.25 MGD - Current capacity
- 15 MGD - Proposed buildout
- Reuse opportunities
 - Groundwater augmentation
 - Pilot ASR Well
 - Agriculture irrigation
 - Current use
 - Seawater intrusion barrier
 - Planning phase



- In 2017 the ASR Well and associated monitoring wells were drilled
- Design for well equipping and site civil commenced in 2018
- Department of Drinking Water issued a Conditional Acceptance Letter in 2019 outlining the regulatory parameters for the AWPF, ASR Well, and IPR
- ASR Well civil and mechanical construction began in April 2021





QUESTIONS



Forum on CA Climate Change and Local Response

Assemblymember Steve Bennett
September 5, 2024



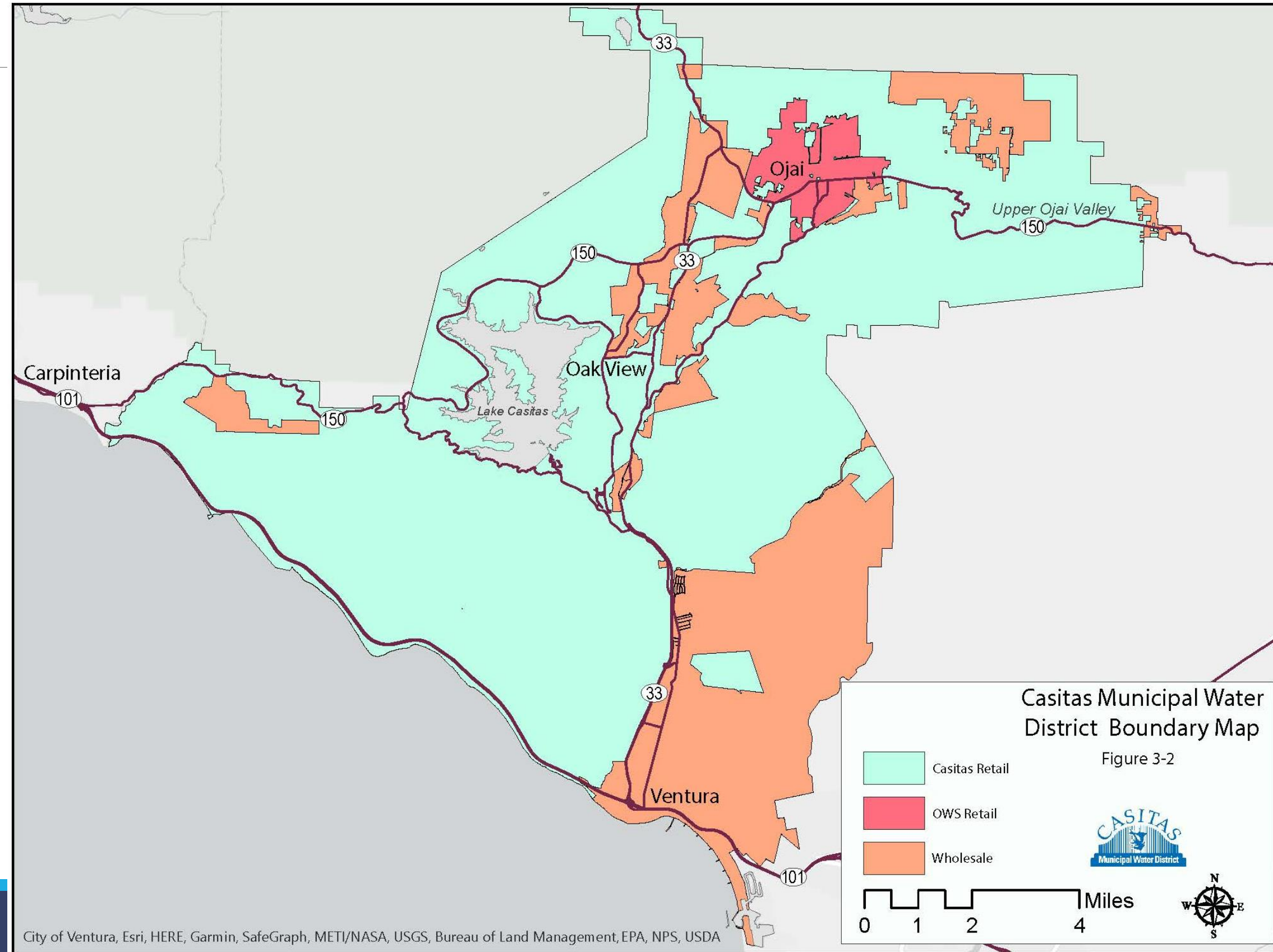
Outline

- Casitas Background
- Existing Demand and Supply
- Supply/Interconnection Projects

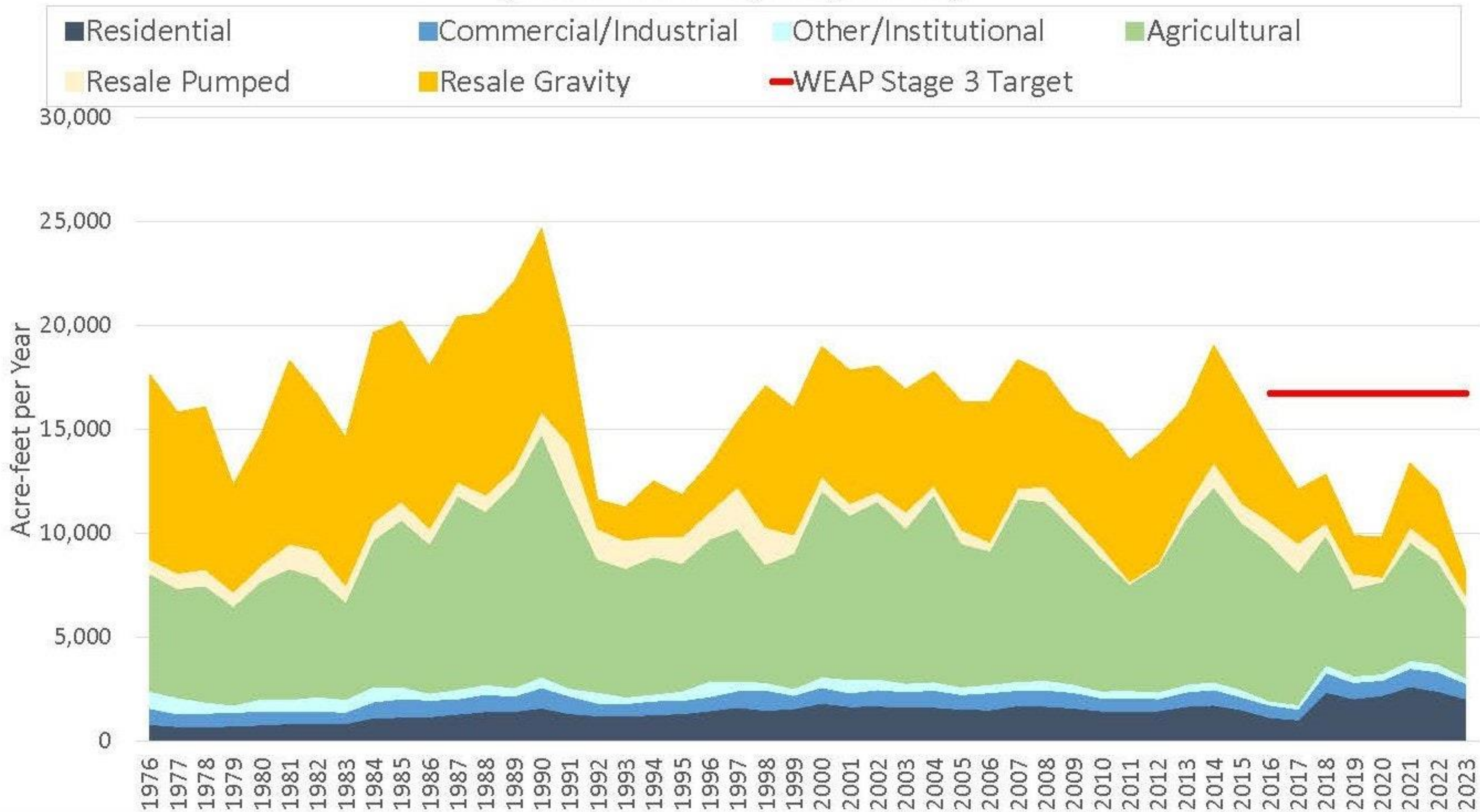


Casitas Background

- Special District formed in 1952
- Provides water supply and recreational services
- Population served ~64,000
 - 46,000 wholesale
 - 18,000 retail

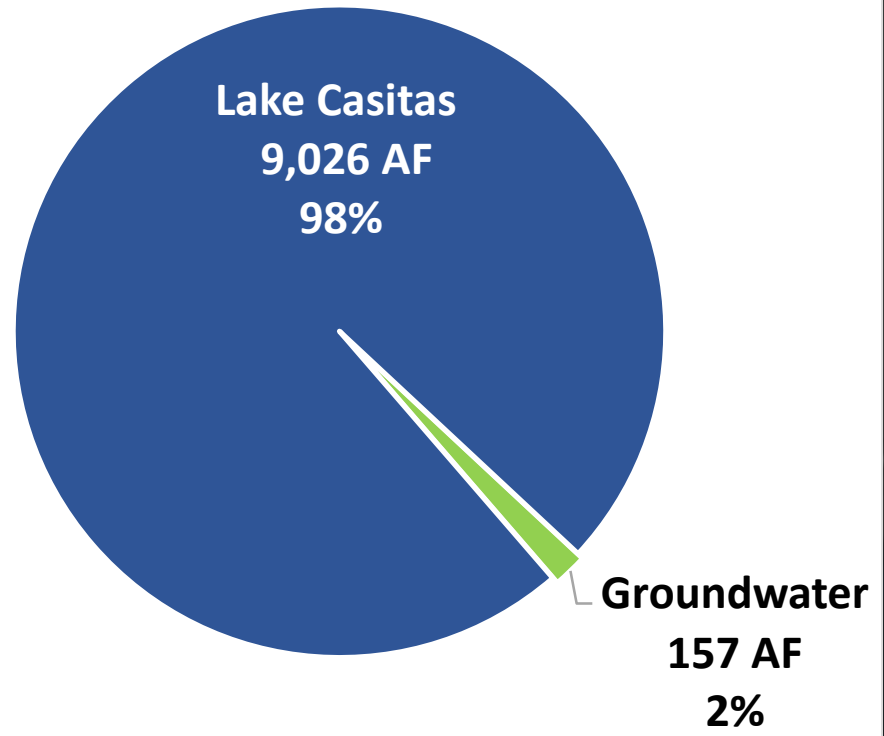


Total Water Use by Customer Class (Casitas and Ojai Systems)

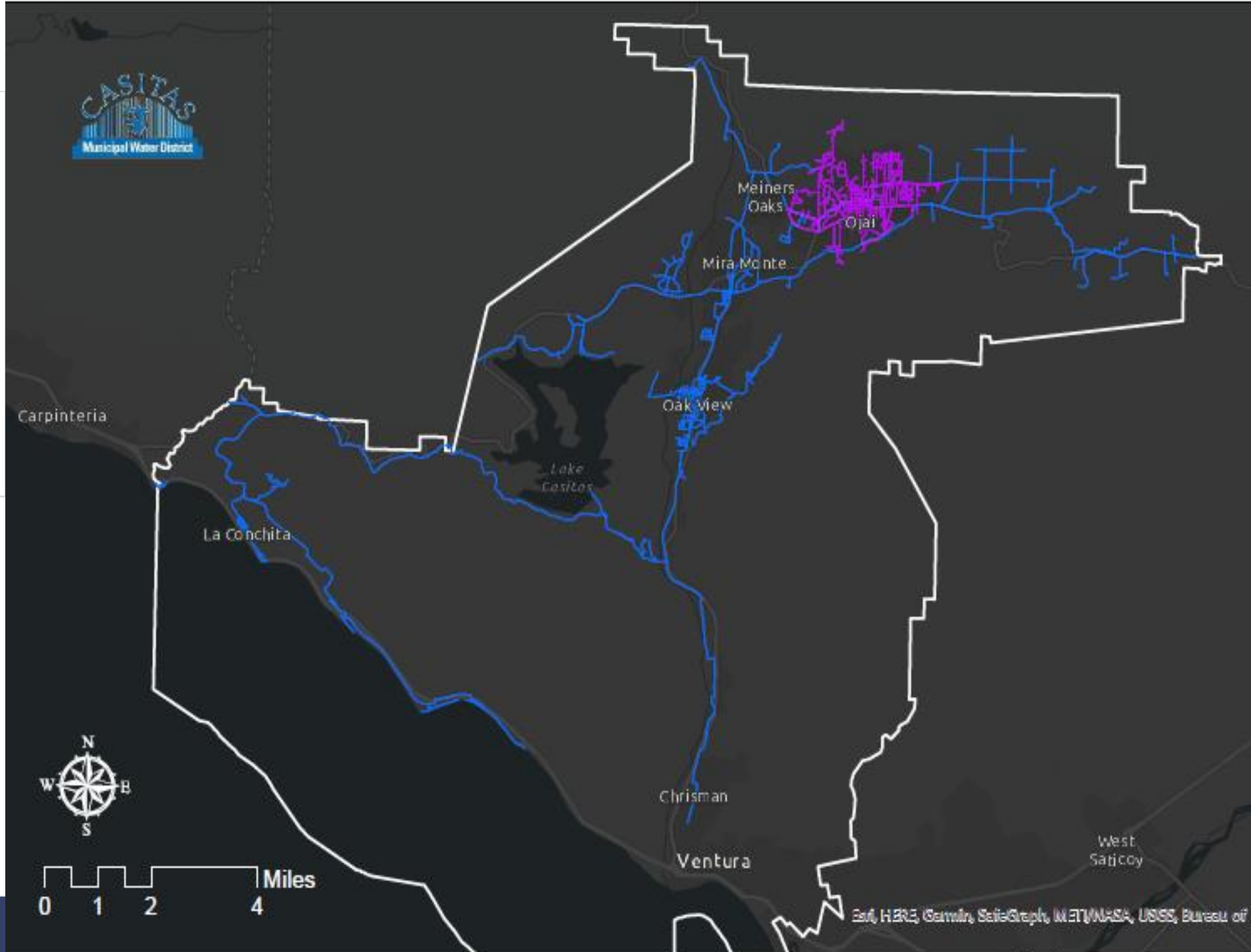
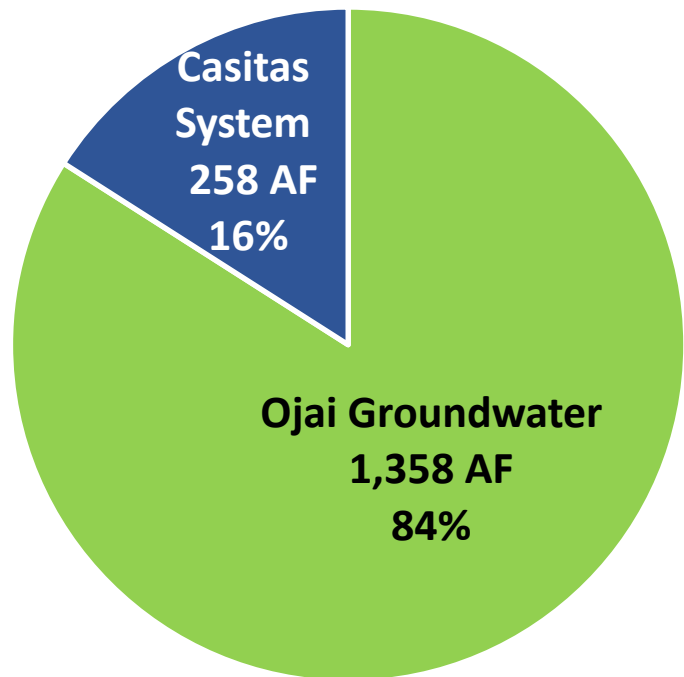


Five-Year Average Supply (2019-2023)

Casitas System

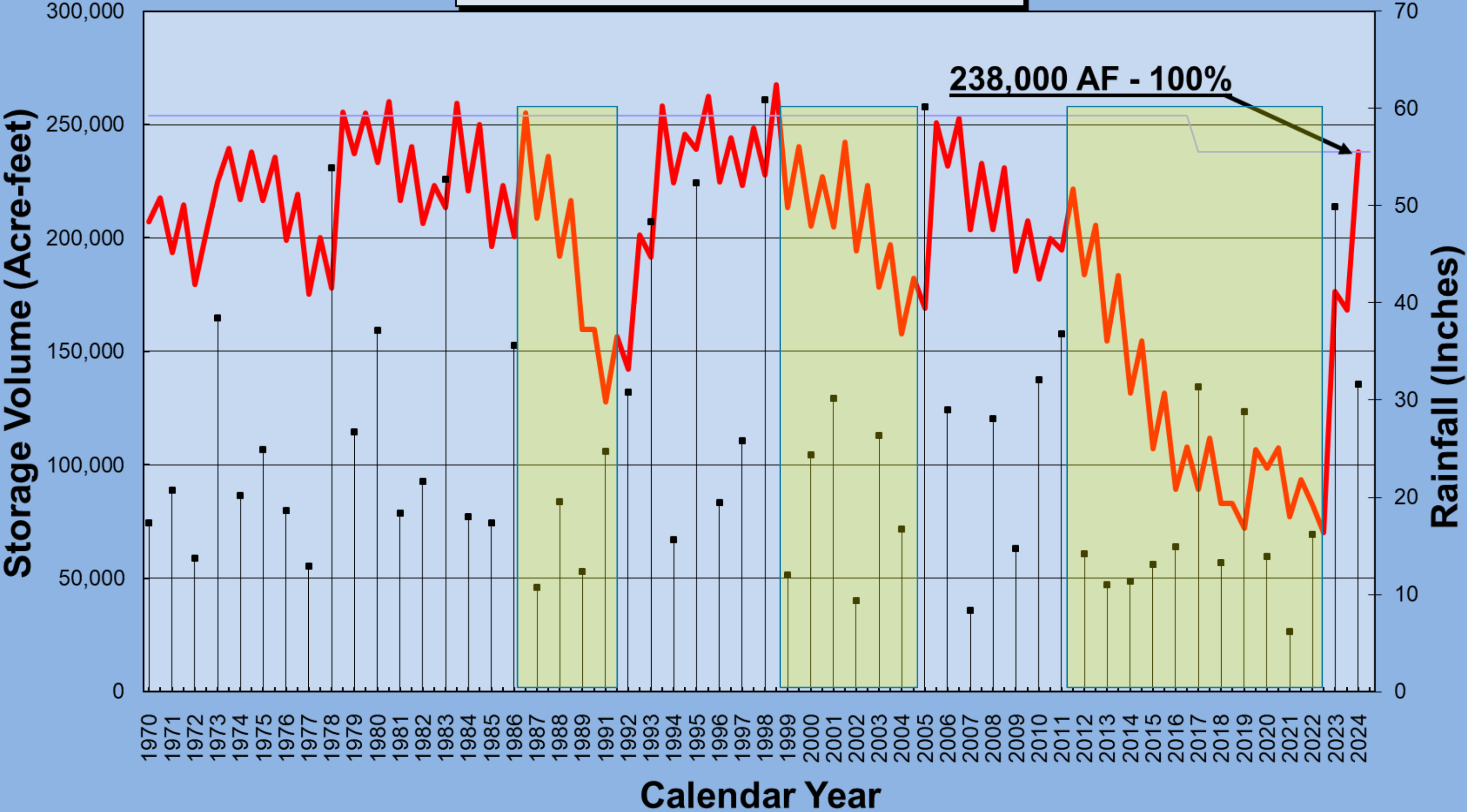


Ojai System



LAKE CASITAS STORAGE VOLUME

Minimum & Maximum by Year
1970 to 2024



2023 was a Banner Year for Water Supply.....

- Over 100,000 Acre-Feet Added to Lake Casitas
- 52,000 Acre-Feet of Diversions at Robles
- Ojai Groundwater Wells Artesian Earlier this Year
- Lowest Demands since 1967 (8,100 AF).



.....and Storm Damage



.....and Storm Damage

- Over \$2M in Emergency Storm Damage Repair Expenses
- \$1.2M Non-Emergency Storm Damage Repairs
- FEMA Reimbursements Pending at both 100% and 75% Funding Level



Emergency Preparedness

- Casitas MWD Emergency Response Plan
 - Internal document with written procedures
 - Wildfire response based on EPA's recommended actions
 - Training provided to staff (written, scenario drills, etc.)
- Communication Formats
 - Government Emergency Telecommunication System (GETS)
 - Wireless Priority Service (U.S. Homeland Security)
 - HAM Radio



Emergency Preparedness

- Member of SCE Public Safety Partner Portal
 - Advanced notifications of potential power outages
- Backup Power
 - Permanent generators installed at most critical facilities (adding more with FEMA financial assistance)
 - Standby portable generators secured onsite ahead of fire season



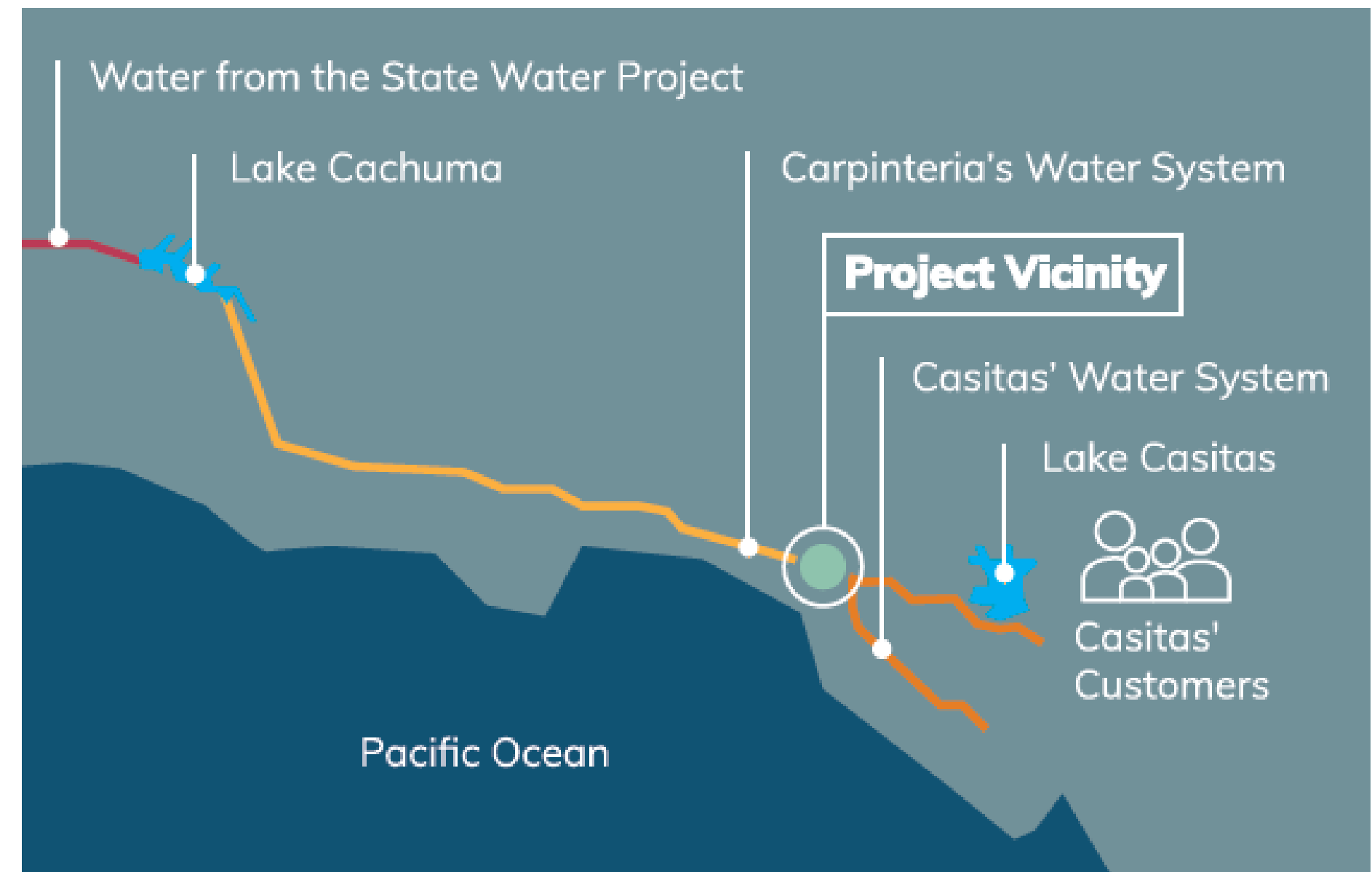
Supply/Interconnection Projects

- Regional Interconnection Projects:
 - Ventura - Santa Barbara Counties Intertie (2-way direct connection)
 - City of Ventura Interconnection (exchange water)
- Casitas has contractual rights to State Water Project
- Allows for water purchase and delivery during emergencies and to prevent Casitas from declining to critically low levels



Ventura-Santa Barbara Interconnection

- 1.3 mile, 16-inch diameter pipeline and related facilities
- \$18-\$20 Million Capital Cost
 - SRF ASADRA Loan
 - USBR Grant
 - IRWMP Grant
- NEPA (USBR as Lead Agency)
- Phase 1 Pipeline Construction in 2024-2025



End of Presentation

Michael Flood

mflood@casitaswater.com

805-649-2251 ext. 111





United Water
CONSERVATION DISTRICT

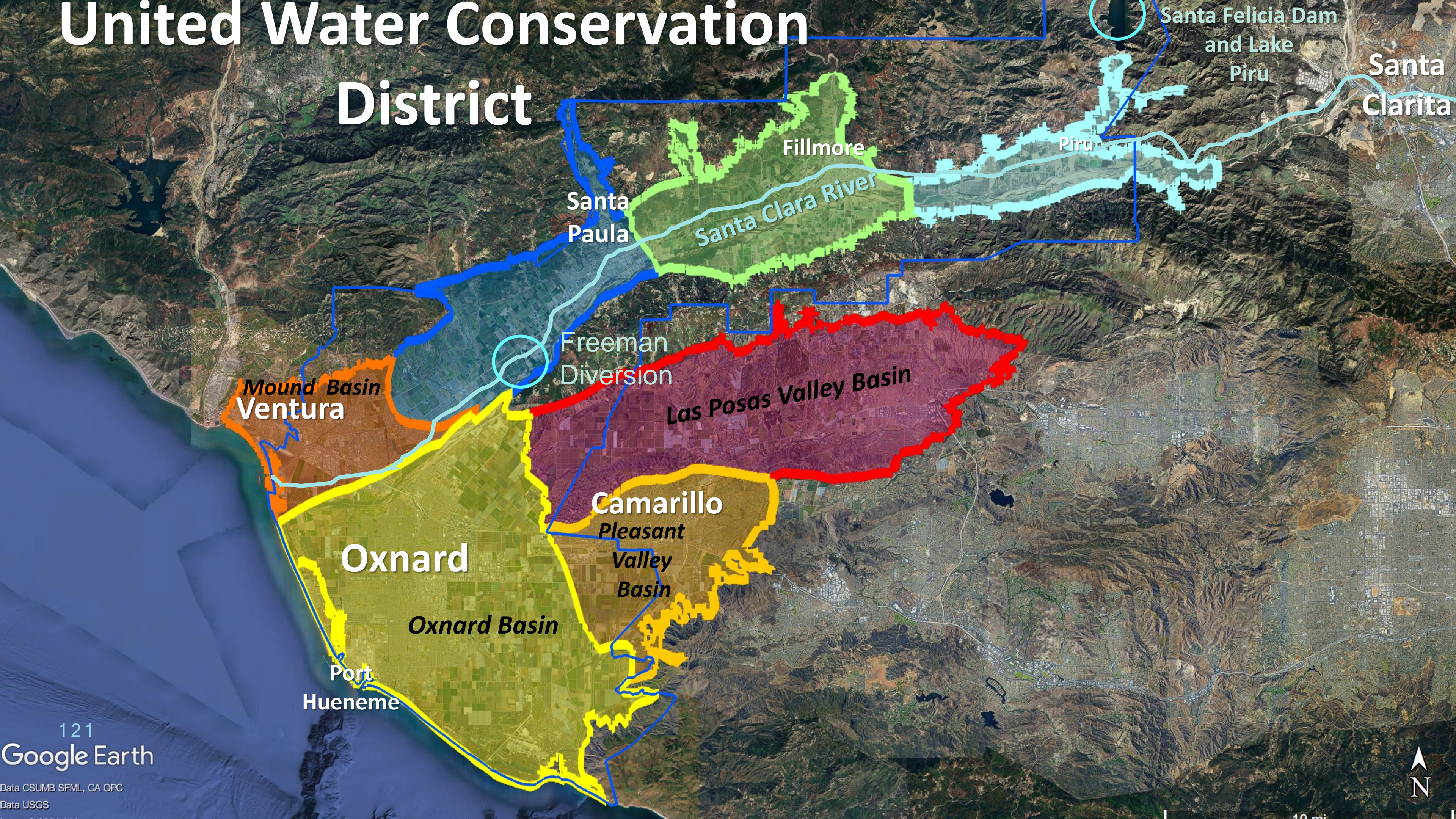
Manage • Protect • Conserve

Forum on California's Climate Change and Local Response

Presented by **Anthony Emmert** Assistant General Manager

September 5, 2024

United Water Conservation District



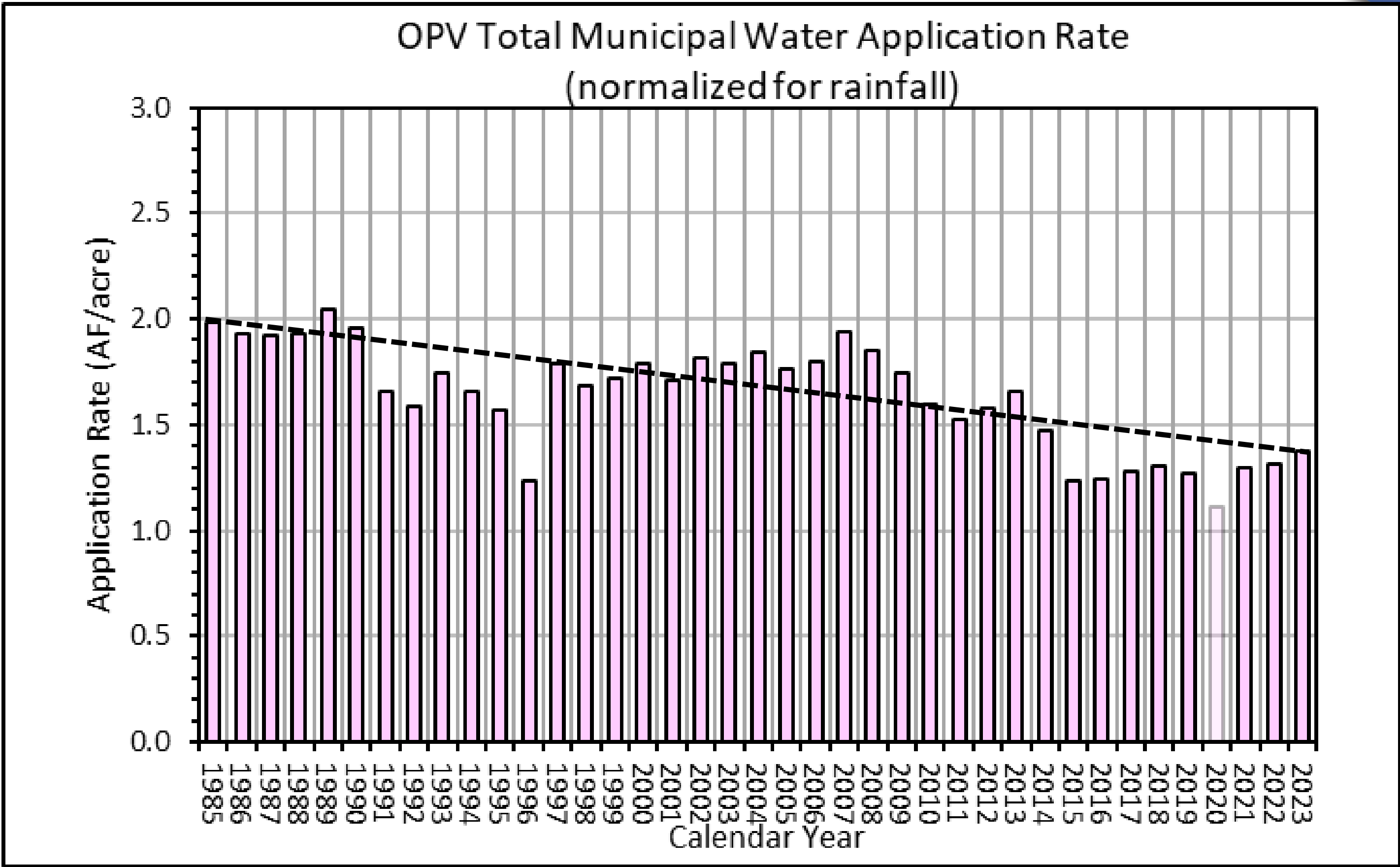
Santa Felicia Dam

Outlet Works and Spillway Safety Improvements

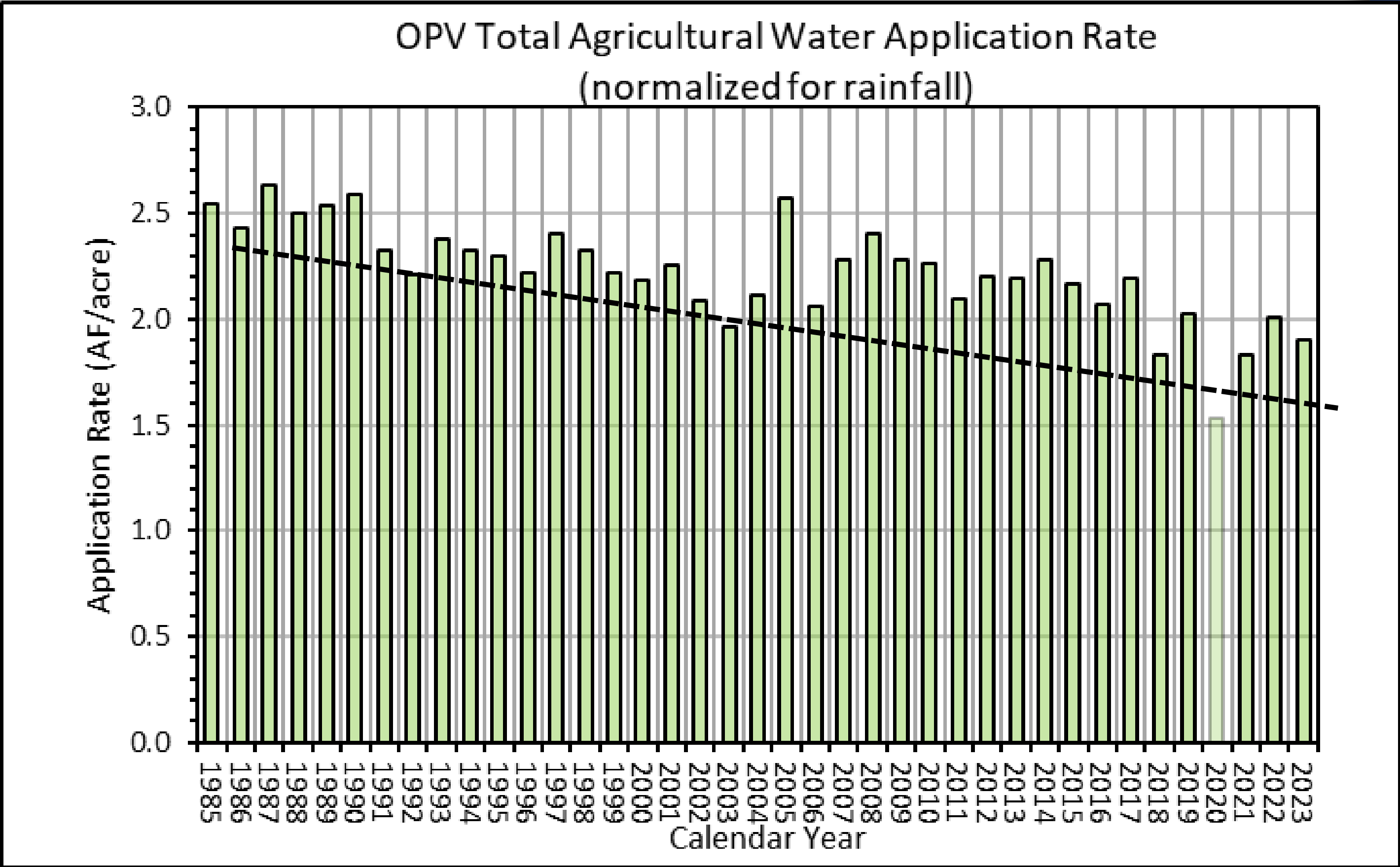


- Reservoir Needed to Receive and Slowly Release Supplemental Water
- 400,000 People Live Downstream
- Close Coordination with Dam Safety Agencies
- Increasing Capacity of Spillway
- Design Nearing Completion

Water Use Efficiency Improvements



Water Use Efficiency Improvements



Groundwater is Key to Water Resiliency

“Groundwater is really our buffer to climate change impacts in California.”

*Juliet Christian-Smith, Senior Climate Scientist, interview with News Deeply, “How Climate Change will Affect the Future of California Water”
December 21, 2015*

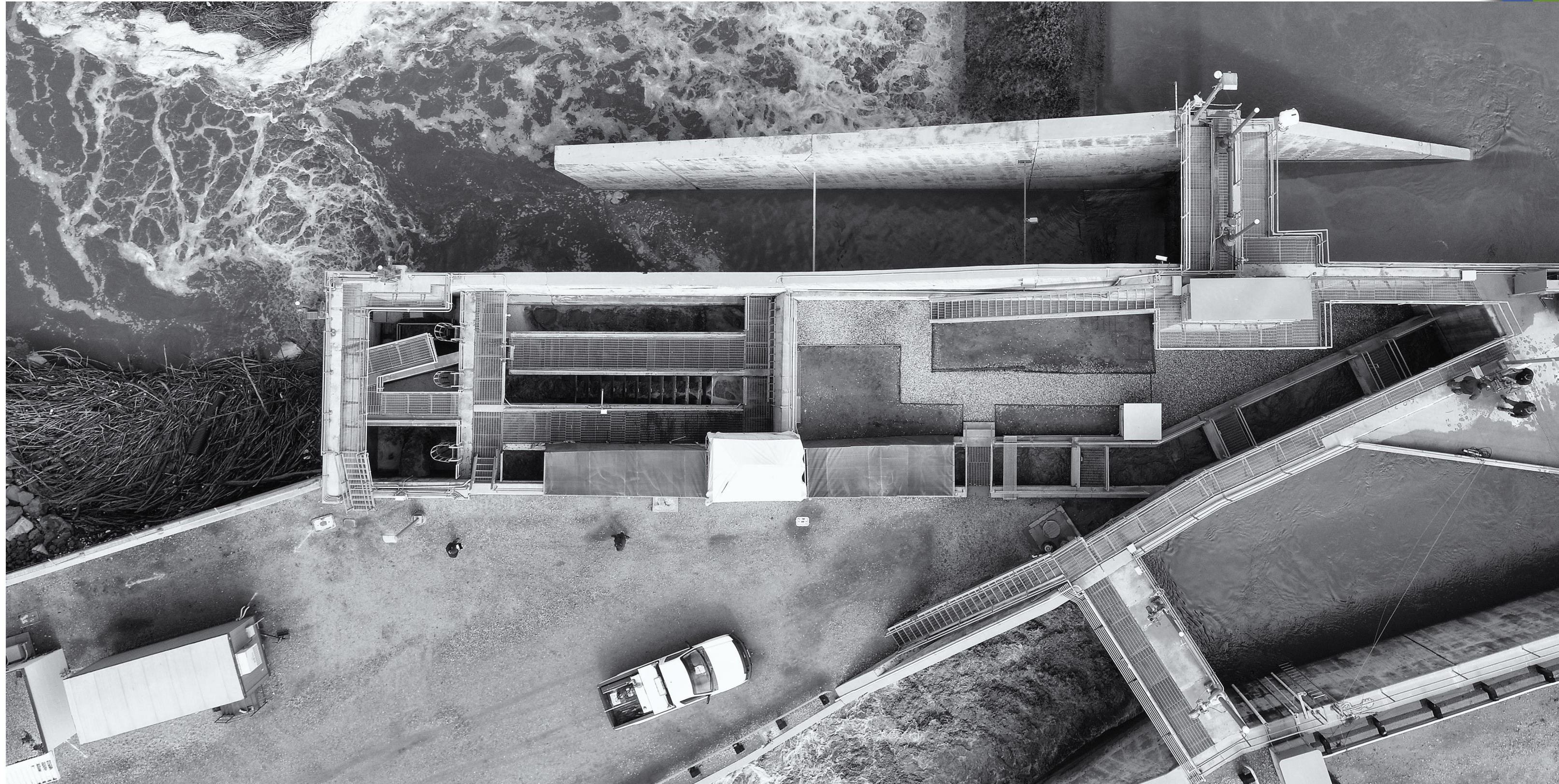
Groundwater is Key to Water Resiliency

“Groundwater recharge to replenish our aquifers is a key water strategy for a hotter, drier future.

It provides important ecosystem benefits, protects drinking water wells, and supports climate-resilient agriculture for healthy food production and thriving rural communities.”

*California Department of Food and Agriculture, Secretary Karen Ross
December 21, 2015*

Stormwater Diversion for Groundwater Recharge

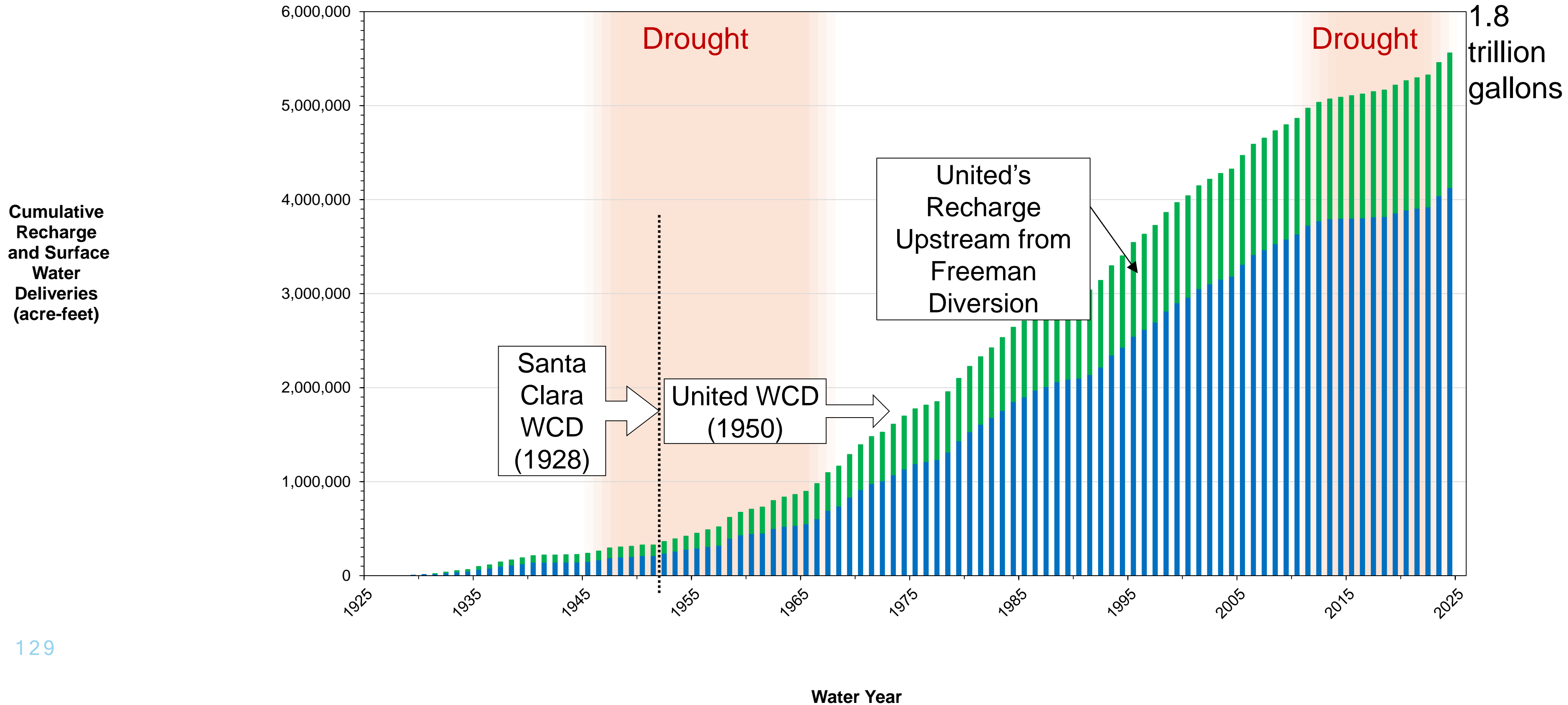


Maximize Capture of Stormwater Flows for Groundwater Recharge

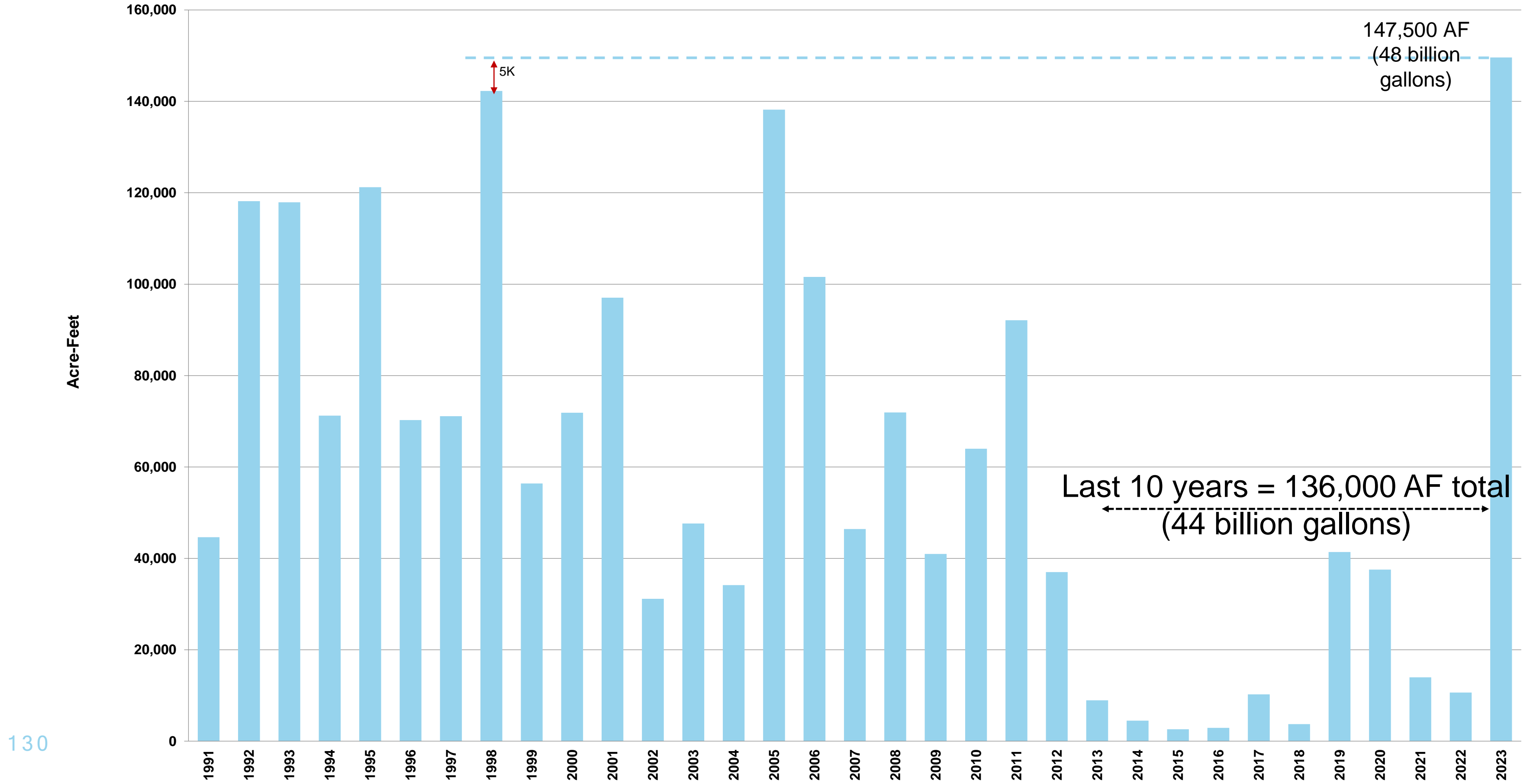
“Projects that capture available precipitation, stormwater, or floodwaters to recharge depleted groundwater basins need to be ready to capture high flows when they are available during each wet season, typically October through April in California.”

California Department of Water Resources, Director Karla Nemeth

Maximize Capture of Stormwater Flows for Groundwater Recharge



Diversions at Freeman for Groundwater Recharge





MONTALVO

CABRILLO VILLAGE

Santa Clara River

RIVERPARK

STRICKLAND

EL RIO WEST

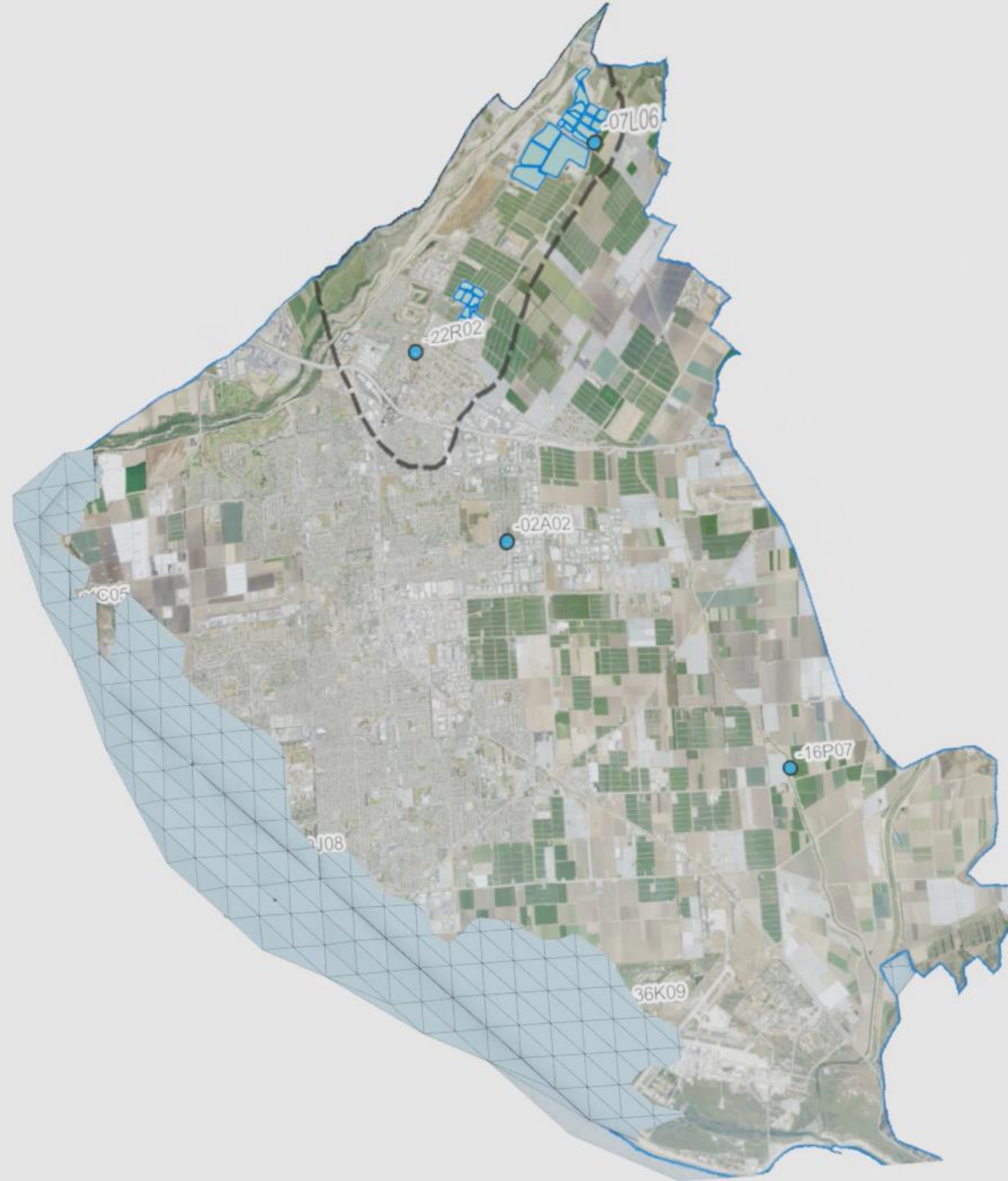
El Rio

EL RIO EAST

LINDA

RIO LINDO

SQUARE



January 2023

Saticoy

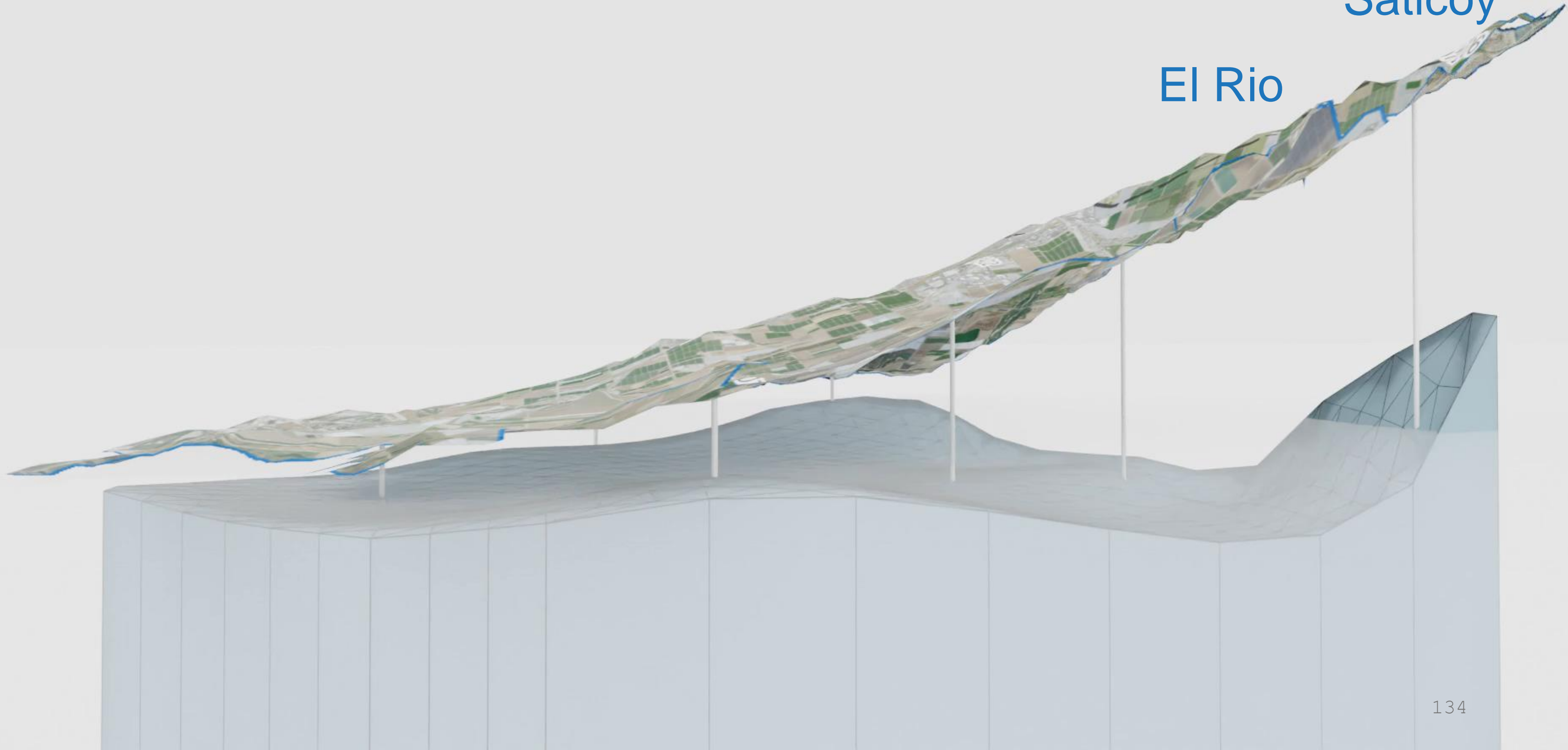
El Rio



July 2023

Saticoy

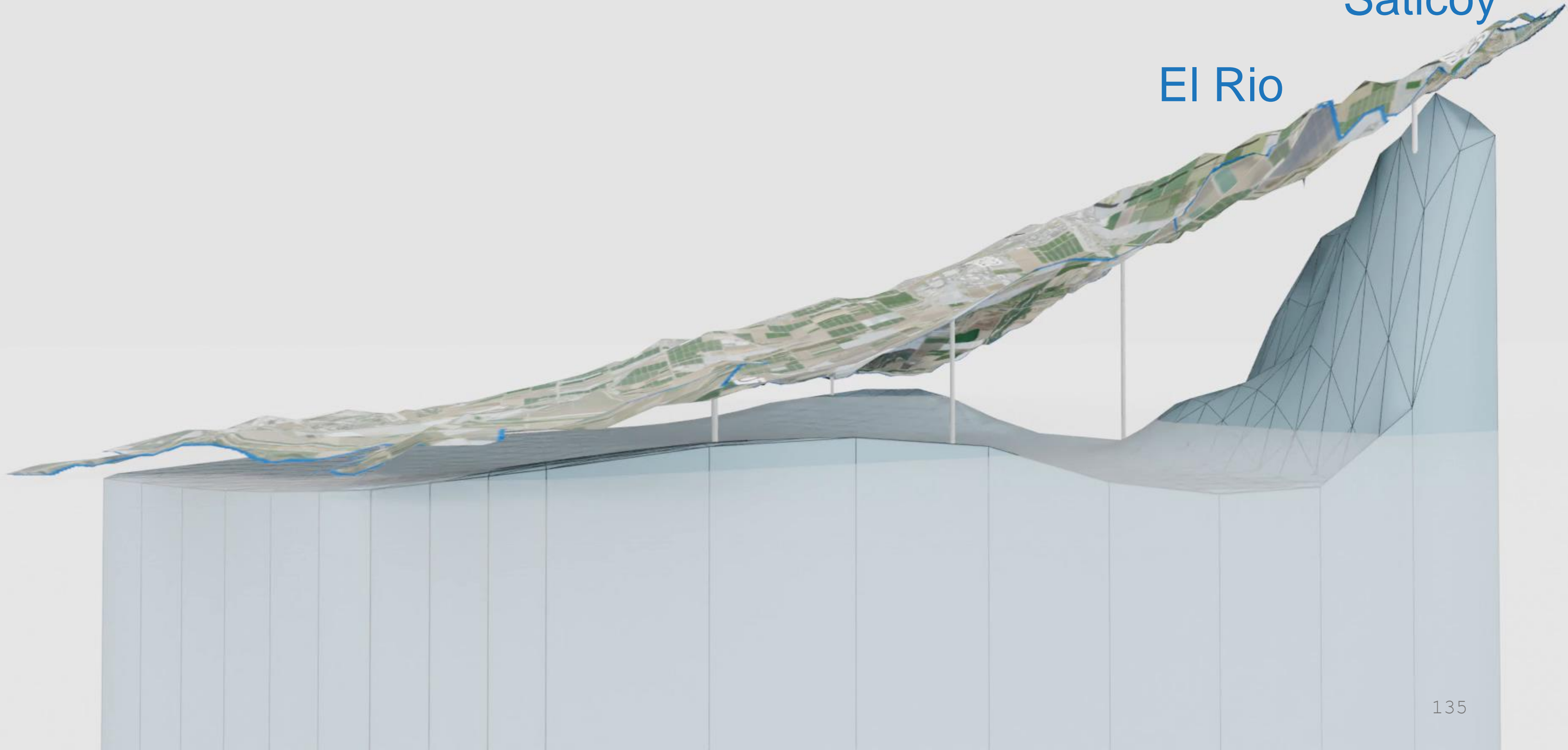
El Rio



December 2023

Saticoy

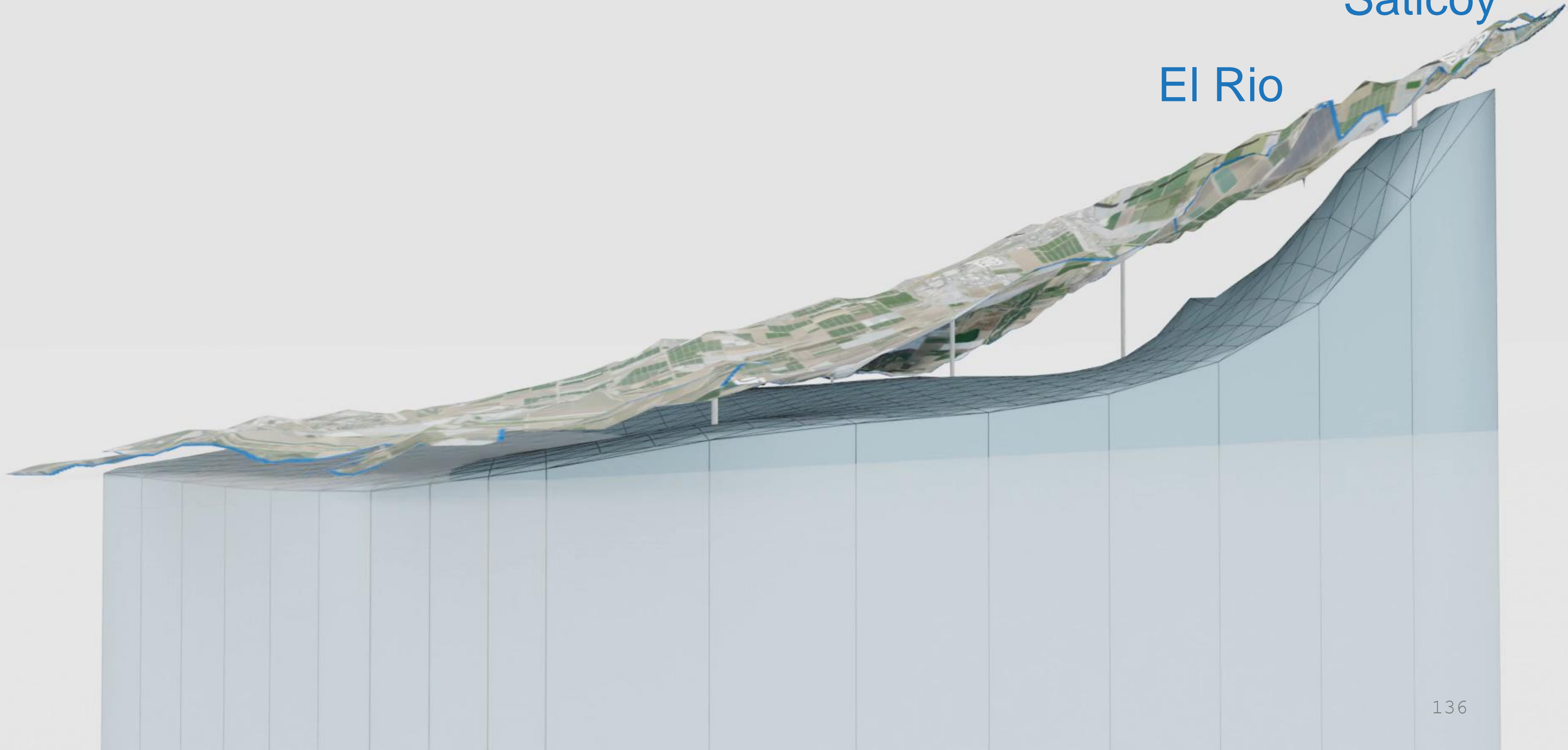
El Rio



March 2024

Saticoy

El Rio

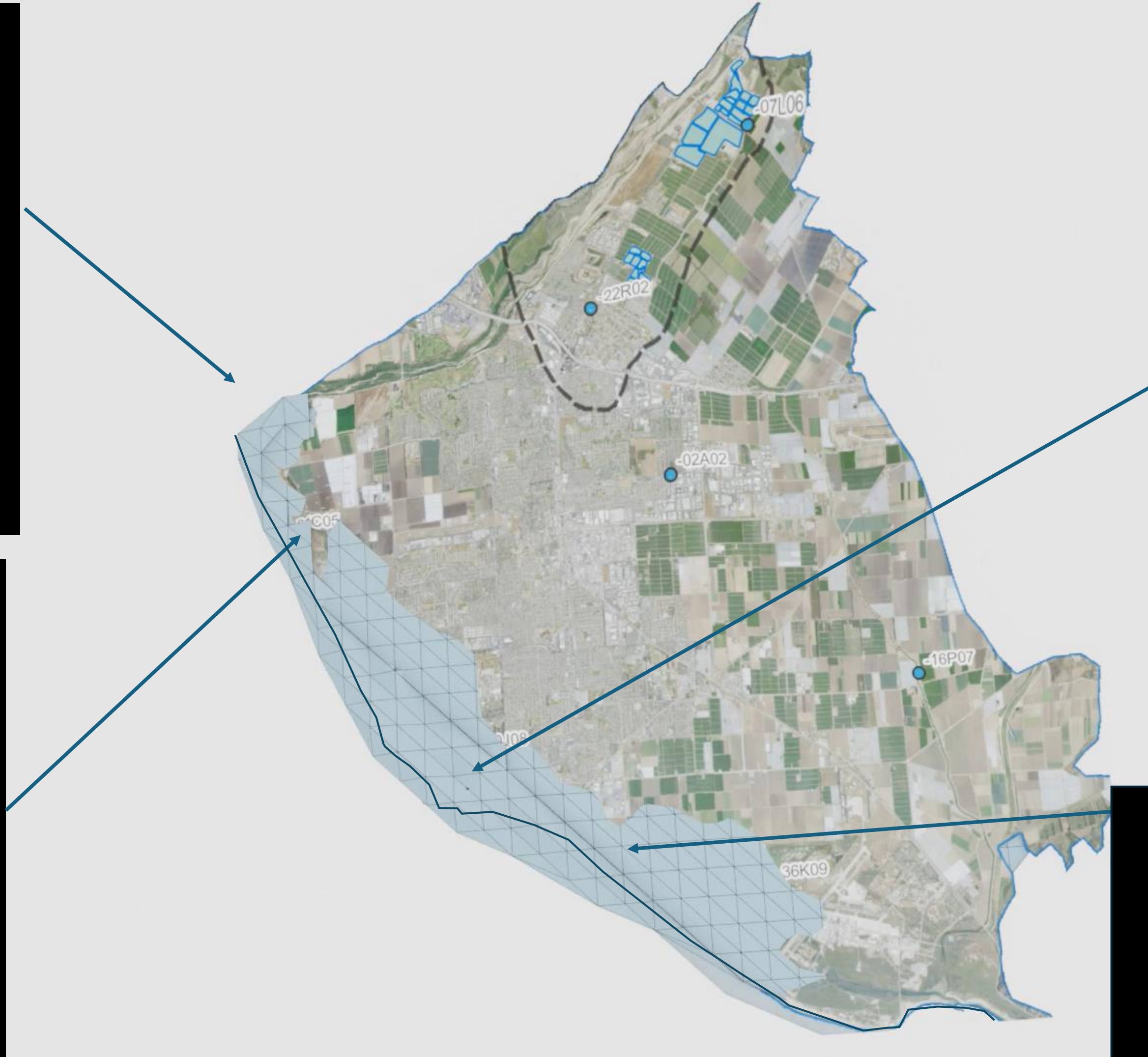


MP 660

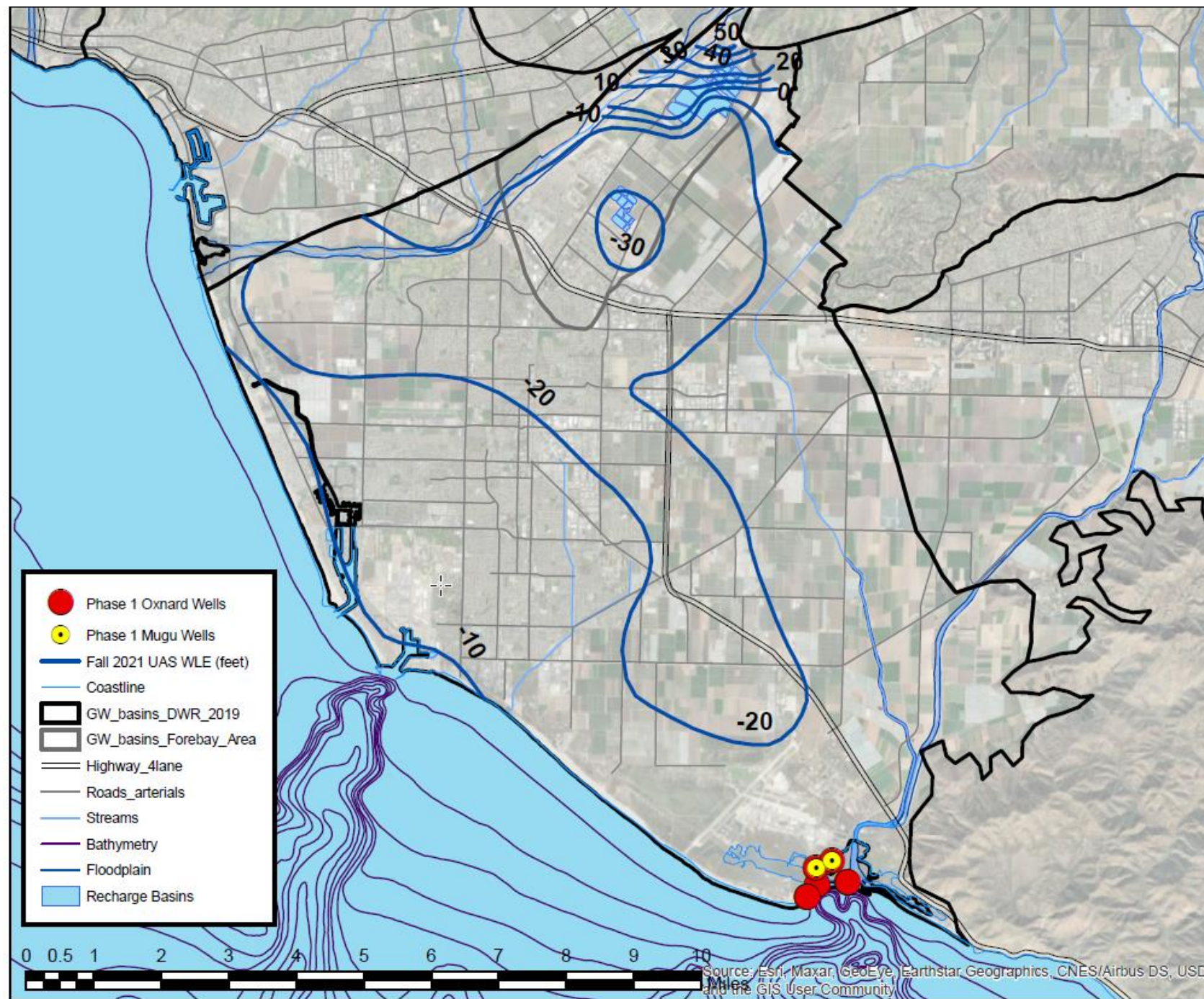
A1 195

CM#3

CM#7



Extraction Barrier and Brackish Water Project • Stop Seawater Intrusion



The background of the slide is a photograph of a water treatment plant. It features several large, white cylindrical tanks with blue piping and valves. The scene is set outdoors under a blue sky with light clouds. The image is overlaid with a semi-transparent blue filter. The slide is decorated with colorful curved borders in orange, green, and blue.

Thank you

www.unitedwater.org



Submit questions / comments:
assemblymember.bennett@assembly.ca.gov
(805) 485-4745



Steve Bennett

Assemblymember, 38th District





Thank you for coming!

**Please take our
brief survey**



For more questions / comments:
assemblymember.bennett@assembly.ca.gov
(805) 485-4745

