Meeting Agenda Item 4:

Corning Subbasin Groundwater Sustainability Plan Approval

Luhdorff & Scalmanini
Consulting Engineers

DWR Corrective Action 1 – Demand Management

a) Provide updates in annual reports and future periodic evaluations of overdraft estimates, actual benefits from all projects, and groundwater conditions in the Subbasin.

b) The GSAs should develop triggers for when the different components of the phased approach of the demand management program will be implemented. The GSAs should provide enough information so that it will be evident that the GSAs' implementation of projects and management actions are feasible and likely to prevent undesirable results. The GSAs should report on the effectiveness of its voluntary demand management program, and its progress in developing the phased implementation components of the mandatory demand management program in its annual reports and in the next periodic evaluation.

LSCE DAVIDS ENGINEERING, INC

DWR Corrective Action 2 – Chronic Lowering of Groundwater Levels

a) Provide the criteria used to select Thiessen polygons for its selection of undesirable results. The GSAs should also provide an explanation for how each Thiessen polygon is representative of beneficial uses and users in the area, specifically how many wells are located within each Thiessen polygon.

b) Clearly provide the number of wells within each Thiessen polygon.

c) Describe how it will track dry wells in a clear and transparent manner. Develop and implement a process for the public to report dry wells if they occur. The GSAs should provide a public record of reported dry wells, and include reports of dry wells in its annual reports and periodic evaluations.

d) Provide the criteria and processes used to delineate spatial areas of the focus areas used to establish minimum thresholds, which should consider the potential effects on beneficial uses and users. Include an explanation of why some reported dry wells are not included in focus areas.

LSCE DAVIDS ENGINEERING, INC

DWR Corrective Action 3 – Degraded Water Quality

The GSAs should address the following related to the sustainable management criteria for degraded water quality:

a) Establish sustainable management criteria and monitoring network for all the constituents of potential concern identified in the Subbasin that have the potential to cause undesirable results. The GSAs should also consider coordinating with the appropriate groundwater users, including urban, agricultural, and industrial users as identified in the Plan, and water quality regulatory agencies and programs in the Subbasin to understand and develop a process for determining if groundwater management is resulting in degraded water quality.

b) Revise the description of degraded water quality sustainable management criteria so that groundwater conditions, whether caused by direct actions by the GSAs to implement this GSP or not, are considered in the assessment of significant and unreasonable conditions in the Subbasin.

c) Coordinate with the appropriate groundwater users, including drinking water, environmental, and irrigation users as identified in the Plan, and water quality regulatory agencies and programs in the Basin to understand and develop a process for monitoring and determining if groundwater management and extraction is resulting in migration of constituents of concern or degraded water quality in the Basin.

LSCE DAVIDS ENGINEERING, INC

DWR Corrective Action 4 - Subsidence

Set an annual rate and cumulative total amount of subsidence that will lead to undesirable results. Establish minimum thresholds and undesirable results definitions for land subsidence that consider impacts to beneficial uses and users of groundwater, land uses, and property interests while using the best available science.

DWR Corrective Action 5 – Stream Depletion

a) Estimate the quantity and timing of depletions of interconnected surface water systems.

b) Revise sustainable management criteria with the removal of the exemption for undesirable results in unanticipated future droughts and unanticipated climatic conditions.

c) Consider utilizing the interconnected surface water guidance, as appropriate, when issued by the Department to establish quantifiable minimum thresholds, measurable objectives, and management actions.

d) Continue to fill data gaps, collect additional monitoring data, and implement the current strategy to manage depletions of interconnected surface water and define segments of interconnectivity and timing.

e) Prioritize collaborating and coordinating with local, state, and federal regulatory agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induced surface water depletion within the GSAs' jurisdictional area.

LSCE DAVIDS ENGINEERING, INC

DWR Corrective Action 6 – Data Gaps Near Thomes Creek

Provide a plan to fill data gaps in the groundwater level monitoring network such as well construction information and spatial gaps near Thomes Creek.

Next Steps

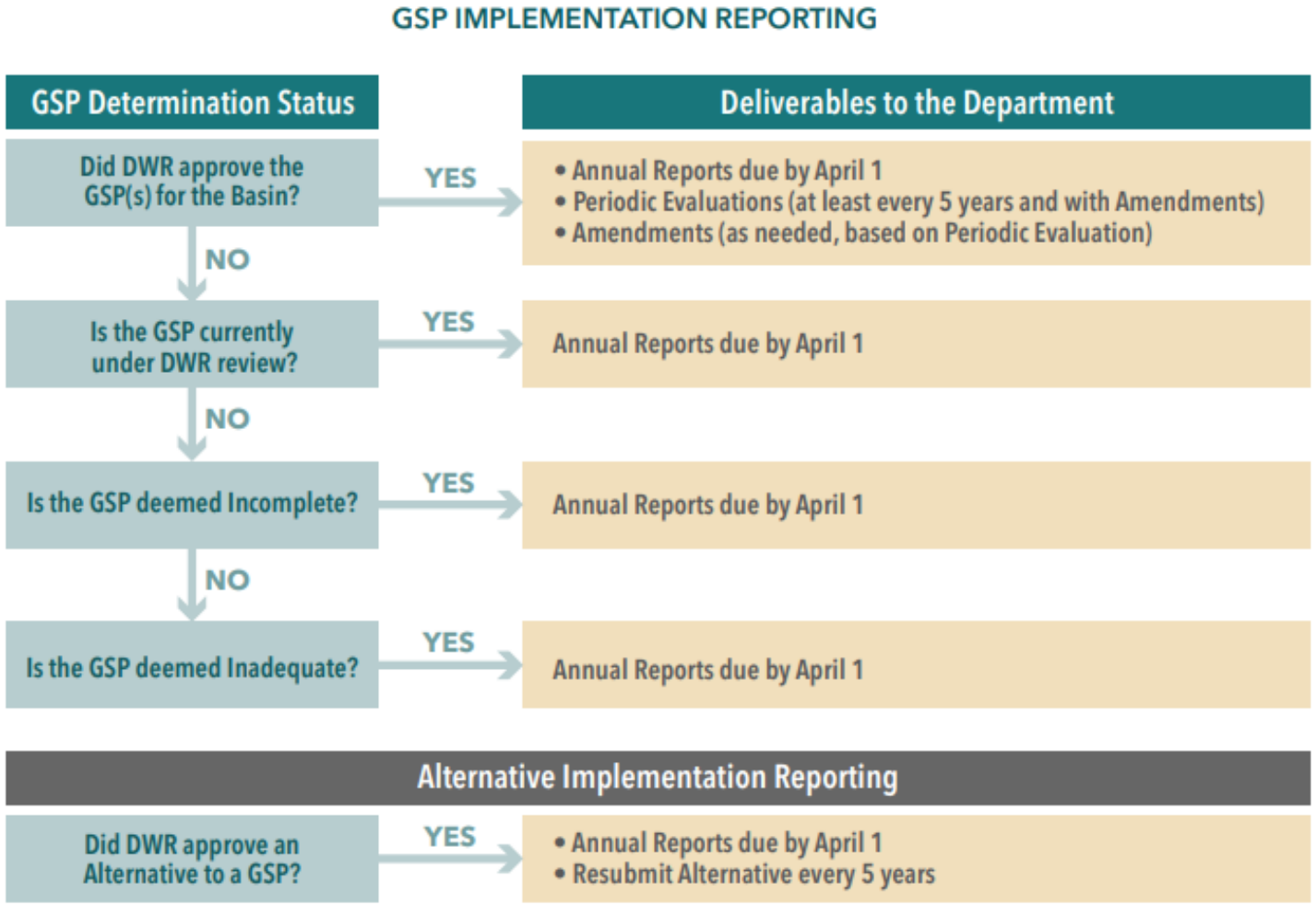


Figure 1: Summary of Implementation Deliverables for each Basin Determination Type

LSCE

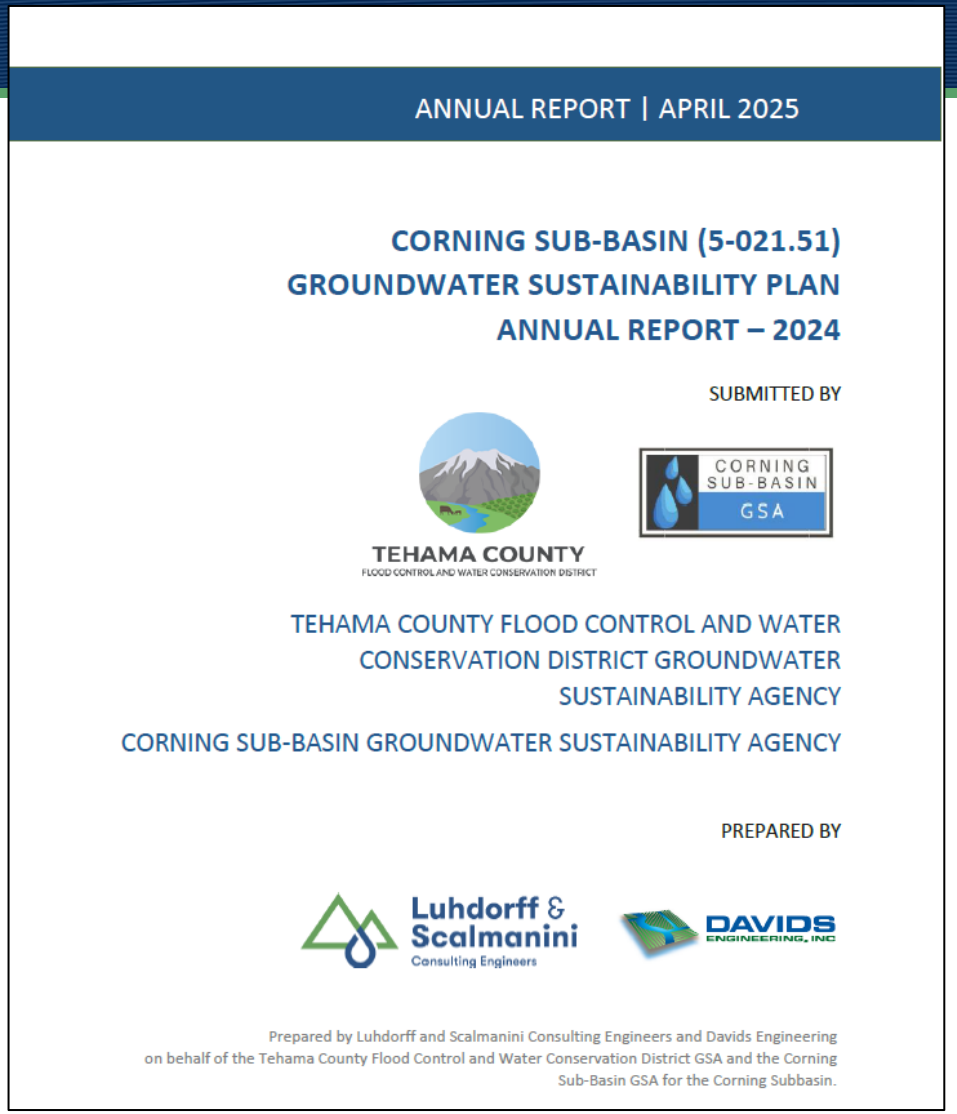
Meeting Agenda Item 5:

Corning Subbasin WY 2024 Annual Report Update

Luhdorff & Scalmanini
Consulting Engineers

Where are We Headed Today?

- Overview
- Groundwater Conditions
- Water Supply and Water Use (Water Budget)
- Progress Towards GSP Implementation



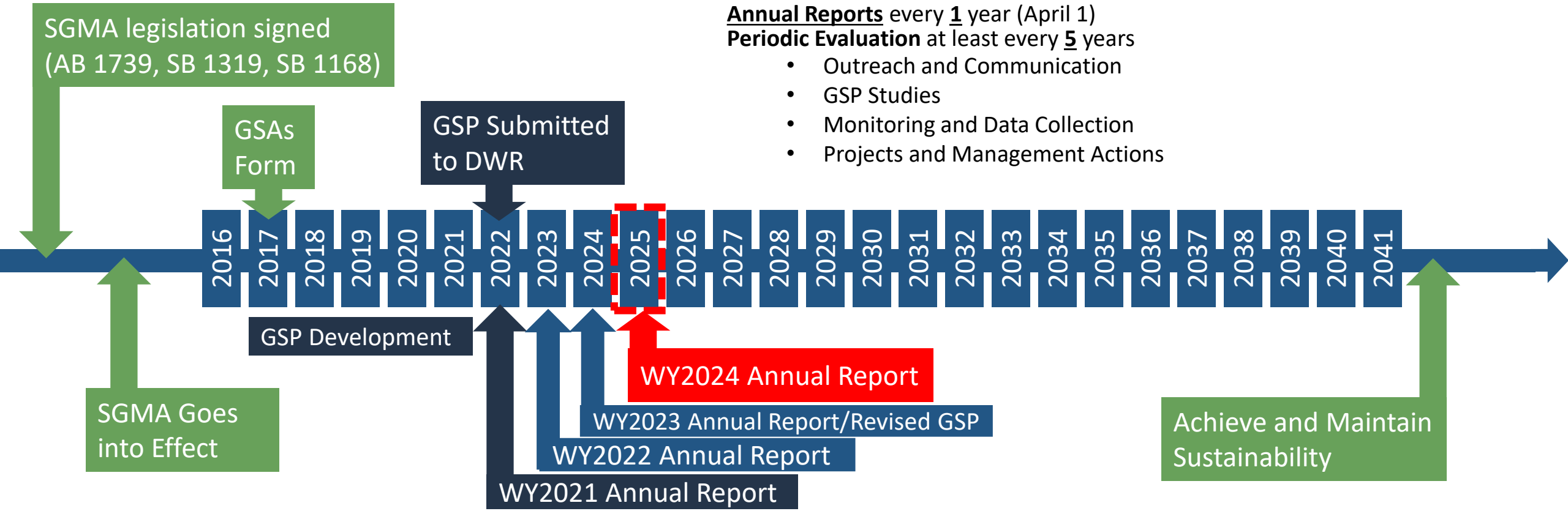
LSCE DAVIDS ENGINEERING, INC

Annual Report Requirements

- Updates on Groundwater Conditions
  - Groundwater Elevation (Hydrographs, Contour Maps)
  - Change in Groundwater Storage
- Water Supply and Water Use
  - Groundwater Extraction
  - Surface Water Supplies
  - Total Water Use
- Progress Toward Plan Implementation
  (e.g., implementation of planned projects and management actions)

LSCE DAVIDS ENGINEERING, INC

Overview – SGMA Implementation Timeline



Annual Reports every **1** year (April 1)
Periodic Evaluation at least every **5** years

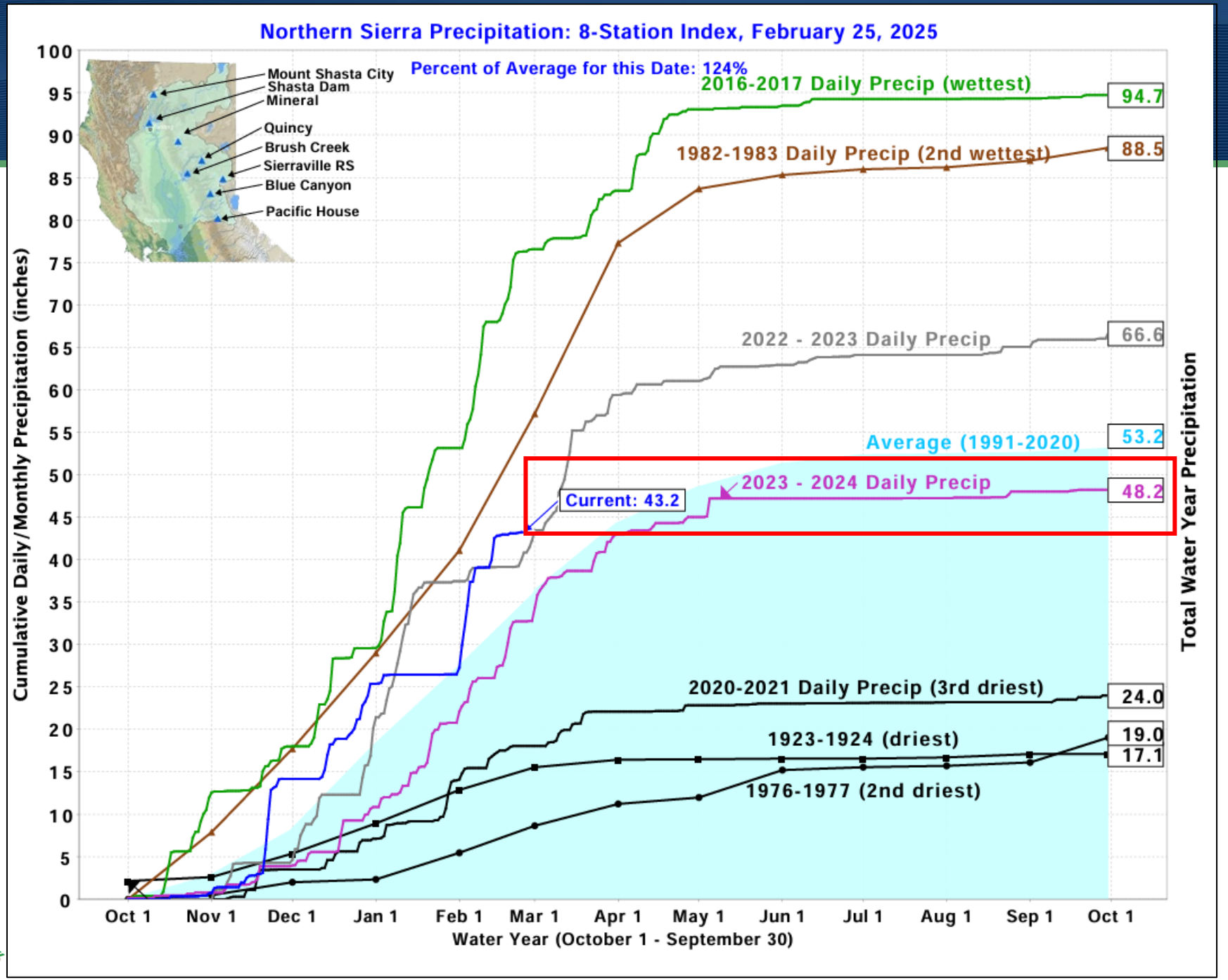
- Outreach and Communication
- GSP Studies
- Monitoring and Data Collection
- Projects and Management Actions

LSCE

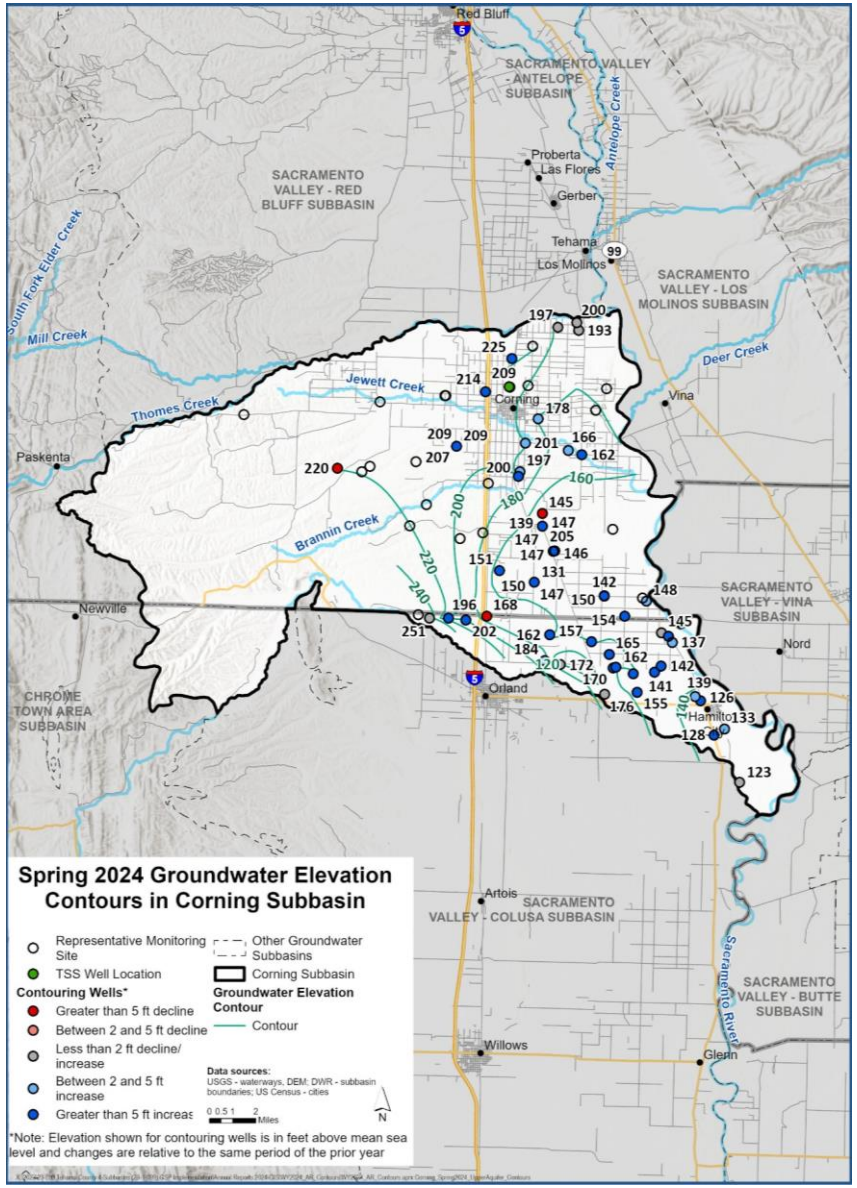
DAVIDS ENGINEERING, INC

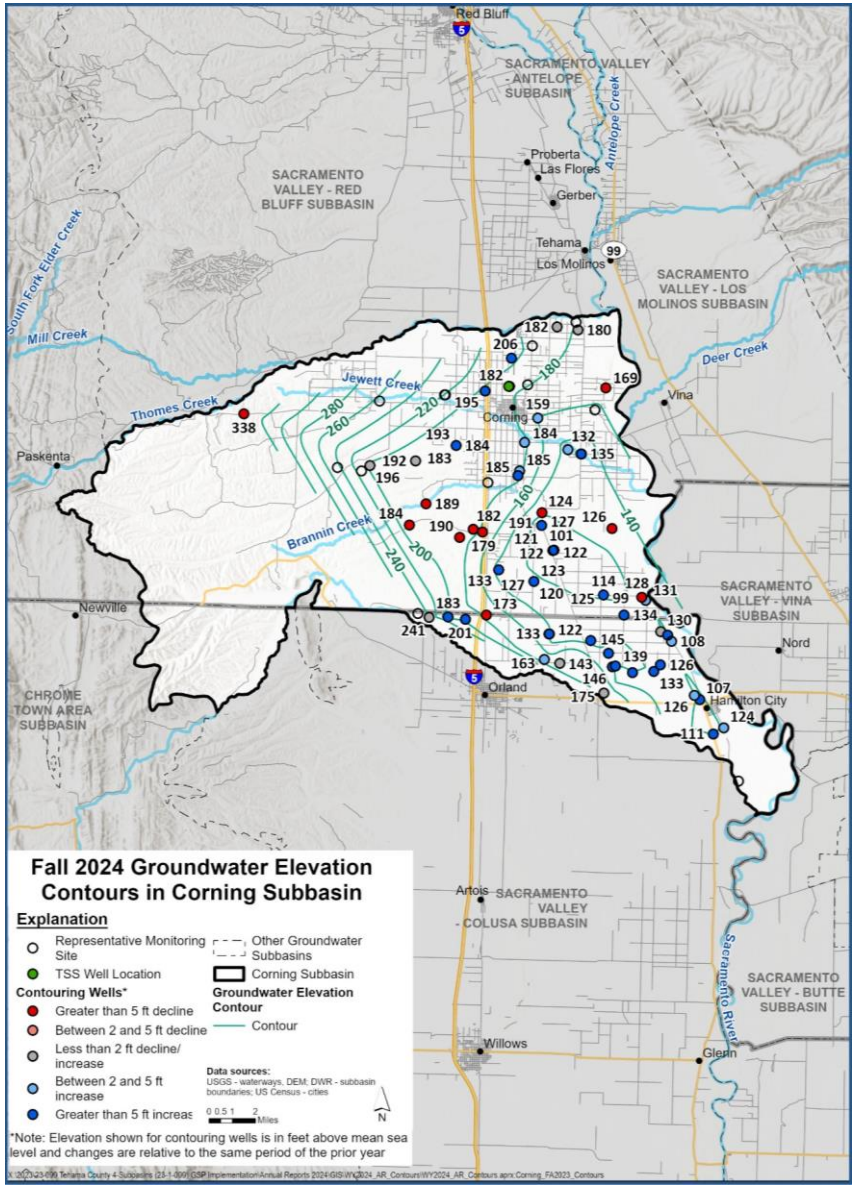
2024 WY Conditions

- **Classified as an "Above Normal Year"**
  - **Average precipitation (CDEC, DWR graph)**
  - **WY 2024 Cumulative Precipitation 48.2 inches**
  - **WY 2023 Cumulative Precipitation 66.6 inches**
  - **Avg Cumulative Precipitation 53.2 inches**



Groundwater Conditions – Groundwater Elevations





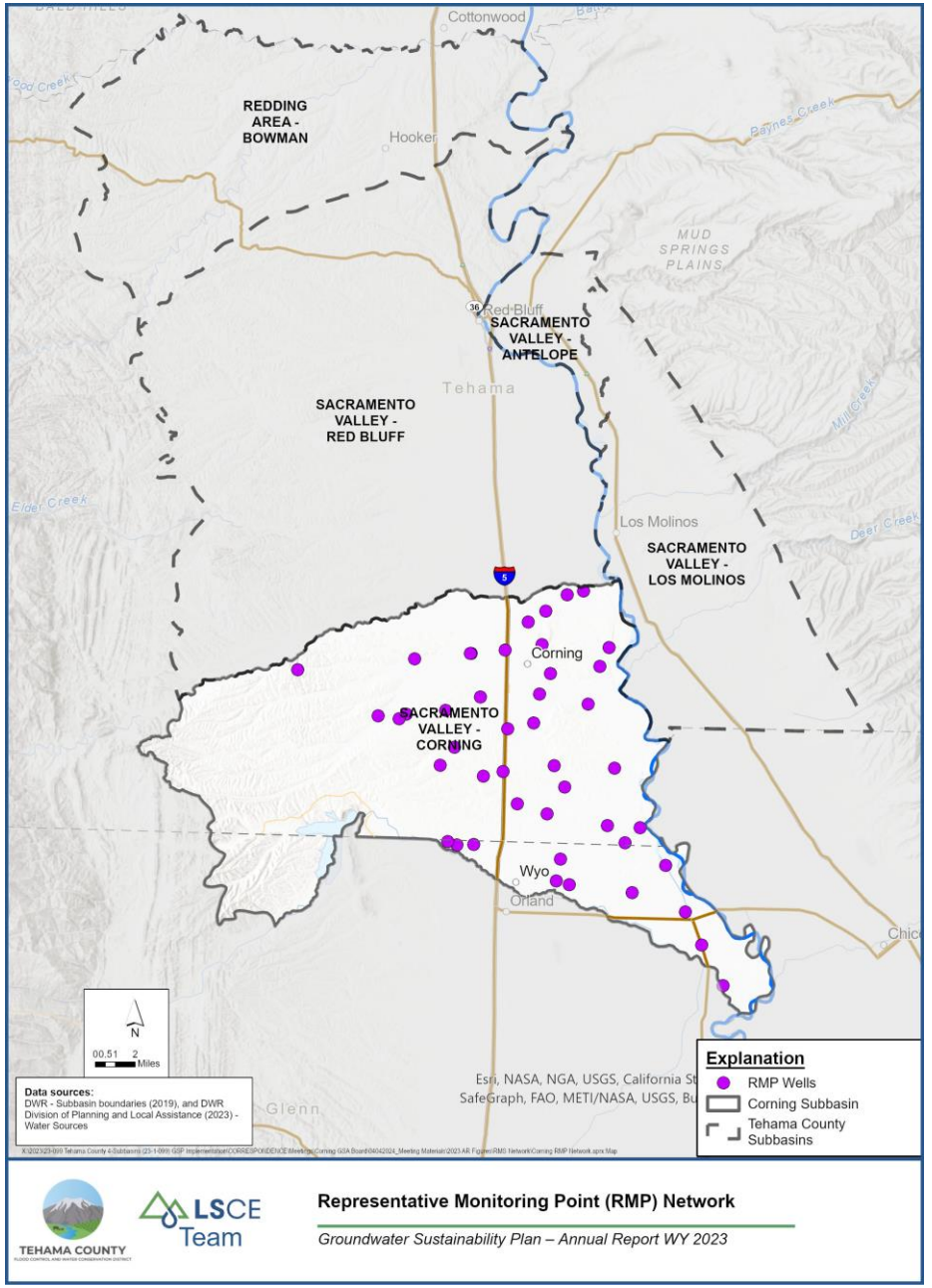
LSCE

DAVIDS ENGINEERING, INC

Groundwater Conditions – Groundwater Elevations

Groundwater Elevations

- 54 Representative Monitoring Point (**RMP**) Wells
- On average, **WLE** were 10 ft above the **MT** and 16 ft below the **MO** in WY 2024.
- Twelve groundwater measurements fell below the **MT** in Fall 2024.
- An **Undesirable Result** occurs when 10 supply wells becoming dry (after the GSP revision) within a Thiessen Polygon established in the revised GSP, or when water levels at any RMP in the future decline 7.5 ft or more over a five (5) year period.



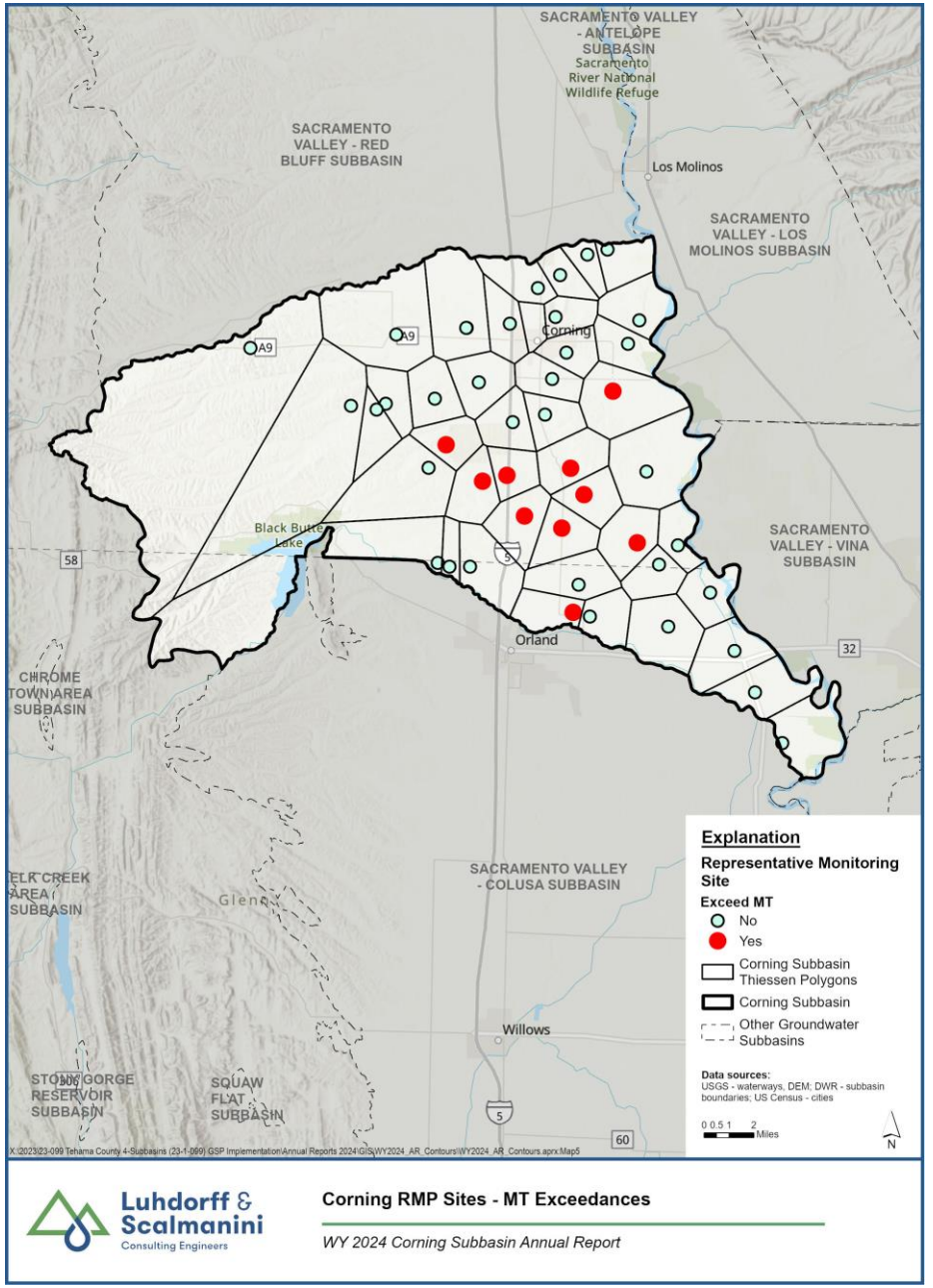
LSCE

DAVIDS ENGINEERING, INC

Groundwater Conditions – Groundwater Elevations

Groundwater Elevation MT Exceedances

- 12 wells exceeded MTs in Fall 2024
- Two of the 12 wells are multi-completion wells.
- Only RMS wells are assigned and monitored for MOs/MTs.
- Only 1 RMS well per polygon.
- No Undesirable Result occurred in WY 2024.
- An **Undesirable Result** occurs when 10 supply wells becoming dry (after the GSP revision) within a Thiessen Polygon established in the revised GSP, or when water levels at any RMP in the future decline 7.5 ft or more over a five (5) year period.



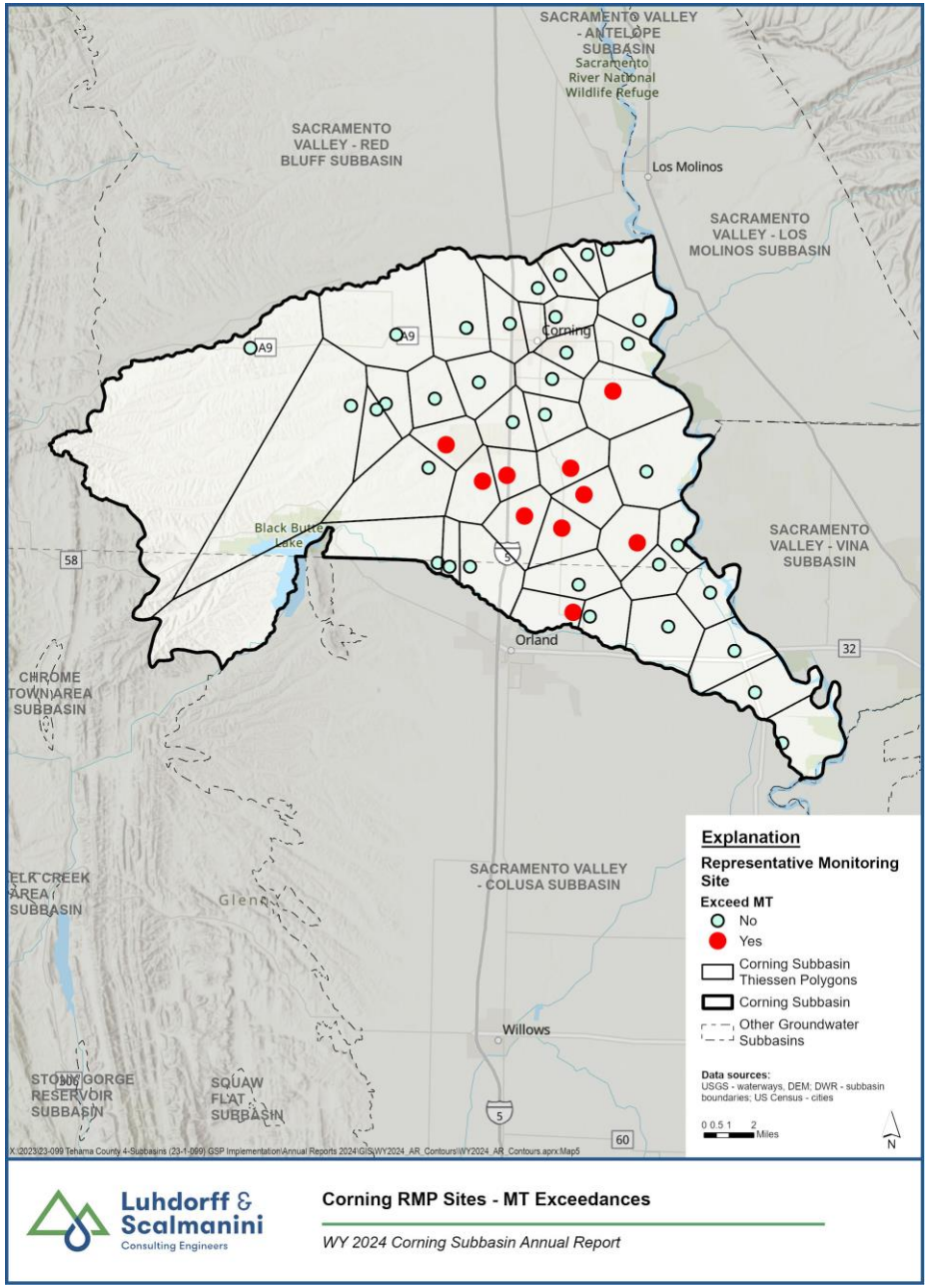
LSCE

DAVIDS ENGINEERING, INC

Groundwater Conditions – Groundwater Elevations

Groundwater Elevation MT Exceedances

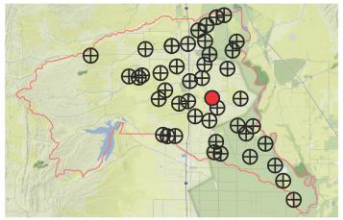
- 12 wells exceeded MTs in Fall 2024
- Two of the 12 wells are multi-completion wells.
- Only RMS wells are assigned and monitored for MOs/MTs.
- Only 1 RMS well per polygon.
- No Undesirable Result occurred in WY 2024.
- An **Undesirable Result** occurs when 10 supply wells becoming dry (after the GSP revision) within a Thiessen Polygon established in the revised GSP, or when water levels at any RMP in the future decline 7.5 ft or more over a five (5) year period.



LSCE

DAVIDS ENGINEERING, INC

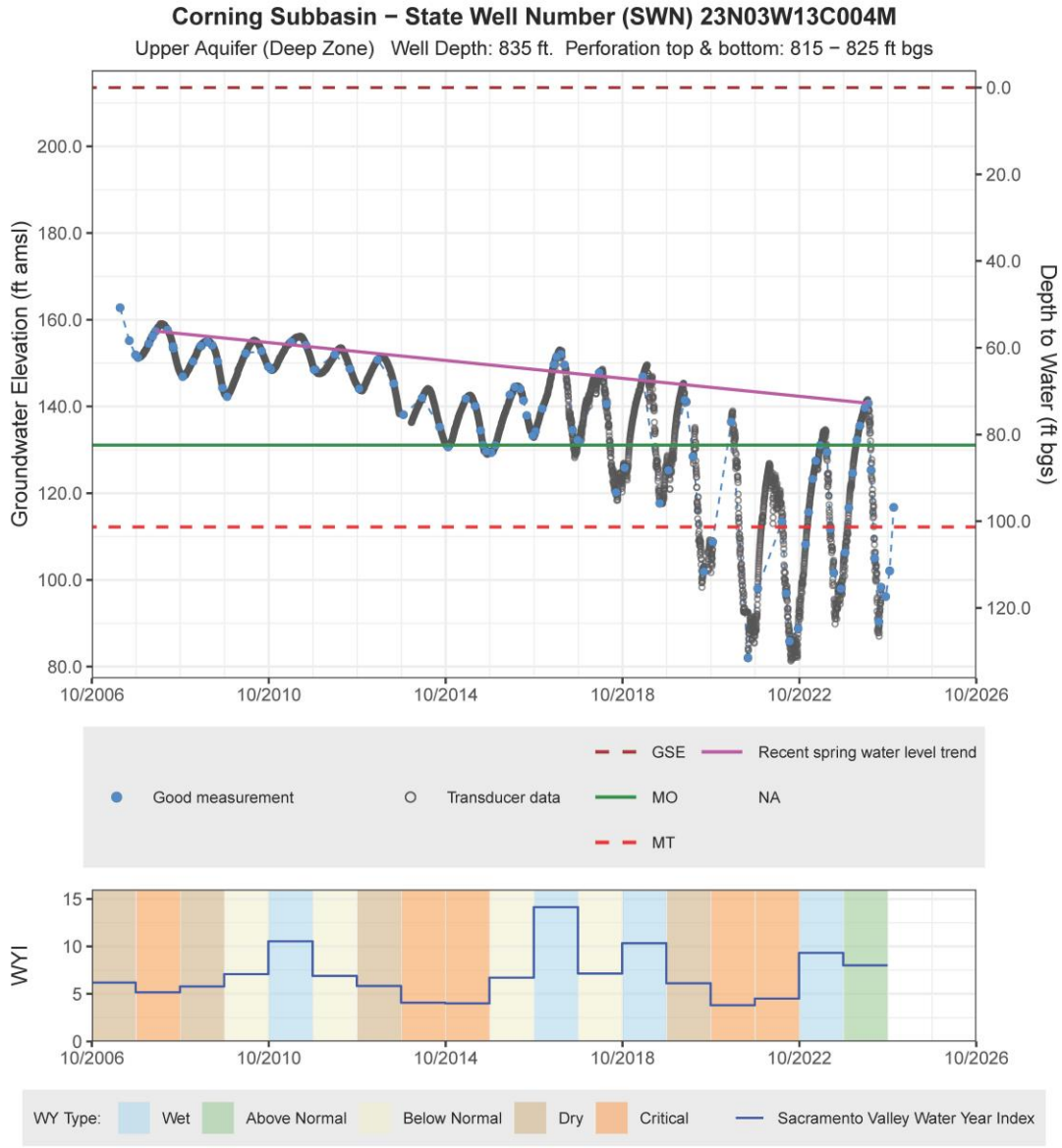
Groundwater Conditions – Groundwater Elevations



MO GWE: 131.1 ft amsl
MO DTW: 82.44 ft bgs

MT GWE: 112.2 ft amsl
MT DTW: 101.34 ft bgs

Statistics of spring water levels for past 16 years (2008 to 2024):
Change = −16.65 ft
Avg. rate of change = −1.04 ft/yr
Avg. water level = 146.59 ft amsl



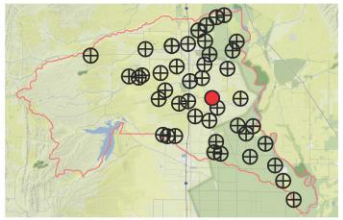
Groundwater Elevations

- Minimum Threshold: 112.2 ft
- Measurable Objective: 131.1 ft

- Spring 2024 WLE: 140.73 ft
- Fall 2024 WLE: 102.08 ft

- Above MO for Spring but not Fall 2024
- Above MT in Spring 2024; 10.12 ft **below** MT in Fall 2024

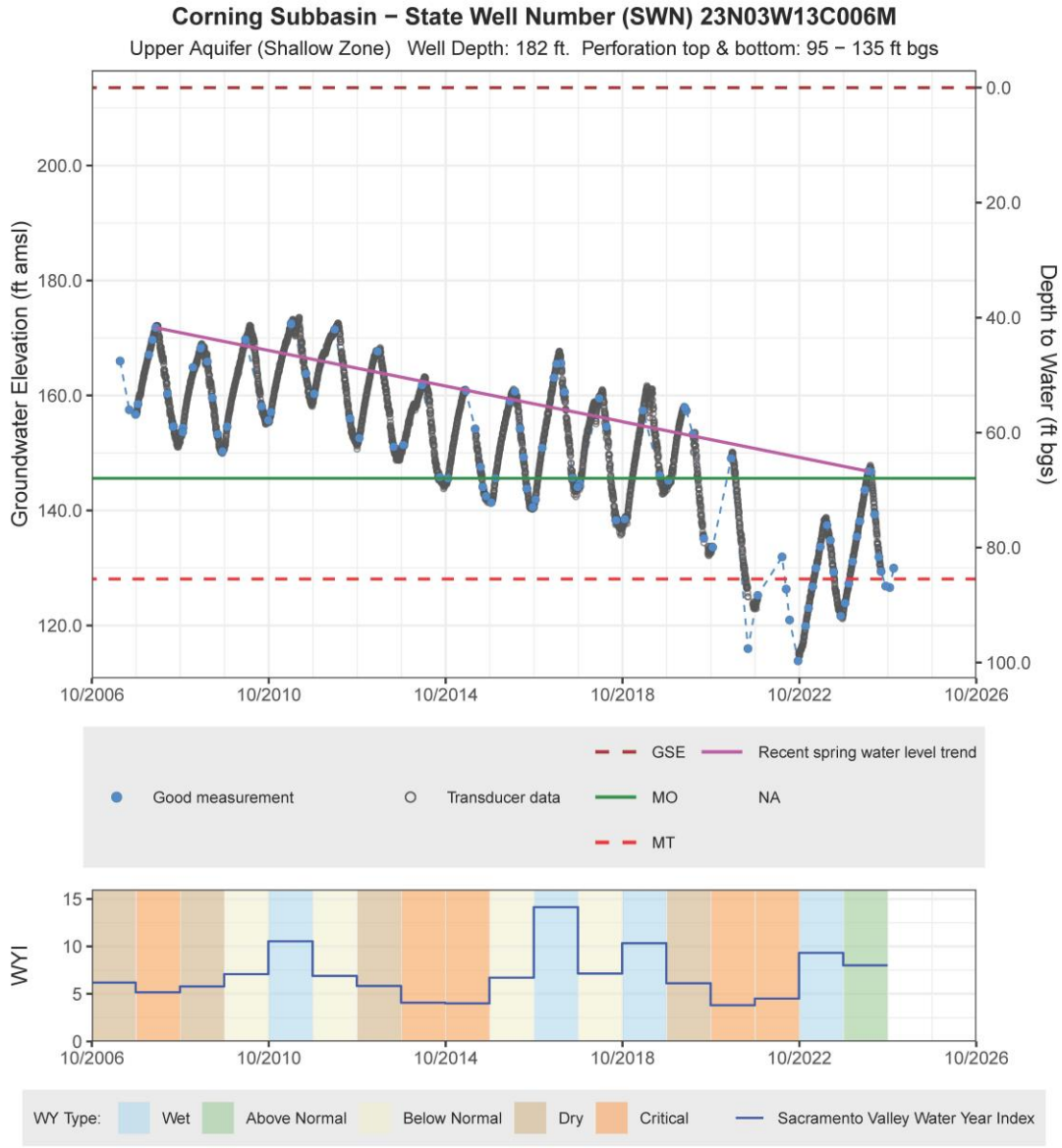
Groundwater Conditions – Groundwater Elevations



MO GWE: 145.6 ft amsl
MO DTW: 67.94 ft bgs

MT GWE: 128.1 ft amsl
MT DTW: 85.44 ft bgs

Statistics of spring water levels for past 16 years (2008 to 2024):
Change = −24.97 ft
Avg. rate of change = −1.56 ft/yr
Avg. water level = 160.93 ft amsl



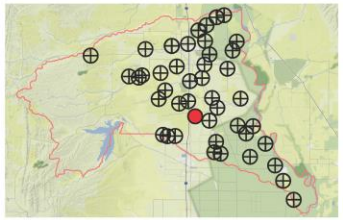
Groundwater Elevations

- Minimum Threshold: 128.1 ft
- Measurable Objective: 145.6 ft

- Spring 2024 WLE: 146.82 ft
- Fall 2024 WLE: 126.61 ft

- Above MO for Spring but not Fall 2024
- Above MT in Spring 2024; 1.49 ft **below** MT in Fall 2024

Groundwater Conditions – Groundwater Elevations

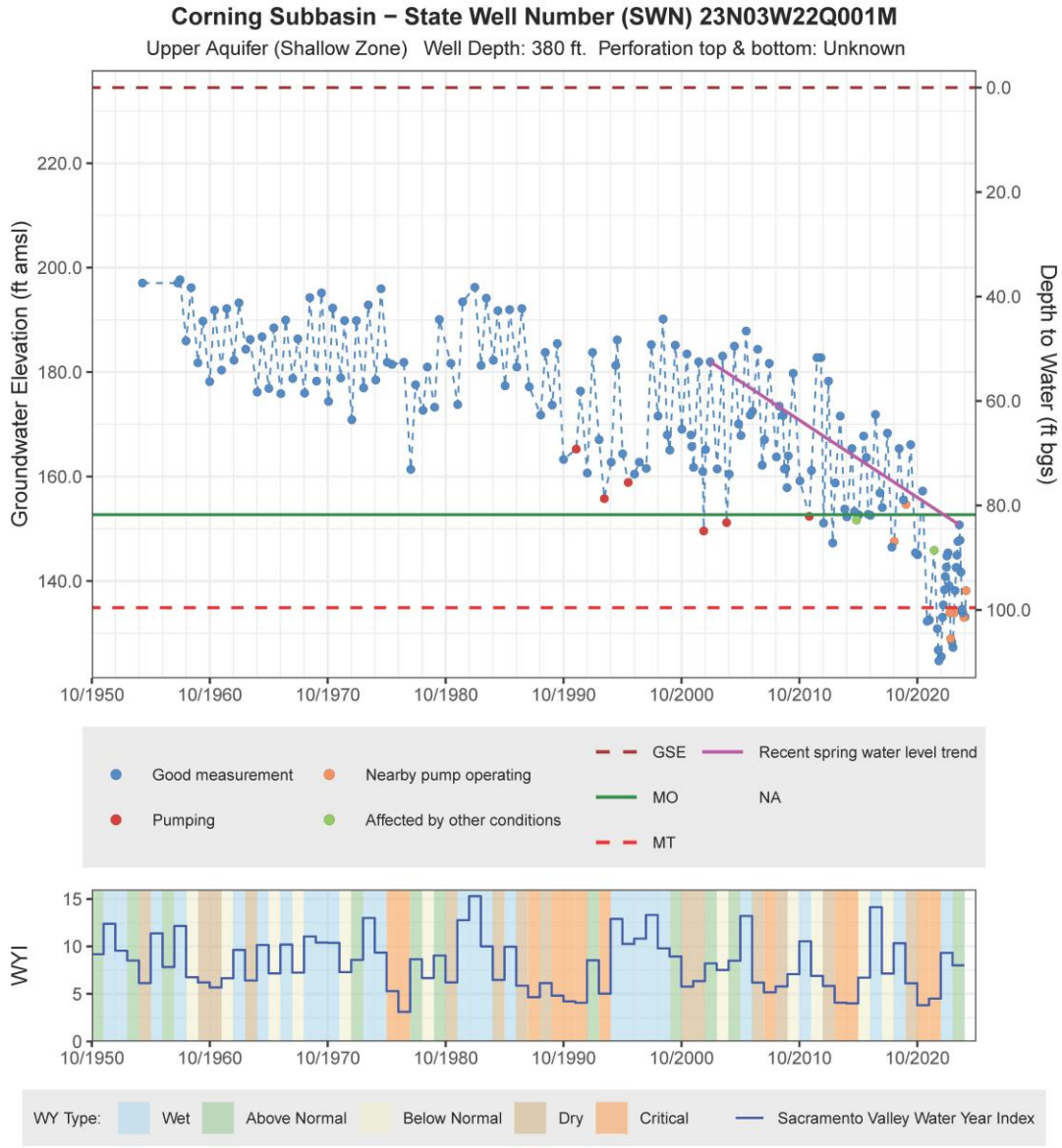


Graphed Well
Other Well

MO GWE: 152.7 ft amsl
MO DTW: 81.77 ft bgs

MT GWE: 134.9 ft amsl
MT DTW: 99.57 ft bgs

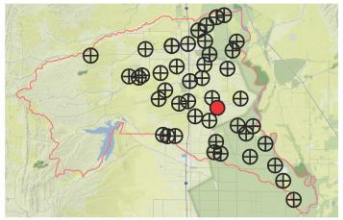
Statistics of spring water levels for past 21 years (2003 to 2024):
Change = −31.22 ft
Avg. rate of change = −1.49 ft/yr
Avg. water level = 182.49 ft amsl



Groundwater Elevations

- Minimum Threshold: 134.9 ft
- Measurable Objective: 152.7 ft
- Spring 2024 WLE: 150.75 ft
- Fall 2024 WLE: 133.15 ft
- Below MO for Spring and Fall 2024
- Above MT in Spring 2024; 1.75 ft **below** MT in Fall 2024

Groundwater Conditions – Groundwater Elevations

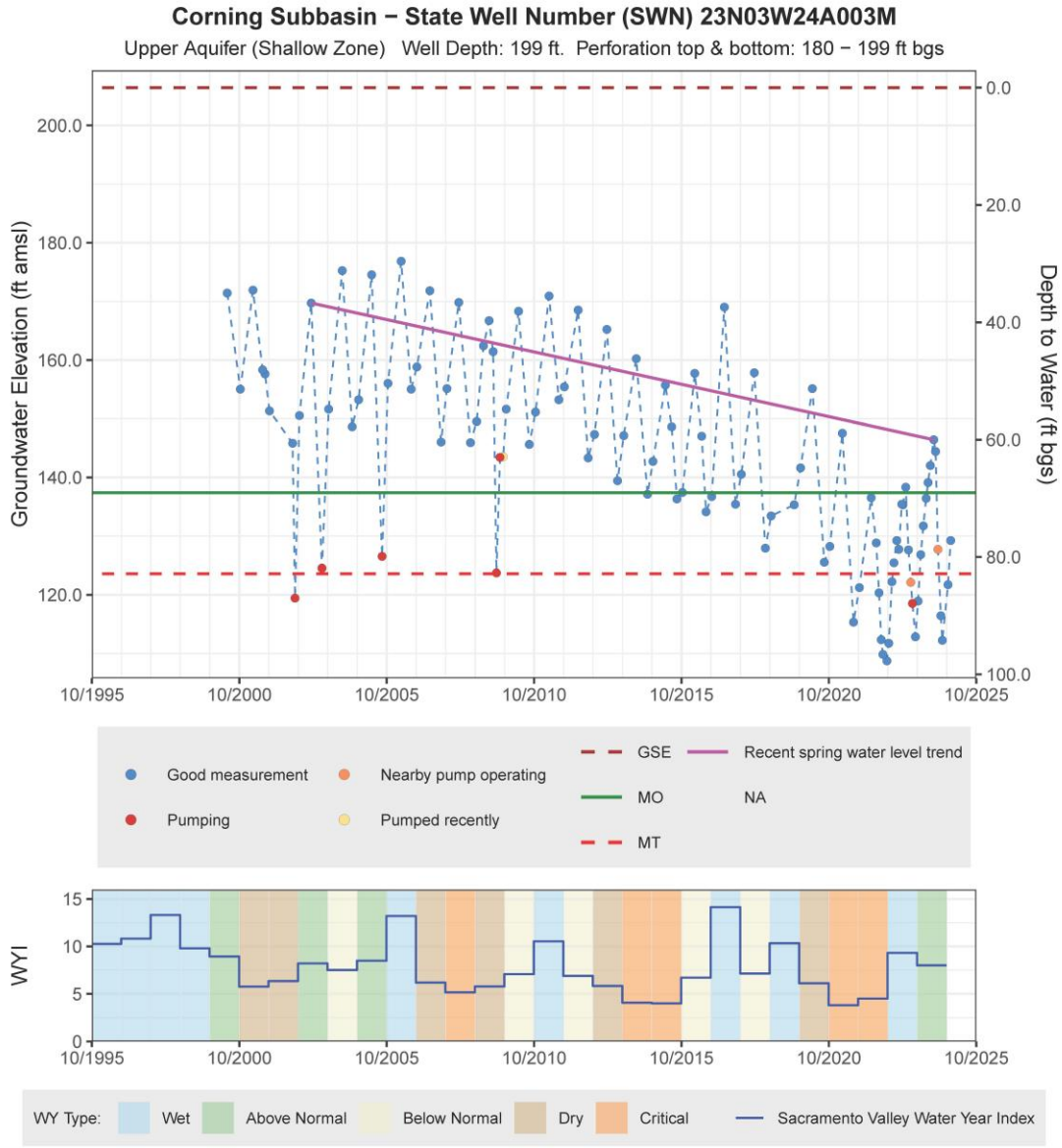


Graphed Well
Other Well

MO GWE: 137.4 ft amsl
MO DTW: 69.04 ft bgs

MT GWE: 123.6 ft amsl
MT DTW: 82.84 ft bgs

Statistics of spring water levels for past 21 years (2003 to 2024):
Change = −23.3 ft
Avg. rate of change = −1.11 ft/yr
Avg. water level = 162.34 ft amsl



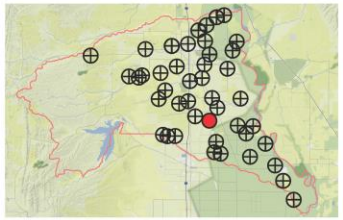
Groundwater Elevations

- Minimum Threshold: 123.6 ft
- Measurable Objective: 137.4 ft

- Spring 2024 WLE: 146.44 ft
- Fall 2024 WLE: 121.74 ft

- Above MO for Spring but not Fall 2024
- Above MT in Spring 2024; 1.86 ft **below** MT in Fall 2024

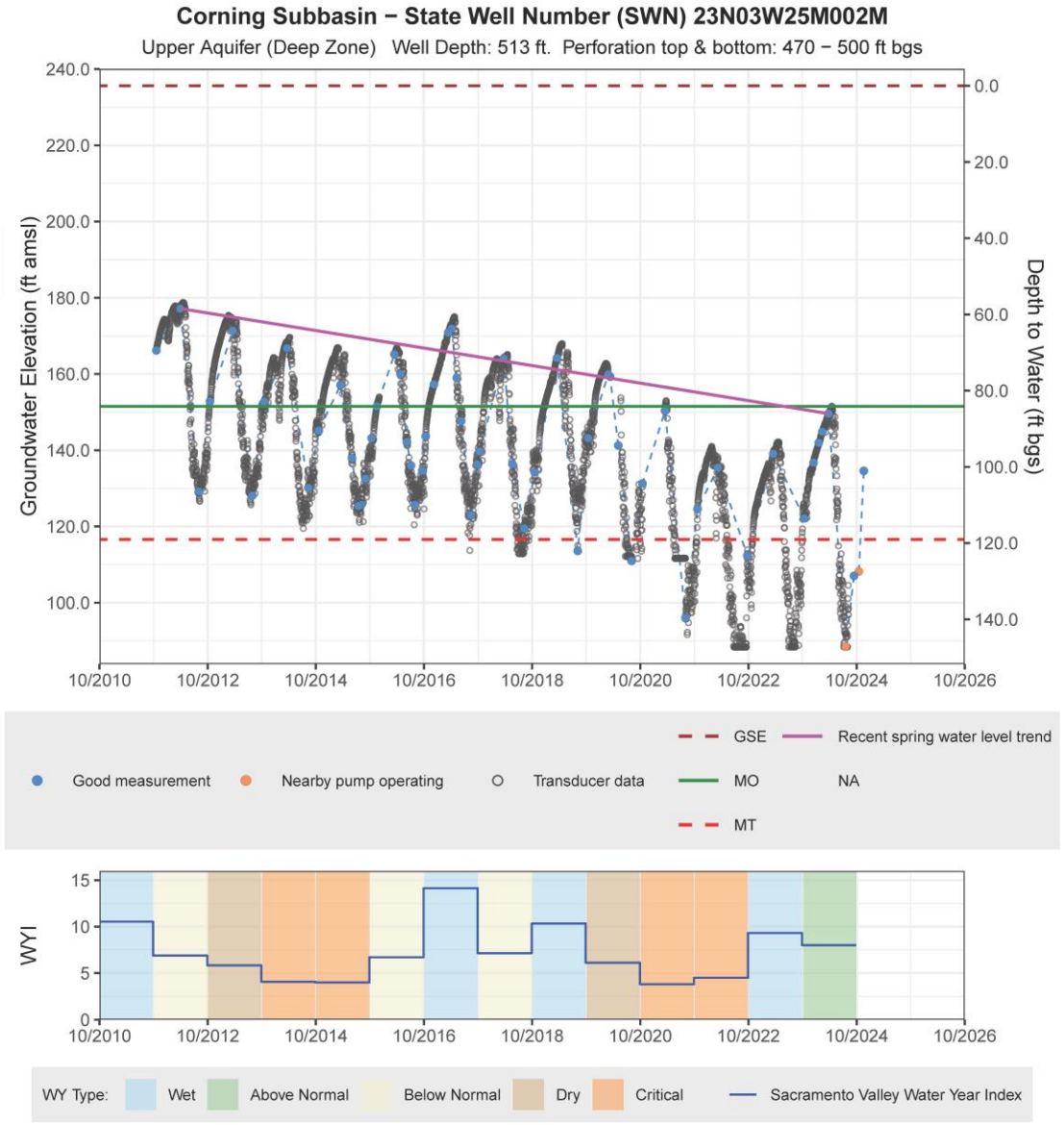
Groundwater Conditions – Groundwater Elevations



MO GWE: 151.5 ft amsl
MO DTW: 84.12 ft bgs

MT GWE: 116.6 ft amsl
MT DTW: 119.02 ft bgs

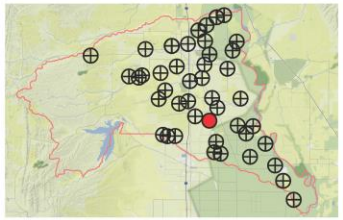
Statistics of spring water levels for past 12 years (2012 to 2024):
Change = −27.6 ft
Avg. rate of change = −2.3 ft/yr
Avg. water level = 159.39 ft amsl



Groundwater Elevations

- Minimum Threshold: 116.6 ft
- Measurable Objective: 151.5 ft
- Spring 2024 WLE: 149.58 ft
- Fall 2024 WLE: 108.22 ft
- Below MO for both Spring and Fall 2024
- Above MT in Spring 2024; 8.38 ft **below** MT in Fall 2024

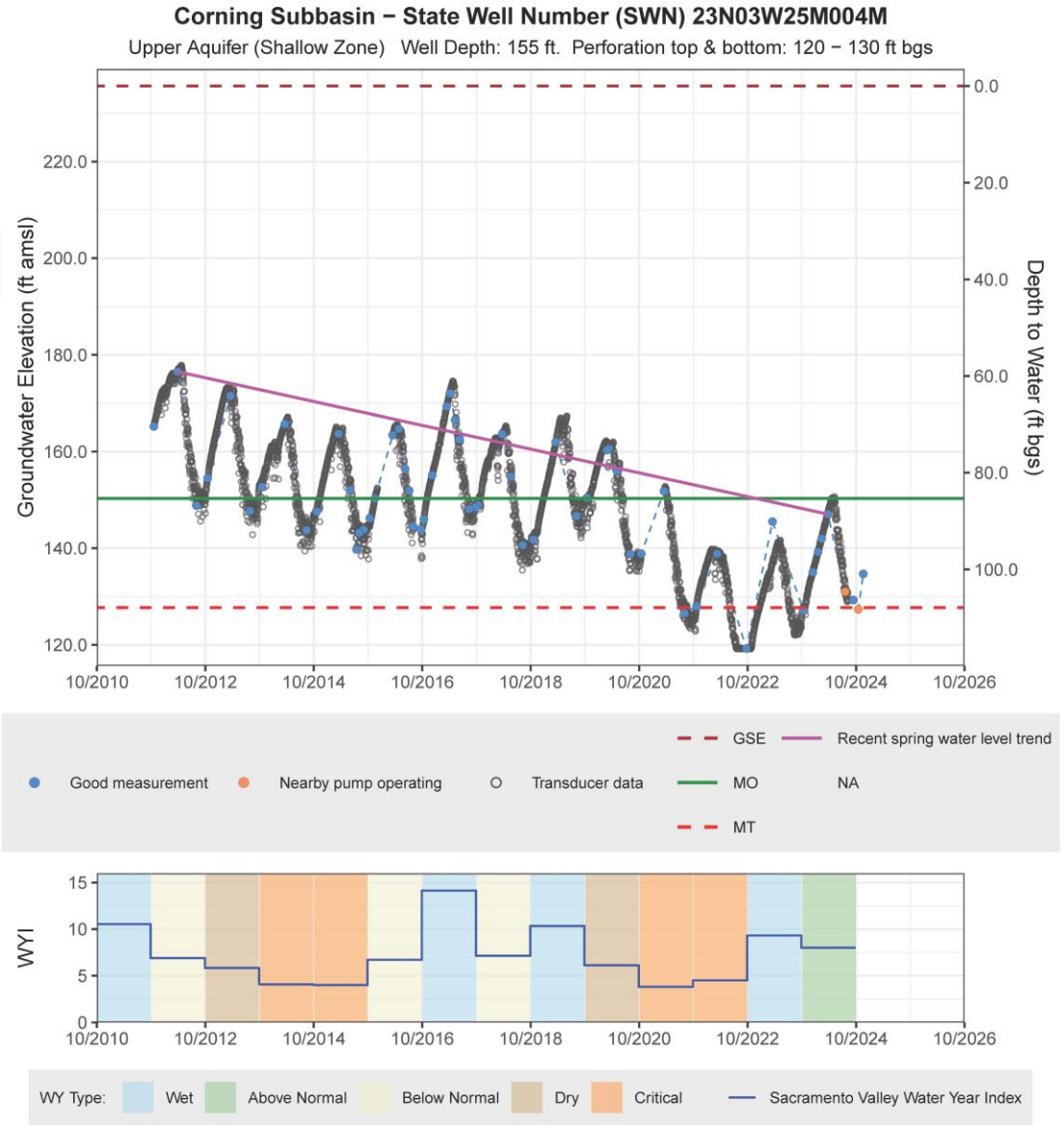
Groundwater Conditions – Groundwater Elevations



MO GWE: 150.3 ft amsl
MO DTW: 85.32 ft bgs

MT GWE: 127.7 ft amsl
MT DTW: 107.92 ft bgs

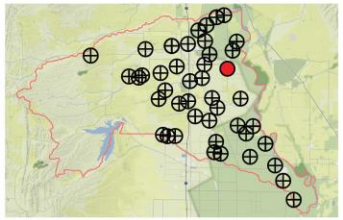
Statistics of spring water levels for past 12 years (2012 to 2024):
Change = −29.47 ft
Avg. rate of change = −2.46 ft/yr
Avg. water level = 160.26 ft amsl



Groundwater Elevations

- Minimum Threshold: 127.7 ft
- Measurable Objective: 150.3 ft
- Spring 2024 WLE: 147.03 ft
- Fall 2024 WLE: 127.35 ft
- Below MO for both Spring and Fall 2024
- Above MT in Spring 2024; 0.35 ft **below** MT in Fall 2024

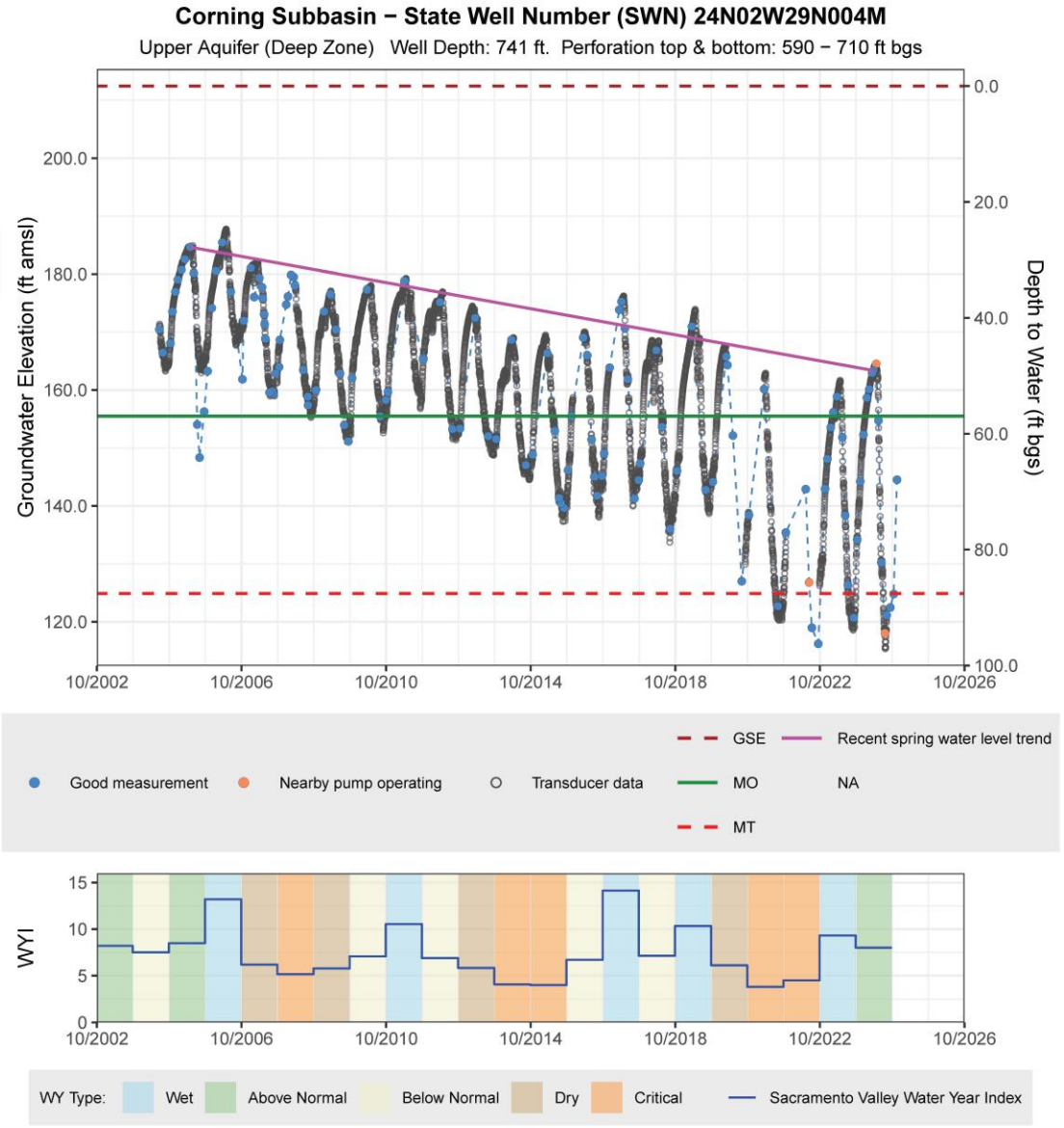
Groundwater Conditions – Groundwater Elevations



MO GWE: 155.5 ft amsl
MO DTW: 56.95 ft bgs

MT GWE: 124.9 ft amsl
MT DTW: 87.55 ft bgs

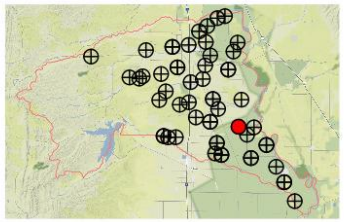
Statistics of spring water levels for past 19 years (2005 to 2024):
Change = −21.29 ft
Avg. rate of change = −1.12 ft/yr
Avg. water level = 172.45 ft amsl



Groundwater Elevations

- Minimum Threshold: 124.9 ft
- Measurable Objective: 155.5 ft
- Spring 2024 WLE: 164.51 ft
- Fall 2024 WLE: 124.8 ft
- Above MO for Spring but not Fall 2024
- Above MT in Spring 2024; 0.10 ft **below** MT in Fall 2024

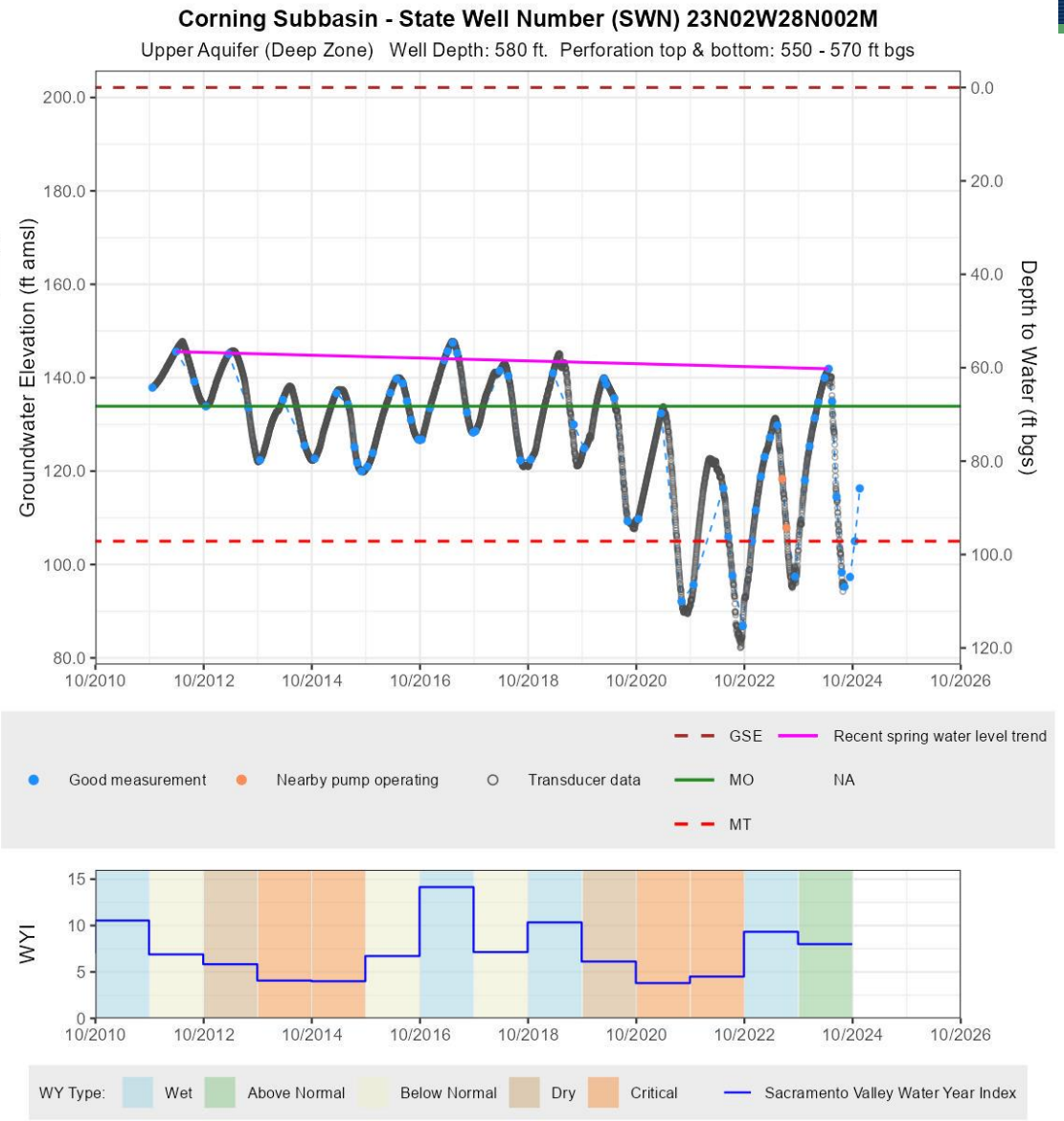
Groundwater Conditions – Groundwater Elevations



MO GWE: 133.9 ft amsl
MO DTW: 68.24 ft bgs

MT GWE: 105 ft amsl
MT DTW: 97.14 ft bgs

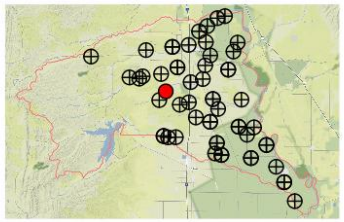
Statistics of spring water levels for past 12 years (2012 to 2024):
Change = -3.65 ft
Avg. rate of change = -0.3 ft/yr
Avg. water level = 139.31 ft amsl



Groundwater Elevations

- Minimum Threshold: 105 ft
- Measurable Objective: 133.9 ft
- Spring 2024 WLE: 141.92 ft
- Fall 2024 WLE: 99.37 ft
- Above MO for Spring but not Fall 2024
- Above MT in Spring 2024; 5.63 ft **below** MT in Fall 2024

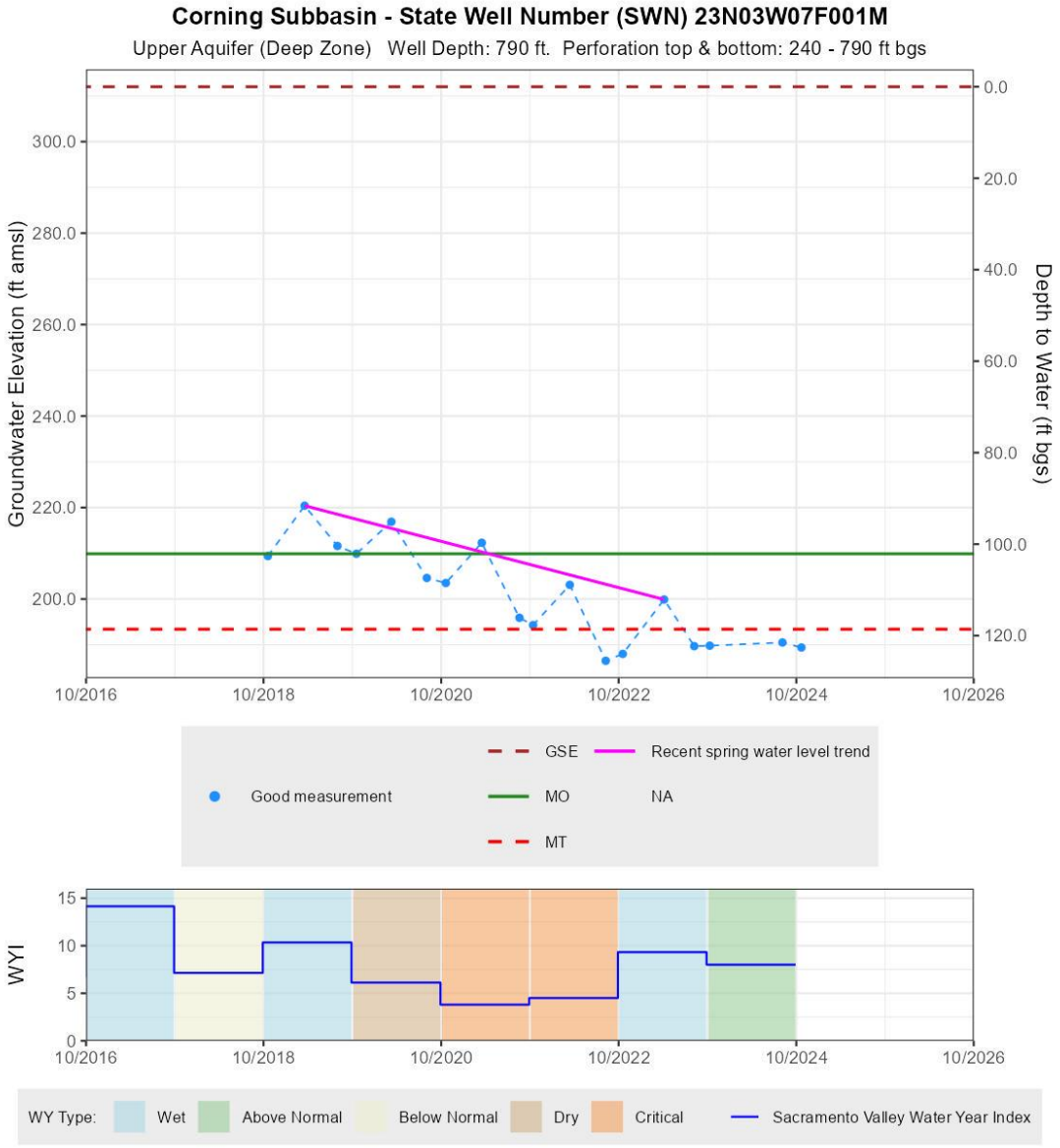
Groundwater Conditions – Groundwater Elevations



MO GWE: 209.9 ft amsl
MO DTW: 102.1 ft bgs

MT GWE: 193.4 ft amsl
MT DTW: 118.6 ft bgs

Statistics of spring water levels for past 4 years (2019 to 2023):
Change = -20.5 ft
Avg. rate of change = -5.12 ft/yr
Avg. water level = 210.52 ft amsl



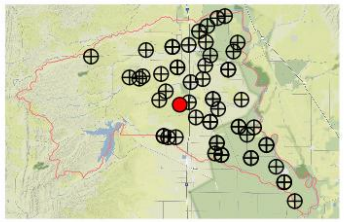
Groundwater Elevations

- Minimum Threshold: 193.4 ft
- Measurable Objective: 209.9 ft

- Spring 2024 WLE: -- ft
- Fall 2024 WLE: 189.4 ft

- 20.5 ft **Below** MO for Fall 2024
- 4.00 ft **below** MT in Fall 2024

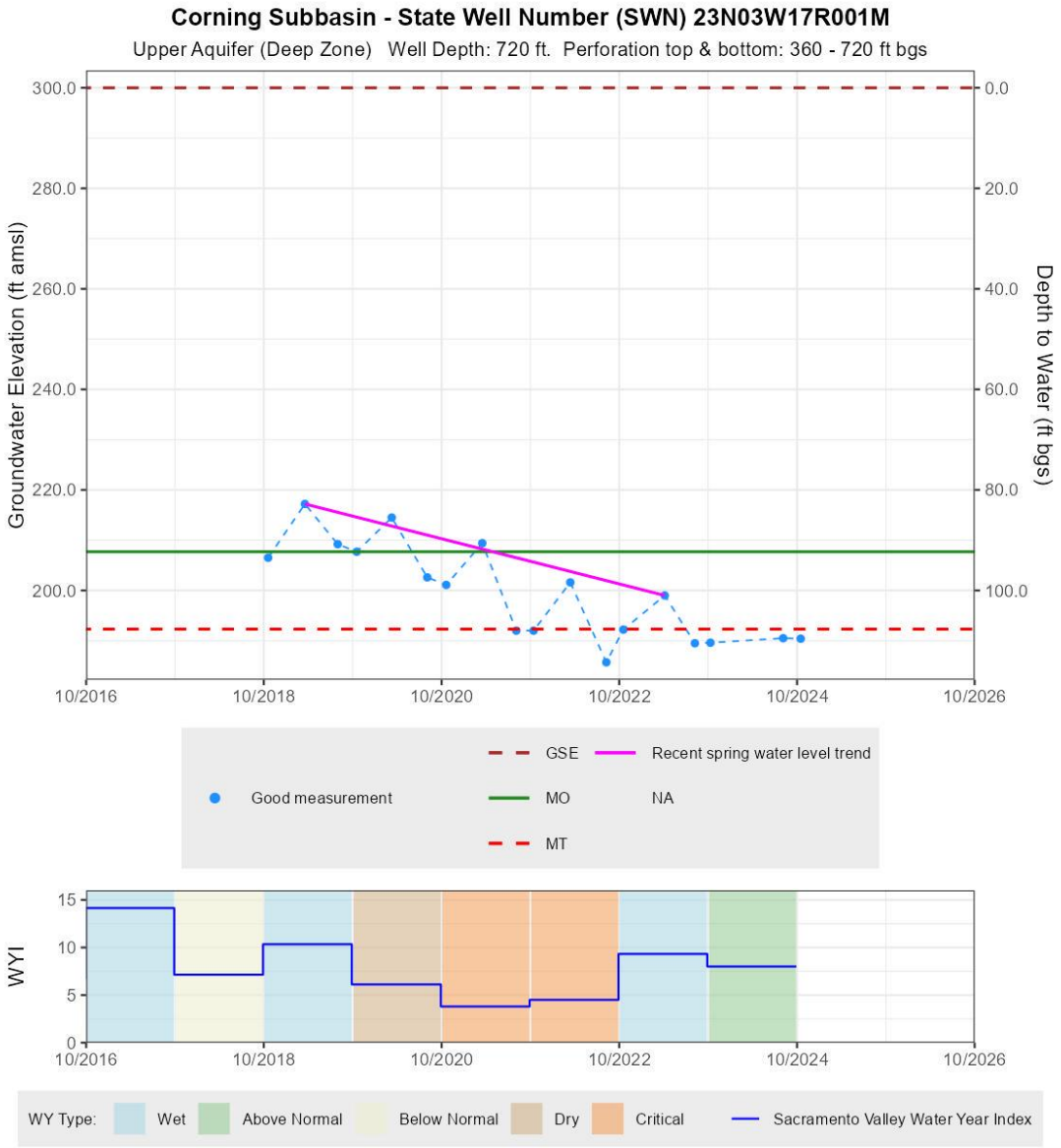
Groundwater Conditions – Groundwater Elevations



MO GWE: 207.7 ft amsl
MO DTW: 92.3 ft bgs

MT GWE: 192.3 ft amsl
MT DTW: 107.7 ft bgs

Statistics of spring water levels for past 4 years (2019 to 2023):
Change = -18.2 ft
Avg. rate of change = -4.55 ft/yr
Avg. water level = 208.34 ft amsl



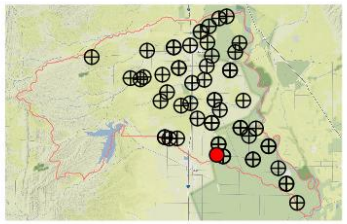
Groundwater Elevations

- Minimum Threshold: 192.3 ft
- Measurable Objective: 207.7 ft

- Spring 2024 WLE: -- ft
- Fall 2024 WLE: 190.4 ft

- 17.3 ft **Below** MO for Fall 2024
- 1.90 ft **below** MT in Fall 2024

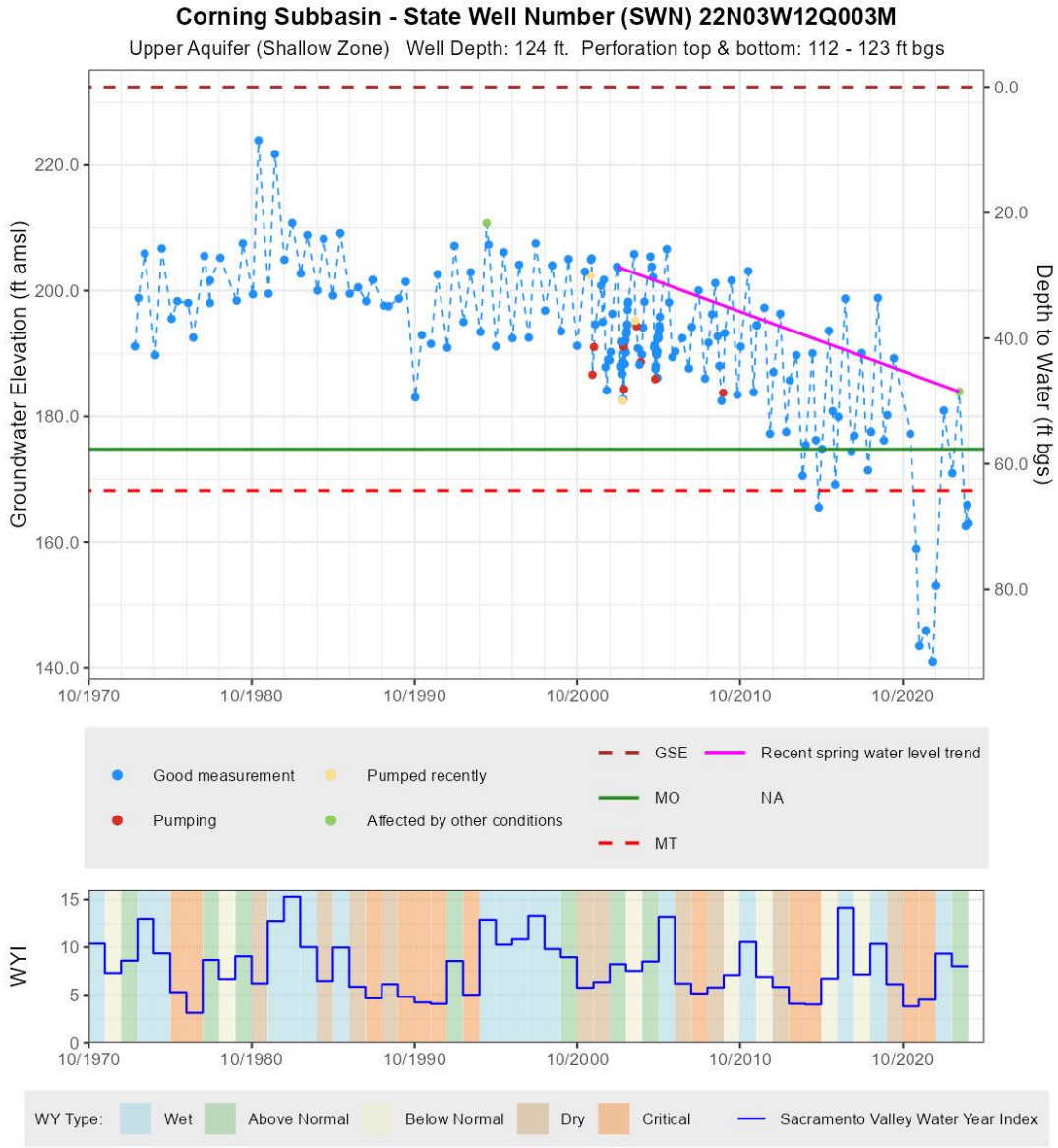
Groundwater Conditions – Groundwater Elevations



MO GWE: 174.8 ft amsl
MO DTW: 57.64 ft bgs

MT GWE: 168.2 ft amsl
MT DTW: 64.24 ft bgs

Statistics of spring water levels for past 21 years (2003 to 2024):
Change = -19.9 ft
Avg. rate of change = -0.95 ft/yr
Avg. water level = 199.92 ft amsl



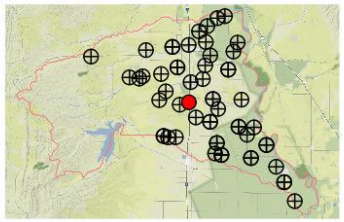
Groundwater Elevations

- Minimum Threshold: 168.2 ft
- Measurable Objective: 174.8 ft

- Spring 2024 WLE: 183.94 ft
- Fall 2024 WLE: 162.94 ft

- Above the MO for Spring, but below MO for Fall 2024
- Above MT in Spring 2024; 5.26 ft **below** MT in Fall 2024

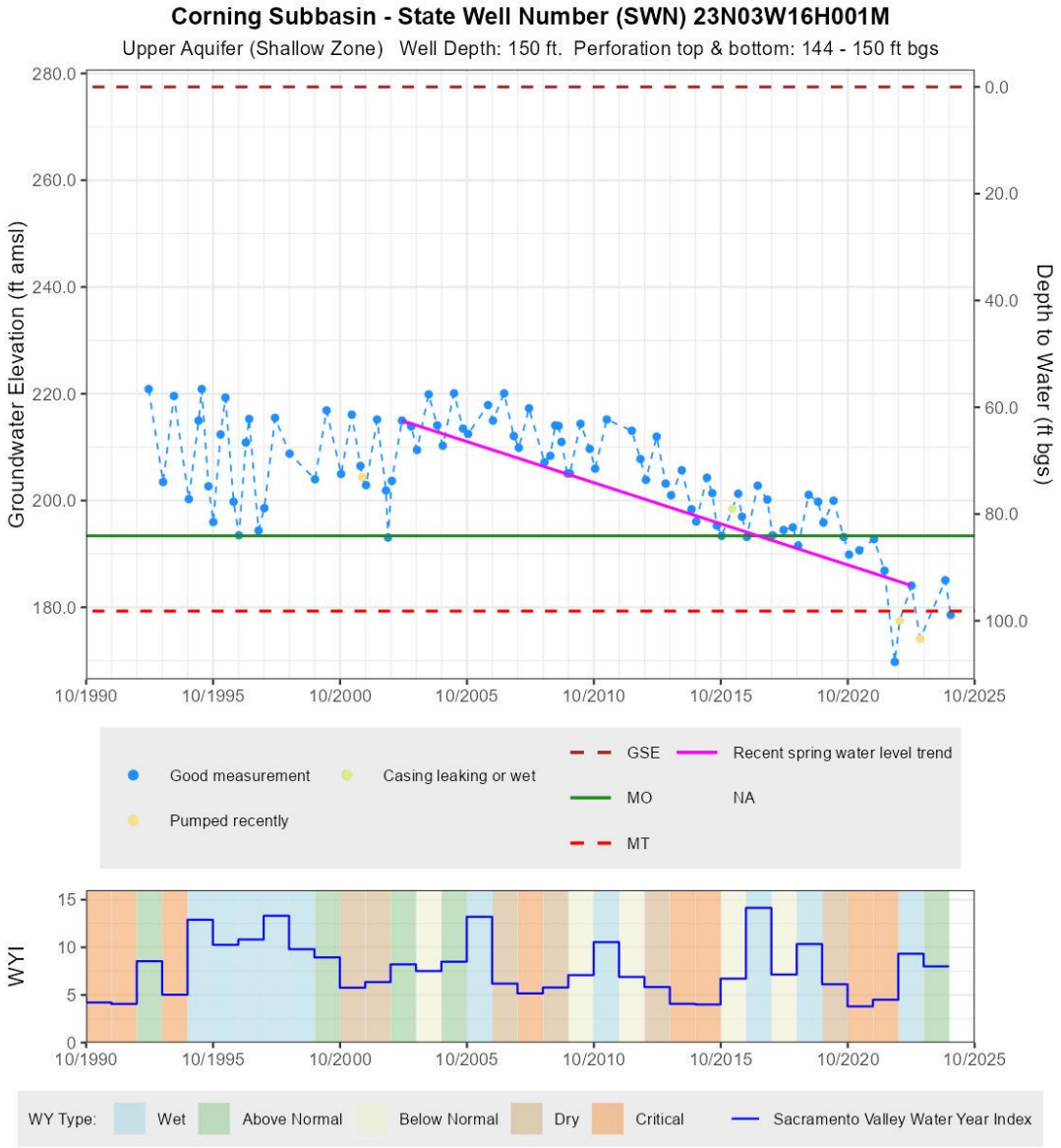
Groundwater Conditions – Groundwater Elevations



MO GWE: 193.4 ft amsl
MO DTW: 84.08 ft bgs

MT GWE: 179.3 ft amsl
MT DTW: 98.18 ft bgs

Statistics of spring water levels for past 20 years (2003 to 2023):
Change = -30.9 ft
Avg. rate of change = -1.54 ft/yr
Avg. water level = 209.96 ft amsl



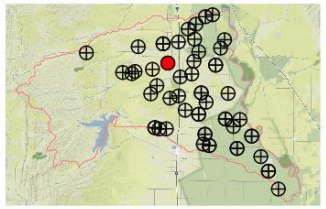
Groundwater Elevations

- Minimum Threshold: 179.3 ft
- Measurable Objective: 193.4 ft

- Spring 2024 WLE: -- ft
- Fall 2024 WLE: 178.58 ft

- 14.82 ft **below** MO for Fall 2024
- 0.72 ft **below** MT in Fall 2024

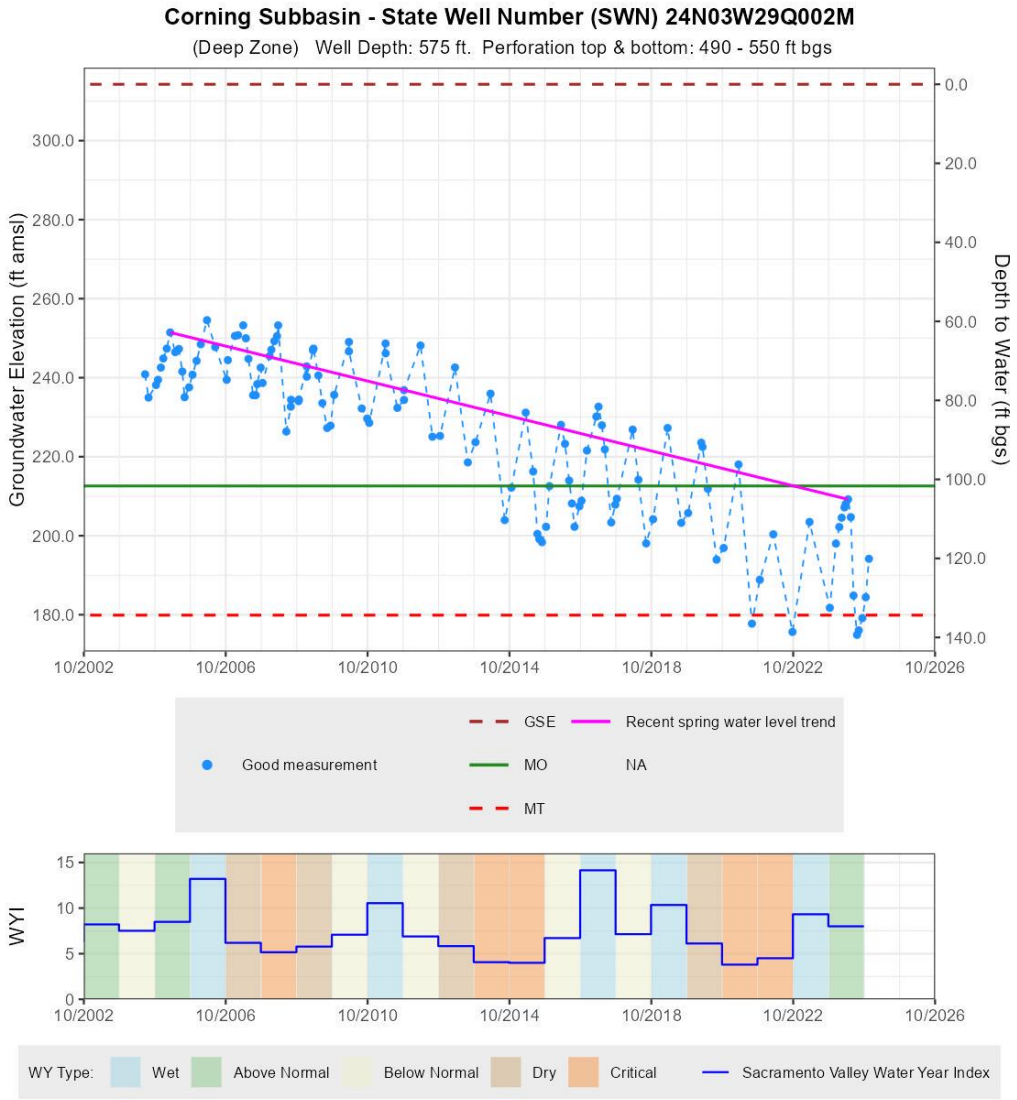
Groundwater Trendline Analysis



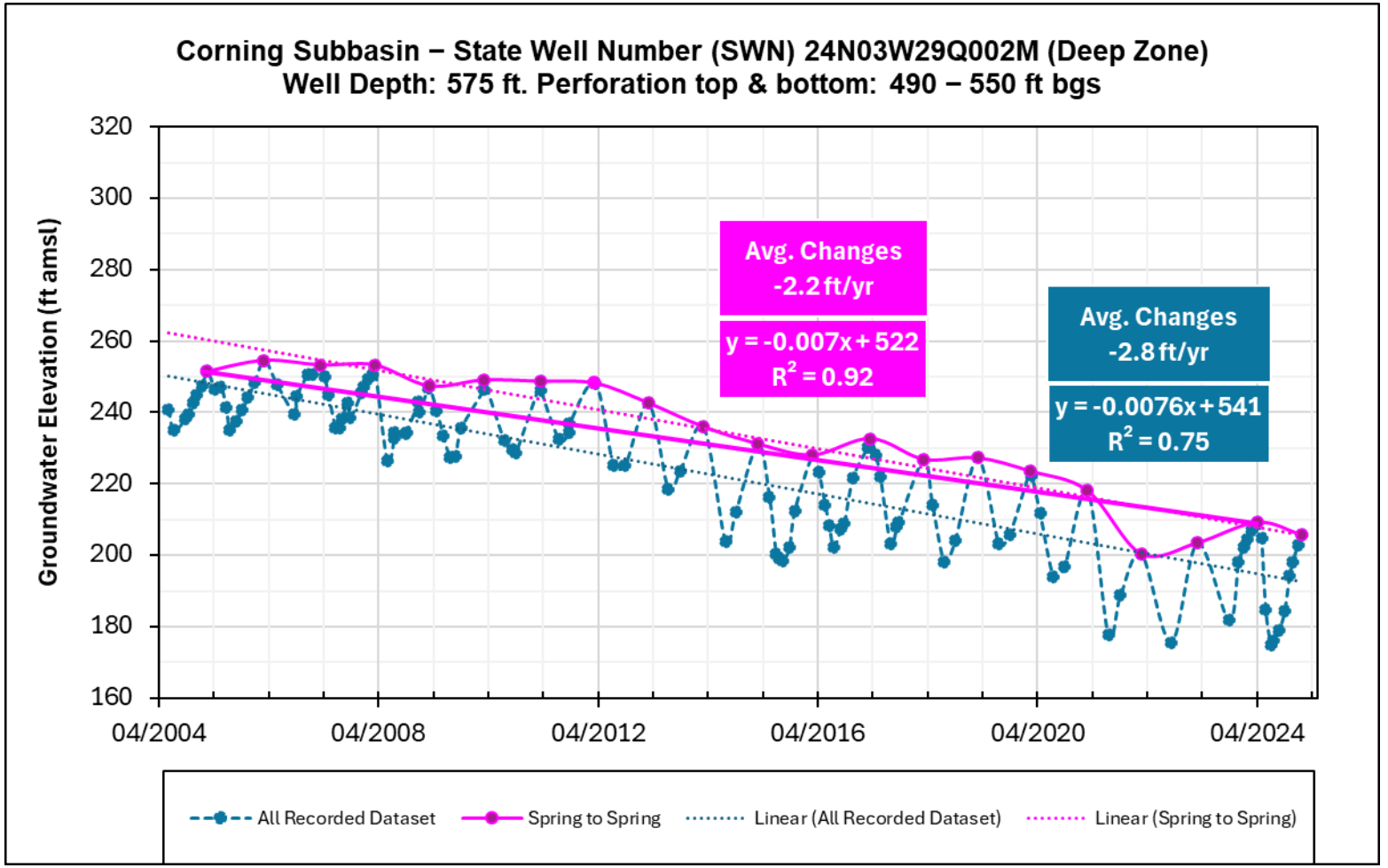
MO GWE: 212.6 ft amsl
MT GWE: 179.9 ft amsl

Area: Within Special Zone
(Reference: GSP, 2024)

Statistics of spring water levels for past 19 years (2005 to 2024):
Change = -42.24 ft
Avg. rate of change = -2.22 ft/yr
Avg. water level = 234.25 ft amsl



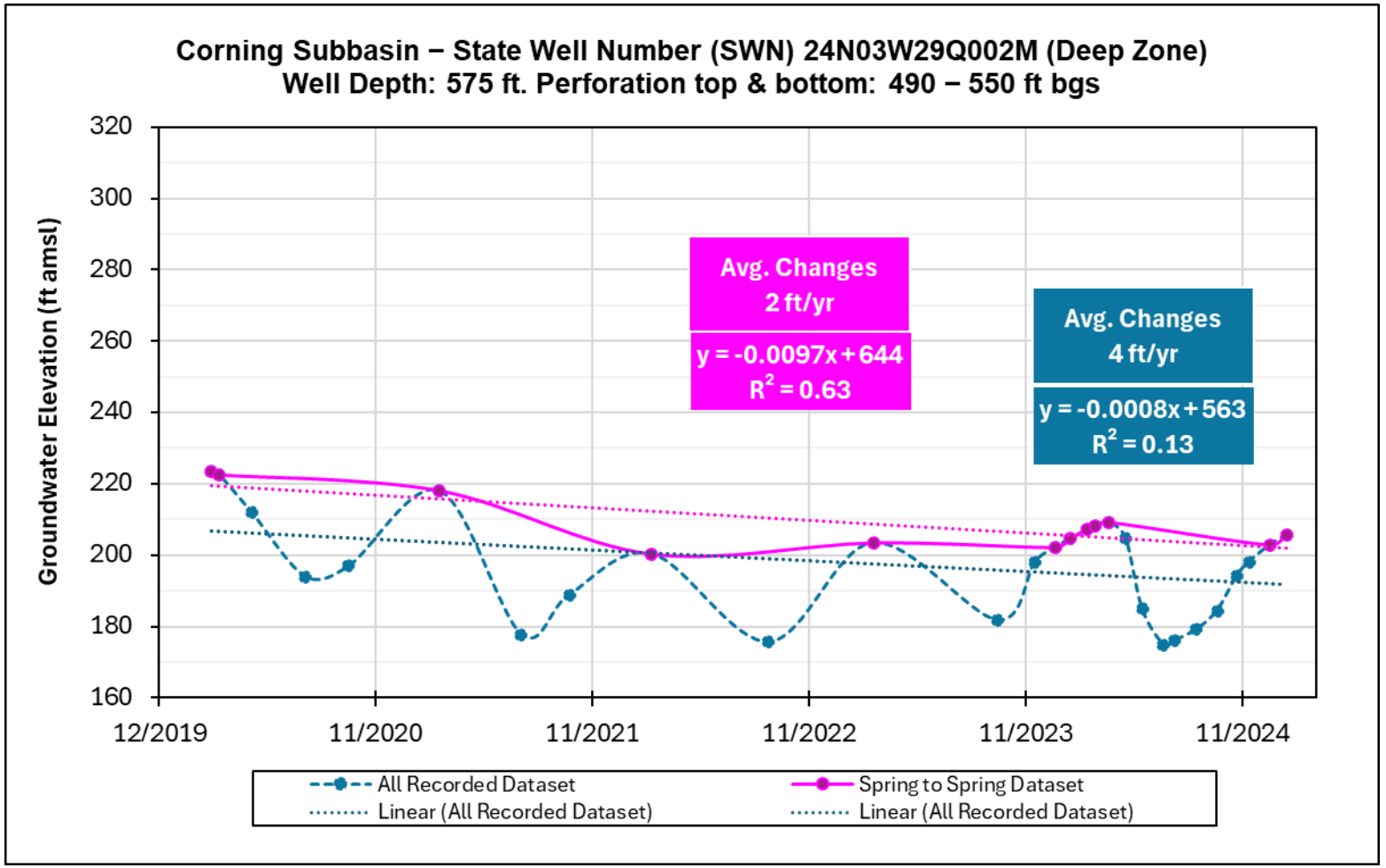
Groundwater Trendline – (Long Term)



LSCE

DAVIDS ENGINEERING, INC

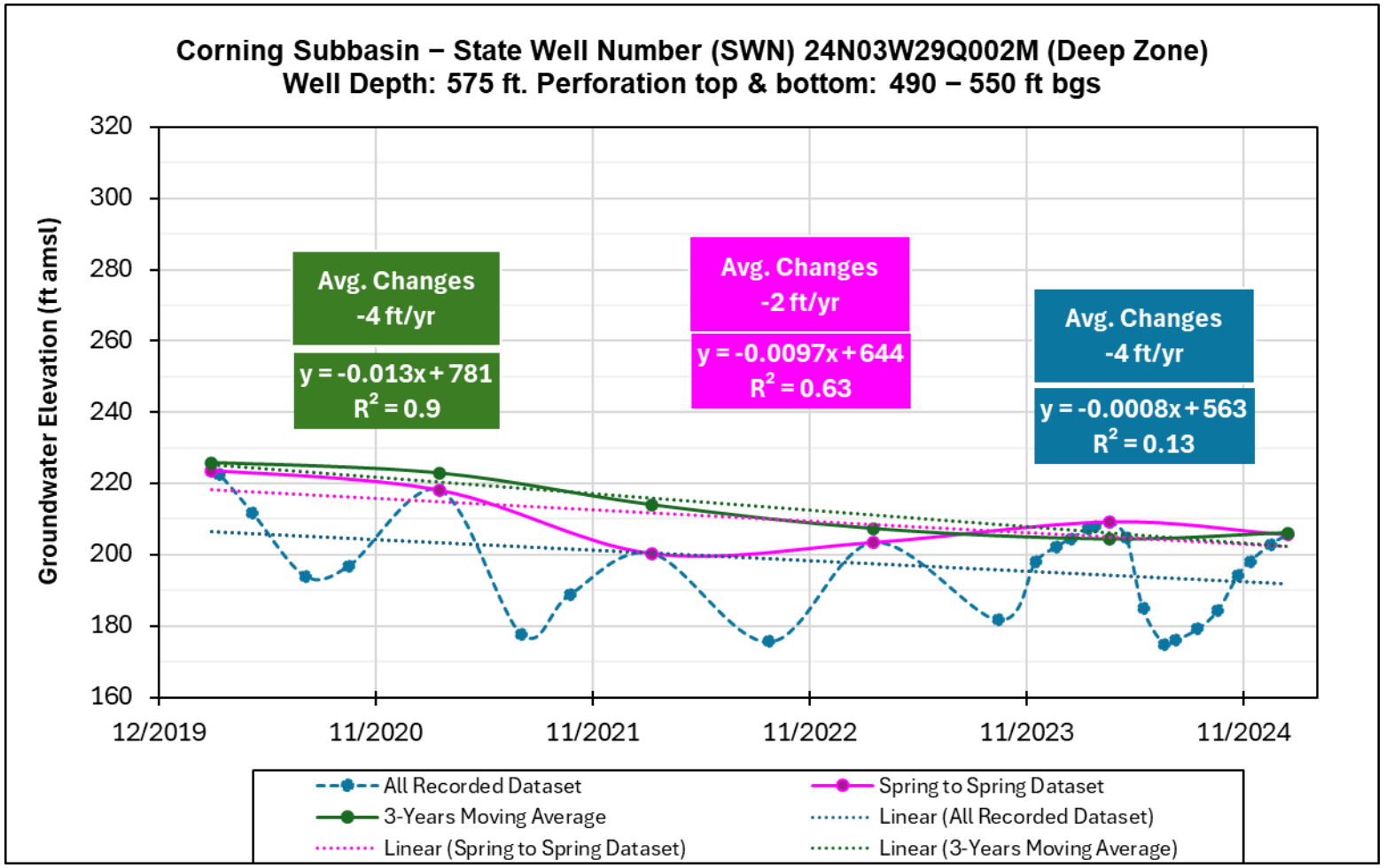
Groundwater Trendline – (Short Term)



LSCE

DAVIDS ENGINEERING, INC

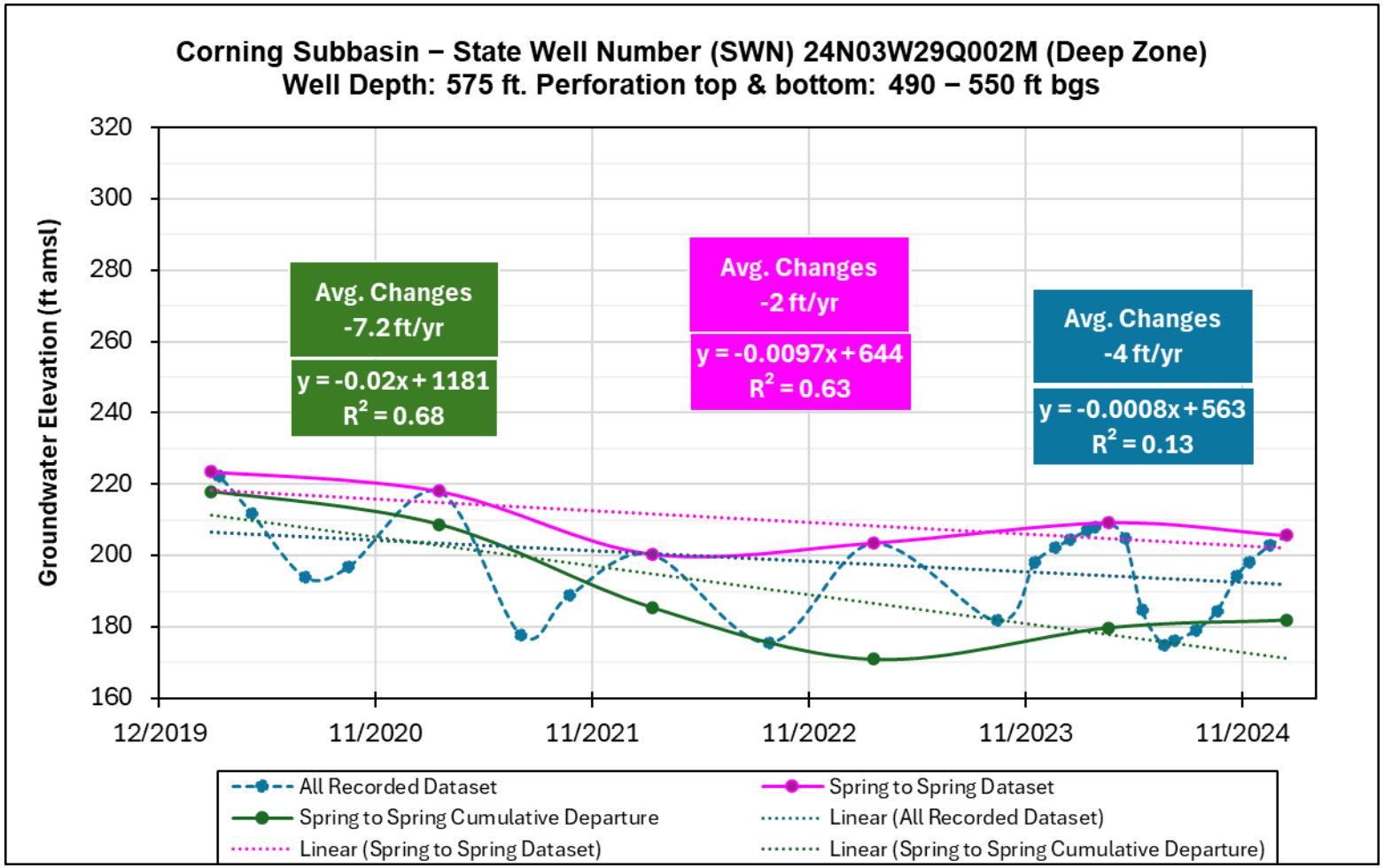
Groundwater Trendline – (Short Term – Moving Average)



LSCE

DAVIDS ENGINEERING, INC

Groundwater Trendline – (Short Term - Cumulative Departure)

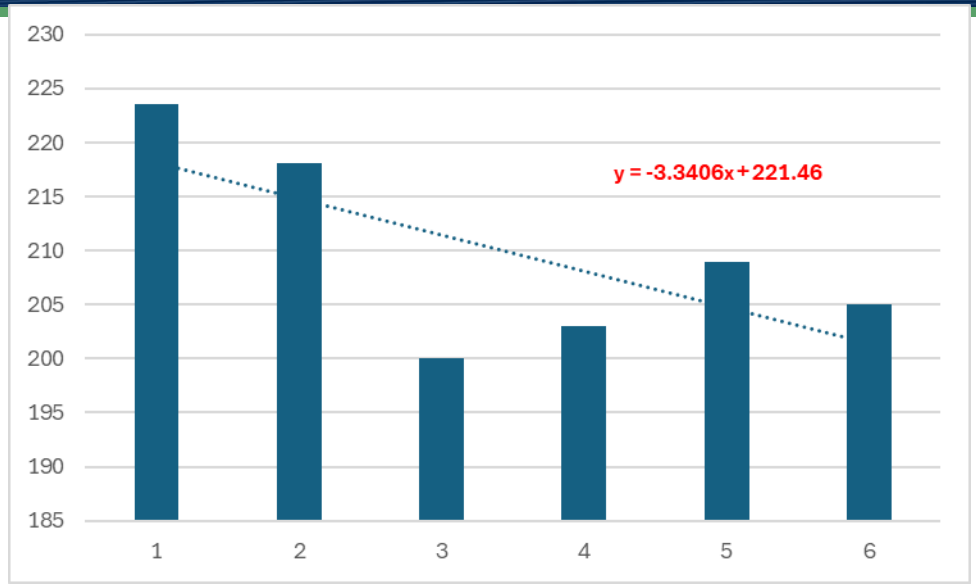


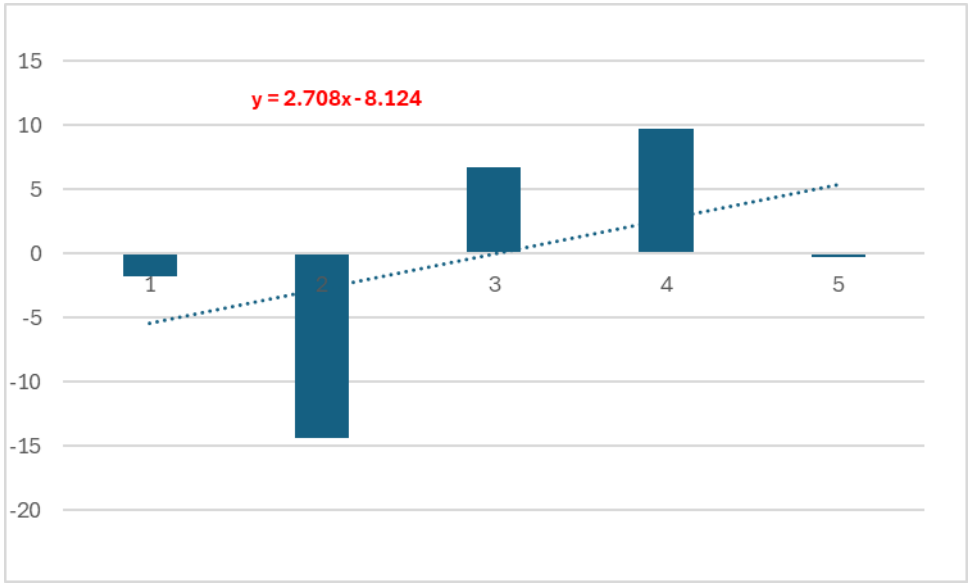
LSCE

DAVIDS ENGINEERING, INC

Groundwater Trendline – (Moving Forward)

Date	Elevation	Change
2019	224	
2020	218	-6
2021	200	-18
2022	203	3
2023	209	6
2024	205	-4
average	18.56	-3.712
	3.09	





LSCE

Groundwater Conditions – Annual Groundwater Storage

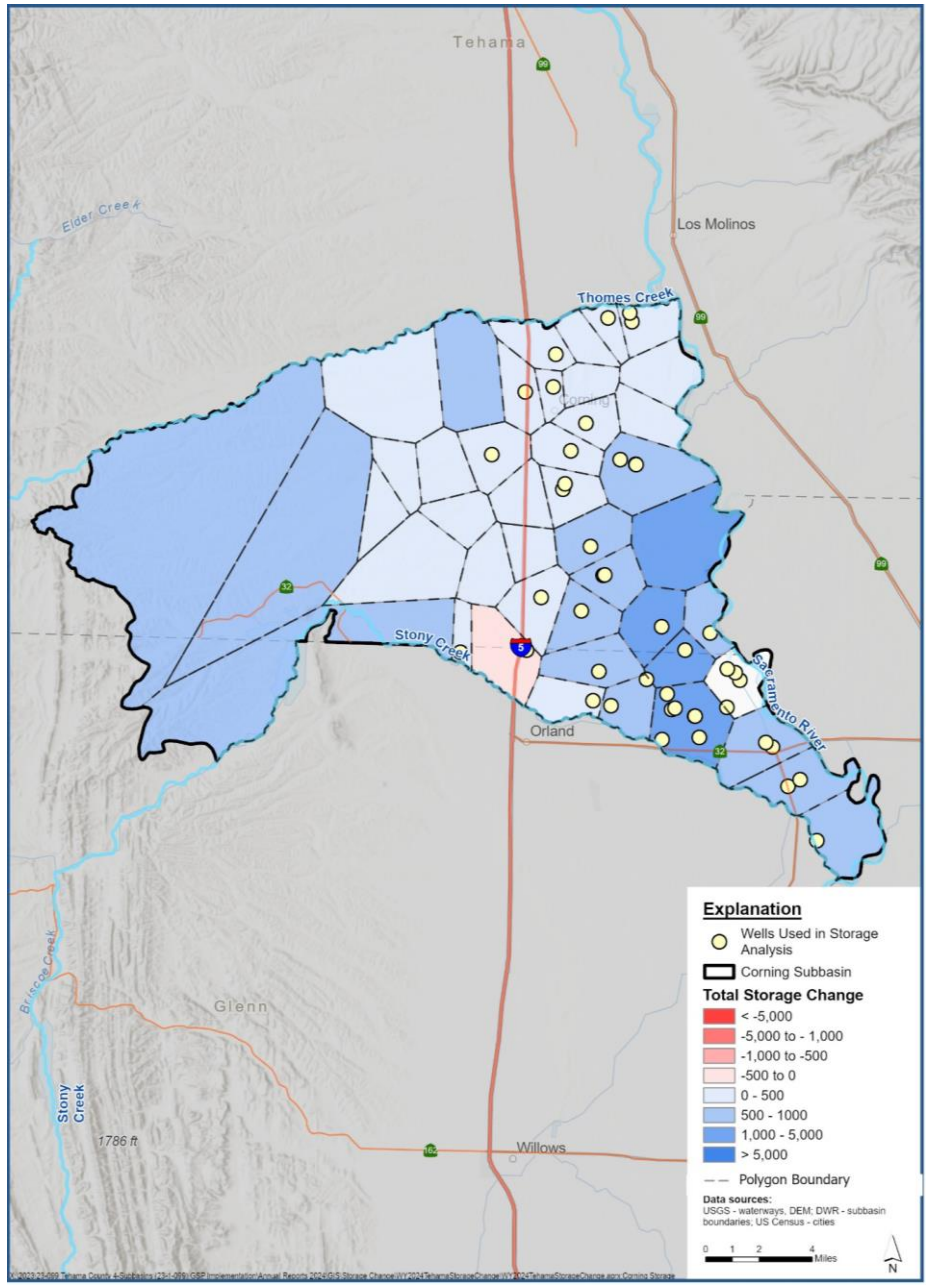
Groundwater Storage

- Estimated from water level changes between Spring 2023 and Spring 2024
- Change in storage was between **-160** and **1,400** AF per polygon from Spring 2023 to Spring 2024.

Average Storage Change

1990-2024 = 500 AFY

2015-2024 = -20,000 AFY



LSCE

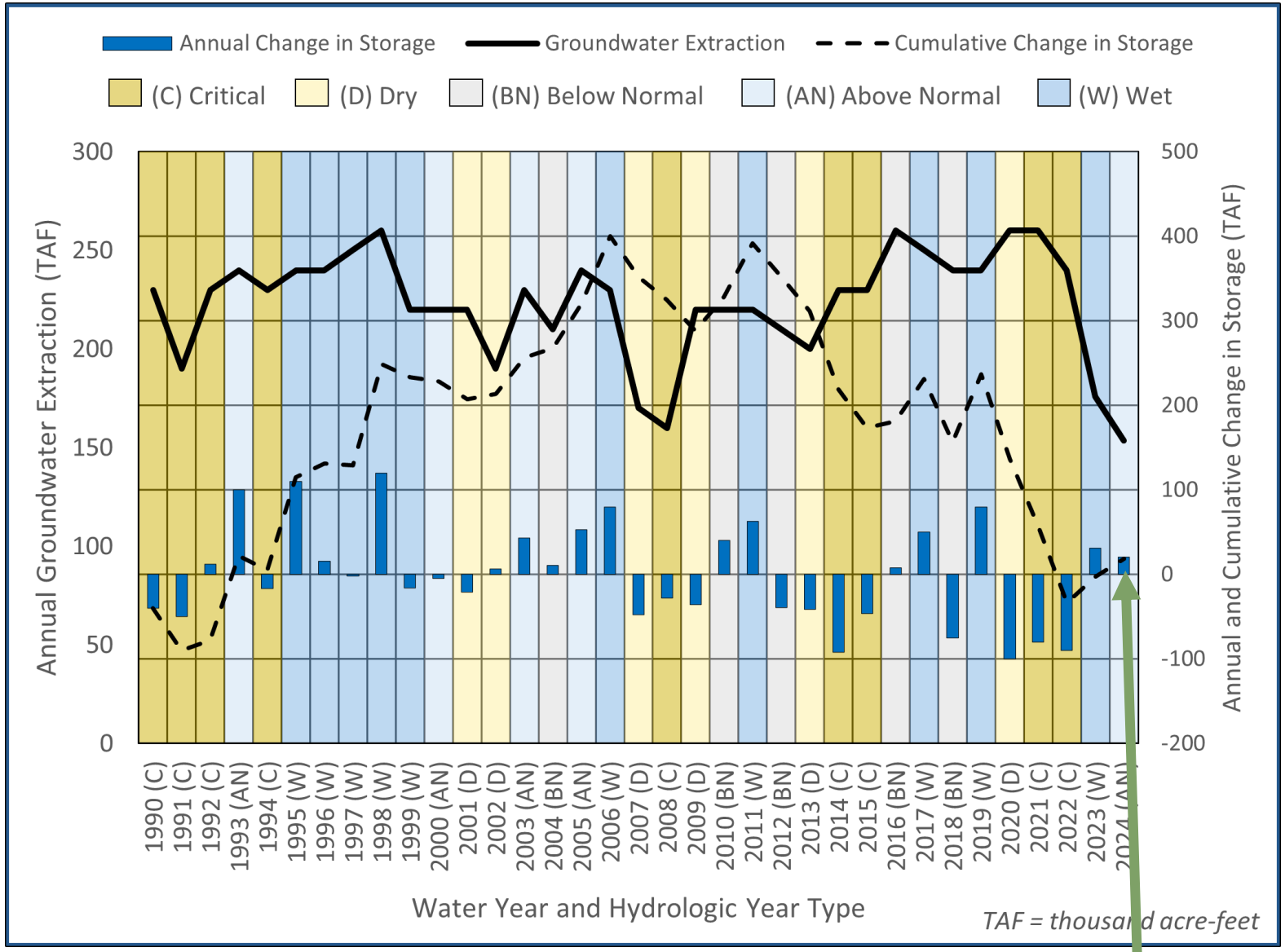
DAVIDS ENGINEERING, INC

Change in Storage

Table 4-1. Corning Subbasin Annual Groundwater Extraction and Change in Storage			
Water Year (Hydrologic Year Type)	**Groundwater Extraction[1] (AF)**	**Annual Change in Storage (AF)**	**Cumulative Change in Storage (AF)**
2018 (BN)	240,000	-75,000	156,500
2019 (W)	240,000	80,000	236,500
2020 (D)	260,000	-100,000	136,500
2021 (C)[2]	260,000	-80,000	56,500
2022 (C)[2]	240,000	-90,000	-33,500
2023 (W)	175,000	31,000	-2,500
2024 (AN)	153,600	20,900	18,400
Historic Averages (1990-2023)[3]			
1990-2023 (33 years)	223,100	-70	
W (9 years)	232,600	53,200	
AN (4 years)	232,500	47,800	
BN (5 years)	228,000	-11,000	
D (6 years)	210,000	-39,900	
C (9 years)	222,200	-47,900	

LSCE DAVIDS ENGINEERING, INC

Groundwater Conditions – Cumulative Groundwater Storage



Average Storage Change
1990-2024 = 500 AFY
2015-2024 = -20,000 AFY

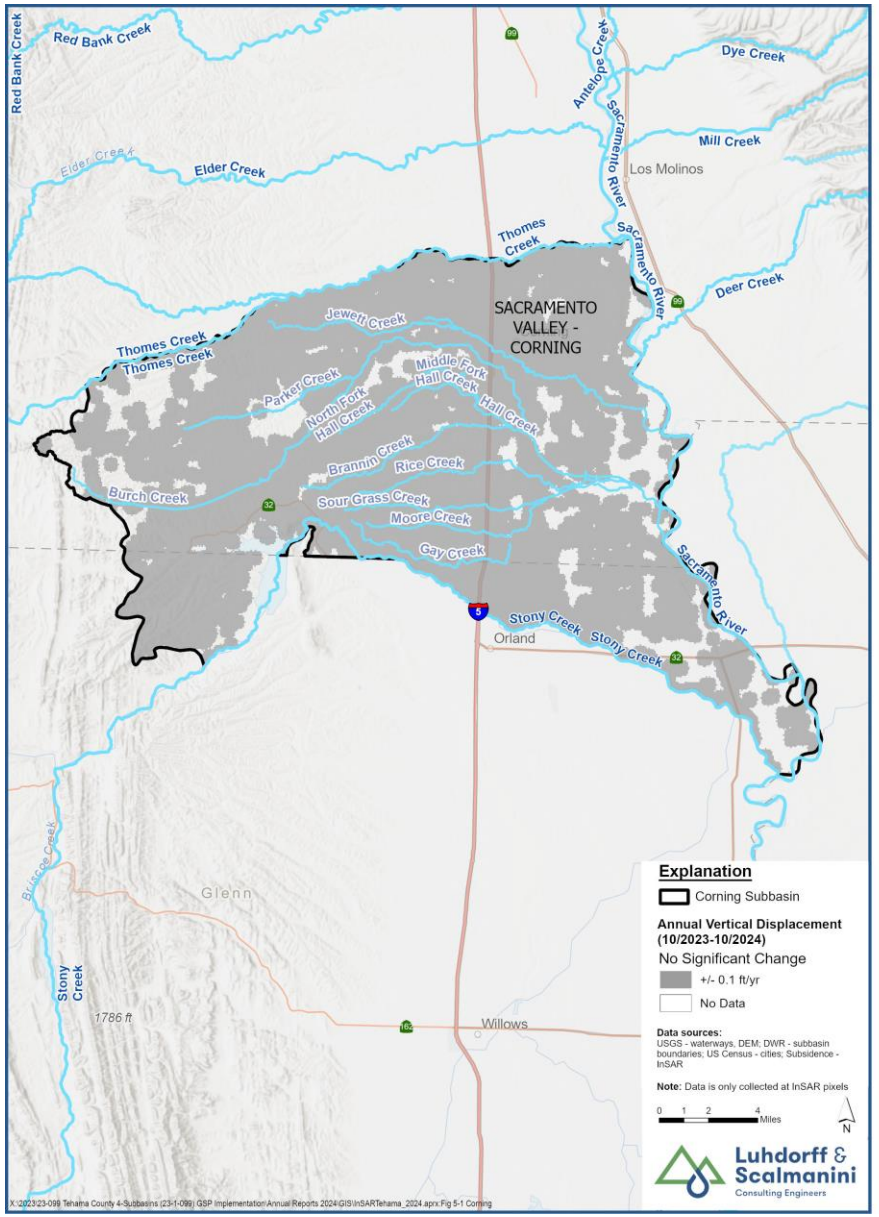
Average Storage Change
2024 = +20,900 AFY

LSCE

DAVIDS ENGINEERING, INC

Groundwater Conditions – Land Subsidence

- WY 2024 (InSAR) = -0.026 ft to 0.039 ft
- Detectible subsidence occurs between +/- 0.1 ft/yr
- No detectable subsidence during WY 2024

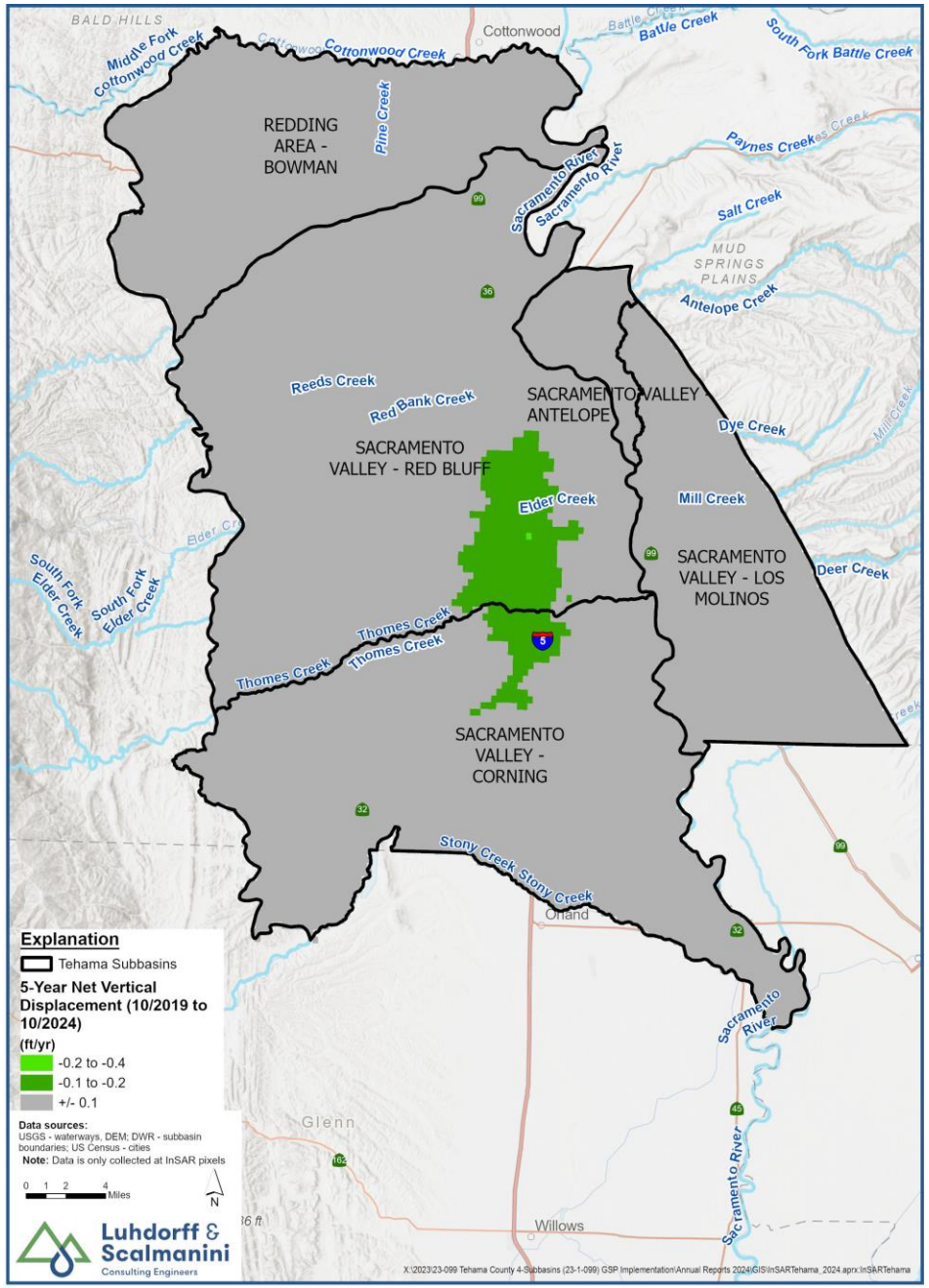


LSCE

DAVIDS ENGINEERING, INC

Groundwater Conditions – Land Subsidence

- Land Subsidence
  - Utilizing Interferometric Synthetic Aperture Radar (InSAR)
- Minimum Threshold (MT) = 0.5 feet per five years (0.1 foot per year)
- Measurable Objective = Zero Inelastic Subsidence



Groundwater Conditions – Interconnected Surface Water

Table 5-3. Measurable Objectives, Minimum Thresholds, Undesirable Results for Depletion of Interconnected Surface Water

State Well Number /Representative Monitoring Point (RMP) ID	Groundwater Elevation (feet above mean sea level)				Spring 2024 vs. MO	Fall 2024 vs. MO
	2024 Measurements		MO	MT		
	Spring (seasonal high)	Fall (seasonal low)				
22N01W29N003M	130.09	123.55	123.4	91.7	6.69	0.15
22N02W01N003M	144.6	125.85	136.5	99.3	8.1	-10.65
22N02W15C004M	152.85	131.2	144.1	84	8.75	-12.9
22N02W18C003M	171.78	142.84	148.4	136.6	23.38	-5.56
22N03W01R002M	162.31	133.23	143.9	128.6	18.41	-10.67
23N02W28N004M	150.38	124.96	142.7	109.3	7.68	-17.74
24N02W29N003M	161.96	134.66	158.1	123.2	3.86	-23.44

MO = Measurable Objective, MT = Minimum Threshold, -- = Indicates missing or questionable measurements

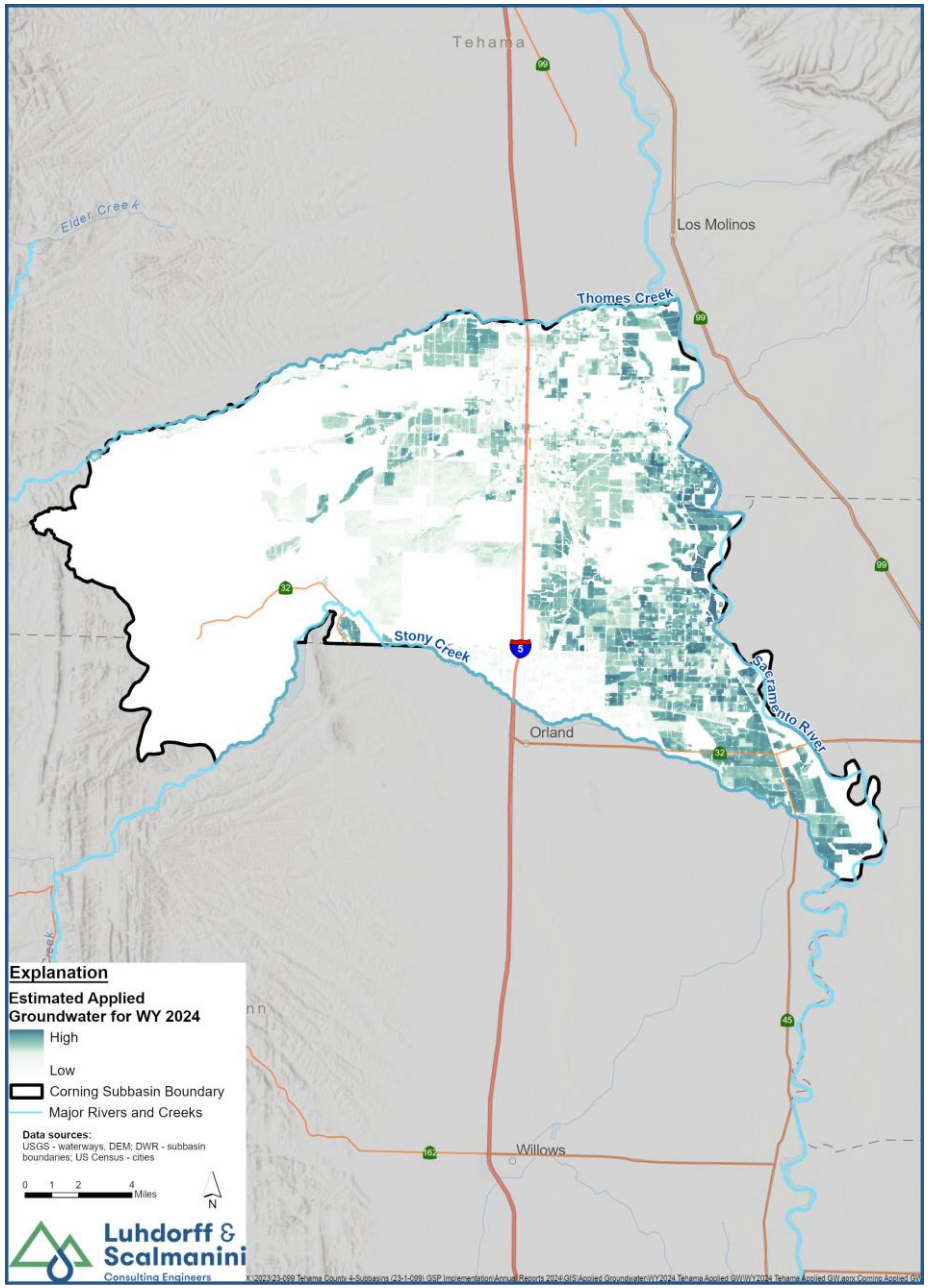
LSCE DAVIDS ENGINEERING, INC

Water Use – Annual Applied Groundwater

Water Use in the Subbasin

- **GW** Extraction: 153,600 AF, lower than 175,000 in WY 2023.
- **SW** Deliveries: 29,700 AF, higher than 24,000 AF in WY 2023.
- **GW**: 83% of total water use
- **SW**: 17% of total water use

- **Irrigated acreage** in WY2024: 61,000 AF
- **Irrigated Acreage** in WY2023: 72,000 AF
  - *Decrease due to reclassification of approximately 11,000 acres of Eucalyptus crops in central portion of subbasin to non-irrigated category*



LSCE

DAVIDS ENGINEERING, INC

Water Use – Annual Applied Groundwater

Table 3-1. Corning Subbasin Groundwater Use by Water Use Sector	
Sector	WY 2024 (AF)
Agricultural	149,500
Municipal	2,300
Rural Residential	1,800
Total	**153,600**

Table 3-2. Corning Subbasin Surface Water Use by Water Use Sector for WY 2024		
Sector	Diverted (AF)	Applied (AF)
Agricultural	33,800	29,700
Total	**33,800**	**29,700**

Table 3-3. Corning Subbasin Total Water Use by Water Use Sector				
Sector	WY 2024 (AF)			
	Groundwater	Surface Water	Total	Total Irrigated Area (acres)
Agricultural	149,500	29,700	**179,200**	**61,000**
Municipal	2,300	0	**2,300**	--
Rural Residential	1,800	0	**1,800**	--
Total	**153,600**	**29,700**	**183,300**	**61,000**

PMA Implementation – Project Status

Table 5-4. Corning Subbasin Summary of Project Implementation Status			
GSP Section Reference	**Project (Proponent)**	**Current Status**	**Notable Progress Since Last Annual Report**
3.2.8	Ongoing Monitoring, Data Gaps, and Enhancements	Funded	Advancements have been made in multi-completion monitoring wells, ISW site identification, domestic monitoring, synoptic gaging, and GDE surveys.
7.2	GSP Implementation, Outreach, and Compliance Activities	Funded	The DWR SGM Grant Program application submitted in December 2022 was funded during the planning phase.
7.4.1	Recharge and Conjunctive Use Focused Projects	Funded	DWR SGM Grant Program application submitted in December 2022 was funded to plan and roll out recharge projects identified in the GSP.
7.4.4.4	California Olive Ranch	In Planning	Project is in designing phase; a completed review of designs will be sent to Bureau of Reclamation.

PMA Implementation – Management Actions

Table 5-5. Corning Subbasin Summary of Management Actions			
GSP Section Reference	**Management Action**	**Current Status**	**Notable Progress Since Last Annual Report**
7.3.1.1	Well Management Program: Well Inventory	In Progress	Program is in its third year, well inventory is in progress (Tehama GSA).
7.3.1.1	Well Management Program: Well Incident Reporting System	In Progress	System is in place, collecting dry well and related incidents (Glenn County).
7.3.1.3	Policy and Ordinances that Control Pumping Growth	In Progress	Program is in effect; well permitting process has been re-evaluated; permits are issued on a 3 tier basis (Glenn County).

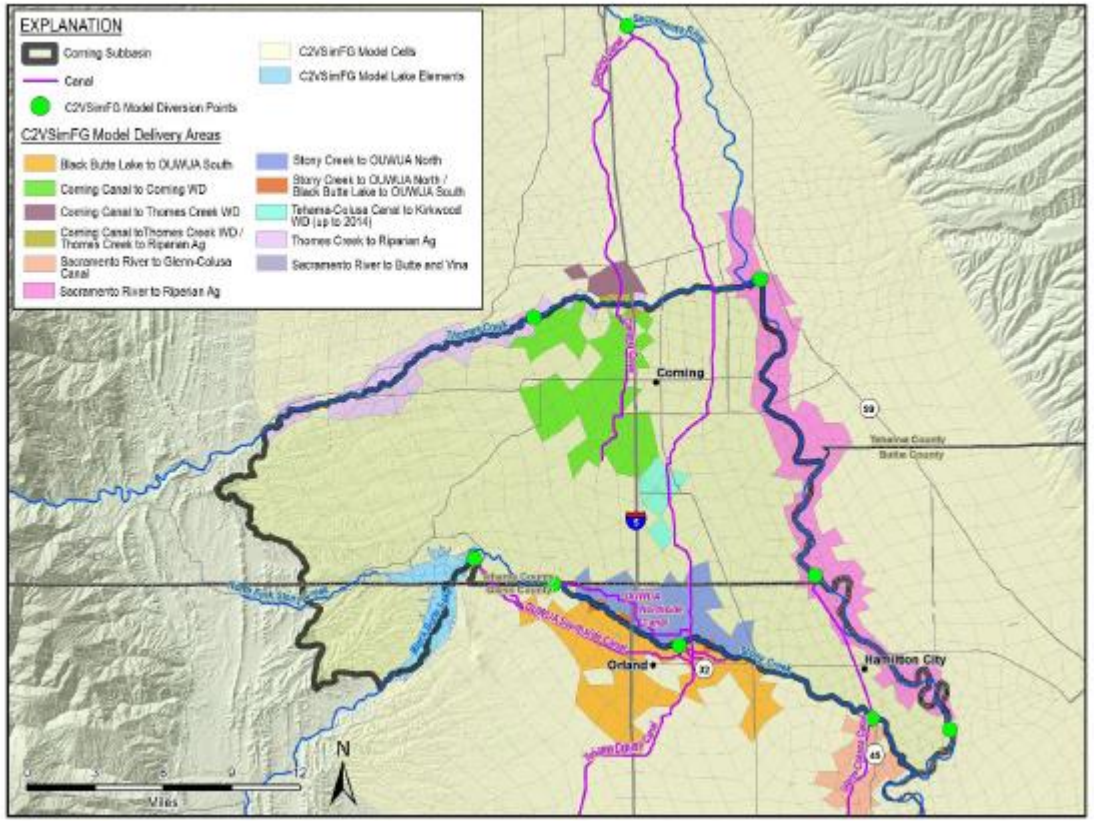
LSCE DAVIDS ENGINEERING, INC

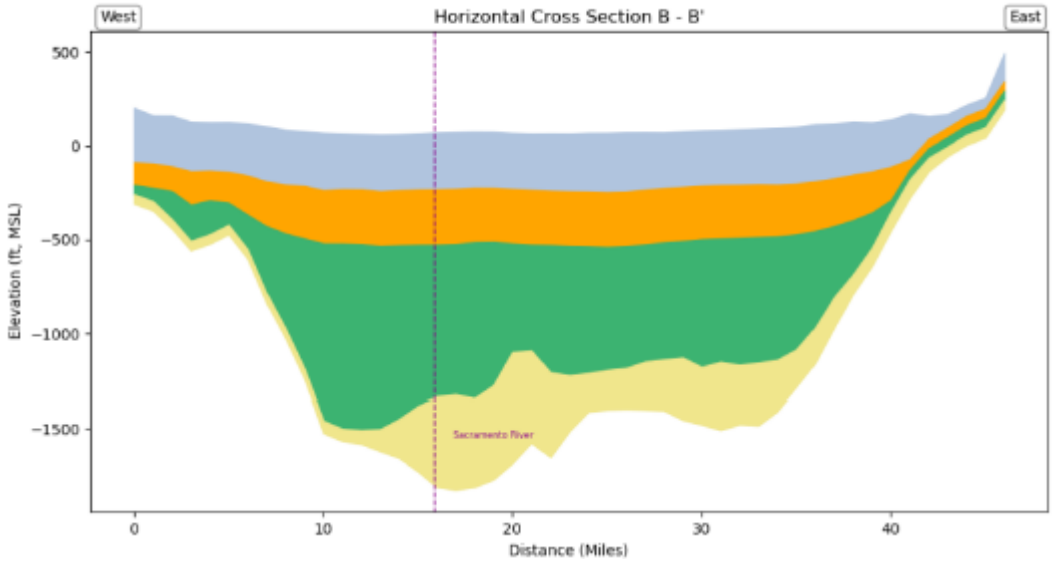
Meeting Agenda Item 6c:

Corning Subbasin Model and Periodic Evaluation

Luhdorff & Scalmanini
Consulting Engineers

Corning Subbasin Model

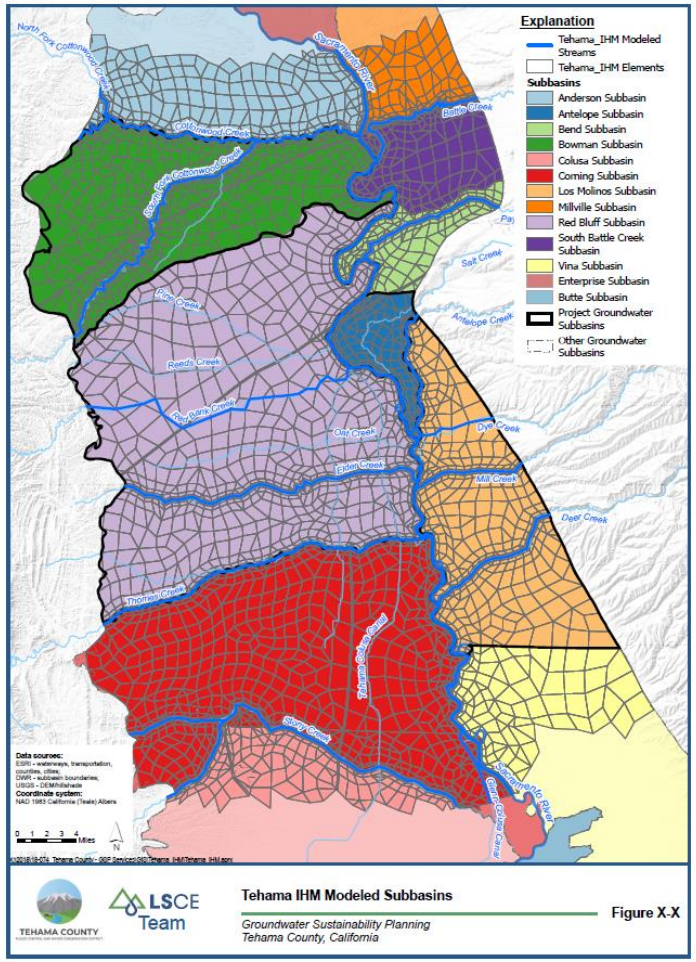


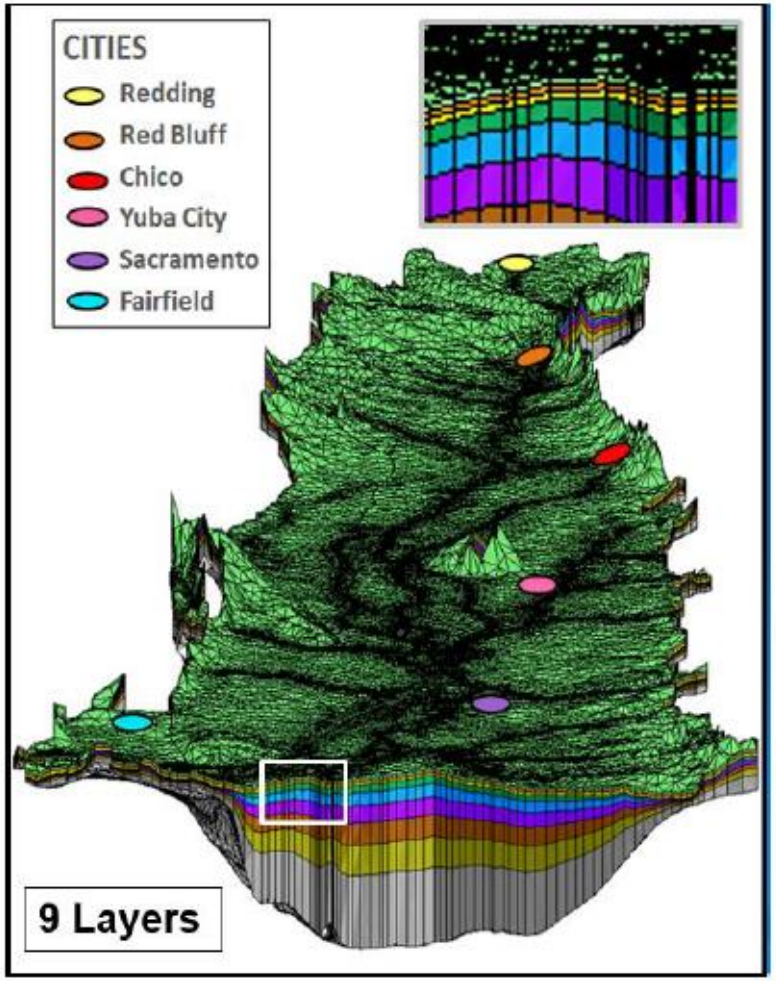


LSCE

DAVIDS ENGINEERING, INC

Tehama Subbasin Model

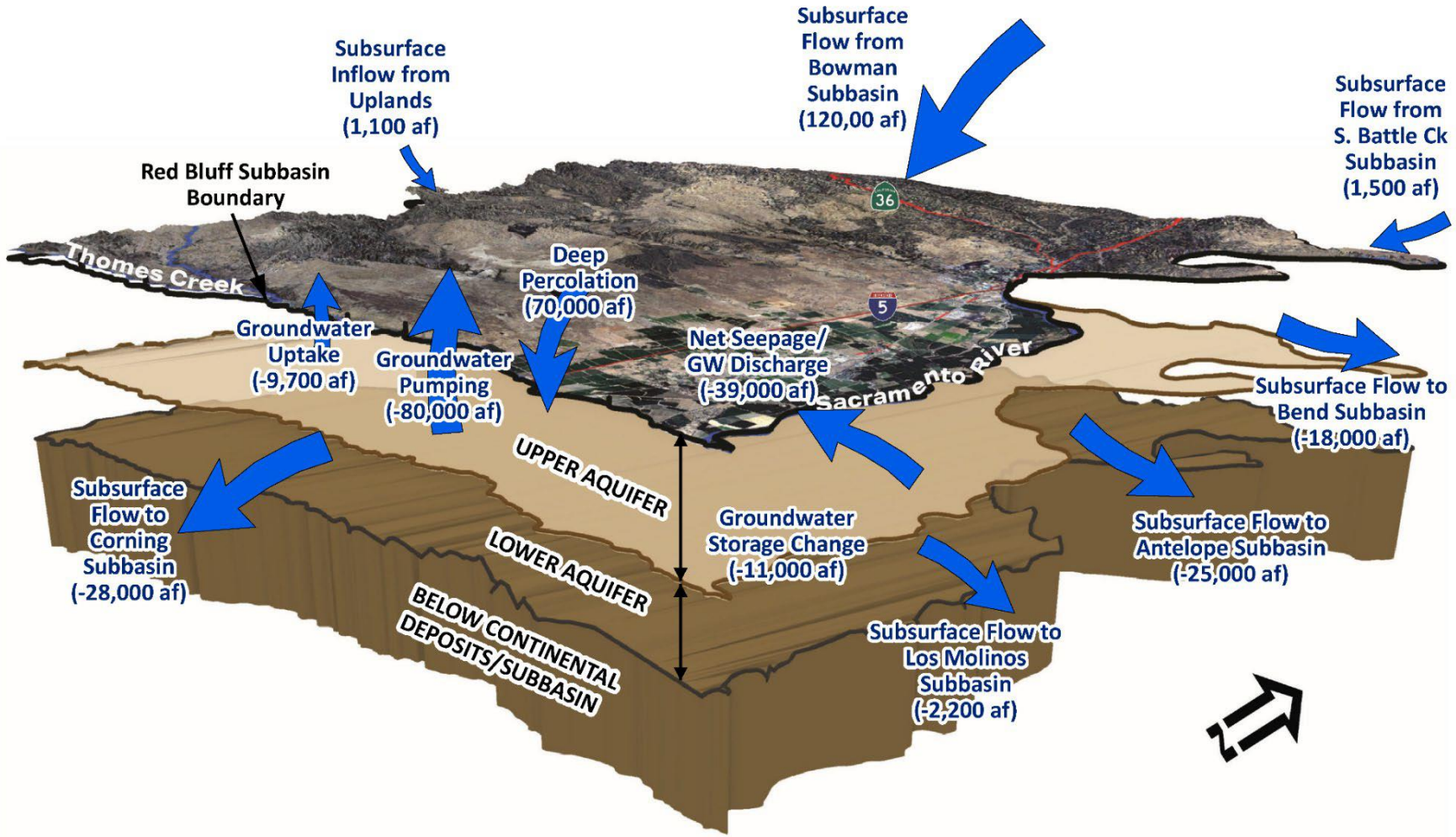




LSCE

DAVIDS ENGINEERING, INC

Tehama Subbasin Model



LSCE

DAVIDS ENGINEERING, INC

Impacts of New Data on the Conceptual and Numerical Models

1. **New Data Sources:**
   - Surface data from Airborne Electromagnetic (AEM) surveys
   - Subsurface data from monitoring well drilling and lithologic logs
2. **Updates to the Hydrogeologic Conceptual Model:**
   - Improved understanding of aquifer boundaries, layering, and extent
   - Refinement of hydrostratigraphic units and structural features
   - Enhanced definition of material properties (e.g., permeability, porosity)
3. **Implications for the Numerical Model:**
   - Adjustments to model layering, boundary conditions, and property distributions
   - Recalibration to ensure outputs align with updated conceptual understanding
   - Potential need to revise model structure to accommodate new insights
4. **Ongoing Integration Process:**
   - Conceptual and numerical models will evolve as new data is collected
   - Regular updates help maintain model accuracy and decision-making value

LSCE DAVIDS ENGINEERING, INC

Model Selection

1. **Incorporate Water Budget Analyses in Annual Reports**
   Ensure each annual report includes a comprehensive water budget to support transparency and regulatory compliance.
2. **Facilitate Demand Management Discussions**
   Use modeling outputs to inform and guide discussions on demand reduction strategies and conservation efforts.
3. **Evaluate Projects and Management Actions**
   Assess the impacts of recharge projects and other management actions using consistent and defensible modeling approaches.
4. **Model Selection Considerations**
   Should we continue maintaining two separate models, or consolidate efforts using C2VSim or SVSim?
5. **Clarify Decision-Making Authority**
   Who has the responsibility and authority to make the final decision on model selection and implementation?

LSCE DAVIDS ENGINEERING, INC

Periodic Evaluation (Due January 2027)

1. New Information Collected
2. Recommended Correction Actions
3. Groundwater Conditions
    1. Groundwater Levels
    2. Interconnected Surface Water
    3. Groundwater Quality
    4. Groundwater in Storage
    5. Land Subsidence
4. Status of Projects and Management Actions
5. Changes in Basin Setting Based on New Information or Changes in Water Use
6. Monitoring Networks
7. GSA Authorities and Enforcement Actions
8. GSA Administration, Stakeholder Engagement and Inter-Agency Coordination
9. Summary of Proposed or Completed Revision to the Plan Elements

LSCE DAVIDS ENGINEERING, INC

Meeting Agenda Item 6d:

Update on SGM Implementation Grant

Luhdorff & Scalmanini
Consulting Engineers

GSP Implementation Spending

Spending Projections for Each remaining quarter - Corning

	Corning Budget	Corning Spending through Feb 2025	Remaining	Percent Spent	Schedule progress
Task 1 - Project/Grant Management and Administration	*$ 527,940.81*	*$ 104,729.50*	*$ 423,211.31*	*20%*	
1.1 - Develop and submit quarterly progress reports	$ 254,089.16	$ 65,167.75	$ 188,921.41	26%	35%
1.2 - Develop and submit quarterly invoices	$ 197,624.90	$ 24,910.50	$ 172,714.40	13%	35%
1.3 - Develop and submit environmnetal information form	$ 22,585.70	$ 12,649.25	$ 9,936.45	56%	55%
1.4 - Develop and submit draft/final component completion report	$ 22,585.70	$ 57.00	$ 22,528.70	0%	0%
1.5 - Develop and submit draft/final grant completion report	$ 31,055.34	$ 1,945.00	$ 29,110.34	6%	1%
Task 2 - GSP Implementation Outreach, and Compliance Activites	*$ 1,370,000.00*	*$ 400,534.30*	*$ 969,465.70*	*29%*	
2.1 - GSP Annual Reports	$ 180,000.00	$ 121,132.68	$ 58,867.32	67%	44%
2.2 - Update GSP based on pending DWR determination letter	$ 125,000.00	$ 127,439.85	$ (2,439.85)	102%	100%
2.3 - Stakeholder Engagement and community outreach	$ 180,000.00	$ 91,673.02	$ 88,326.98	51%	35%
2.4 - Develop Long Term Funding Stratergy	$ 100,000.00	$ 20,140.00	$ 79,860.00	20%	35%
2.5 - Develop and Implement Policy Framework for Water and Land Use	$ 225,000.00	$ 5,043.25	$ 219,956.75	2%	5%
2.6 - Regional SW/GW Interaction Model	$ 85,000.00	$ 20,054.75	$ 64,945.25	24%	35%
2.7 - 5-year GSP Update with Model Update	$ 475,000.00	$ 15,050.75	$ 459,949.25	3%	0%
Task 3 - Ongoing Monitoring and Data Gaps	*$ 3,019,000.00*	*$ 494,717.80*	*$ 2,524,282.20*	*16%*	
3.1 - Installation of Multi-Completion Monitoring Wells	$ 1,259,000.00	$ 230,175.61	$ 1,028,824.39	18%	33%
3.2 - Installation of SW/GW Monitoring Sites	$ 450,000.00	$ 46,854.07	$ 403,145.93	10%	33%
3.3 - Synoptic Stream Gaging	$ 125,000.00	$ 57,694.69	$ 67,305.31	46%	39%
3.4 - Biological Investigations	$ 110,000.00	$ 40,309.83	$ 69,690.17	37%	50%
3.5 - Develop Community Domestic Well Monitoring	$ 200,000.00	$ 38,201.90	$ 161,798.10	19%	30%
3.6 - Groundwater Level and Quality Monitoring	N/A	N/A	N/A		
3.7 -Expand Groundwater Quality Monitoring Network	$ 315,000.00	$ 29,720.95	$ 285,279.05	9%	33%
3.8 -Video Log Current Monitoring Wells	$ 150,000.00	$ 4,355.25	$ 145,644.75	3%	40%
3.9 Expand Geologic Understanding of the Subbasin	$ 410,000.00	$ 47,405.50	$ 362,594.50	12%	43%
Task 4 - PMA - Recharge Focused	*$ 1,742,000.00*	*$ 545,181.42*	*$ 1,196,818.58*	*31%*	
4.1 - Multi-Benefit Recharge Projects	$ 430,000.00	$ 109,733.61	$ 320,266.39		35%
4.2 - Implement Thomas Creek and Elder Creek Recharge	$ 482,000.00	$ 139,161.12	$ 342,838.88		35%
4.3 - Groundwater and Stormwater Recharge	N/A				35%
4.4 - Recharge through unlined Canals	$ 200,000.00	$ 87,771.03	$ 112,228.97		35%
4.5 - Groundwater Recharge Pond South of Corning	$ 150,000.00	$ 62,550.16	$ 87,449.84		100%
4.6 - California Olive Ranch Groundwater Recharge Project	$ 230,000.00	$ 61,216.06	$ 168,783.94		38%
4.7 -Stony Creek Diversion for Recharge - Pilot Program	$ 250,000.00	$ 84,749.44	$ 165,250.56		30%
Task 5 - PMA - Corning Regiona Conjuctive Use	*$ 1,215,000.00*	*$ 198,113.45*	*$ 1,016,886.55*	*16%*	
5.1 - Regional Water Transfers	$ 250,000.00	$ 33,787.85	$ 216,212.15		33%
5.2 - Use of Full Surface Water Allocations	$ 965,000.00	$ 164,325.60	$ 800,674.40		25%

LSCE

Ongoing Monitoring, Data Gaps and Enhancements

Progress Update

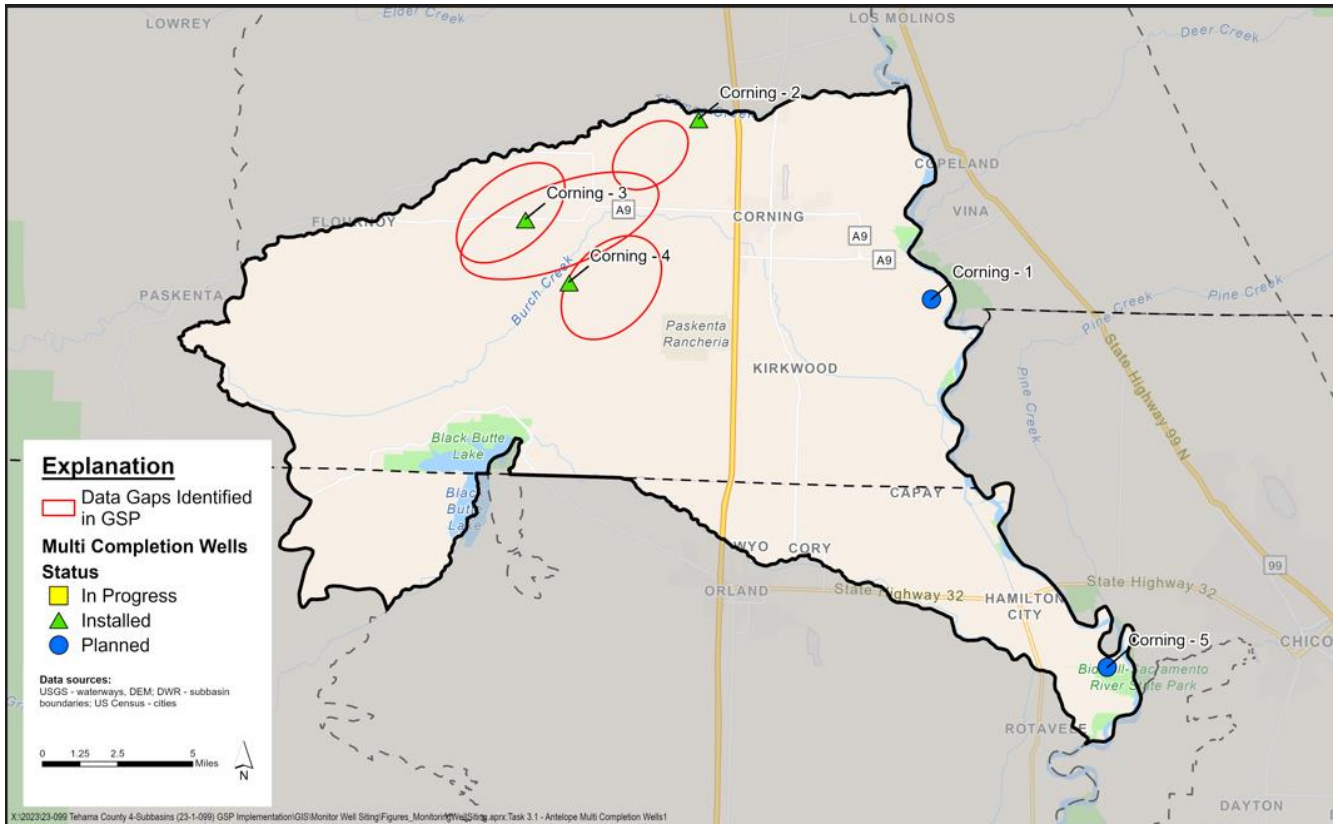
Luhdorff & Scalmanini
Consulting Engineers

Task 3.1 Multi-Completion Monitoring Wells

Task Objective: Install 8 Multi-Completion Monitoring Wells (5 in Corning, 3 in Antelope)

- **Task Progress:**
  - Five wells installed (4 in Corning 2 in Antelope),
  - Corning 1 and Antelope 2 remaining
  - All wells will likely be installed Early April
- **Task Budget:**

Total Budget		**$2,003,500**
Estimated Q1 2025	**Spent**	**$1,744,440**
	Remaining Budget	**$259,060**
	Milestone/Deliverable	**Well Installations Complete**
Estimated Q2 2025	**Spent**	**$74,000**
	Remaining Budget	**$185,060**
	Milestone/Deliverable	**Purchase Monitoring Equipment**



Recharge Focused and Regional Conjunctive Use

Progress Update

Luhdorff & Scalmanini
Consulting Engineers

Total Recharge Estimates (Corning Subbasin)

Task	Recharged- 2024 (AF)	Maximum Potential Recharge/Savings with Conceptual/Planned Projects Implemented (AFY)
4.1 Multi-Benefit	286	500+
4.2 Thomes & Elder Creek Diversions	0	~2,500
4.3 Groundwater & Stormwater Recharge	0	TBD
4.4 Unlined Canals and Drainages	<10	~1,500
4.5 USBR Recharge Pond	~40*	n/a
4.6 California Olive Ranch	0	1,142
4.7 Stony Creek Diversions	0	~5,000
5.1 Water Transfer for In-Lieu Recharge	n/a	n/a
5.2 Use of Full Surface Water Allocations	0	3,300
Total	336	~14,000

LSCE DAVIDS ENGINEERING, INC

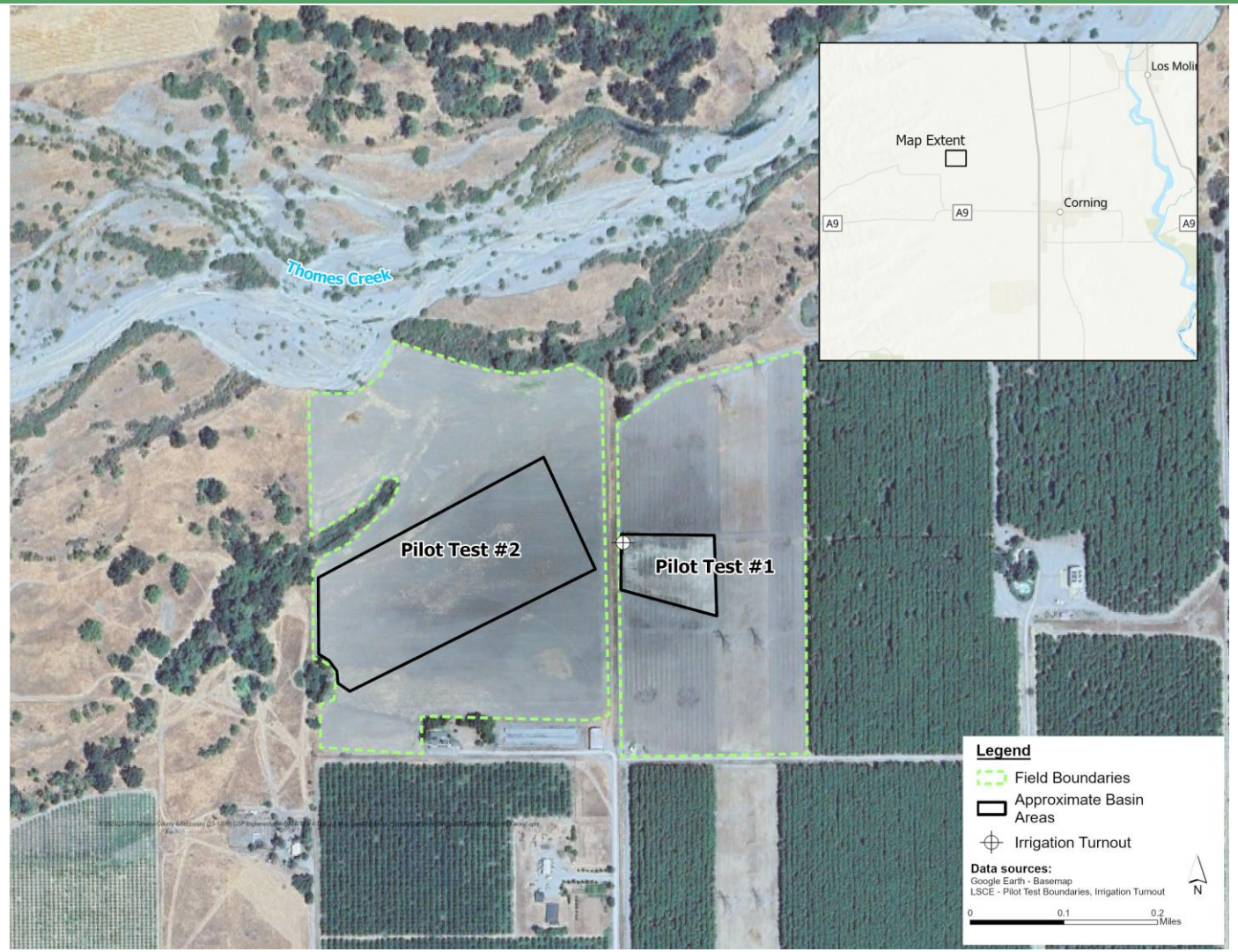
Task Updates

- 4.1 Multi-Benefit Recharge Project (LM, RB, C)
- 4.2 Implement Thomes Creek (C, RB) and Elder Creek (RB) Diversions for Direct or In-Lieu Groundwater Recharge
- 4.3 Groundwater and Stormwater Recharge Feasibility Study (RB, LM)
- 4.4 Recharge through Unlined Canals and Drainages (C)
- 4.5 Groundwater Recharge Pond South of Corning
- 4.6 California Olive Ranch Groundwater Recharge Project
- 4.7 Stony Creek Diversions for Recharge Feasibility and Pilot Program
- 5.1 Regional Water Transfers for In-Lieu Recharge
- 5.2 Use of Full Surface Water Allocations

LSCE DAVIDS ENGINEERING, INC

Task 4.1 Multi-Benefit Recharge

- **TNC Project Requirements:**
  - Ability to maintain shallow water (6” depth or less)
  - Ideal timing: September - November
- **Site Requirements:**
  - No large trees in vicinity
  - No power lines
  - Even ground
- **Pilot #1:**
  - 15 AF applied
  - Drawdown measured to determine infiltration
  - Suitable for recharge and discussion with TNC



LSCE

Task 4.1 Multi-Benefit Recharge

- **Pilot #2:**
  - TNC coordination and site survey by TNC staff
  - Agreement between TNC and Landowner
  - 271 AF of water applied at a cost of approximately $20,000 financed by TNC
  - Equipment and Site Modification:
    - Bermed basin approx. 14 acres
    - Water application had to be monitored to ensure maximum depth of 6 inches
    - Required approx. 1750’ of pipe
    - Site had been recently disked prior to test

LSCE

Task 4.1 Multi-Benefit Recharge

- **Pilot #2:**
  - **Monitoring:**
    - Satellite imagery used to determine wetted area, ET data to determine losses, metered connection
    - Eight site visits conducted, documented recharge and habitat
    - Ongoing modifications to berms needed and communications with landowner
  - **Results**
    - 271 ac-ft recharged
    - Minimal evapotranspiration losses
    - Shorebird habitat supported
    - Feasibility Study completed

LSCE

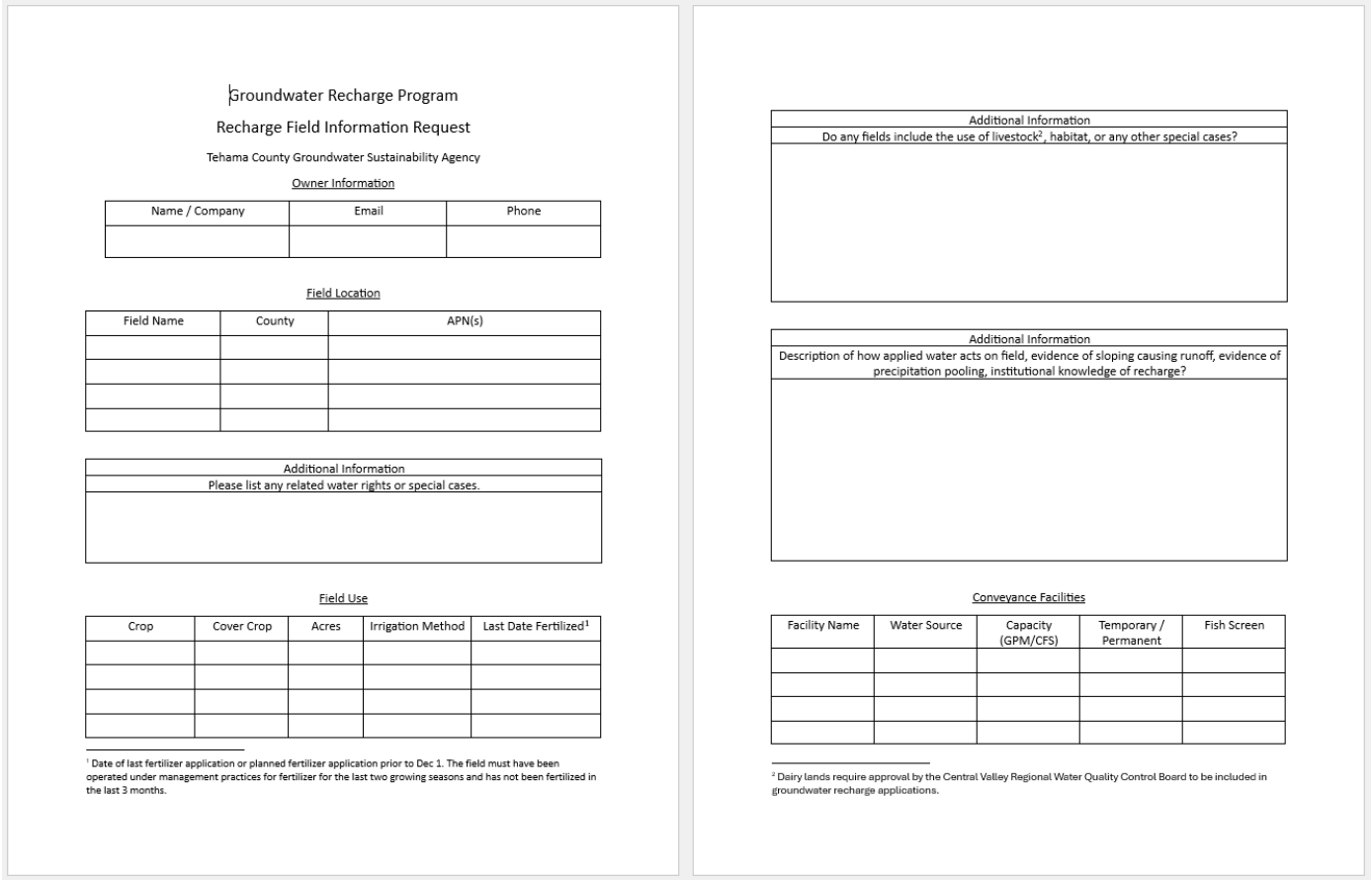
Task 4.1 Multi-Benefit Recharge

- **Pilot #2:**
  - **Long Term Recommendations**
    - Geophysical Studies- completed Jan 16, 2025
    - Establish funding source(s) for water
    - Coordinate with landowner for future, long-term recharge
    - Develop infrastructure (permanent berm/basin, pipelines)
    - Assess additional monitoring options (shallow monitoring wells, transducers in nearby existing wells)
  - **Deliverables:**
    - Geophysical study report
    - Funding agreement
    - Landowner agreement
    - Engineering plans

LSCE

Task 4.2 Thomes Creek and Elder Creek Diversions

- **Site Visits:**
  - Visited 7 sites
  - 6 sites in Red Bluff, 1 in Corning
  - 2 sites on Willow Creek, 2 on Elder Creek, 3 on Thomes Creek
- **Review of sites:**
  - Distance of site from creeks
  - Equipment required
  - Site conditions (existing vegetation, lift required, size of site)
- **Number of Sites selected:** 4
- **Deliverables:**
  - Feasibility studies
  - Monitoring report to DWR for diversions



Groundwater Recharge Program

Recharge Field Information Request

Tehama County Groundwater Sustainability Agency

Owner Information

Name / Company	Email	Phone

Field Location

Field Name	County	APN(s)

Additional Information
Please list any related water rights or special cases.

Field Use

Crop	Cover Crop	Acres	Irrigation Method	Last Date Fertilized[1]

[1] Date of last fertilizer application or planned fertilizer application prior to Dec 1. The field must have been operated under management practices for fertilizer for the last two growing seasons and has not been fertilized in the last 3 months.

Additional Information
Do any fields include the use of livestock[2], habitat, or any other special cases?

Additional Information
Description of how applied water acts on field, evidence of sloping causing runoff, evidence of precipitation pooling, institutional knowledge of recharge?

Convevance Facilities

Facility Name	Water Source	Capacity (GPM/CFS)	Temporary / Permanent	Fish Screen

[2] Dairy lands require approval by the Central Valley Regional Water Quality Control Board to be included in groundwater recharge applications.

Task 4.2 Thomes Creek and Elder Creek Diversions

- **5-year permit information packets:**
  - Design of conveyance
  - Calculations of potential recharge
  - Water Availability Analysis for each creek
  - Maps of POD and POU
  - Monitoring plan
  - **Challenges**
    - Require monitoring of extraction of banked water (recharge is NOT considered beneficial use)
    - Ideal scenario are metered wells
    - No shallow monitoring wells in vicinity of sites
    - Need to institute workaround using Subbasin wide pumping or polygons, or potentially crop ET data

LSCE

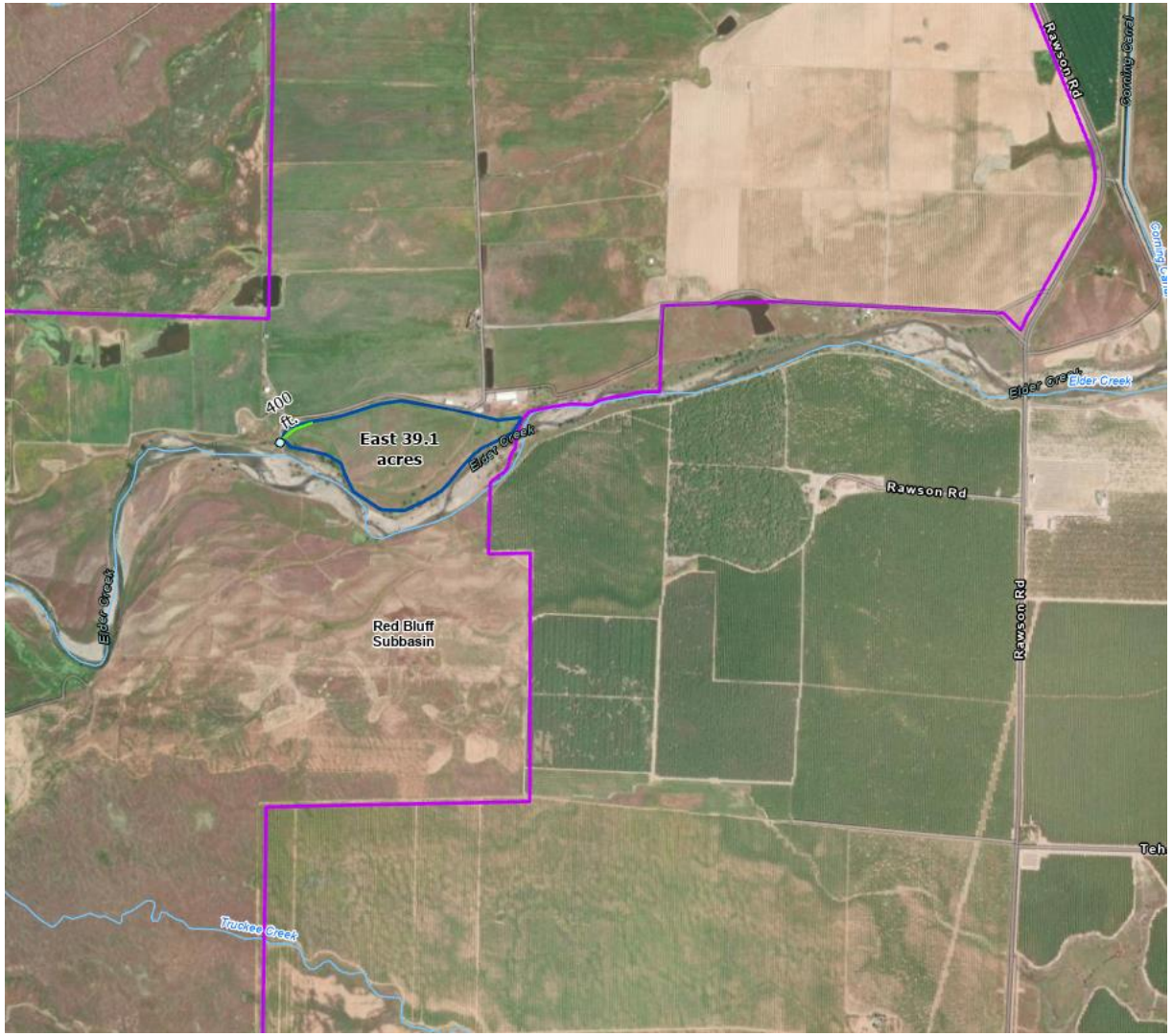
Task 4.2 Thomes Creek and Elder Creek Diversions- Marenco Ranch

Project Details

- Subbasin: Red Bluff
- Water Source: Elder Creek
- Recharge Area: 39 acres
- Maximum Potential Recharge Rate: 78 AF/day

Water Availability:

Water Year Type	Expected Diversion Days	Max Potential Recharge (AF/year)
Wet	21	1638
Above Normal	14	1092
Below Normal	5	390
Dry	4	312
Critically Dry	4	312



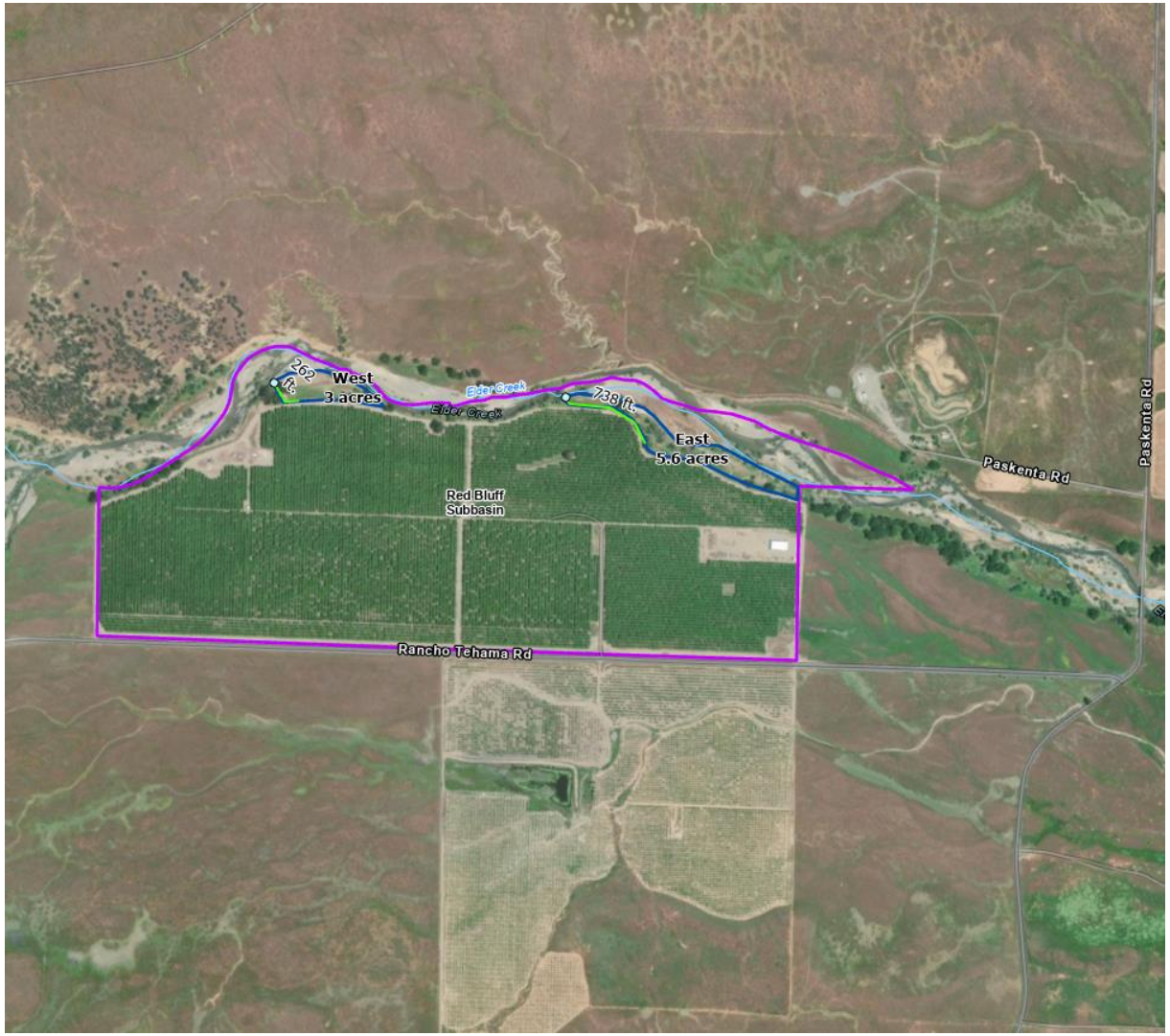
Task 4.2 Thomes Creek and Elder Creek Diversions- Rancho Tehama

Project Details

- Subbasin: Red Bluff
- Water Source: Elder Creek
- Recharge Area: 8.5 acres
- Maximum Potential Recharge Rate: 17 AF/day

Water Availability:

Water Year Type	Expected Diversion Days	Max Potential Recharge (AF/year)
Wet	21	357
Above Normal	14	238
Below Normal	5	85
Dry	4	68
Critically Dry	4	68



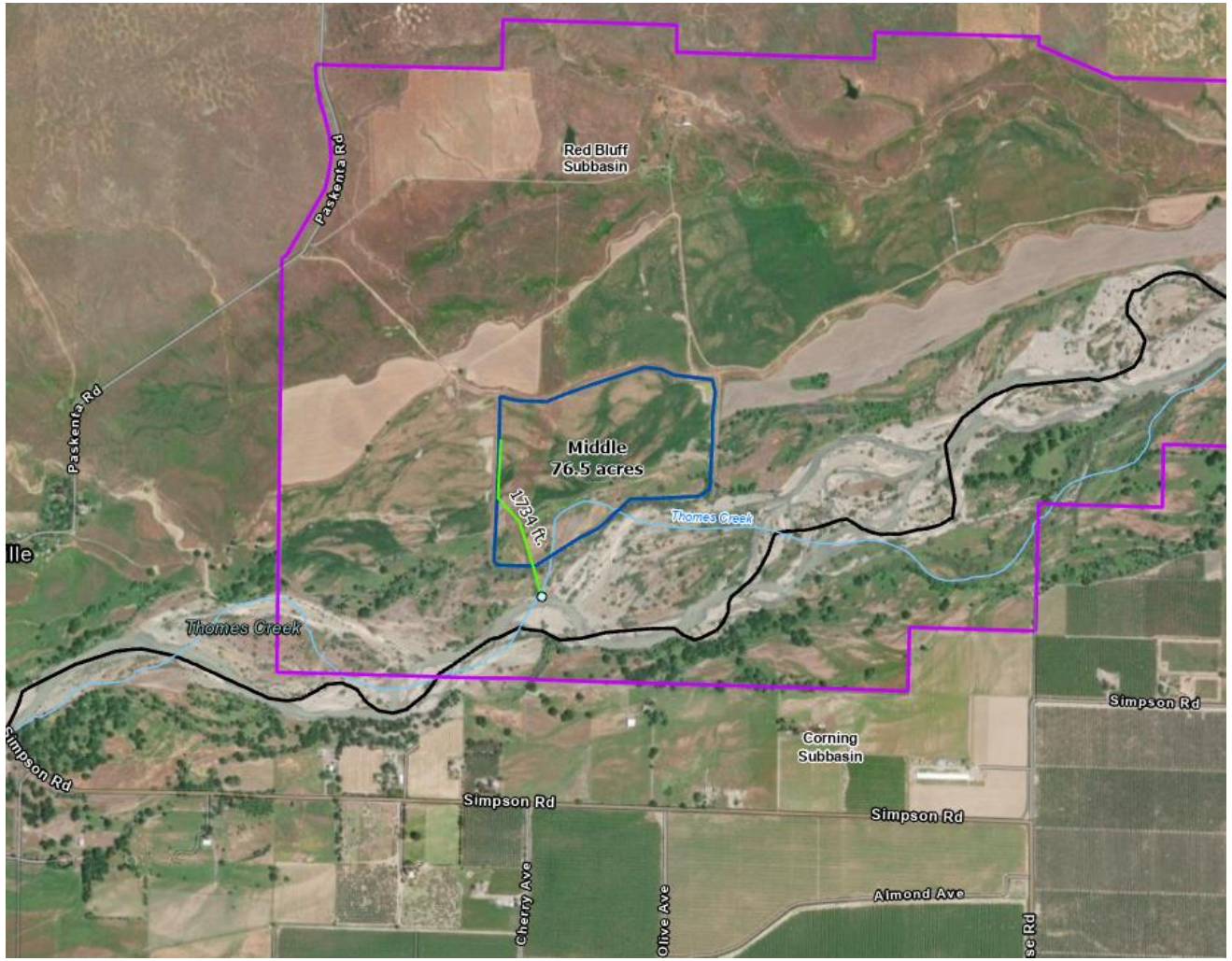
Task 4.2 Thomes Creek and Elder Creek Diversions- North Thomes Creek

Project Details

- Subbasin: Red Bluff
- Water Source: Thomes Creek
- Recharge Area: 76.5 acres
- Maximum Potential Recharge Rate: 153 AF/day

Water Availability:

Water Year Type	Expected Diversion Days	Max Potential Recharge (AF/year)
Wet	19	2907
Above Normal	11	1683
Below Normal	4	612
Dry	2	306
Critically Dry	3	459



LSCE

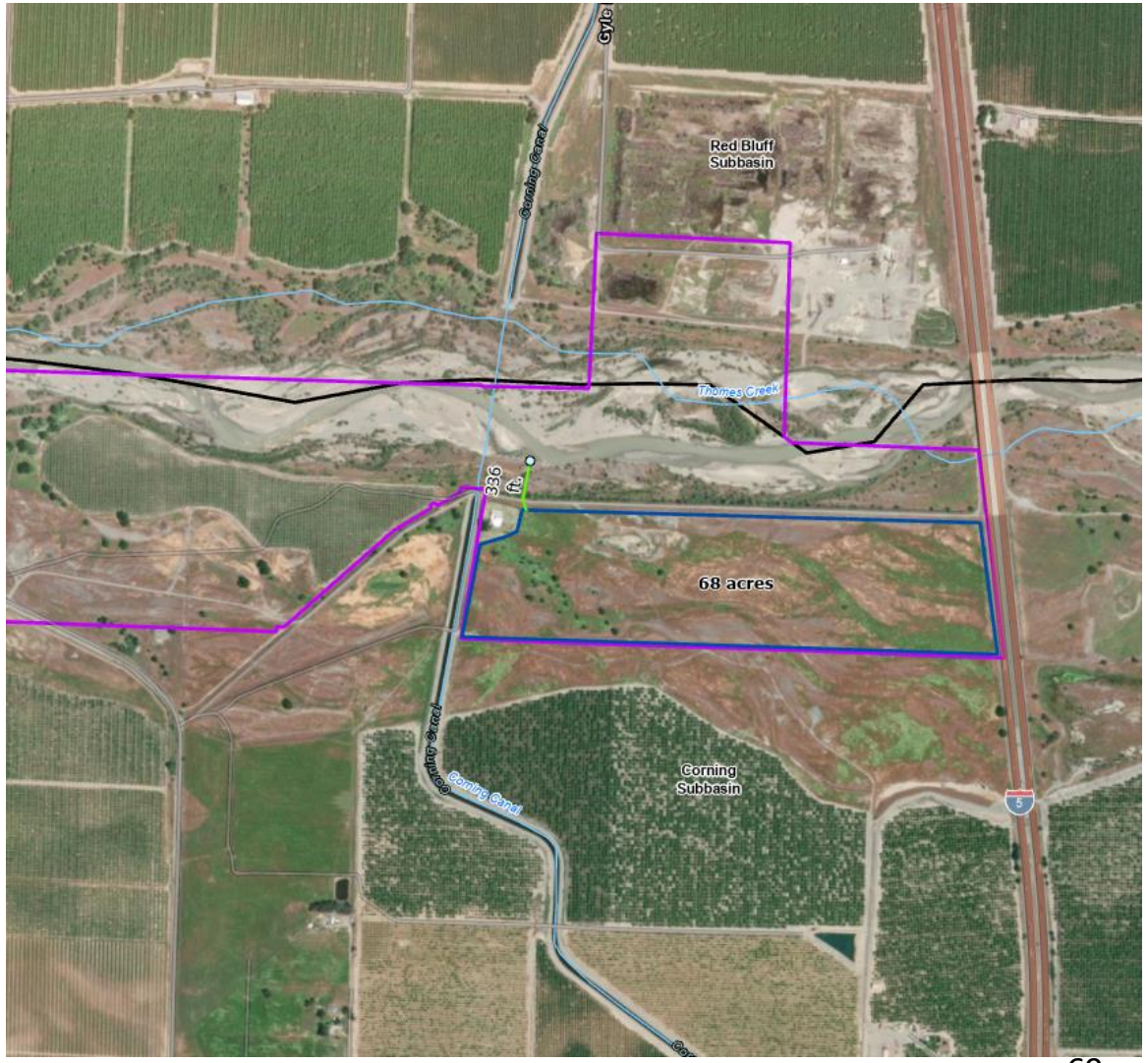
Task 4.2 Thomes Creek and Elder Creek Diversions- Wolf Ranch

Project Details

- Subbasin: Corning
- Water Source: Thomes Creek
- Recharge Area: 68 acres
- Maximum Potential Recharge Rate: 136 AF/day

Water Availability:

Water Year Type	Expected Diversion Days	Max Potential Recharge (AF/year)
Wet	19	2584
Above Normal	11	1496
Below Normal	4	544
Dry	2	272
Critically Dry	3	408



LSCE

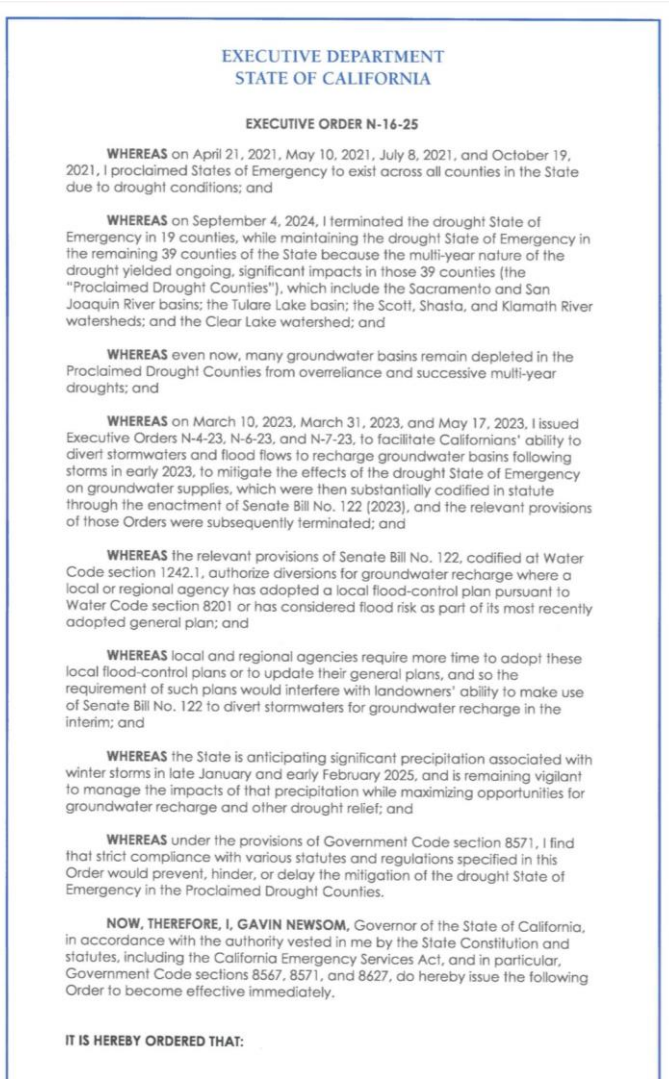
Task 4.2 Thomes Creek and Elder Creek Diversions

- **Permanent Water Rights:**
  - Time to obtain permanent water right 2+ years
  - Requires CEQA assessment
  - In depth water availability analysis will also need to be conducted (streamlined version is being used for 5-year permits 90th Percentile/20% Rule)
  - Will need to discuss monitoring requirements with DWR to show diverted water is being put to beneficial use
    Amount of water diversion will depend on in depth water availability analysis

LSCE

Task 4.2 Thomes Creek and Elder Creek Diversions

- **Flood Diversions Under EO N-16-25:**
  - New Executive Order issued on Jan 31
  - Allows for diversions of flood flows to reduce risk to downstream areas
  - Requires a flood declaration from the relevant agency



EXECUTIVE DEPARTMENT
STATE OF CALIFORNIA

EXECUTIVE ORDER N-16-25

WHEREAS on April 21, 2021, May 10, 2021, July 8, 2021, and October 19, 2021, I proclaimed States of Emergency to exist across all counties in the State due to drought conditions; and

WHEREAS on September 4, 2024, I terminated the drought State of Emergency in 19 counties, while maintaining the drought State of Emergency in the remaining 39 counties of the State because the multi-year nature of the drought yielded ongoing, significant impacts in those 39 counties (the "Proclaimed Drought Counties"), which include the Sacramento and San Joaquin River basins; the Tulare Lake basin; the Scott, Shasta, and Klamath River watersheds; and the Clear Lake watershed; and

WHEREAS even now, many groundwater basins remain depleted in the Proclaimed Drought Counties from overreliance and successive multi-year droughts; and

WHEREAS on March 10, 2023, March 31, 2023, and May 17, 2023, I issued Executive Orders N-4-23, N-6-23, and N-7-23, to facilitate Californians' ability to divert stormwaters and flood flows to recharge groundwater basins following storms in early 2023, to mitigate the effects of the drought State of Emergency on groundwater supplies, which were then substantially codified in statute through the enactment of Senate Bill No. 122 (2023), and the relevant provisions of those Orders were subsequently terminated; and

WHEREAS the relevant provisions of Senate Bill No. 122, codified at Water Code section 1242.1, authorize diversions for groundwater recharge where a local or regional agency has adopted a local flood-control plan pursuant to Water Code section 8201 or has considered flood risk as part of its most recently adopted general plan; and

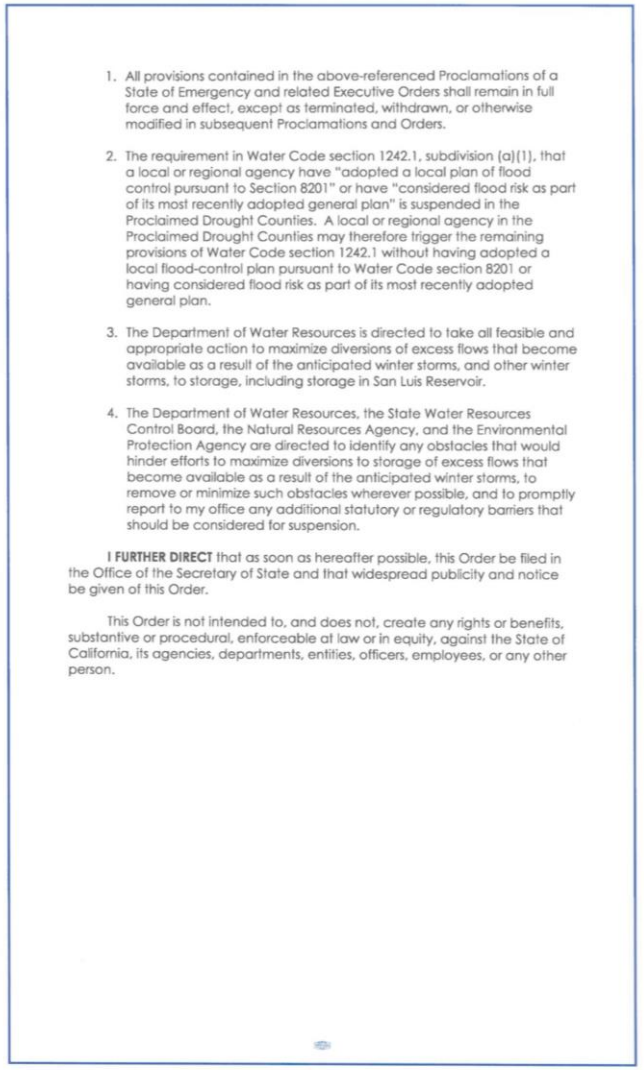
WHEREAS local and regional agencies require more time to adopt these local flood-control plans or to update their general plans, and so the requirement of such plans would interfere with landowners' ability to make use of Senate Bill No. 122 to divert stormwaters for groundwater recharge in the interim; and

WHEREAS the State is anticipating significant precipitation associated with winter storms in late January and early February 2025, and is remaining vigilant to manage the impacts of that precipitation while maximizing opportunities for groundwater recharge and other drought relief; and

WHEREAS under the provisions of Government Code section 8571, I find that strict compliance with various statutes and regulations specified in this Order would prevent, hinder, or delay the mitigation of the drought State of Emergency in the Proclaimed Drought Counties.

NOW, THEREFORE, I, GAVIN NEWSOM, Governor of the State of California, in accordance with the authority vested in me by the State Constitution and statutes, including the California Emergency Services Act, and in particular, Government Code sections 8567, 8571, and 8627, do hereby issue the following Order to become effective immediately.

IT IS HEREBY ORDERED THAT:



1. All provisions contained in the above-referenced Proclamations of a State of Emergency and related Executive Orders shall remain in full force and effect, except as terminated, withdrawn, or otherwise modified in subsequent Proclamations and Orders.

2. The requirement in Water Code section 1242.1, subdivision (a)(1), that a local or regional agency have "adopted a local plan of flood control pursuant to Section 8201" or have "considered flood risk as part of its most recently adopted general plan" is suspended in the Proclaimed Drought Counties. A local or regional agency in the Proclaimed Drought Counties may therefore trigger the remaining provisions of Water Code section 1242.1 without having adopted a local flood-control plan pursuant to Water Code section 8201 or having considered flood risk as part of its most recently adopted general plan.

3. The Department of Water Resources is directed to take all feasible and appropriate action to maximize diversions of excess flows that become available as a result of the anticipated winter storms, and other winter storms, to storage, including storage in San Luis Reservoir.

4. The Department of Water Resources, the State Water Resources Control Board, the Natural Resources Agency, and the Environmental Protection Agency are directed to identify any obstacles that would hinder efforts to maximize diversions to storage of excess flows that become available as a result of the anticipated winter storms, to remove or minimize such obstacles wherever possible, and to promptly report to my office any additional statutory or regulatory barriers that should be considered for suspension.

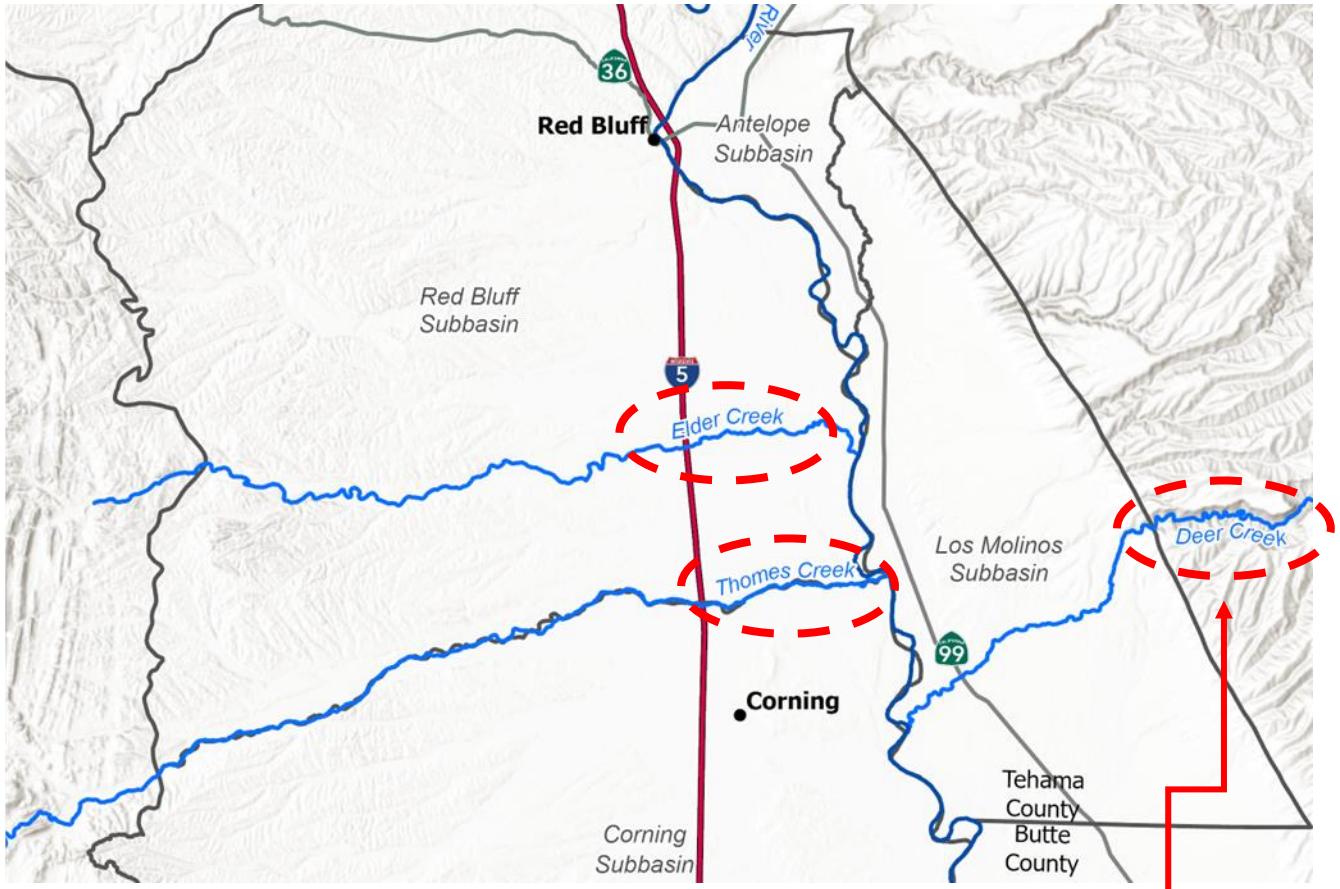
I FURTHER DIRECT that as soon as hereafter possible, this Order be filed in the Office of the Secretary of State and that widespread publicity and notice be given of this Order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

LSCE

Task 4.2 Thomes Creek and Elder Creek Diversions

- **Ag Aquifer Storage and Recovery (ASR):**
  - Potential for utilizing ASR to direct excess surface water directly into the aquifer
  - Already used in municipal wells, pilot programs using ag wells are ongoing
  - Investigating pilot projects on Elder and Thomes Creeks in Red Bluff Subbasin and Deer Creek in Los Molinos

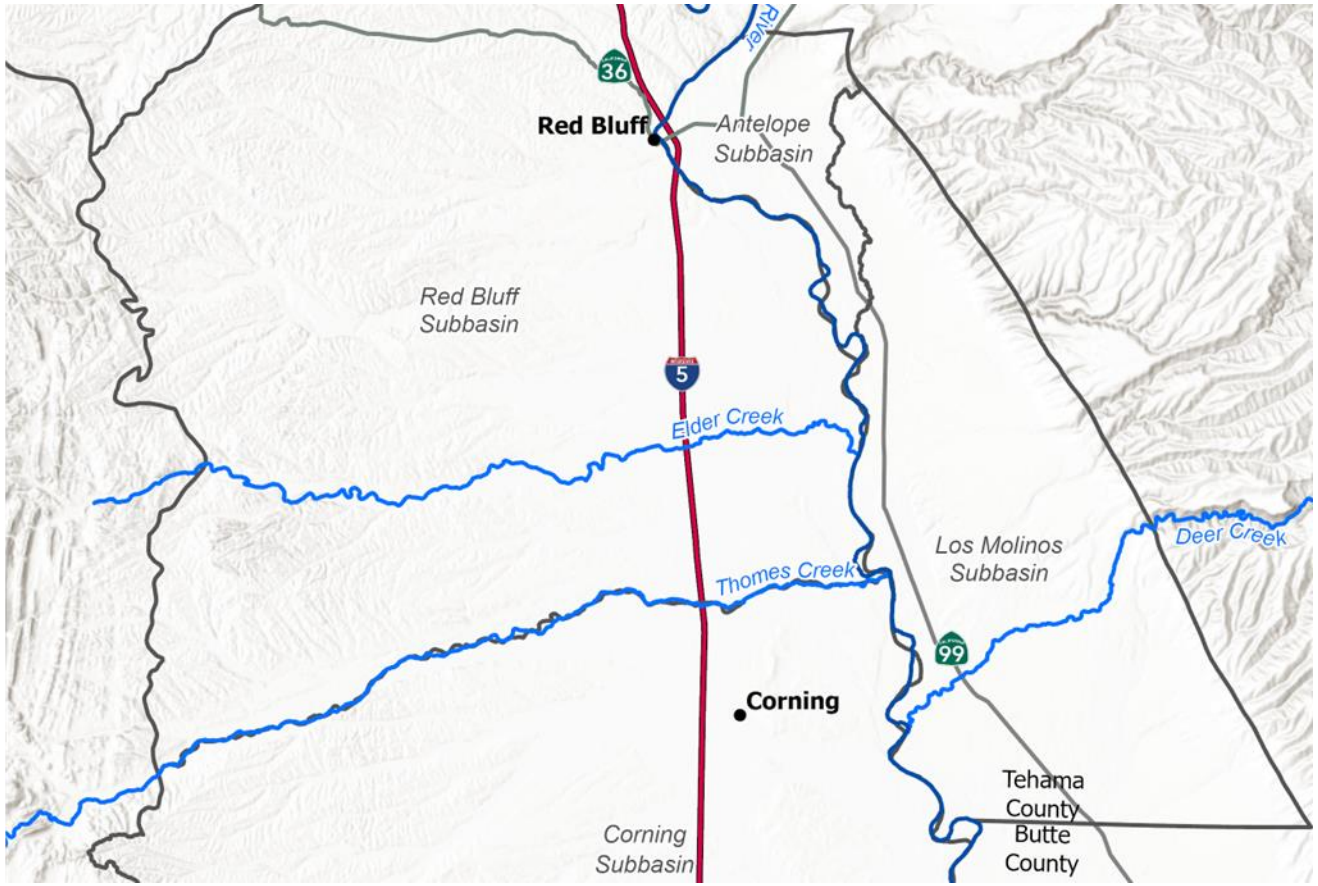


Discussing with DCID Board

LSCE

Task 4.2 Thomes Creek and Elder Creek Diversions

- **Ag Aquifer Storage and Recovery (ASR):**
  - State board is supportive of pilot projects
  - Next Steps
    - Meet with landowners to discuss projects
    - Develop workplans
    - Submit workplans to state board



LSCE

73

Task 4.3 Groundwater & Stormwater Recharge

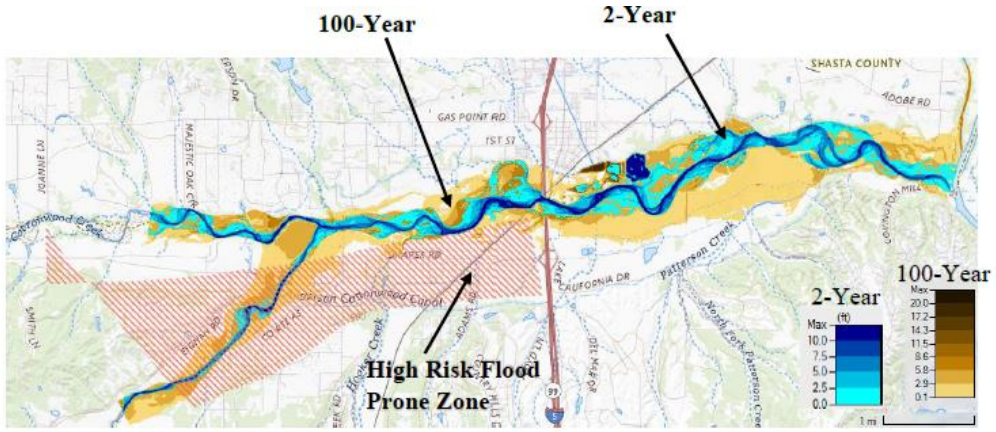


Figure 23: Max Depth Inundation for 2-year (blue) and 100-year (brown) Design Storms.

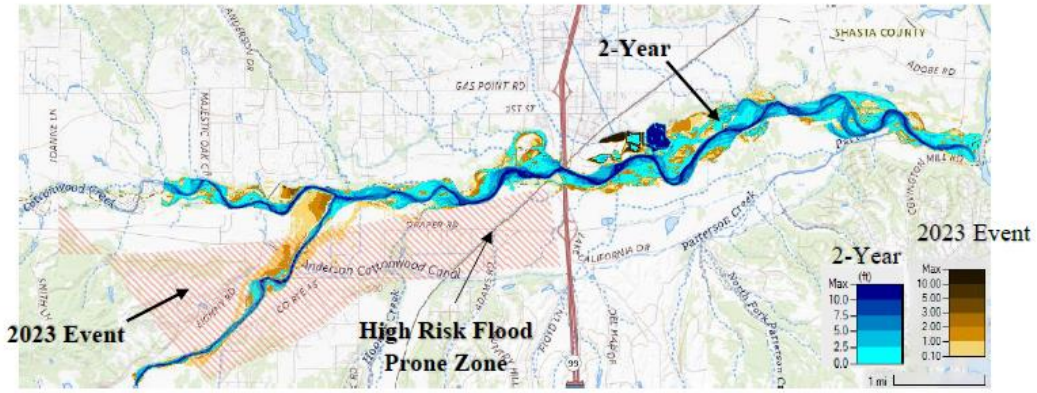
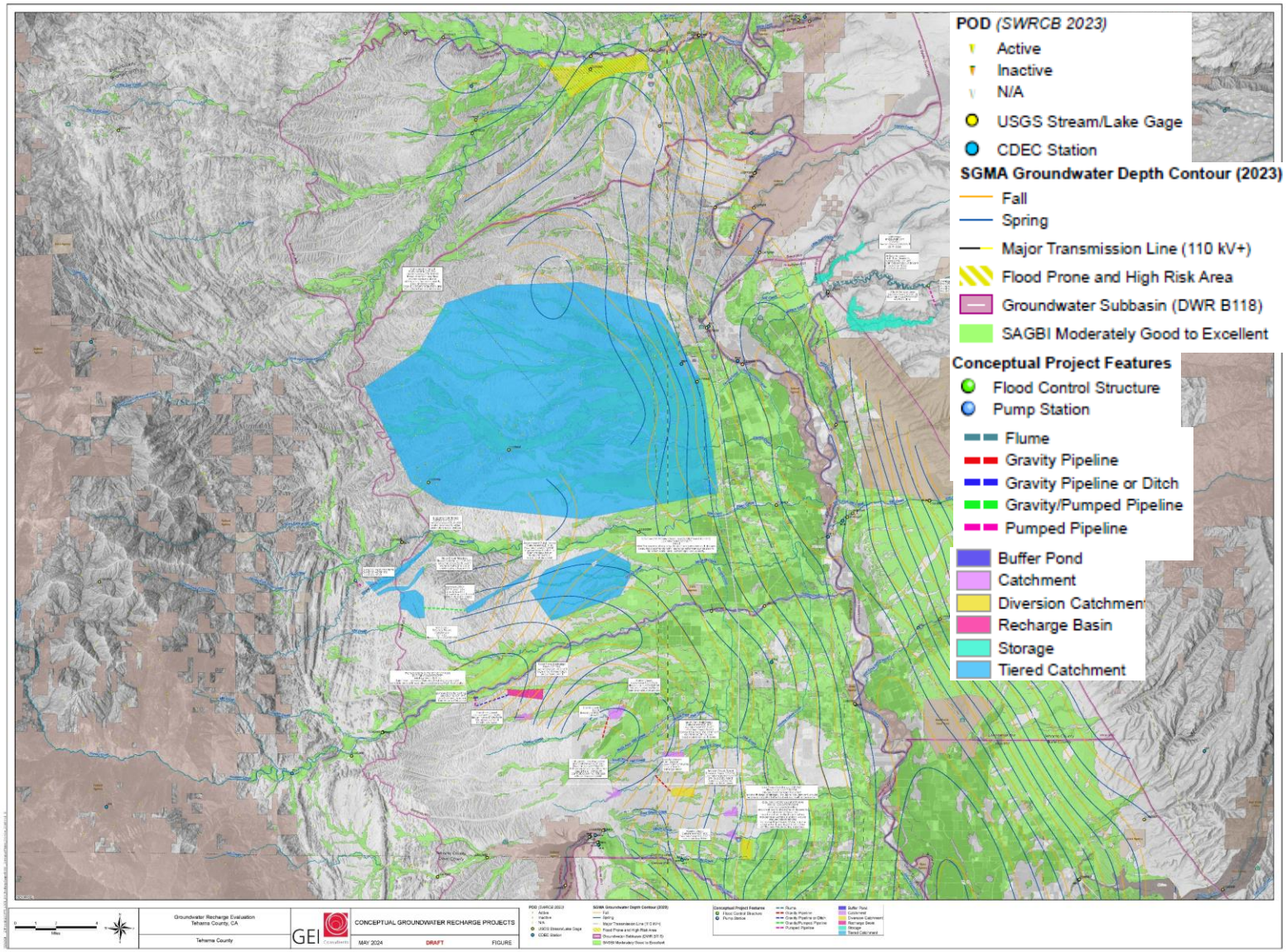


Figure 24: Max Depth Inundation comparison between 2-year (blue) and 2023 Event (brown)

- **Status**: Evaluating watersheds and times of high flows in creeks and streams for potential projects.
  - Received list of potential projects and flood-prone areas from the county
  - Modeling work on Cottonwood Creek has been completed
  - Similar work on other watersheds is planned

LSCE

Task 4.3 Groundwater & Stormwater Recharge



- **Next Steps**:
  - Based on watershed and high flow analyses, prioritize projects for further evaluation
  - Generate protocols for County to declare flood emergency and allow for water diversion from creeks and streams

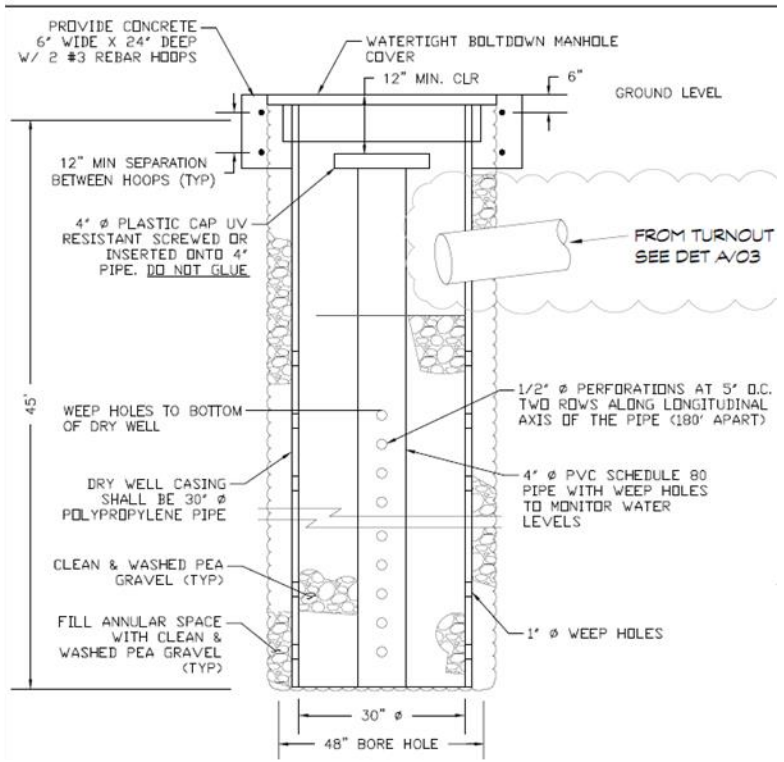
- **Deliverables**
  - Feasibility Studies

Task 4.4 Recharge Through Unlined Canals & Drainages

- Coordinated with tribe for collaboration on Brannin Creek project
  - Tribe engineer asked for water quality analysis of Colusa Canal water (completed in Oct 2024 during pilot)
- **Status:** Brannin Creek small scale pilot test and water quality testing completed in Oct 2024. Water quality results received by LSCE Dec 2024.

LSCE

Task 4.4 Recharge Through Unlined Canals & Drainages



Estimating 1,500 AFY

LSCE

Task 4.4 Recharge Through Unlined Canals & Drainages

- **Next Steps:**
  - Water quality data processing
  - Completion of feasibility study update for Brannin Creek (Q1 2025)
  - Rice and Burch Creek pilots to be scheduled for Spring 2025 due to storms
  - Identifying additional potential creeks and streams for pilot projects, especially sites where Corning and/or Colusa Canal can be discharged in winter
- **Deliverables:**
  - Feasibility studies for all pilots
  - Workplans for additional pilot tests

Task 4.4 Recharge Through Unlined Canals & Drainages

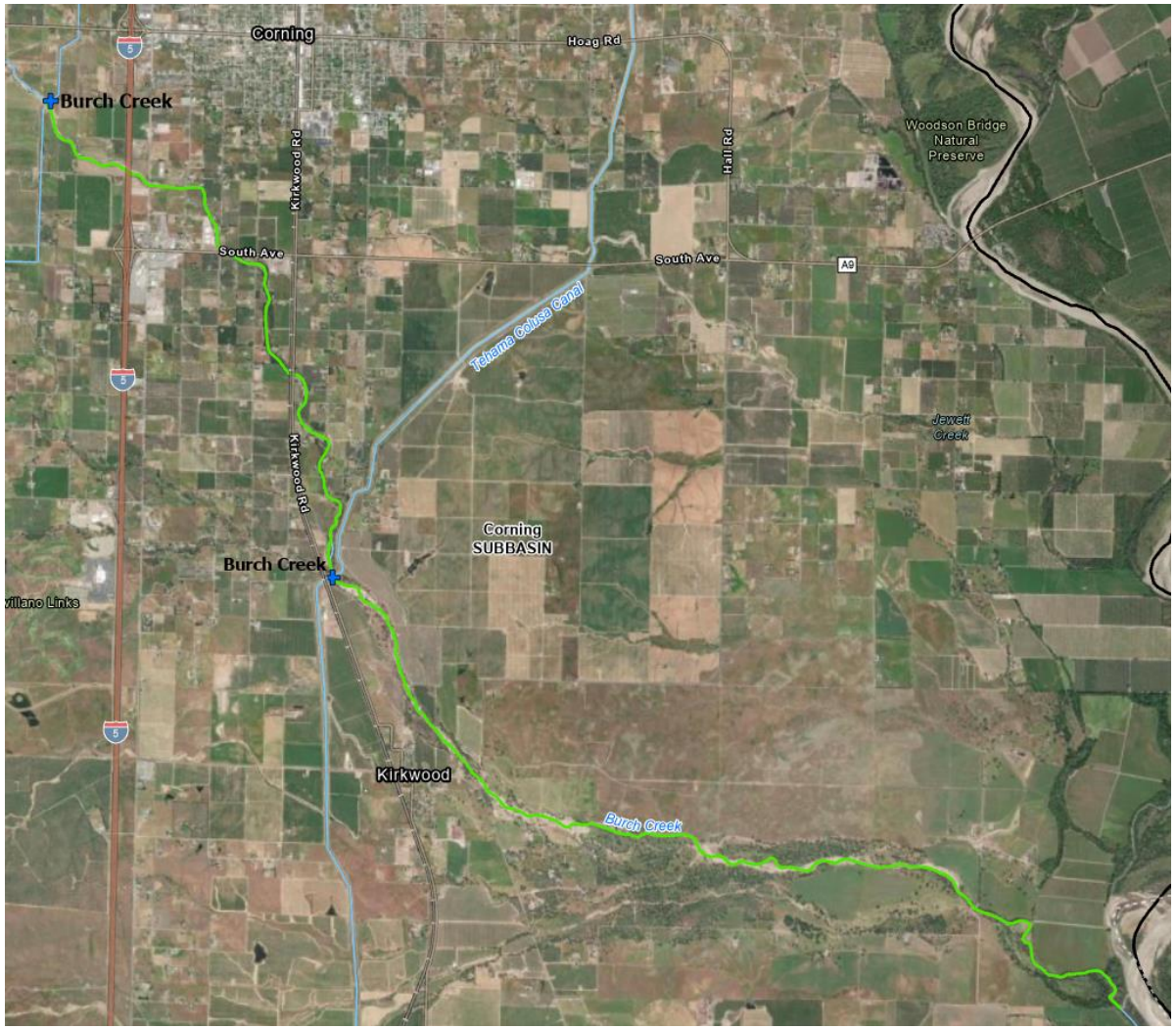
- **Planned Pilot: Rice Creek**
  - Existing turnout from Tehama-Colusa Canal to
  - 4.5 miles within Corning Subbasin

LSCE

79

Task 4.4 Recharge Through Unlined Canals & Drainages

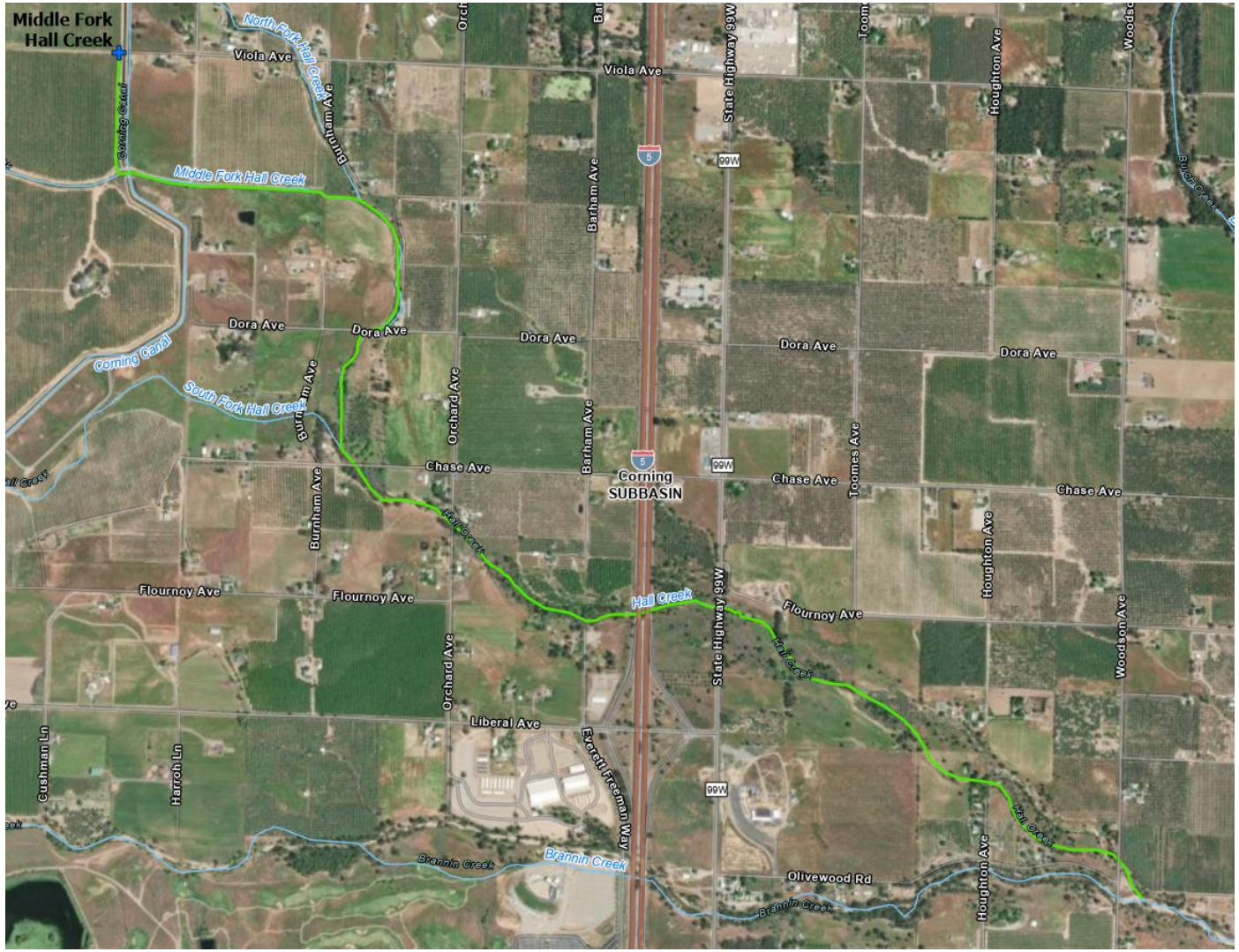
- **Planned Pilot: Burch Creek**
  - Existing turnouts from Corning Canal and Tehama-Colusa Canals
  - 11.8 miles within Corning Subbasin



LSCE

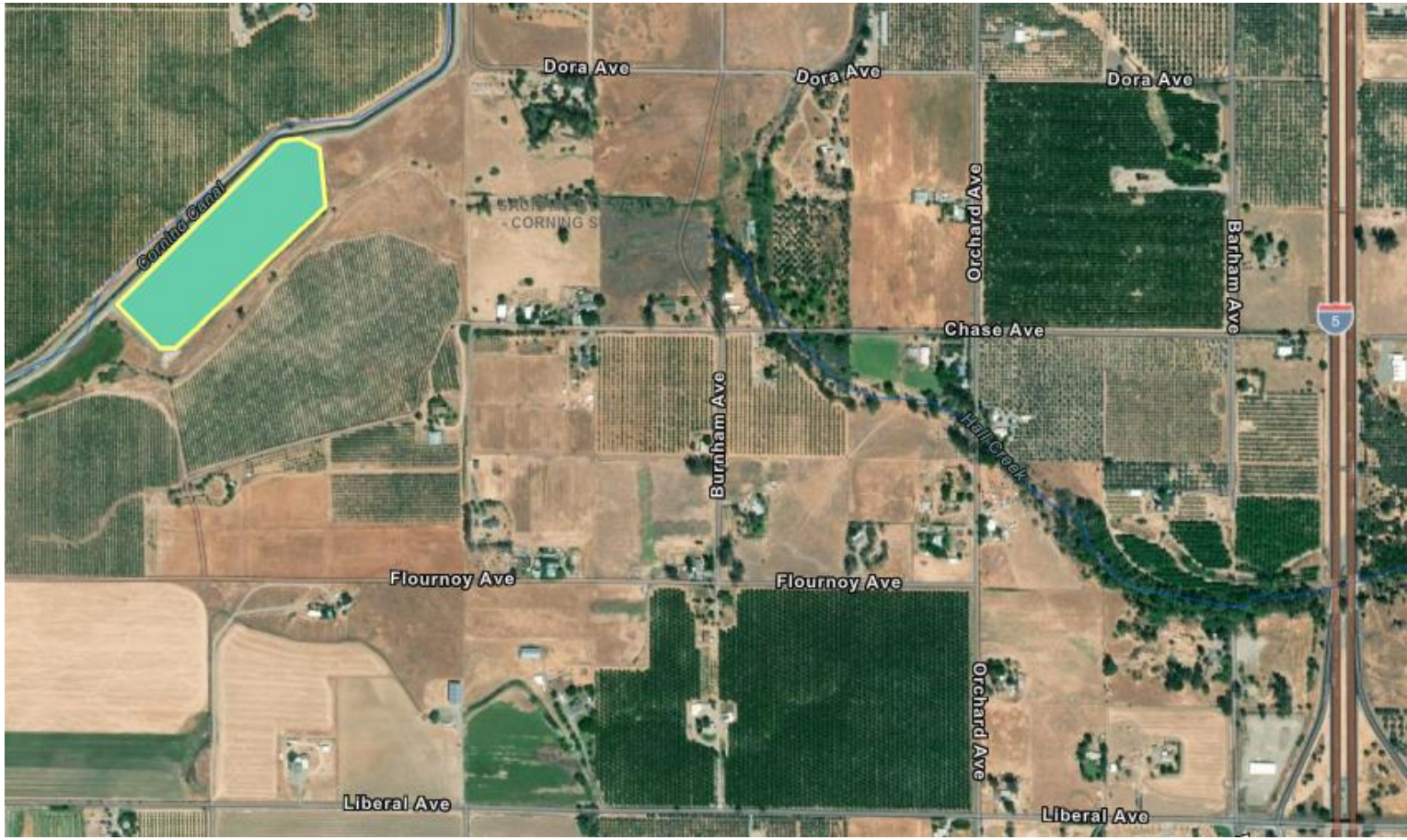
Task 4.4 Recharge Through Unlined Canals & Drainages

- **Planned Pilot: Middle Fork Hall Creek**
  - Existing turnout from Corning Canal
  - 3.1 miles within Corning Subbasin



Task 4.5 Recharge Pond South of Corning

- **Status:** Project Complete. Site not suitable for recharge
- **Pilot Test:**
  - Basin was filled with 45 acre-feet from the Corning Canal
  - Water depth transducers measured water level change
  - Weather station measured precipitation and evaporation



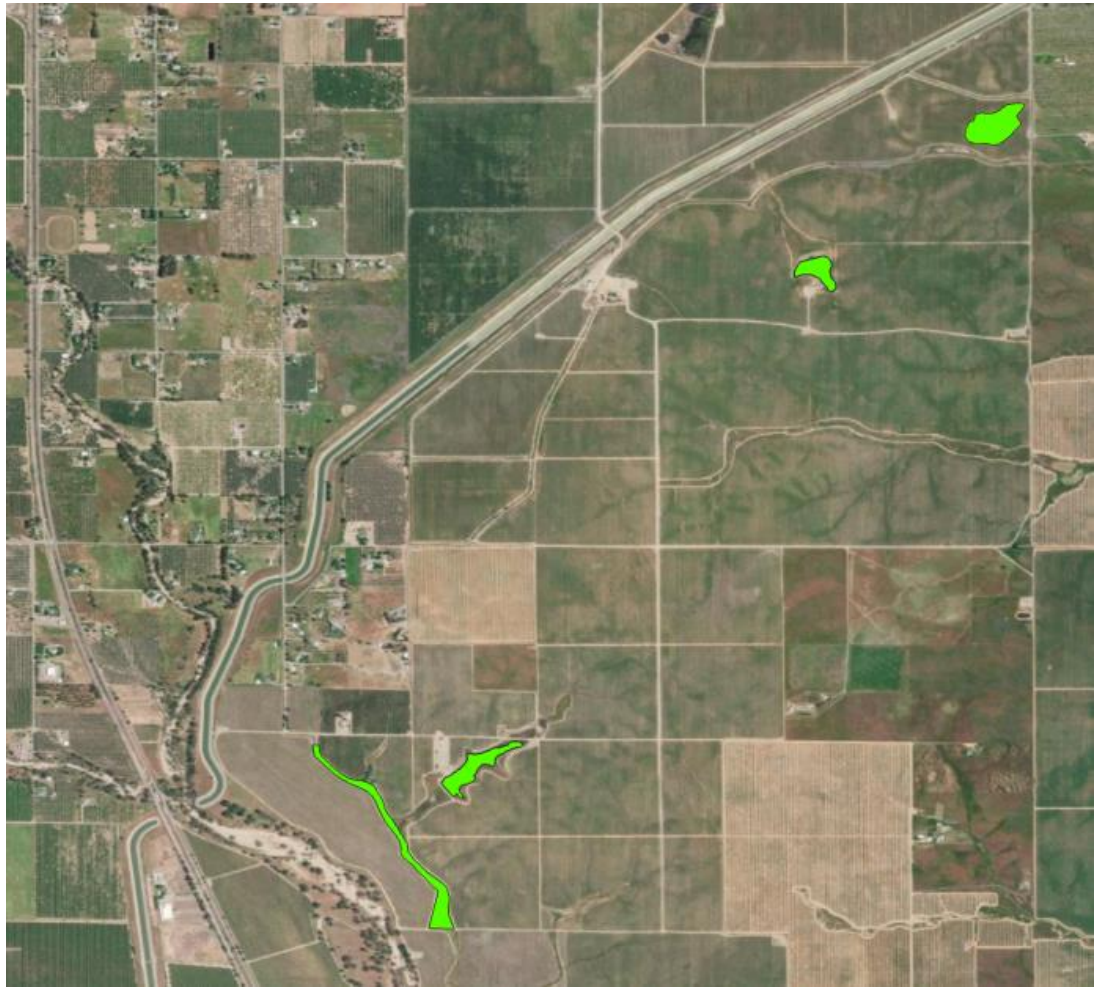
LSCE

Task 4.5 Recharge Pond South of Corning

- **Result**:
  - Recharge rate was 0.09 in/day
  - Had follow-up discussion with USBR and TCCA and determined that pond modification for recharge was not viable
- **Next Steps**:
  - DWR request to divert remaining funds from this task to another task (likely Task 5.2)
- **Deliverable:**
  - Feasibility Study

LSCE

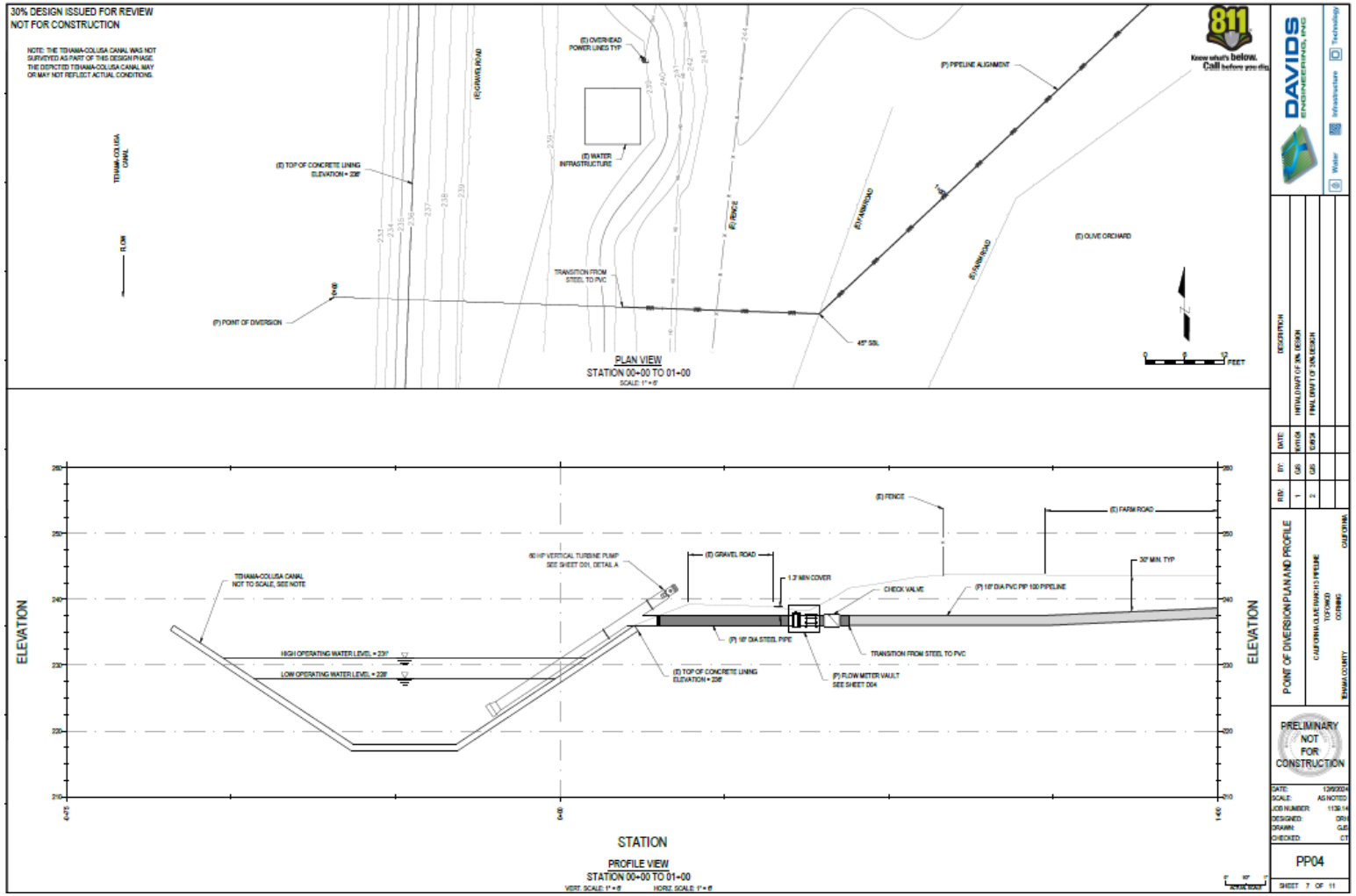
Task 4.6 California Olive Ranch



- **Details:** Project will consist of a new turnout on the Tehama-Colusa Canal, pump and pipeline
  - Can replace up to 1,142 acre-feet of groundwater use annually
  - Can also potentially be used for groundwater recharge
- **Status**:
  - MOU finalized and signed by all 4 signatories.
  - LSCE review of 30% design specifications complete
  - DE finalized 30% design

LSCE

Task 4.6 California Olive Ranch

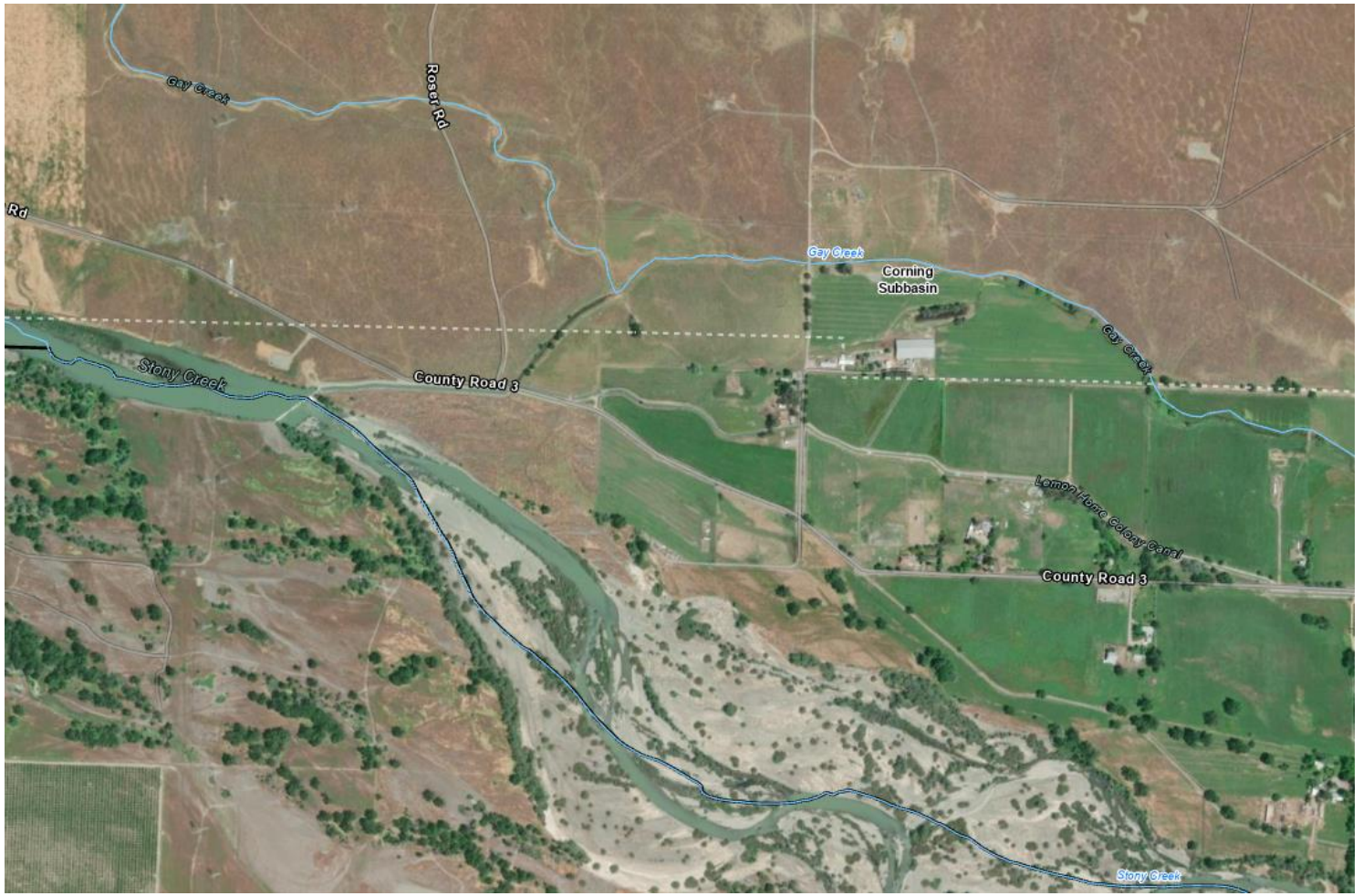


- **Next steps**:
  - DE generating 60% designs
  - TCCA reviewing 30% designs
  - LSCE submitting application through Kirkwood Water District
- **Deliverables:**
  - Approved project permits
  - Construction bids

LSCE

Task 4.7 Stony Creek Diversions

- Evaluated potential for project diverting water from Stony Creek to Gay Creek
- Project not viable:
  - No existing water right
  - Water in Gay creek during storm season when diversion would most likely happen
- As alternative, grant supporting 1, 180-day permit applications



LSCE

Task 4.7 Stony Creek Diversions

- **Status**: 180- day permits issued for sites
- **Next Steps**:
  - Installing temporary pumps and pipelines
  - Grant will fund equipment costs
- **Deliverable:**
  - Feasibility studies following implementation of diversions

LSCE

Task 5.1 Water Transfers for In-Lieu Recharge

- **Status**: Rapid appraisal completed for Corning Water District
- **Next Steps**:
  - Rapid appraisals for other districts in progress
- **Deliverable:**
  - Rapid appraisals

LSCE

Task 5.2 Use of Full Surface Water Allocations

- Information on 16 projects gathered so far
- Total number of projects exceeds funding available
- 4 projects implemented as trial for implementation and reimbursement for projects is in progress
- Additional projects will be evaluated based on ranking matrix
- Matrix is currently in development
- Landowner agreement will be required
- Task 5.1 will add capital improvement projects for water districts to list of projects to be implemented under Task 5.2

LSCE

89

Task 5.2 Use of Full Surface Water Allocations

- **Status**: Ranking matrix in development
- **Next Steps**:
  - Finalize ranking matrix
  - Complete landowner agreement
  - Rank existing projects
- **Deliverable:**
  - Project List
  - Report on implemented projects

Category	Variable	Points	Criteria
Project Logistics	Agreement	Go/No Go	Landowner Agreement is a requirement for consideration
	Landowner	0-1	First project by landowner gets 1 point, subsequent projects receive no points
	Water District	0-2	Three Tiers (TBD), based on percentage of unused district water
	Permitting Requirements	0-1	No additional requirements gets 1 point
Project Benefit	$/AF (1 Year of Implementation)	0-5	Five tiers, from <$200/AF to >$1000/AF, lower cost recieves higher score
	Expected Groundwater Offset	0-4	Four tiers, based on amount of
	Demand Reduction Polygon	0-2	Polygons with larger groundwater deficit receive higher score (TBD)

LSCE