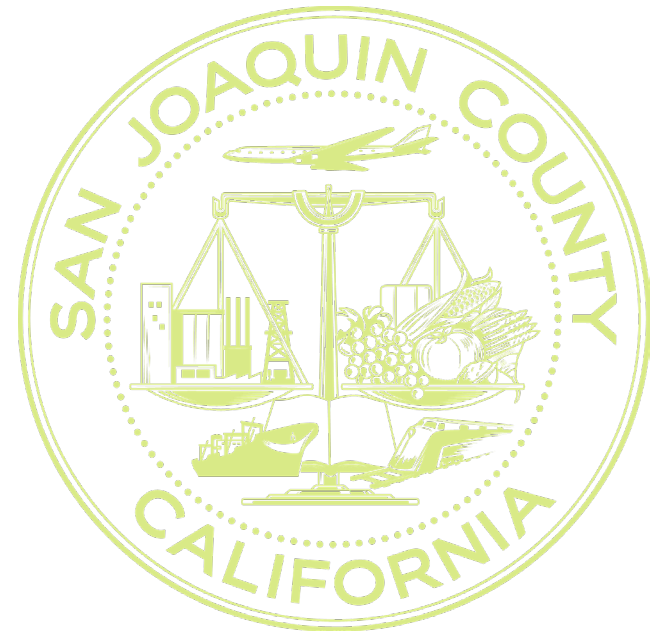




Greatness grows here.



Advisory Water Commission

April 14, 2023

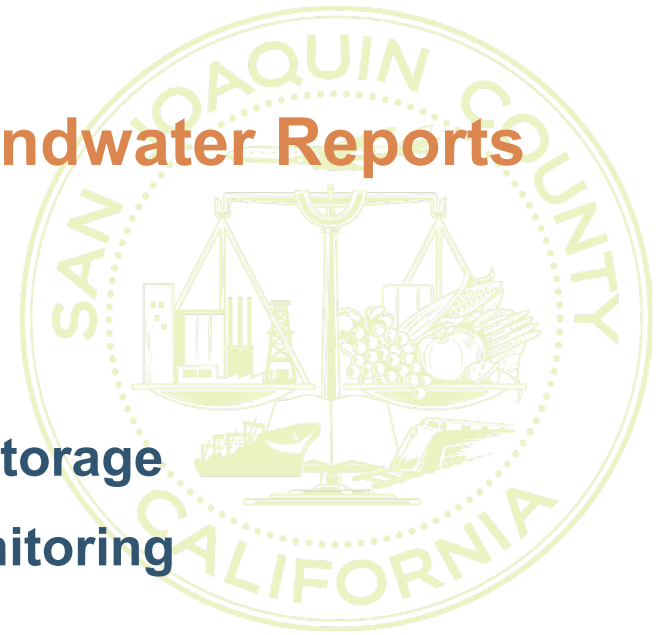
Fall 2022 Groundwater Report

SJCFCWCD Groundwater Monitoring Program

- ❖ **San Joaquin County Flood Control and Water Conservation District has been monitoring and reporting groundwater levels in the semi-annual groundwater report since the fall of 1971.**
- ❖ **Coordination with CalWater, EBMUD and DWR**
- ❖ **250 wells are included in the Report, most are monitored by County staff.**
 - ❖ Exact number varies due to circumstances such as:
 - ❖ Destructions
 - ❖ Constructions
 - ❖ Accessibility issues
 - ❖ Bees in access opening
 - ❖ Dogs nearby
 - ❖ Locked wells
- ❖ **Water Level: 250 wells**
- ❖ **Water Quality: 12 municipal and domestic supply wells (Fall)**
- ❖ **Rainfall: 3 Stations**

San Joaquin County Annual Groundwater Reports

- ❖ **Section 1 – Introduction**
- ❖ **Section 2 – Rainfall Distribution**
- ❖ **Section 3 – Surface Water Levels and Storage**
- ❖ **Section 4 – Groundwater Elevation Monitoring**

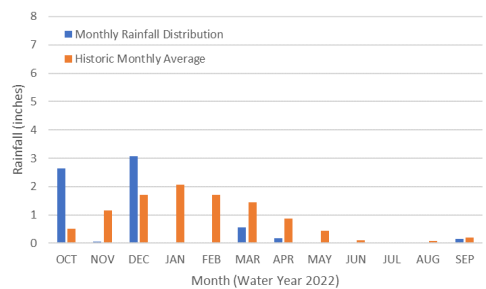
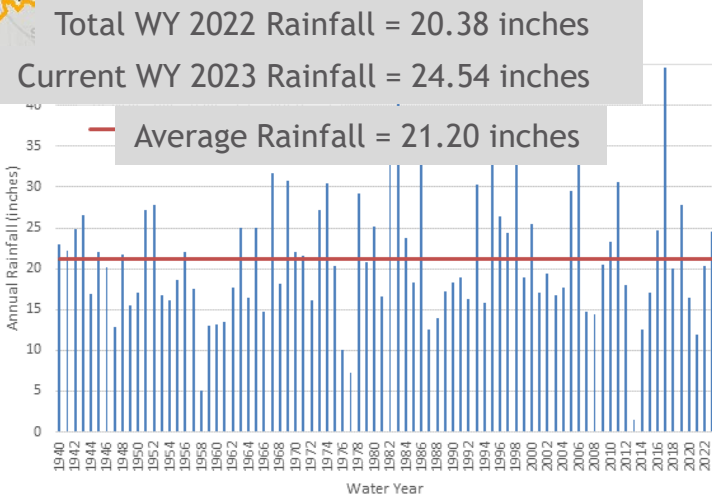
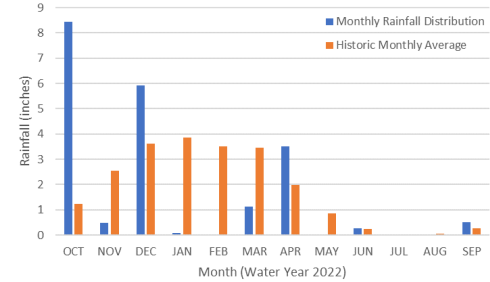
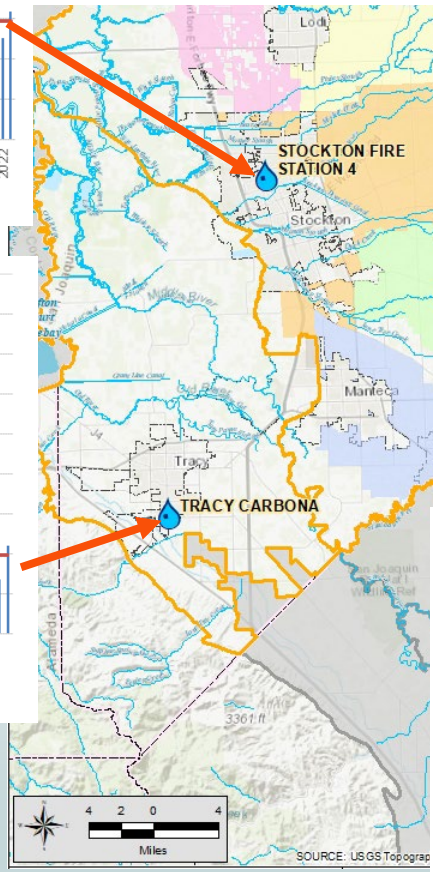
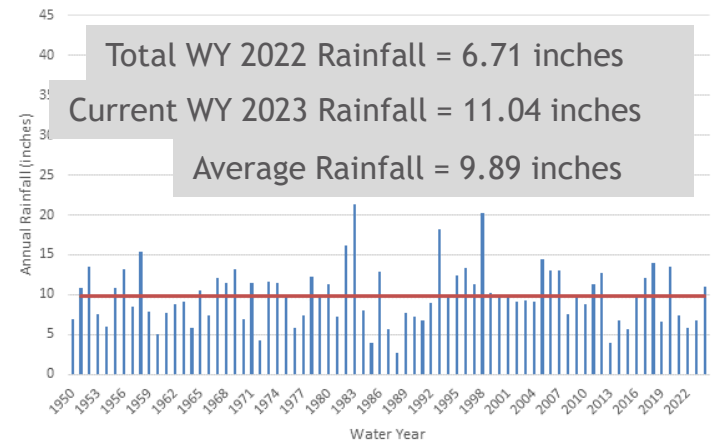
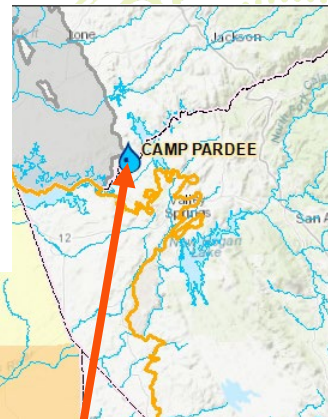
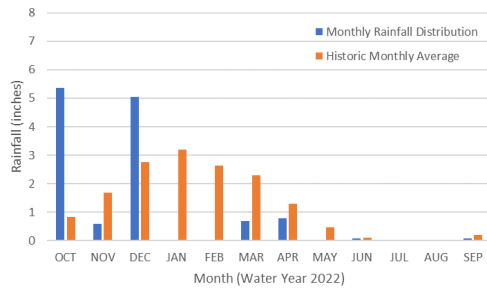
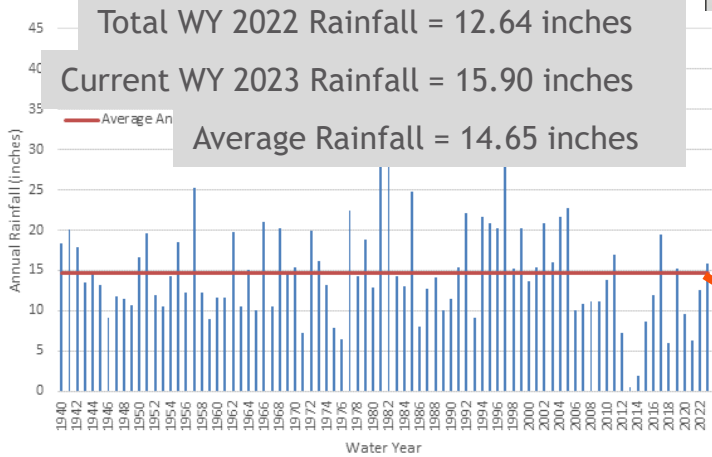
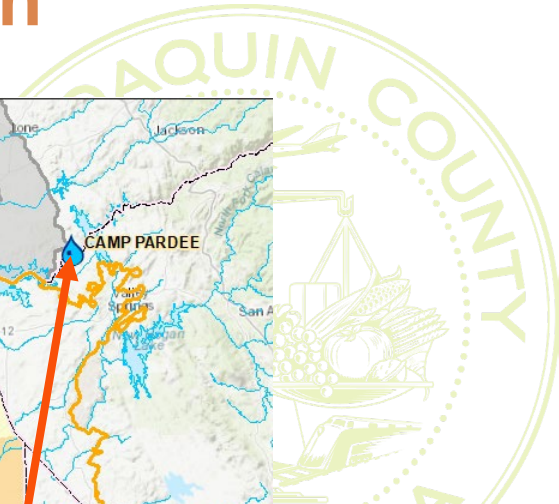


Section 1: Changes to the Annual Reports

- **Split report into seasonal versions; Spring & Fall**
- **Expanded cross sections, refined monitoring network, additional analysis of changes between water years.**
- **Historic averages added for additional context.**

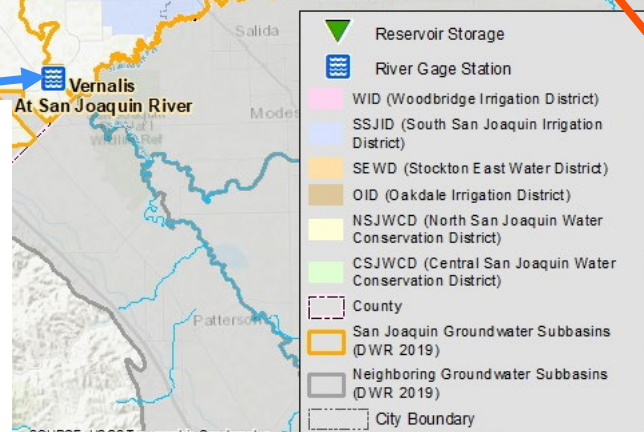
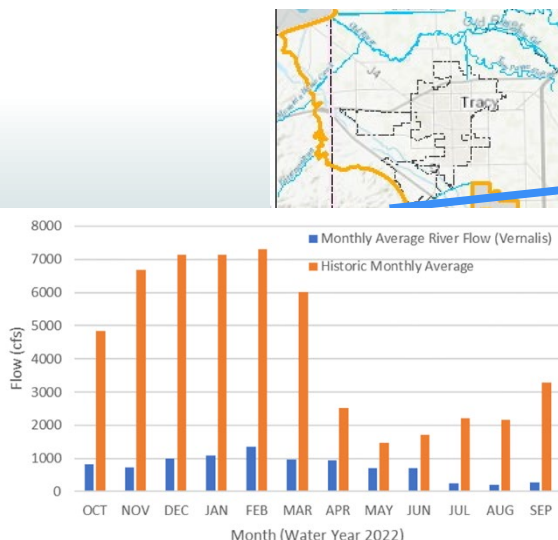
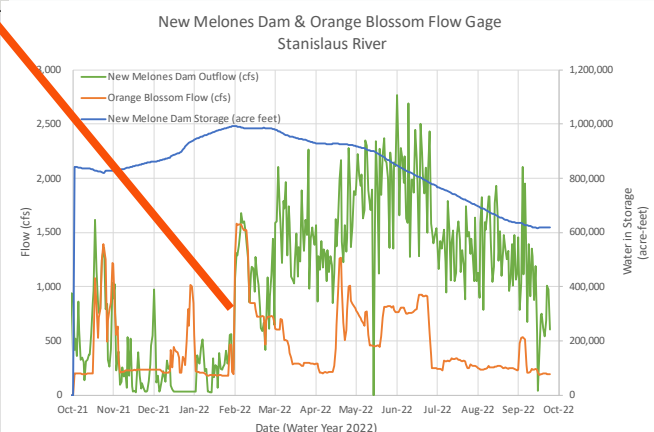
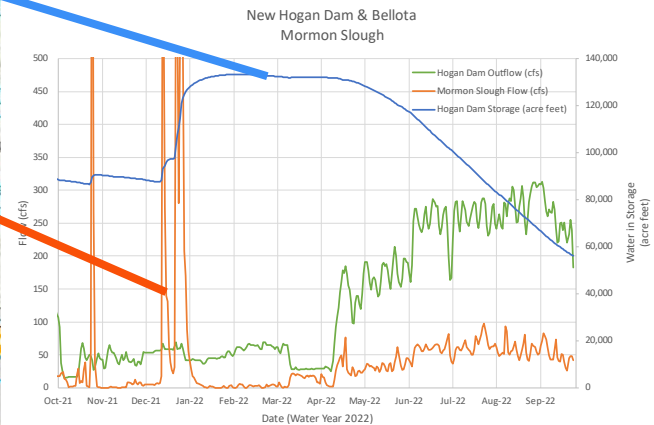
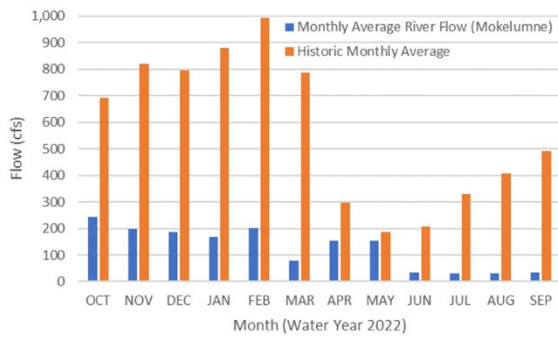
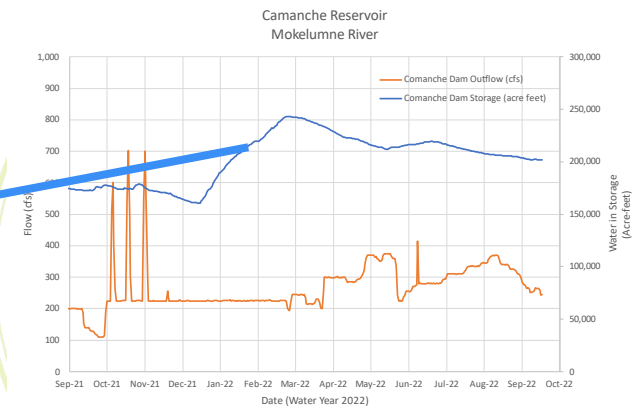


Section 2: Rainfall Distribution



Section 3: Surface Water Distribution

WY 2022



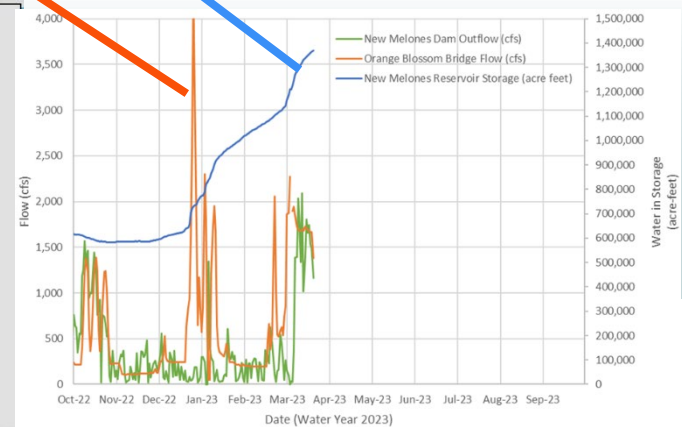
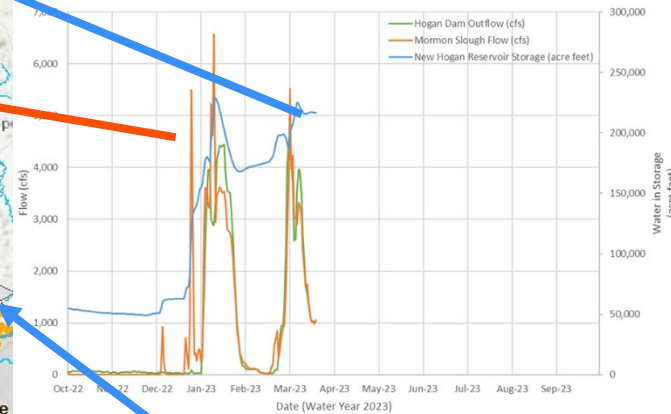
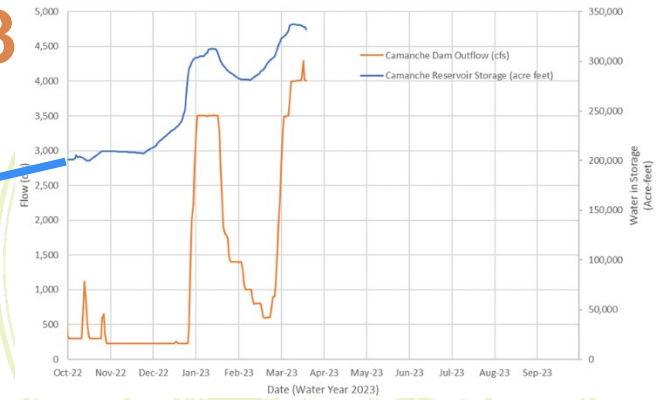
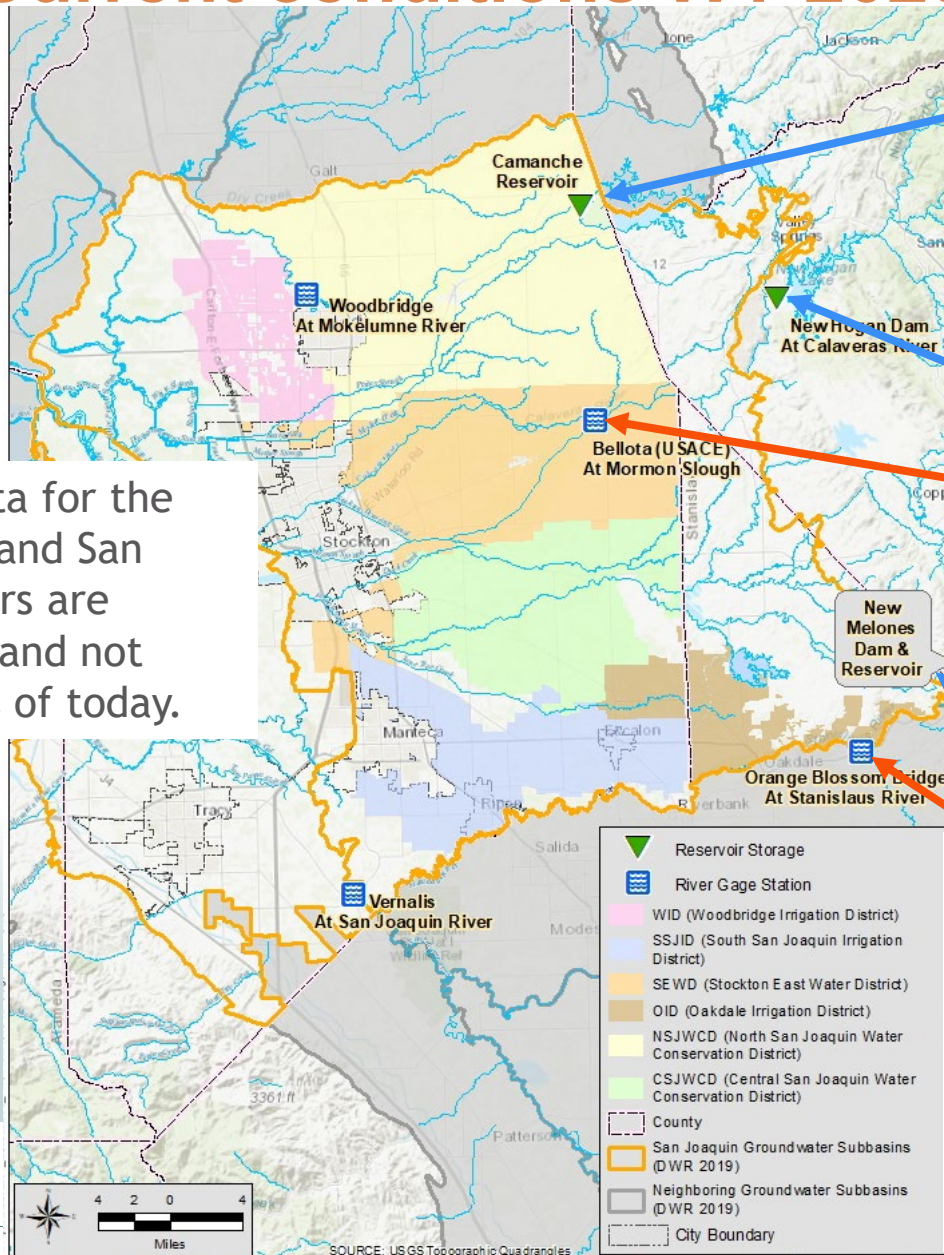
- ▼ Reservoir Storage
- ▤ River Gage Station
- WID (Woodbridge Irrigation District)
- SSJID (South San Joaquin Irrigation District)
- SEWD (Stockton East Water District)
- OID (Oakdale Irrigation District)
- NSJWCD (North San Joaquin Water Conservation District)
- CSJWCD (Central San Joaquin Water Conservation District)
- County
- San Joaquin Groundwater Subbasins (DWR 2019)
- Neighboring Groundwater Subbasins (DWR 2019)
- City Boundary

SOURCE: USGS Topographic Quadrangles

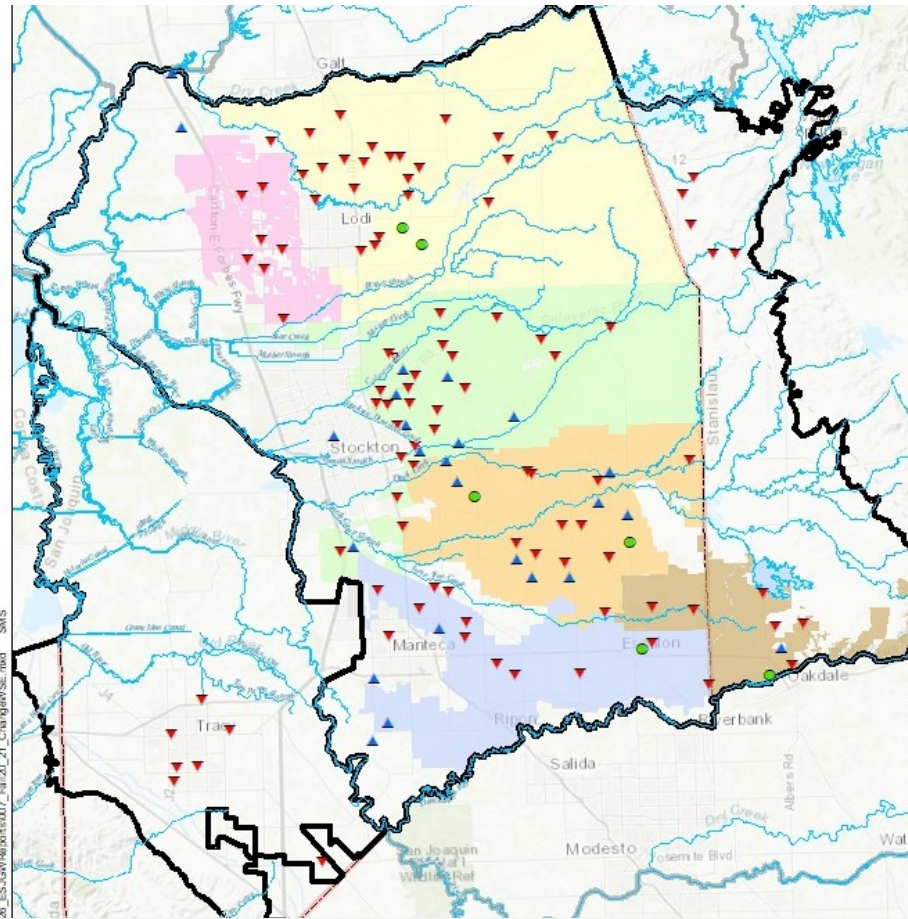
Section 3: Surface Water Distribution

Current conditions WY 2023

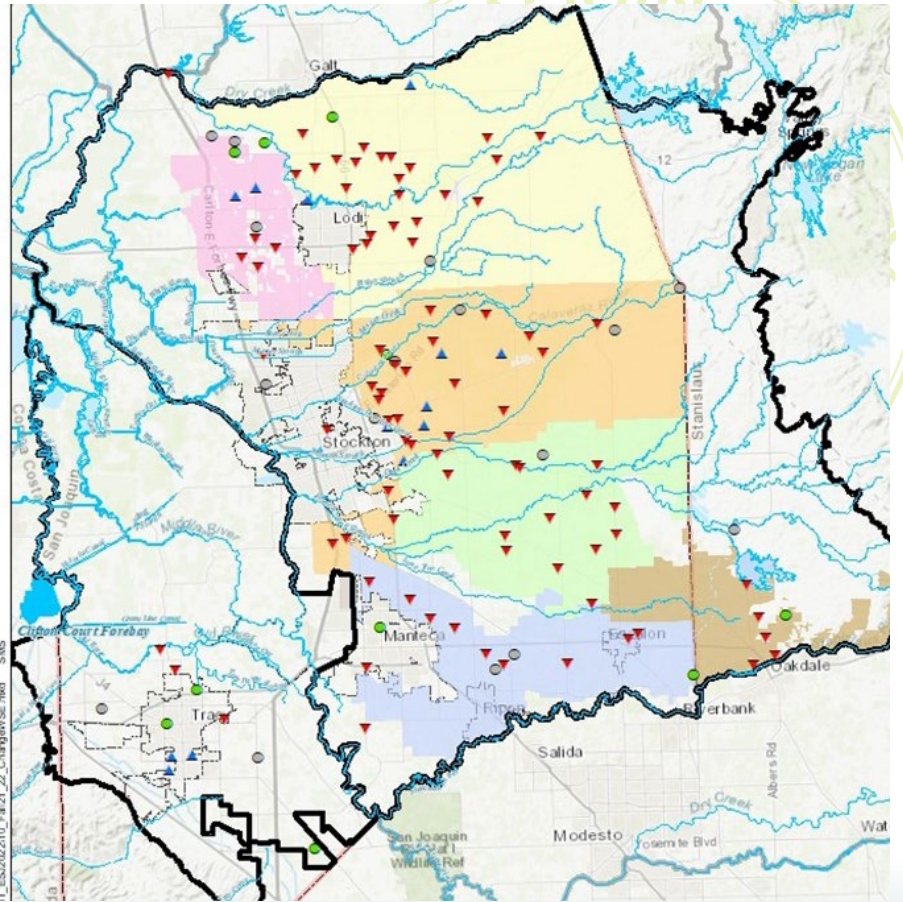
WY 2023 Data for the Mokelumne and San Joaquin rivers are preliminary and not published as of today.



Groundwater Level Changes

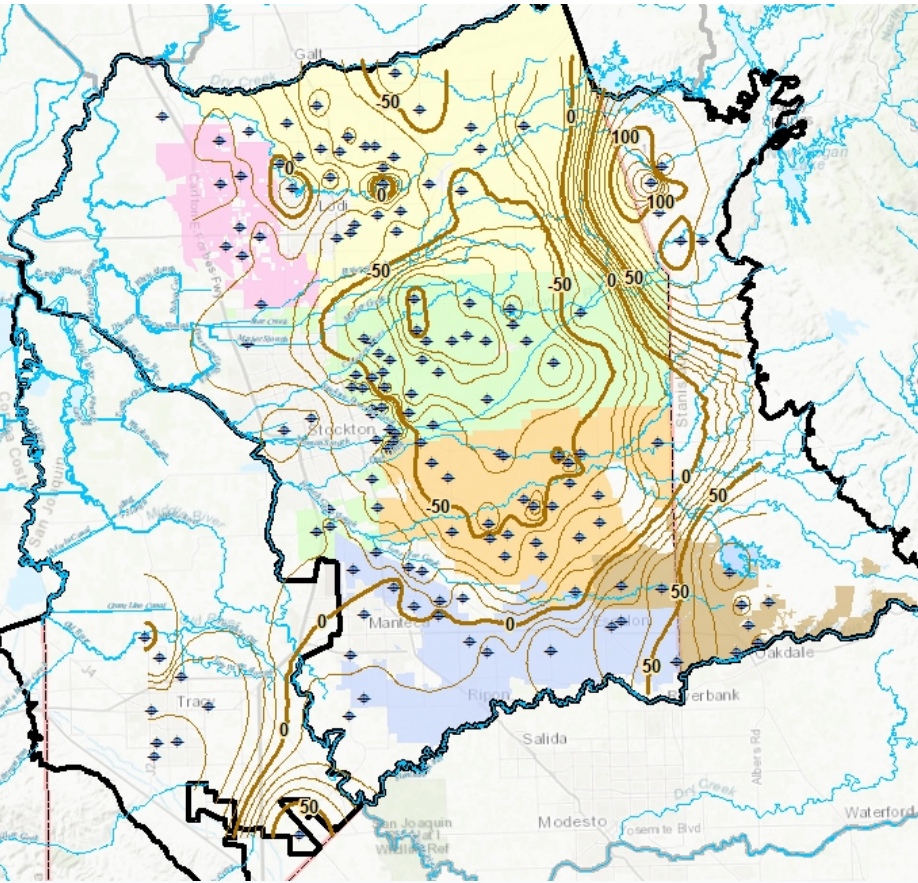


Fall 2020 to Fall 2021
Critical

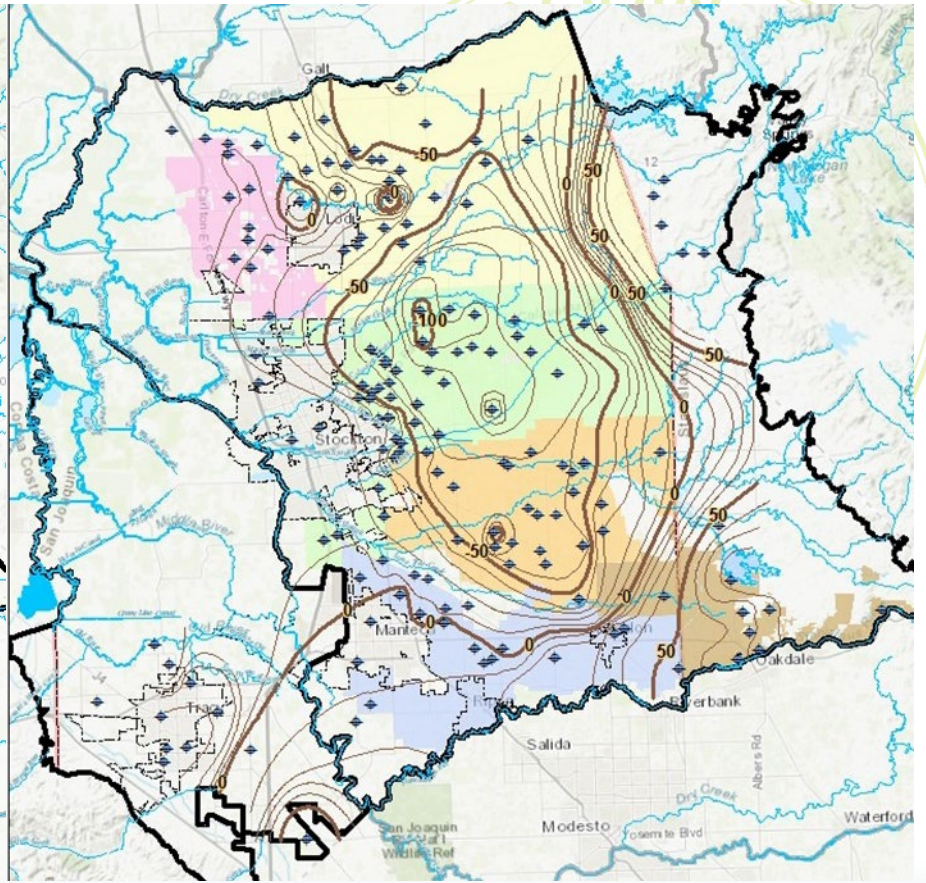


Fall 2021 to Fall 2022
Critical

Groundwater Contours

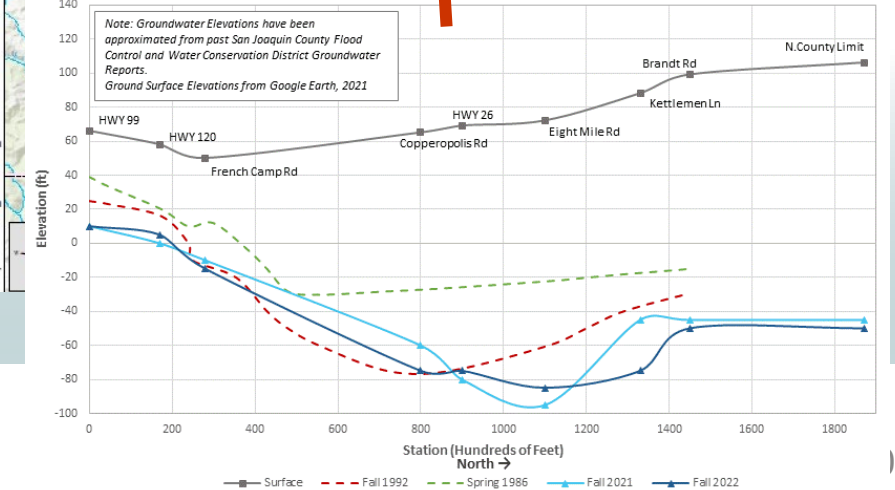
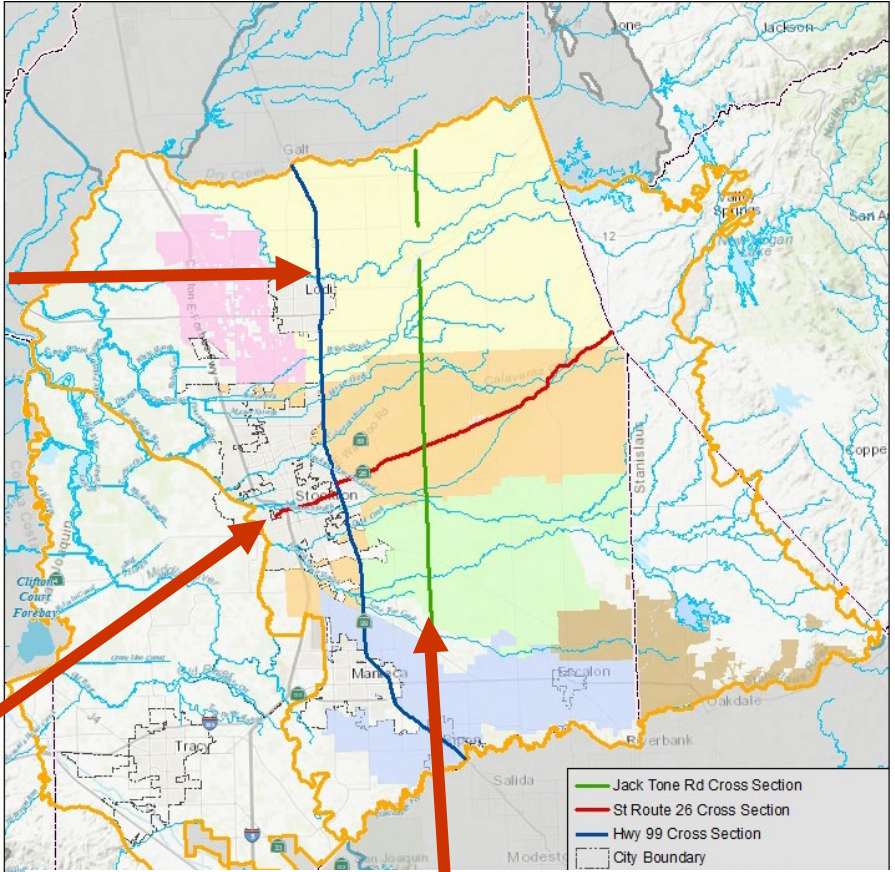
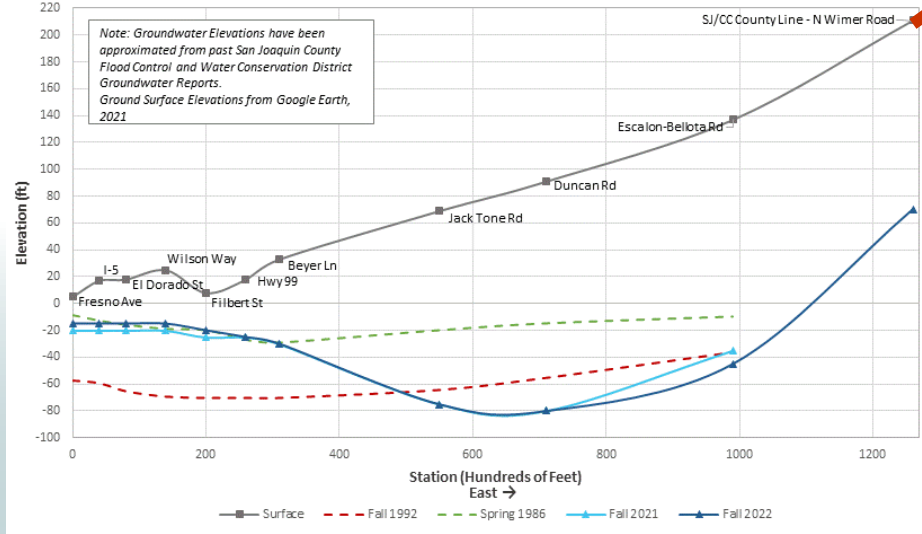
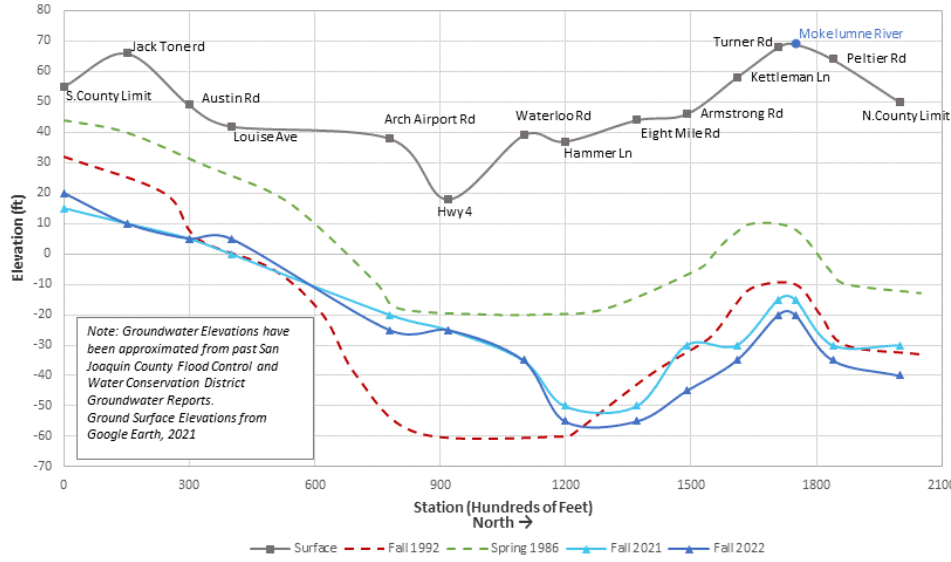


2021 - Critical WY

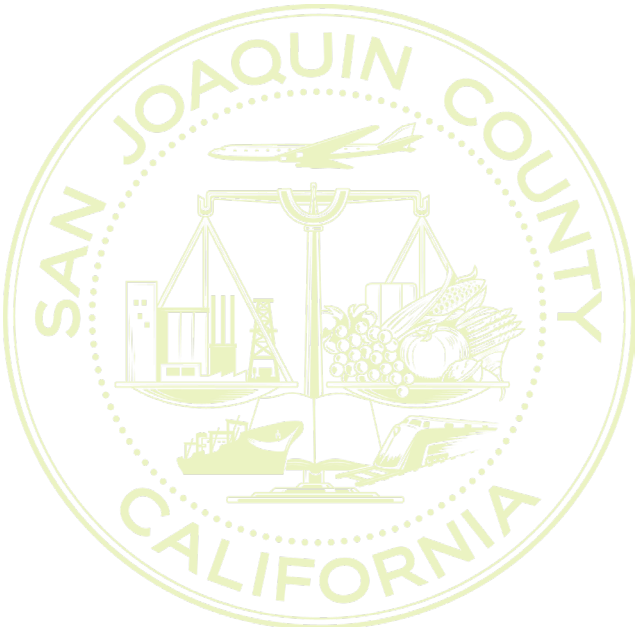


2022 - Critical WY

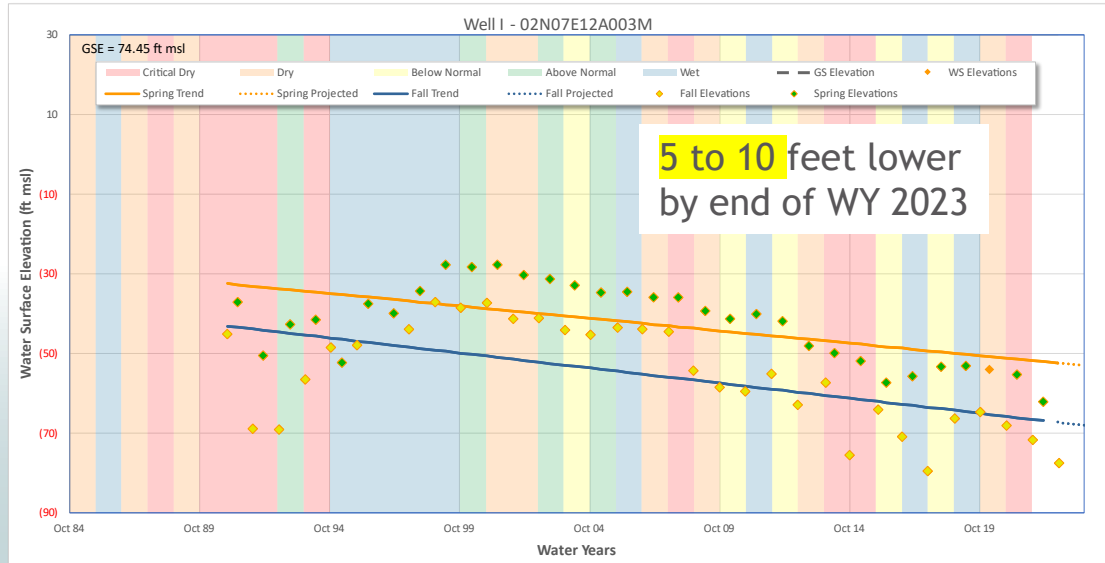
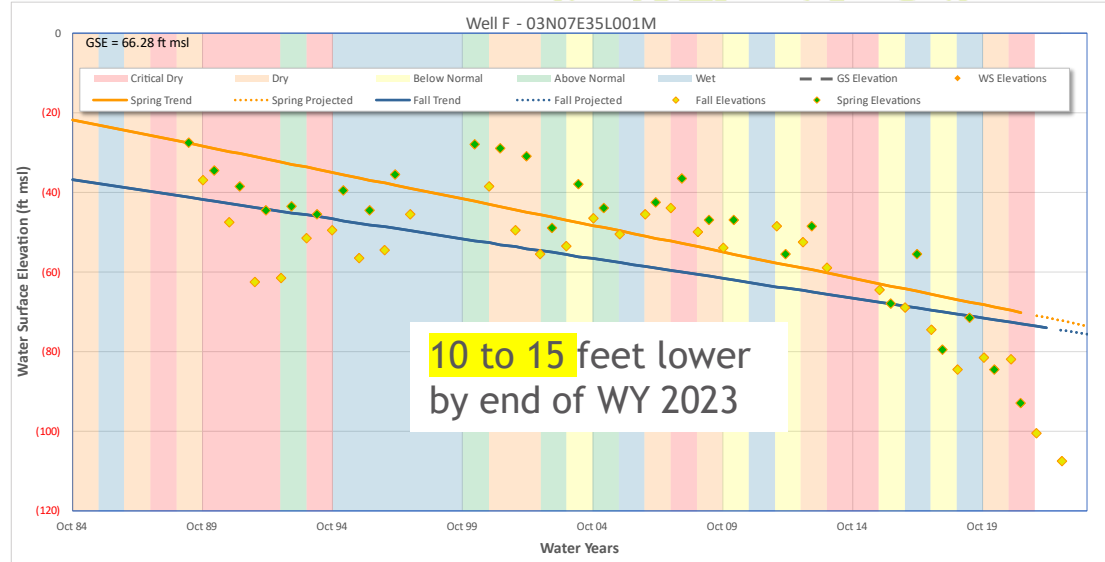
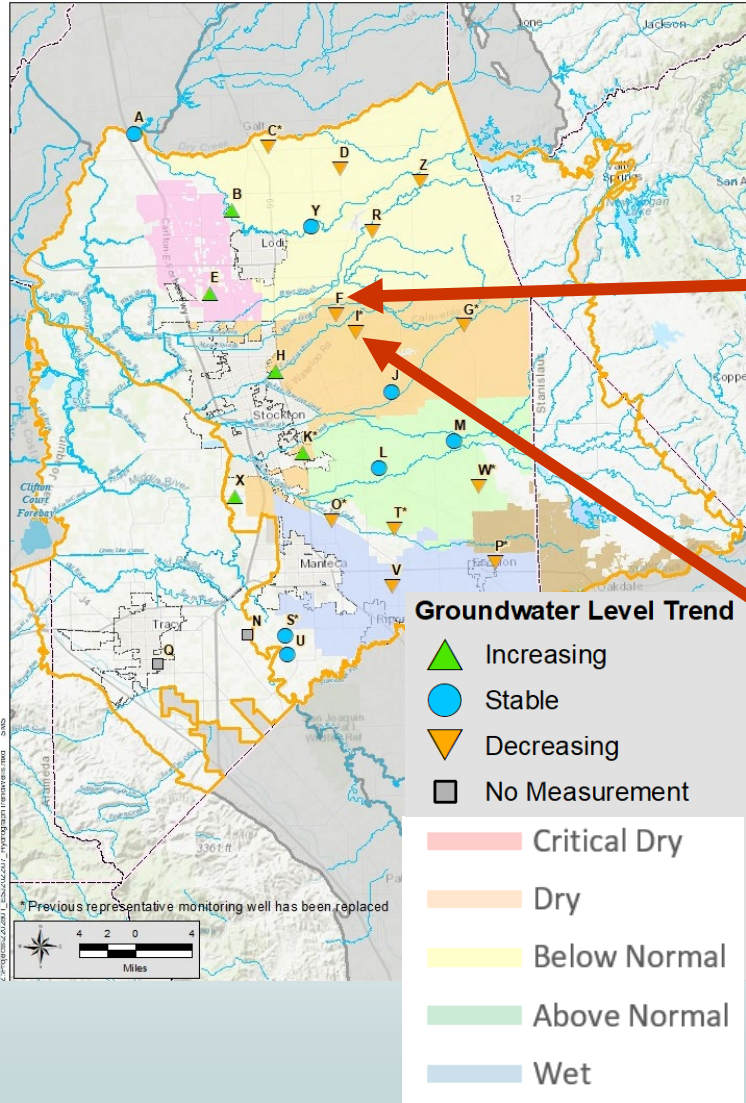
Groundwater Level Profiles



Backup Slides



Future Projections



Future enhancements to monitoring program

- **Budgeting transducers and dataloggers for auto uploads of GWL data**
- **Resolving access rights at privately owned wells**
- **Data Management Systems evaluation and selection**
- **Consistency with SGMA reporting**
- **Other**



Section 4: Groundwater Levels- Slide 7

Table 4-1 Comparison of CSJWCD Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 33 | 14 | 14 | 0 | 0 | -58.3 to -1 | -19.44 |

Table 4-2 Comparison of NSJWCD Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 33 | 25 | 24 | 0 | 1 | -17.8 to 5.9 | -4.55 |

Table 4-3 Comparison of OID Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 2 | 0 | 0 | 0 | 0 | -- | -- |

Table 4-4 Comparison of SEWD Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 78 | 31 | 25 | 6 | 0 | -30.6 to 19.4 | -5.34 |

Table 4-5 Comparison of SSJID Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 26 | 13 | 13 | 0 | 0 | -8 to -0.46 | -2.88 |

Table 4-6 Comparison of Southwest Area Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 25 | 21 | 11 | 10 | 0 | -2.68 to 4.96 | 0.23 |

Table 4-7 Comparison of WID Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 18 | 12 | 7 | 5 | 0 | -2.6 to 3 | -0.35 |

Table 4-8 Comparison of Calaveras County Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 14 | 0 | -- | -- | -- | -- | -- |

*Calaveras County data has not been uploaded since Fall 2021.

Table 4-9 Comparison of Stanislaus Water Surface Elevations

| Number of Wells Fall 2021-2022 | | | | | Change in Elevation | |
|--------------------------------|------------|----------|----------|-----------|---------------------|---------|
| Total | Comparable | Decrease | Increase | No Change | Range | Average |
| 8 | 6 | 6 | 0 | 0 | -5.31 to -1.88 | -3.31 |