

**AGENDA**  
**WATER RESOURCES COMMITTEE**  
**Tuesday, March 5, 2024, at 9:00 a.m.**  
**UWCD Headquarters, First Floor, Board Room**  
**1701 N. Lombard Street, Oxnard, CA 93030**

**CALL TO ORDER – OPEN SESSION 9:00 a.m.**

**Roll Call**

**1. Public Comment**

The public may address the Water Resources Committee on any matter on the agenda or within the jurisdiction of the Committee. All comments are subject to a five-minute time limit.

**2. Approval of Minutes**

**Motion**

Approve the minutes from the January 2, 2024, Water Resources Committee meeting.

**3. Summary and Update on District Surface Water Conditions (Dr. Bram Sercu)**

**Information Item**

Staff will present a summary of reservoir releases and diversions during 2023 and provide an update on current hydrologic conditions in the Santa Clara River watershed.

**4. Ventura County's Variable Climate: Implications for Water Resources Planning**

(Patrick O'Connell)

**Information Item**

Staff will present a summary of downscaled (local) climate model forecasts for future rainfall within the District's service area, to inform ongoing GSP updates and planning of new water supply projects.

**5. Water Resources Department and GSA Activities Update (John Lindquist)**

**Information Item**

Staff will present a summary of Water Resources Department activities and respond to comments (as necessary) on the most recent Water Resources Department staff report.

**6. Future Agenda Items**

The Committee will suggest topics or issues for discussion at future meetings.

**ADJOURNMENT**

**Directors:**

Daniel C. Naumann, Chair  
Mohammed Hasan  
Gordon Kimball

**Staff:**

Mauricio E. Guardado, Jr.  
Dr. Jason Sun  
Dr. Zachary Hanson  
John Lindquist  
Patrick O'Connell  
Robert Marshall

Dr. Maryam Bral  
Dr. Bram Sercu  
Murray McEachron  
Christofer Coppinger  
Kathleen Kuepper  
Luke Bryden

## Water Resources Committee Agenda

Tuesday, March 5, 2024

Page 2

*The Americans with Disabilities Act provides that no qualified individual with a disability shall be excluded from participating in, or denied the benefits of, the District's services, programs or activities because of any disability. If you need special assistance to participate in this meeting, or if you require agenda material in an alternative format, please contact the District's offices at (805) 525-4431. Notification of at least 48 hours prior to the meeting will enable the District to make appropriate arrangements.*

Approved:

 FOR MEG

Mauricio E. Guardado, Jr., General Manager



Dr. Maryam Bral, Chief Engineer

**Posted:** February 29, 2024

**(time)** 2:40 p.m.

**(attest)** Vanessa Vasquez

**At:** [www.unitedwater.org](http://www.unitedwater.org)

**Posted:** February 29, 2024

**(time)** 2:40 p.m.

**(attest)** Vanessa Vasquez

**At:** UWCD Headquarters, 1701 N. Lombard Street, Oxnard, CA 93030

**MINUTES**  
**WATER RESOURCES COMMITTEE**  
**Tuesday, January 2, 2024, at 9:00 a.m.**  
**UNITED WATER CONSERVATION DISTRICT**  
**Boardroom, 1701 N. Lombard Street, Oxnard CA 93030**

**Committee Members Present:**

Gordon Kimball, director  
Mohammed A. Hasan, director  
Daniel C. Naumann, chair

**Staff Present:**

Mauricio Guardado, general manager  
Anthony Emmert, assistant general manager  
Dr. Maryam Bral, chief engineer  
Dr. Jason Sun, supervisory water resources engineer  
Dr. Zachary Hanson, water resources engineer  
Christopher Coppinger, senior hydrogeologist  
Patrick O'Connell, senior hydrogeologist  
Murray McEachron, principal hydrologist  
Kathleen Kuepper, hydrogeologist  
Luke Bryden, associate hydrologist  
Josh Perez, chief human resources officer  
Zachary Plummer, technology systems manager  
Ed Reese, technology systems specialist  
Vanessa Vasquez, clerk of the committee  
Brian Zahn, chief financial officer

**Public Present:**

Burt Handy

**Call to Order – Open Session**

Director Hasan called the committee meeting to order at 9:00 a.m. The clerk of the committee called roll. All committee members were present (Kimball, Naumann, Hasan).

**1. Public Comment**

Directors asked if there were any public comments. There were none offered.

**2. Approval of Minutes**

Motion to approve the Minutes from October 5, 2023, Water Resources Committee meeting. Director Hasan; second, Director Kimball. Voice vote: two ayes (Hasan, Kimball); Naumann opposed; none absent Motion carries 2/1/0.



**3. Update on Groundwater Conditions (Kathleen Kuepper)**

Hydrogeologist Kathleen Kuepper presented an update on groundwater conditions covering historical local precipitation, monthly local precipitation, changes in groundwater levels in the river basins and coastal basins, groundwater quality - nitrates in the Forebay, chlorides at Port Hueneme and Point Mugu - and data collection points for groundwater levels and water quality.

Director Hasan asked if there was any continuity between the western and eastern Santa Paula water basins. Ms. Kuepper provided an explanation of how they are connected.

Director Naumann asked whether surface water from the Pumping Trough Pipeline (PTP) is better quality than in the wells. Water Resources staff determined the answer would vary on surface recharge influences and other factors.

No additional questions or comments offered.

**4. Summary and Update on District Surface water Conditions (Murray McEachron)**

Principal Hydrologist Murray McEachron presented a summary of the 2023 wet season for the Santa Clara river watershed that covered atmospheric rivers in the west for 2023, rainfall totals in Ventura County, rainfall in Santa Paula, water supplies in 2023, Castaic flood flow operations, Santa Felicia Dam, Freeman Diversion operations, stormwater capture, releases and purchased water, O&M staff, sediment management, 2023 tour highlights and records achieved in 2023 (presentation attached).

Director Hasan asked how often flushing of Freeman Diversion occurred. Mr. McEachron responded that flushing now occurs as often as needed, depending on turbidity.

Committee members appreciated the graphics in Mr. McEachron's presentation and agreed the graphics should be presented to the full Board.

No additional questions or comments offered.

**5. Water Resources Department and GSA Activities Update (John Lindquist)**

Water Resources Manager John Lindquist presented Water Resources department and groundwater sustainability agency updates covering United's history of continuous improvement as key to the region's water supply, how more work is needed to achieve sustainability in the Oxnard and Pleasant Valley basins, the next generation of projects, the natural progression of new water supply projects, United Water collecting about 4,000 groundwater level measurements per year and the number trending upward, United Water collecting about 1, 000 water quality samples per year, major water resources efforts in 2024, and major anticipated concerns or challenges for 2024.

The committee appreciates all the hard work from the Water Resources department and encourages them to continue to be innovative in their approaches in the future. The Committee offered their full support.

**FUTURE AGENDA ITEMS**





No future agenda items offered.

Director Naumann asked for any comments or questions. None offered.

**ADJOURNMENT 10:09 a.m.**

Director Hasan adjourned the meeting at 10:09 a.m.

I certify that the above is a true and correct copy of the Minutes of the Water Resources Committee Meeting of January 2, 2024.

**ATTEST:**

\_\_\_\_\_  
Daniel Naumann, Chair



Board of Directors  
Bruce E. Dandy, President  
Sheldon G. Berger, Vice President  
Lynn E. Maulhardt, Secretary/Treasurer  
Mohammed A. Hasan  
Catherine P. Keeling  
Gordon Kimball  
Daniel C. Naumann

General Manager  
Mauricio E. Guardado, Jr.

Legal Counsel  
David D. Boyer

## ATTENDANCE LIST

**MEETING DATE:** Tuesday, January 2, 2024

**MEETING:** UWCD Water Resources Committee Meeting


The signing or registering of your name on this sign-up form is not required but is voluntary. All persons may attend the meetings of the Board of Directors of United Water Conservation District without signing or registering their names on this form.

Name (Please Print)

Representing


Bruce Honey

Public



# SUMMARY AND UPDATE ON DISTRICT GROUNDWATER CONDITIONS

Presented by: Kathleen Kuepper  
Water Resources Committee Meeting  
January 2, 2024



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# Outline



2023 Drought  
Conditions in  
California



Local  
Precipitation



Santa Clara  
River Flows and  
Divisions



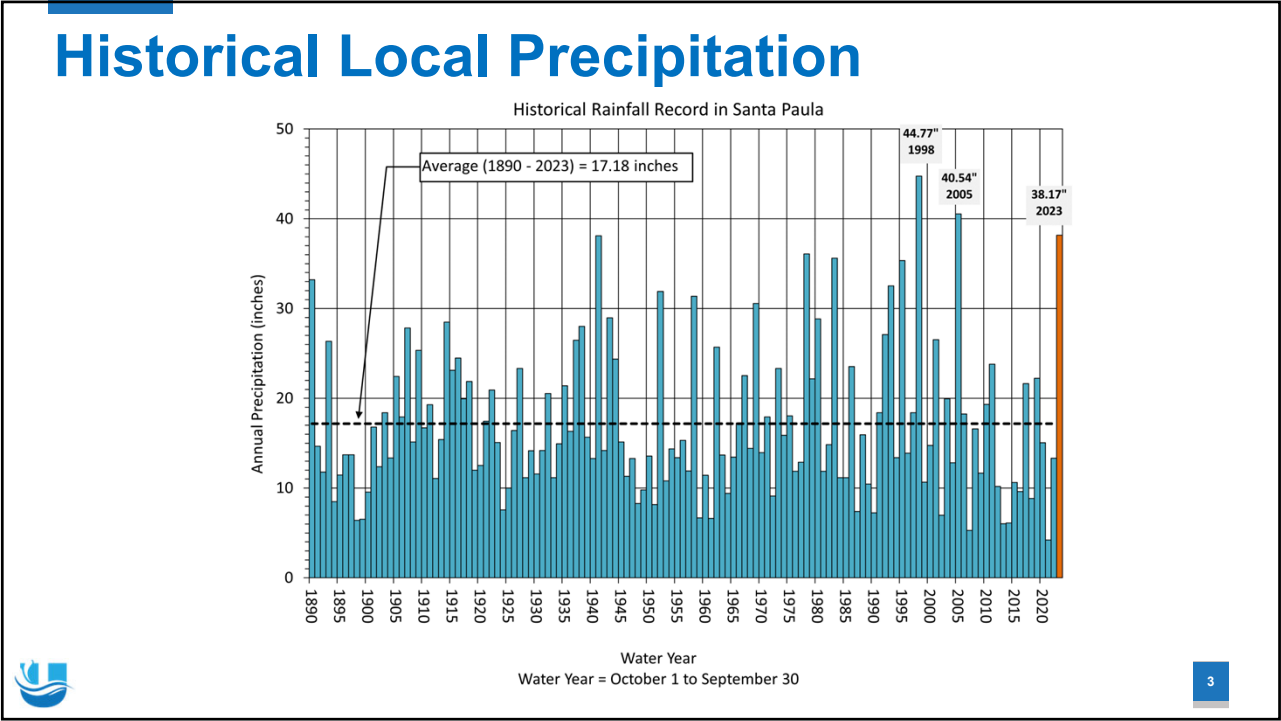
Groundwater  
Levels



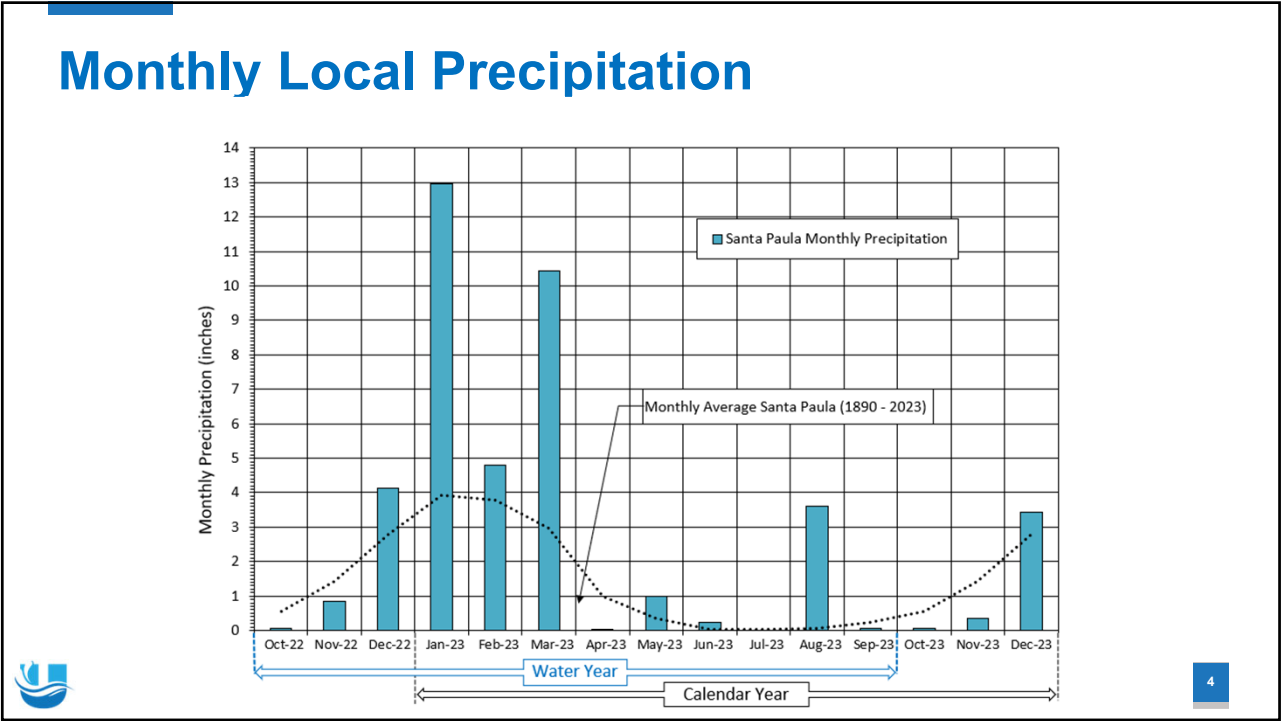
Water Quality  
Nitrates  
Chlorides



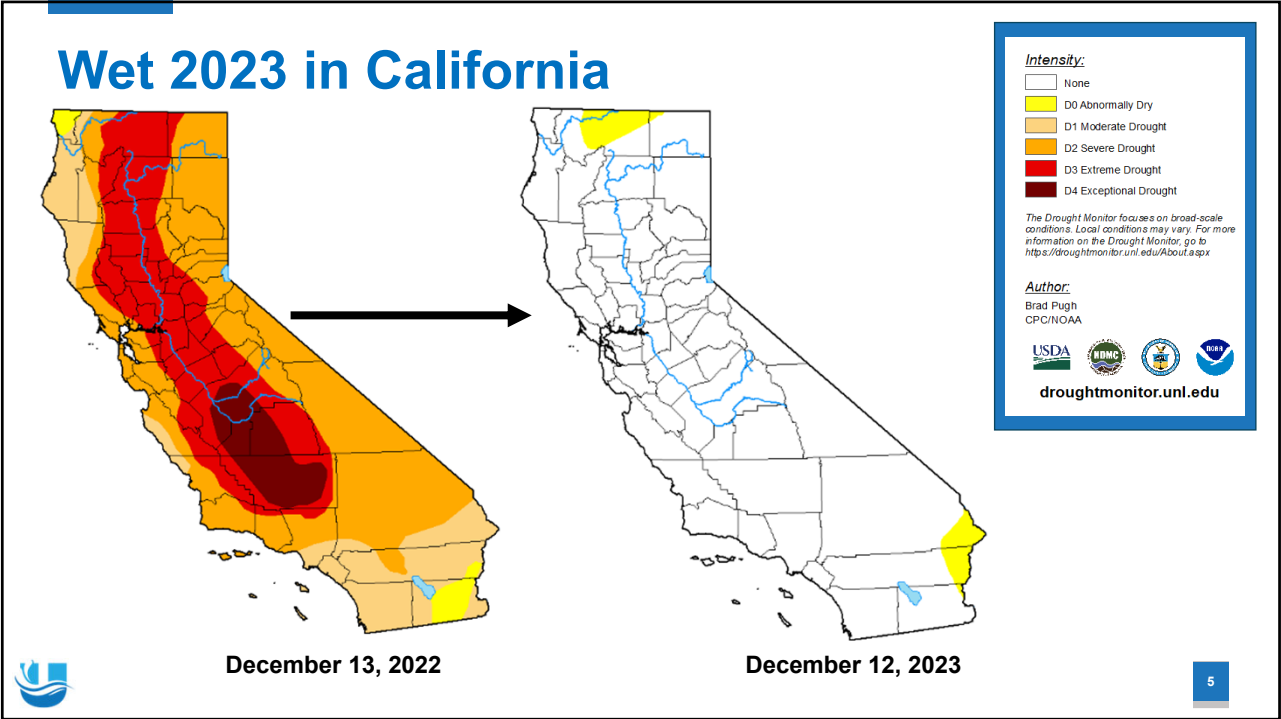
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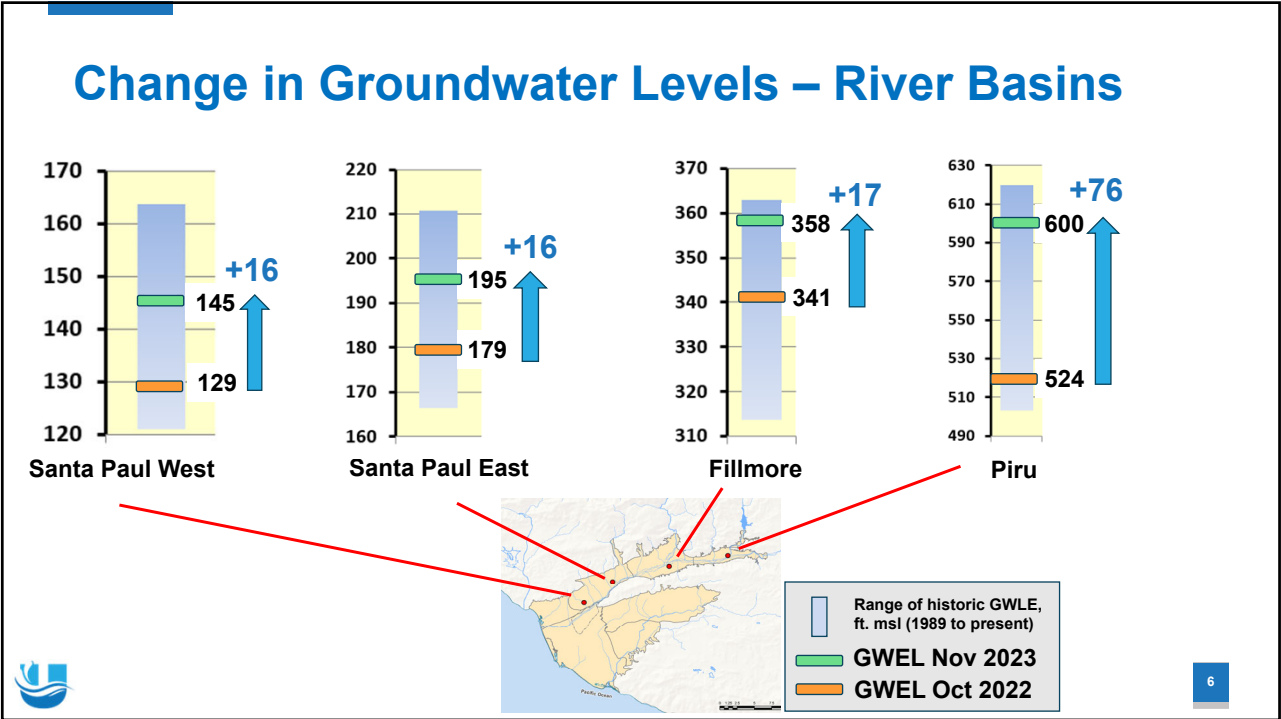
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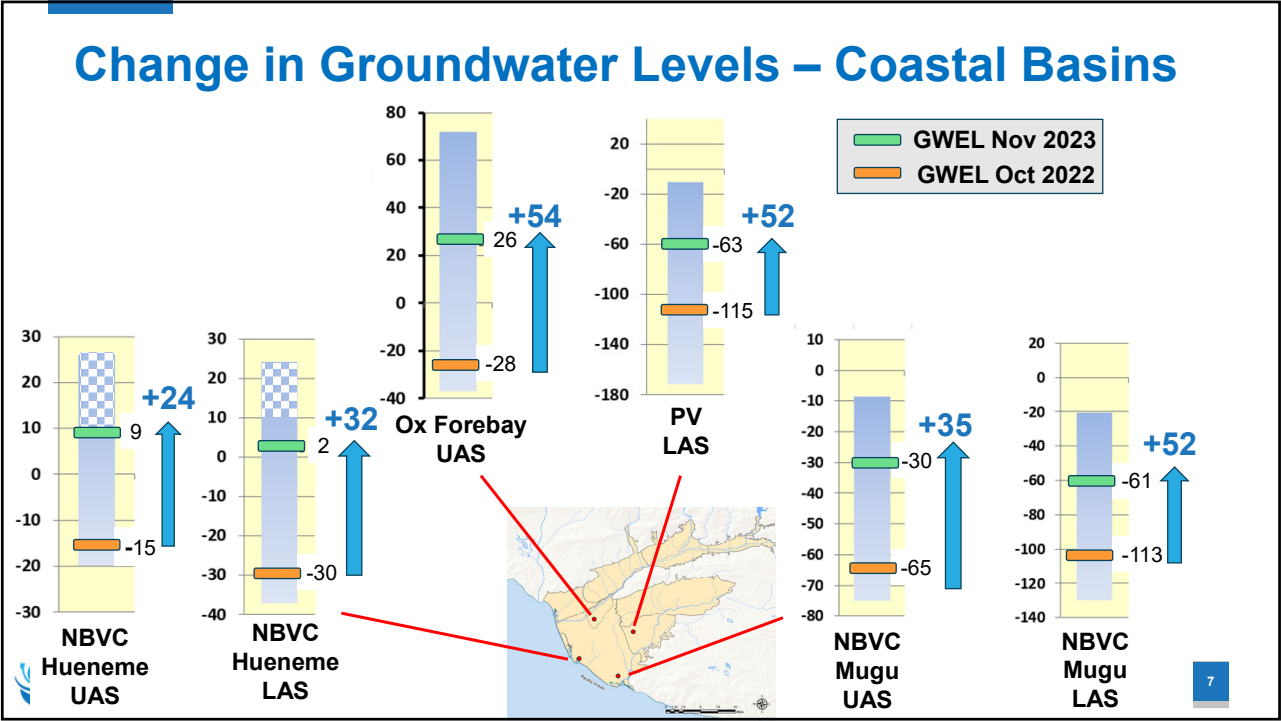
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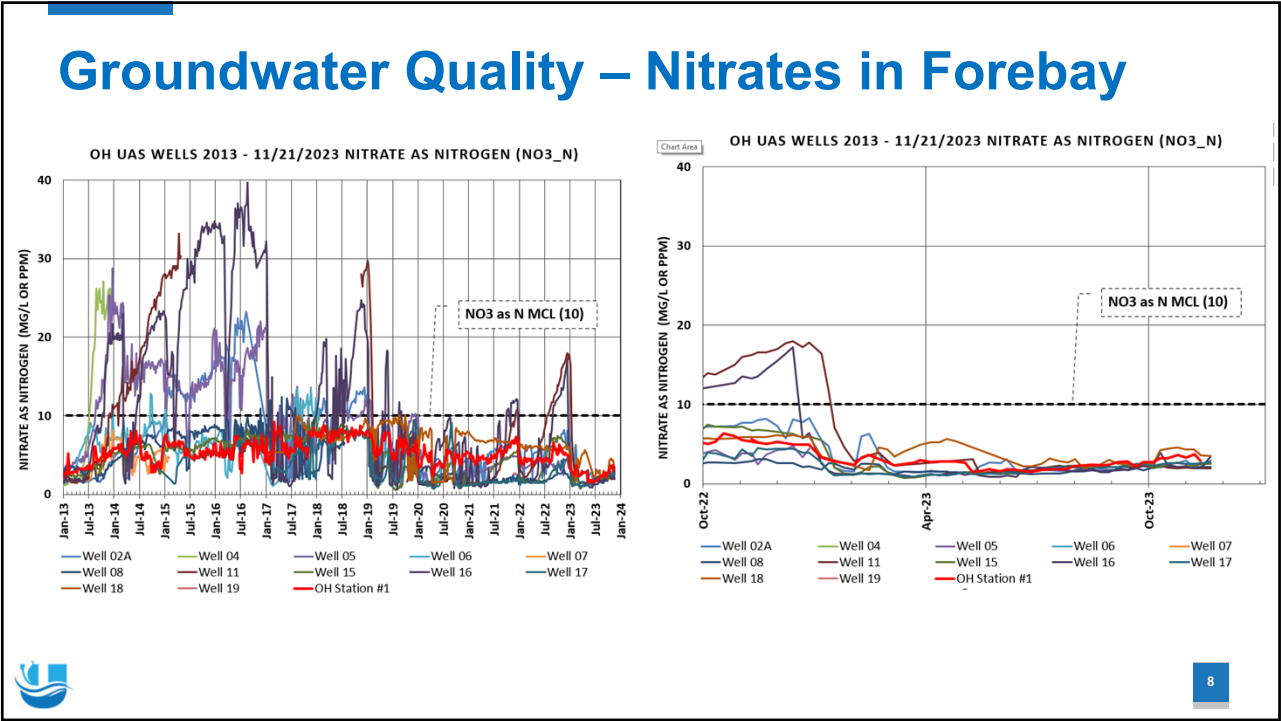
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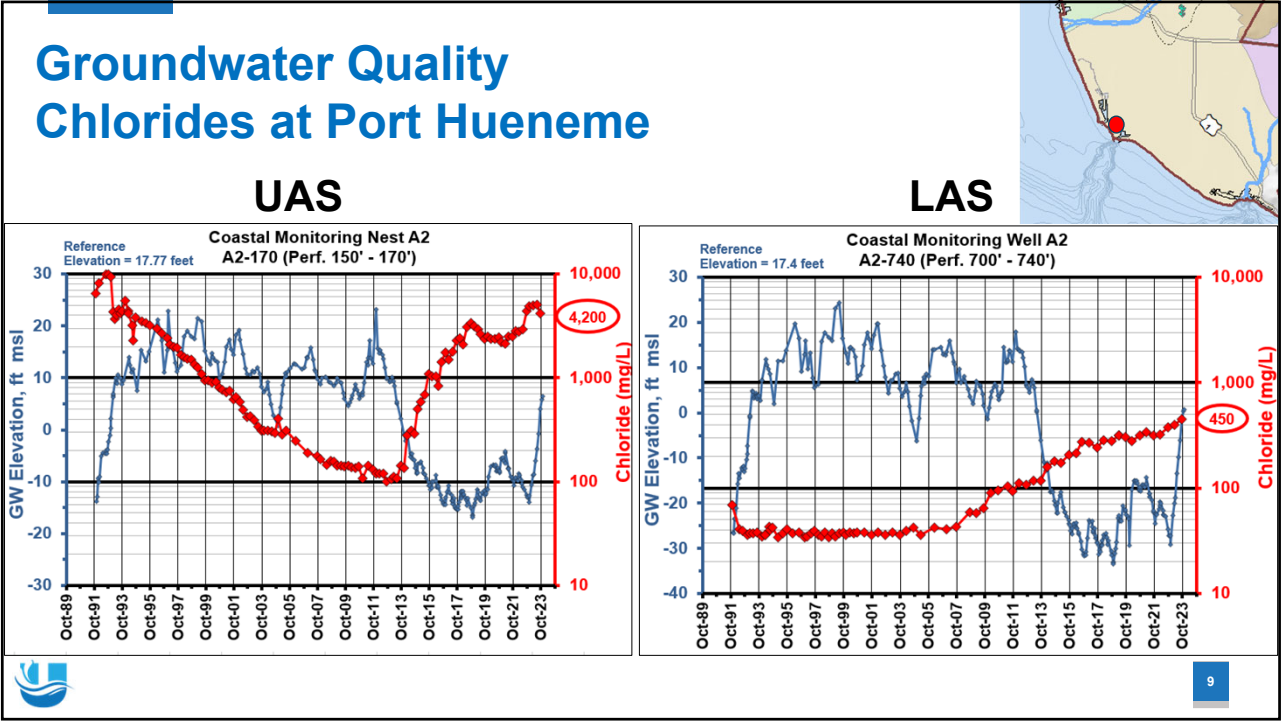
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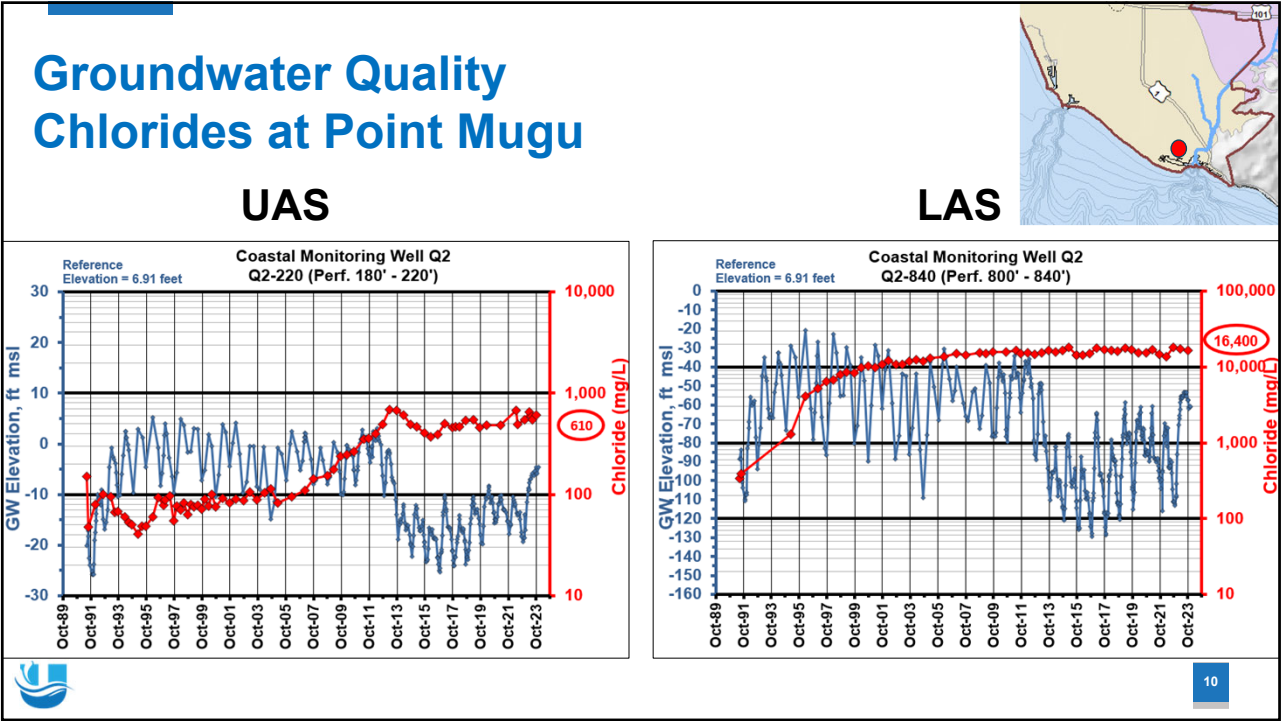
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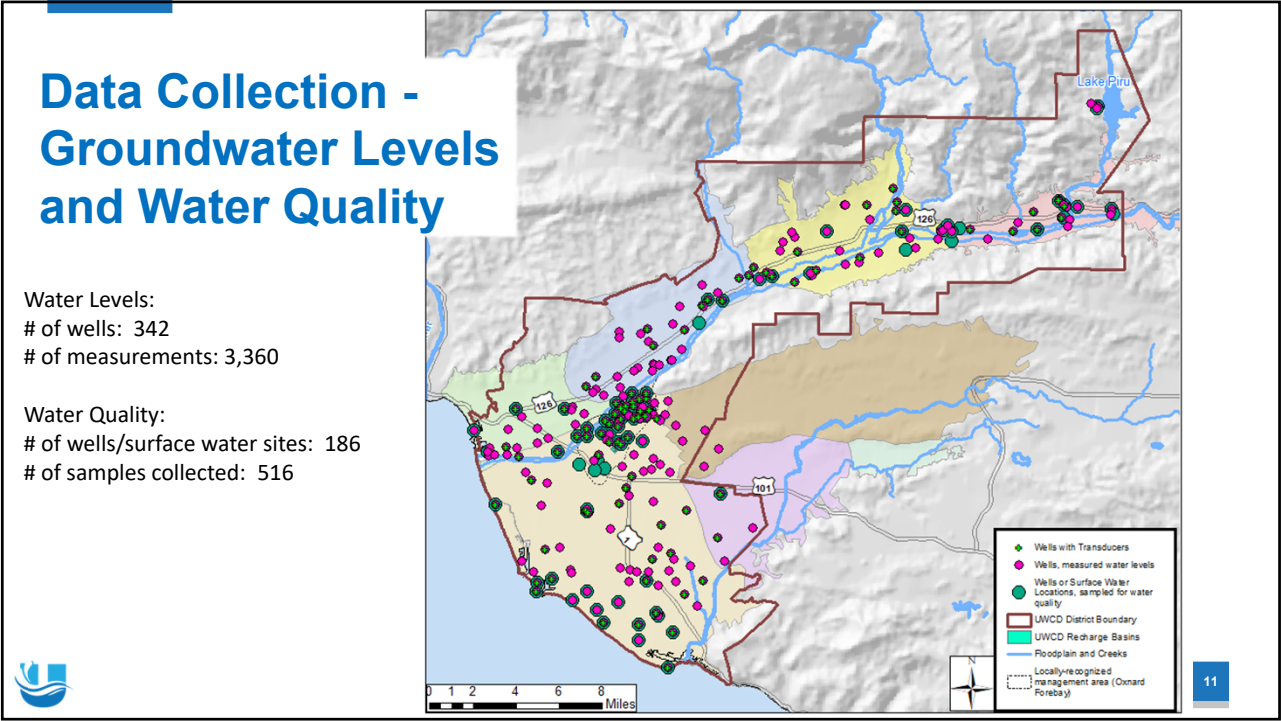


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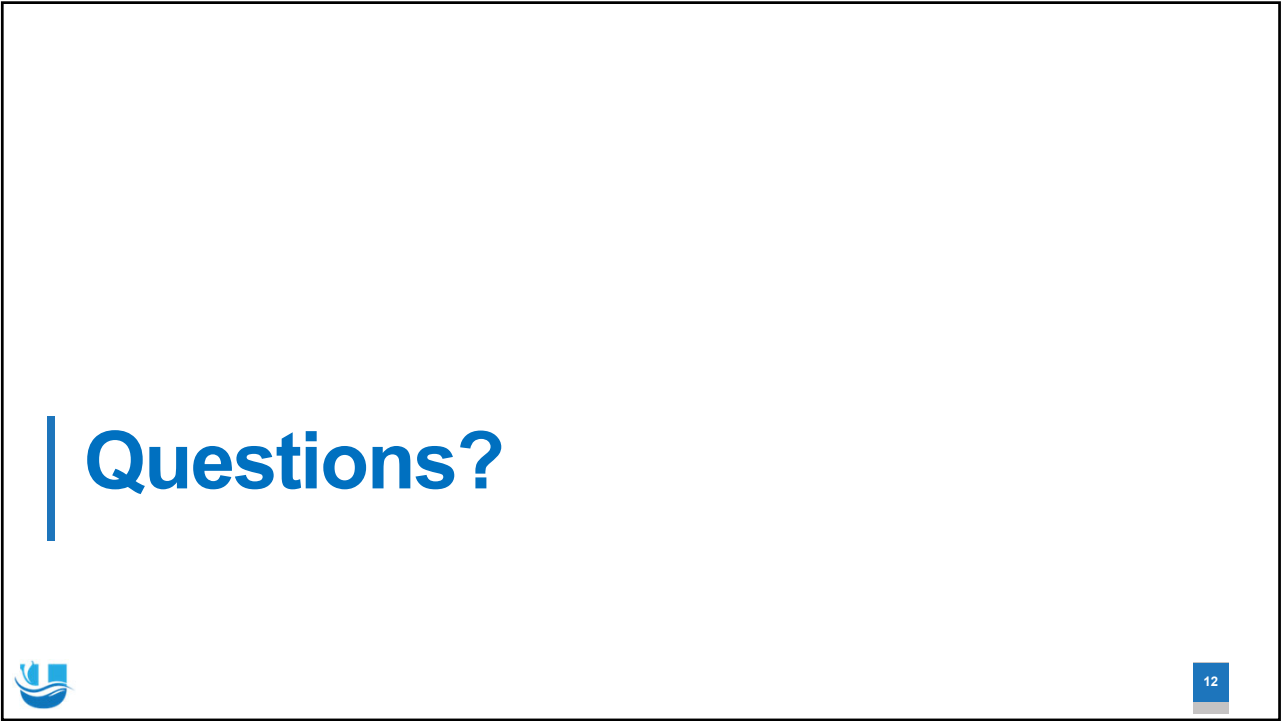


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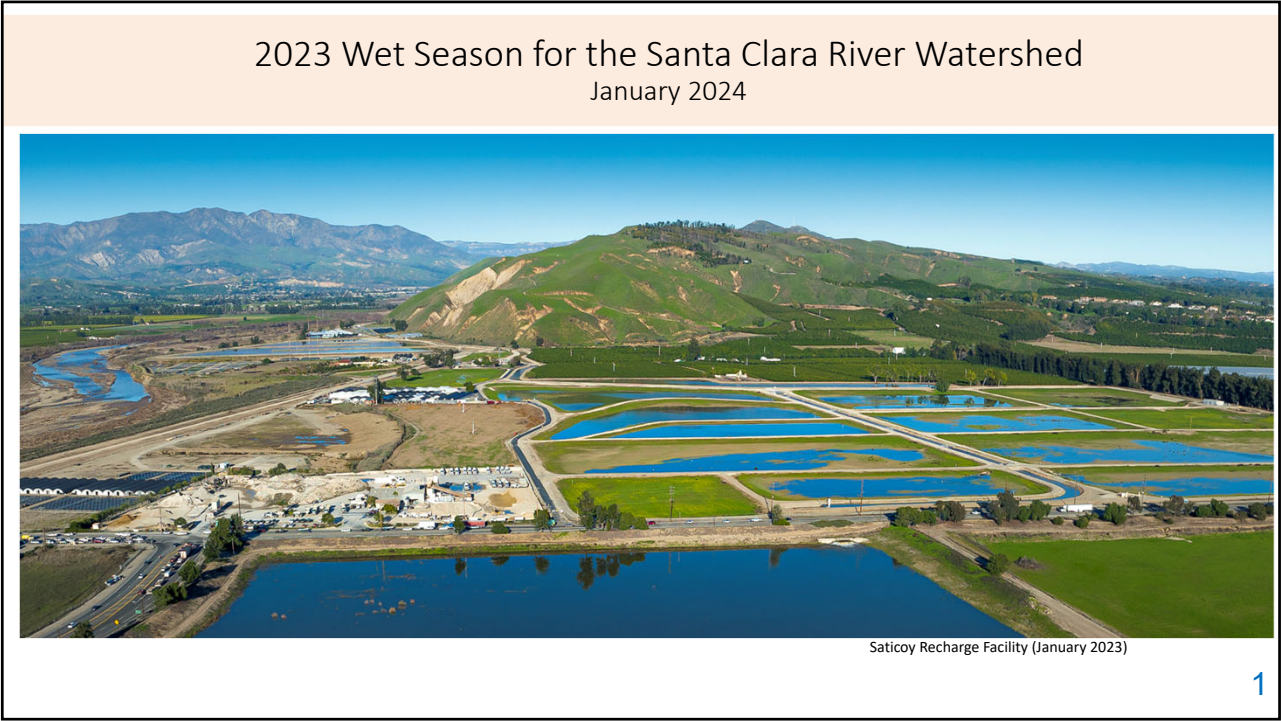




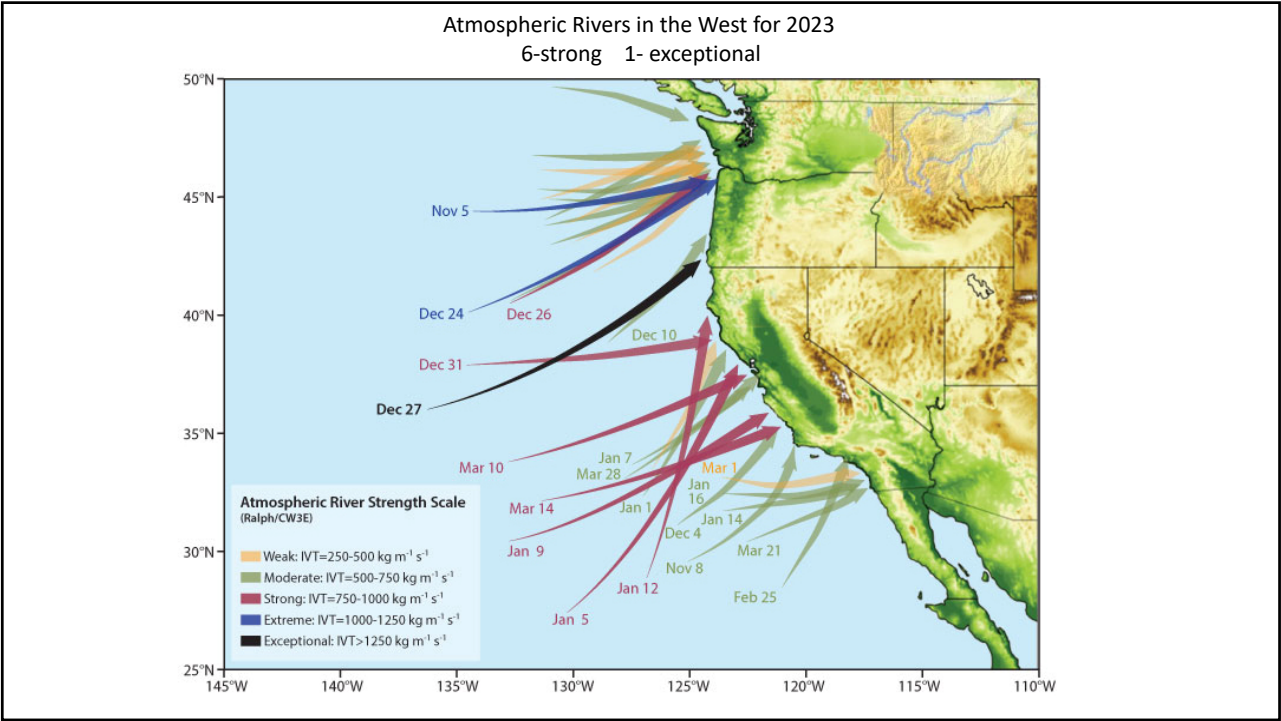
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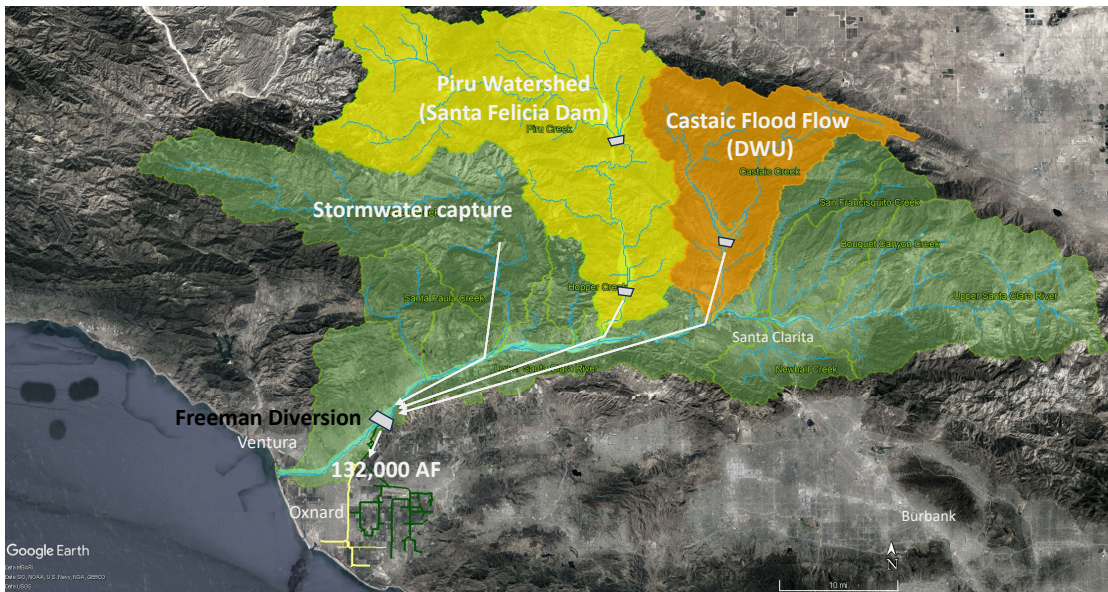


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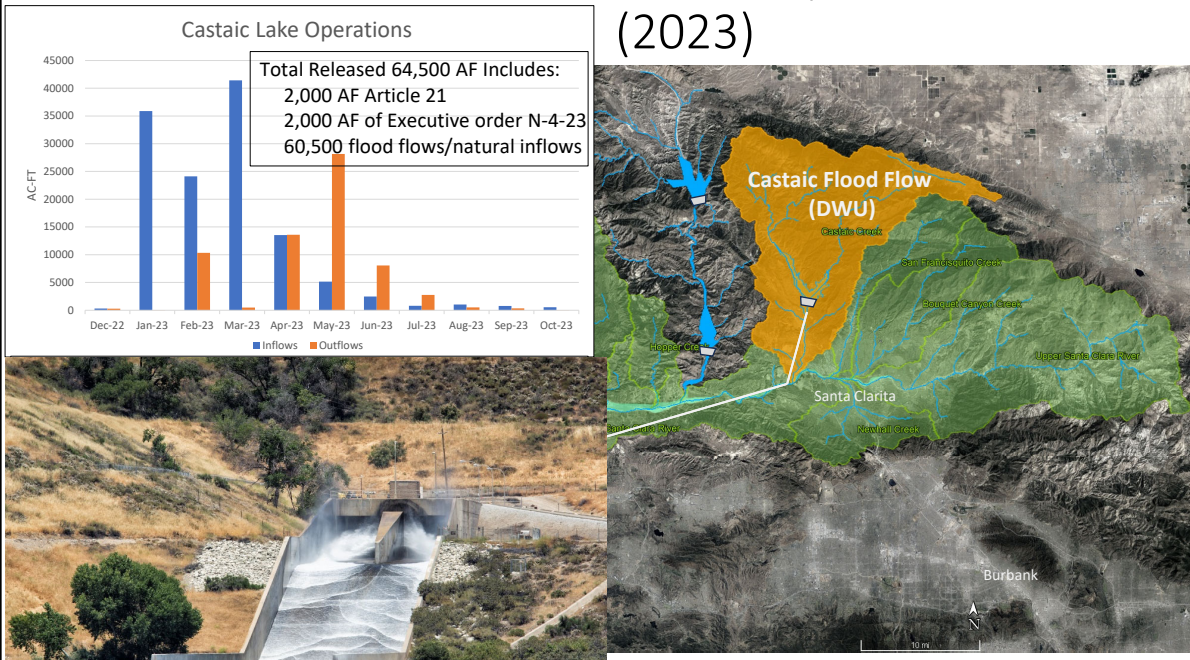


Water Supplies in 2023



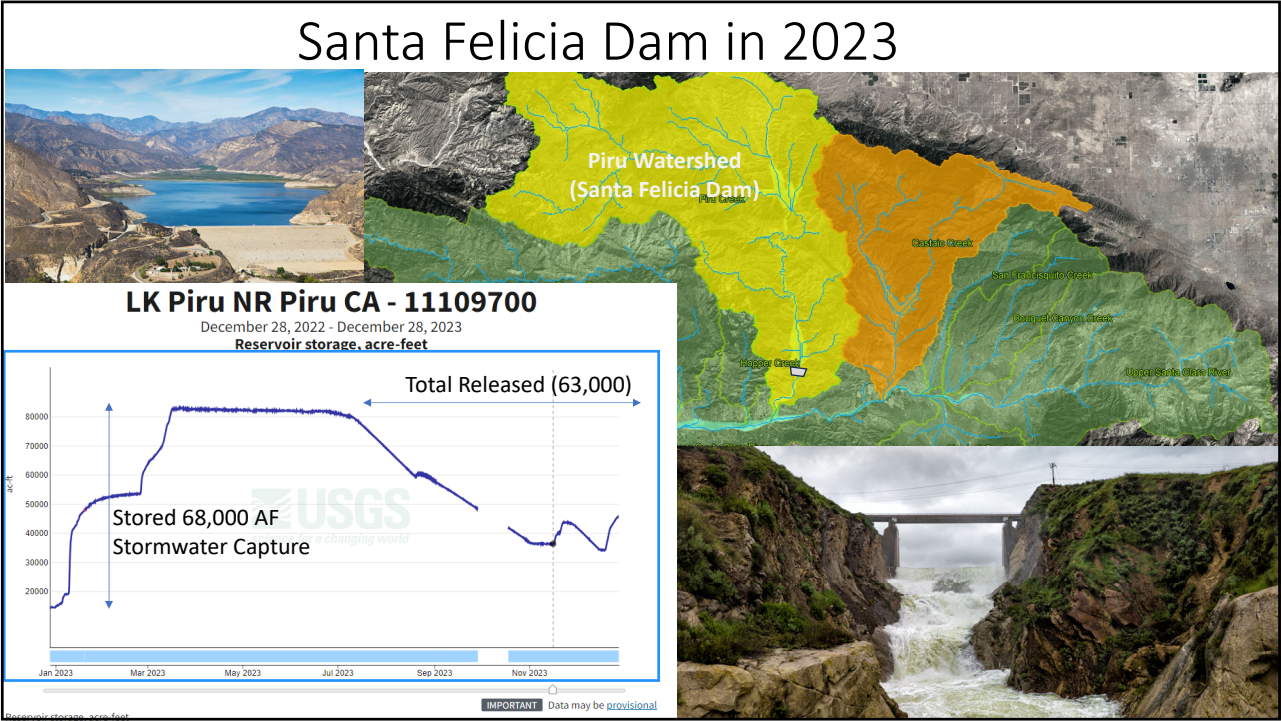
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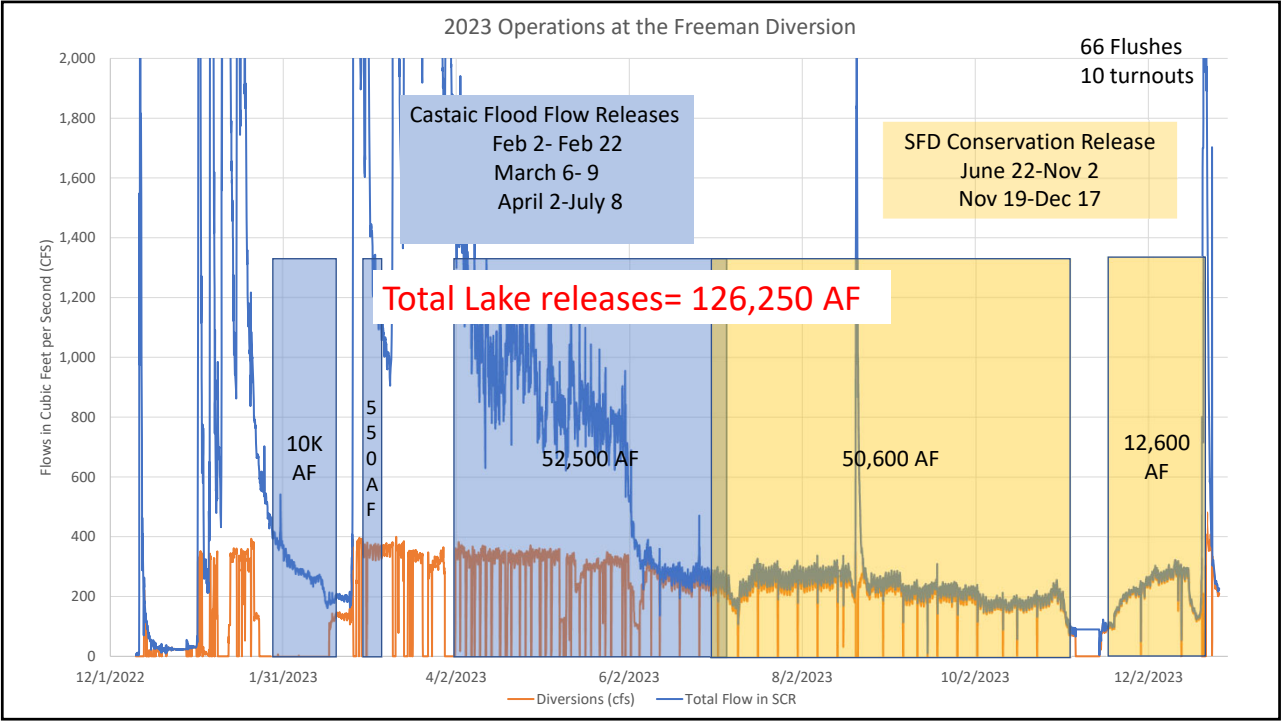
Castaic Flood Flow Operations (2023)



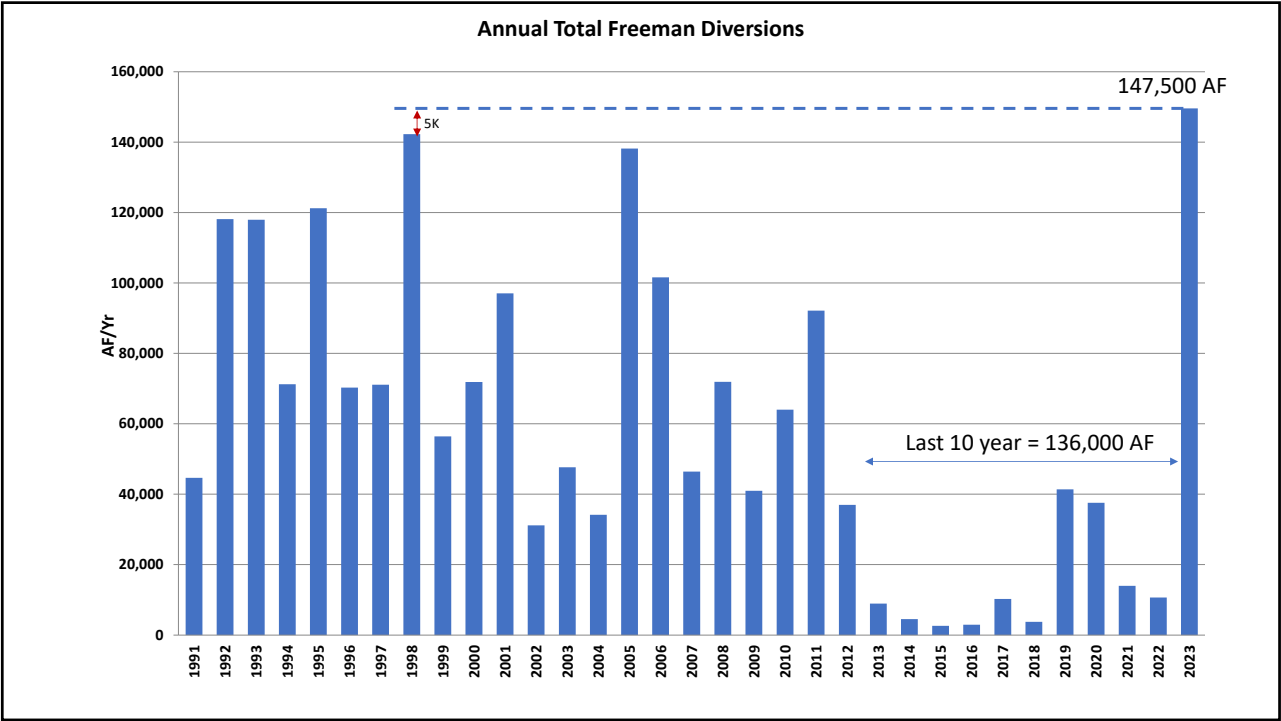
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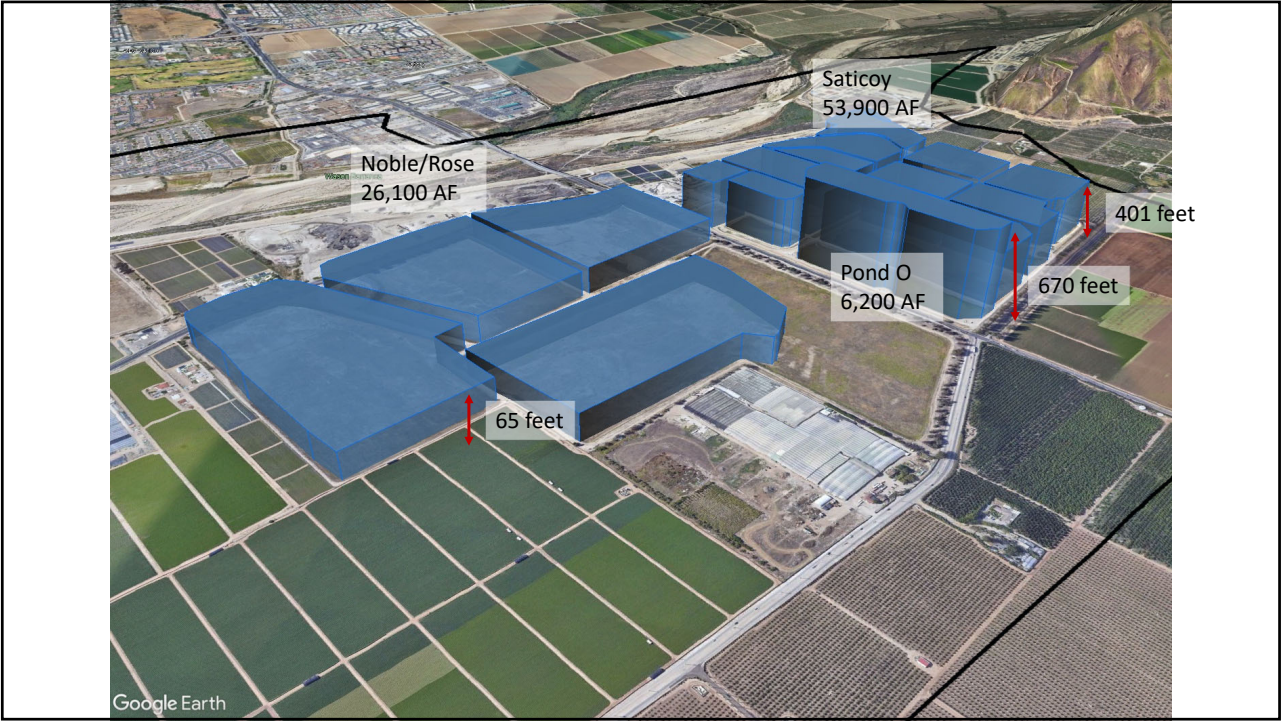


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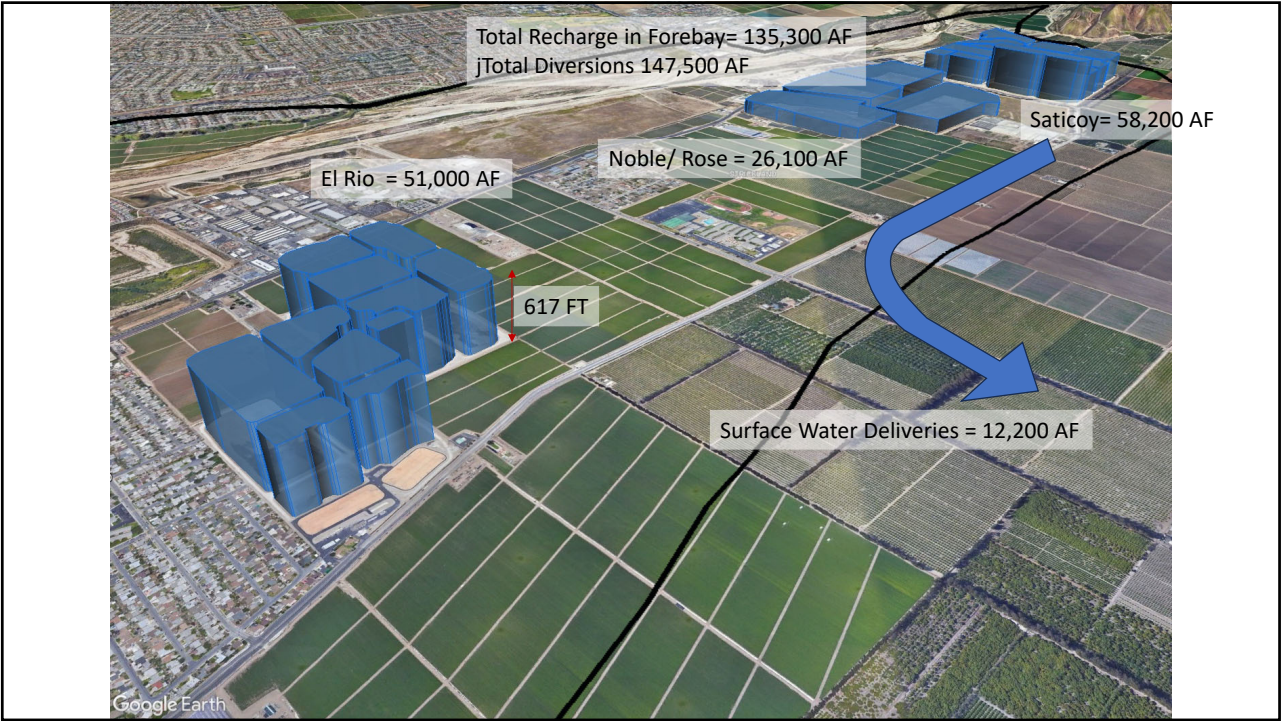


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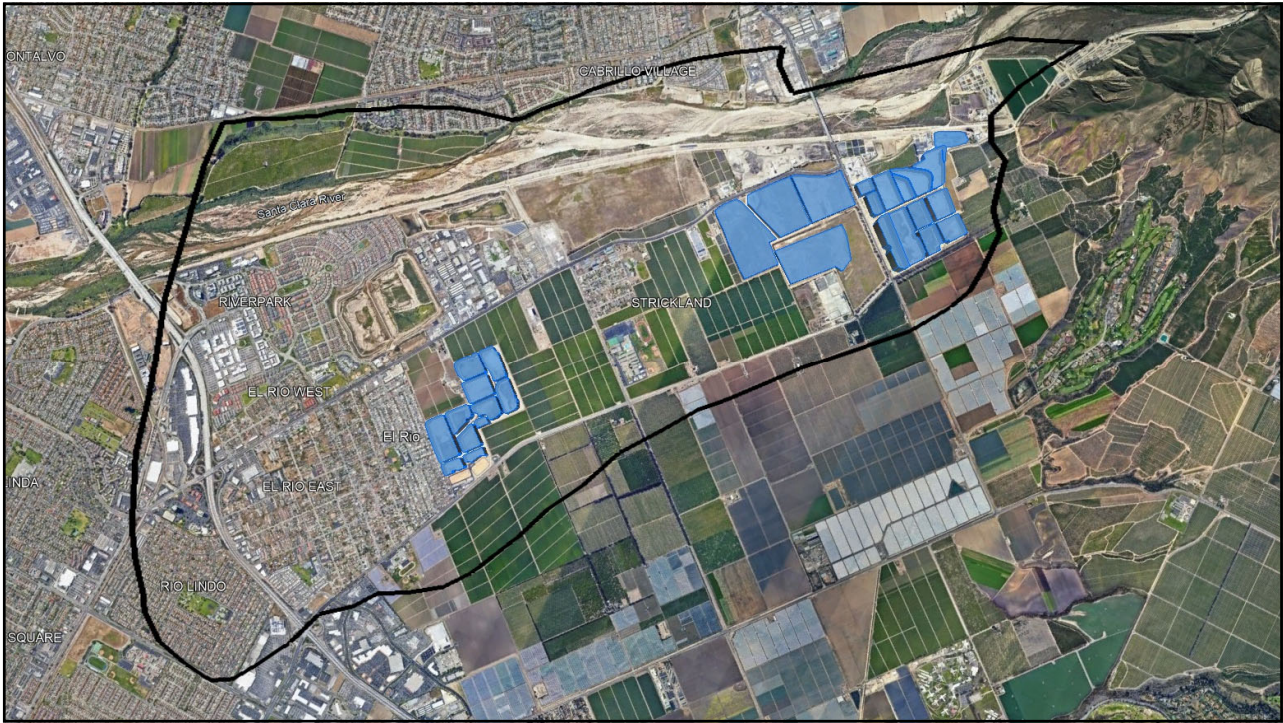


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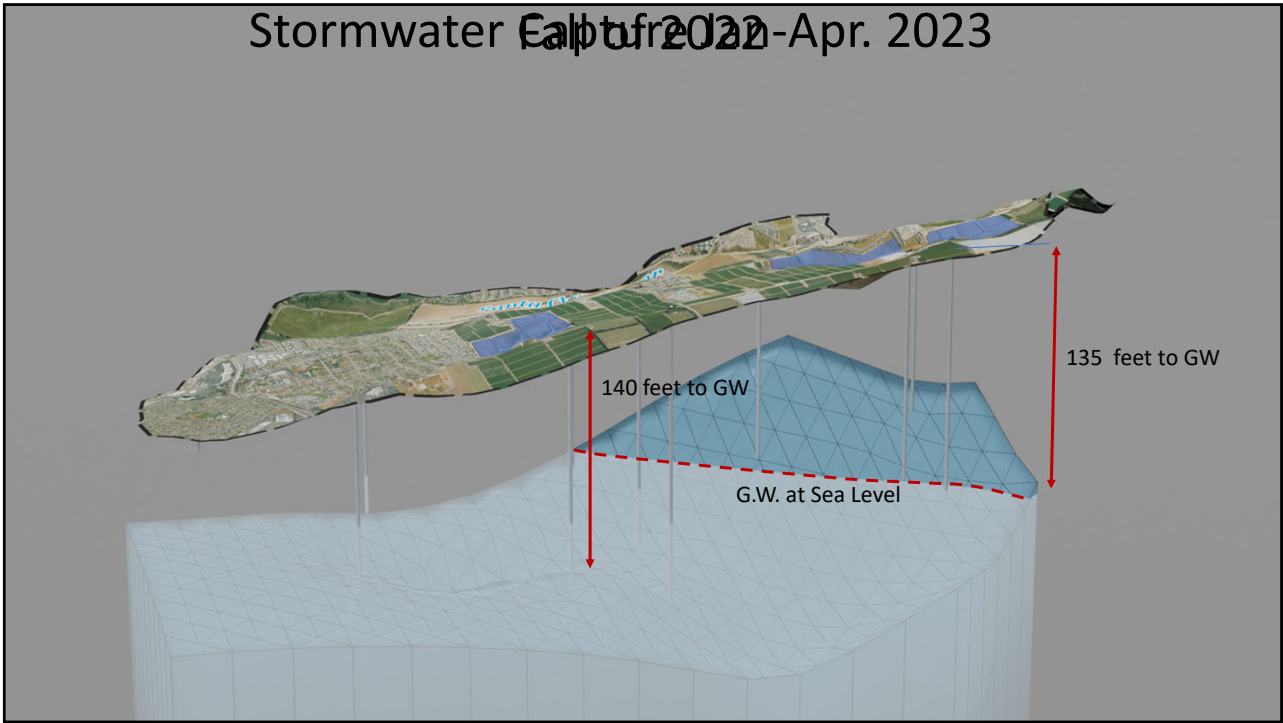
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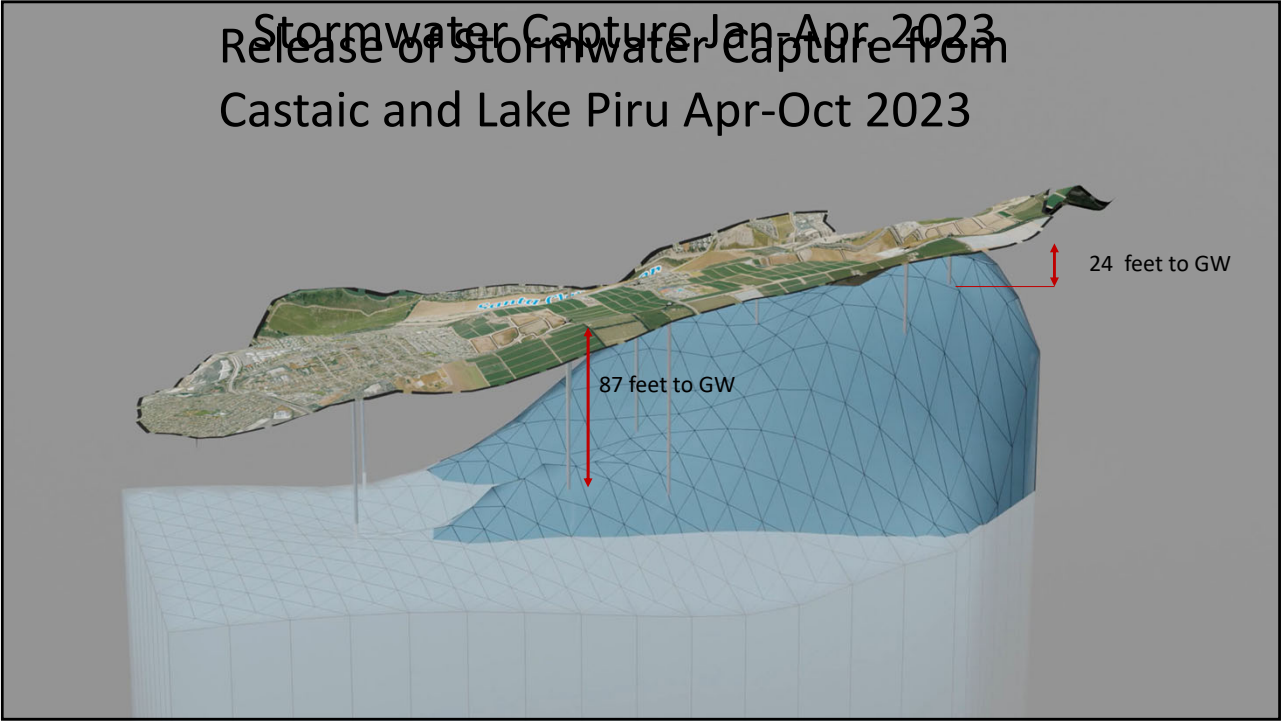


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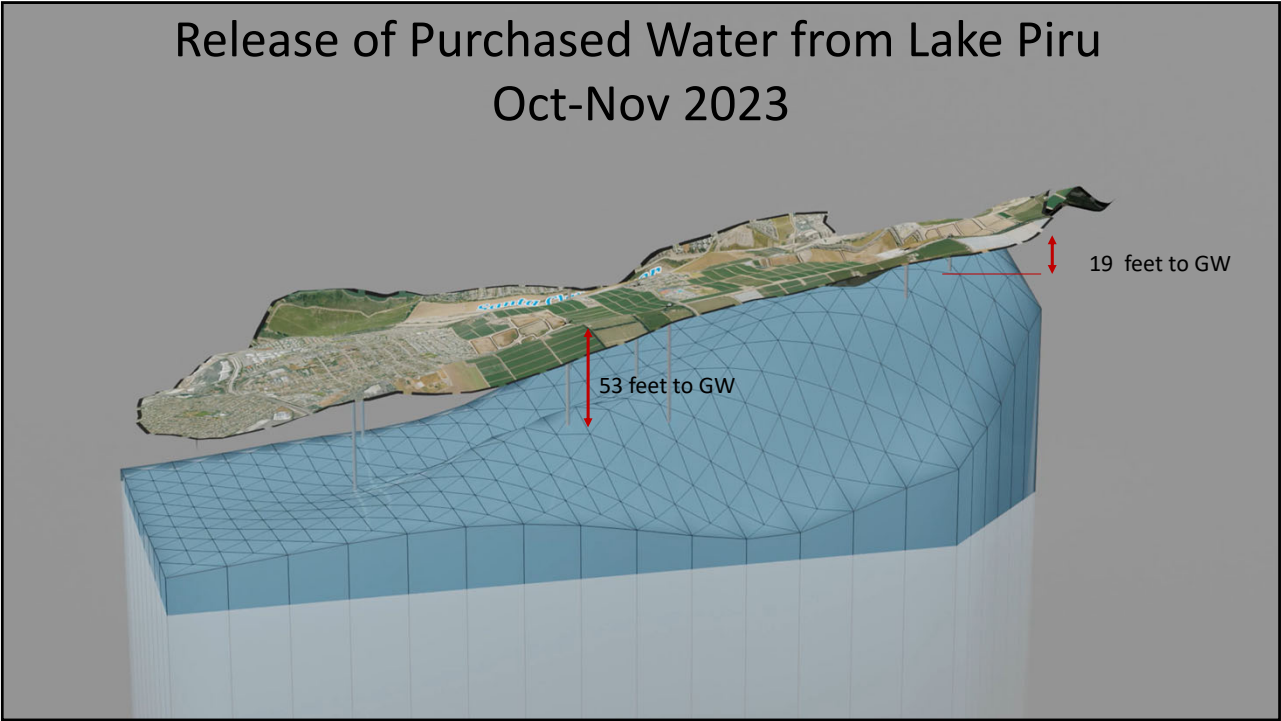


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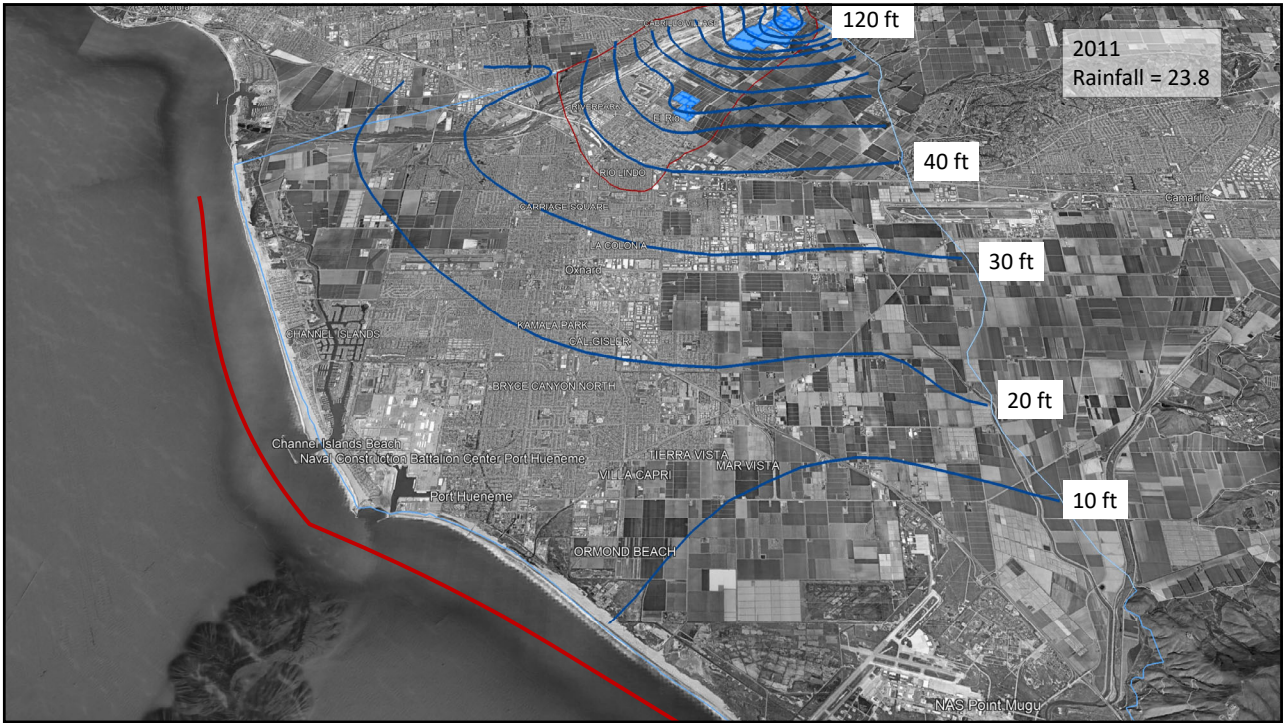
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6,800 AF

Addition of Rose Recharge Basin

These record-breaking diversions would not have been possible without:

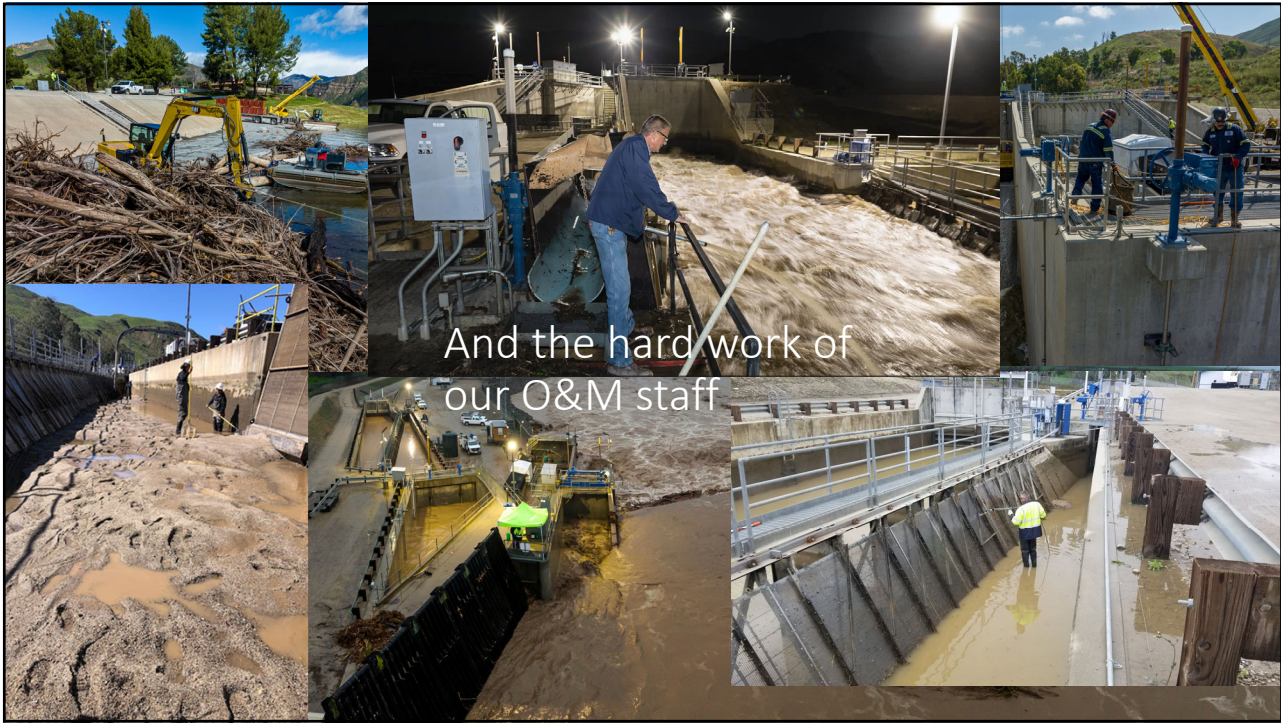
7,000 to 9,000 AF

Recharge Basin maintenance and rotation

Grand Canal Project

36





37



38





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In Summary:


SFD Stored 68,000 AF and Released.....	63,000 AF
Castaic Lake Released.....	60,500 AF <b>Record</b>
Freeman Diversions .....	147,500 AF <b>Record</b>
Total Releases and Diversions to GW recharge...	271,000 AF <b>Record</b>

Purchases and Transfers: **Record**

United Table A.....	3,150 AF
Article 21.....	2,000 AF
Executive Order.....	2,000 AF
Casitas Municipal Water District.....	5,000 AF
Santa Clarita Valley Water.....	10,000 AF
Palmdale Water District.....	2,000 AF
Total Imported Water.....	24,150 AF


40





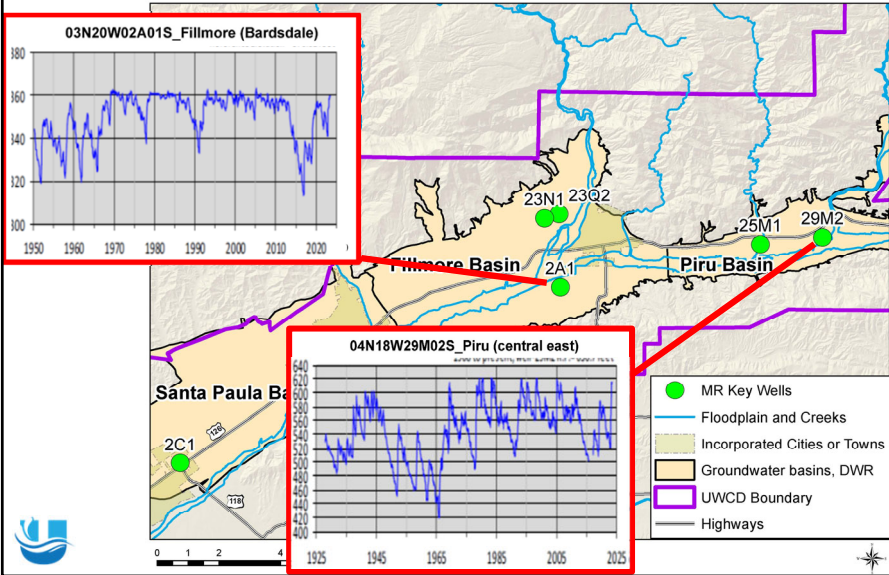
# WATER RESOURCES DEPARTMENT AND GROUNDWATER SUSTAINABILITY AGENCIES UPDATE

Presented by: John Lindquist, Water Resources Supervisor  
Water Resources Committee Meeting  
January 2, 2024



1

## United’s History of Continuous Improvement is the Key to the Region’s Future Water Supply



**03N20W02A01S\_Fillmore (Bardsdale)**


**04N18W29M02S\_Piru (central east)**

Fillmore Basin, Piru Basin, Santa Paula Basin

MR Key Wells, Floodplain and Creeks, Incorporated Cities or Towns, Groundwater basins, DWR, UWCD Boundary, Highways

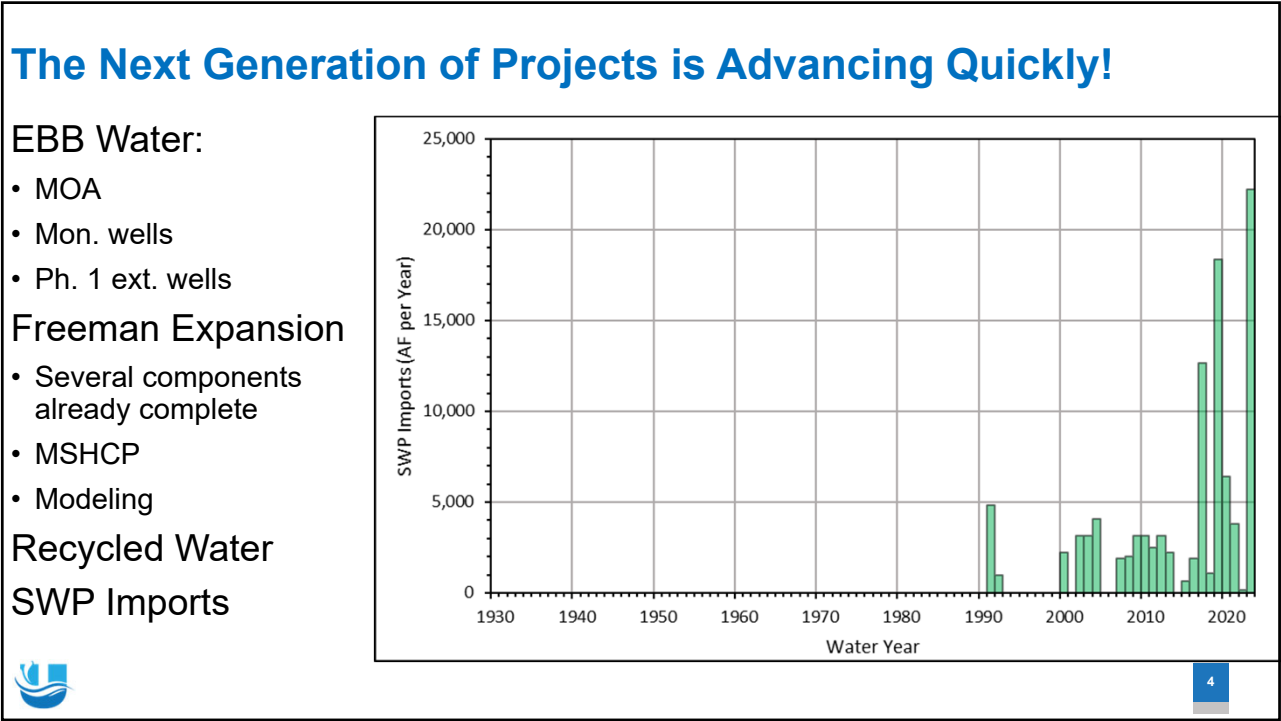
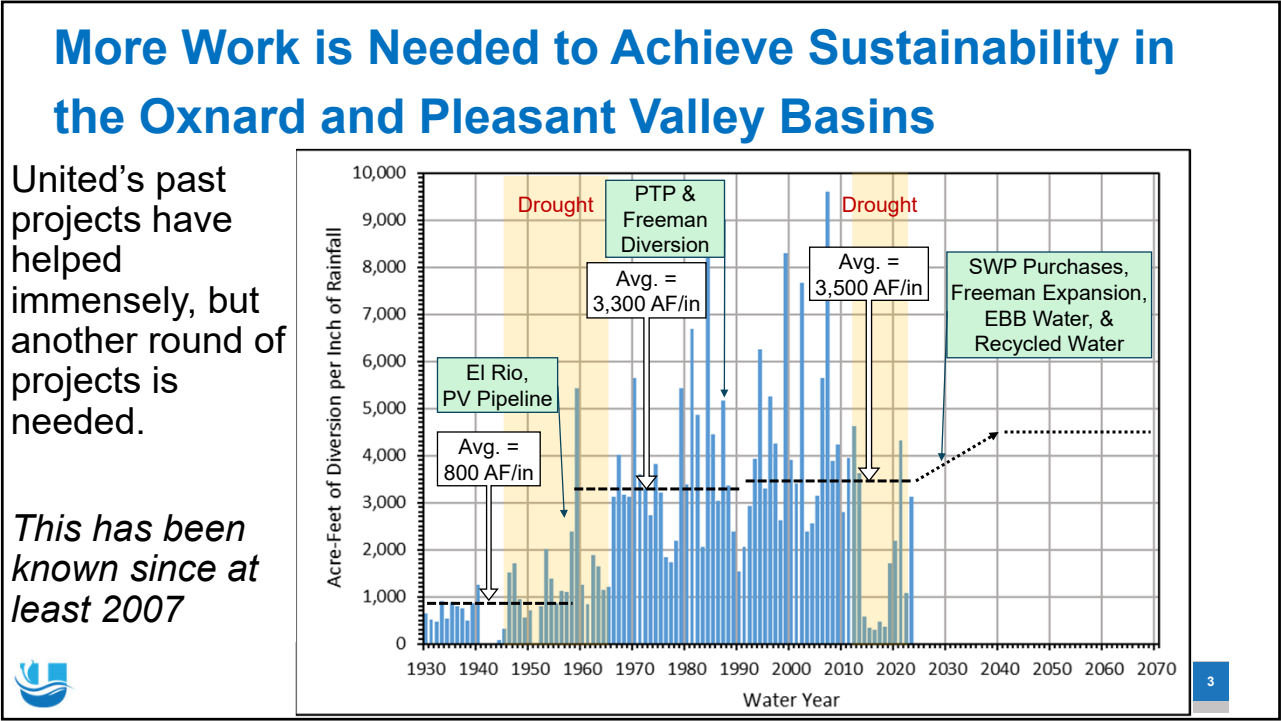
Fillmore, Piru, and Mound basins are in pretty good condition, thanks to United’s past and recent successes!

No major issues on the horizon.



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## Natural Progression of New Water Supply Projects

1. Conceptualize & Plan
- Water Resources may lead in setting overall objectives and **providing data** required to define operating parameters
  - Work with regulators, partners, stakeholders, and funding agencies
2. Design & Build
- Engineering takes the lead
  - Water Resources supports by **providing data** on expected operating conditions
3. Operate & Maintain
- O&M takes the lead
  - Water Resources **provides monitoring data** to measure effects on basinwide groundwater conditions, verifies compliance
4. Evaluate Effectiveness and Modify (if appropriate)
- Engineering and O&M in the lead
  - Water Resources **evaluates monitoring data**, helps setting new objectives and operating parameters

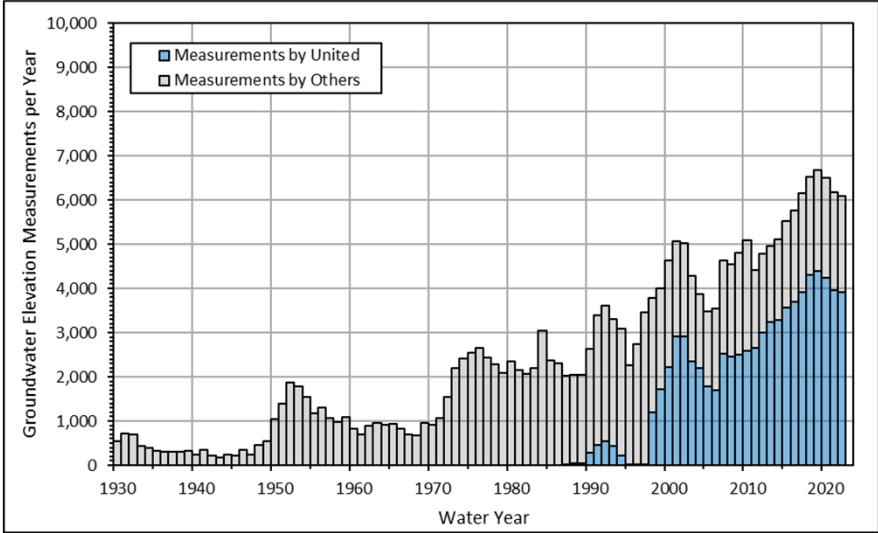


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## United Collects about 4,000 Groundwater Level Measurements per Year, and this Number is Trending Upward

- GW levels measured at 342 wells during 2023

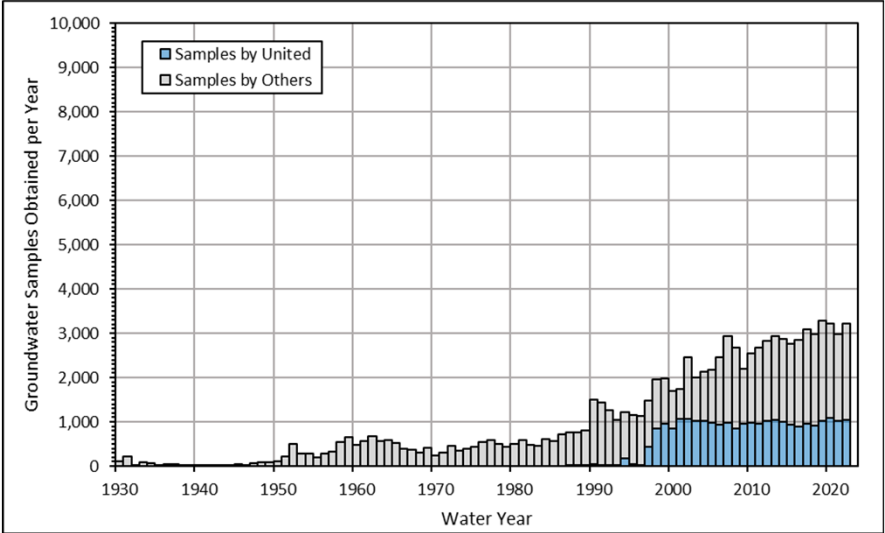


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## United Collects about 1,000 Water Quality Samples per Year

- About half of these samples are collected by Water Resources (from 186 wells)
- The other half are collected by O&M from United's wells
- More data will be needed during planning and implementation of new projects!



7

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## Major Water Resources Efforts in 2024

1. Continue collecting groundwater and surface water data
  - Review and optimize our monitoring network to prepare for additional data needs in the future
  - Analyze data to understand current trends that could affect future conditions
2. Support development and implementation of new projects
  - EBB Water, Freeman Expansion, recycled water interconnections, SFD safety improvement
3. Continue negotiating and planning for additional SWP imports
4. Provide modeling and project input to FCGMA for the 5-yr updates of the Oxnard and Pleasant Valley basin GSPs
5. Provide data to support annual GSP updates in other basins
6. Continue support to other United departments and outreach to regional stakeholders



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## Major Concerns and Challenges for 2024

- FCGMA staffing challenges and workload
- NMFS bypass flow recommendations
- Adapting to the significant new monitoring, analysis, and reporting requirements associated with the EBB Water project



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## | Questions?



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## **Staff Report**

**To:** Water Resources Committee Members

**Through:** Mauricio E. Guardado, Jr., General Manager  
Maryam Bral, Chief Engineer

**From:** Dr. Jason Sun, Supervisory Water Resources Engineer  
Murray McEachron, Hydrologist Supervisor  
John Lindquist, Water Resources Supervisor

**Date:** February 28, 2024 (March 5, 2024, meeting)

**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of Local Groundwater Sustainability Agencies (GSAs) Information Item**

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### **Staff Recommendation:**

The Committee members will receive a report on Water Resources Department activities for the month of February 2024, including a summary of the activities of the Santa Paula Basin (adjudicated) Technical Advisory Committee and three local Groundwater Sustainability Agencies (Fox Canyon Groundwater Management Agency, Fillmore and Piru Basins GSA, and Mound Basin GSA).

### **Discussion:**

#### **Staff Activities**

Notable efforts and activities conducted by staff during February included the following:

- Groundwater Modeling:
    - Staff has converted diverse datasets (precipitation, water level measurements, pumping records, and stream flows) spanning from 2016 to September 2022 into the model input files. Staff has completed the model simulation up to September 2022.
    - Staff are validating the UWCD flow model with data from 2016 to September 2022. Initial validation efforts indicate that the UWCD flow model is well calibrated.
    - Staff are in the preparation of the GSP baseline scenarios for FCGMA.
-

**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of local Groundwater Sustainability Agencies (GSAs) Information Item**

Page 2

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- Staff conducted several meetings, with FCGMA staff and their consultant, DUDEK, on the modeling support efforts utilizing the updated Coastal Plain Model. Data gaps were discussed including hydrological data, modeling data requirements and deliverables.
- Staff are assisting FCGMA staff and their consultant, DUDEK, in the process of requesting GSP-related data from local cities and agencies.
- Staff continued to provide modeling support the EBB project related to Phase 1 construction.
- Staff are working on the subsidence model calibration.
- Hydrology:
  - Staff are coordinating with Operations and Environmental on the implementation of bypass flows at the Santa Felicia Dam and Freeman Diversion.
  - Staff continued to provide input on operational decisions at Freeman Diversion to manage sediment accumulation near the intake structure, maximize diversions, and comply with regulatory requirements.
  - Staff continued to assist the Environmental Services and Engineering Departments in evaluating fish passage design modifications under consideration for United's Habitat Conservation Plan (HCP),
  - Staff continued to coordinate with operations at Saticoy and El Rio to maintain optimum percolation rates for the facilities.
  - Staff continued to assist the Engineering Department in developing a reservoir operations plan and hydrological risk assessment for Lake Piru prior and during the construction of the new outlet works as part of the Santa Felicia Dam Safety Improvement project.
  - Staff submitted annual Water Rights reports to the State Water Resources Control Board.
- Hydrogeology:
  - Staff continued collecting groundwater elevation and quality data throughout the District, followed by quality control, evaluation, and reporting activities as required or requested to support water resources management by United and other entities within our service area.
  - Staff supported review and preparations to respond to DWR's determination that the GSPs for Fillmore and Piru Basins were "inadequate."
  - Staff collected data as directed by United's legal counsel in response to Public Records Act requests received.
  - Staff estimated carryover from United's unused WY 2023 groundwater allocations for our PTP and El Rio well fields and continued preparation of



**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of local Groundwater Sustainability Agencies (GSAs) Information Item**

Page 3

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the annual report required to be submitted to the FCGMA for the Santa Clara River flex allocation.

- Staff continued to assist the Engineering Department and their consultant with design of Phase 1 of the EBB Water Project, including providing guidance and input on development of specifications for extraction wells, as well as support in planning and contracting for a geotechnical investigation at the project site. Staff are also coordinating with the U.S. Navy and the FCGMA to plan for obtaining EBB Water extraction well permits in the second half of 2024.
  - Staff prepared bidding documents for installation of EBB Water Project Phase 1 groundwater monitoring wells this summer and responded to questions from potential drilling contractors. Staff also coordinated with the U.S. Navy on planning the upcoming monitoring-well installation work.
  - Staff continued working with the State Water Resources Control Board to develop an appropriate scope of work for the Prop 1, Round 3 grant in support of the EBB Water Project. The grant is expected to be finalized and signed early in 2024.
  - Staff prepared a new three-dimensional animated visualization of the forecasted effects of EBB-Water extractions on groundwater elevations and the saline-intrusion front within the Upper Aquifer System near NBVC Point Mugu.
  - Staff provided input to FCGMA on the scale and timing of planned new water-supply projects that are being considered by the FCGMA for inclusion in the 5-year updates of the Oxnard and Pleasant Valley Basin GSPs.
  - Staff continued analysis and preparation of a presentation on downscaled climate model forecasts for future rainfall within the District's service area, to inform ongoing GSP updates and planning of new water supply projects.
  - Staff began considering future demand for water within the District and on the OH Pipeline system for short- and long-range planning purposes.
  - Staff began investigation of potential locations for an additional groundwater recharge basin in the Forebay area, and began evaluating how much additional recharge would be expected if such a basin were available in the future
  - Staff followed the live broadcast of a SGMA Oversight Hearing of the California State Assembly on February 21 and provided relevant input to a United representative attending the meeting in-person to assist in formulation of a public comment.
  - Staff continued forecasting staff time, support services, and equipment needs for the Water Resources Department budget for FY 2024/25.
- Outreach and Education

**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of local Groundwater Sustainability Agencies (GSAs) Information Item**

Page 4

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- Water Resources and Engineering staff gave a joint presentation on the EBB Water project at the Cal Desal Conference (February 8 and 9).
- Staff gave a tour of the Santa Felicia Dam, Freeman Diversion, and El Rio spreading grounds on February 15.
- Staff attended a Groundwater Resources Association of California (GRAC), Central Coast chapter, panel on well permitting changes on February 22.
- Staff attended California Lutheran University's Center for Economic Research & Forecasting (CERF) 2024 Ventura County Economic Forecast presentation (February 28).
- Staff from the Water Resources, Environmental, and Recreation Departments coordinated to begin development of an expanded STEM educational outreach program and Lake Piru.

**Fox Canyon Groundwater Management Agency (FCGMA)**

Staff continue to monitor and, where appropriate, participate in the FCGMA's groundwater sustainability planning and implementation efforts in the Oxnard, Pleasant Valley, and Las Posas Valley Basins. United staff continued to meet periodically with FCGMA staff and other stakeholders to analyze benefits and impacts of water-supply projects in support of developing a sustainable, resilient water-supply portfolio for the service areas of both agencies, and to conduct modeling for the 5-year update of the Oxnard and Pleasant Valley Basin GSPs. United staff also attended and, where appropriate, contributed to, FCGMA Board and Committee meetings, as follows:

*Board of Directors meetings* – The FCGMA held a regular Board meeting on February 28, which included the following notable agenda items:

- The Board authorized the Executive Officer to continue to approve temporary variances for the current water year for operators in the Oxnard and Pleasant Valley basins (those with pending variance requests up to the amount of extractions that did not incur surcharges in CY 2018).
- The Board received a presentation from Agency staff on FCGMA projects (components) submitted to DWR as part of the application package for the awarded Sustainable Groundwater Management Round 1 Grants in the Oxnard Subbasin and Pleasant Valley Basin. The Board also approved plans and specifications for the FCGMA's nested multi-depth and shallow single completion monitoring wells and authorized the Executive Officer or designee to execute a contract for construction of the wells at a cost of \$4,989,069.
- The Board received a presentation from Agency staff and approved an amendment to the existing contract with Dudek of \$241,150 for a new not-to-exceed amount of \$1,658,560 to prepare amendments to the GSPs for the Las Posas Valley Basin, Oxnard Subbasin, and Pleasant Valley Basin in coordination with the GSP 5-year evaluations.

**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of local Groundwater Sustainability Agencies (GSAs) Information Item**

Page 5

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- The Board received a presentation from Agency staff, adopted WY 2023 annual allocations, and approved a schedule for invoicing of initial basin assessments for the Las Posas Valley Basin adjudication.
- The Board received an update on nominees to the Las Posas Valley Watermaster Technical Advisory Committee (this was mistakenly listed on FCGMA's agenda as "Receive an update and appoint nominees to the Las Posas Valley Watermaster **Policy** Advisory Committee" [emphasis added]).
- The Board received a presentation on amending "An Ordinance to Establish an Allocation System for the Oxnard and Pleasant Valley Groundwater Basins" to comply with the decision and order in City of Oxnard v. Fox Canyon Groundwater Management Agency, LASC Case No. 20STCP00929.

The next regular Board meeting is scheduled for March 27 at 1:30 p.m.

**Fillmore and Piru Basins Groundwater Sustainability Agency (FPBGSA)**

Staff continue to participate in FPBGSA activities supporting SGMA compliance and GSP implementation for the Fillmore and Piru basins, as follows:

*Board of Directors meetings* – The FPBGSA held a Board meeting on February 15, which included the following notable agenda items:

- The Board received a presentation from staff summarizing the findings, comments, and recommendations received from the California Department of Water Resources regarding its Sustainable Groundwater Management Act review of the Agency's Fillmore Basin Groundwater Sustainability Plan and Piru Basin Groundwater Sustainability Plan, and its findings that both plans were "inadequate."
- The Board received a presentation from Daniel B. Stephens and Associates summarizing the Water Year 2023 Annual Reports to the California Department of Water Resources.

The next FPBGSA Board meeting is scheduled for March 21 at 4:00 p.m.

**Mound Basin Groundwater Sustainability Agency (MBGSA)**

Staff continue to participate in MBGSA activities supporting SGMA compliance and GSP implementation for the Mound basin, as follows:

*Board of Directors meetings* – The MBGSA held a Board meeting on February 26, which included the following notable agenda items:

- The Board approved the Water Year 2023 Annual GSP Report for submittal to the Department of Water Resources.
- The Board authorized its Executive Director to procure the services of a licensed surveyor to conduct right-of-way research for proposed Monitoring Well Site B.



**Agenda Item: 5. Water Resources Department Monthly Report and Update on Activities of local Groundwater Sustainability Agencies (GSAs) Information Item**

Page 6

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The next MBGSA Board meeting is scheduled for March 25 at 1:00 p.m.

**Santa Paula Basin Technical Advisory Committee (TAC)**

Staff continue to participate in the Santa Paula Basin TAC in support of the Santa Paula Basin Judgment and in conformance with SGMA reporting requirements for adjudicated basins, as follows:

- Staff finalized the Annual Report for Santa Paula Basin for 2022.