

NOTICE OF EXEMPTION

To: Merced County Clerk
2222 M Street
Merced, California 95340

Stanislaus County Clerk
1021 I Street, Suite 101
Modesto, California 95354

Office of Planning and Research
1400 10th Street
Sacramento, California 95814

From: East Turlock Subbasin Groundwater
Sustainability Agency
731 East Yosemite Ave., Suite B, #318
Merced, California 95340

Project Title: East Turlock Subbasin GSA Priority Action Area – Cortez Incipient Subsidence

Project Location – Specific: Within the boundaries of the East Turlock Subbasin GSA (see attached Exhibit “A” for map).

Project Location – City: N/A

Project Location – County: Merced and
Stanislaus

Description of Nature, Purpose and Beneficiaries of Project:

This project is to adopt a Priority Action Area Plan (“PAA Plan”) related to certain parcels in the southwestern portion of the East Turlock Subbasin Groundwater Sustainability Agency (“ETSGSA”)’s jurisdiction near the unincorporated area of Cortez (referred to as the “Cortez Incipient Subsidence Area”) consistent with ETSGSA’s implementation of the Sustainable Groundwater Sustainability Act (“SGMA”) within the East Turlock Subbasin GSA’s boundaries pursuant to the Revised Turlock Subbasin Groundwater Sustainability Plan (“Revised Turlock GSP”) and the Demand Reduction Plan attached thereto as Appendix “K”. The PAA Plan is included as Exhibit “B”.

The PAA Plan for the Cortez Incipient Subsidence Area is specifically intended to implement initial conservation measures to address a potential trend in groundwater levels declining observed at two representative monitoring site wells, and land surface elevation data from the California Department of Water Resources (“DWR”) suggesting there may be subsidence occurring in that area. Adoption of the PAA Plan for the Cortez Incipient Subsidence Area will establish a designated area in which ETSGSA will consider implementing certain response actions and Groundwater Use Management Program Adjustments related to implementation of Rules and Regulations for groundwater use, prioritize identification and implementation of project opportunities to address groundwater level decline and potential subsidence, conduct additional outreach and coordination efforts, and conduct monitoring and data collection. These objectives are intended to avoid undesirable results and to achieve sustainable management of groundwater

within the East Turlock Subbasin GSA's boundaries for the benefit of all beneficial users and uses of groundwater and under the GSA's SGMA obligations and authorities.

Name of Public Agency Approving Project: East Turlock Subbasin GSA

Name of Person or Agency Carrying Out Project: East Turlock Subbasin GSA

Exempt Status: (check one)

- Ministerial (Sec. 21080(b)(1); 15268);**
- Declared Emergency (Sec. 21080(b)(3); 15269(a));**
- Emergency Project (Sec. 21080(b)(4); 15269(b)(c));**
- Categorical Exemption. State type and section number:** Class 7 – Cal. Code Regs., tit. 14, § 15307; Class 8 – Cal. Code Regs., tit. 14, § 15308; Common Sense Exemption – Cal. Code Regs., tit. 14, § 15061, subd. (b)(3);
- Statutory Exemption. State code number:**

Reasons why project is exempt:

The adoption of a PAA Plan for the Cortez Incipient Subsidence Area is an action taken by the East Turlock Subbasin GSA as authorized by SGMA for the protection of natural resources and the environment, which is categorically exempt pursuant to CEQA Guidelines sections 15307 and 15308.

As the PAA Plan for the Cortez Incipient Subsidence Area does not have the potential for causing a significant effect on the environment by itself, the common sense exemption applies pursuant to CEQA Guidelines section 15061(b)(3). Separate and underlying projects and management actions will undergo CEQA analysis as required.

Lead Agency

Contact Person: Mike Tietze **Area Code/Telephone/Ext:** (916) 200-9038

If filed by applicant:

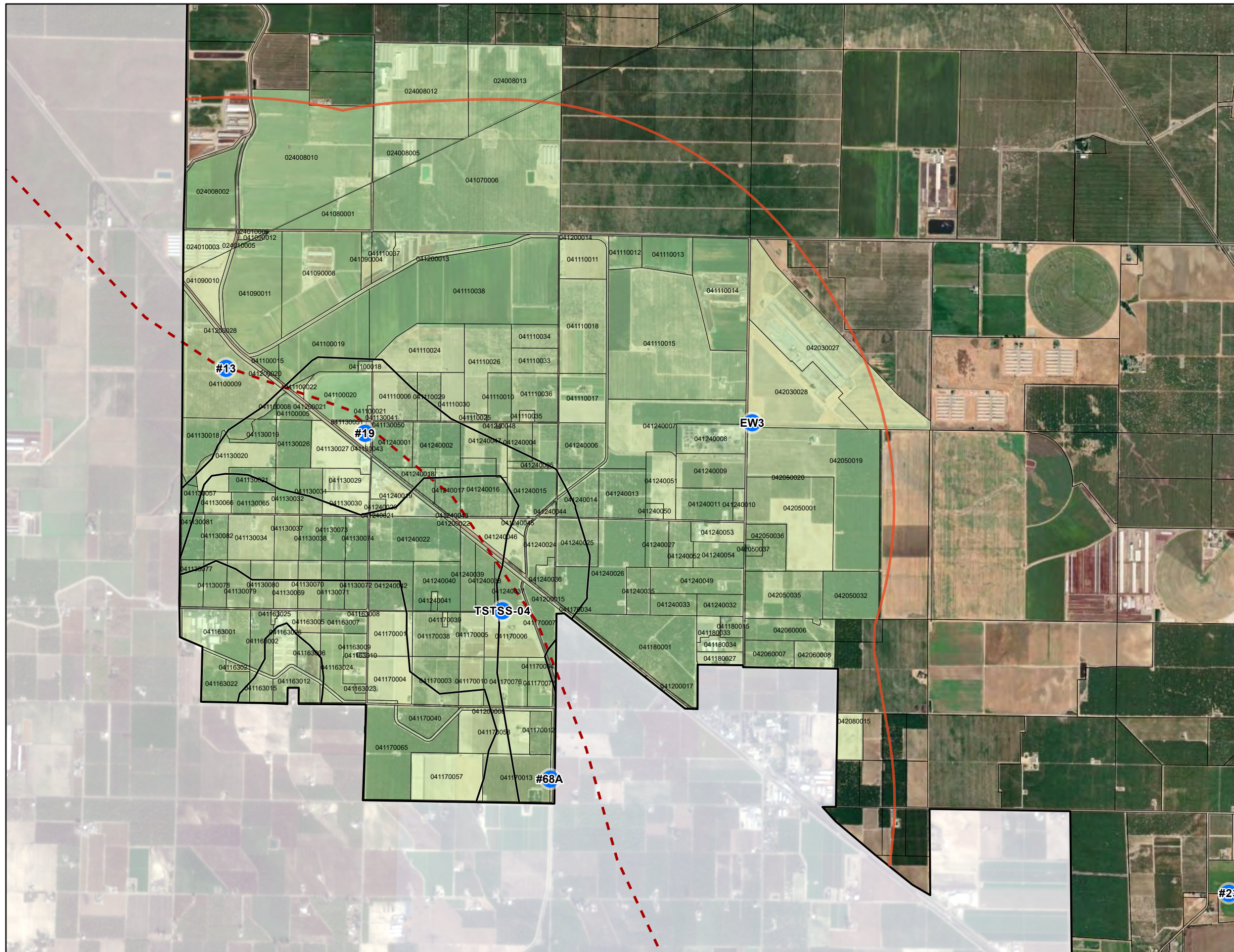
1. **Attach certified document of exemption finding.**
2. **Has a Notice of Exemption been filed by the public agency approving the project?** Yes No

Signature:  **Date:** 04/03/2025 **Title:** Board Clerk

- Signed by Lead Agency**
- Signed by Applicant**

EXHIBIT “A”

Map of Priority Action Area for the Cortez Incipient Subsidence Area



- Wells
- - - Corcoran Clay extent (Burow et al., 2004)
- Action Level 3 Priority Action Area (2-mile buffer)
- Turlock Subbasin 2015-2023 Cumulative Subsidence Contours
- East Turlock Subbasin GSA
- Parcels
- Priority Action Area Parcels

Notes:
 1. "TSTSS-04" displays the planned well location.

0 0.25 0.5
 Miles

N

ETSGSA

PARCELS IN THE SUBSIDENCE PRIORITY ACTION AREA

DATE: APR 02, 2025	FORMATION ENVIRONMENTAL
By: GS, LEA	For: SAM

M:\ETSGSAMapData\Designation_of_Priority_Action_Areas\DesignationPriorityActionAreas_SubsidenceParcels.aprx

EXHIBIT “B”

Priority Action Area Plan for the Cortez Incipient Subsidence Area

**EAST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY
JOINT POWERS AUTHORITY**



PRIORITY ACTION PLAN

Priority Action Area Name:	Cortez Incipient Subsidence Priority Action Area
Designated Action Level:	<input type="checkbox"/> Level 1 <input type="checkbox"/> Level 2 <input checked="" type="checkbox"/> Level 3
Data Prepared/Modified:	March 19, 2025
Plan Status:	<input checked="" type="checkbox"/> Initial establishment <input type="checkbox"/> Escalation <input type="checkbox"/> De-Escalation
Plan Prepared By:	M. Ausburn
Plan Reviewed By:	M. Tietze
Date Adopted:	March 27, 2025

1. TRIGGER EVALUATION AND ACTION TIER DETERMINATION

A. Threshold Exceedances

Document Demand Reduction Plan threshold trigger exceedances, the date they were observed and any other supporting information.)

Land Subsidence - Based on analysis of Interferometric Synthetic Aperture Radar (InSAR) data reported by TRE ALTAMIRA (Todd Groundwater 2024), several Sustainability Indicator Threshold Triggers for cumulative subsidence have potentially been exceeded in the southwestern portion of ETSGSA near Cortez (See Figure 1). Specifically, the following triggers from the Detailed Decision Matrix in Attachment A to the Demand Reduction Plan may have been exceeded (Formation 2024):

- **Level 2:** Over 0.25 ft cumulative subsidence has been reported, and active (continuing) subsidence has been reported over the last 8 years (maximum >~0.6 inch/year).
- **Level 3:** Reported subsidence has continued for a period of 2 years since the initial Groundwater Sustainability Plan (GSP) for the Turlock Subbasin was first adopted in 2022. No priority actions have been able to be implemented since the Groundwater Demand Reduction Plan was adopted in July 2024; however, conservatively, this duration may warrant designation of a Level 3 Priority Action Area with limited management action escalation.

In evaluating subsidence threshold triggers, we note that the amount of subsidence reported each year has been generally within the stated margin of error of the InSAR technology; however, each year the ground surface was reported to have declined, indicating a systematic trend. Reported movement in one direction would be inconsistent with error, and the cumulative amount of subsidence reported based on InSAR data matches the amount of subsidence reported by the California Department of Water Resources (DWR) at GPS monitoring station TRLK southeast of the City of Turlock (Todd Groundwater 2024). This strongly suggests that the reported InSAR ground surface changes are the result of subsurface compaction rather than wind erosion at the surface or error in the InSAR measurement. However, it is also relevant to note that because the rate of subsidence is generally within the reported margin of error it may not meet the definition of “active” subsidence as defined in the Demand Reduction Plan, especially since the cumulative subsidence is limited and well below levels that generally result in adverse impacts to infrastructure. In addition, it is important to note that the Level 3 escalation trigger of prior implementation of priority actions has not occurred. We therefore propose to assign a provisional Level 3 designation to this Priority Action with limited implementation of escalated management actions as noted later in this plan, and to further verify the rate and extent surface elevation changes and groundwater level responses to targeted project implementation.

Groundwater Levels – Two Representative Monitoring Site (RMS) wells with assigned groundwater level Sustainable Management Criteria are located in or near the identified subsidence area shown on Figure 1 (ETSGSA-13 and EWD-3). A third RMS well (MW-68A) has not yet been assigned SMCs. Hydrographs were recently adjusted for these wells based on resurveying data and are included as Attachment 1. Trigger threshold evaluations are as follows:

- **ETSGSA-13:** Groundwater levels were below the Minimum Threshold (MT) and 2027 Interim Milestone (IM) during the Spring and Fall 2022 monitoring events, but at or above the MT during Spring and Fall events in 2023 and 2024. The overall groundwater level trend is declining from 2019 to 2022, and recovering from 2023 to 2024. We note that the parcel on which this well is located participated in the TID Replenishment Water Program (GSP Project 9) in 2023 and 2024 and, as such, the recovering groundwater level trends may reflect the effectiveness of in lieu recharge. This supports a Level 1 status.
- **MW-68A:** SMCs have not yet been set for this well but the MT is proposed to be set at the top of the Corcoran Clay and the 2027 IM will likely be set near historical low groundwater levels. Fall 2022, Spring and Fall 2023, and Fall 2024 groundwater levels were below the proposed MT; however the overall trend in this well has been stable to increasing. Groundwater levels in this area may also have benefitted from in lieu recharge related to the Replenishment Water Program. This supports a Level 0 status.
- **ETSGSA-19:** This well does not have assigned SMCs; however, the hydrograph indicates a similar pattern to ETSGA-13 and EW3, supporting the interpretation that groundwater levels across the Priority Action area stabilized or recovered in 2023 and 2024 due to in lieu recharge provided by GSP Project 9.
- **EW3:** Groundwater levels were below the MT during the Fall 2022, 2023 and 2024 monitoring events and show a declining trend from 2018 through 2022, and stabilization from 2023 to 2024. The parcel on which this well is located is located near the airport and shows more limited effects from parcels that received replenishment water in 2023 and 2024. Groundwater levels have remained above the 2027 IM. This supports a Level 0 status.

The above hydrographs are indicative of declining groundwater levels in the PAA that have recovered in years when Replenishment Water was applied. Examination of hydrographs for well TID 136A, located west of the PAA, shows a similar pattern, but with a more pronounced recovery. Generally speaking, groundwater levels in the western portion of the subbasin decline in drought years and recover when a full allocation of surface water is delivered. Further to the east, the hydrograph for well ETSGSA-14 shows a declining trend followed by stabilization in 2023 and 2024, suggesting limited influence from replenishment water similar to EW3. Further to the east, wells show consistently declining groundwater levels. The hydrographs for wells TID 136A and ETSGSA-14 are included in Attachment 1.

B. Management Tier Designation

Identify the applicable management tier and any changes (escalations or de-escalations) and the supporting rationale)

Based on the data above, the Cortez Incipient Subsidence PAA is provisionally designated at Level 3 as an initial conservative measure; however, the status will be re-evaluated in one year, and limited escalation measures are proposed at this time.

C. Action Area Designation

Describe location and attach map)

The boundaries of the Cortez Incipient Subsidence PAA are shown on Figures 1 and 2, attached. These boundaries were developed by the following procedure:

1. Designation of a 2-mile preliminary buffer around the 0.25-foot cumulative subsidence contour (Figure 1); and
2. Adjusting the boundary along the borders of parcels or contiguous groups of parcels under related ownership (Figure 2). (If more than 50% of the land area of a parcel or group of parcels was in the PAA, they were assumed to be managed as part of the PAA; otherwise, they were assumed to lie outside the PAA.

2. IMPLEMENTATION PERFORMANCE TREND ANALYSIS

A. Program Implementation Performance

Discuss any relevant information regarding the status and trends of Demand Reduction Program implementation.

Implementation of the Demand Reduction Plan is beginning in this area along with the rest of ETSGSA. Replenishment Water was provided under GSP Project No. 9 to a number of parcels during the 2023 and 2024 irrigation seasons, providing in-lieu recharge benefits. The delivery of Replenishment Water coincides with a stabilization or recovery of groundwater levels in the hydrographs for ETSGSA-13, ESTGSA-19 and EWD3. This correlation should continue to be monitored to assess the effectiveness of Replenishment Water deliveries. Meetings have been undertaken with local land owners to identify potential project and land repurposing opportunities, and opportunities to expand delivery of Replenishment Water. Several conceptual project proposals have been received and two applications were selected for implementation of pilot projects tentatively starting in the summer of 2025.

B. Sustainability Indicator Performance

Present information regarding trends in Sustainability Indicator trends and relevant background information

As discussed under 1.A., Groundwater levels were decreasing in two RMS wells completed in the Eastern Principal Aquifer up to 2022, and were stable or increasing in 2023 and 2024. Groundwater levels are stable to increasing in one RMS well completed in the Lower Western Principal Aquifer. The stabilization or increase in groundwater levels may be related to in lieu recharge from the delivery of Replenishment Water in 2023 and 2024. Aquifer responses to P&MAs should be further assessed over time.

3. RESPONSE ACTIONS

A. Objectives

Describe the objectives of the planned response actions

Specific objectives of this Priority Action Plan include the following:

- Arrest chronic groundwater level decline and achieve MTs for RMS wells by 2032;
- Avoid subsidence that damages infrastructure; and
- Minimize additional dry domestic wells in downgradient areas around Delhi.

B. Investigations

Describe any planned investigations

The following investigation activities are proposed:

- Install a TSS well cluster (three depths) and evaluate well logs and AEM data to investigate hydrostratigraphy and groundwater flow in the transition area between the Eastern Principal Aquifer and Upper and Lower Western Principal Aquifers in and near the PAA;

- Evaluate the potential effect and benefit of direct recharge projects in the PAA and aquifer transition zone by gathering data during implementation of recharge projects;
- Investigate the suitability of subsurface conditions for recharge;
- Measure and report the delivery of Replenishment Water and assess any corresponding response in groundwater levels;
- Re-survey ground surface elevations surveyed next to monitoring wells in 2023 and install subsidence monuments at several locations to verify the extent and rate of subsidence; and
- Consider data from investigations conducted by the West Turlock Subbasin GSA in support recharge projects planned near the community of Delhi.

C. Groundwater Use Management Program Adjustments

Describe any planned changes in the Groundwater Management Framework, Groundwater Accounting Platform, or Groundwater Use Fees

The following adjustments are proposed to the Groundwater Use Management Program within the PAA:

- Prohibit pooling of parcels inside the PAA with parcels outside the PAA in the same water account;
- Restrict transfers across PAA boundaries (TBD pending development of rules and regulations for transfers in 2025 or 2026);
- Consider restriction of Carryover Credits (when rules and regulations are adopted) to Category 0 and Category 1 water within the PAA; and
- Evaluate further restrictions or de-escalation depending on future monitoring results.

D. Project Implementation

Describe any planned projects or project implementation actions

The following project implementation activities are proposed:

- Give a higher priority score to and accelerate implementation of MLRP projects, Rotational Fallowing and Surface Water delivery projects within the PAA;
- Accelerate regional engineering studies for the implementation of surface water delivery under GSP Project No. 9; and
- Prioritize in lieu recharge and demand reduction projects over direct recharge projects.

E. Outreach and Coordination

Describe planned outreach, engagement and coordination efforts

The following outreach, engagement and coordination efforts will be undertaken:

- ETSGSA will conduct outreach to growers in the PAA to make them aware of the contents of this Priority Action Plan and engage them to provide assistance in the implementation of Projects and Management Actions.
- ETSGSA will coordinate implementation of this Priority Action Plan with any Projects and Management Actions implemented by WTSGSA in the portion of identified subsidence area that lies within their jurisdiction. Currently, WTSGSA plans to implement a pilot recharge project and leveling surveys of canal infrastructure in the area between Cortez and Delhi. Other activities may be planned in the future. ETSGSA and WTSGSA will exchange information and coordinate activities during monthly staff coordination meetings and discuss activities and findings during regular joint meetings of their Technical Advisory Committees.

4. MONITORING

A. Data

Describe the types of monitoring data that will be collected to evaluate the response action effectiveness.

The following types of monitoring data will be collected to help guide priority actions:

- Groundwater level data, including both hand tagged and continuous transducer data;
- Download and analysis of InSAR data to assess subsidence;
- Collection of surveyed elevation data from ground surface locations next to monitoring wells and subsidence monuments;
- Surface water delivery volumes; and
- ET measurement of consumptive groundwater use.

B. Monitoring Networks

Describe the monitoring networks that will be used to assess response action effectiveness, including any modifications.

The following types of monitoring data will be collected to help guide priority actions:

- **Groundwater Levels:** Existing RMS and SGMA Wells in the PAA, expanded to include an additional TSS well cluster in 2025. Also consider adding a monitoring well in the Upper Western Principal Aquifer to assess potential recharge if a recharge project is constructed.
- **Subsidence:** Download and analyze TRE/Altamira InSAR data annually. RE-measure ground surface elevations adjacent to four monitoring wells annually. Install at least three subsidence monuments in 2025 and survey annually.
- **Consumptive Groundwater Use:** Continue collection and evaluation of ET data for all parcels and fields in the Priority Action Area using Land IQ.
- **Surface Water Delivery:** Delivery of surface water will be measured using flow meters required to be installed by TID near side gates from the Highline Canal.

5. THRESHOLDS AND FURTHER ACTIONS

A. Escalation

Describe the thresholds for further program escalation, including Sustainable Management Criteria compliance, trends and performance requirements.

Monitoring data shall be reviewed annually and assessed to determine if additional actions should be required or accelerated. If the following are observed, an immediate review shall be conducted to assess implementation of additional actions such as extraction prohibition and implementation of a land buyout program

- Continued cumulative subsidence exceeding 1 foot; and/or.
- Continued declining groundwater level trends below MTs after 2027.

B. De-Escalation

Describe the thresholds for program de-escalation, including Sustainable Management Criteria compliance, trends and performance requirements.

Monitoring data shall be reviewed annually and assessed to determine if actions can be de-escalated:

- Slowing or cessation of subsidence for a period of at least two years; and/or.
- Continued stabilization and recovery of groundwater levels in 2025 and 2026.

6. SCHEDULE

A. Implementation Schedule

Outline the overall implementation schedule for response actions, monitoring and reporting.

The tentative implementation schedule includes the following:

- Planning activities with input from the TAC and local growers commenced in July 2024 and are ongoing.
- The TSS monitoring well cluster in the PAA is planned to be installed by DWR in the spring of 2025.
- MLRP Pilot Projects will be selected for early implementation by April 2025 with implementation targeted to start June 2025.
- Resurveying of ground level elevations at monitoring wells will be conducted during Spring 2025. Installation and surveying of subsidence monuments will be conducted in Fall 2025.
- Adjustments to the Groundwater Demand Management Program will be implemented with the reporting period starting November 2024.
- Annual status reporting shall commence beginning with a report for activities conducted in 2025 prepared for the WY 2025 Annual Report.

B. Milestones

Identify any specific performance, evaluation and other milestones to be met.

See above

7. REPORTING

A. Reporting Requirements

Describe the reporting requirements and frequency.

Evaluate monitoring and implementation annually by end of February each year for inclusion in a Priority Action Area Status Report to be included as an attachment to the previous year's Annual Report, starting with the 2025 Annual Report submitted in early 2026.

B. Review and Approvals

Describe any requirements for periodic review and approvals.

The Priority Action Area Status Report shall be approved by the TAC and Board prior to submittal in annual reports to DWR.

REFERENCES

Formation Environmental, 2024. Technical Memorandum: East Turlock Subbasin GSA Groundwater Demand Reduction Plan. Dated July 11, 2024.

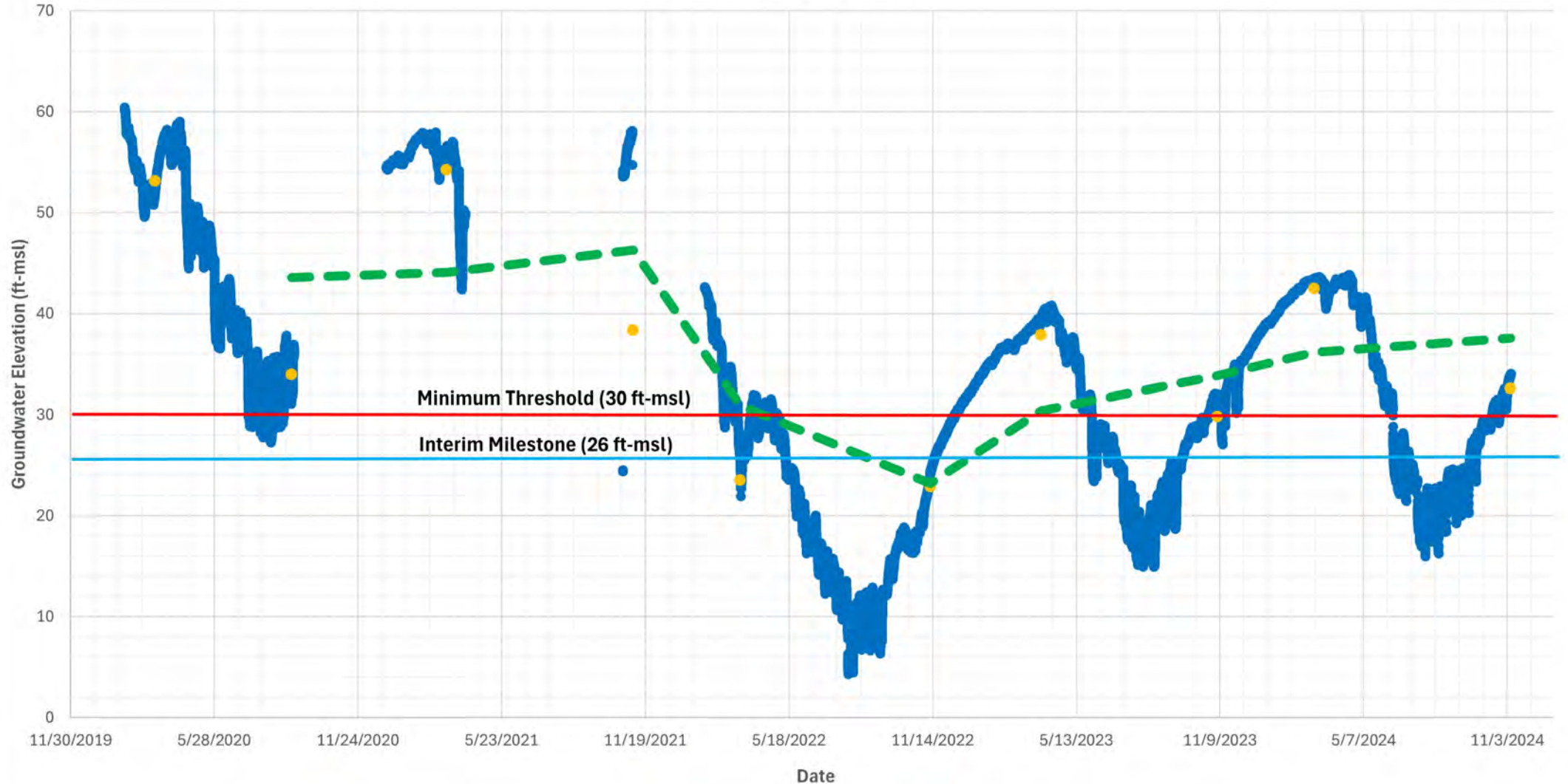
Todd Groundwater, 2024. Turlock Subbasin Groundwater Sustainability Plan (GSP): West Turlock Subbasin Groundwater Sustainability Agency and East Turlock Subbasin Groundwater Sustainability Agency. Revised July 2024.

**EAST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY
JOINT POWERS AUTHORITY**



**ATTACHMENT 1
HYDROGRAPHS**

ETSGSA-13 Manual & Transducer Groundwater Elevation Data 2/4/2020 to 11/7/2024

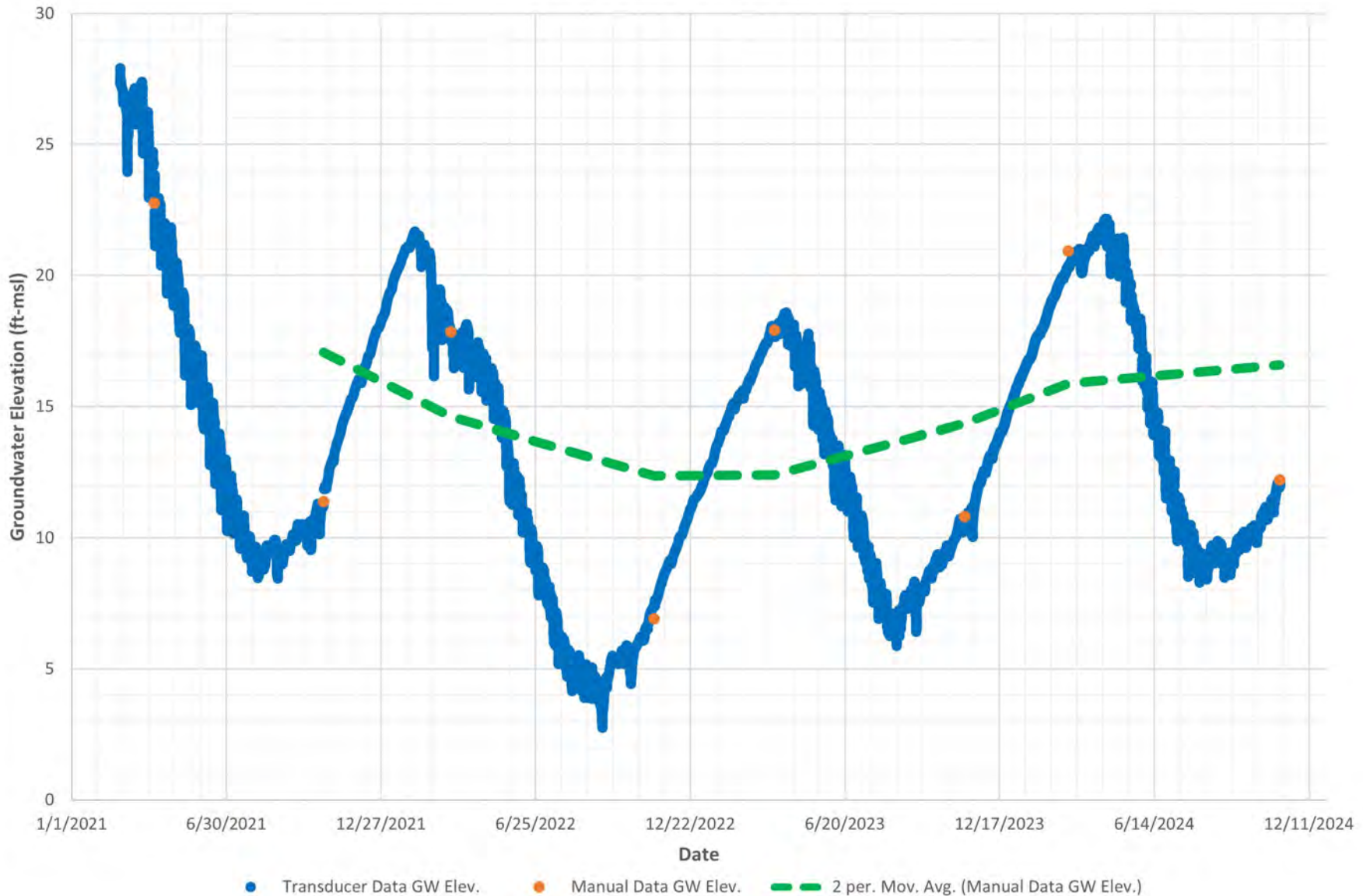


● Transducer Data GW Elev.

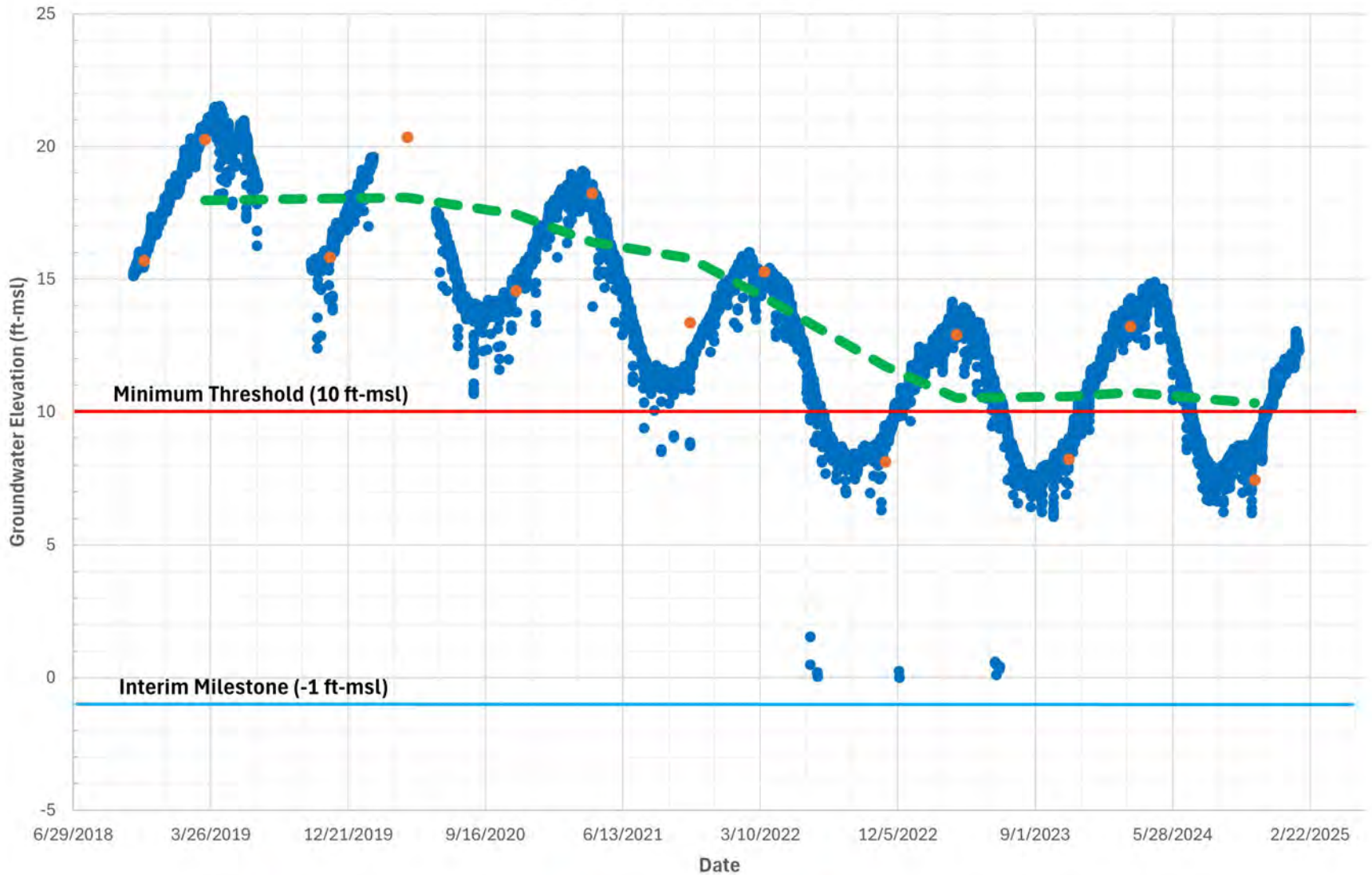
● Manual Data GW Elev.

--- 2 per. Mov. Avg. (Manual Data GW Elev.)

ETSGSA-19 Hydrograph - Manual & Transducer Groundwater Elevation Data 2/26/2021 to 11/7/2024

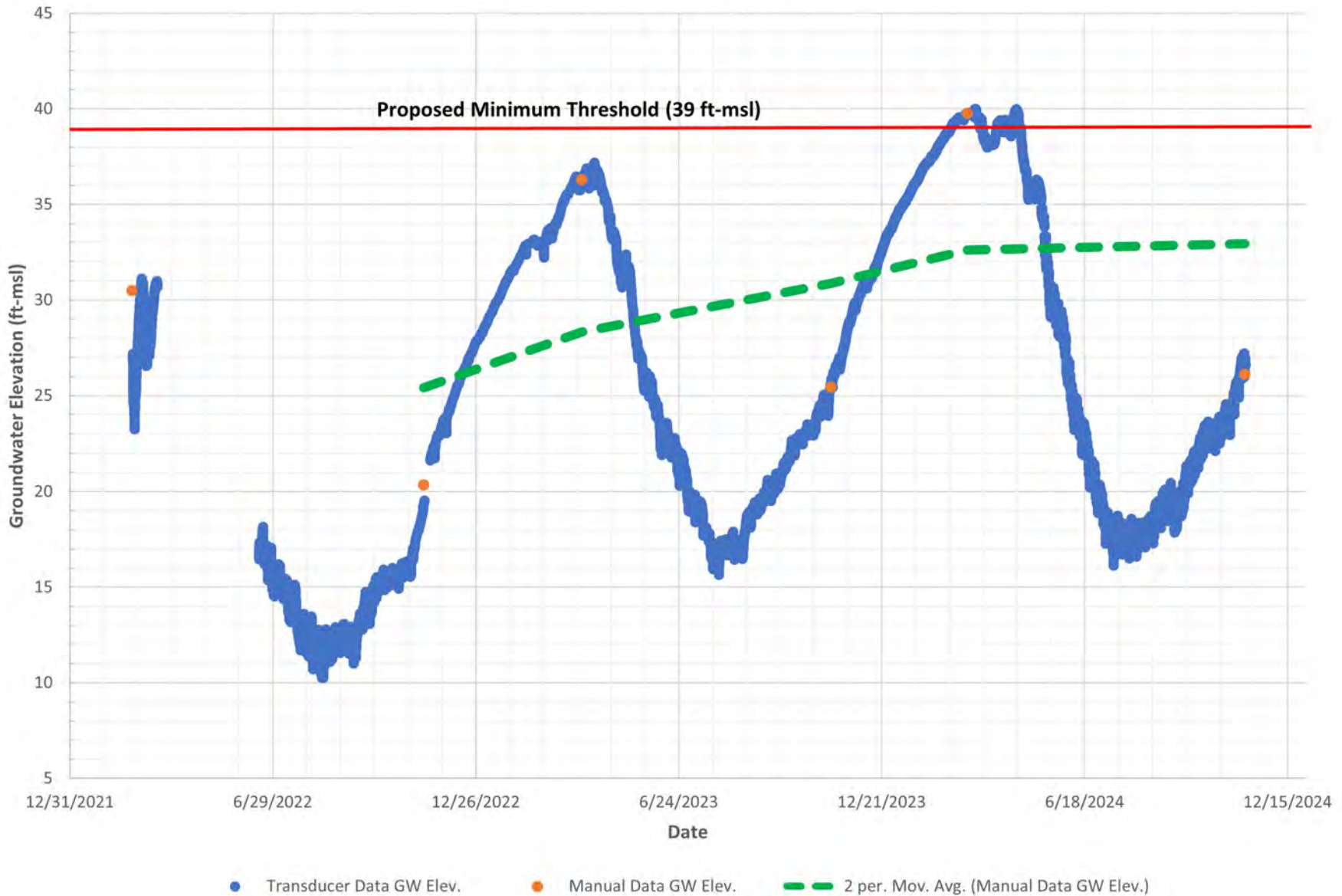


EW-3 Hydrograph - Manual & Transducer Groundwater Elevation Data 10/25/2018 to 1/31/2025

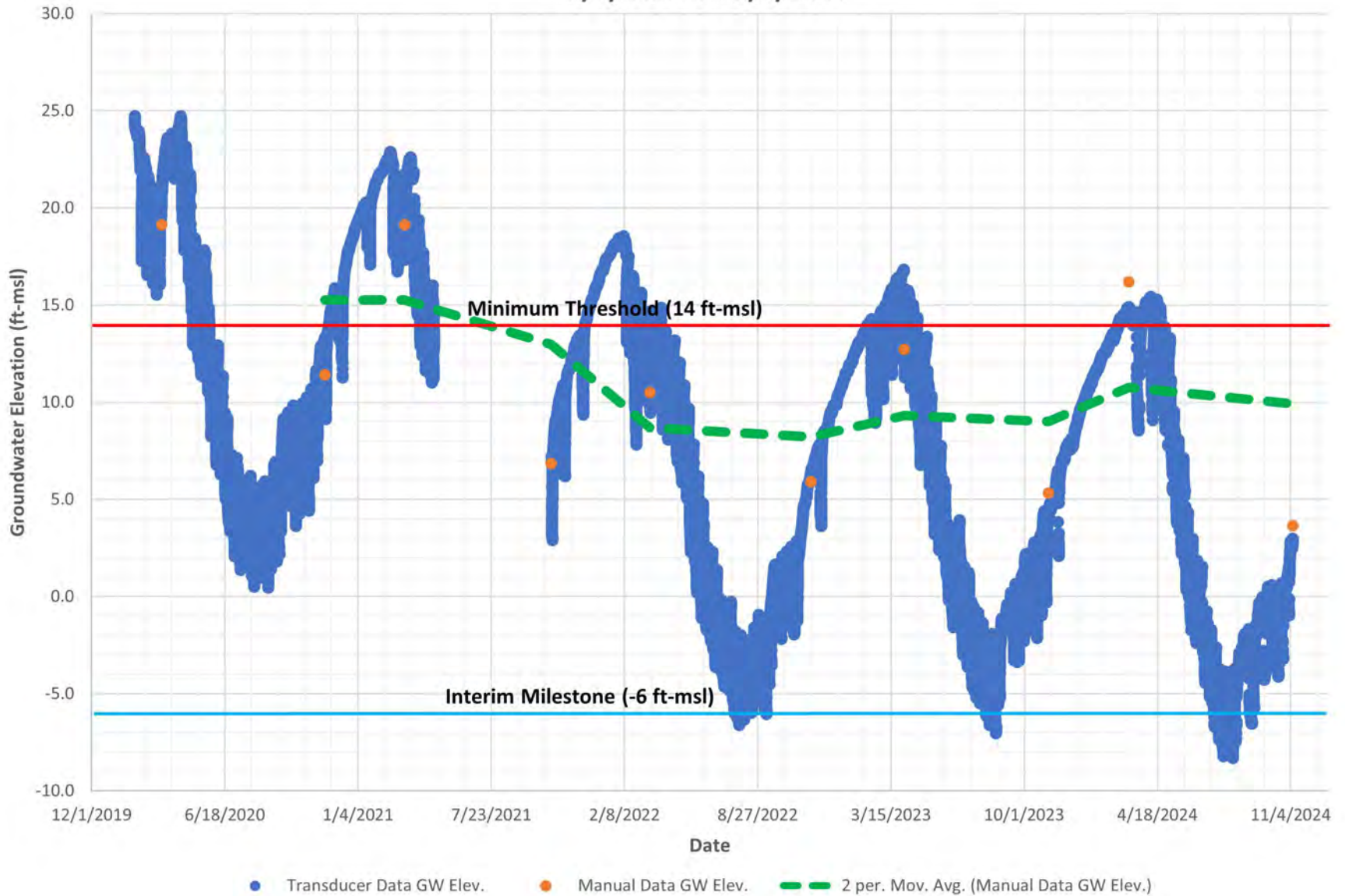


● Transducer Data GW Elev. ● Manual Data GW Elev. - - - 2 per. Mov. Avg. (Manual Data GW Elev.)

ETSGSA-68A Hydrograph - Manual & Transducer Groundwater Elevation Data 2/24/2022 to 11/7/2024



ETSGSA-14 Hydrograph - Manual & Transducer Groundwater Elevation Data 2/4/2020 to 11/7/2024



TID-136A Hydrograph - Manual Groundwater Elevation Data 11/17/2020 to 11/20/2024

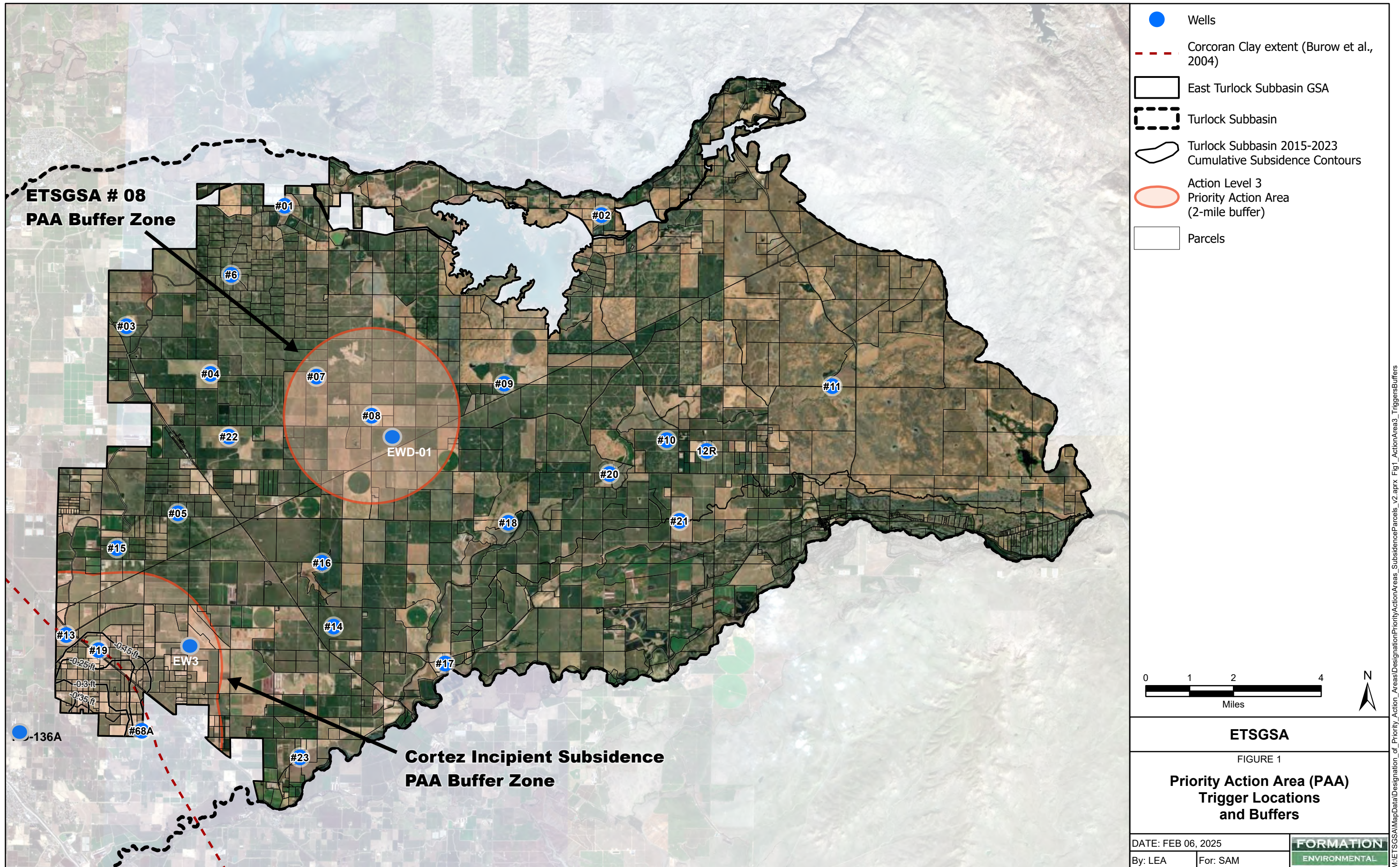


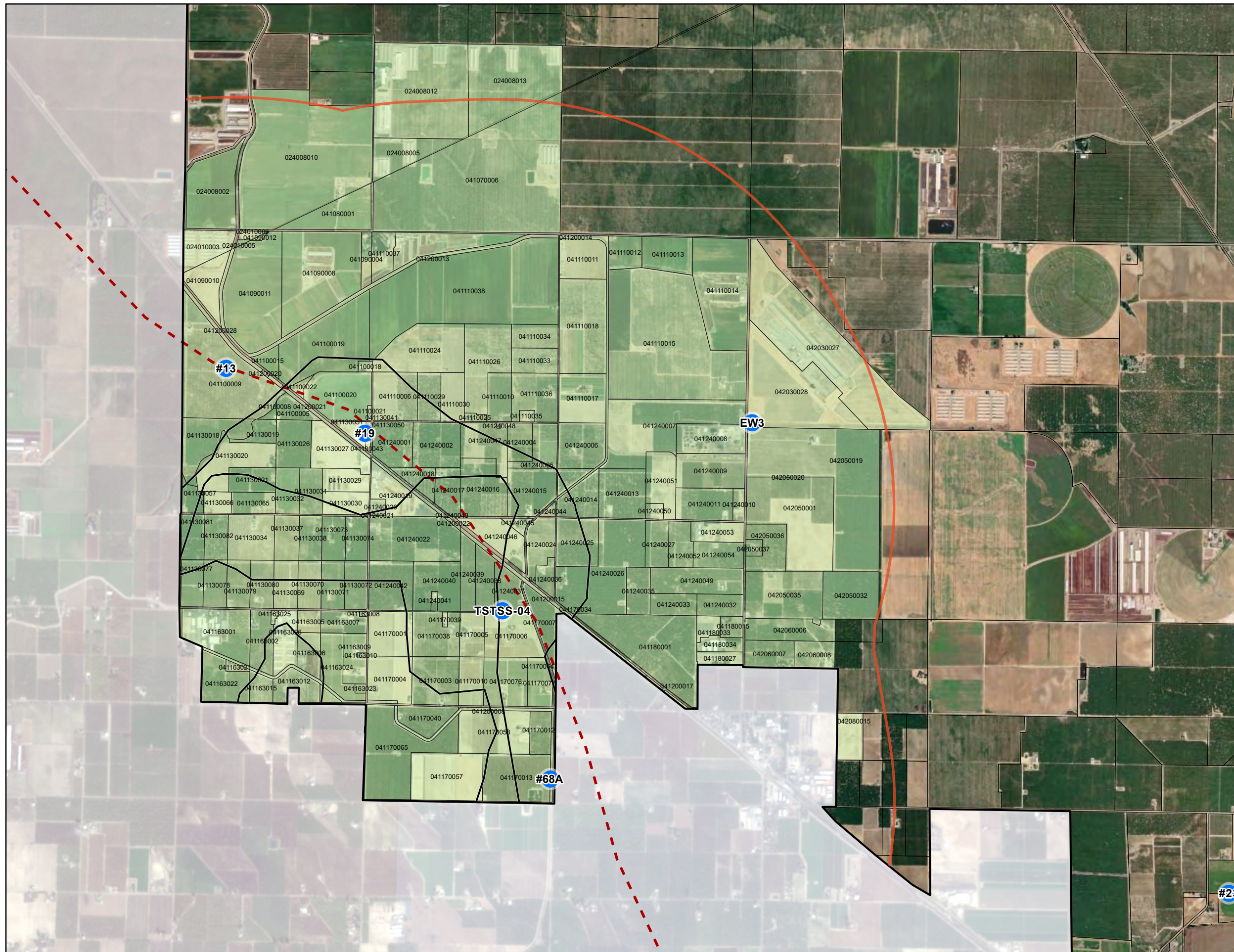
● Manual Data GW Elev. — 2 per. Mov. Avg. (Manual Data GW Elev.)

**EAST TURLOCK SUBBASIN GROUNDWATER SUSTAINABILITY AGENCY
JOINT POWERS AUTHORITY**



FIGURES





- Wells
- - - Corcoran Clay extent (Burow et al., 2004)
- Action Level 3 Priority Action Area (2-mile buffer)
- Turlock Subbasin 2015-2023 Cumulative Subsidence Contours
- East Turlock Subbasin GSA
- Parcels
- Priority Action Area Parcels

Notes:
 1. "TSTSS-04" displays the planned well location.

0 0.25 0.5
N
Miles

ETSGSA

FIGURE 2

PARCELS IN THE SUBSIDENCE PRIORITY ACTION AREA

DATE: APR 02, 2025	FORMATION
By: GS, LEA	ENVIRONMENTAL
For: SAM	

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