



Stanislaus & Tuolumne Rivers Groundwater Basin Association
Groundwater Sustainability Agency
1231 11th Street | Modesto, CA 95354
Email: strgba@mid.org

STRGBA GSA AGENDA
March 8, 2023 (1:30 p.m. – 3:00 p.m.)

In-person

Webinar Digital Platform or Phone Meeting

<https://us02web.zoom.us/j/82844864384>

By phone: 1-669-900-9128

Webinar ID: 828 4486 4384

PUBLIC PARTICIPATION

The public may participate in this meeting in the **three** ways described below.

In person – Oakdale Irrigation District, 1205 East F Street, Oakdale

Instructions for Participating in STRGBA GSA & Technical Advisory Meeting via Zoom Webinar or Phone

On your desktop/iPad or tablet/laptop:

1. To join the webinar, click the link published in the agenda for the current meeting about 5 minutes before webinar begins.
2. Follow the on-screen instructions to install and/or launch the Zoom application.
3. If prompted, enter the Webinar ID published in the agenda.
4. All public attendees will enter the meeting muted.
5. If you wish to speak under Business from the Public, or after the Chairman calls for Public Comment, click on the “Raise Hand” button to request to speak.

On your phone:

1. To join the meeting by phone, call the number published in the agenda for the meeting.
2. Enter the Webinar ID published in the agenda, then hit the # symbol.
3. All public attendees will enter the meeting muted.
4. If you wish to speak under Business from the Public, or after the Chairman calls for Public Comment, press *9 on your phone to “Raise Hand” or simply request to speak.



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1. Call to Order/Welcome and Introductions
(Four agencies needed for a quorum)
2. Business from the Public
Who: Public
Expected Outcome: Interested persons are welcome to introduce any topic within the Agency's jurisdiction. Matters presented under this heading may be discussed but no action will be taken by the Agency at this meeting.
3. Topic: Approve 11/9/22 and 1/11/23 Meeting Minutes [Action Item]
Who: Eric Thorburn, Committee
Expected Outcome: Approval
4. Topic: Election of Chairman/Vice-Chairman [Action Item]
Who: Eric Thorburn, Committee
Expected Outcome: Approval
5. Topic: 2023 Annual Report
Who: Todd Groundwater/Woodard Curran, Committee
Expected Outcome: Discussion
6. Next Meeting
March 29, 2023, at 1:30 p.m. via Zoom
7. Items too late for the agenda



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MEETING MINUTES

November 9, 2022 (1:30 p.m. – 3:00 p.m.)

The meeting was called to order at 1:30 p.m.

1. Welcome and Introductions

The following members of the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA) attended via Zoom:

Modesto Irrigation District (MID): Gordon Enas
City of Waterford: Mike Pitcock
Oakdale Irrigation District: Eric Thorburn
City of Modesto: Miguel Alvarez
City of Oakdale: Michael Renfrow

Other Attendees:

Phyllis Stanin, Todd Groundwater	Samantha Wookey
Liz Elliott, Todd Groundwater	Stacy Henderson
Craig Moyle	Doug Maner
Emily Sheldon	Jesse Franco
John Mauterer	Juan Ochoa
Julia Stornetta	Kelly Doyle
Peter Drekmeier	

2. Business from the Public

N/A

3. Remote Teleconferencing Participation **[Action item]**

Renfrow moved, 2nd by Enas, to approve Remote Teleconferencing Participation. Motion carried.

- Henderson asked if we would still be able to host Zoom meetings when in-person meetings are required. Enas stated the meetings will continue to have Zoom capability.



- 4. Approve 10/12/2022 Meeting Minutes [Action item]**
Renfrow moved, 2nd by Pitcock, to approve 10/12/22 meeting minutes as corrected. Motion carried.
- 5. Letter of Support for Oakdale Irrigation District [Action item]**
Enas moved, 2nd by Renfrow to approve the 2022 for the Letter of Support for Oakdale Irrigation District. Motion carried.
- 6. Groundwater Consultant Contract RFP/RFQ**
Thorburn discussed with the group about City of Modesto's requirement to renew the contract to keep Todd Groundwater as the consultant but remain competitive as well. Alvarez discussed the City of Modesto's RFP/RFQ process and timeline.
- 7. Fall 2022 Monitoring Event**
Elliot reported that Woodard & Curran is developing templates for the water supply and well monitoring level data for 2022. Also, the GSA member agencies collected water level data at the end of October 2022.
- 8. Dry Well Update**
Elliot reported they have been tracking dry wells in the Modesto Subbasin using DWR's website. 12 dry wells were reported and 5 of those had been resolved. The dry well information will be included in the Annual Report.
- 9. Next Meeting**
December 14, 2022, at 1:30 via Zoom
- 10. Items too late for the agenda**
N/A



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MEETING MINUTES

January 11, 2023 (1:30 p.m. – 3:00 p.m.)

The meeting was called to order at 1:31 p.m.

1. Welcome and Introductions

The following members of the Stanislaus and Tuolumne Rivers Groundwater Basin Association Groundwater Sustainability Agency (STRGBA GSA) attended either in-person or via Zoom.

In-Person Attendees:

Modesto Irrigation District (MID): Gordon Enas
Oakdale Irrigation District (OID): Eric Thorburn

Other Attendees:

Phyllis Stanin, Todd Groundwater
Liz Elliott, Todd Groundwater
Stacy Henderson
John Schneider
Peter Drekmeier
Julia Stornetta
Tim Barahona
William Fogarty
Hilary Reinhard
Emily Sheldon
Samantha Wookey

Kelly Doyle
John Mauterer
John Mensinger
Juan Ochoa
Dana Ferreira
Lucas Hayes
Nicholas Chase
David Moreland
Dennis Wittchow
Christy McKinnon, Stanislaus County
Miguel Alvarez, City of Modesto

2. Business from the Public

N/A

3. Approve 11/9/2022 Meeting Minutes [Action item]

No action taken; in-person quorum not present



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4. East Modesto Subbasin Workshop

McKinnon informed the group of a series of 3 workshops hosted by Stanislaus County and STRGBA GSA with the first taking place on January 25. The first workshop will focus on landowners in the non-district east portion of the subbasin that depend solely on groundwater for agricultural use.

- Thorburn added that there were roughly 250 meeting invites sent out to those customers.
- Elliott stated Todd will give an update on groundwater conditions and summarize the water year of 2022.
- Henderson asked if there would be any discussion of management actions, monitoring, enforcement fees, etc. for any areas other than the non-district East. Thorburn responded that the meeting focus is on the NDE only.

5. Monitoring Wells – Transfer of Responsibility

Thorburn discussed monitoring wells to be transferred to STRGBA GSA for maintenance and responsibility. Each well will be transferred to the respective member agency where the well is located.

6. Next Meeting

February 8, 2023, at 1:30 via Zoom or in-person at Oakdale Irrigation District

7. Items too late for the agenda

N/A



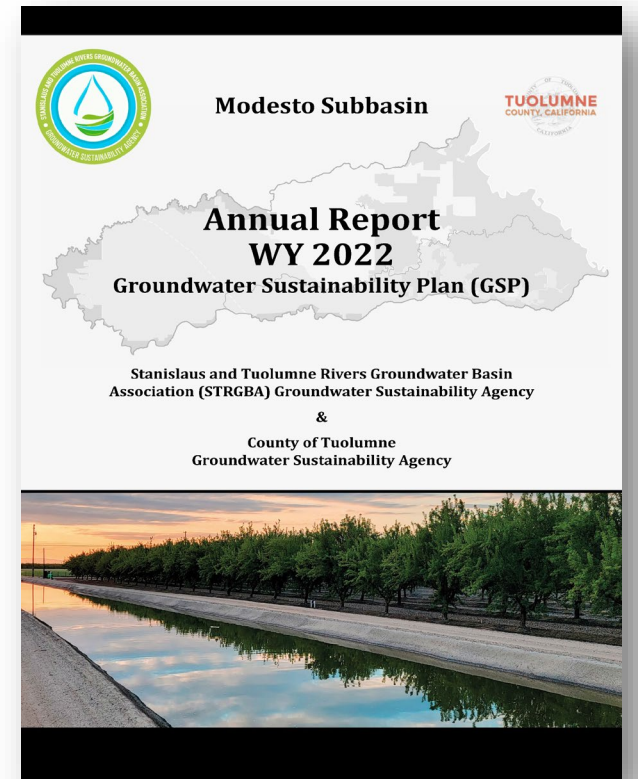
MODESTO SUBBASIN GSP ANNUAL REPORT

STRGBA GSA Meeting
March 8, 2023



AGENDA

- Reporting period and timing
- Model development and draft results (W&C)
- Additional Draft Results
 - Sustainable Management Criteria / Hydrographs
 - Groundwater elevation contour maps
 - Water quality analysis
 - Subsidence
- GSP Implementation Progress
- Schedule



REPORTING PERIOD AND TIMING

- Reporting period WY 2022 (October 2021 through September 2022)
- Adopted GSP in January 2022
- First GSP Monitoring Event in Spring 2022
- Use this report to:
 - Update model from WY 2021 to WY 2022
 - Present first annual water quality analysis
 - Understand WY 2022 groundwater conditions as dry period persists

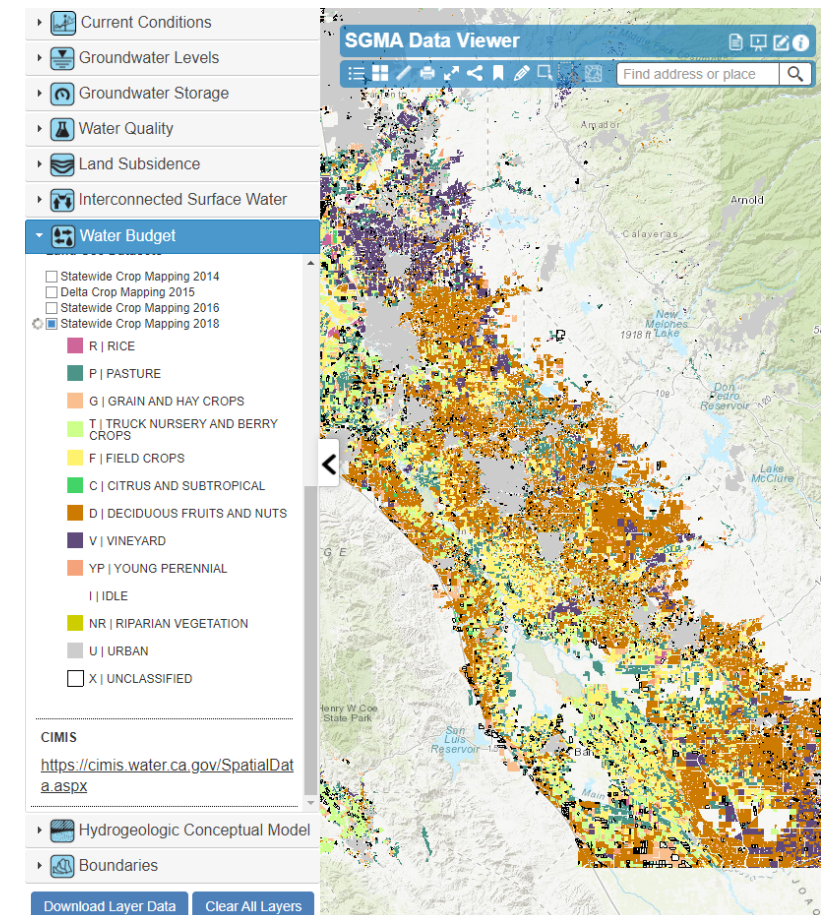
MODEL UPDATE

- **Goals:** Support the Annual Report by developing:
 - Subbasin-wide water budgets
 - Temporal and spatial estimates of groundwater production
 - Temporal and spatial estimates of change in storage by aquifer
- **Model Use:** Update the Modesto Groundwater Model for WY 2022
 - Extend all time-series input files with the best available data.
 - A verification of the model performance will be performed.
 - No changes to the model parameters or structure will be made.

PUBLICLY AVAILABLE DATA

State, Federal, & Other Resources:

- Precipitation PRISM
 - Evapotranspiration CIMIS
 - Land Use Data DWR
 - Riparian Diversions eWRIMS
 - Stream Flow Data CDEC & USGS
 - Groundwater Levels CASGEM & WDL
- DWR SGMA Data Viewer



LOCAL DATA

■ Agricultural Operations

- River diversions
- Farm-gate deliveries
- Municipal deliveries
- Reservoir seepage
- Conveyance seepage
- Groundwater production

Agricultural Agencies:

Modesto Irrigation District
Oakdale Irrigation District

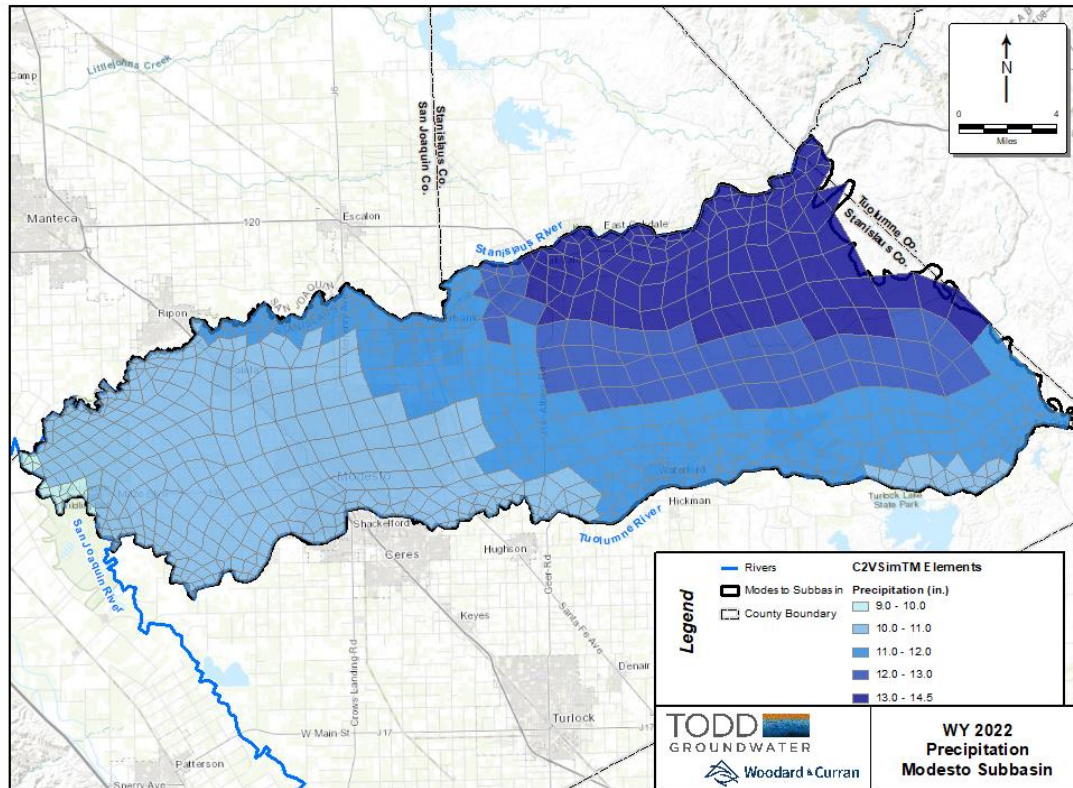
■ Urban/Municipal Operations

- Population of service area
- Recycled water deliveries
- Groundwater production

Municipal Agencies:

City of Modesto	City of Oakdale
City of Riverbank	City of Waterford

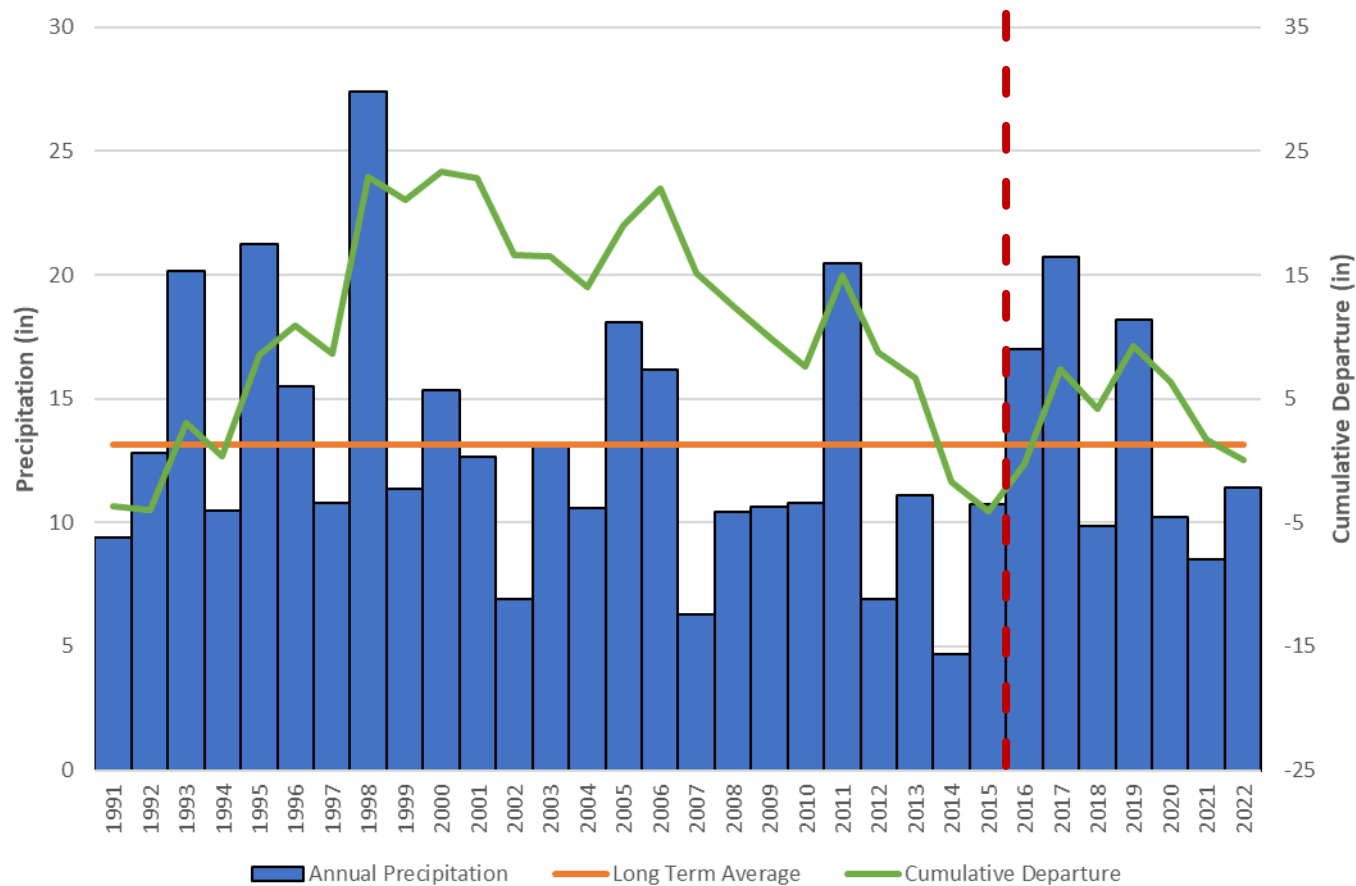
PRECIPITATION



Data Source:

■ PRISM	
■ 2016	17.01 in
■ 2017	20.73 in
■ 2018	9.88 in
■ 2019	18.19 in
■ 2020	10.23 in
■ 2021	8.51 in
■ 2022	11.41 in
Average	13.12 in

PRECIPITATION



Data Source:

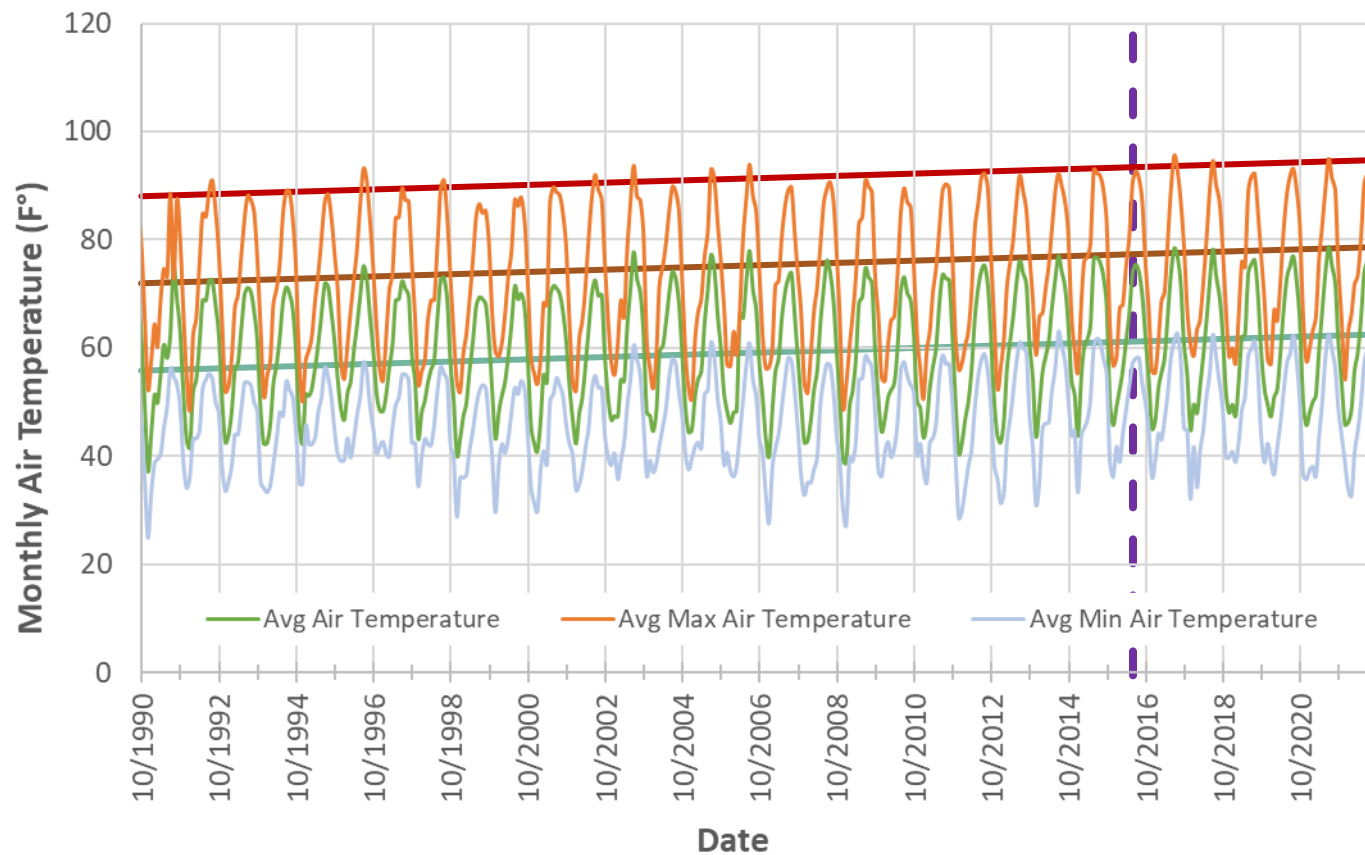
PRISM

2016	17.01 in
2017	20.73 in
2018	9.88 in
2019	18.19 in
2020	10.23 in
2021	8.51 in
2022	11.41 in

Average

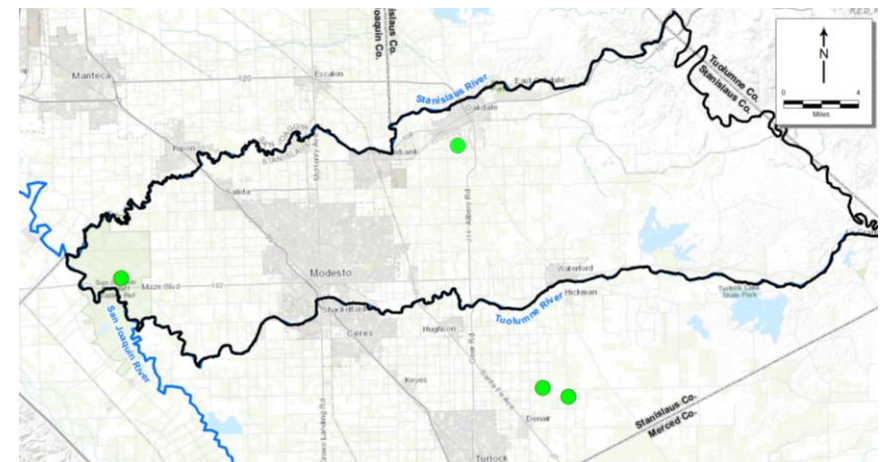
13.12 in

TEMPERATURE

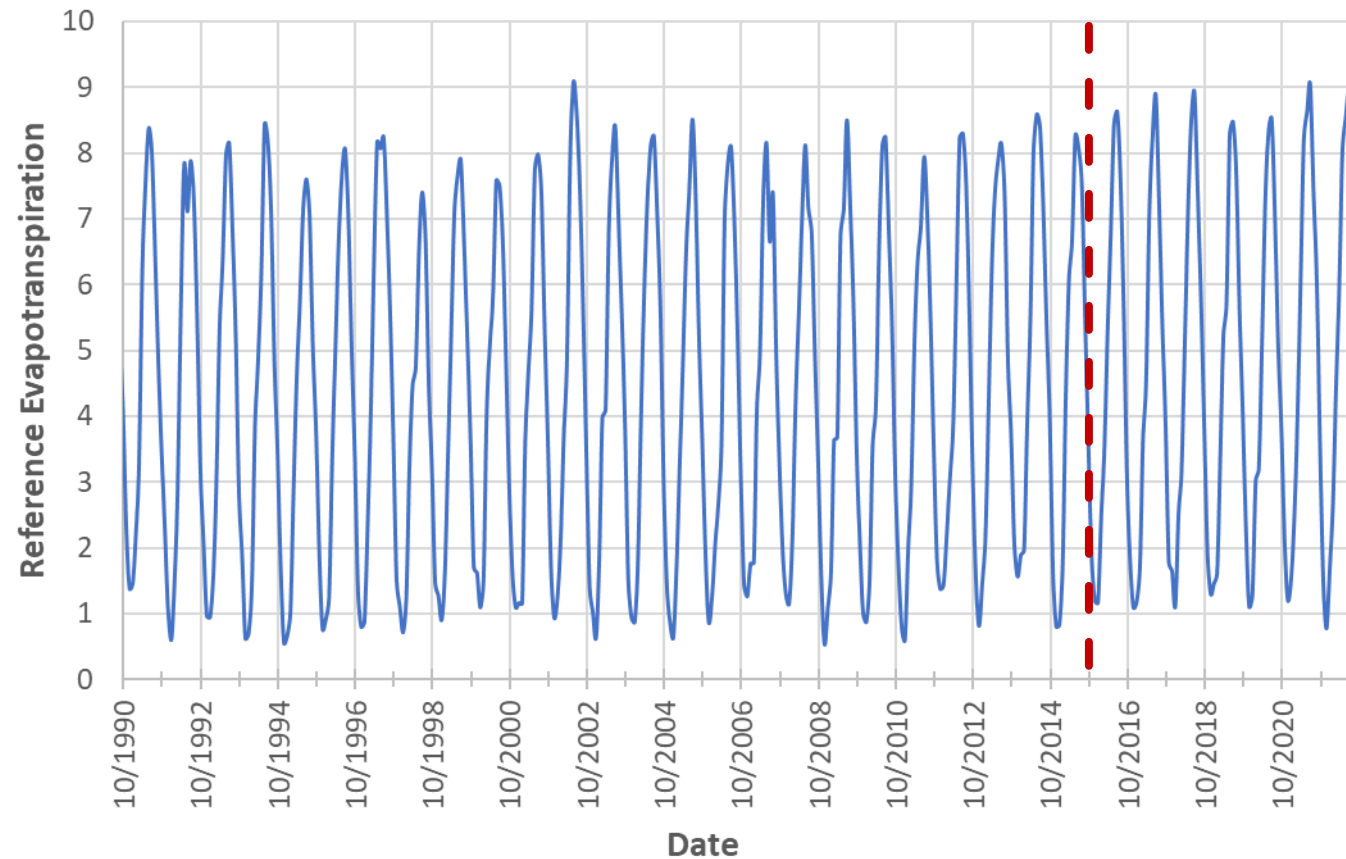


Data Source:

- CIMIS Stations
 - #71 (Modesto)
 - #168 (Denair)
 - #206 (Denair II)
 - #194 (Oakdale)

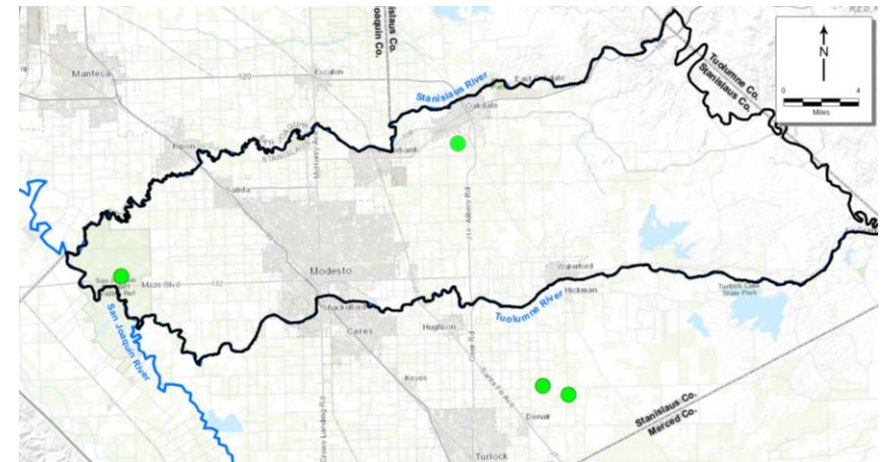


EVAPOTRANSPIRATION

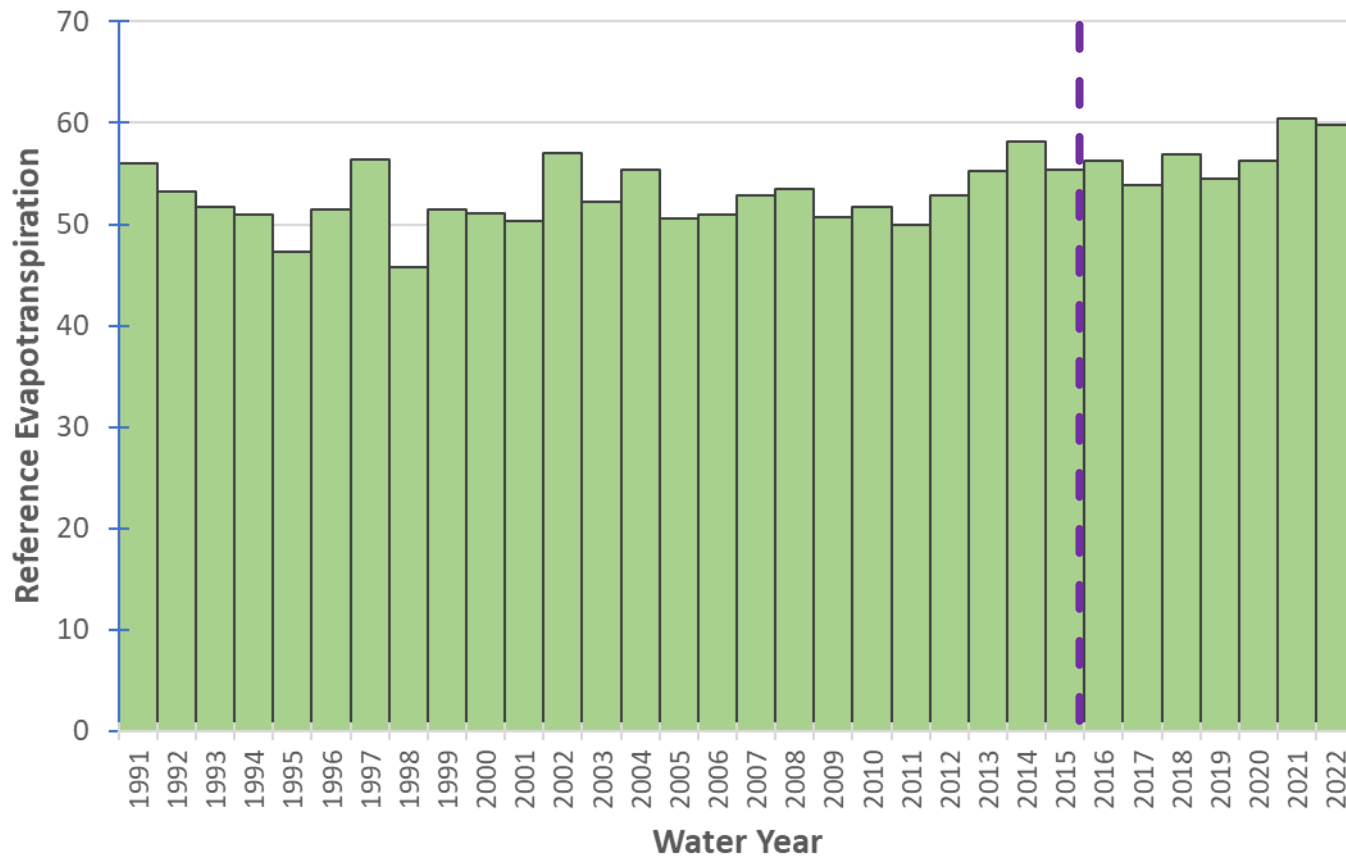


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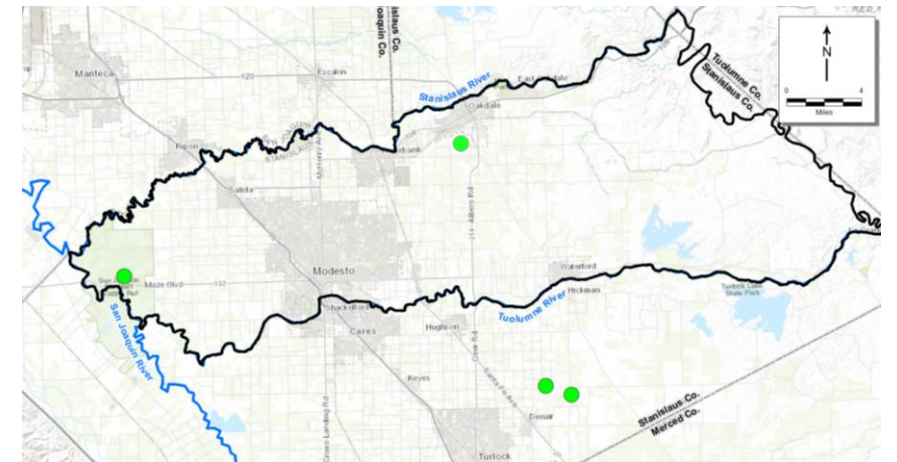


EVAPOTRANSPIRATION



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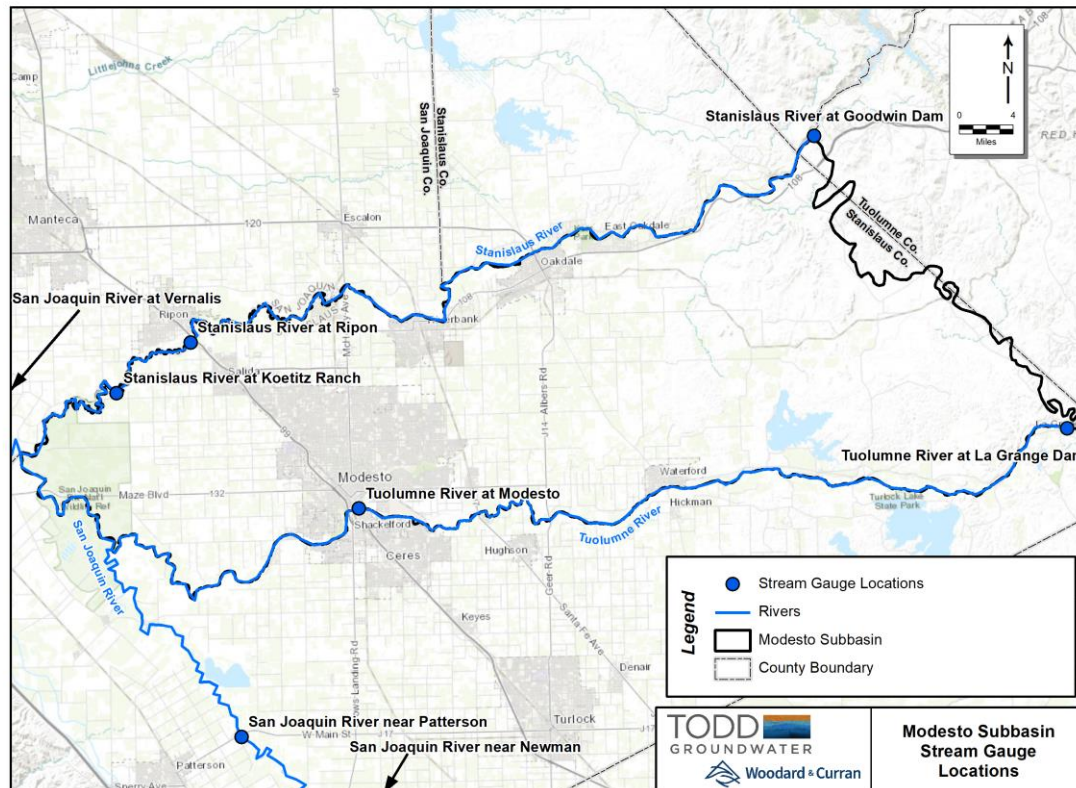
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OBSERVED STREAMFLOW AND GWL DATA

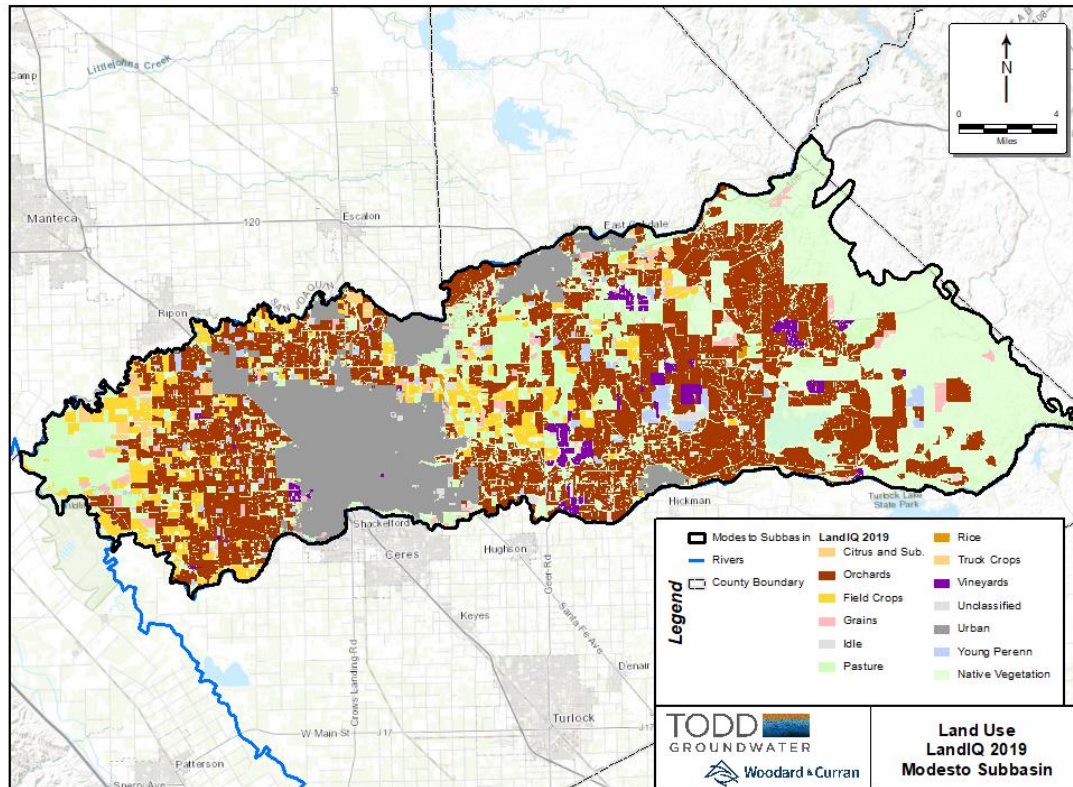
Data Source:

- Stanislaus
 - CDEC: Goodwin Dam
 - USGS: at Ripon
 - CDEC: at Koetitz Ranch
- Tuolumne
 - MID: La Grange Dam
 - USGS: at Modesto
- San Joaquin River
 - USGS: near Newman
 - USGS: at Vernalis
 - CDEC: near Patterson



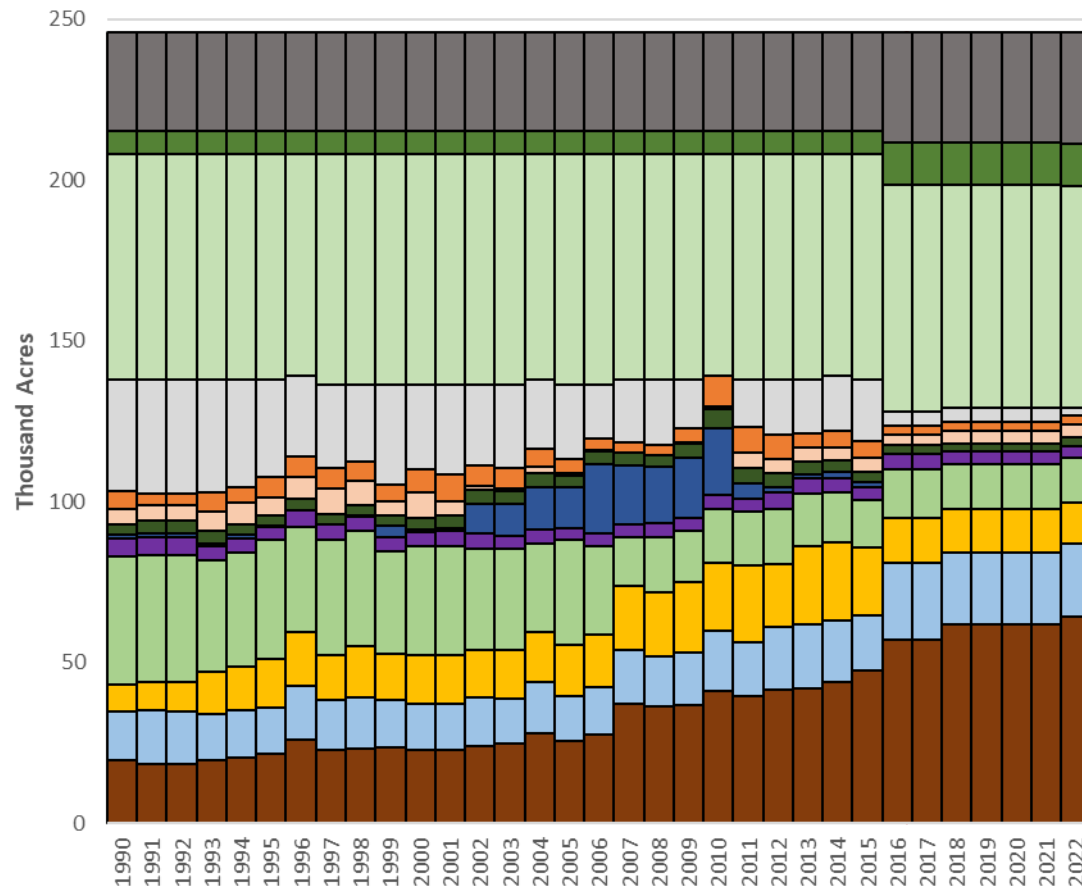
LAND USE & CROPPING PATTERNS

Land Use: LandIQ 2019



■ Urban	35,000
■ Native Veg.	69,000
■ Riparian Veg.	13,000
■ Idle	2,000
■ Other Ag.	2,000
■ Grains	4,000
■ Alfalfa	3,000
■ Other Field	0
■ Vineyards	4,000
■ Pasture	13,000
■ Corn	12,000
■ Alfalfa	2,000
■ Other Orchards	23,000
■ Almonds & Pistachios	64,000
■ Total	246,000
	Units: acres

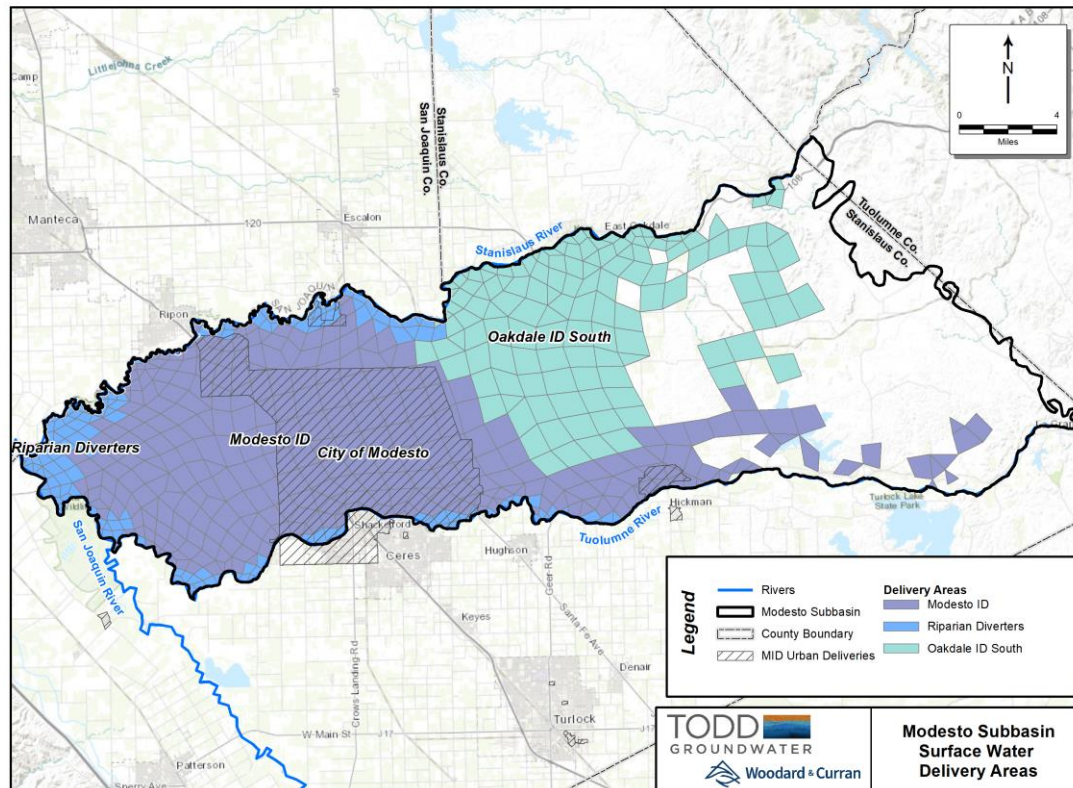
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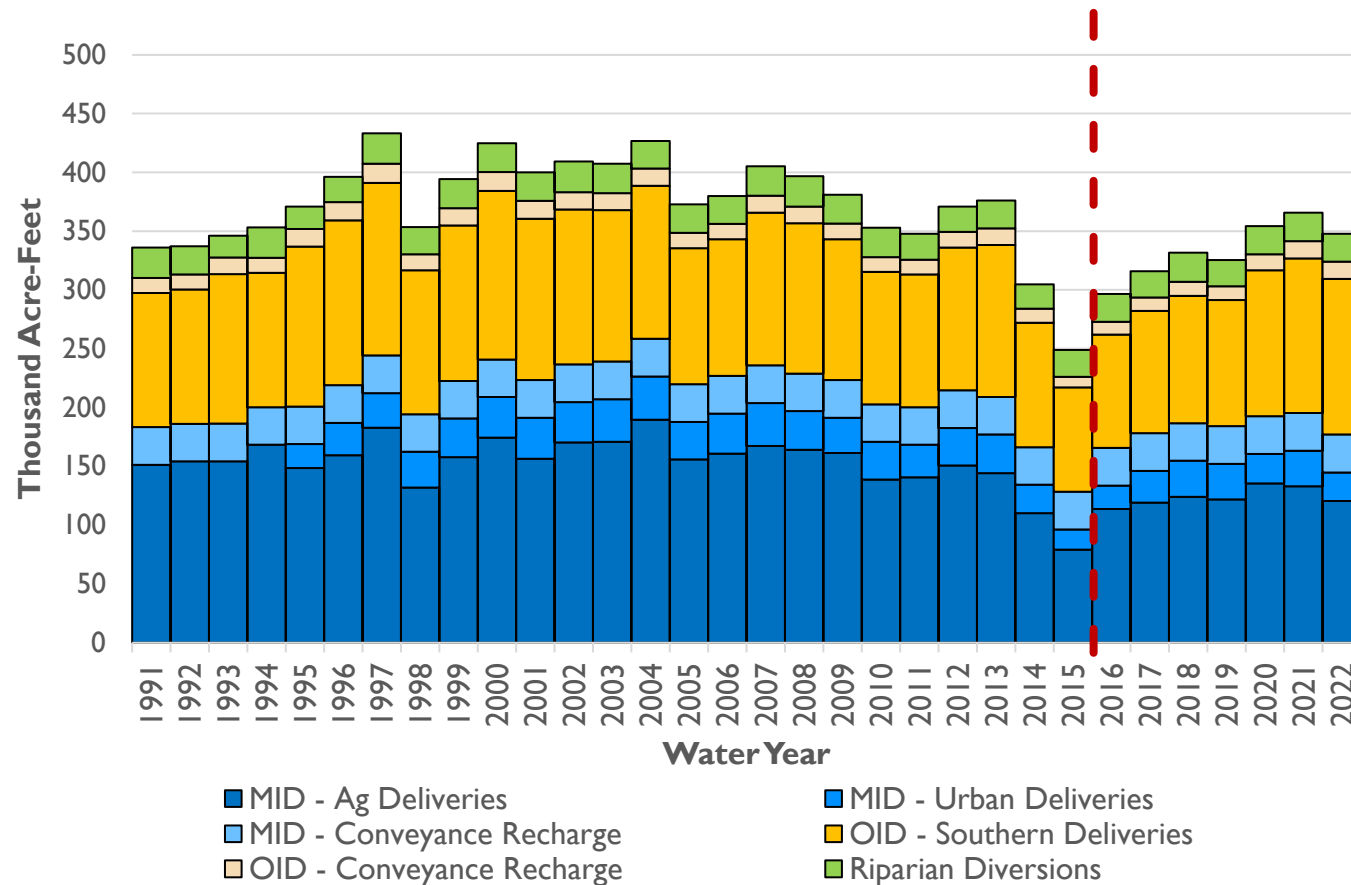
SURFACE WATER OPERATIONS



2022 Surface Water

- Modesto ID
 - Ag Deliveries
 - M&I Deliveries
 - Modesto Res. Recharge
 - Conveyance Recharge
- Oakdale ID
 - Southern Deliveries
 - Conveyance Recharge
- Riparian Diversions

SURFACE WATER OPERATIONS



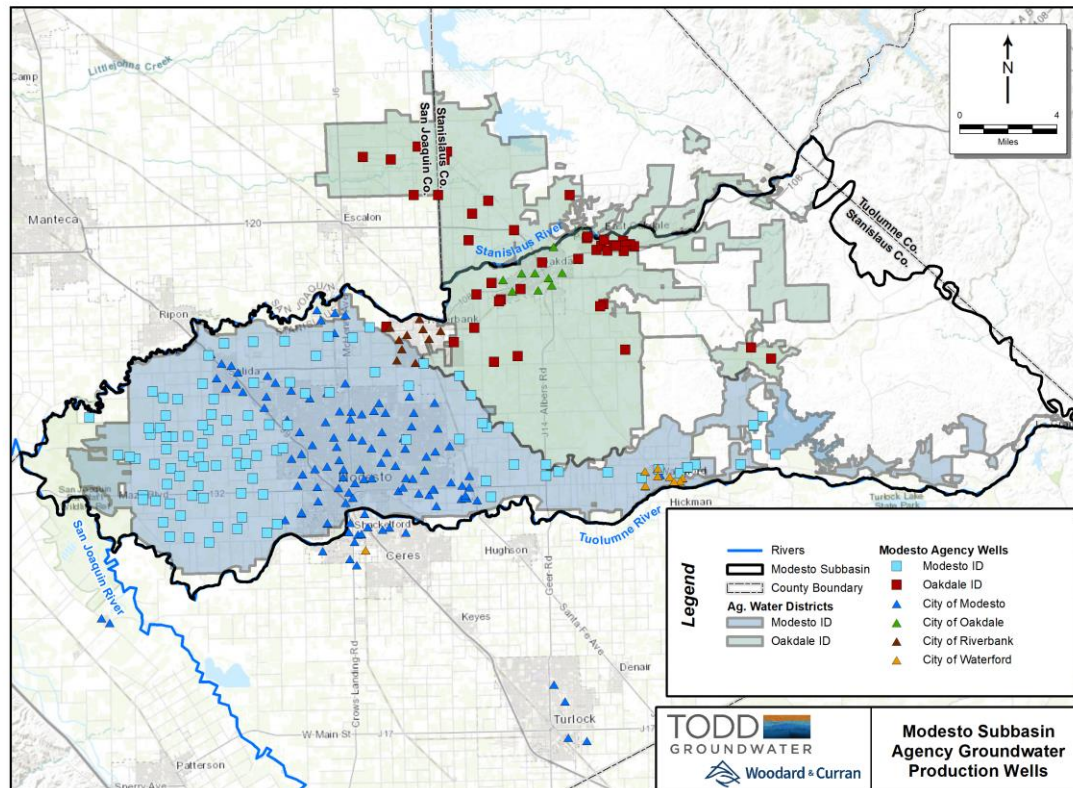
2022 Surface Water

- Modesto ID
 - Ag Deliveries
 - M&I Deliveries
 - Conveyance and Reservoir Recharge
- Oakdale ID
 - Southern Deliveries
 - Conveyance Recharge
- Riparian Diversions

GROUNDWATER OPERATIONS

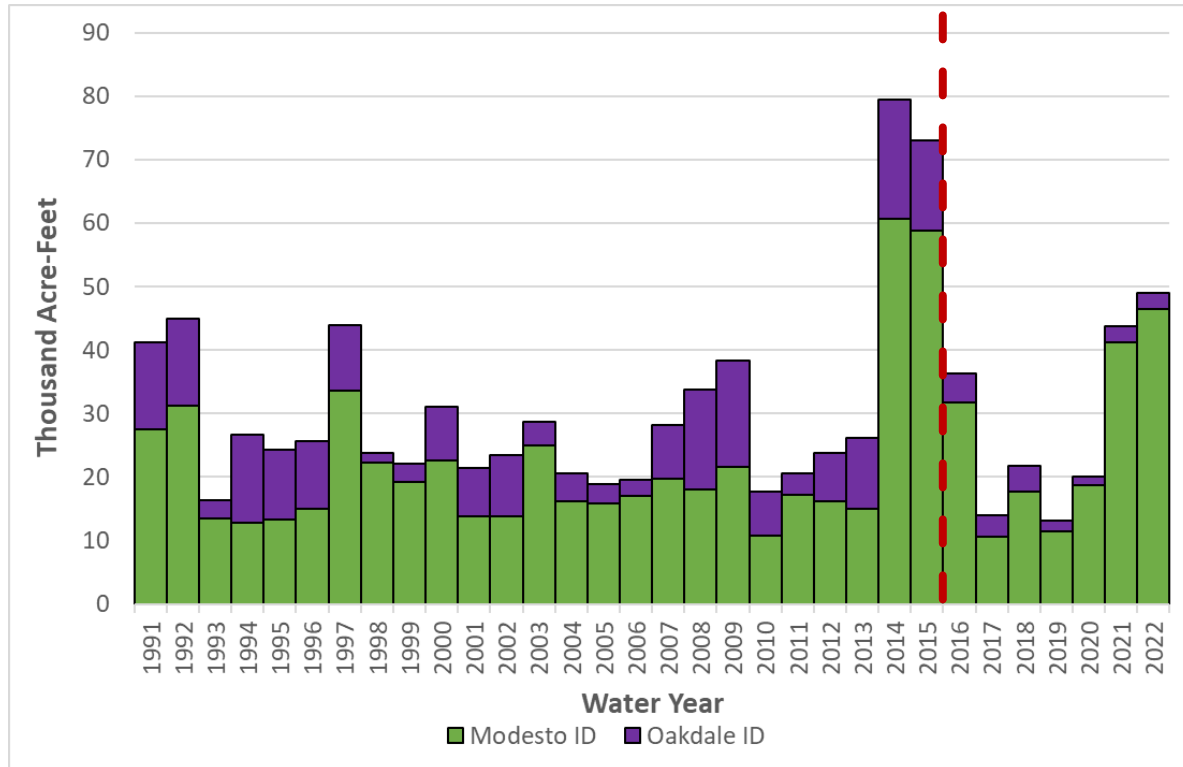
2022 Groundwater

- Modesto ID
- Oakdale ID
- Modesto, City of
- Oakdale, City of
- Riverbank, City of
- Waterford, City of

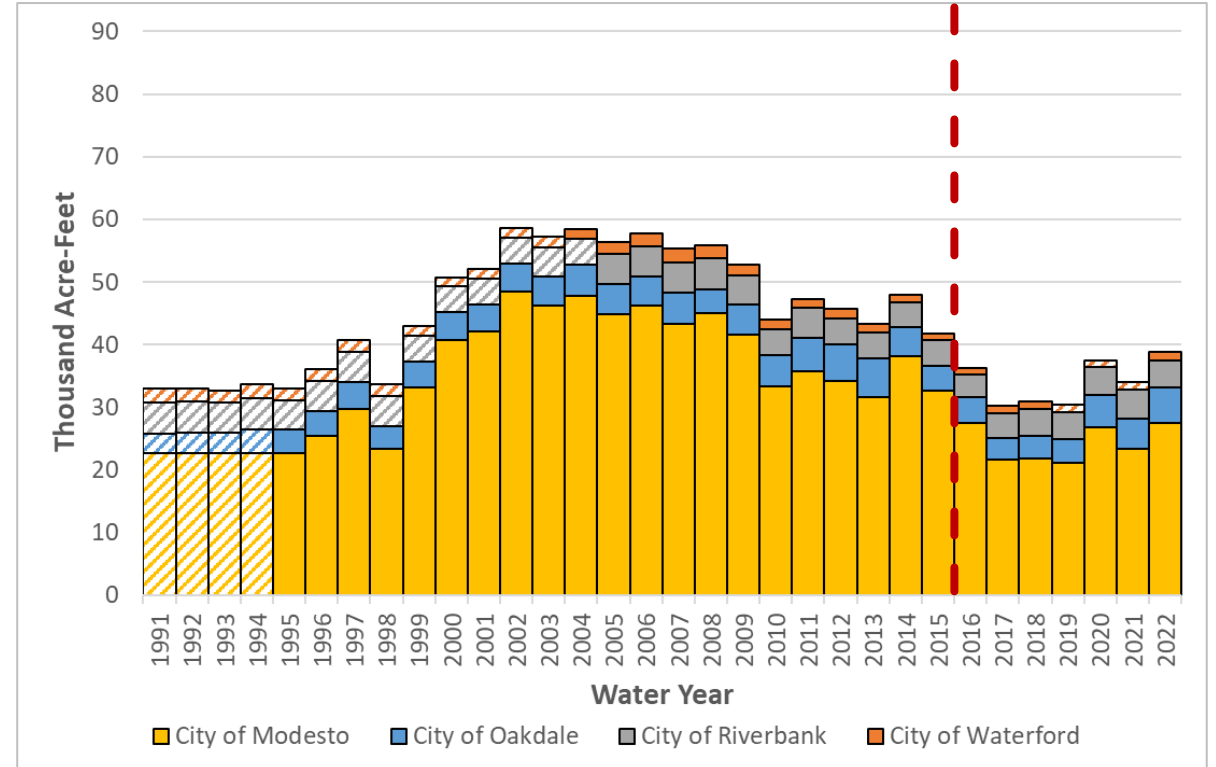


GROUNDWATER OPERATIONS

Agricultural Agency Pumping



Urban Agency Pumping

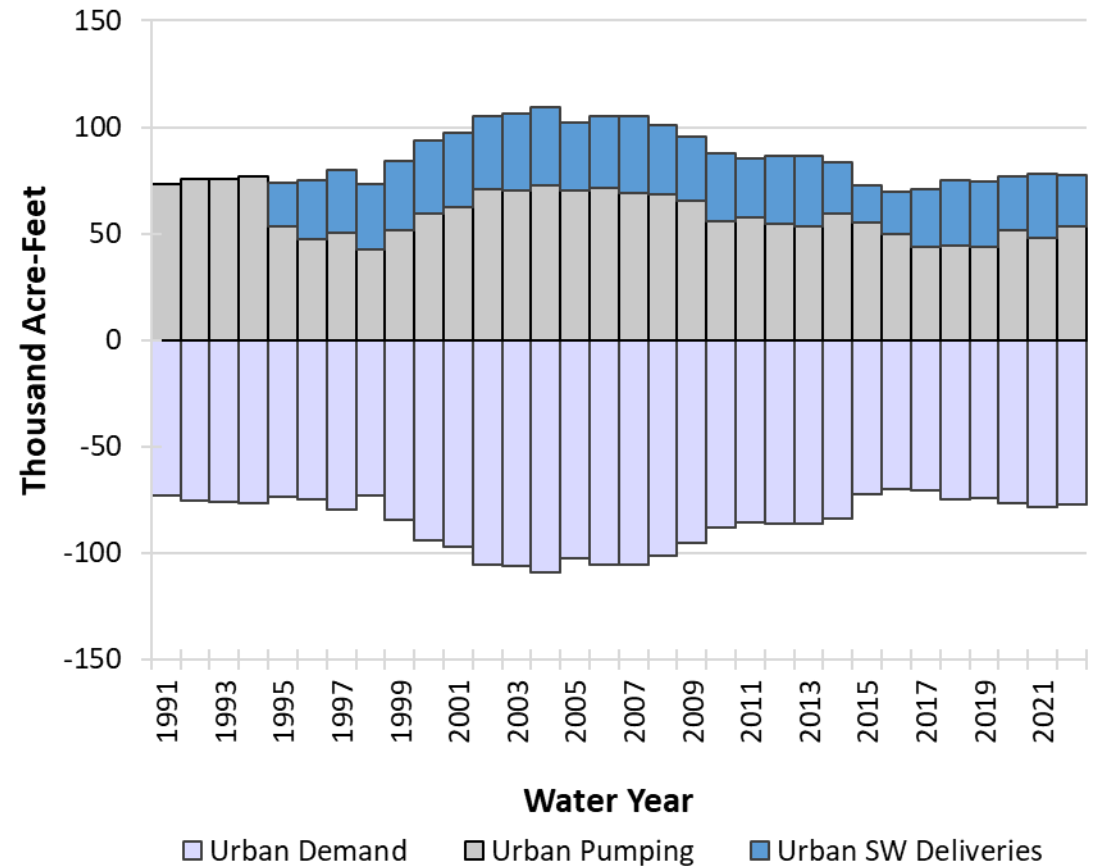
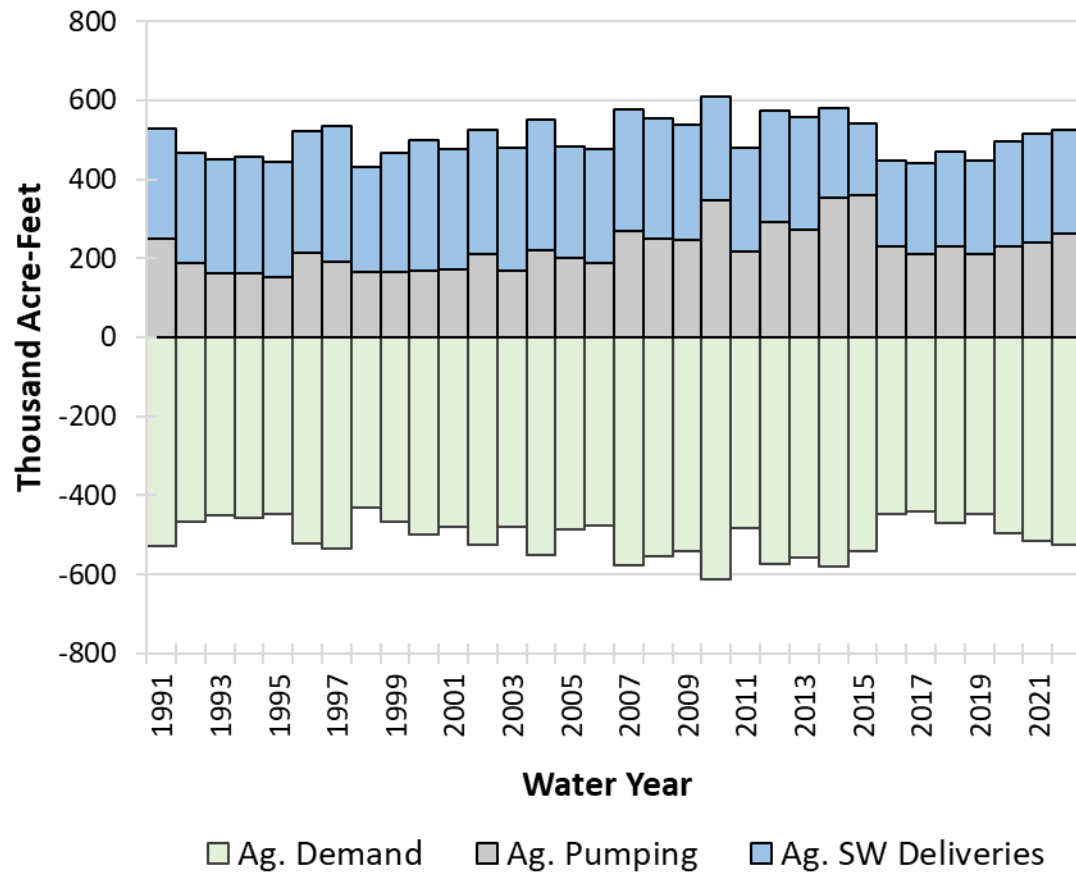




MODEL RESULTS

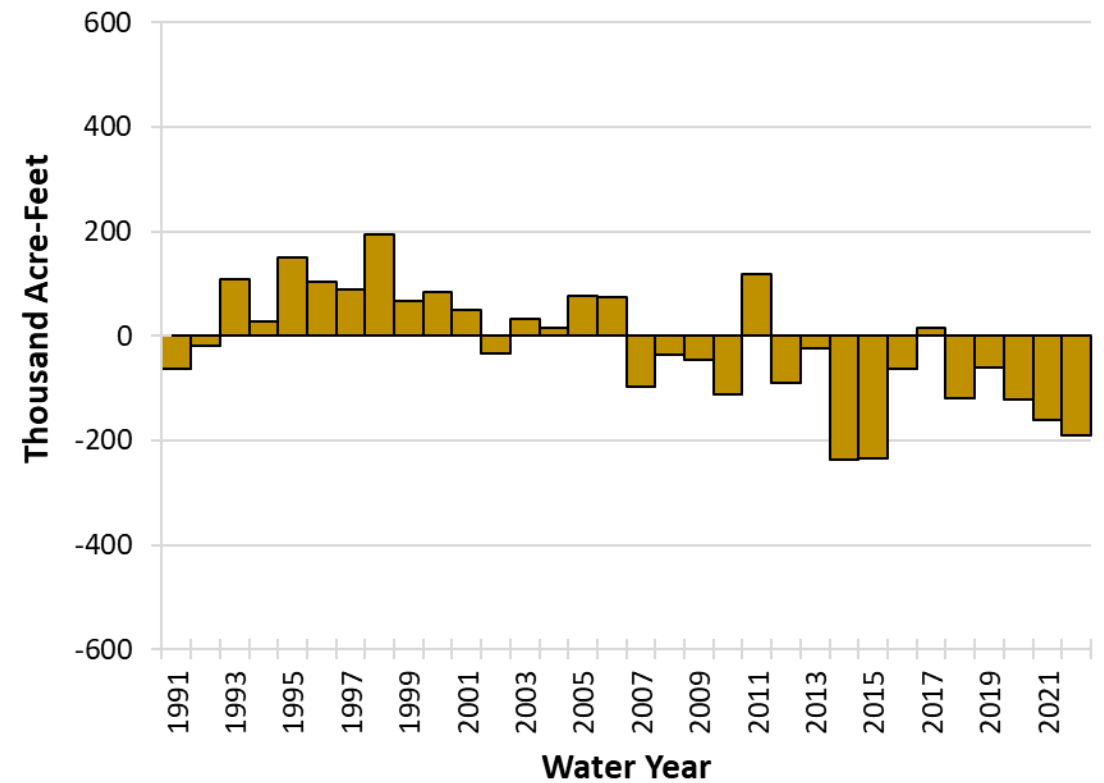
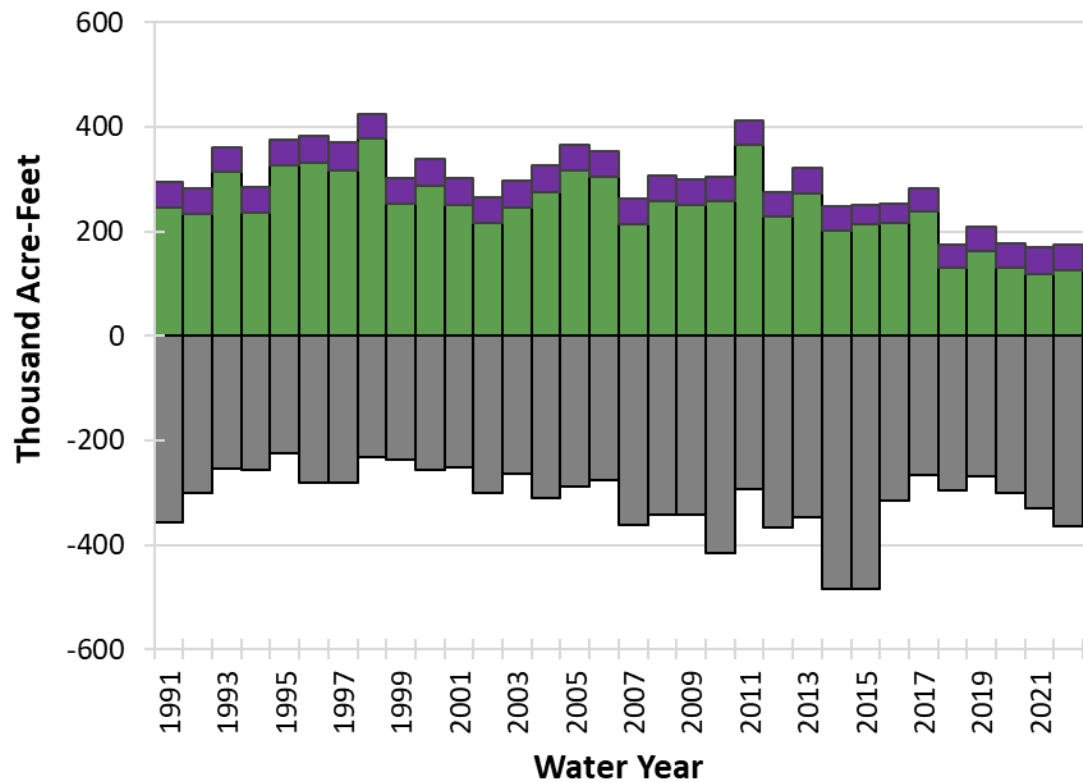


MODESTO SUBBASIN: LAND AND WATER USE



Note: Water budgets do not include approximately 10,000 AF of pumping used for water transfers (Mapes Ranch Transfer to Del Puerto Water District).

MODESTO SUBBASIN: OPERATIONAL BUDGET



■ Groundwater Pumping ■ Deep Percolation ■ Canal and Reservoir Recharge

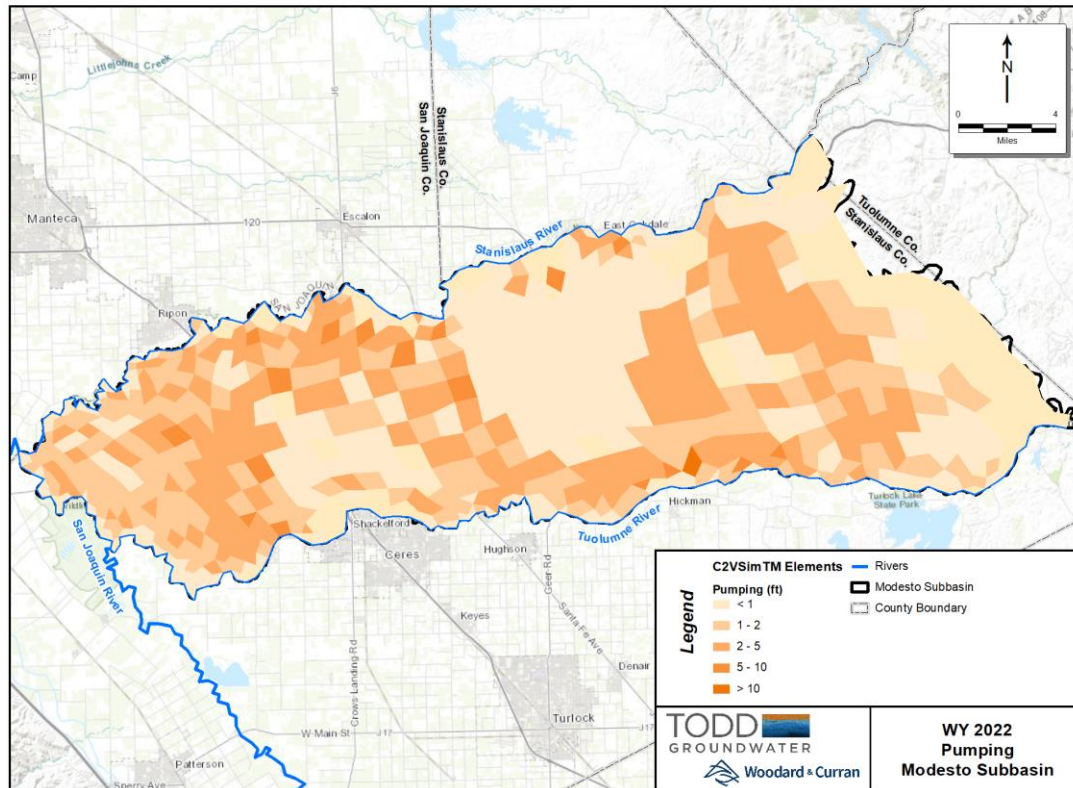
■ Net Recharge

Note: Water budgets do not include approximately 10,000 AF of pumping used for water transfers (Mapes Ranch Transfer to Del Puerto Water District).

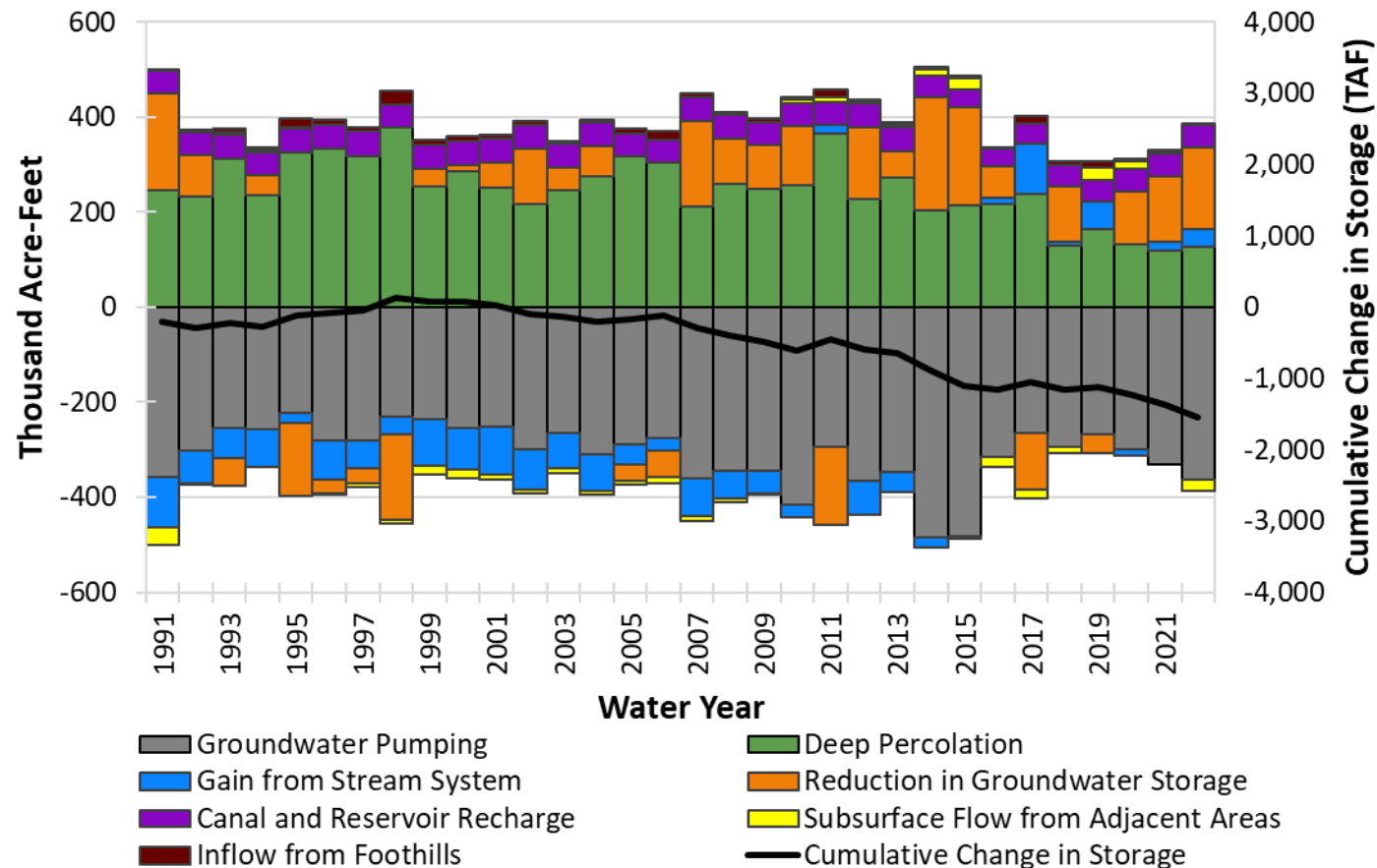
GROUNDWATER PUMPING – SUBBASIN

Water Year 2022

- Pumping
 - Ag Agency 48,200 AF
 - Ag Private 262,600 AF
 - Urban Agency 37,300 AF
 - Urban Private 16,000 AF
 - **Total 364,100 AF**
- 1.5 ft**



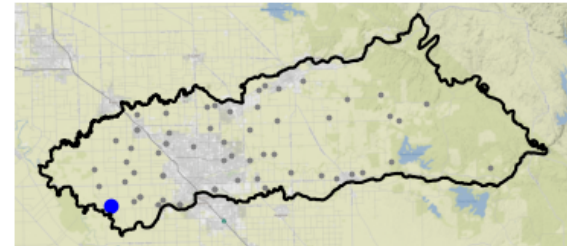
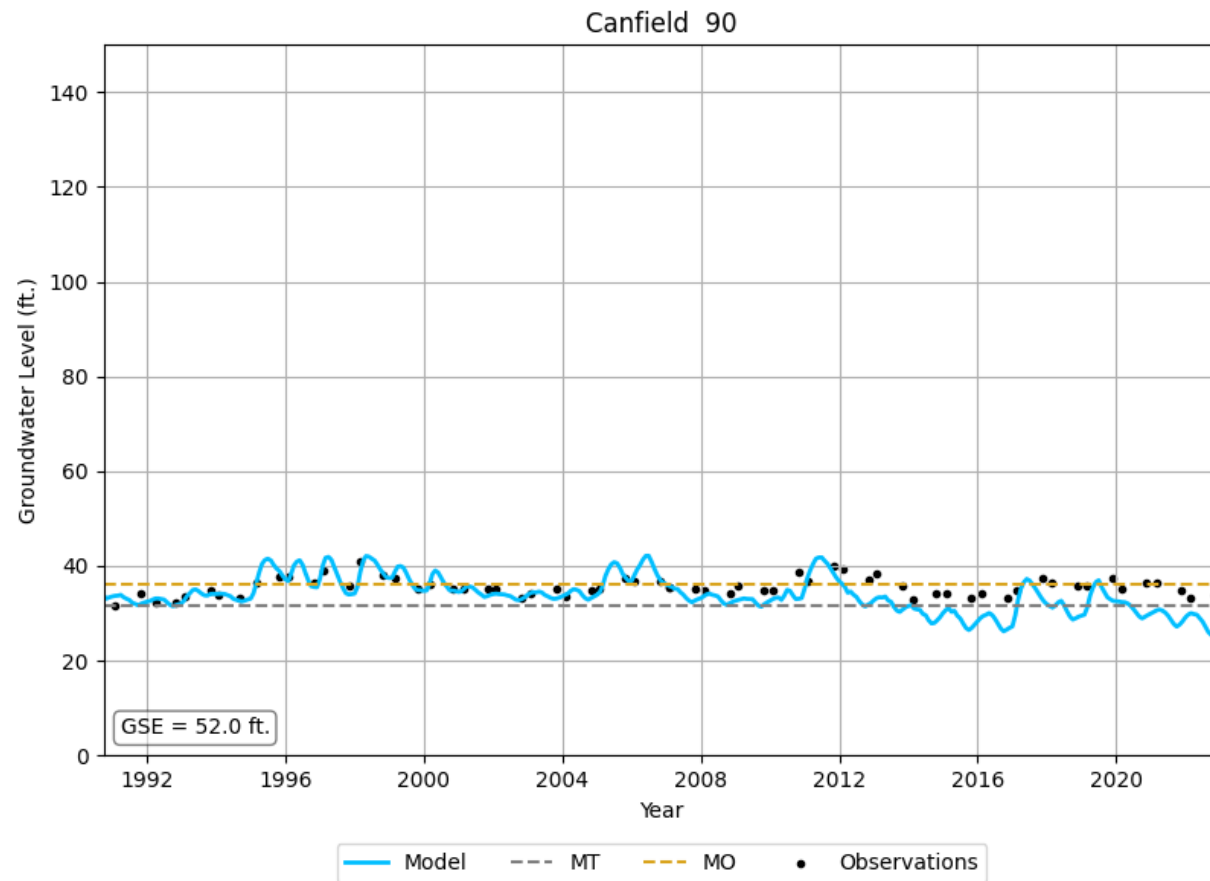
MODESTO SUBBASIN: GROUNDWATER BUDGET



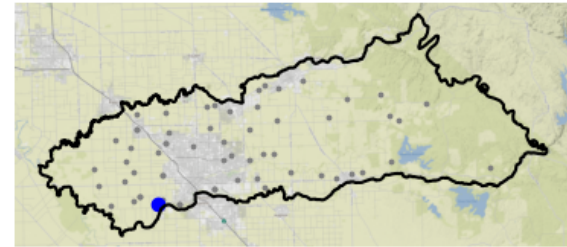
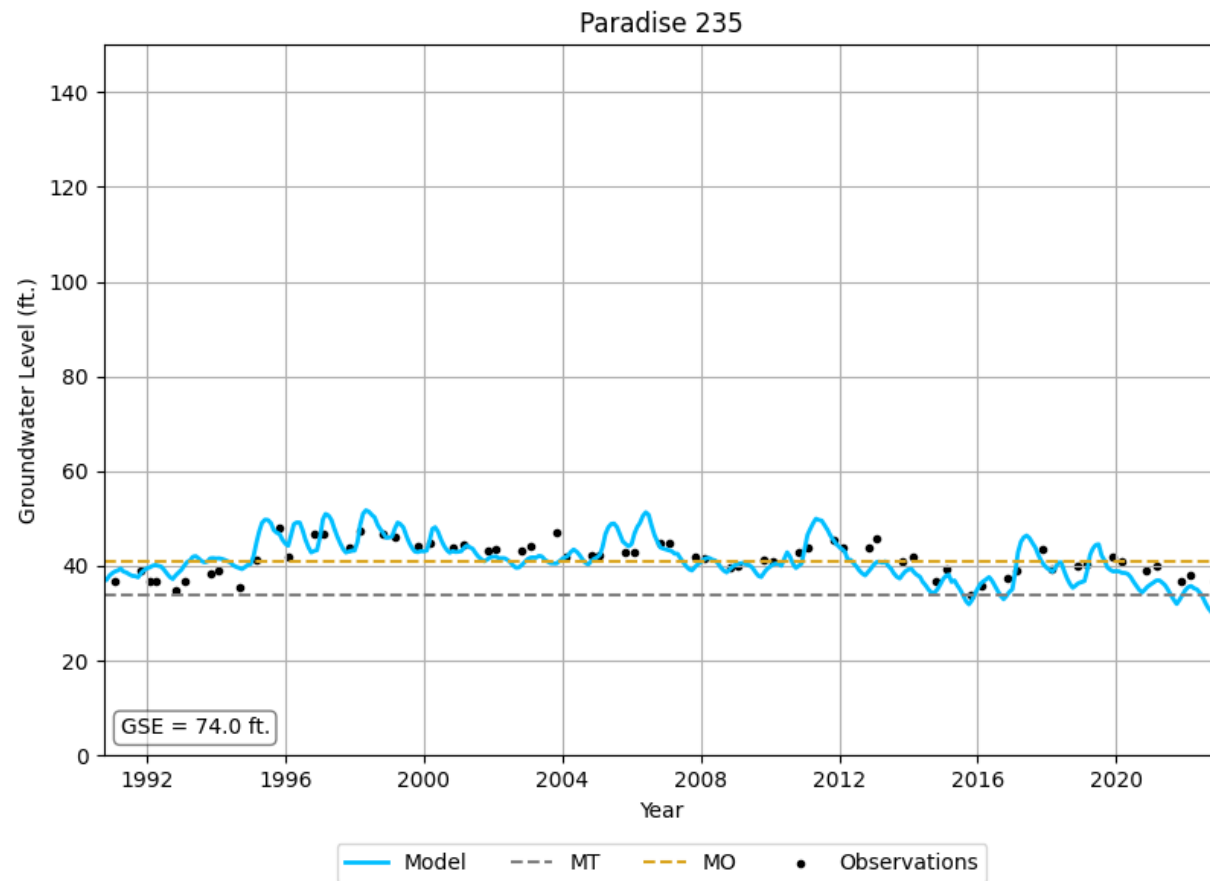
Water Year 2022

Groundwater Budget	
■ Pumping	-364,100
■ Deep percolation	126,300
■ Canal recharge	48,100
■ Gain from stream	36,700
■ Subsurface inflow	-23,400
■ Foothill inflow	4,100
■ Δ Storage	-172,300

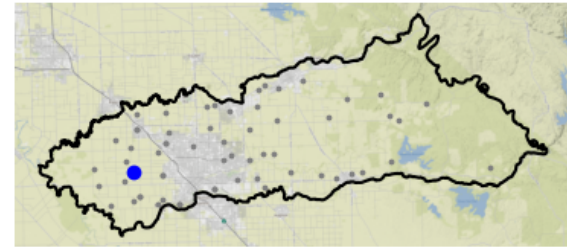
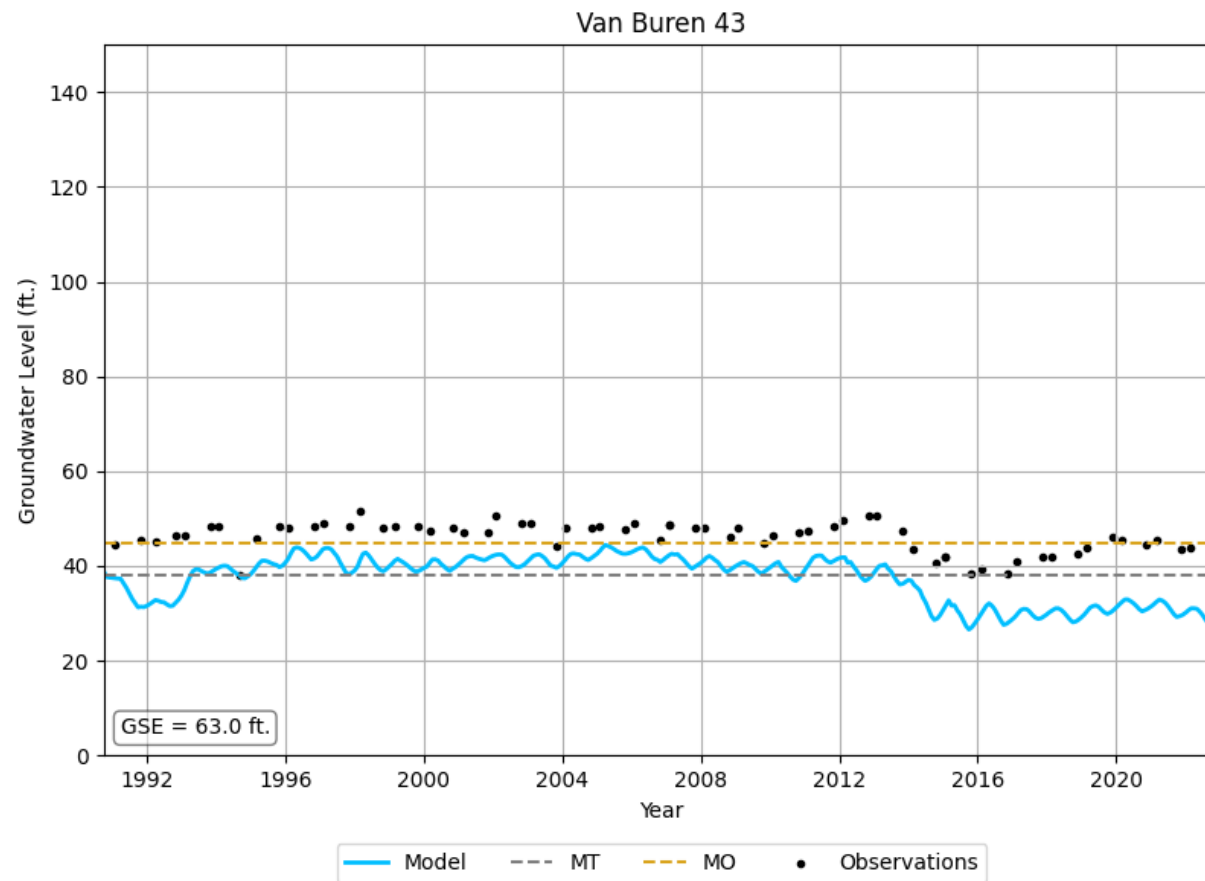
GROUNDWATER LEVEL HYDROGRAPHS



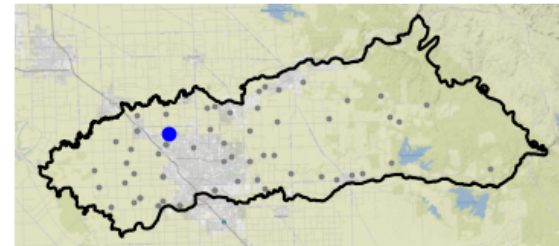
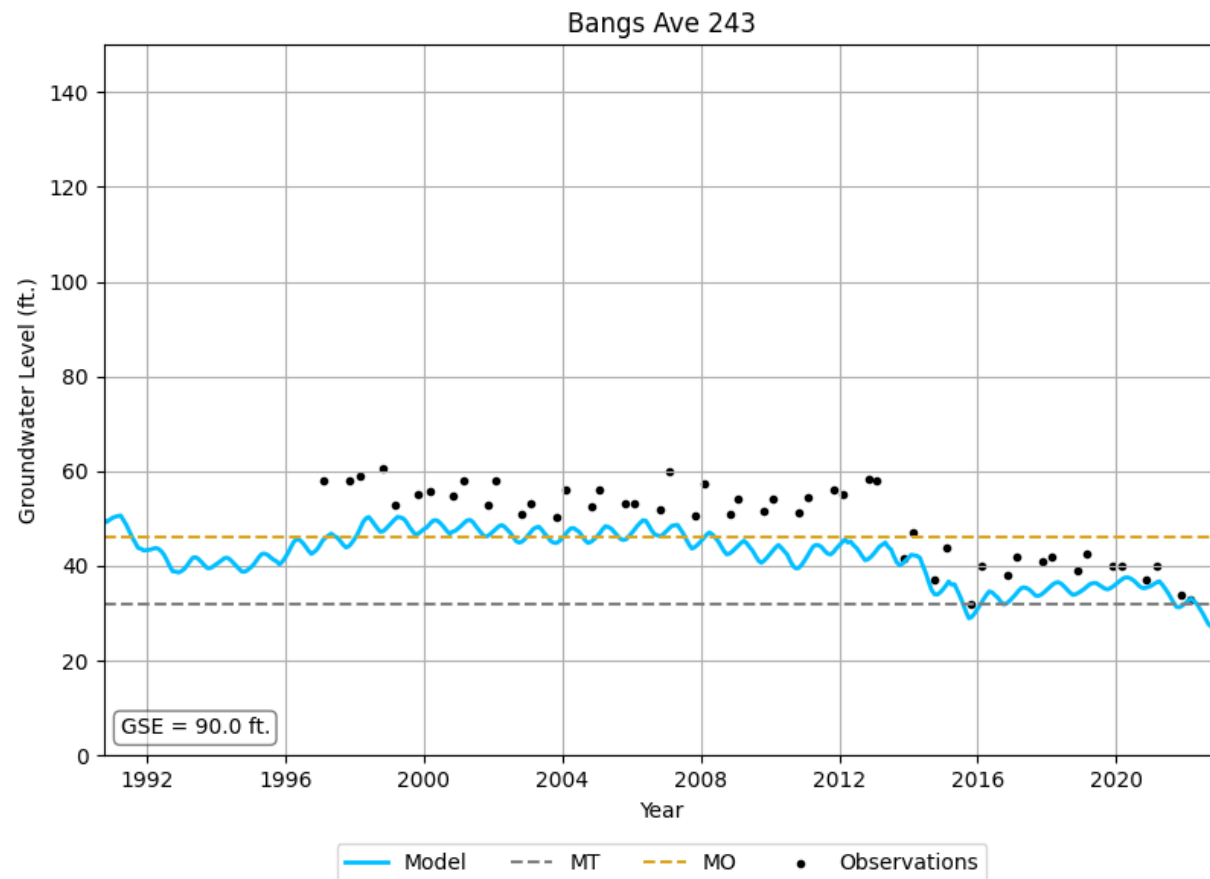
GROUNDWATER LEVEL HYDROGRAPHS



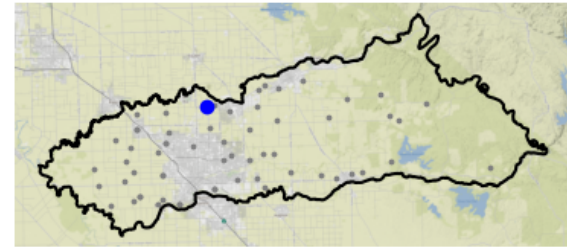
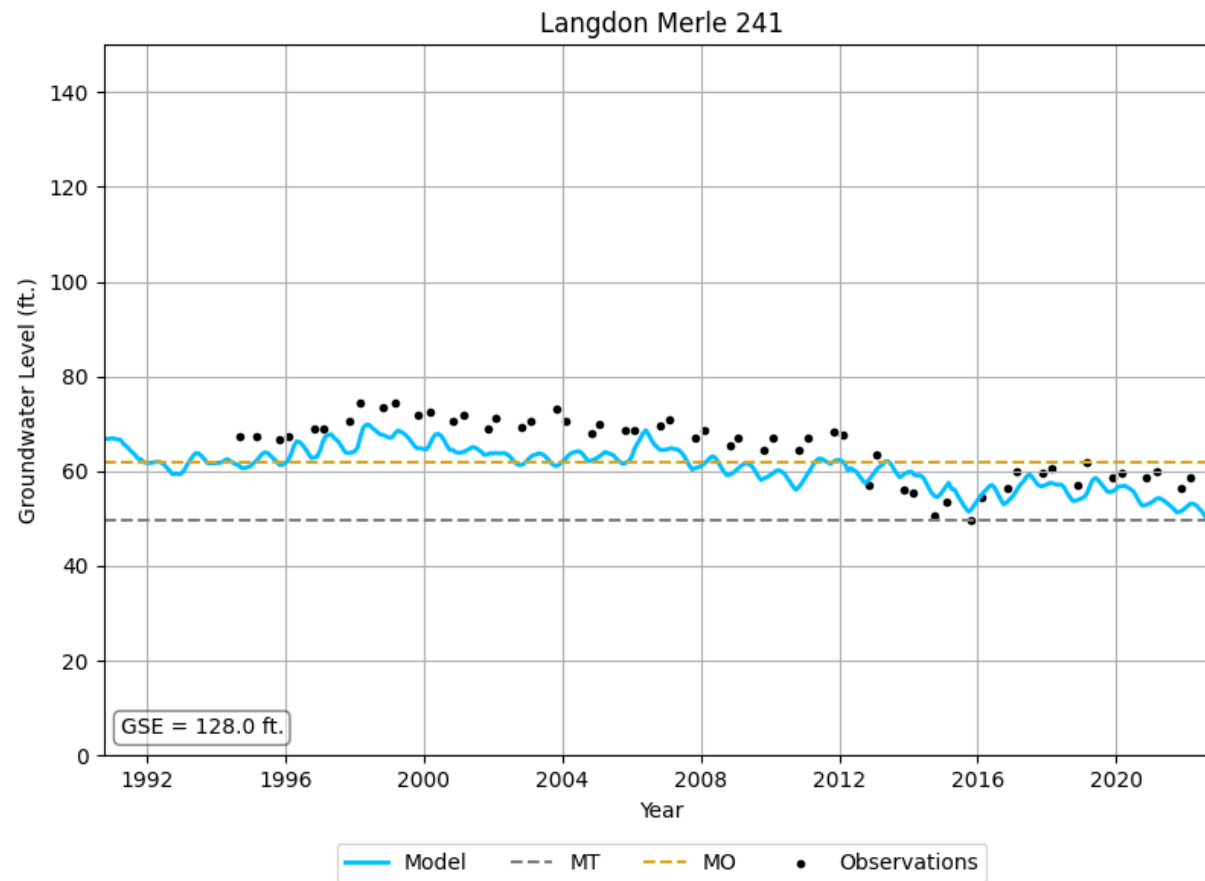
GROUNDWATER LEVEL HYDROGRAPHS



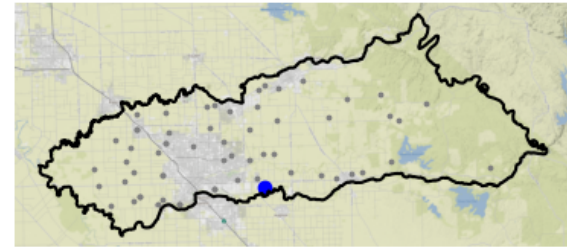
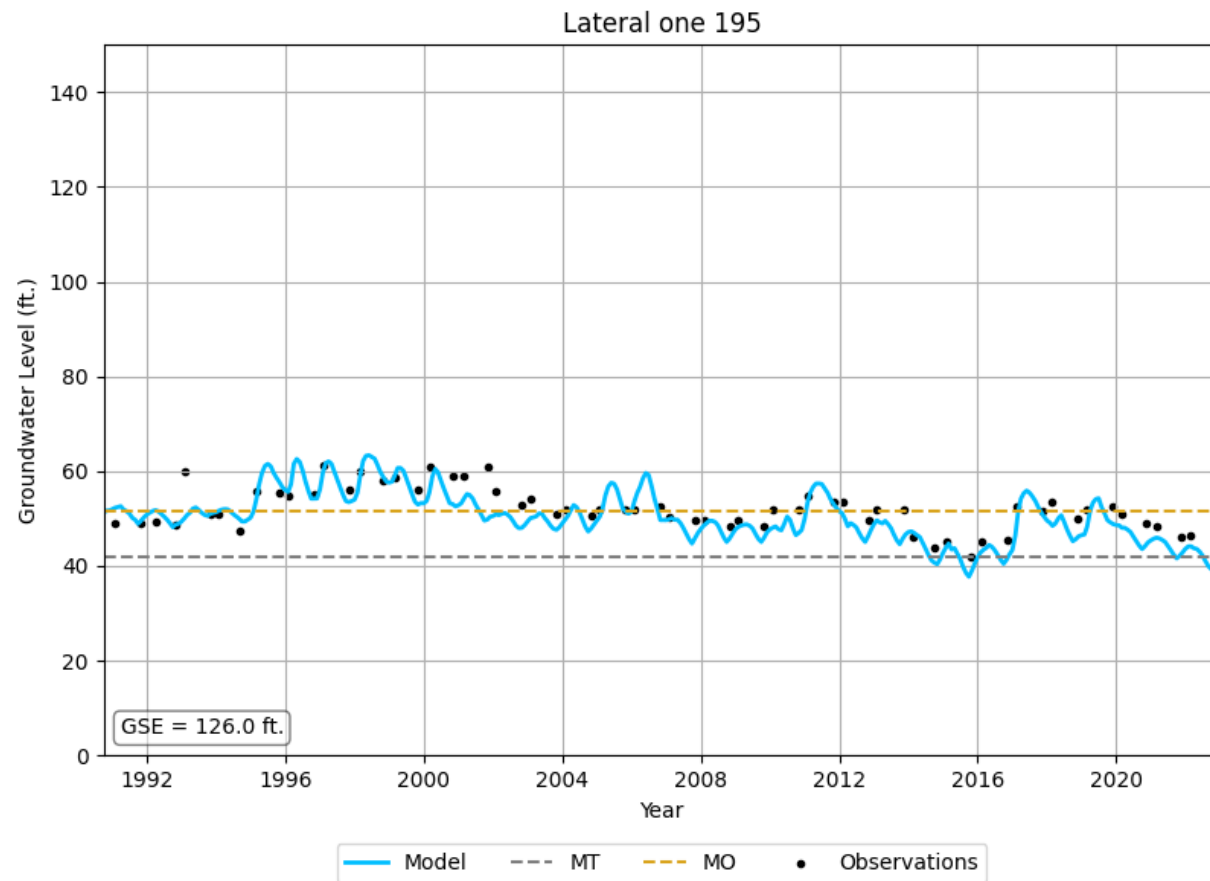
GROUNDWATER LEVEL HYDROGRAPHS



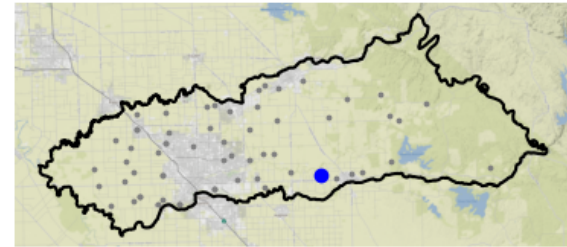
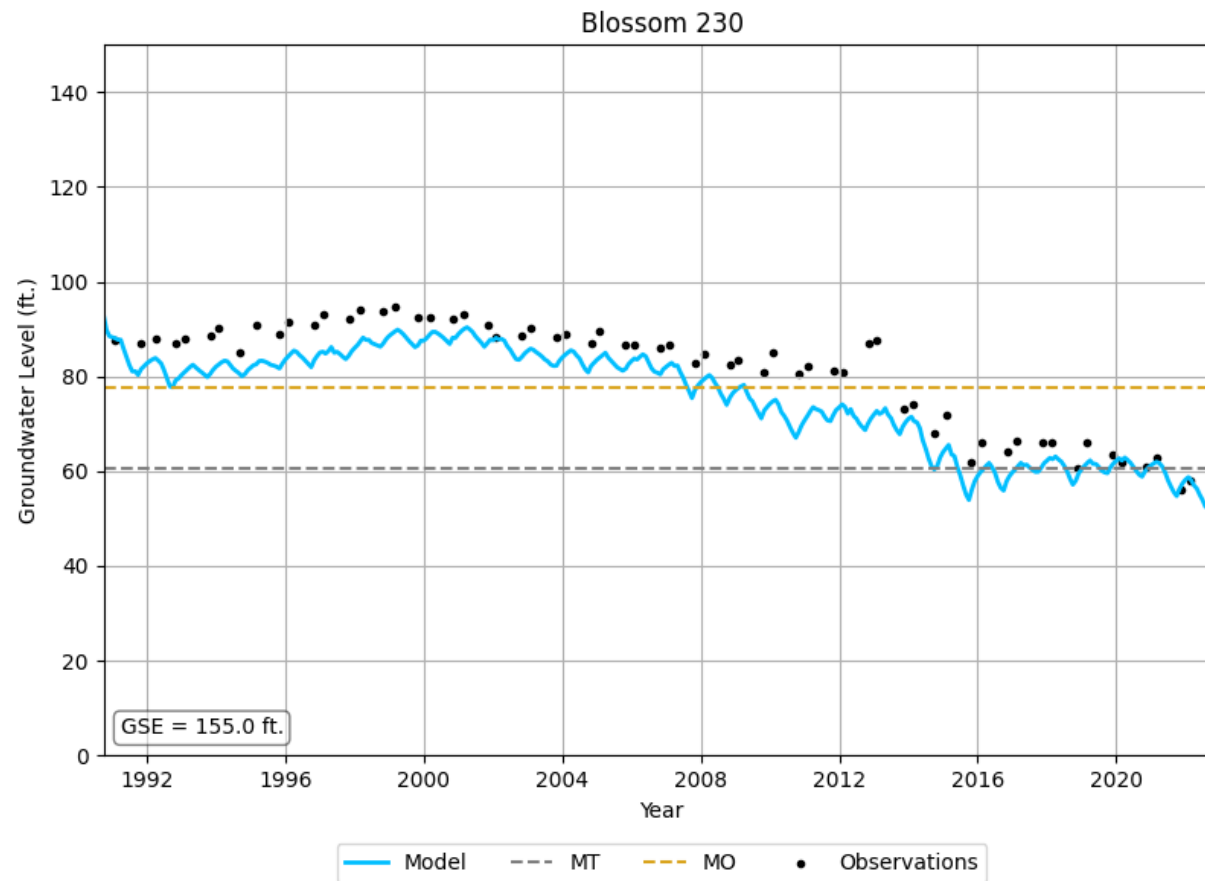
GROUNDWATER LEVEL HYDROGRAPHS



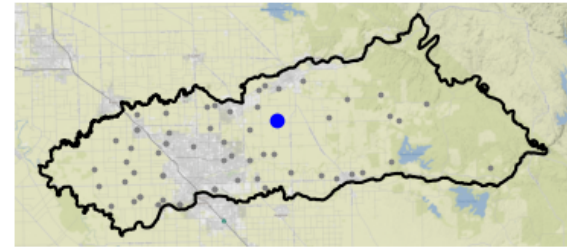
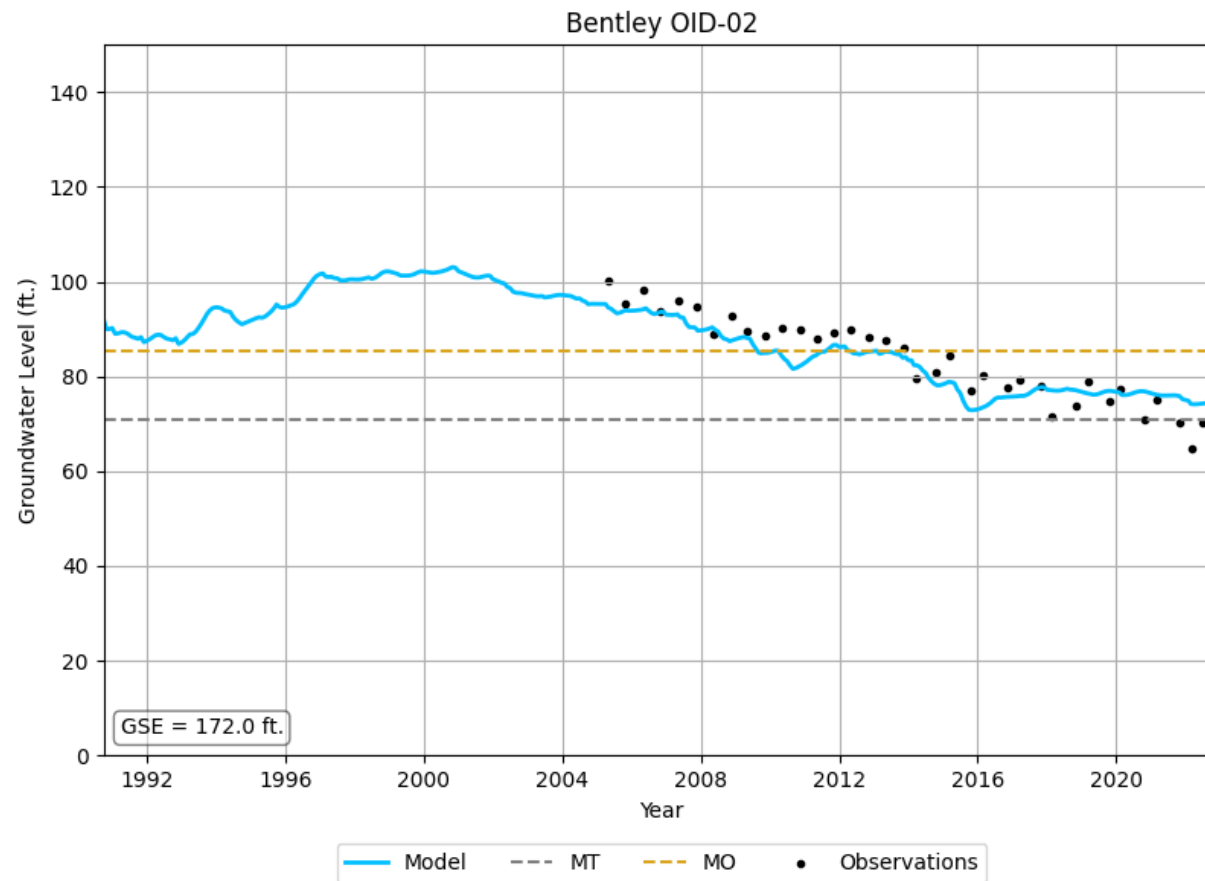
GROUNDWATER LEVEL HYDROGRAPHS



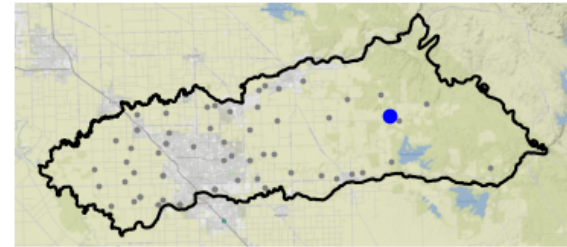
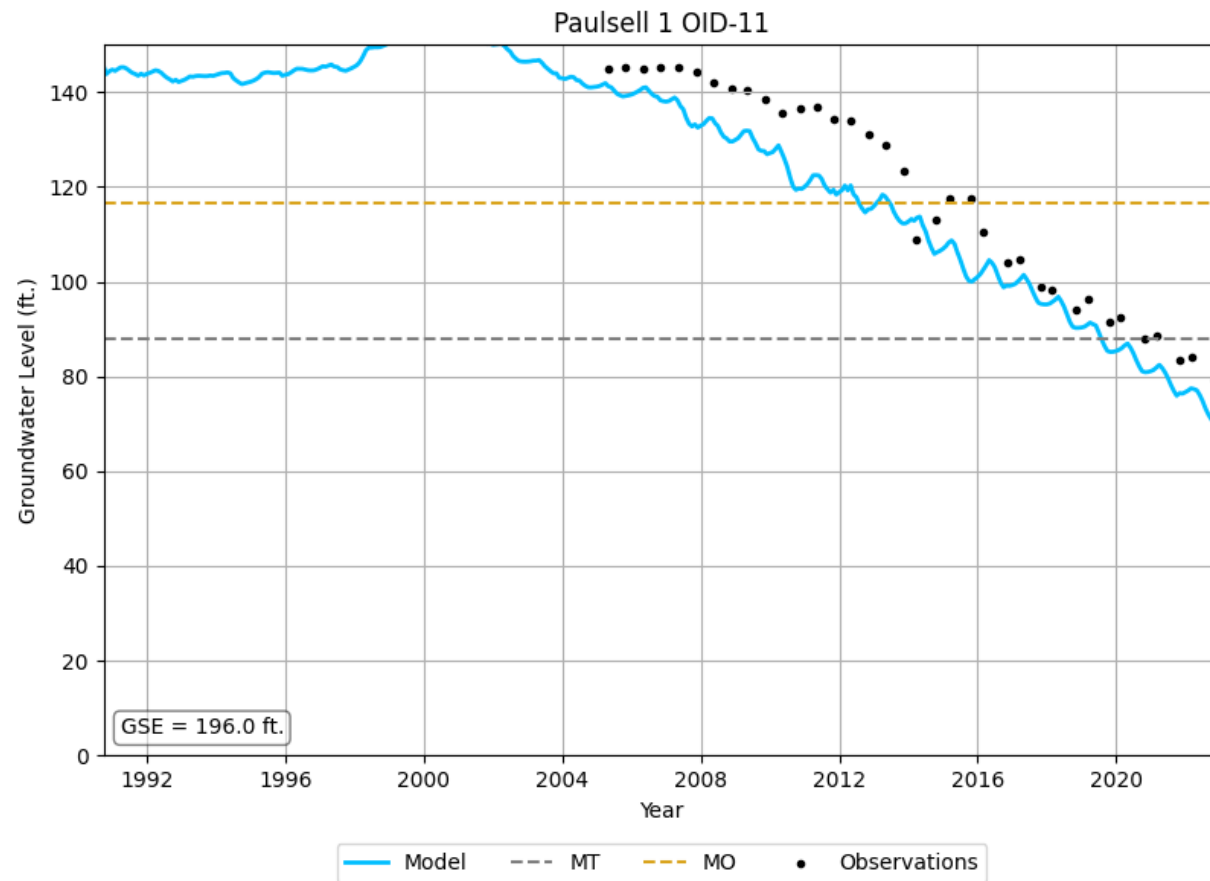
GROUNDWATER LEVEL HYDROGRAPHS



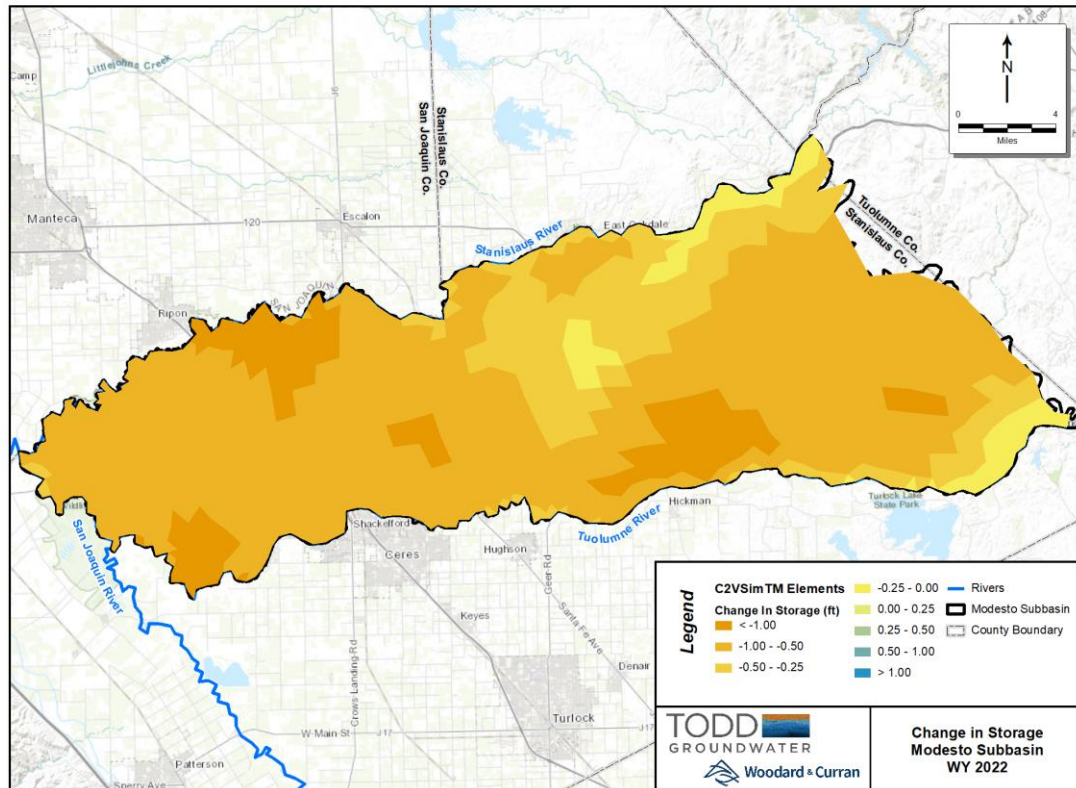
GROUNDWATER LEVEL HYDROGRAPHS



GROUNDWATER LEVEL HYDROGRAPHS



CHANGE IN STORAGE – SUBBASIN

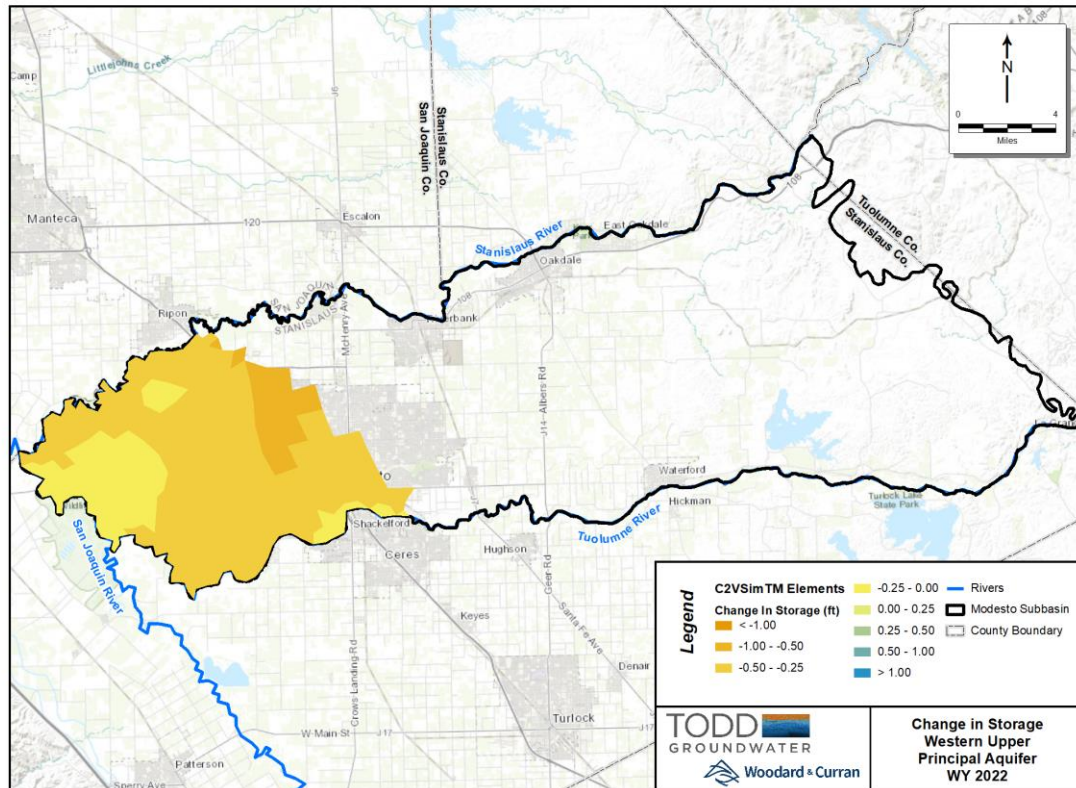


Water Year 2022

- Change in Storage (AF)
 - Subbasin -172,300
 - Western Upper -20,800
 - Western Lower -27,300
 - Eastern -124,200

- Change in Storage (ft)
 - Subbasin -0.7
 - Western Upper -0.3
 - Western Lower -0.5
 - Eastern -0.7

CHANGE IN STORAGE – WESTERN UPPER PRINCIPAL AQUIFER

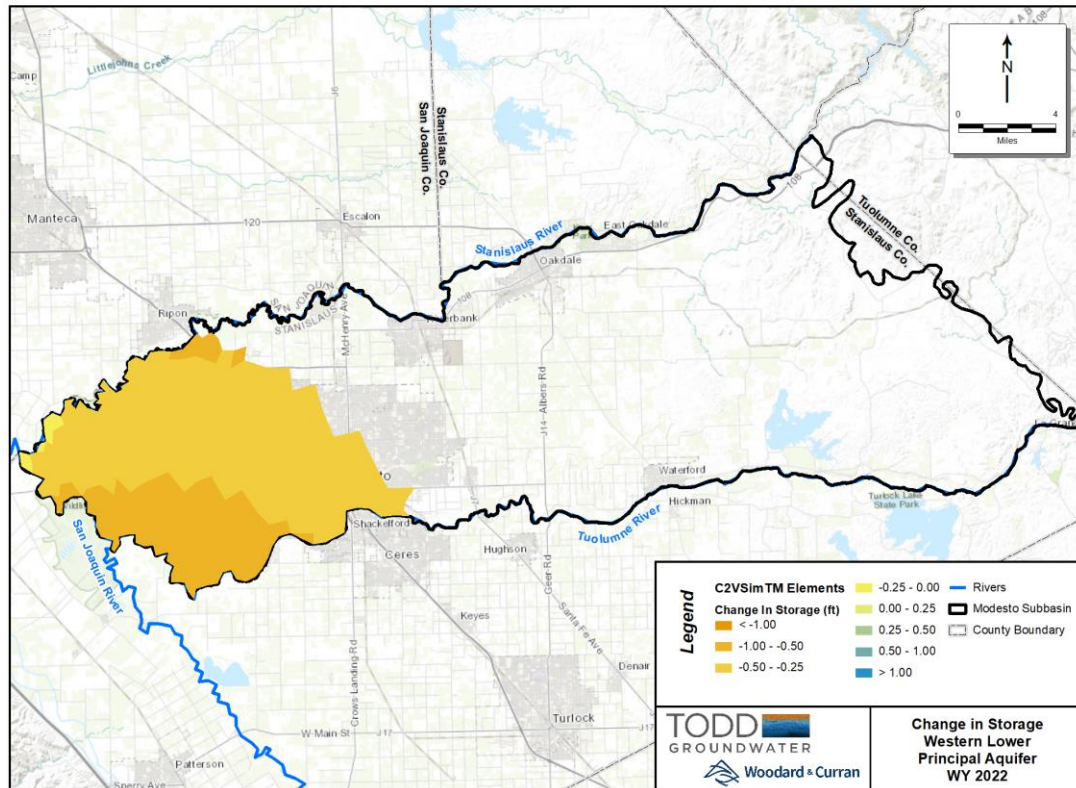


Water Year 2022

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 - Western Lower -27,300
 - Eastern -124,200

- Change in Storage (ft)
 - Subbasin -0.7
 - Western Upper -0.3
 - Western Lower -0.5
 - Eastern -0.7

CHANGE IN STORAGE – WESTERN LOWER PRINCIPAL AQUIFER

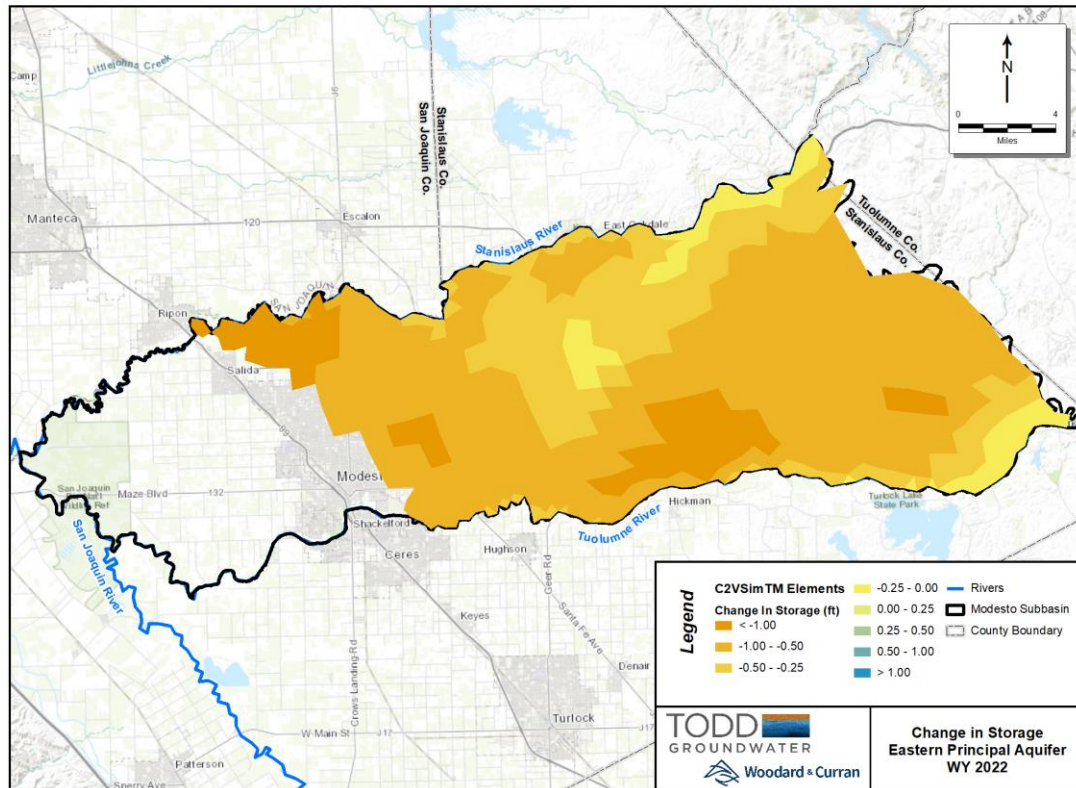


Water Year 2022

- Change in Storage (AF)
 - Subbasin -172,300
 - Western Upper -20,800
 - Western Lower -27,300
 - Eastern -124,200

- Change in Storage (ft)
 - Subbasin -0.7
 - Western Upper -0.3
 - Western Lower -0.5
 - Eastern -0.7

CHANGE IN STORAGE – EASTERN PRINCIPAL AQUIFER



Water Year 2022

- Change in Storage (AF)
 - Subbasin -172,300
 - Western Upper -20,800
 - Western Lower -27,300
 - Eastern -124,200

- Change in Storage (ft)
 - Subbasin -0.7
 - Western Upper -0.3
 - Western Lower -0.5
 - Eastern -0.7

HYDROGRAPHS

- Updated over 80 hydrographs for representative monitoring wells (RMWs)
- Included as Appendix A in the Annual Report
- WY 2021 was critically dry; dry conditions persisted in WY 2022
- In WY 2022, most water levels were at or above minimum thresholds (MTs).

SPRING 2022 MONITORING EVENT

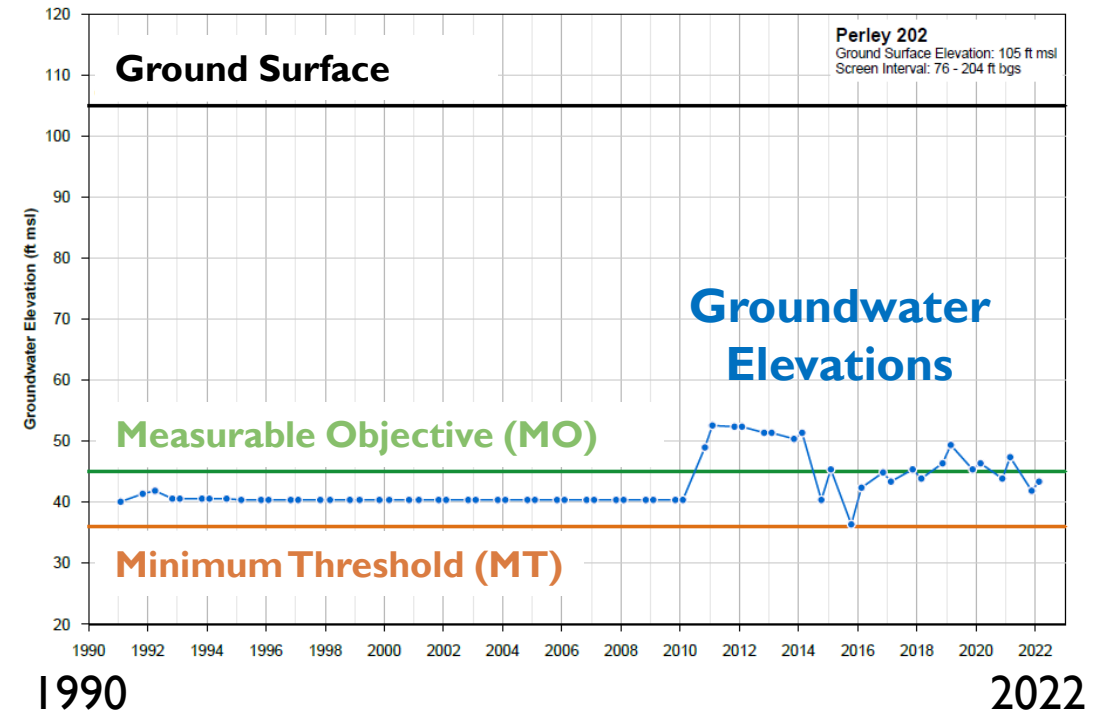
- Spring 2022 - 1st GSP monitoring event
- Measured groundwater elevations in 58 representative monitoring wells (RMWs)
- Most water levels measured February 2022
- 4 USGS Wells measured for first time in >10 years thanks to access agreement
- 3 RMWs not measured due to casing obstructions (Wood, Cavil, Quesenberry)
- Updated hydrographs through Spring 2022 to compare water levels to sustainable management criteria



MW-8 installed 2021

SPRING 2022 – MINIMUM THRESHOLDS (MTs)

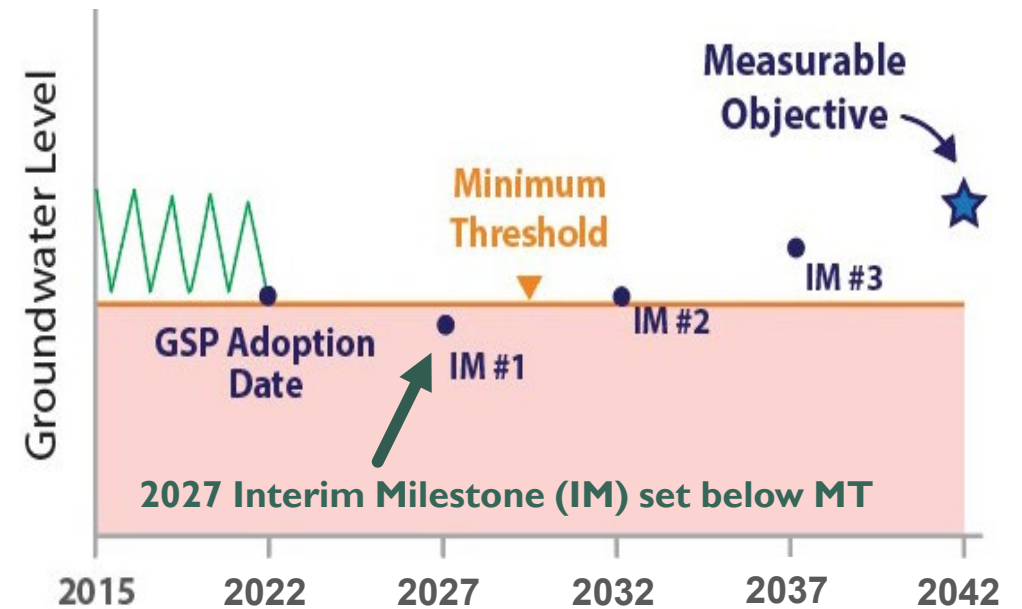
- **Chronic Lowering of Water Levels**
 - Above MT: 47 wells
 - Below MT: 11 wells
 - 19% of measured RMWs below the MT (3 wells not measured)
- **Interconnected Surface Water**
 - Above MT: 16 wells
 - Below MT: 3 wells
 - 16% RMWs below MT (1 well not measured)



INTERIM MILESTONES (IMs) FOR MODESTO RMWs

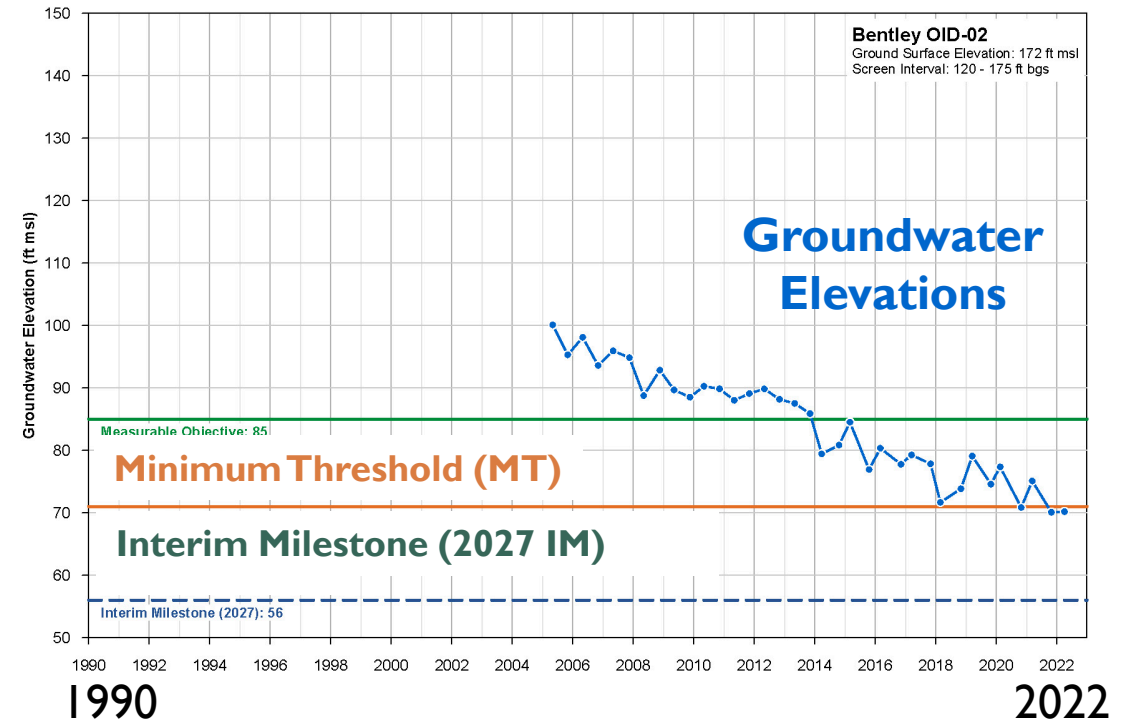
- MT Exceedances were anticipated;
 - Dry conditions continued through WY 2022
 - Water levels continue to decline in eastern RMWs
- Projects and Management Actions will take time to support MT water levels
- Significant declining trends were expected to continue
- Accordingly, 2027 IMs designated below the MTs for some wells

SGMA allows GSAs to define *Interim Milestones* as a “glide path” to sustainable management



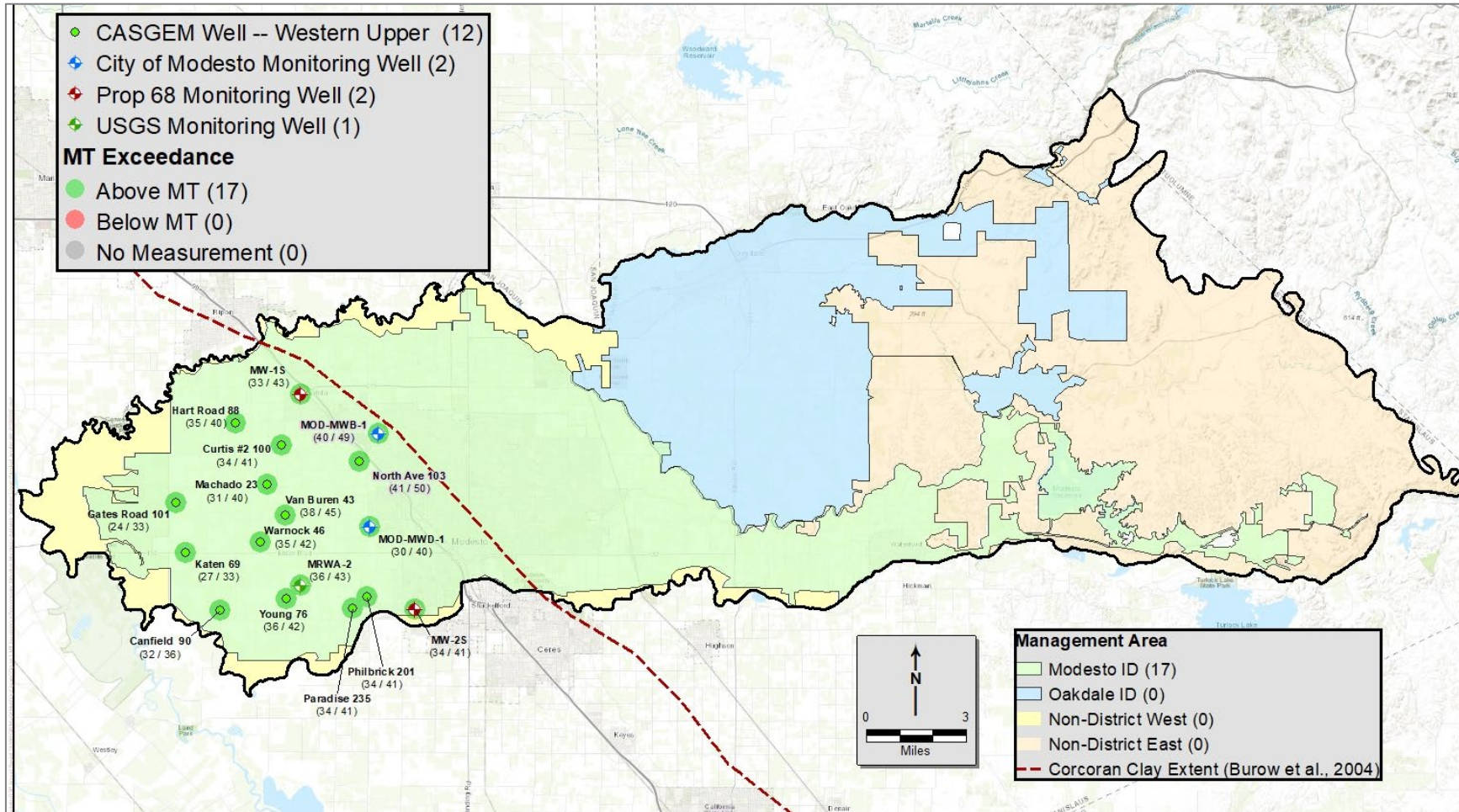
SPRING 2022 – NO IM EXCEEDANCES

- **Chronic Lowering of Water Levels**
 - 14 wells with Interim Milestones (IMs)
 - No wells exceeded their IM during Spring 2022
- **Interconnected Surface Water**
 - 5 wells with Interim Milestones (IMs)
 - No wells exceeded their IM during Spring 2022



SPRING 2022

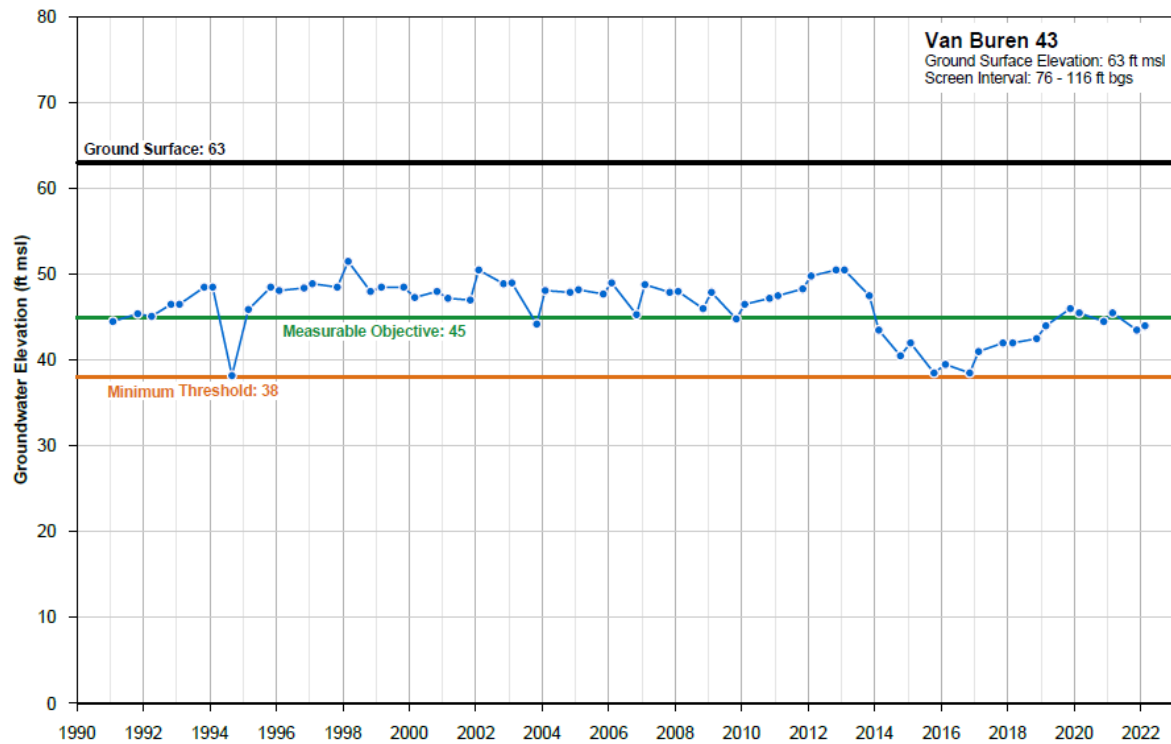
WESTERN UPPER PRINCIPAL AQUIFER



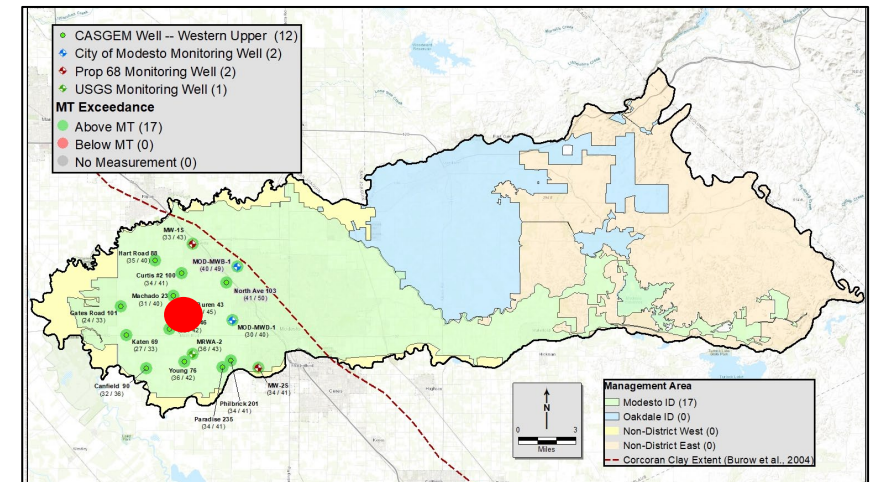
- No RMWs below MT
- No RMWs have IMs
- Groundwater levels stable

HYDROGRAPHS

WESTERN UPPER PRINCIPAL AQUIFER



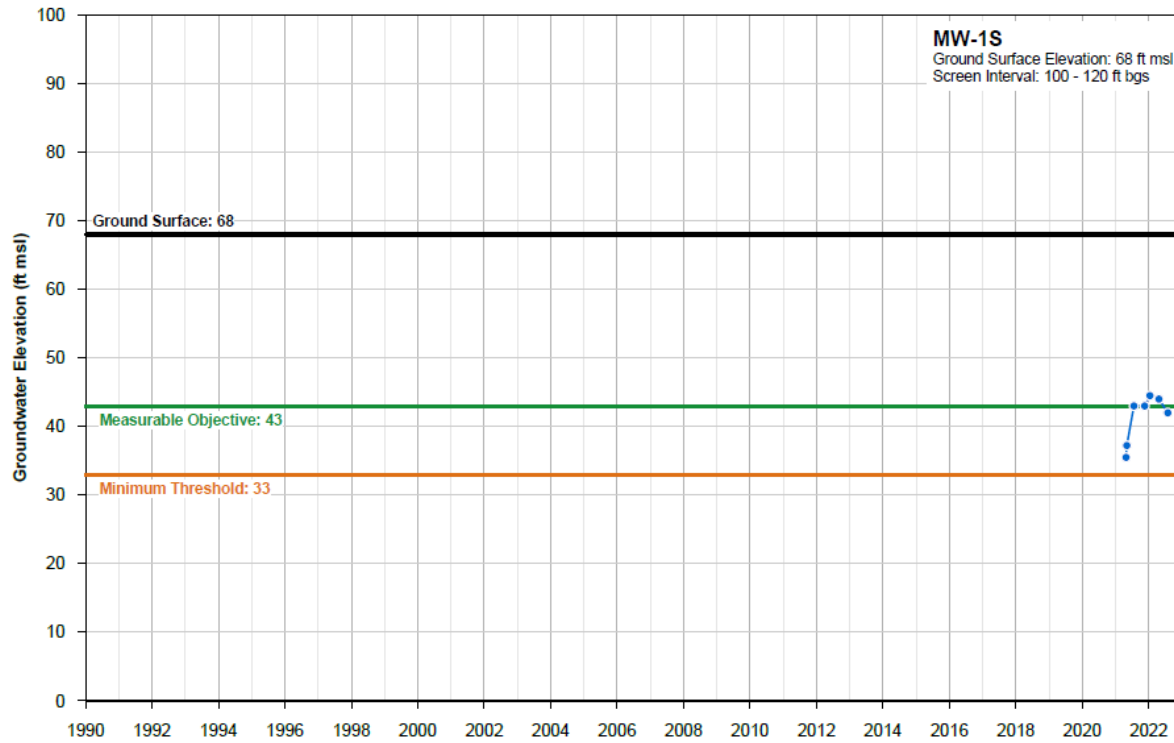
- Spring 2022 water level is near the MO
- Groundwater levels above MT since 2015-2016 drought levels



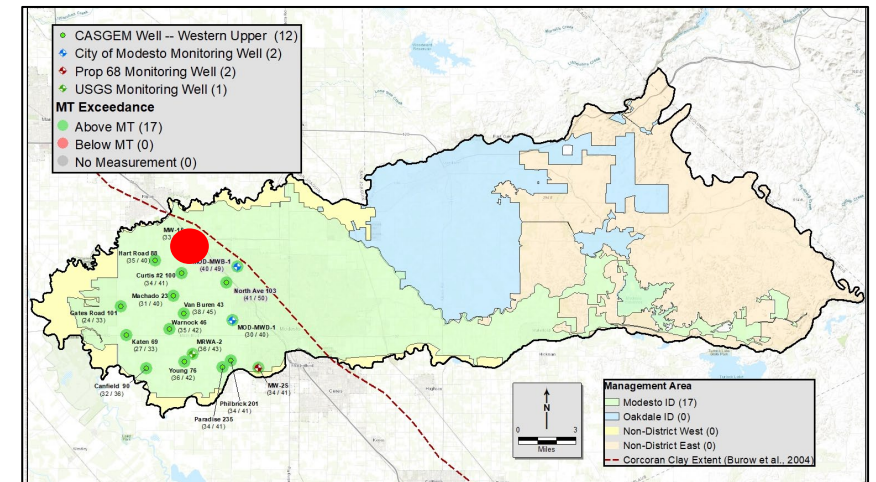
DRAFT

HYDROGRAPHS

WESTERN UPPER PRINCIPAL AQUIFER



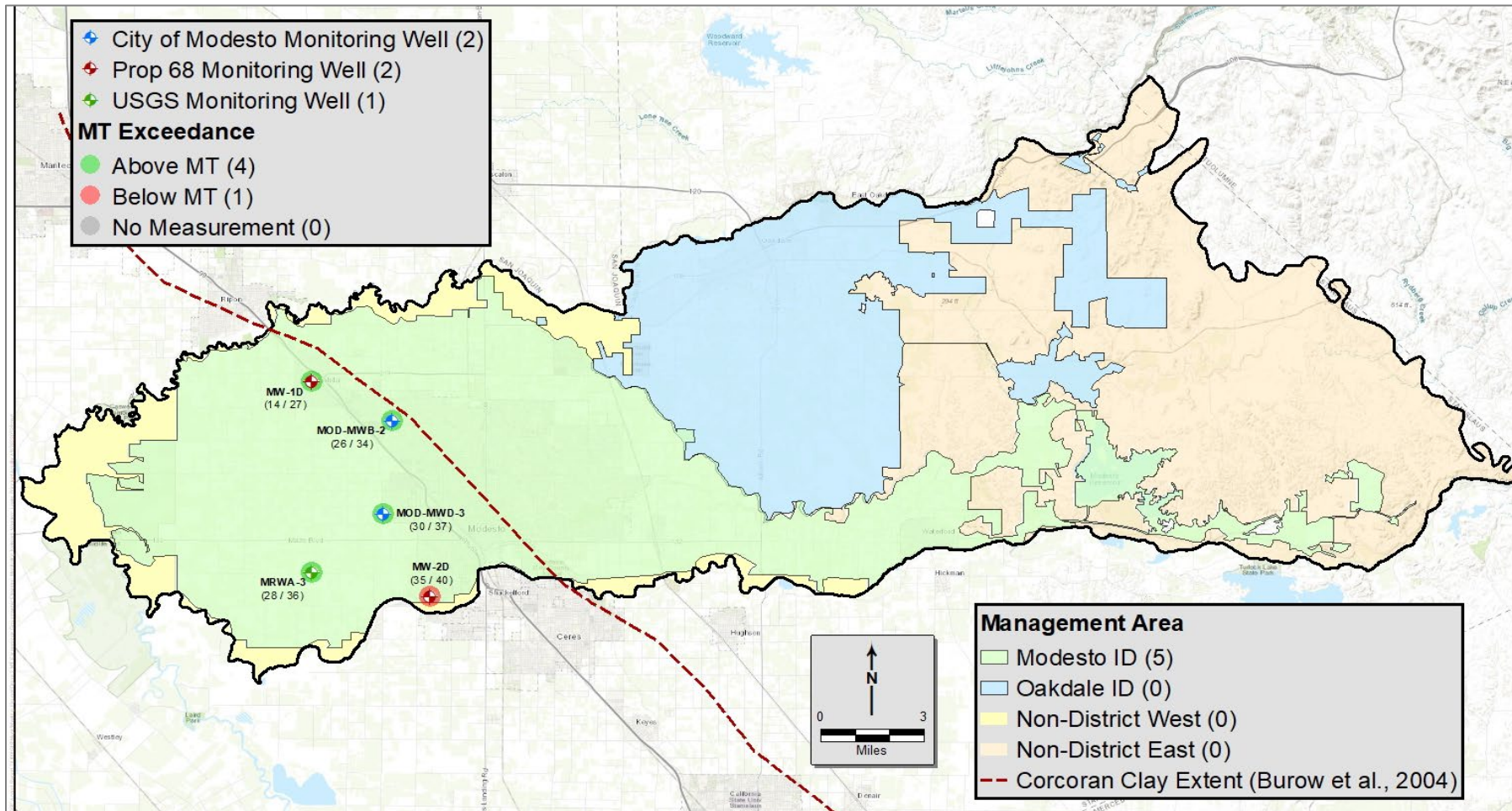
- Spring 2022 water level near the MO
- Water levels measured in new RMW since Spring 2021



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SPRING 2022

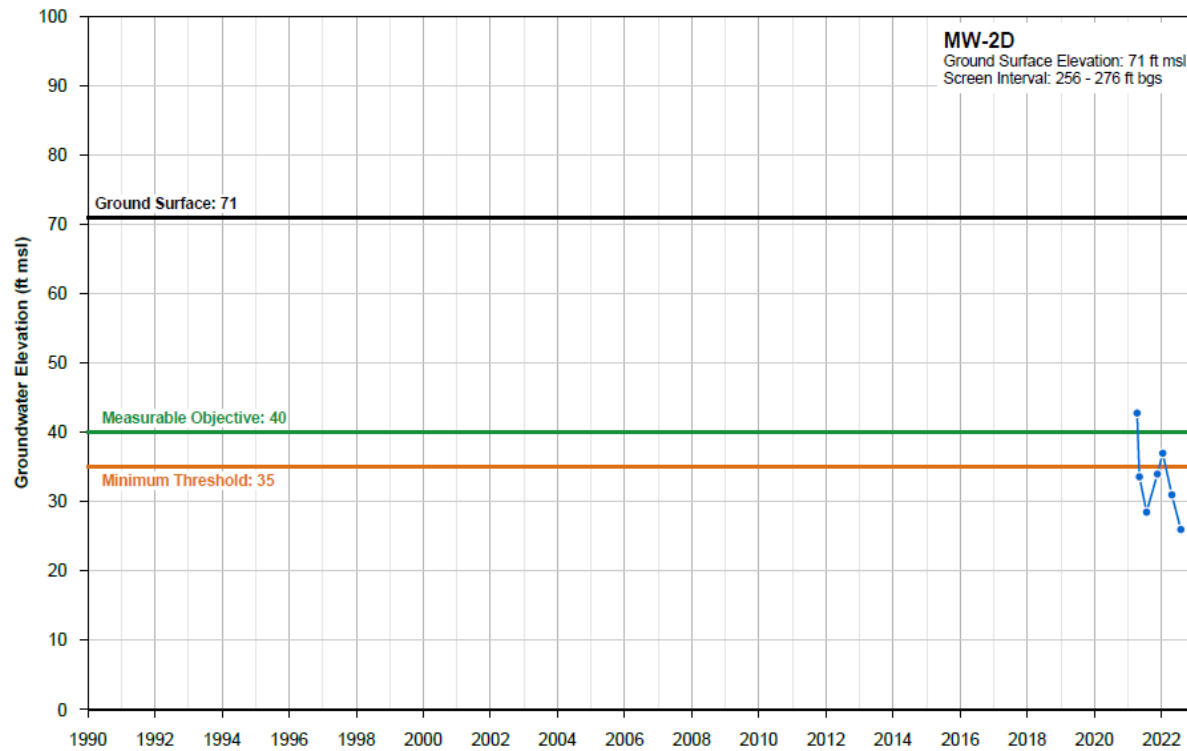
WESTERN LOWER PRINCIPAL AQUIFER



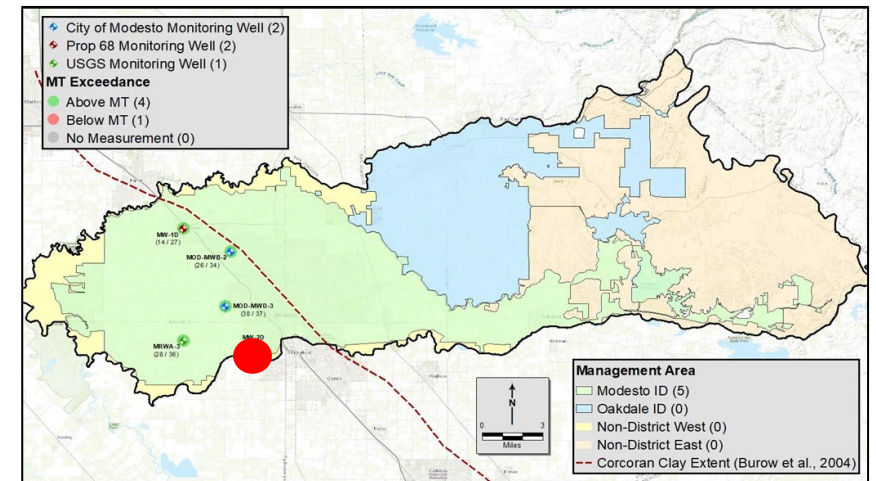
- 20% RMW's below MT
 - 4 wells > MT
 - 1 well < MT
- No RMW's have IMs

HYDROGRAPHS

WESTERN LOWER PRINCIPAL AQUIFER



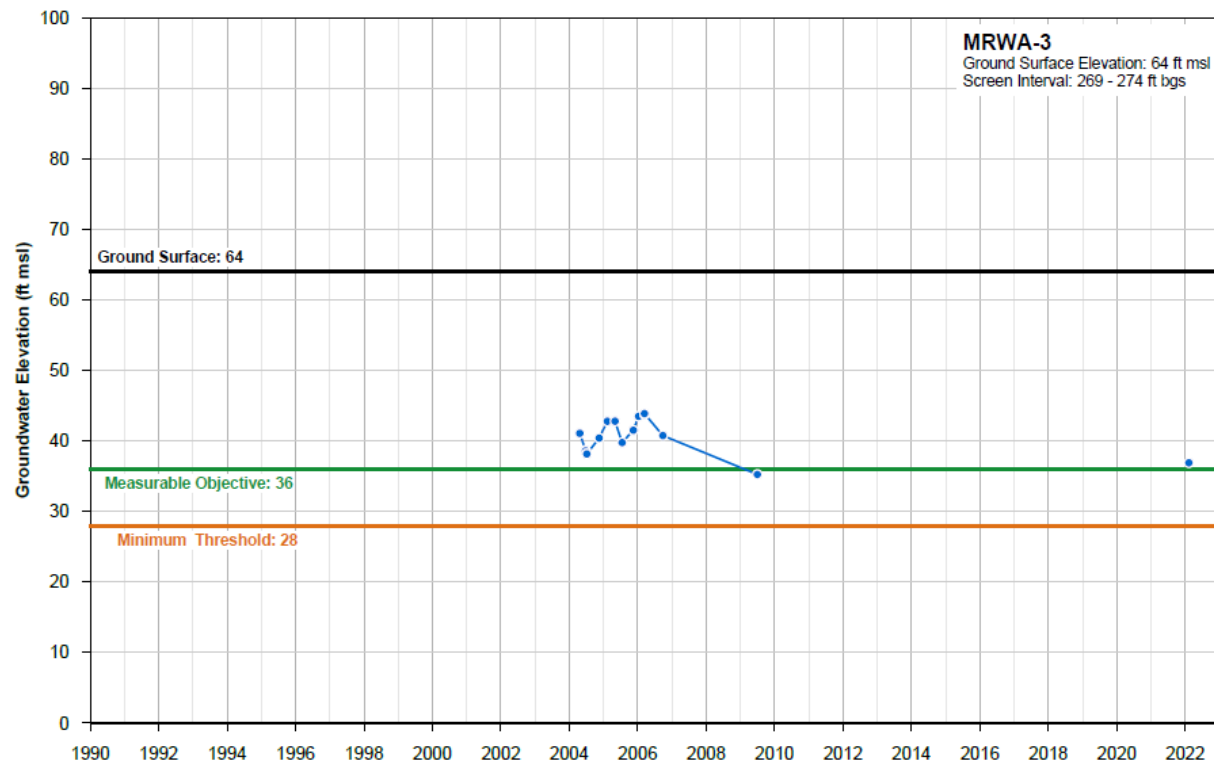
- Spring 2022 water level below the MT
- New RMW monitored since Spring 2021



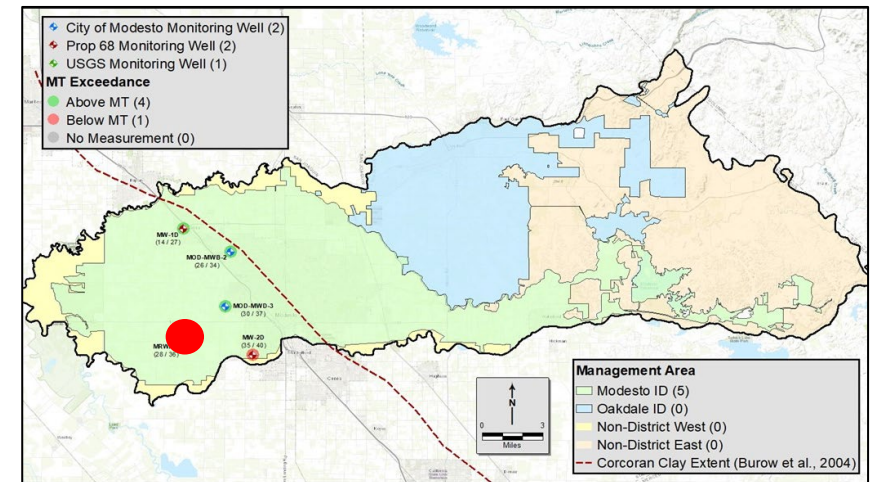
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HYDROGRAPHS

WESTERN LOWER PRINCIPAL AQUIFER

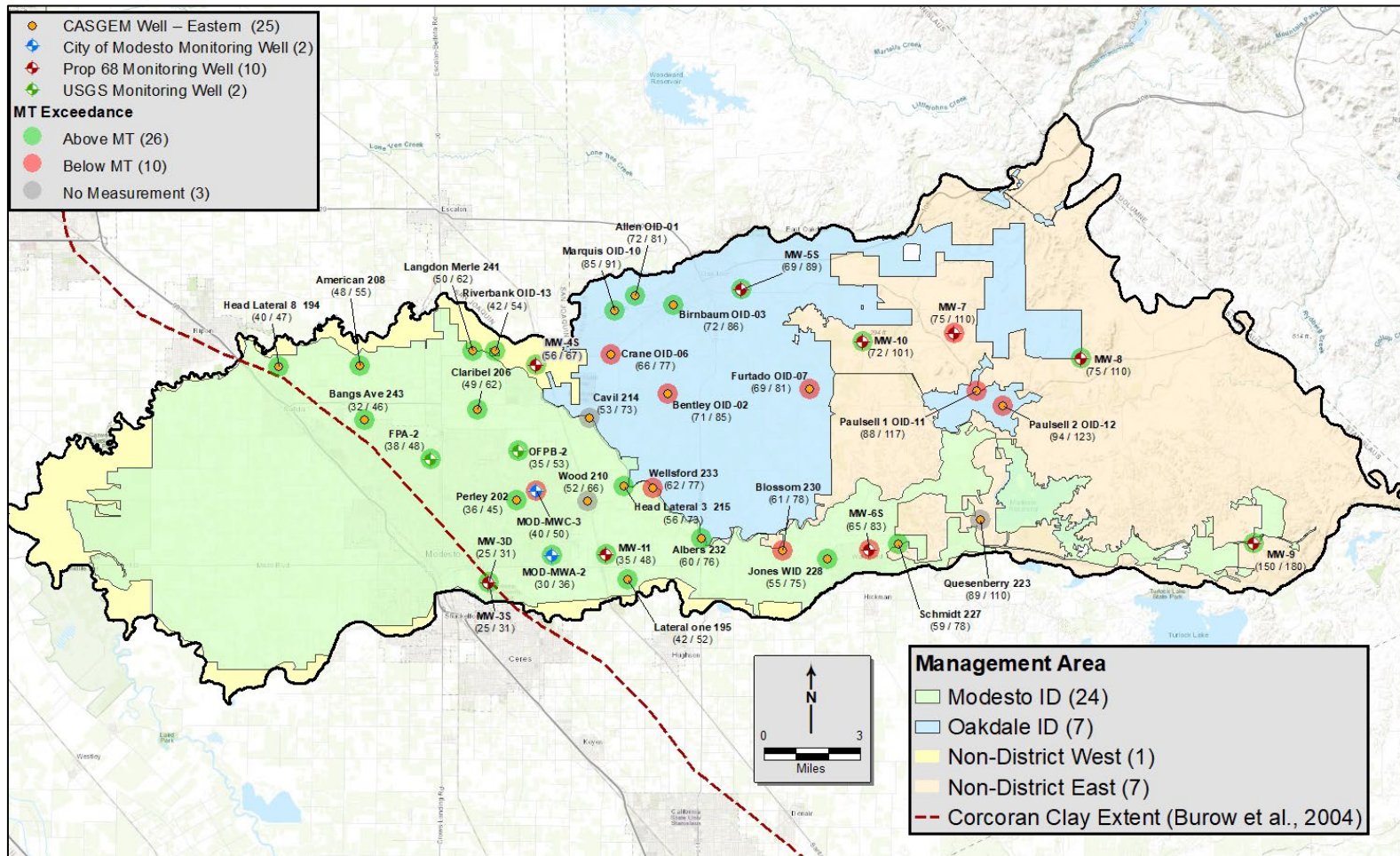


- Spring 2022 water level near the MO
- First measurement at this USGS well since 2009



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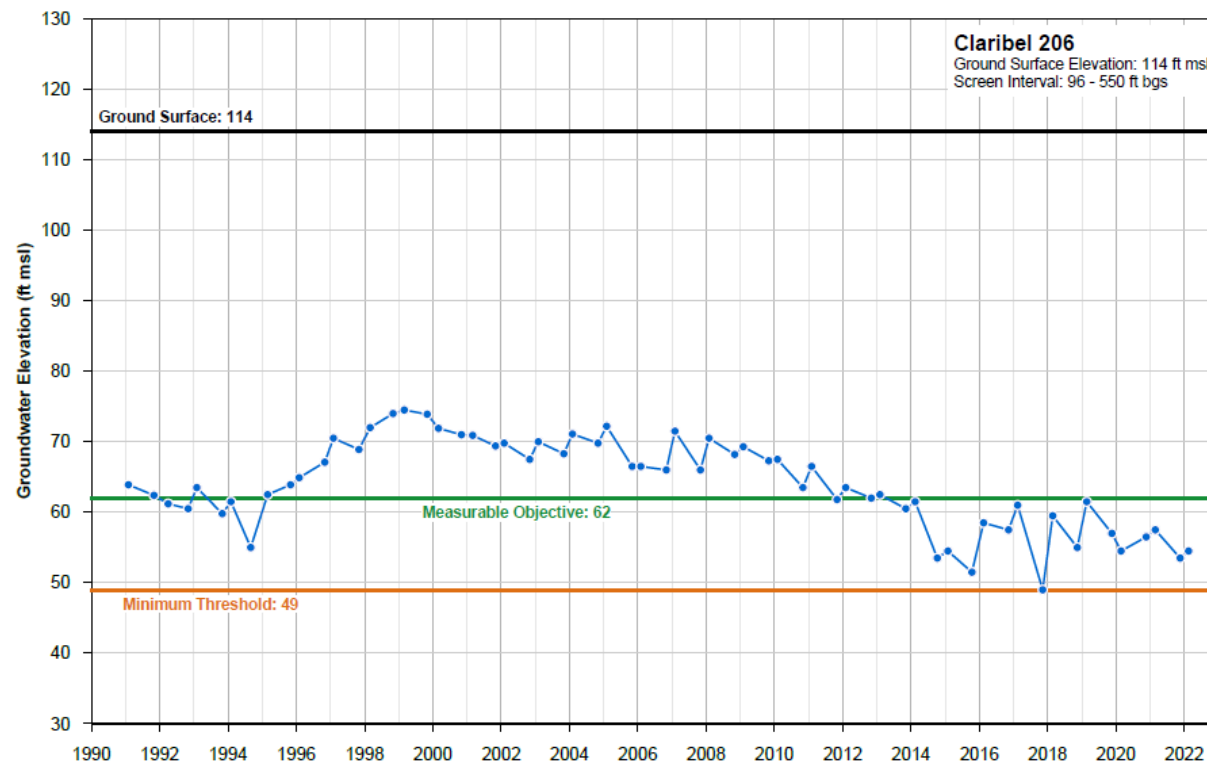
SPRING 2022 EASTERN PRINCIPAL AQUIFER



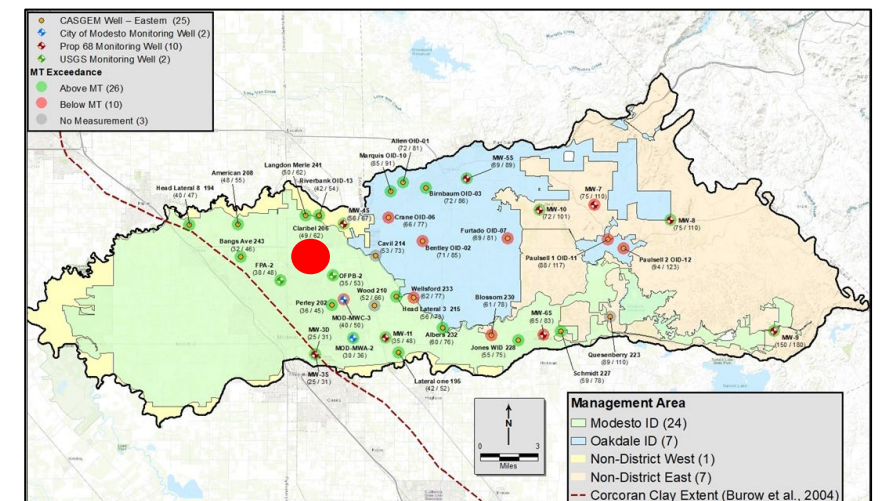
- 28% of RMWs below MT
 - 26 wells > MT
 - 10 wells < MT
 - 3 wells not monitored in Spring 2022
- 14 RMWs have IMs (all above)
- Water levels continue to decline in east

HYDROGRAPHS

EASTERN PRINCIPAL AQUIFER



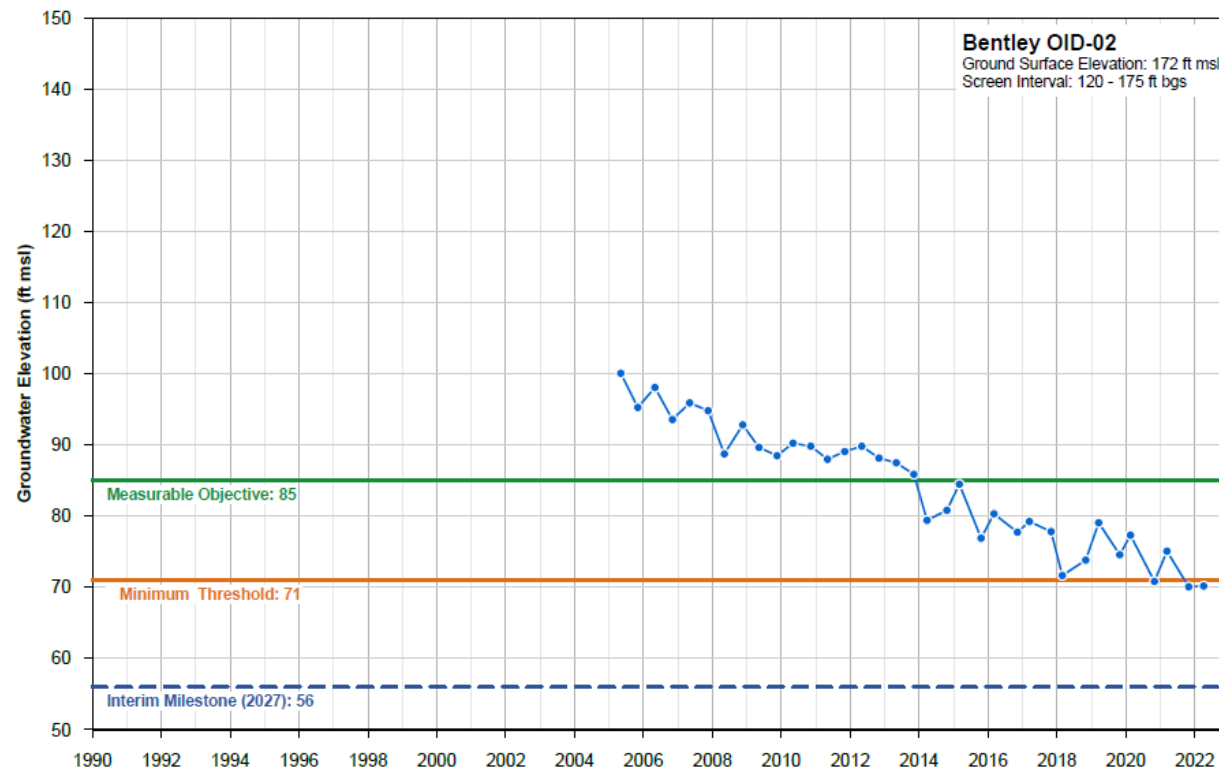
- Spring 2022 water level between MT and MO
- Most wells in western portion of Eastern Principal Aquifer have relatively stable levels since 2014



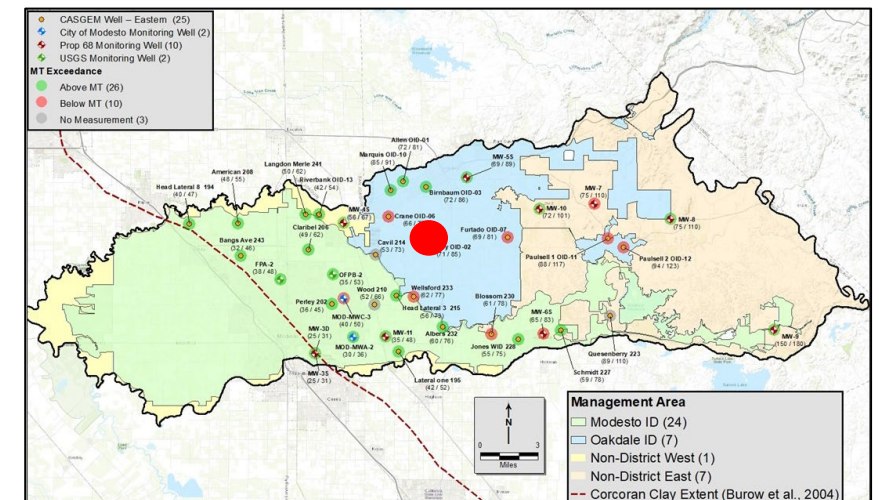
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HYDROGRAPHS

EASTERN PRINCIPAL AQUIFER



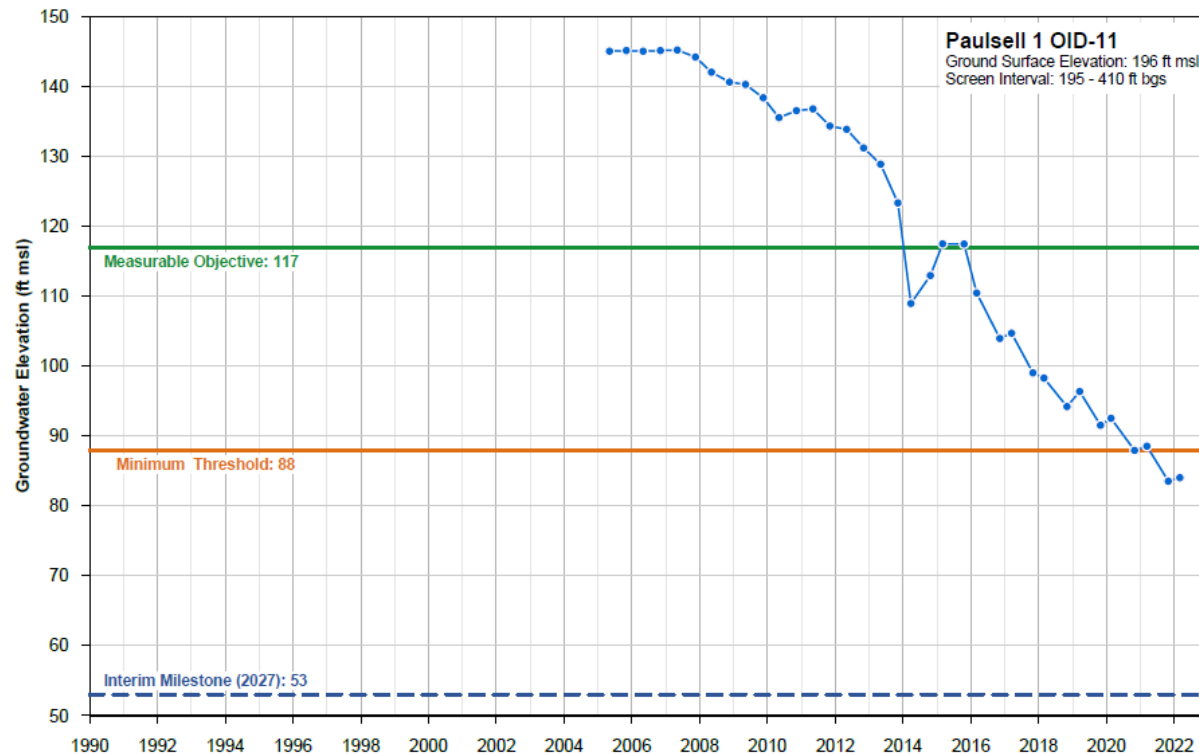
- Spring 2022 water level below the MT
- Decreasing water levels since first measurement in 2005
- Similar declines in nearby wells



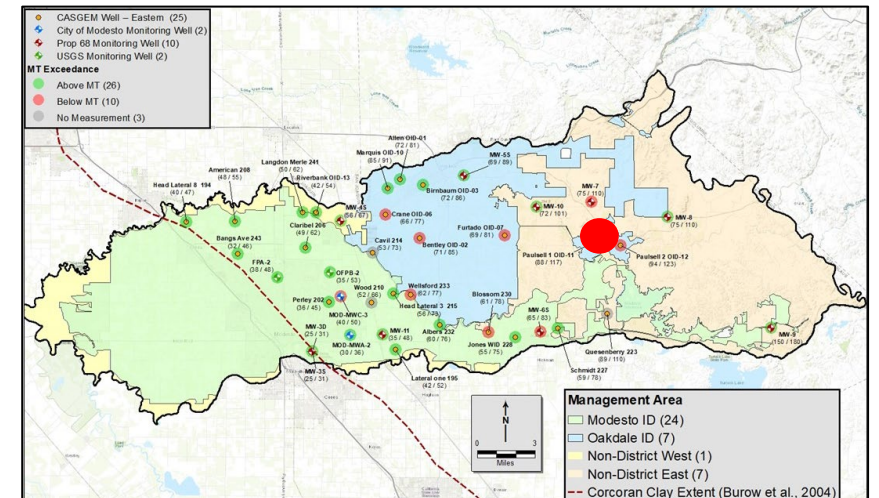
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HYDROGRAPHS

EASTERN PRINCIPAL AQUIFER



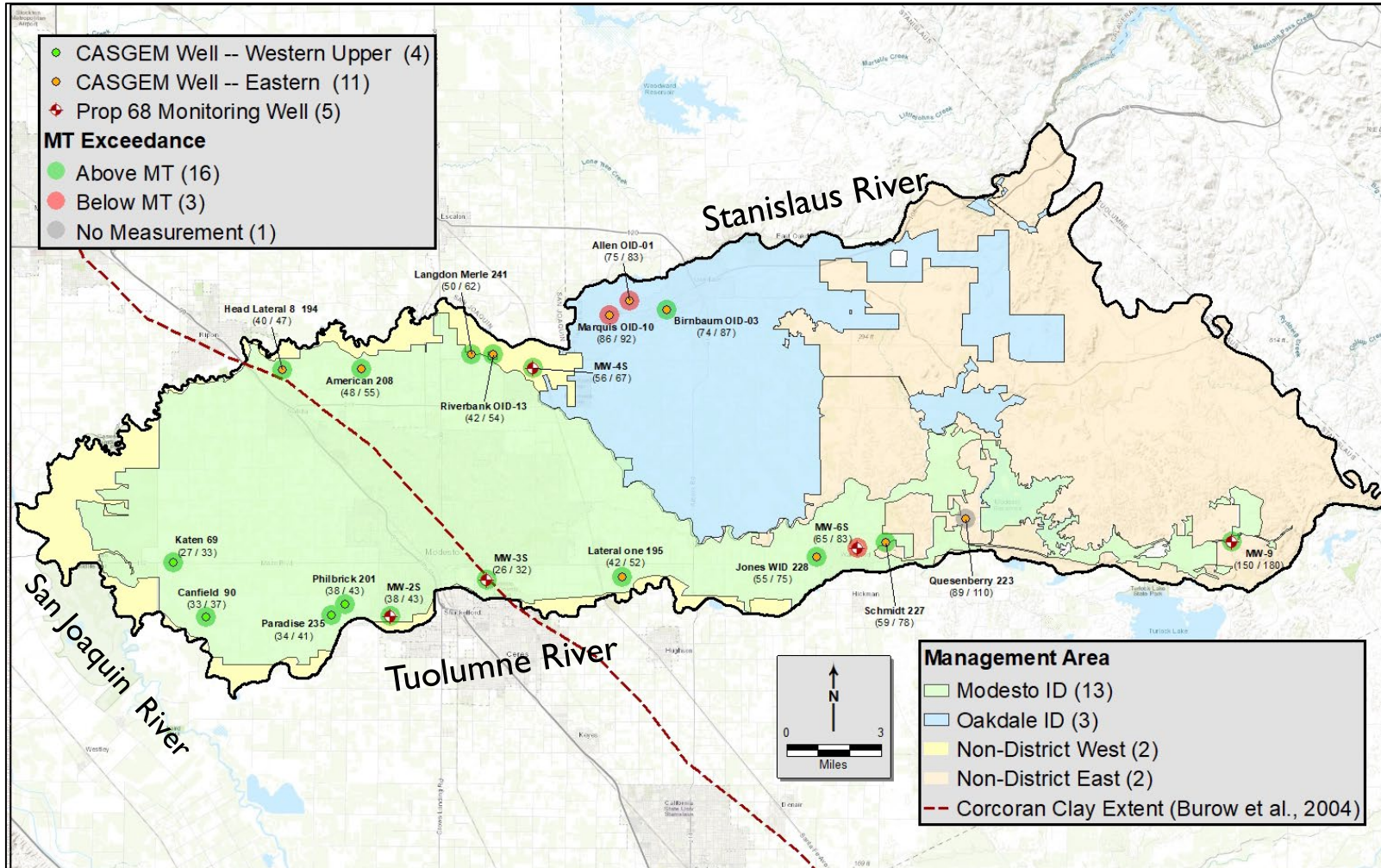
- Spring 2022 water level below the MT
- Eastern wells have highest rates of water level declines
- Declining water levels since 2008



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SPRING 2022

INTERCONNECTED SURFACE WATER



San Joaquin River

- 0 of 2 below MT (0% below MT)

Stanislaus River

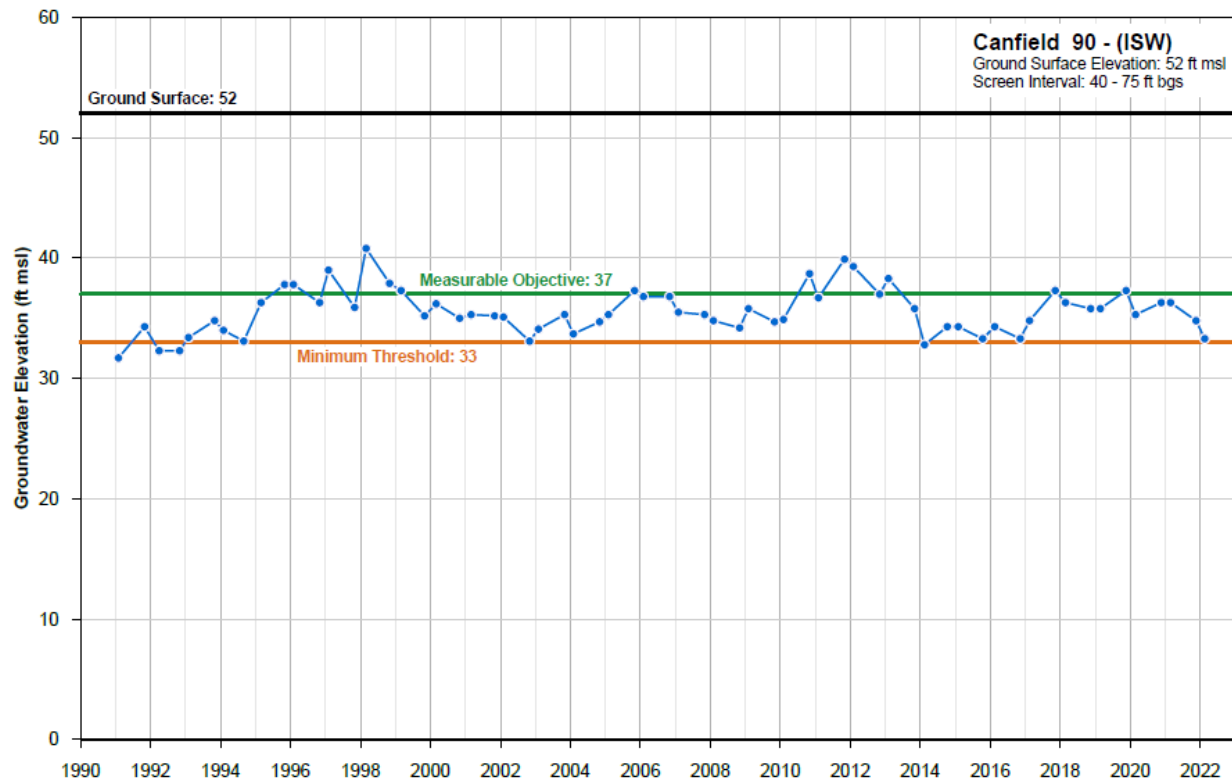
- 2 of 8 below MT (25% below MT)

Tuolumne River

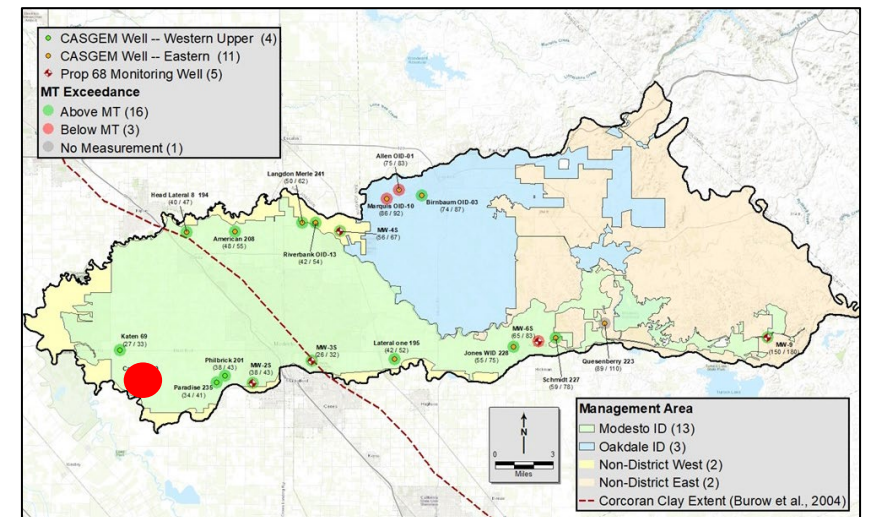
- 1 of 9 below MT (11% below MT)
- 1 not measured

HYDROGRAPHS

INTERCONNECTED SURFACE WATER



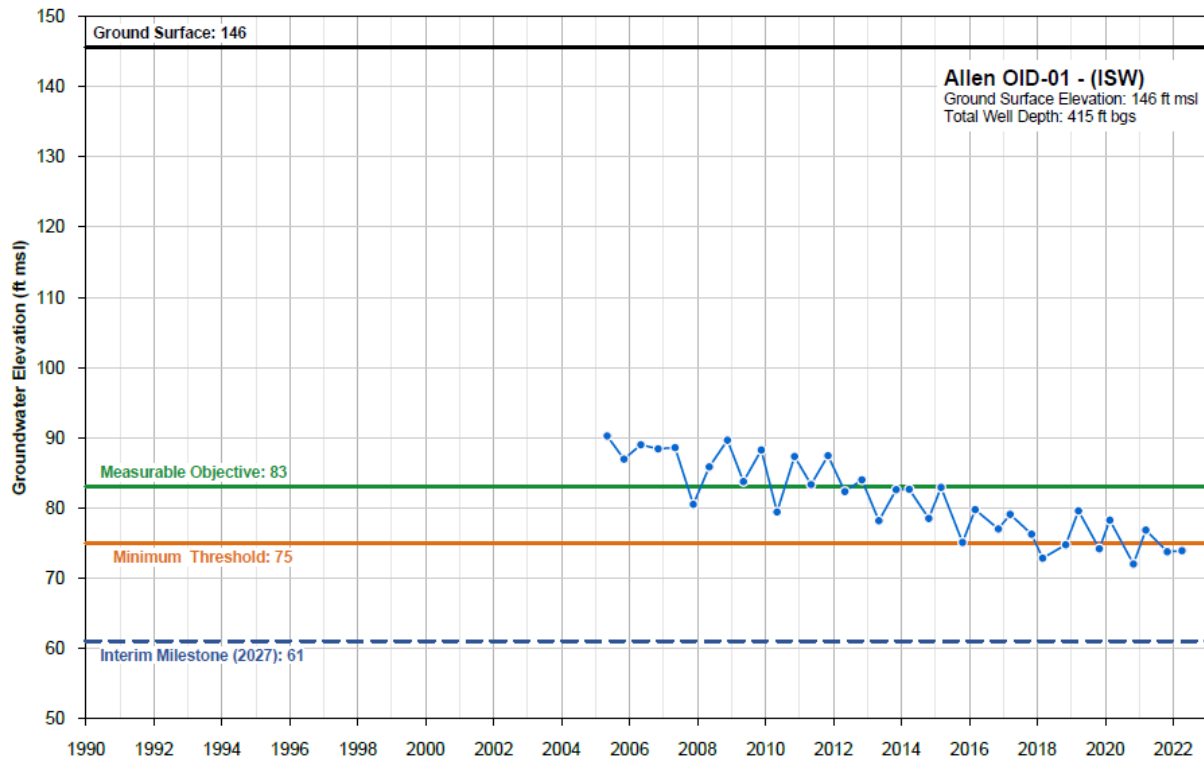
- Spring 2022 water level is slightly above MT
- Recent water level declines due to drought conditions



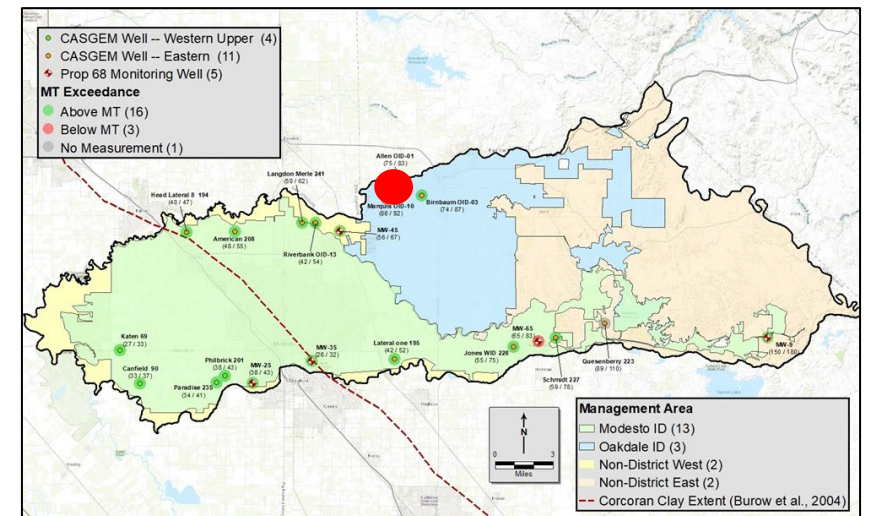
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HYDROGRAPHS

INTERCONNECTED SURFACE WATER



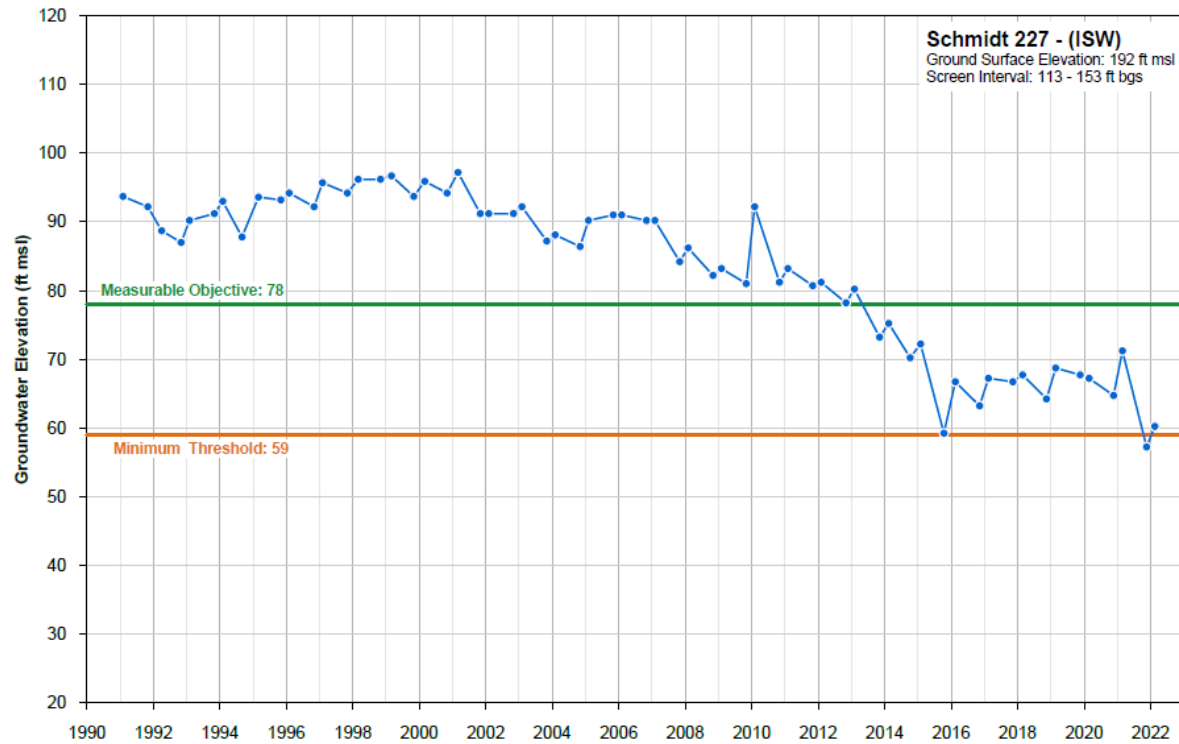
- Spring 2022 water level below the MT
- Spring 2022 levels didn't rise above Fall levels as much as had occurred in the past



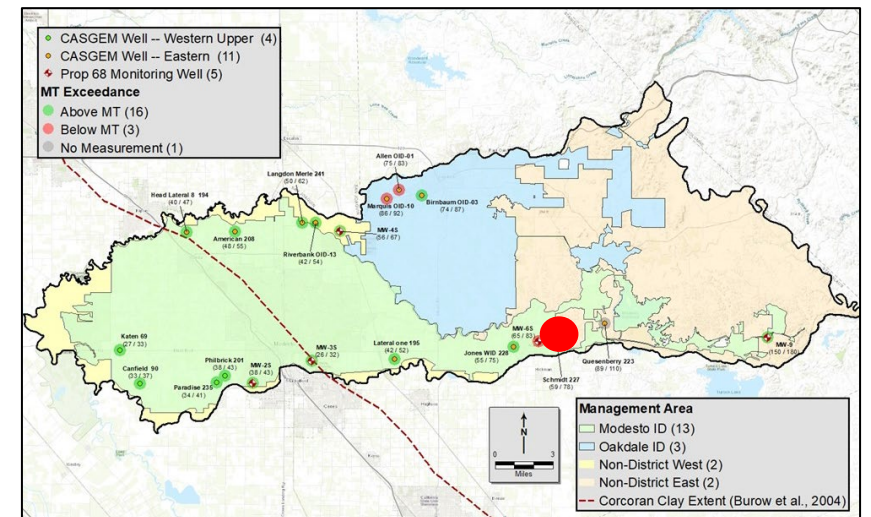
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HYDROGRAPHS

INTERCONNECTED SURFACE WATER



- Spring 2022 water level is slightly above MT
- Fall 2021 water level fell below the MT for the first time



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PUTTING THESE RESULTS IN PERSPECTIVE

- Spring 2022 was the first GSP monitoring event; projects and management actions will need time to be implemented
- Continuing declines from persistent drought conditions; MT exceedances are expected
- Even with drought, water levels above the MTs in 81% of the RMWs
- Undesirable results have not been triggered.
 - Requires 33% exceedances in 3 consecutive Fall events for Chronic Lowering of GW
 - Requires 33% to 50% exceedances in 3 consecutive Fall events for Interconnected SW
- No wells are below IMs

GROUNDWATER ELEVATION CONTOUR MAPS

4 new groundwater elevation contour maps based on data at RMWs and SGMA wells:

Fall 2021

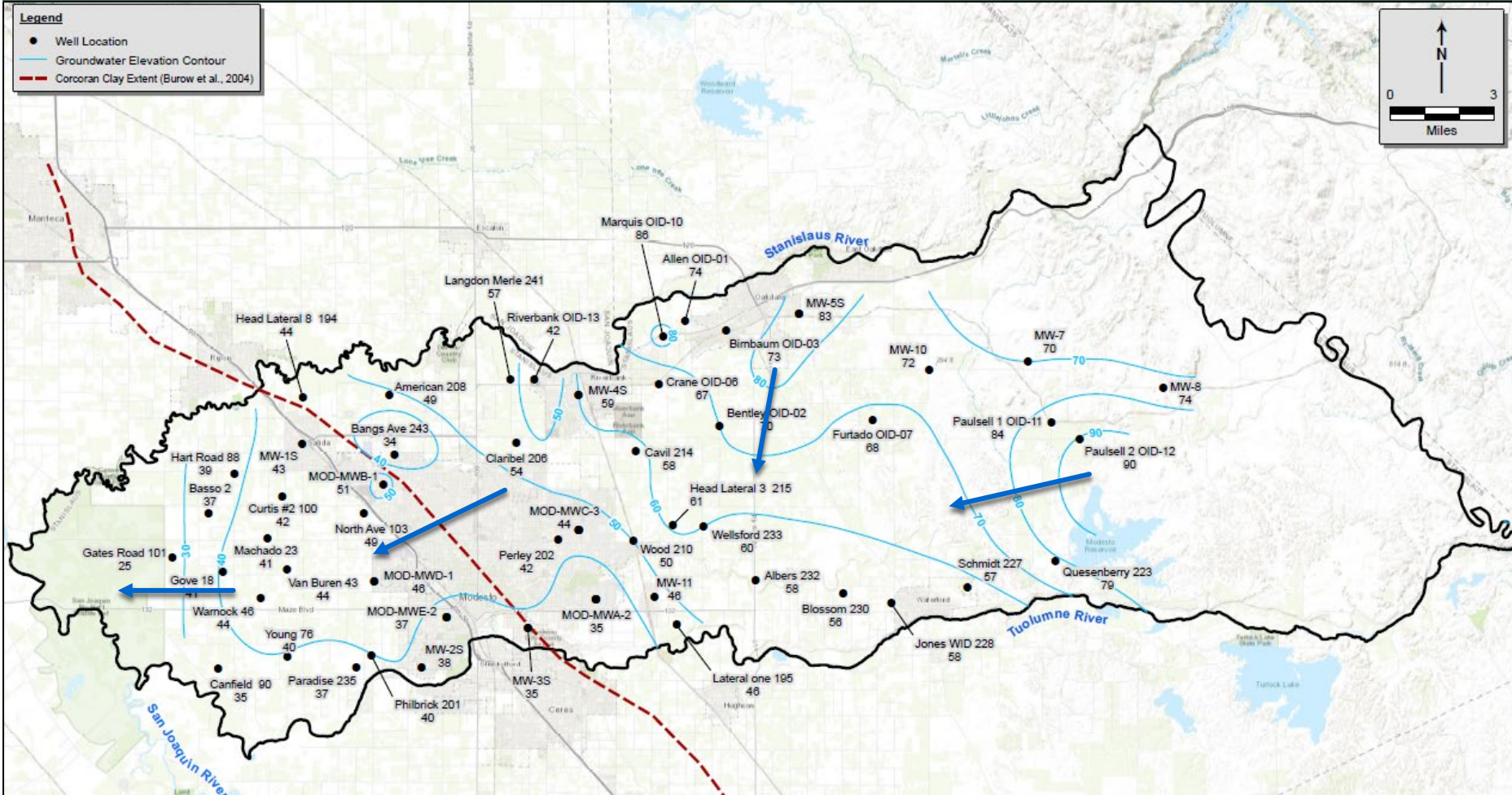
- Western Upper and Eastern Principal Aquifers
- Western Lower Principal Aquifer

Spring 2022

- Western Upper and Eastern Principal Aquifers
- Western Lower Principal Aquifer

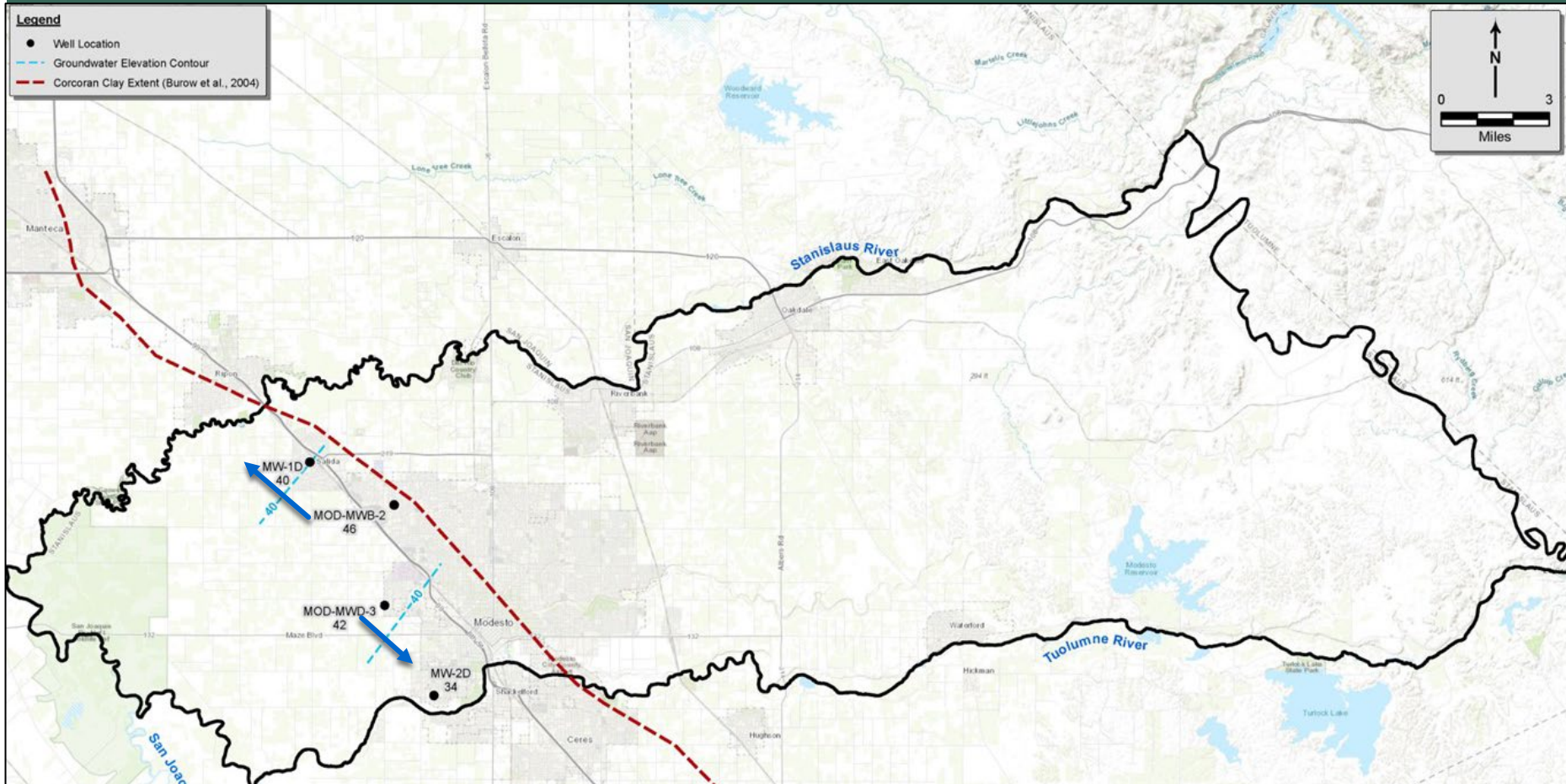
FALL 2021

WESTERN UPPER AND EASTERN PRINCIPAL AQUIFERS



- GWE ranges from 25 to 90 ft msl
- Flow is toward central Subbasin and then to the west-southwest
- Southerly flow towards the Tuolumne River in the central and western Subbasin
- Flatter gradients in the central and western Subbasin

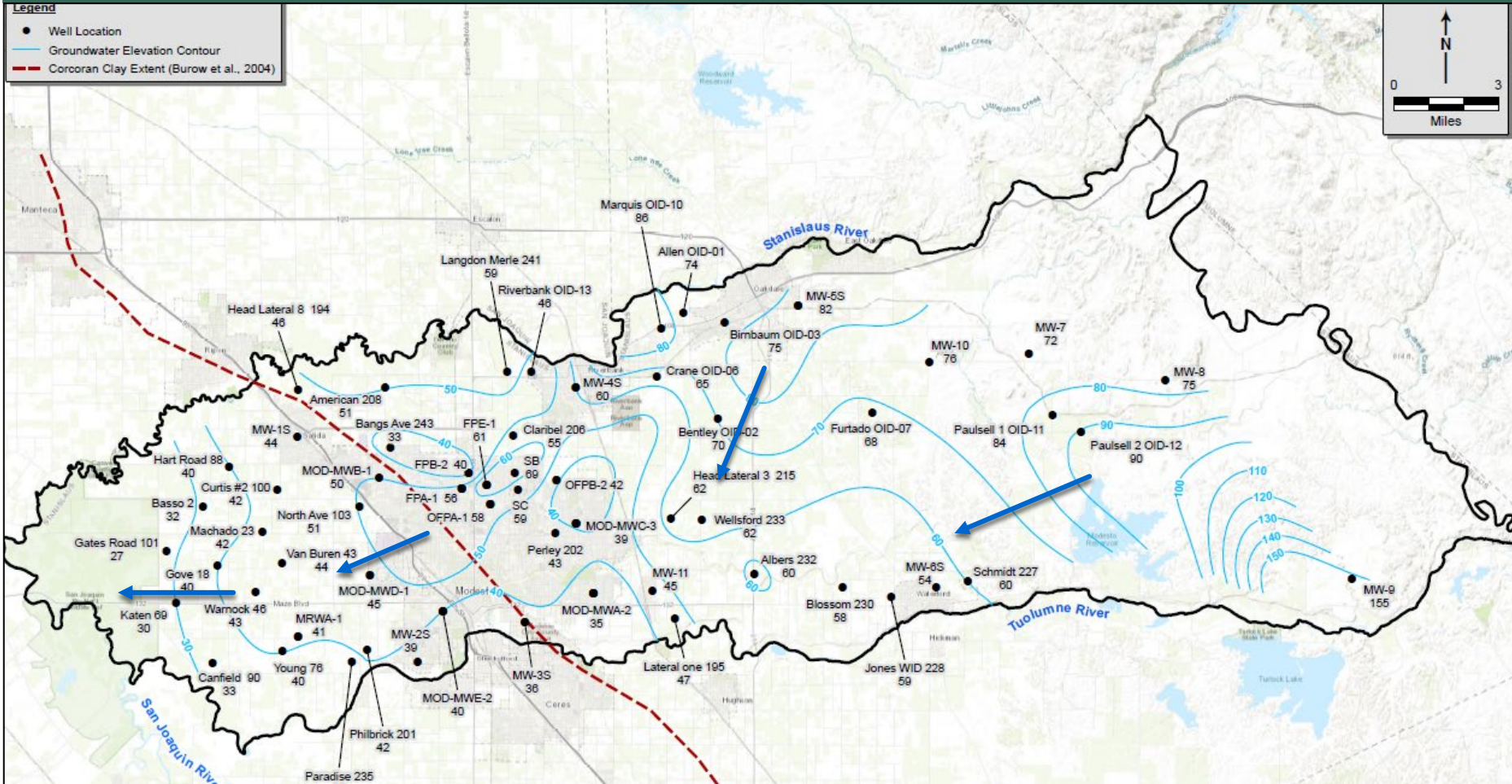
FALL 2021 WESTERN LOWER PRINCIPAL AQUIFER



- Data available in four wells
- Similar water levels and limited number of wells
- Based on limited data, groundwater flow toward the southeast and northwest

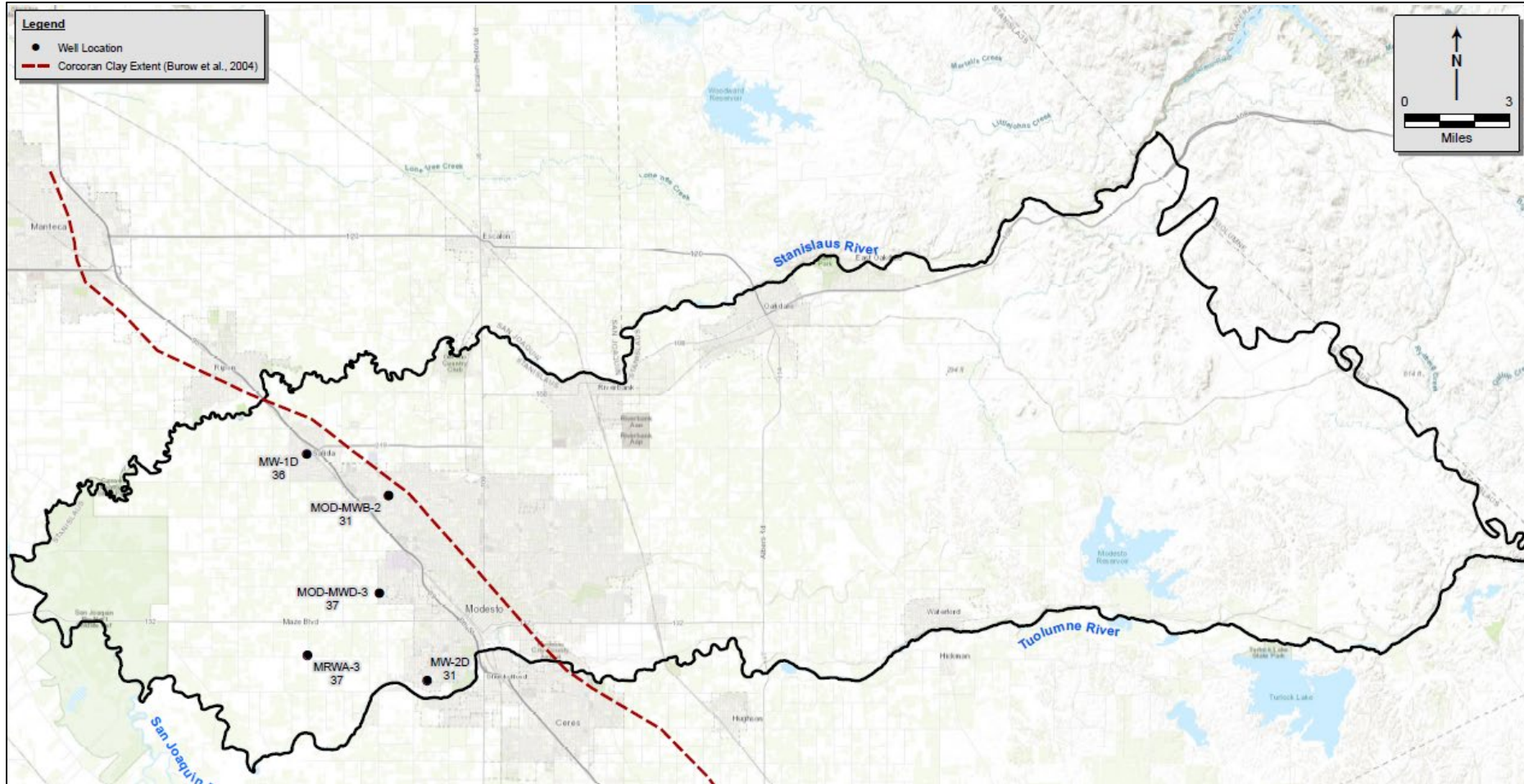
SPRING 2022

WESTERN UPPER AND EASTERN PRINCIPAL AQUIFERS



- Similar flow pattern as Fall 2021.
- Elevations ranged from 155 ft to 27 ft
- Groundwater elevations increased from Fall 2021 (average 0.8 feet).
- Highest increases (4 ft) occurred in eastern Subbasin (MW-10).
- Other increases observed along Stanislaus River and in Waterford

SPRING 2022 WESTERN LOWER PRINCIPAL AQUIFER



- Data available in five wells
- Data ranged from 31 to 37 ft msl
- No contours due to similar water levels and limited number of wells

WATER QUALITY UNDESIRABLE RESULTS



from the Modesto Subbasin GSP:

“An undesirable result will occur when a Subbasin potable water supply well in the defined monitoring network reports a new (first-time) exceedance of an MT or an increase in concentration above the MT for a Modesto Subbasin constituent of concern that results in increased operational costs and is caused by GSA management activities as listed above.”

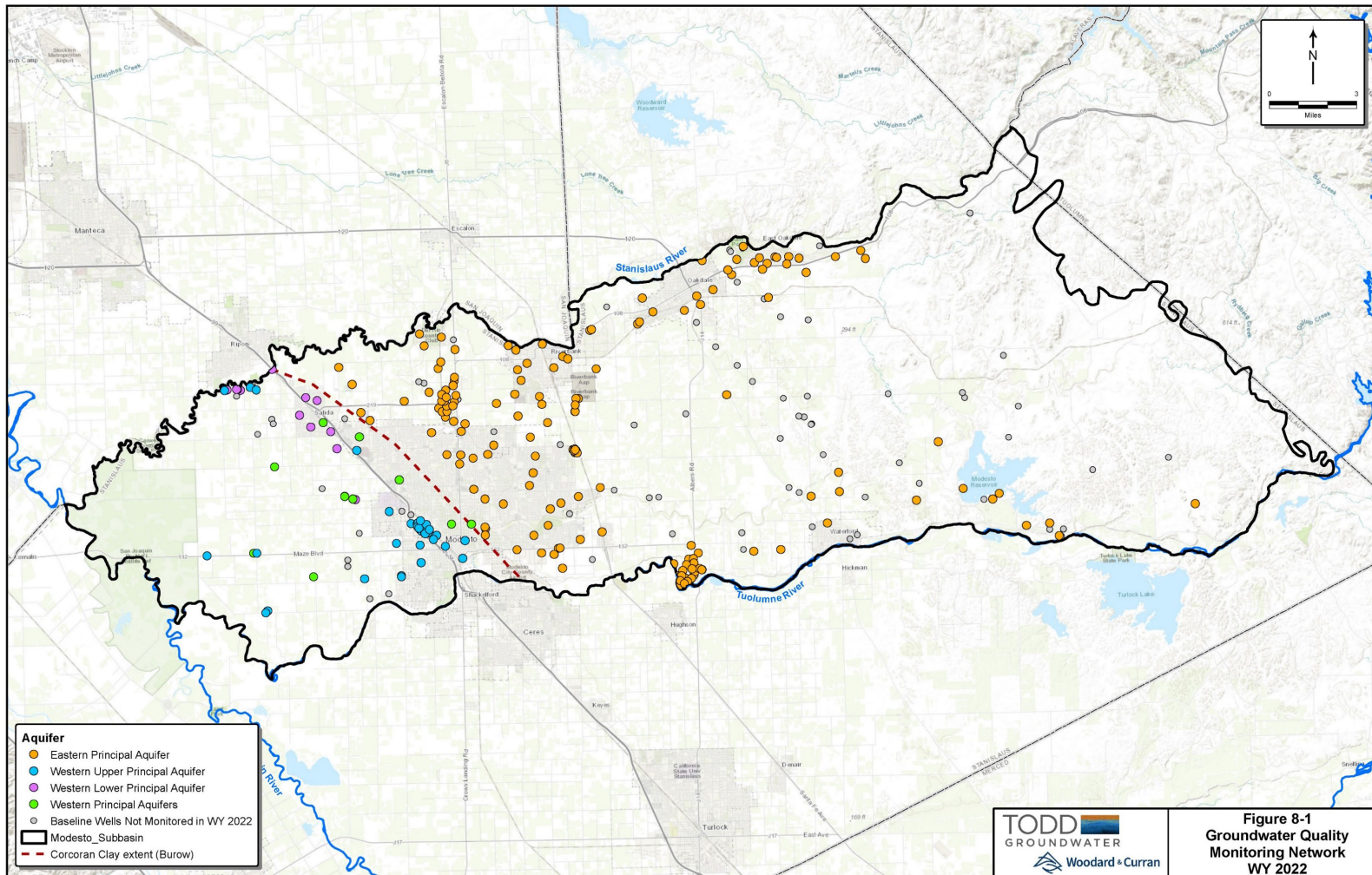
Baseline monitoring network established in WY 2021 Annual Report

- 361 wells
- 7 constituents of concern: As, NO₃, U, TDS, 1,2,3-TCP, PCE, and DBCP
- Identified maximum concentration from WY 1991 to WY 2021
- Compared data to baseline wells, which were monitored for each constituent of concern in WY 2021

WATER QUALITY ANALYSIS

- WY 2022 Water quality data downloaded from GAMA database (GeoTracker)
- Compared to the baseline to identify any new MCL exceedances or increases above the MCLs
- Wells individually examined to determine if increased concentrations could be related to GSA management
- 7 maps for 7 constituents – wells with data in each principal aquifer during WY 2022

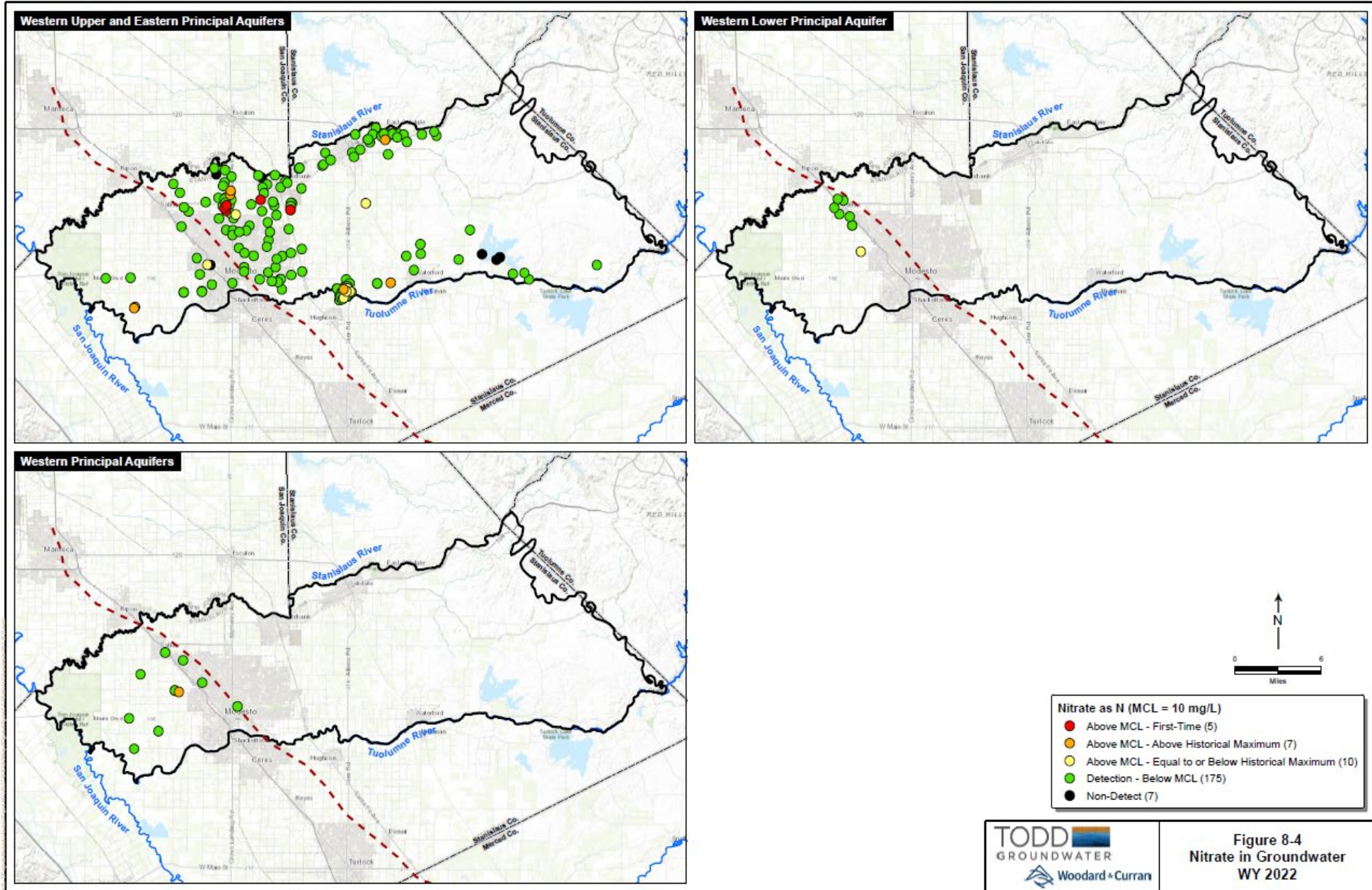
WATER QUALITY ANALYSIS



- 274 wells in WY 2022 monitoring network
 - 160 municipal
 - 18 domestic
 - 96 monitoring wells at regulated facilities (87 baseline wells not monitored during WY 2022)

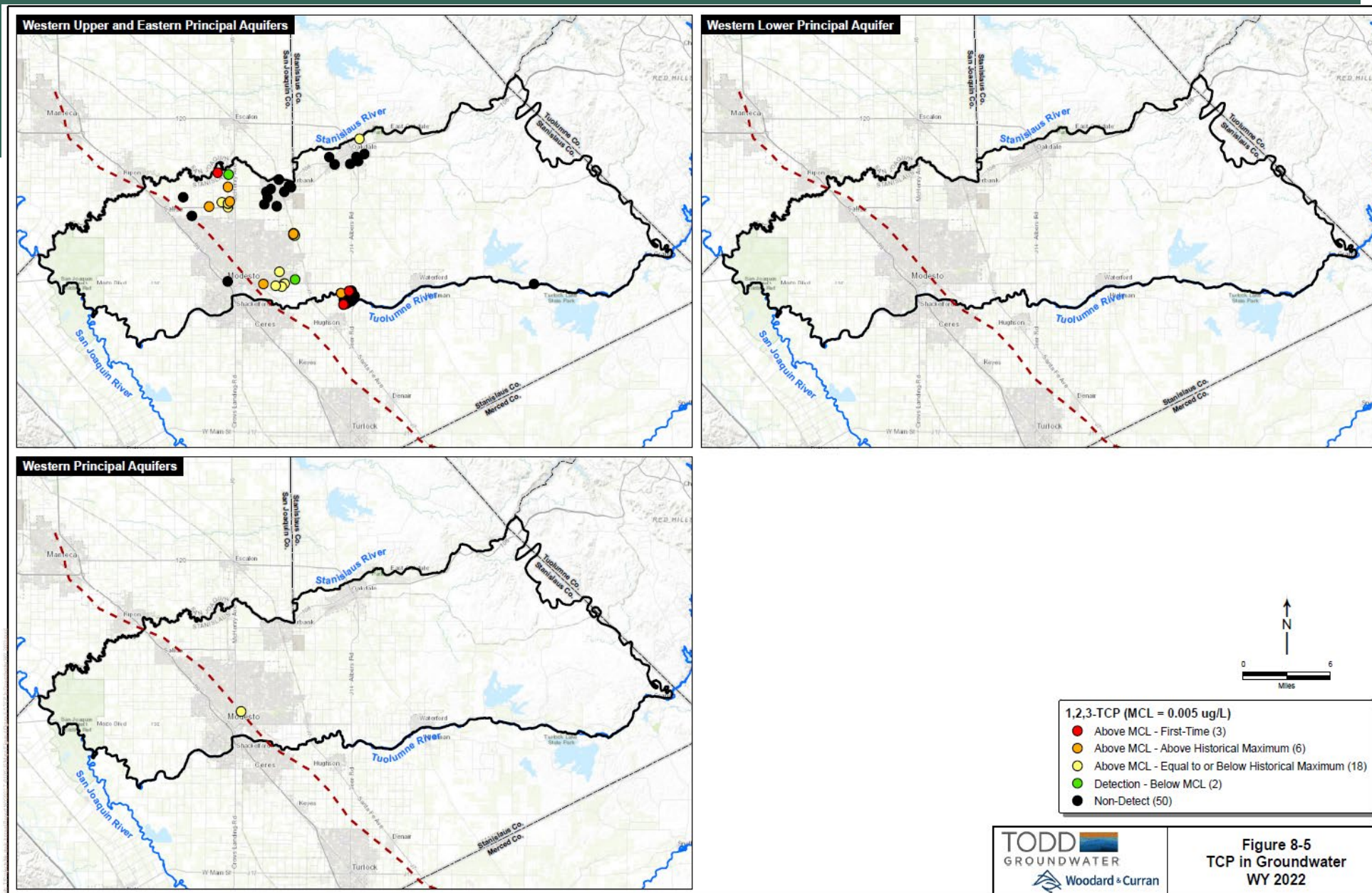
NITRATE

- Nitrate measured in 204 RMWs during WY 2022
- 5 potable water supply wells reported first-time MCL exceedances
- 6 potable water supply wells reported further MCL exceedances
- 9 of these wells had increasing nitrate concentrations before GSP implementation

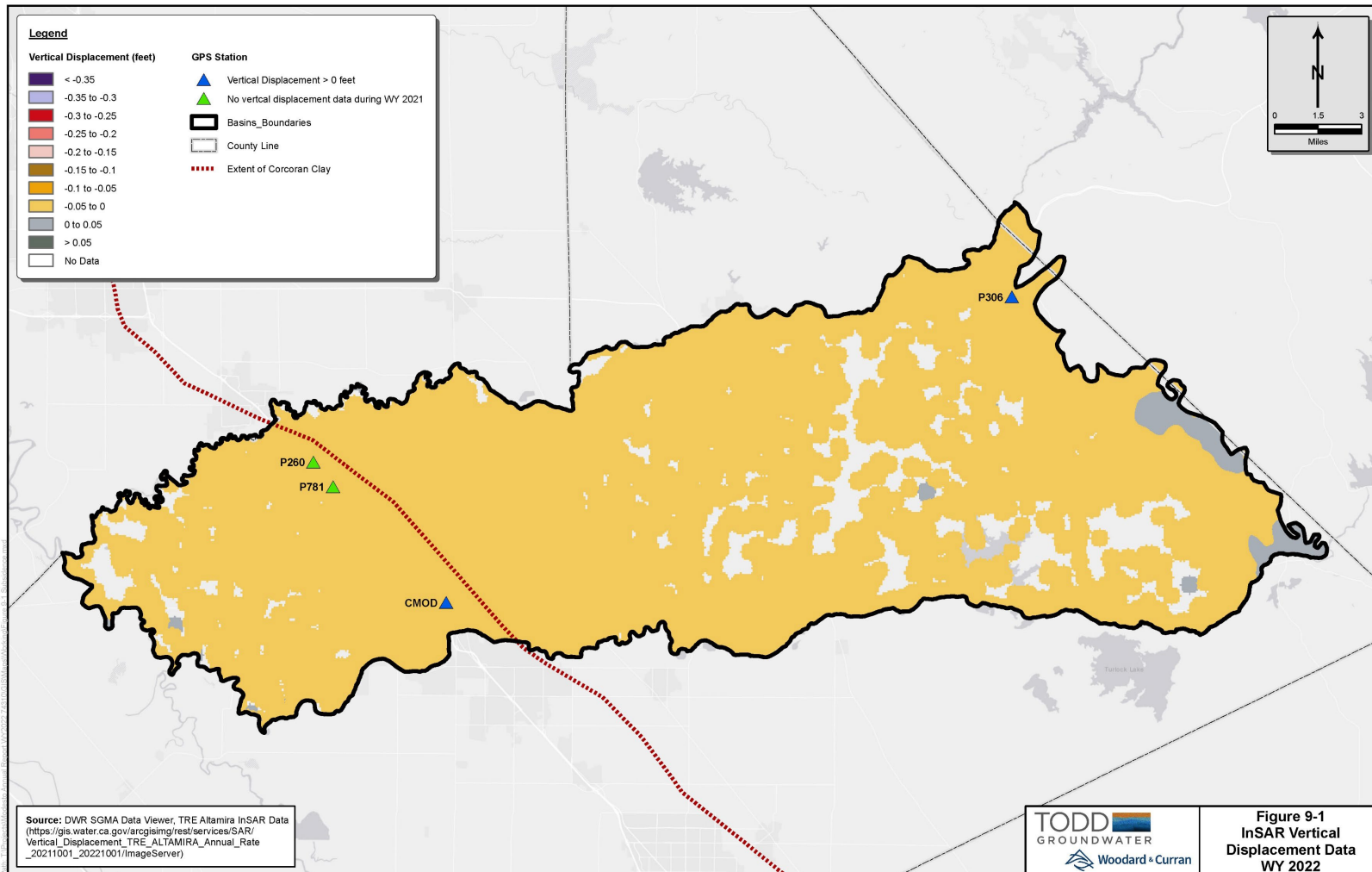


1,2,3 - TCP

- TCP measured in 79 RMWVs during WY 2022
- 1 potable water supply well reported first-time MCL exceedance
- 4 potable water supply wells reported further MCL exceedances
- Nearby water levels are above MTs and increasing TCP patterns suggest this is not due to GSA management



LAND SUBSIDENCE



- WY 2022 land subsidence based on DWR InSAR vertical displacement data
- Minor land subsidence indicated during WY 2022 throughout the Subbasin; all values less than 0.46 inches
- Consistent with historical rates

GSP IMPLEMENTATION PROGRESS

Since GSP submittal January 2022:

- GSP monitoring events Spring 2022 and Fall 2022
- Uploaded monitoring data to DWR SGMA portal
- Preparing the Second GSP Annual Report
- Public outreach has continued:
 - Regular STRGBA GSA meetings
 - Non-District East Landowner Event (January 2023) – 1 of 3 public meetings hosted by Stanislaus County
- November 2022 landowners formed Stanislaus East Mutual Water Company representing ~16,000 acres in the Non-District East Management Area (NDE MA)
- OID 10-year Out-of-District Water Sale Program Agreement was approved Feb. 7, 2023
- \$18.6M SGM Implementation Grant Application submitted to DWR in Dec. 2022 for the proposed OID Paulsell Lateral Expansion Project

MODESTO ANNUAL REPORT SCHEDULE

Red: Annual Report Deliverable Green: Planning Group Meeting Blue: GSA Meeting

- March 1: Draft Annual Report provided to GSA
- March 8: GSA meeting #1
- March 17: Comments due on Draft Annual Report
- March 20: TAC Planning Group meeting
- March 24: Final Annual Report to GSA
- March 29: GSA meeting #2
- April 1: Annual Report due to DWR

March							2023
Sun	Mon	Tue	Wed	Thu	Fri	Sat	
			1	2	3	4	
5	6	7	8	9	10	11	
12	13	14	15	16	17	18	
19	20	21	22	23	24	25	
26	27	28	29	30	31		

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QUESTIONS?