

YSGA BOARD OF DRECTORS MEETING

July 31, 2024

1. Call to Order and Determination of Quorum

- 2. Adding Items to the Posted Agenda
- 3. Public Forum
- 4. CONSIDERATION Consent Items
- 5. Update on NCWA's Regional Priorities
- 6. CA DWR Update
- 7. Report of the Chair and Executive Officer
- 8. Update Well Permit Review Process
- 9. Update SGMA Implementation Grant Projects
- 10. CONSIDERATION Request to Enter into Contract for GSP Update
- 11. Members' Reports and Future Agenda Items
- 12. Next Meeting September 16, 2024
- 13. Adjournment

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Consideration: Consent Items

a) Approve May 20, 2024 Board of Directors Meeting Minutes

- b) <u>Approve</u> Payment of Bills in Fiscal Year 2023-24 Budget
- c) Receive Fiscal Year 23/24 Financial Statements: 7/1/23 6/30/24
- d) Receive Fiscal Year 24/25 Financial Statements: 7/1/24 7/26/24
- e) Receive minutes of Executive Committee: 5/13

Consideration: Consent Items

a) <u>Approve</u> May 20, 2024 Board of Directors Meeting Minutes

b) <u>Approve</u> Payment of Bills in Fiscal Year 2023-24 Budget

- a) Yolo County Flood Control & Water Conservation District in the amount of \$83,130.58 for services provided April 1 through June 30, 2024.
- b) Frame Surveying & Mapping in the amount of \$20,710.57 for work completed in April 2024 towards completion of the ground-based GPS subsidence survey.
- c) Frame Surveying & Mapping in the amount of \$33,961.01 for work completed in June 2024 towards completion of the ground-based GPS subsidence survey.

Consideration: Consent Items

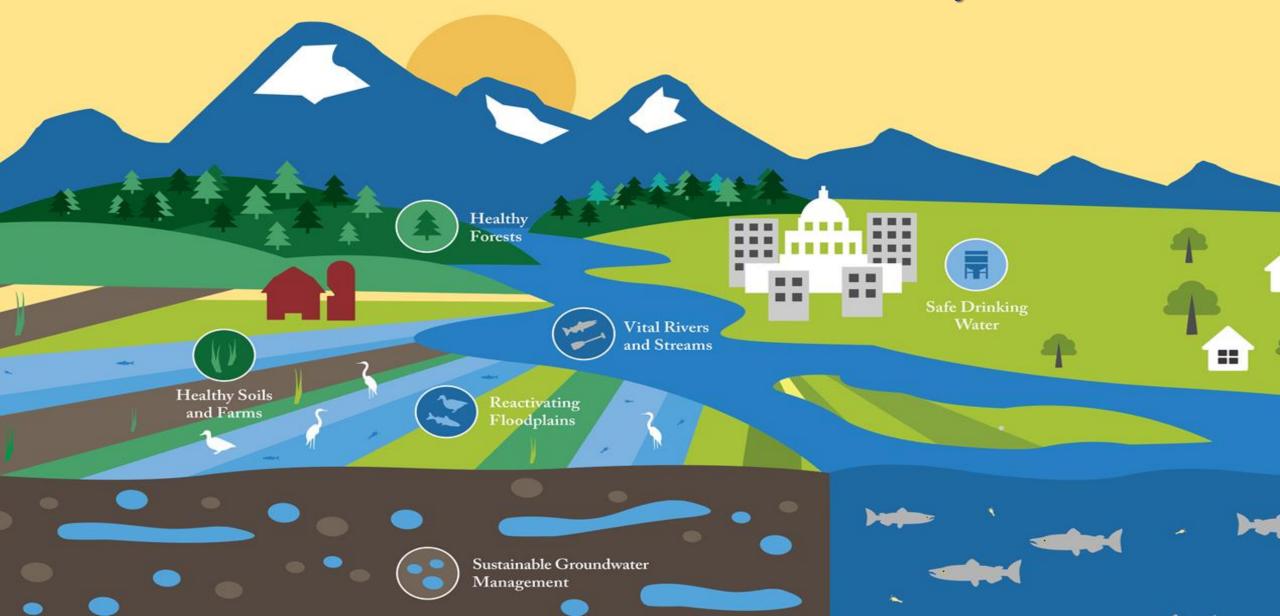
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Groundwater Sustainability in the Sacramento Valley

July 31, 2024

Vitalizing Healthy Rivers, Landscapes and Communities in the Sacramento Valley



A PATHWAY FOR THE FUTURE: Sustainable Groundwater Management in the Sacramento Valley



March 2022

The Foundation: Groundwater Sustainability Plans (GSPs)

Looking to the Future: Implementation

- Ensure safe drinking water for communities
- Advance groundwater recharge opportunities
- Better understand and manage surface water and groundwater interaction
- Coordinate well permitting across region
- Align state and federal priorities with local and regional needs



Groundwater Management Task Force GSA Managers/Consultants



A Pathway for the Future

- Aquifers are both an unseen and yet critical part of the landscape that deserve additional attention as we envision groundwater sustainability in the region.
- The Pathway offers a path forward for groundwater sustainability in the Sacramento Valley and calls upon the leaders in the region to utilize our extensive and valuable natural infrastructure, including the groundwater aquifers and recharge areas, as part of a healthy landscape necessary for a functional Sacramento Valley and greater water supply resilience.
- In managing water from the ridgetop to the river mouth, we fully appreciate and embrace the Sacramento Valley's natural infrastructure, including our groundwater aquifer systems and their relation to both our rivers and creeks and the landscape that supports these vital rivers and creeks.

A PATHWAY FOR THE FUTURE: Sustainable Groundwater Management in the Sacramento Valley



March 2022

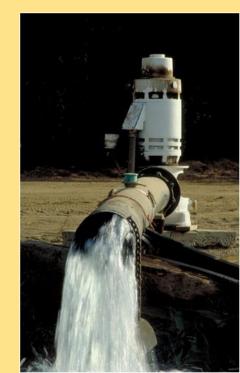
DWR Groundwater Reports

The Department of Water Resources (DWR) continues to provide its semiannual groundwater conditions report and its InSAR subsidence data to better understand our groundwater resources in the Sacramento Valley and to help inform and guide future water management decisions.

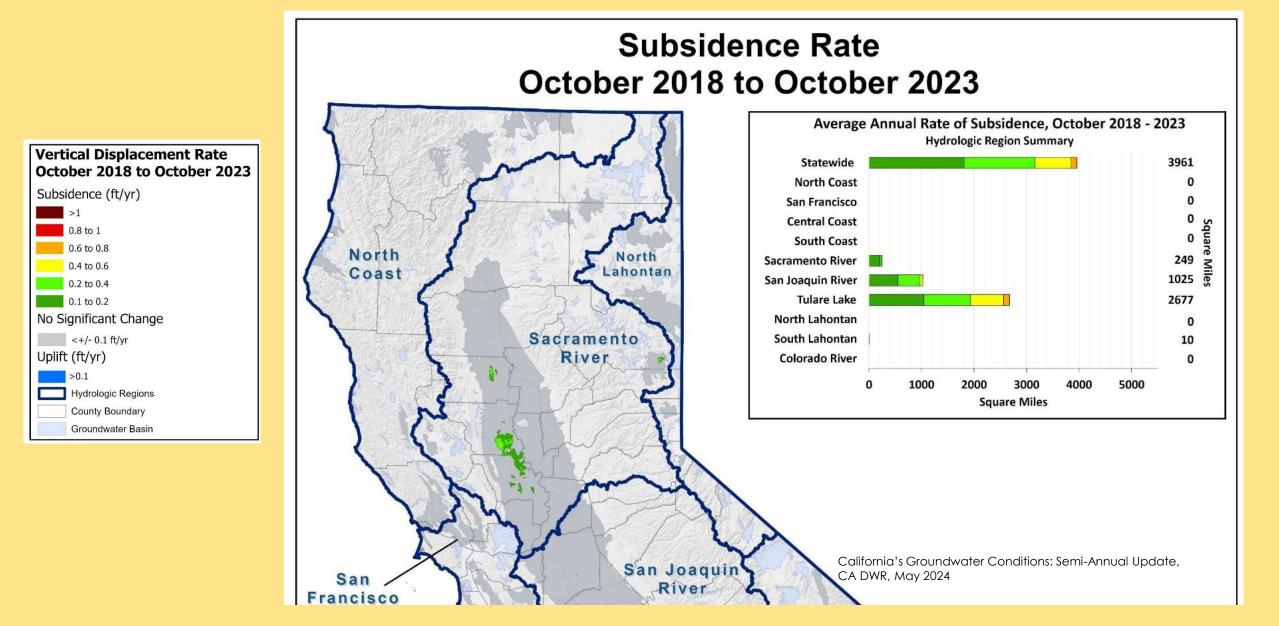


Early Signs

Recent datasets are showing several pockets in the Sacramento Valley where there are early signs on "sustainable yield" and subsidence we should pay closer attention. This information raises important issues that will be addressed by local Groundwater Sustainability Agencies (GSAs), working with DWR and other local agencies.

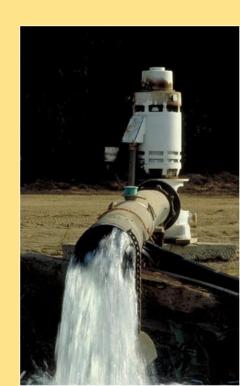


Subsidence Map, Sacramento Valley



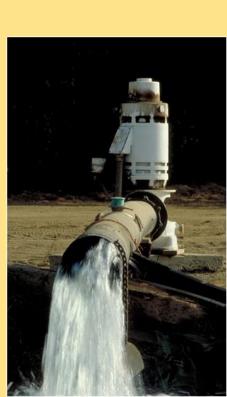
Need to Protect Infrastructure

- Protect our Water and Community Infrastructure
- Aquifers as Natural Infrastructure: In 2023, a State budget-related bill, Senate Bill (SB) 122 defined aquifers as "natural infrastructure." The enactment of this bill allows traditional infrastructure funding and other mechanisms to be utilized for aquifer operation and maintenance related to establishing or maintaining conjunctive management practices.



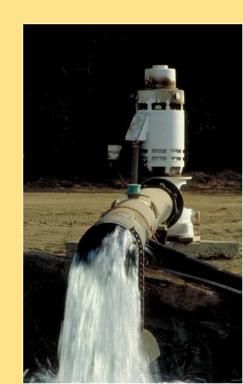
Addressing this in the GSPs!

The GSAs in these areas have submitted their initial Groundwater Sustainability Plans (GSPs) to DWR under the state's Sustainable Groundwater Management Act (SGMA). The GSAs are now focused on the implementation of SGMA and the GSPs, which includes avoiding undesirable results (i.e., sustainable yield and subsidence) and taking corrective actions (report to DWR in 2027) to bring these areas into balance with respect to their water supplies and sustainable groundwater management.



The Role of Well Permitting

The GSAs continue to work with the Local Enforcement Agencies (LEAs) that are administering ordinances for the construction, maintenance, abandonment, or destruction of a water well. The agencies will work together to implement their local well permitting procedures developed under the recent Executive Orders to ensure continuity, coordination, and an ongoing local process to avoid subsidence and impacts to drinking water wells.



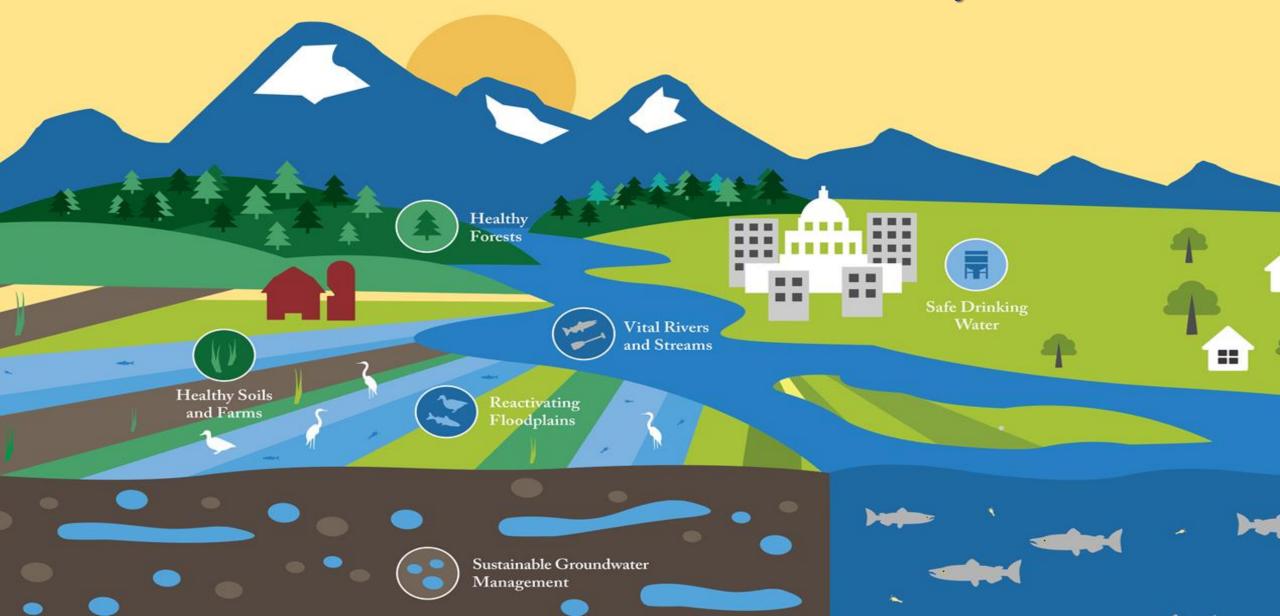
Proposed Next Steps

- Build on a Pathway for the Future for Sustainable Groundwater Management.
- Acknowledge subsidence is a problem and commit as a region to prevent subsidence in the Sacramento Valley.
- Convene a forum with DWR to better understand subsidence, help inform their best management practices, and develop shared expectations on how to amend GSPs to avoid future subsidence.
- Ramp up our advocacy and need for technical support to accelerate groundwater recharge.
- Work with GSAs and LEAs to explore demand management practices.

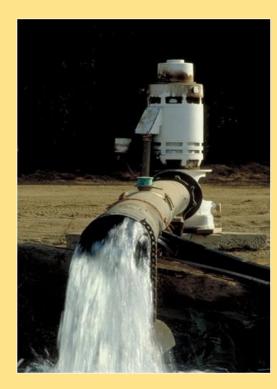
A PATHWAY FOR THE FUTURE: Sustainable Groundwater Management in the Sacramento Valley



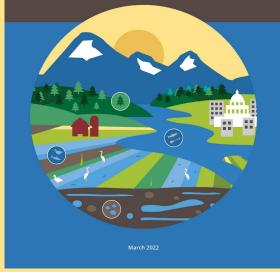
Vitalizing Healthy Rivers, Landscapes and Communities in the Sacramento Valley



Discussion and Input...



A PATHWAY FOR THE FUTURE: Sustainable Groundwater Management in the Sacramento Valley



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Appreciating Director Vanderwaal

Meet Bill Vanderwaal, the New General Manager at Tehama-Colusa Canal Authority

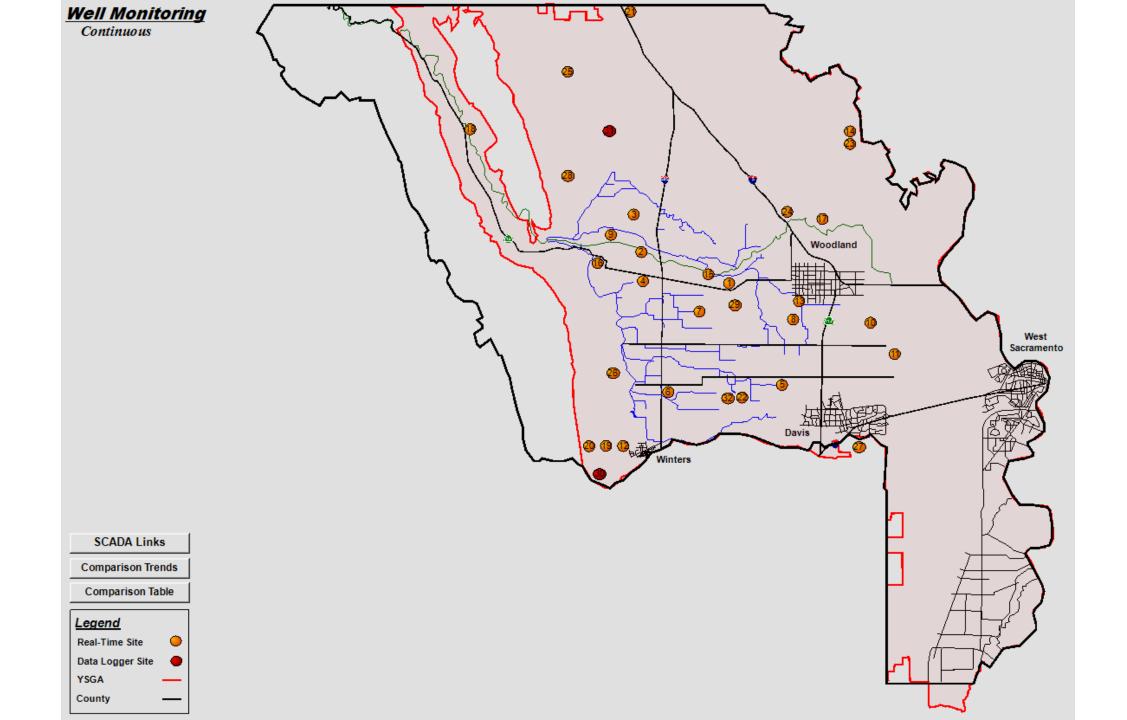


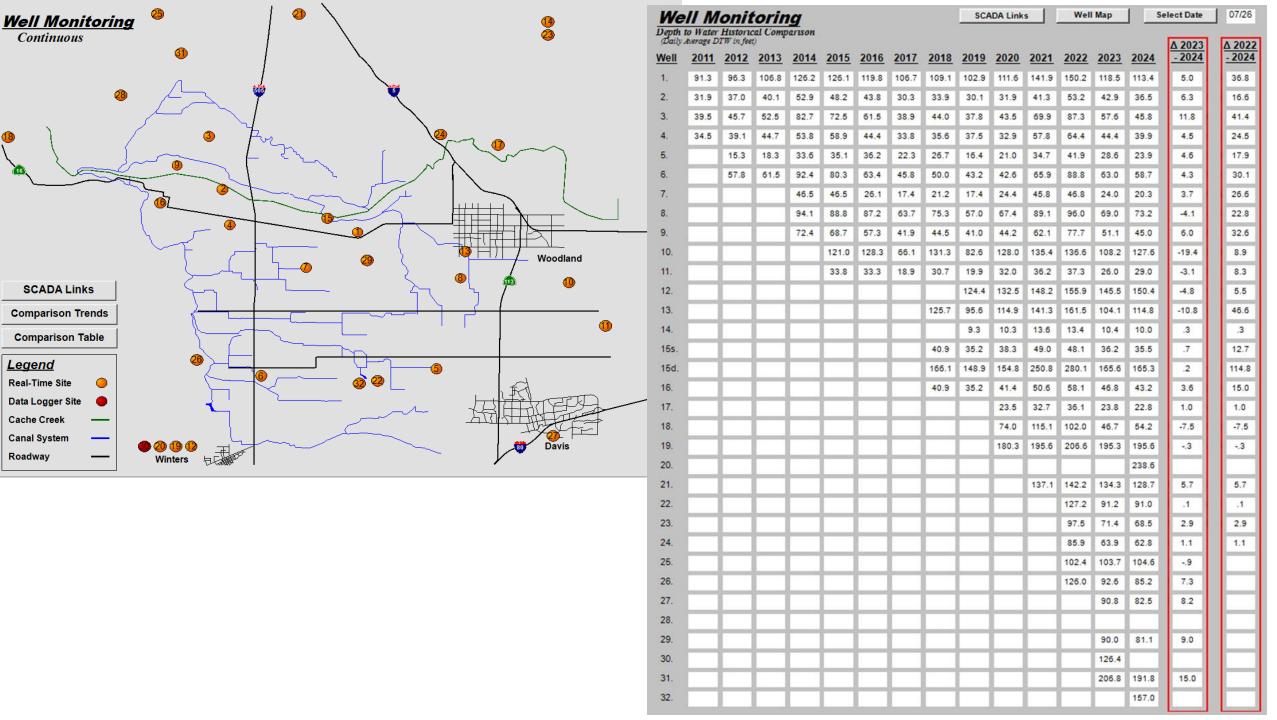
The Tehama-Colusa Canal Authority (TCCA) has named William (Bill) Vanderwaal as its new General Manager, effective June 10. Vanderwaal, a registered Professional Civil Engineer, brings knowledge and expertise in Sacramento River water contracts as well as experience with the U.S. Bureau of Reclamation to serve the TCCA's member agencies and the California water community.

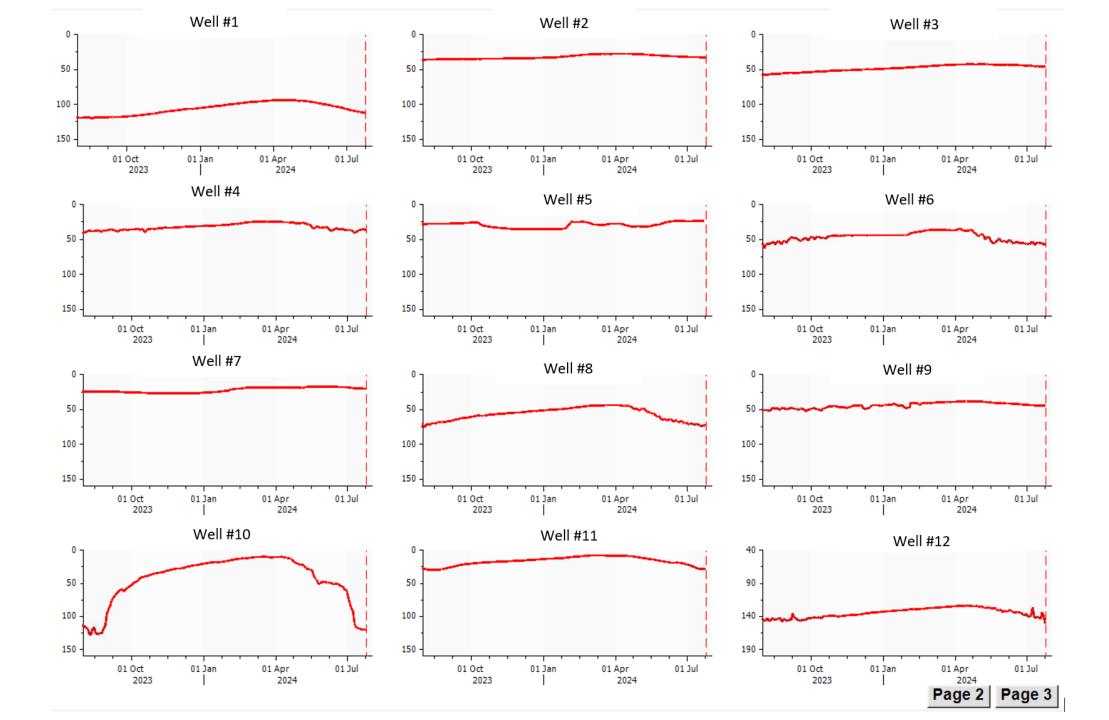
Vanderwaal has worked for Reclamation District 108

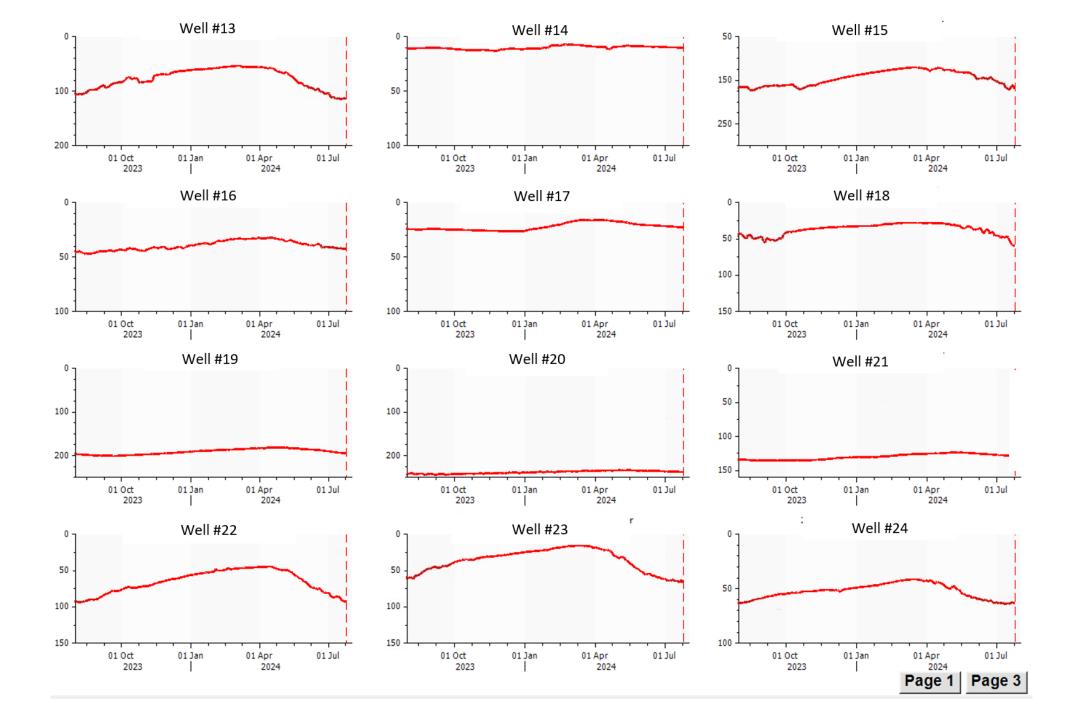
since 2017 as Deputy General Manager, and since 2018 has simultaneously managed Dunnigan Water District, a TCCA member agency. In addition to management of day-to-day operations and capital improvement projects for these two entities, he has spearheaded groundbreaking water resources initiatives, including regionally cooperative salmon habitat restoration projects and a groundwater recharge program that has received recognition throughout the State. He previously worked at the U.S. Bureau of Reclamation, where he served as Project Manager for the Red Bluff Fish Passage Improvement Project, a state-of-the-art facility that remains a backbone of TCCA operations.

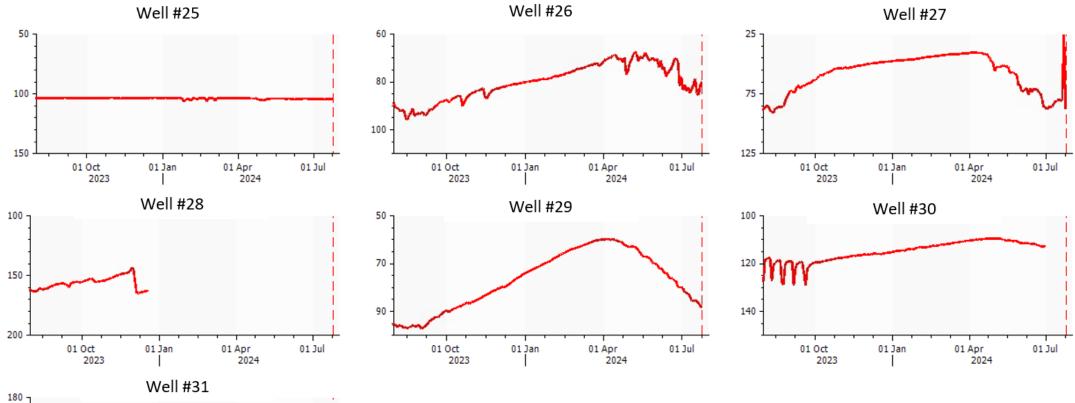
TCCA is a joint powers authority whose member agencies hold water service contracts with the U.S. Bureau of Reclamation and that delivers irrigation water to 150,000 acres of high-value crops in the Sacramento Valley. Vanderwaal will oversee the operation and maintenance of TCCA's extensive water delivery facilities and will manage relations with local, state and Federal entities with respect to water supplies and other critical policy matters.

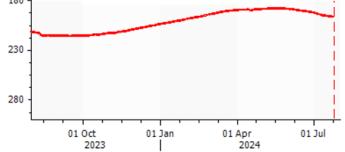


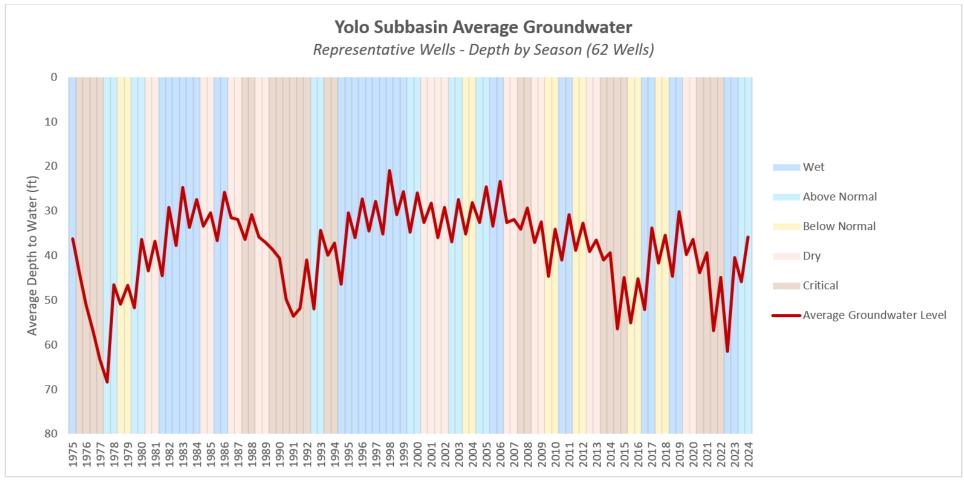












April 2023 Average Depth to Water \sim 40.4 feet April 2024 Average Depth to Water \sim 35.8 feet

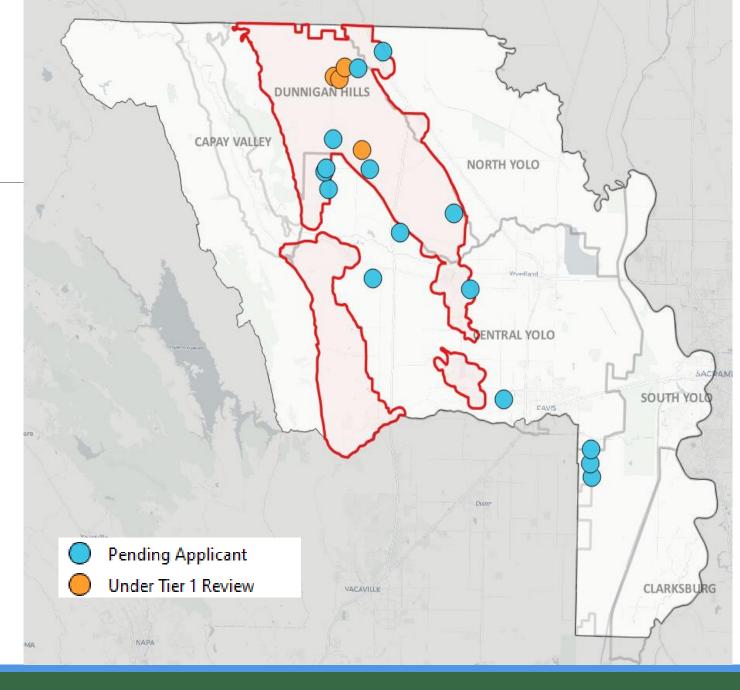
Of Note:

Fall 1975 to Fall 1977 Drawdown ~ 25 feet 2014 Drawdown from Spring to Fall ~ 17 feet 2019 Drawdown from Spring to Fall ~ 9.5 ft 2022 Drawdown from Spring to Fall ~ 17 feet 2023 Drawdown from Spring to Fall ~ 6 feet

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Pending Well Permits

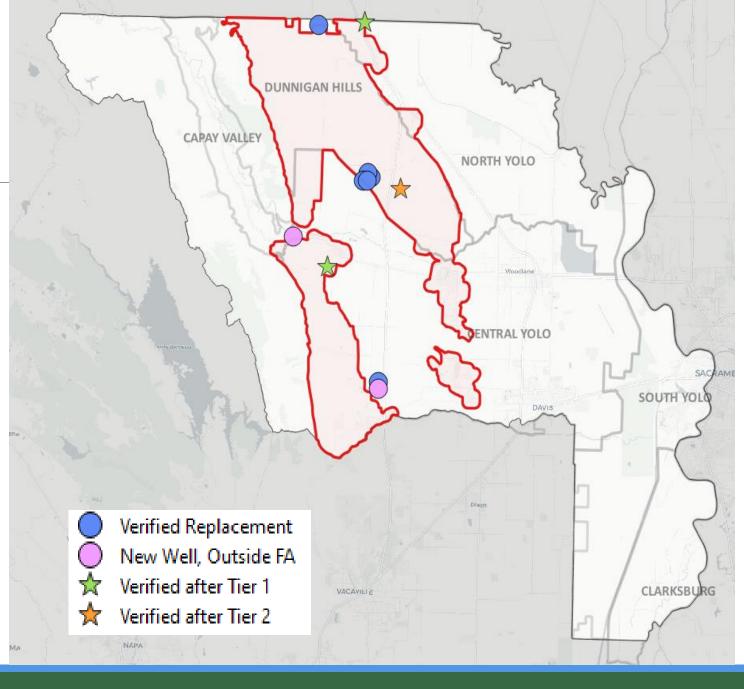
- •19 permits in the queue
 - ✓ 13 within the Focus Areas
 - 4 submitted Tier 1 Forms and are under review
 - 9 pending completed Tier 1 Form
 - ✓ 6 outside of Focus Areas
 - All pending information from applicant



Approved Well Permits

Since March 18, 2024 Procedures, YSGA has verified:

- 3 permits outside of Focus Areas
 - 2 new wells
 - 1 replacement
- Within Focus Areas:
 - ✓ 5 permits verified as replacements
 - 2 permits verified after Tier 1
 - 1 permits verified after Tier 2

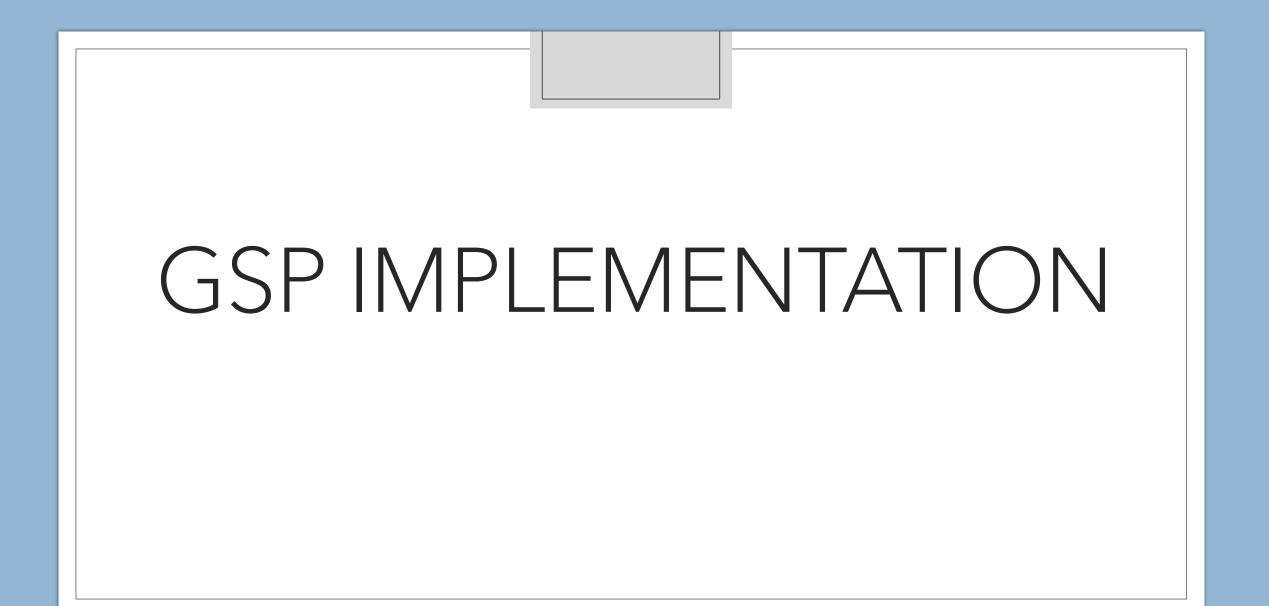


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SGMA Implementation Grant Budget

Та	rant Component otal GRANT ADMINISTRATION	\$	Total 7,917,000
		-	7,917,000
	GRANT ADMINISTRATION		
1 1 .		\$	613,900
2 2.	YOLO SUBBASIN GSP IMPLEMENTATION	\$	1,721,000
2a	YSGA	\$	324,523
2b	Consultant	\$	1,396,477
3 3.	YCFCWCD WINTER RECHARGE PROGRAM	\$	2,600,000
3a	YCFC&WCD	\$	1,175,000
3b	Consultant	\$	1,425,000
4 4.	CITY OF WINTERS FEASIBILITY STUDIES	\$	580,000
5 5.	YOLO-ZAMORA GROUNDWATER RECHARGE PILOT PROJECT	\$	1,221,100
5a)	YCFC&WCD specific tasks + YCFC&WCD Consultants	\$	416,300
5b)	YSGA (only project admin)	\$	120,000
5c (Consultant	\$	684,800
6 6 .	DUNNIGAN AREA RECHARGE PROGRAM	\$	1,181,000

YSGA





GSP Implementation – Modeling Updates

- Managed Wetland group convened & gathering data
 - Representatives from local, state, federal, NGOs
 - Data about location, size, & management of wetlands
- Incorporated YCFC and DWD recharge projects
- Next: solicit input on ET & applied water assumptions



SMITH CREEK-COLUSA BASIN DRAINAGE CANAL WATERSHED





For Community Meeting June 24, 2024

Lo

Drilled post-2000

HUC 12 Watersheds	
SGA Model Catchments	
- Creeks	
- Canals	
··· sloughs	



Yolo Subbasin Groundwater Agency - 34274 State Hwy 16 - 530-662-3211 - www.yologroundwater.org

Hungry Hollow Groundwater Working Group Update

- YSGA staff updating well log database and will:
 - develop geologic/hydrogeologic cross sections
 - \circ assist SEI with updating the aquifer parameters for the model
 - identify PMAs based on updated hydrogeologic conceptual understanding of Hungry Hollow
 - collaborate with Hungry Hollow Groundwater Working Group find a path to sustainability
- Exploring other opportunities to collect additional geophysical data (tTEM, SP) to fill in data gaps where AEM and/or well log coverage isn't available

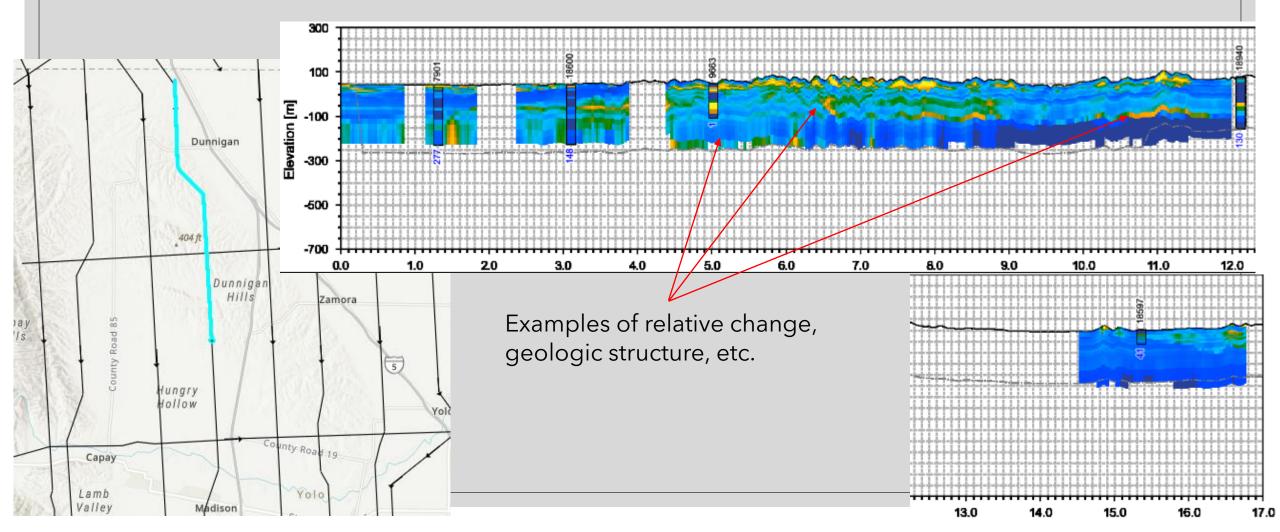
11/20/2023

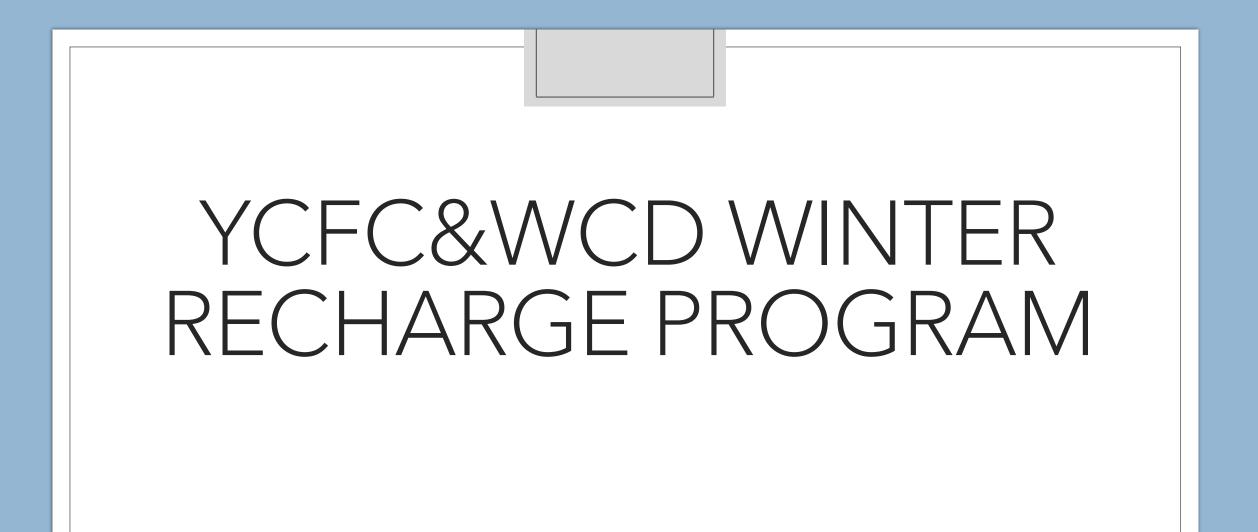
Airborne Electromagnetic (AEM) Survey Data in Yolo

- "X-ray" of the subsurface along flight lines up to 1,000 feet deep
- Generally, data provides relative accuracy
 - where coarser v. finer grained material are relative to one another
 - where saline v. fresh water zones are relative to one another
 - subsurface structure (folding, layering) and faulting



Airborne Electromagnetic (AEM) Survey Data in Yolo













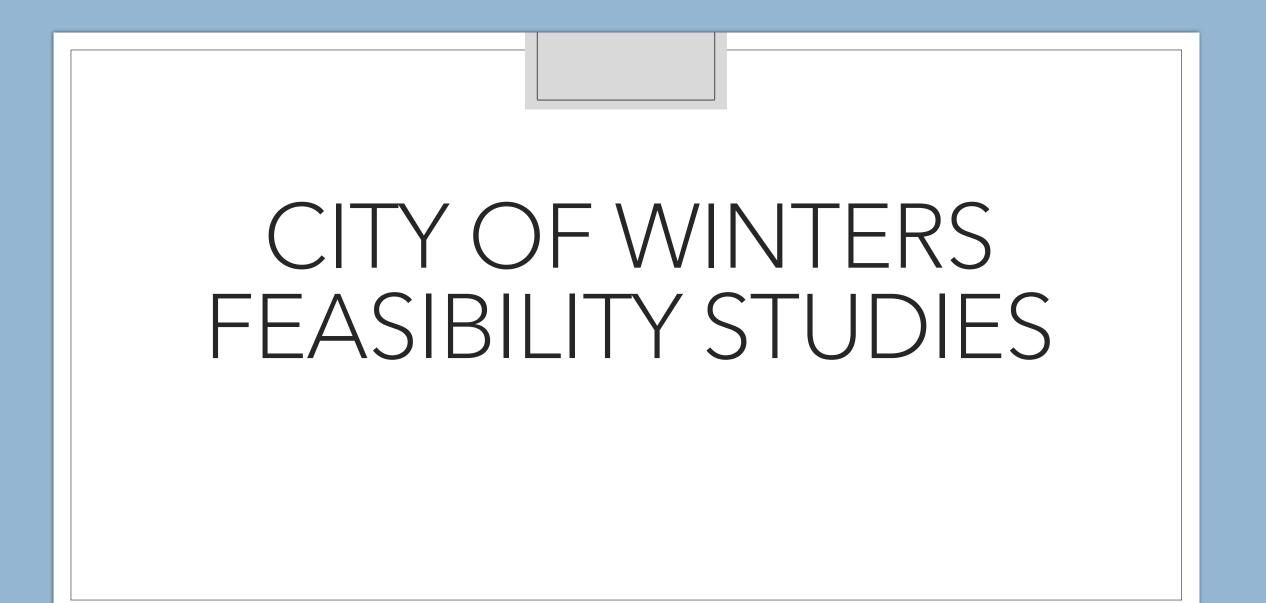
	Year	Diversion Days	Stormwater Diversion to Groundwater Recharge (AF)
hake!	2016	39	11,128
	2017	41	6,201
	2018*	0	0
	2019	30	3,745
	2020-22*	0	0
	2023	33	4,604
	2024	43	8,710

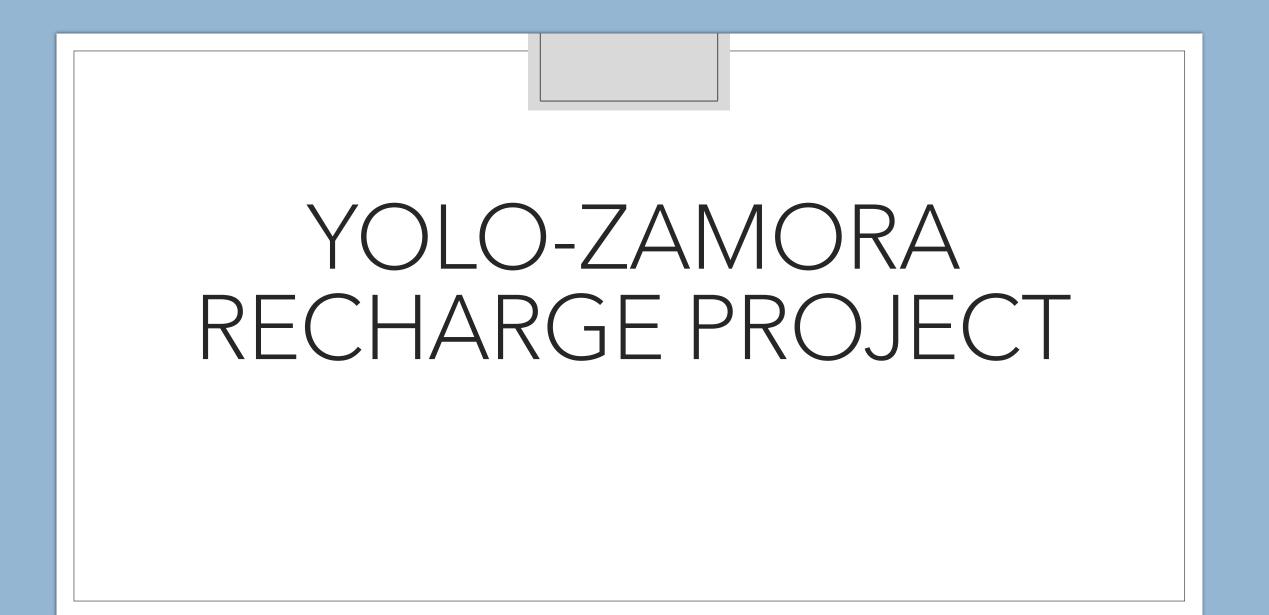
* Limited precipitation and Delta conditions did not allow for excess flow diversion in these years

YCFC&WCD Recharge – Other Updates

- 2025 Temporary Permit application drafted & expected to be submitted early Aug.
- MBK Engineers has initiated the water availability analysis for long-term application & expected to be submitted by end of 2024
- Working with Sustainable Conservation to identify farm fields that can be flooded during the winter months for recharge

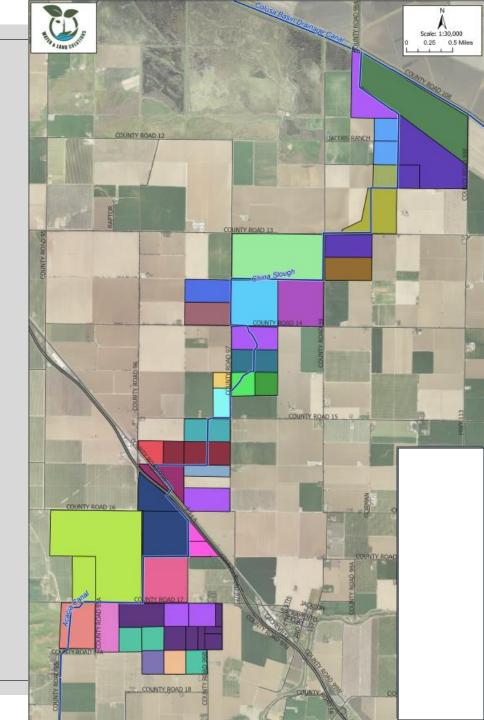






Yolo-Zamora Recharge Project

- **<u>Project Objective</u>**: Divert up to 2,000 AFY of excess Cache Creek storm flows to support on-farm and slough recharge in Yolo-Zamora area
- Consultant completing landowner interviews
- Numerous landowners interested
- Landowner workshop August 13 at YCFCWCD
- Water availability analysis expected to begin Sept./Oct.



Yolo-Zamora Recharge Project

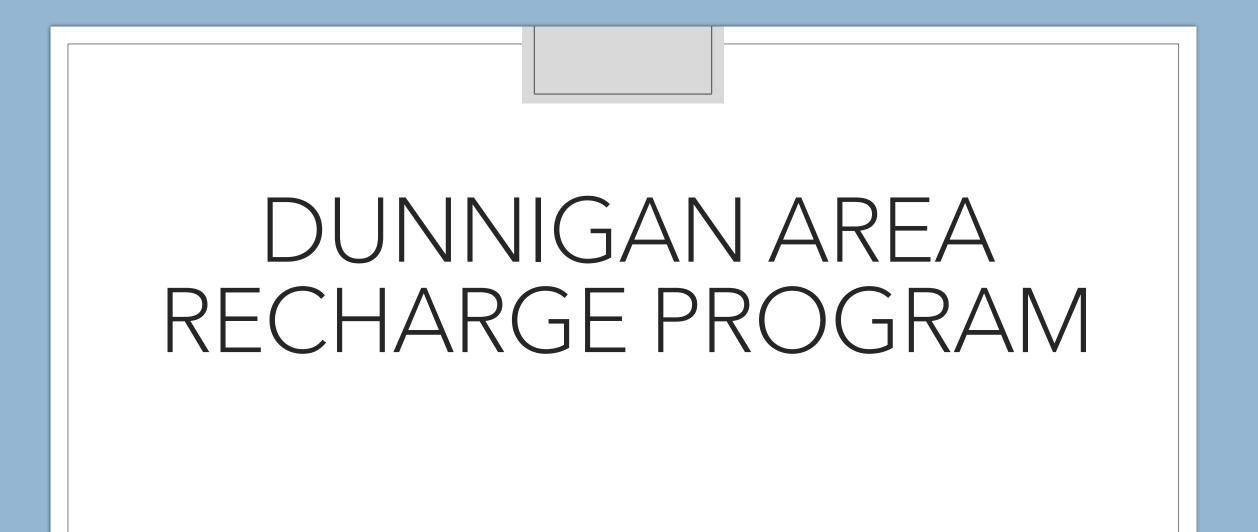
New culvert structure on the East Adams Canal



Yolo-Zamora Recharge Project

New culvert structure on the East Adams Canal







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Summary of DWR Comments

Common themes include:

Provide justification for requiring two or more management areas to exceed the minimum threshold for groundwater levels/land subsidence/interconnected surface water to define undesirable results for those sustainability criteria.

Continue to fill data gaps and collect additional monitoring data, especially for interconnected surface water

Utilize DWR guidance as it is released: "Considerations for Identifying and Addressing Drinking Water Well Impacts" Guidance and update GSP on progress of domestic well mitigation program



INTERA'S Proposal to Address DWR's Recommended Corrective Actions

- Task 1: Chronic Lowering of Groundwater Levels ~\$37,000
- Task 2: Degradation of Water Quality ~ \$24,000
- Task 3: Land Subsidence ~\$35,000
- Task 4: Depletion of Interconnected Surface Water ~\$18,000
- Task 5: Monitoring Network Improvements ~\$17,000
- Task 6: Climate Change Scenarios ~\$14,000
- Task 7: Projects and Management Actions ~\$18,000
- Memoranda and Meetings ~\$112,000

Request to Enter into a Contract NTE \$275k

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