CAWELO GROUNDWATER SUSTAINABILITY AGENCY
SPECIAL BOARD MEETING

Cawelo Water District Conference Room
Thursday, November 12, 2026 – 8:50 a.m.
17207 Industrial Farm Road, Bakersfield CA 93308
Public Participation Possible via Zoom : 1 (669) 444-9171
Meeting ID: 864 4790 5118 / Passcode: 333638
Or via Link: https://us06web.zoom.us/j/86447905118?pwd=gz5GfdapfXeTtttwtM7NTRsAfnYxaE.1

AGENDA

A. Call to Order

B. Public Comments: Members of the public may address the Board on any matter not on the agenda. Except in extraordinary circumstance, the Board may not take action on such item.

C. Approval of Minutes from prior meetings

D. Update on SGMA Activities

1) **Consideration and Approval of Exceedance Policy and Action Plans Version 3.0 and Degraded Water Quality Implementation Provisions Version 2.0**

2) **Consideration and Approval of Kern Subbasin Well Mitigation Program Version 3.0**

3) **Consideration and Approval of Kern Subbasin Cost-Share Agreement Nos. 27-01 and 27-02**

E. Adjournment

Teleconference Locations: 17207 Industrial Farm Road, Bakersfield, CA. 93308

Posted pursuant to Government Code §54954.2(a)(1) or §54956, as applicable.

By: Myrna Sandoval *Date: 6 November 2026 8:50 a.m.*

Requests for disability related modifications or accommodations, including auxiliary aids or services may be made by telephoning or contacting Administration at the Agency Office. Please attempt to make such requests known at least 24 hours before the scheduled meeting.

Pursuant to Government Code §54957.5, any materials relating to an Open Session item on this agenda, distributed to the Board of Directors after the distribution of the agenda packet, will be made available for public inspection at the time of distribution at the following locations: 17207 Industrial Farm Road, Bakersfield, CA 93308

CAWELO GROUNDWATER SUSTAINABILITY AGENCY
SPECIAL BOARD MEETING

Cawelo Water District Conference Room
Thursday, June 11, 2026 – 8:50 a.m.
17207 Industrial Farm Road, Bakersfield CA 93308
Public Participation Possible via Zoom : 1 (669) 444-9171
Meeting ID: 864 4790 5118 / Passcode: 333638
Or via Link: https://us06web.zoom.us/j/86447905118?pwd=gz5GfdapfXeTtttwtM7NTRsAfnYxaE.1

MINUTES

DIRECTORS PRESENT:	John Gaugel, Spencer Birch, Mark Smith, Keith Watkins
DIRECTORS ABSENT:	Jeremy Blackwell
STAFF PRESENT:	David Ansolabehere, Dave Halopoff, John Frankhouser, Myrna Sandoval, Jennifer Brown
LEGAL COUNSEL:	Isaac St. Lawrence
OTHER ATTENDEES:	Sonia Lemus, Kevin Padway, Michael Boccadero, Michael Miller, Blake Wallace

A. CALL TO ORDER

The Special Board Meeting was called to order by President Gaugel at 8:51 A.M.

B. PUBLIC COMMENT

The floor was open for public comments, at which time there were none.

C. APPROVAL OF MINUTES FROM PRIOR MEETINGS

The Special Board Meeting Minutes for 14 May 2026 were presented for approval.

After review and discussion, **it was motioned by Director Birch, seconded by Director Smith and unanimously carried,** ***that the minutes from 14 May 2026*** be approved as presented**.**

D. UPDATE ON LOCAL SGMA ACTIVITIES

In addition to providing a written report, Mr. Halopoff provided an update on the 2025 Groundwater Sustainability Plan (**GSP**) implementation, Kern Subbasin Coordination Committee, Kern Subbasin transition to the Department of Water Resources (**DWR**), Kern Non-Districted Land Authority (**KNDLA**) board meeting, and LandIQ Daily ET Tool.

1) **Consider Adoption of the Exceedance Policy and associated Action Plan for Land Subsidence – Version 2.0 (June 2026)**

Mr. Halopoff provided background on the 2025 GSP Exceedance Policy and information on the Exceedance Policy and associated Action Plan for Land Subsidence – Version 2.0 (June 2026).

After review and discussion, **it was motioned by Director Watkins, seconded by Director Smith, and unanimously carried,** ***that the Exceedance Policy and associated Action Plan for Land Subsidence – Version 2.0 (June 2026)*** be adopted as presented.

Mr. Halopoff advised that Board that after the agenda was posted, staff was presented with the Kern Subbasin Cost Share Agreement 26-03 which needs Board approval prior to the next scheduled meeting. Mr. St. Lawrence advised the Board regarding the process to add an item to the agenda pursuant to Govt. Code section 54954.2(b)(2). After discussion, **it was motioned by Director Watkins, seconded by Director Smith, and unanimously carried,** ***to add Agenda Item D.2) Kern Subbasin Cost Share Agreement 26-03 to the agenda as Item 2 pursuant to Govt. Code section 54954.2(b)(2) finding*** **there is a need to take immediate action and that need for action came to the attention of the District subsequent to the agenda being posted.**

2) **Kern Subbasin Cost Share Agreement 26-03**

Mr. Halopoff provided information on the Kern Subbasin Cost Share Agreement 26-03.

After review and discussion, **it was motioned by Director Birch, seconded by Director Watkins, and unanimously carried,** ***that the Kern Subbasin Cost Share Agreement 26-03*** be approved as presented at a cost not to exceed $6,000.

E. ADJOURNMENT

The CGSA Special Board meeting adjourned at approximately 9:09 A.M. The next CGSA Special Board Meeting is scheduled for Thursday, July 9, 2026.

_____
Spencer Birch, CGSA Board Secretary

CAWELO WATER DISTRICT

17207 Industrial Farm Road
Bakersfield, CA 93308
Phone: (661) 393-6072
Fax: (661) 393-6073

David R. Ansolabehere, General Manager

MEMORANDUM

To: Cawelo Groundwater Sustainability Agency, Board of Directors

From: Dave Halopoff

Date: 12 November 2026

Re: Update on SGMA Activities

2025 Groundwater Sustainability Plan (GSP)

Kern Subbasin Coordination Committee

The Kern Subbasin Coordination Committee (Committee) met November 2, 2026. Kern Subbasin Managers met with the Plan Manager and Technical Working Group (TWG) on October 9, 23 and 30, 2026 to discuss Kern Subbasin GSP implementation.

Kern Non-Districted Land Authority (KNDLA)

The Kern Non-Districted Land Authority held a board meeting 9 November 2026.

LandIQ Daily ET Tool

District staff is sending monthly landowner letters providing LandIQ Daily ET / Irrigation Management Tool sign-on instructions and information to assist landowners to access the Tool.

Exceedance Policy and Action Plans Version 3.0 and Degraded Water Quality Implementation Provisions Version 2.0

The 2025 Plan includes an Exceedance Policy and associated Action Plans for each Sustainability Indicator (Appendix K). The Action Plans were intended to function as iterative, adaptive management documents that may be reviewed and revised as needed based on new information, data, tools, or technical analyses, without requiring an amendment to the overarching 2025 Plan (see Appendix K, pp. 1-2).

Version 3.0 (August 2026) reflects the following revisions across all Action Plans:

- Clarifies that the Groundwater Sustainability Agency (GSA) will provide other Subbasin GSAs a summary of the Exceedance Investigation Reports including a tabulation of minimum threshold (MT) exceedances related to GSA groundwater management activities, and notifications mailed (if applicable), during Annual Report production.

Version 3.0 (August 2026) also reflects the following revisions specific to the Action Plan for Degraded Water Quality, based on lessons learned from the Spring 2026 sampling event:

- Specifies notifications to domestic well owners will be mailed once per water year.
- Revises the timeline for the exceedance investigation to 90 days from the confirmed sample result.
- Details that for cases where there is a recurring exceedance at a RMW-WQ for the same constituent of concern, an abbreviated exceedance investigation will be conducted to confirm the original investigation findings. If conditions remain similar, confirming conclusions from the prior investigation, the results will be presented in an abbreviated Exceedance Investigation Report. If conditions have changed, a complete exceedance investigation and Report will be completed.
- Revises the timeline of non-nitrate notification mailings to be within 10 days after the completion of the Exceedance Investigation Report.

- Specifies the GSA should consider initiating Projects and Management Actions if the Exceedance Investigation Report concludes that the exceedance is due to GSA groundwater management activities.

The Degraded Water Quality Implementation Provisions (Appendix K-2) have been updated with the revisions detailed above for consistency.

The Exceedance Policy and associated Action Plans Version 3.0 and Degraded Water Quality Implementation Provisions Version 2.0 are attached for review and consideration.

Kern Subbasin Well Mitigation Program Version 3.0

The Kern Subbasin has developed the Well Mitigation Program Version 3.0 that includes the following revisions:

- **Implementation and terminology.** Updates the text to reflect current implementation and revises references to well types for consistency with the Health and Safety Code.
- **State Small Water Systems.** Adds a Dry Well Financial Assistance Track for State Small Water Systems and removes these systems from the Technical Assistance Track. Review steps mirror the domestic Dry Well Mitigation Track. Assistance includes up to $100,000 per system, one time, for technical assistance, capital improvements, or other appropriate assistance. Interim assistance is limited to Emergency Drinking Water Supplies, excluding hauled water and other interim supplies. The GSA and Self-Help Enterprises (SHE) may determine the funding transaction entities, such as a technical assistance provider or reimbursement to SHE.
- **Dry well and degraded water quality claim deadlines.** Claims alleging impacts occurring between January 1, 2015, and January 1, 2025, must be submitted no later than January 1, 2027. Claims alleging impacts occurring after January 1, 2025, must be submitted no later than one year after the date of impact.
- **State Small Water System claim deadlines.** Financial assistance claims alleging impacts occurring between January 1, 2015, and January 1, 2026, must be submitted no later than January 1, 2028. Claims alleging impacts occurring after January 1, 2026, must be submitted no later than one year after the date of impact.
- **Application review and GSA action.** Identifies the Kern Subbasin Project Manager (MLJ) as the coordinator among SHE, the Qualified Professional, the Kern Mitigation Evaluation Committee (KMEC), and the applicable GSA. Clarifies the action the GSA is to consider after receiving a KMEC recommendation through the Project Manager. These revisions apply to the Dry Well Mitigation, Degraded Water Quality Mitigation, and State Small Water System Financial Assistance Tracks.
- **Degraded Water Quality Track.** Identifies SHE as the primary contact for applications and initial evaluation. Clarifies the distinction between nitrate and non-nitrate exceedances and coordination with the Kern Water Collaborative, including SHE and the Kern Water Collaborative working together for wells that exceed only the nitrate water quality objective.
- **SHE qualifications.** Acknowledges that SHE maintains independent qualifications for administering its programs and may apply additional qualifications for a dry well to qualify for mitigation.
- **Subsidence language.** Removes language stating that subsidence is not expected to result in well failures and referring to minimum threshold protocols. Subsidence remains addressed in the Exceedance Policy and associated Action Plan.

The Well Mitigation Program Version 3.0 is attached for review and consideration.

Kern Subbasin Cost-Share Agreement Nos. 27-01 and 27-02

The Kern Subbasin has received proposals from the consultant group for shared Subbasin-wide work to be completed in 2027. The work is divided into two (2) cost-share agreements: 1) for recurring annual work and 2) for non-recurring work.

Cost Share Agreement No. 27-01 covers annual Subbasin-wide work and totals $838,366.00. Agreement 27-01 covers the Plan Manager and Point of Contact, Technical Coordinator, data management system and website hosting and support, annual report preparation, water quality monitoring and exceedance investigation, well mitigation, subsidence monitoring, and outreach and engagement for 2027. Agreement 27-01 results in a cost share to Cawelo GSA in the amount of $50,492.56.

Cost-Share Agreement No. 27-02 covers work that is not expected to be annual Subbasin-wide work and totals $319,479.00. Agreement 27-02 covers Kern Subbasin groundwater model refinement, data gap analysis and well inventory, Projects and Management Actions (PMA) and water budget support, SGMA grant support, and subsidence program support for 2027. Agreement 27-02 results in a cost share to Cawelo GSA in the amount of $19,241.35.

The agreements are attached for review and consideration. Agreements 27-01 and 27-02 result in a total cost share to Cawelo GSA in the amount of $69,733.91.

KERN SUBBASIN EXCEEDANCE POLICY

Version 3.0 (August 2026)

1. Introduction

The 2025 Amended Groundwater Sustainability Plan (2025 Plan) establishes Sustainable Management Criteria (SMCs) for four applicable Sustainability Indicators in the Kern County Subbasin (Kern Subbasin):

- Chronic Lowering of Groundwater Levels,
- Reduction of Groundwater Storage (using groundwater levels as proxy),
- Degraded Water Quality, and
- Land Subsidence.

This Kern Subbasin Exceedance Policy (Exceedance Policy) sets forth a common set of protocols and guidelines for the Kern Subbasin Groundwater Sustainability Agencies (GSAs) to follow after a reported exceedance at a single Representative Monitoring Site (RMS). The Exceedance Policy plays a fundamental role in implementation of the 2025 Plan as it:

1. Provides a consistent methodology for evaluating exceedance(s), including investigation into the cause and contributing factor(s);
2. Establishes notification protocols; and
3. Gathers critical information for implementation of the Kern Subbasin Well Mitigation Program (Appendix G to the 2025 Plan).

The Exceedance Policy is applicable to Minimum Threshold (MT) exceedances for groundwater levels, Water Quality Objectives (WQO) and/or MT exceedances for degraded water quality, and Interim Milestone (IM) exceedances for subsidence.

By adopting this Exceedance Policy, the Kern Subbasin GSAs agree to continued collaboration and coordination across the Kern Subbasin, transparent communications to stakeholders of groundwater and subsidence conditions in the Kern Subbasin, and to address specific exceedances through proactive identification and implementation of as needed targeted projects and/or management actions (P/MAs) designed to avoid future exceedances, and therefore undesirable results (URs).

Sustainability Indicator Action Plans

This Exceedance Policy is paired with a companion Action Plan for each applicable Sustainability Indicator. The Action Plans will be reviewed and revised as necessary based on lessons learned, resolution of data gaps, new monitoring data and/or tools become available, and as technical analyses evolve. The Action Plans are designed to be iterative documents with adaptive management anticipated, as needed.

2. Purpose

As established in the Coordination Agreement, each GSA is responsible for monitoring groundwater levels, groundwater quality, and land subsidence conditions at identified RMS within its respective boundaries to evaluate ongoing compliance with the 2025 Plan. In addition to collecting data within each GSAs boundaries, it is essential that the GSAs share results with each other and with Kern Subbasin stakeholders, including beneficial users of groundwater (e.g., cities, community water systems, domestic well users, etc.).

Accordingly, the Kern Subbasin GSAs agree to follow common monitoring protocols as outlined in the Standard Operating Procedures (Appendix M to the 2025 Plan) and to use a shared Data Management System (DMS) for storing and sharing monitoring results, as detailed in the Coordination Agreement (Appendix C-1).[1]

Per the 2025 Plan, the Kern Subbasin GSAs will utilize data collected at the RMS to evaluate groundwater and subsidence conditions and work cooperatively to avoid Subbasin-wide URs. Kern Subbasin conditions are assessed and documented in the Kern Subbasin's Annual Report, which is submitted to the California Department of Water Resources (DWR) annually by April 1. Each Annual Report will include information regarding compliance with, or exceedance of, SMCs.

3. Policy

The Exceedance Policy below supplements the Kern Subbasin's annual reporting by further documenting actions that will be taken to understand and address MT (or IM, for subsidence) exceedances and avoid future MT exceedances that may lead to undesirable results. The Exceedance Policy incorporates the following five general elements:

1) The GSA agrees to conduct monitoring at each applicable RMS or will compile publicly available data at each applicable RMS, per the Kern Subbasin's monitoring protocols.
2) The GSA agrees to upload monitoring results to the Kern Subbasin DMS per the Coordination Agreement. If there is an MT exceedance at an RMS, a notification will be sent to all Kern Subbasin GSAs identifying the location and date of the MT exceedance.
3) Within 60 days of an MT (or IM, for subsidence) exceedance notification, the GSA responsible for the RMS agrees to initiate an exceedance investigation. The exceedance investigation will evaluate conditions surrounding the RMS that may be contributing to the exceedance and follow the protocols outlined in the

[1] Use of a single DMS across the Kern Subbasin ensures that all data and information regarding groundwater conditions is available for preparation of a single Annual Report for the Kern Subbasin.

applicable Action Plan. Findings will be documented in an Exceedance Investigation Report prepared by a qualified technical professional.

4) During Annual Report production, the GSA agrees to provide a summary of Exceedance Investigation Report(s) to other Subbasin GSAs and other appropriate agencies (e.g., DWR California Aqueduct Subsidence Program or Friant Water Authority). Individual Exceedance Investigation Reports will be provided upon request. Subbasin GSAs will review the summaries (and associated requested Exceedance Investigation Reports) during review of the annual report. If an exceedance is caused by groundwater management activities, it will count towards the criteria for assessing URs. Following review, Subbasin GSAs may recommend the GSA in which the exceedance(s) occurred consider implementation of P/MAs to prevent a continued exceedance. Note; the duration of the Exceedance Investigation Report process for the various SMCs may vary, details of which are discussed in those particular sections of the respective Action Plan.
5) The Exceedance Investigation Report(s) will be included in the Annual Report submitted to DWR for the applicable water year.

ACTION PLAN FOR CHRONIC LOWERING OF GROUNDWATER LEVELS

Version 2.0 (August 2026)

1. Introduction

This Action Plan for Chronic Lowering of Groundwater Levels is a companion document to the Kern Subbasin Exceedance Policy. This Action Plan describes the protocols for Key Elements 1 (monitoring) and Step 3 (exceedance investigation) of the Exceedance Policy as they apply to the Chronic Lowering of Groundwater Levels Sustainability Indicator.

2. Monitoring for Chronic Lowering of Groundwater Levels

As described in the Kern Subbasin Monitoring Network & Protocols (Appendices L1 and M1 of the 2025 Plan), groundwater levels must be measured at each approved Representative Monitoring Well for Chronic Lowering of Groundwater Levels (RMW-WL) twice annually, during the following time frames:

- Spring (seasonal high): January 15 to March 30, and
- Fall (seasonal low): August 15 to November 15.

The Kern Subbasin Groundwater Sustainability Agencies (GSAs) are required to upload seasonal (Spring and Fall) groundwater elevation data to the Kern Subbasin Data Management System (DMS). While some GSAs may take more frequent readings, only Spring and Fall measurements are currently utilized to identify Minimum Threshold (MT) exceedances. If an MT at an RMW-WL is exceeded, the DMS will notify all Kern Subbasin GSAs of the exceedance, including the location and date.

3. Exceedance Investigation

An exceedance investigation is required when a Spring or Fall groundwater elevation measurement at a RMW-WL exceeds its Chronic Lowering of Groundwater Levels MT. Figure 1 below shows the general steps for an MT exceedance related to Chronic Lowering of Groundwater Levels:

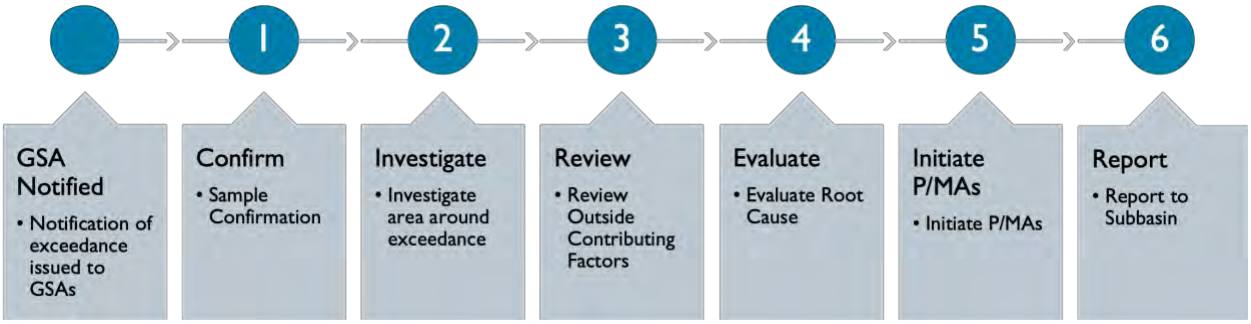


Figure 1. MT Exceedance Investigation Steps for Chronic Lowering of Groundwater Levels

Once an initial MT exceedance notification has been issued to the GSA through the DMS, the following steps shall be taken by the relevant GSA, or multiple GSAs, depending on groundwater conditions observed and result of seasonal measurements.

Step 1: Confirm Result

The GSA will confirm the reported result, as follows:

- Review field notes and confirm measurement;
- If measurement cannot be confirmed on field notes, re-measure depth to groundwater at RMW-WL; and
- Document location, well construction, lithology, condition of well.

If the confirmation measurement confirms there was not an MT exceedance, no additional action is required.

Step 2: Investigate Area Around Exceedance

The GSA will designate an independent, qualified, credentialed professional (professional) to perform an Exceedance Investigation. The professional will investigate the area around the RMW-WL with the MT exceedance, identifying any changes in land or water use, and comparing nearby groundwater level trends, as follows.

- Locate nearby production wells, document any new wells or groundwater users;
- Map current land use and compare to any recent changes in local land use;
- Describe local geology;
- Document water district/GSA operating conditions (i.e. surface water availability, water demand patterns, or changes in system); and
- Plot hydrographs of nearby wells that represent the similar groundwater conditions as the RMW that exceeded its MT, giving consideration to hydrogeologic features that affect groundwater conditions, as appropriate.

Step 3: Review Outside Contributing Factors

The professional will review outside contributing factors to the MT exceedance, including conditions and climactic conditions in adjacent areas managed by other GSA(s) and/or subbasin(s), as follows:

- Communicate, coordinate, and share data with neighboring GSAs and/or subbasins;
- Review regional groundwater elevation contour maps and/or the DMS for the RMW-WL network groundwater levels; and
- Document water year type, precipitation, and evapotranspiration (ET).

Step 4: Evaluate Root Cause

The professional will evaluate root cause for the MT exceedance to support a determination of whether the MT exceedance is due to groundwater management activities (e.g., groundwater extractions, recharge, or groundwater level changes), as follows:

- Provide assessment of well construction and/or well condition;
- Analyze groundwater level trends since (at least) 2015 using observed hydrograph data, Mann-Kendall test, or equivalent;
- Assess seasonal variation and range of groundwater levels measurements;
- Document changes in local demand;
- Identify whether current water levels have exceeded the recent historical low groundwater level; and
- Identify whether groundwater extraction volumes within a representative area around the relevant RMW-WL have changed in the last 1-3 years relative to the period preceding the exceedance.

Step 5: Evaluate and Initiate Projects or Management Actions

The GSA will consider the need for increasing the monitoring frequency in the relevant RMW-WL to monthly. The monitoring frequency for nearby RMW-WLs that may be in the radius of influence (as determined through Action Plan Steps 2 through 4) will also be evaluated.

The GSA will also consider whether targeted P/MAs are necessary or appropriate to improve groundwater levels to prevent future MT exceedances. This assessment will include reviewing the timelines and anticipated benefits of P/MAs and identifying whether accelerating planned P/MA schedules or creating new adaptive P/MAs is warranted. The GSA will develop a timeline for implementing any additional P/MA(s).

Step 6: Report to Subbasin GSAs

The GSA will annually submit a summary of exceedances to other Subbasin GSAs as part of the annual reporting process. The summary will: include the following:

- Tabulate the GSA's MT exceedance(s) over the water year;
- Document the technical professional's finding as to whether the MT exceedance is related to groundwater management activities;
    - If yes, the GSA will describe any additional P/MA(s) to be implemented, including timeline(s) for initiation;
    - If no, the GSA will continue to monitor the RMW-WL per the Kern Subbasin monitoring protocols;
- Present any recommendations for additional monitoring; and
- Describe the notification procedures (e.g., distribution list, form and method(s) of notice, timeline, documentation, etc.)

ACTION PLAN FOR DEGRADED WATER QUALITY

Version 2.0 (August 2026)

1. Introduction

This Action Plan for Degraded Water Quality is a companion document to the Kern Subbasin Exceedance Policy (Exceedance Policy). This Action Plan describes the protocols for Key Elements 1 (monitoring) and 3 (exceedance investigation) of the Exceedance Policy as they apply to the Degraded Water Quality Sustainability Indicator.

The Action Plan for Degraded Water Quality will be triggered by an exceedance of a water quality objective (WQO) or an MT exceedance as related to an identified constituent of concern (COC) at a Representative Monitoring Well for Degraded Water Quality (RMW-WQ). This ensures that notification protocols are followed to alert the public to potential health risks, as appropriate.

The 2025 Plan identifies six COCs: arsenic, nitrate, nitrite, total dissolved solids (TDS), 1,2,3-trichloropropane (1,2,3-TCP), and uranium. Of these COCs, arsenic, nitrate, nitrite, 1,2,3-TCP, and uranium have established WQOs based on primary drinking water standards for the protection of public health. TDS is regulated under secondary drinking water standards based on aesthetic and operational concerns.

2. Monitoring for Degraded Water Quality

As described in the Kern Subbasin Monitoring Network & Protocols (Appendix L-1 and M-2 of the 2025 Plan), groundwater quality samples for the identified COCs must be measured at each RMW-WQ twice annually, within approximately two weeks of groundwater level measurements, to the extent feasible.

The Groundwater Sustainability Agencies (GSAs) are required to upload seasonal (Spring and Fall) groundwater quality sample results to the Kern Subbasin Data Management System (DMS). While some GSAs may take more frequent readings, only the Spring and Fall samples are currently utilized to identify exceedances. If a sample at a RMW-WQ exceeds the WQO (based on a drinking water standard)[2] and/or MT, the DMS will notify all GSAs of the exceedance, including the location and date.

3. Exceedance Notification and Investigation

Exceedance notifications to domestic well owners will be provided once per water year. An exceedance notification is triggered when a Spring or Fall groundwater quality sample from a RMW-WQ has a concentration that exceeds the WQO based on a primary drinking water standard. Additionally, an exceedance investigation is triggered

[2] For purposes of the 2025 Plan, water quality objectives include primary Maximum Contaminant Levels (MCLs), and Secondary Maximum Contaminant Levels (SMCLs), as established in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan) based on a maximum contaminant level (MCL).

when the corresponding confirmed groundwater quality sample also exceeds the Degraded Water Quality MT for the identified COC(s). When there is an exceedance of a WQO based on a primary drinking water standard for a COC, the timing for notification to domestic and non-public well owners[3] within the specified radius of an RMW-WQ varies depending on the COC. For nitrate exceedances, notification to nearby domestic and non-public well owners will occur within 30-days from sample confirmation. For arsenic, nitrite, 1,2,3-TCP, and uranium, notification to domestic and non-public well owners will be provided within 10-days after completion of the exceedance investigation. The exceedance investigation (triggered upon confirmed exceedance of the Degraded Water Quality MT) will be completed within 90-days of the confirmed sample result. In instances where there is a recurring exceedance at a RMW-WQ for the same COC, an abbreviated exceedance investigation will be conducted confirming the original investigation findings. Figure 2 below shows the general action plan steps for an exceedance related to Degraded Water Quality.

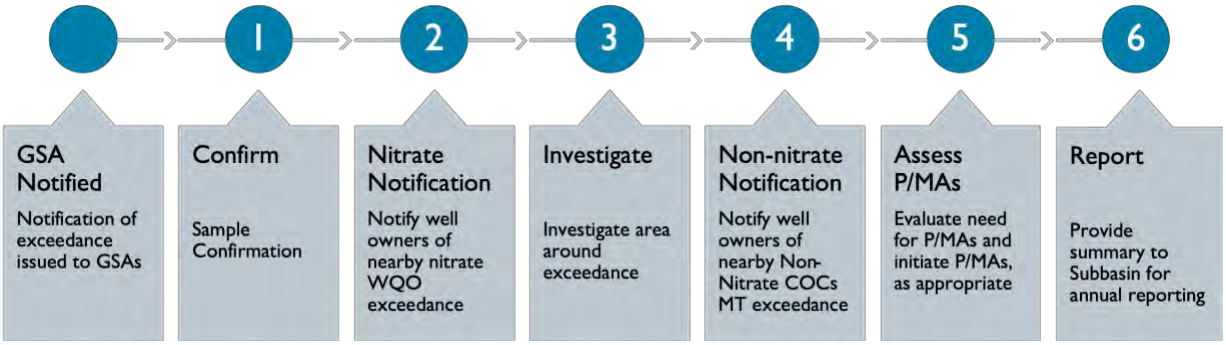


Figure 2. Action Plan Steps for an Exceedance related to Degraded Water Quality

Figure 3 below outlines the general notification and investigation procedures under Steps 1 through 4 and is followed by detailed descriptions of each step.

[3] The terms domestic well owner and non-public well as used in this appendix mean domestic wells that serve up to four service connections.

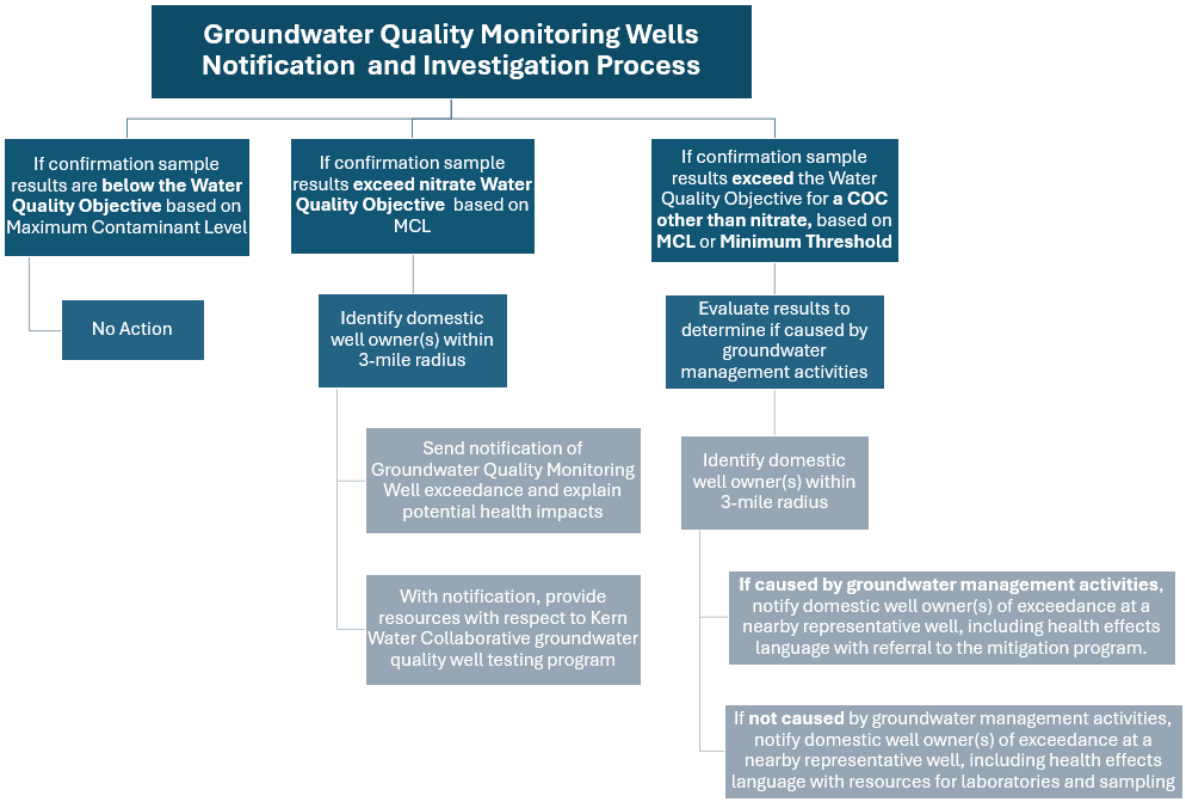


Figure 3. Notification and Investigation Procedures for Groundwater Quality Monitoring Wells

Once a GSA is notified that a WQO or MT has been exceeded (by the DMS or laboratory), the relevant GSA or GSAs will take the following steps.

Step 1: Confirm Result

The GSA will confirm the reported result exceeds the WQO, based on either a primary MCL and/or MT exceedance, as follows:

- Review lab sheets or field notes;
- Collect a confirmation sample by re-sampling the RMW-WQ; and
- Document location, condition of well, well construction (as available), and lithology (as available).

If the GSA confirms that the sample result exceeds the WQO based on either the MCL and/or MT, proceed to Step 2 for nitrate or to Step 3 for non-nitrate constituents.

Conversely, if the confirmation sample does not confirm a WQO and/or MT exceedance, no additional action is required.

Step 2: Domestic and Non-Public Well Owner Notification for Nitrate

If a GSA confirms that a sample result for nitrate exceeds the WQO under Step 1, the GSA will identify potential beneficial users at risk within the zone of influence of the RMW-WQ, as follows:

- Identify domestic and non-public (i.e., those wells that serve two to four connections for domestic uses) well owners of record within a 3-mile radius;
- Make reasonable efforts to identify additional notifications to domestic and non-public well owners that may be clustered around or associated with those at the periphery of the 3-mile radius; and

If the confirmation sample concentration(s) are above the WQO for nitrate, the GSA(s) will send direct mail notice to identified potential beneficial users at risk within the zone of influence of the RMW-WQ within 30-days of sample confirmation. The notification shall include information regarding the RMW-WQ exceedance, including an explanation of potential health impacts. The notice shall also provide information with respect to the Kern Water Collaborative's program for well-testing specific to nitrate, *at no cost* to the well owner.[4] Under the Kern Water Collaborative's program, alternative drinking water supplies are offered to residents reliant on a domestic well that exceeds the WQO for nitrate.

In some cases, the identified potential beneficial users at risk within the 3-mile radius may be outside of the GSA with the RMW-WQ exceedance. In this case, the GSA will provide notice in coordination with adjacent GSA(s).

If the confirmation sample confirms that there is also an MT exceedance, proceed to Step 3.

Step 3: Exceedance Investigation

If a GSA confirms that a sample result exceeds the MT under Step 1, the GSA will designate an independent, qualified, credentialed professional (professional) to perform an Exceedance Investigation based on relevant, existing data and information. The Exceedance Investigation will involve investigating the pertinent area around the RMW-WQ with the MT exceedance, identifying pre-existing conditions, and identifying potential driving mechanisms, to determine a potential cause of the MT exceedance. This investigation shall include the following tasks and/or considerations:

- Locate nearby production wells, document any new wells or groundwater users;

[4] On June 13, 2025, the Kern Water Collaborative took action to extend its nitrate well testing and alternative sources of drinking water program to domestic well owners throughout the entirety of the Kern Subbasin. A letter from the Kern Water Collaborative to State Water Resources Control Board staff documenting this decision was sent to State Water Resources Control Board staff on or about June 17, 2025.

- Map current land use and compare to any recent changes in local land use;
- Describe local geology;
- Document water district/GSA operating conditions (i.e. surface water availability, water demand patterns, or changes in distribution system);
- Provide assessment of well construction and/or well condition;
- Plot hydrographs of nearby wells (3-mile radius) that represent the same groundwater conditions as the relevant RMW-WQ, and for the RMW-WQ, as available. Depending on location of RMW-WQ, consideration should be given to geologic features that affect groundwater conditions;
- Plot time concentration charts ("chemographs") for identified COCs for nearby wells (3-mile radius) and for the relevant RMW-WQ, as available;
- Determine constituent source and if its presence in the aquifer is due to the actions of others that are a likely responsible party(ies);
- Plot historical water quality data to determine if water quality was degraded prior to January 1, 2015;
    - Historical water quality data may be supplemented from other monitoring programs, as needed (see Section 5.7.5 of the 2025 Plan for a full list of potential programs);
    - Because water quality data may not be available for domestic and non-public wells, the professional shall then rely on the baseline characterization provided in Section 8.4.2 of the 2025 Plan; see also Attachment 1 to this Action Plan (providing baseline data for small community wells that may be used as suitable proxy for domestic wells); see also Appendix I-4 to the 2025 Plan (providing RMW-WQs chemographs that include data representing baseline conditions and data from nearby proxy wells);
- Examine the local GSA's and neighboring GSAs' operations to determine if the MT exceedance is related to ongoing, standard operations consistent with operations prior to January 1, 2015, or after January 1, 2015.
- Determine if there is a statistically significant correlation between groundwater level trends and groundwater quality concentrations;
    - Conduct statistical and/or spatial analyses between groundwater levels and groundwater quality concentrations to determine causation, depending on the availability of data (e.g., an analysis could be performed if an RMW-WQ has at least five (5) sampling points with water level data that temporally overlaps with water quality data, a granger causality test, or equivalent, between water levels and water quality could be conducted;

- Identify nearby recharge operations and source water. Conduct statistical and/or spatial analyses between nearby recharge operations and water quality concentrations, or using other appropriate method(s); and
- Identify other potential driving mechanisms based on relevant local conditions, including (but not limited to) hydrogeology, geochemistry, redox conditions, land use, nearby point- and non-point sources, and well operations, relying on best available data and professional judgment (see, e.g., Section 8.4.2 of the 2025 Plan, referencing potential driving mechanism(s) for each identified COC);
- Review outside contributing factors to the MT exceedance, including operating and climate conditions in adjacent areas managed by other GSA(s) and/or subbasin(s);
    - Communicate, coordinate, and share data with neighboring GSAs and/or subbasins;
    - Review regional groundwater elevation contour maps and/or the DMS for the RMW-WL network groundwater levels and water quality; and
    - Document water-year type, precipitation, and evapotranspiration (ET).

Using the above information, the professional shall document the investigation and conclusions in an Exceedance Investigation Report. Conclusions shall include whether the MT exceedance is due to groundwater management activities (i.e., groundwater recharge and extractions). The exceedance investigation will be completed within 90-days of the confirmed sample result being conveyed to the independent qualified professional.

In the instance of a recurring exceedance at a RMW-WQ for the same COC, an abbreviated exceedance investigation will be conducted confirming the original investigation findings. The abbreviated exceedance investigation will include updating plots of groundwater levels and groundwater quality and identifying whether groundwater and land surface conditions have changed since the last exceedance investigation. If the professional determines conditions remain similar thereby confirming conclusions from the prior investigation, the results will be presented in an abbreviated Exceedance Investigation Report. If the professional determines conditions have changed, an updated exceedance investigation and associated Exceedance Investigation Report will be completed.

Step 4: Domestic and Non-Public Well Owner Notification for Non-Nitrate COCs

The findings from the Exceedance Investigation Report will be used to evaluate whether domestic and non-public wells within the zone of influence are *assumed*[5] to be impacted due to groundwater management activities for non-nitrate COCs. It will:

- Document number of *assumed* wells to be at risk due to groundwater management activities; and
- Identify domestic and non-public well owners of record for wells *assumed* to be at risk versus others within the zone of influence that are not assumed to be at risk.

The GSA will send direct mail notice to nearby domestic and non-public well owners of record generally located within a 3-mile radius. After completion of the Exceedance Investigation, notice of the RMW-WQ exceedance will be provided to domestic and non-public well owners of record generally within a 3-mile radius if the exceedance is also an exceedance of a WQO based a primary drinking water standard. The content of the notice will vary depending on whether the Exceedance Investigation finds that domestic and non-public wells are *assumed* to be impacted due to groundwater management activities. The notice will be sent within 10 days after completion of the Exceedance Investigation Report.

- **Notice 1**: If the professional has determined that the MT exceedance is due to groundwater management activities, then the domestic and non-public well owners of record for the *assumed* impacted wells will be provided notice that includes the following information:
  - Notice of the exceedance;
  - Notice that their well is *assumed* to be impacted;
  - Notice of the public health impacts associated with such exceedances; and
  - Specific information regarding the process available for submittal of an Application for Mitigation, which would include the opportunity for the *assumed* impacted well to be sampled and tested.
- **Notice 2**: If the professional has determined that the MT exceedance is NOT due to groundwater management activities, or the well is NOT one of the assumed impacted wells, then the domestic and non-public well owners of record will be provided notice that includes the following information:
  - Notice of the exceedance;

[5] Wells in the radius of influence are assumed to be impacted until they can be sampled and constituent concentration validated.

- Notice that their well is NOT *assumed* to be impacted by groundwater management activities but that does not mean their well water is safe to drink as other factors may contribute to exceedances of drinking water standards;
- Notice of the public health risks associated with exceedances of non-nitrate drinking water standards; and
- General information regarding available resources should the domestic and non-public well owner desire to have their well sampled and tested at their own cost.

Step 5: Evaluate and Initiate Projects or Management Actions

Depending on the conclusions of the Exceedance Investigation Report, the GSA will consider initiating Projects and Management Actions (P/MAs), as appropriate. The GSA should consider initiating Projects and Management Actions (P/MAs) if the Exceedance Investigation Report concludes that the exceedance is due to the result of GSA groundwater management activities.

The GSA will consider the need for increasing the monitoring frequency to monthly for the specific constituent that was exceeded in the RMW-WQ. The GSA will also evaluate the monitoring frequency for nearby RMW-WQs that may be in the radius of influence of the RMW-WQ where the exceedance was recorded.

The GSA will also consider whether targeted P/MAs should be implemented to improve groundwater conditions and prevent future exceedances. This assessment will include reviewing the timelines and anticipated benefits of P/MAs and identifying whether existing P/MA schedules should be accelerated or new, adaptive P/MAs implemented. The GSA will develop a timeline for implementation of the P/MA(s).

Step 6: Report to Subbasin GSAs

The responsible GSA or GSAs will prepare and provide a summary of groundwater quality exceedances to other Subbasin GSAs as part of the annual reporting process. The summary will include the following:

- Tabulate the GSA's MT exceedance(s) over the water year;
- Document how many nitrate notifications were mailed;
- Document the findings of Exceedance Investigation Reports conducted by the professional, including whether the MT exceedance was determined to be related to groundwater management activities;
  - If yes, the GSA will document how many wells were *assumed* to be impacted, how many non-nitrate Notice 1 notifications were mailed, and the P/MA(s) identified and applicable timeline(s) for implementation;

- If no, the GSA will document how many non-nitrate Notice 2 notifications were mailed, and the GSA shall continue to monitor the RMW-WQ per the Kern Subbasin monitoring protocols.

- Present recommendations for additional monitoring, as applicable.

ACTION PLAN FOR LAND SUBSIDENCE

Version 3.0 (August 2026)

1. Introduction

This Action Plan for Land Subsidence is a companion document to the Kern Subbasin Exceedance Policy. This Action Plan describes the protocols for Key Elements 1 (monitoring) and 3 (exceedance investigation) of the Exceedance Policy as they apply to the Land Subsidence Sustainability Indicator.

The Kern Subbasin Groundwater Sustainability Agencies (GSAs) recognize the nexus between groundwater levels and land subsidence and are exploring comparing land subsidence measured via the California Department of Water Resources (DWR) Interferometric Synthetic Aperture Radar (InSAR) to groundwater elevation changes in RMW-WLs in all Hydrogeological Conceptual Model (HCM) Areas consistent with methods described in the DWRBMPs (DWR 2026). However, as discussed in the 2025 Plan, not all subsidence can be attributed to activities that are within the authority of the GSA to manage (i.e., GSA-related). Some non-GSA causes of subsidence include age of critical infrastructure, expansive/soluble soils, oil field extraction activities, lack of adequate pre-construction hydro-compaction, and geologic faulting and compaction.

Land subsidence driving mechanisms are complex, and residual subsidence can continue to occur for years. Therefore, the Kern Subbasin GSAs have conservatively extended Steps 1 through 3 of this Action Plan for Land Subsidence to be implemented when a single Land Subsidence Interim Milestone (IM) exceedance occurs. This ensures proactive investigation responses before a Minimum Threshold (MT) exceedance and accounts for the complex (GSA and non-GSA related) driving mechanisms for subsidence and residual subsidence, which can continue for years after groundwater levels are stabilized and clays continue to equilibrate as explained in the Land Subsidence BMP.

As discussed in the Exceedance Policy, this Action Plan will be reviewed and revised based on lessons learned, resolution of data gaps, new monitoring data and/or information, and new analytical methodologies. Consistent with the commitment in the 2025 Plan, this Action Plan has now been updated to reflect the final DWR land subsidence Best Management Practices (BMPs) (DWR 2026).[6] An additional anticipated review and revision cycle for this Action Plan will occur once the California Aqueduct Subsidence Program (CASP) publishes the framework for California Aqueduct long-term rehabilitation (expected to be completed in the next few years), Step 4 of this Action Plan will be reviewed and may be revised, as appropriate, to include mitigation alternative(s) as a P/MA.

[6] The final DWR land subsidence BMPs were released January 2026. This Action Plan reflects updates based on guidance provided by the BMPs.

Any updates to this Action Plan will be documented in the Annual Reports submitted to DWR.

2. Monitoring for Land Subsidence

The GSA(s) will collect and evaluate land subsidence data quarterly and report them annually. The GSA(s) will compile and review available land subsidence data at the Representative Monitoring Sites for Land Subsidence (RMS-LS) and across the Kern Subbasin. Such data may include:

- Monthly DWR InSAR subsidence data (which is released quarterly);
- Continuous Global Positioning System (CGPS) vertical displacement data;
- Extensometer compaction data;
- Benchmark and mile post precise survey results along Regional Critical Infrastructure (typically collected annually), such as:
  - Data collected by the DWR CASP for those RMW-LS along the California Aqueduct; and
  - Data collected by the Friant Water Authority (FWA) for those RMW-LS along the Friant-Kern Canal; and,
- Precise survey results at benchmarks collected by GSA(s) along GSA Area Critical Infrastructure.

Assessment of subsidence data will be conducted in close consultation with the relevant and appropriate agencies (e.g., CASP/DWR, FWA, CalGEM, etc.). Quarterly check-in teleconferences will be conducted between the Kern Subbasin GSAs and DWR CASP to discuss current data trends and the potential for IM and/or MT exceedances pertaining to critical infrastructure, if any.

The various subsidence monitoring datasets differ in their spatial coverage, temporal frequency, vertical accuracy, and ability to characterize subsurface processes as described in the Subsidence BMP. In some cases, different measurement types such as InSAR and GPS land-based measurements at benchmarks may produce differing subsidence estimates. In these situations, the subsidence from each measurement type will be carefully evaluated.

The GSAs are required to upload annual land subsidence data to the Kern Subbasin Data Management System (DMS). While some data may have more frequent readings, only the quarterly InSAR measurements or annual precise survey results are currently utilized for identifying IM and/or MT exceedances. If an IM and/or MT is exceeded, the DMS will notify all GSAs of the exceedance, including the location and date.

The Subsidence SMCs established in the GSP recognize that limited or residual subsidence may continue to occur in certain areas during transitional groundwater-

management periods. Additionally, some subsidence would be allowable based on already-agreed upon mitigation such as along the Friant-Kern Canal. Where appropriate, the GSAs will continue coordinating with relevant agencies and infrastructure operators to further quantify and evaluate the potential effects of residual subsidence on critical infrastructure and groundwater sustainability objectives.

Where adequate historical data is available, evaluation of groundwater levels relative to estimated critical head conditions provides an important technical framework for linking SGMA groundwater-level and land-subsidence sustainability indicators, interpreting observed deformation trends, and assessing the potential for future impacts to critical infrastructure and aquifer-system storage. Importantly, extensive historical data may also indicate areas where elastic subsidence and rebound occurs without contributing to an undesirable result. This information will be considered in any exceedance investigation.

3. Exceedance Investigation

The 2025 Plan defines Land Subsidence SMCs on three scales: mileposts along Regional Critical Infrastructure (i.e., California Aqueduct and Friant-Kern Canal), average adjacent to GSA Area Critical Infrastructure, and average across each HCM Area. An exceedance investigation is required when at least one of the following occurs:

- The land subsidence rate and/or extent monitored at a single RMS-LS (i.e., milepost) along the California Aqueduct or Friant-Kern Canal exceeds its Land Subsidence IM extent or MT rate and/or extent based on two consecutive quarterly InSAR sampling events or one annual survey measurement.
- The DWR InSAR land subsidence rate and/or extent along GSA Area Critical Infrastructure based on two consecutive quarterly sampling events exceeds the GSA Area Critical Infrastructure IM (extent) or MT (rate or extent), based on best available subsidence data (e.g., InSAR, annual survey data, CGPS, extensometers, etc).
- The DWR InSAR land subsidence rate and/or extent averaged across the HCM Area based on two consecutive quarterly sampling events exceeds the HCM Area IM (extent) or MT (rate or extent), based on best available subsidence data (e.g., InSAR, annual survey data, CGPS, extensometers, etc).

InSAR measures vertical deformation in millimeters; as such, various factors can cause a fluctuation in data (recovery or subsidence) over a short temporal period. A minimum of two consecutive quarterly sampling events are necessary to confirm the exceedance. For the Regional Critical Infrastructure, annual survey data, where available, will also be assessed to ground-truth InSAR measurements. As discussed above, quarterly check-in teleconferences will be conducted between the Kern Subbasin GSAs and DWR CASP and/or FWA, as appropriate, to discuss current land subsidence trends and the

potential for IM and/or MT exceedances pertaining to Regional Critical Infrastructure, if any.

Figure 4 below outlines the general process and timeline triggers for each of the three exceedance investigation pathways.

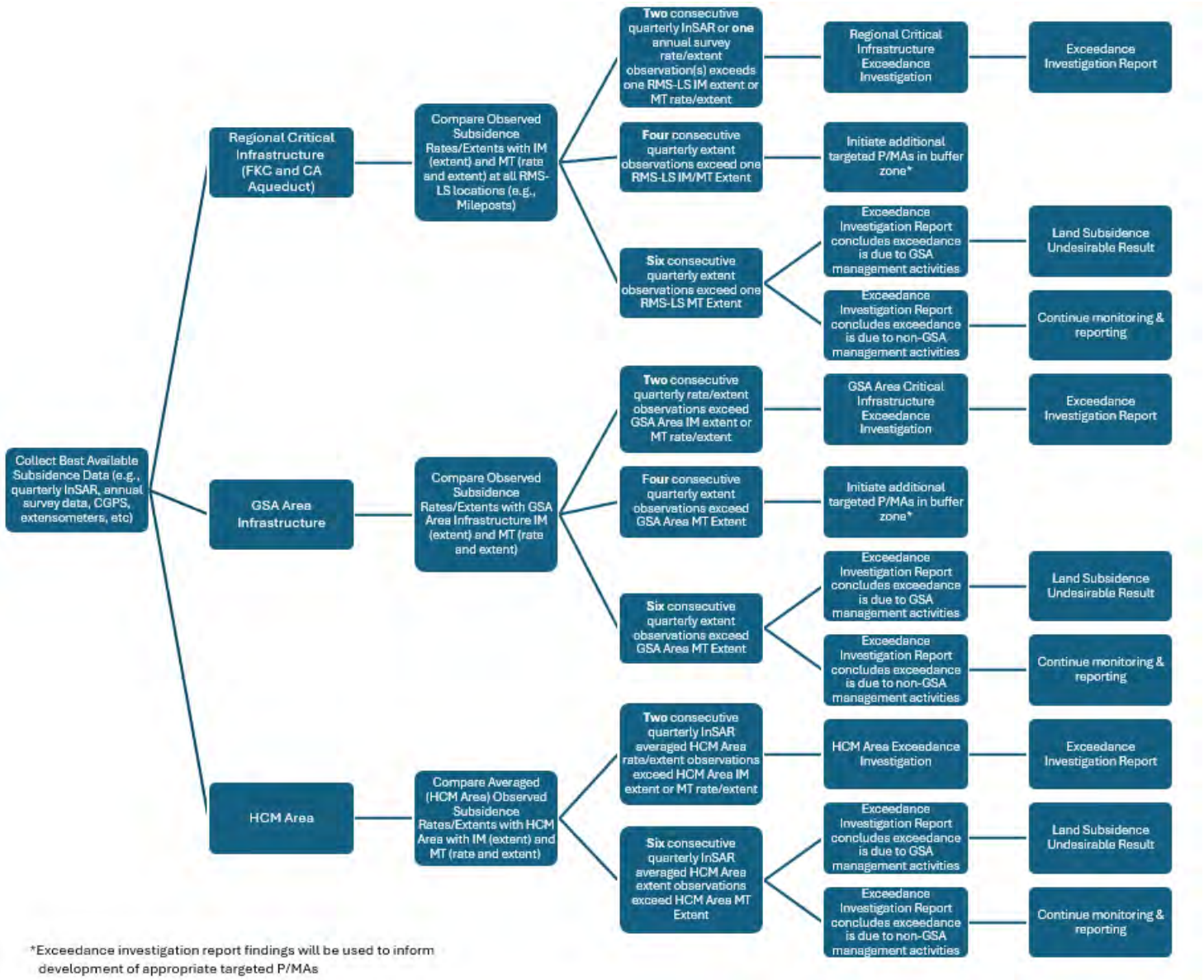


Figure 4. General Process and Timeline Triggers for Land Subsidence

Figure 5 below shows the general steps for an IM and/or MT exceedance related to Land Subsidence.

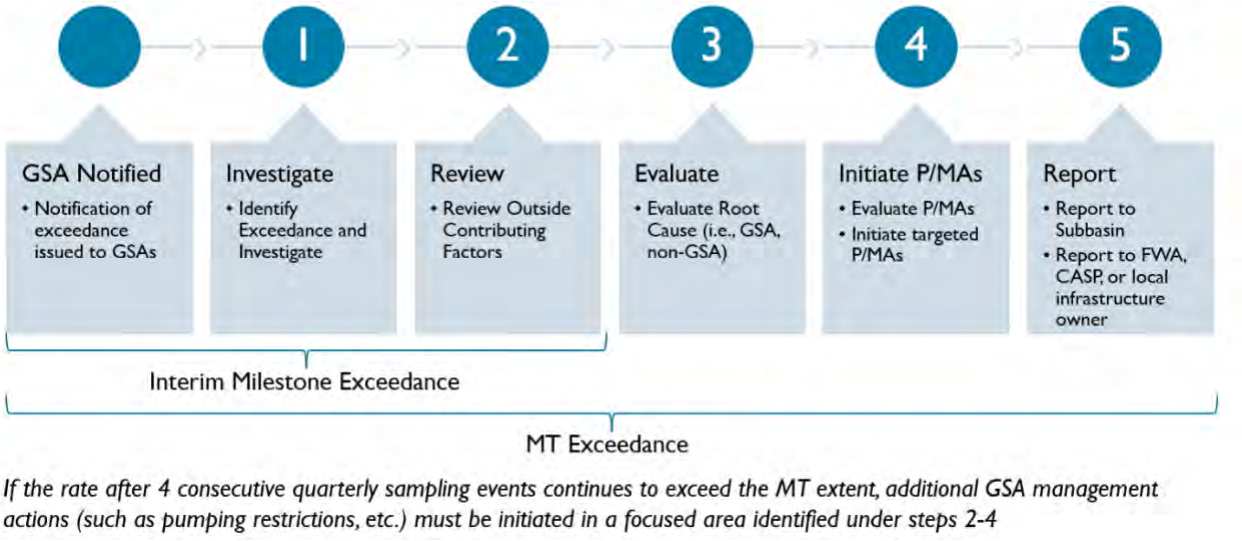


Figure 5. IM and/or MT Exceedance Steps for Land Subsidence

Once an initial IM and/or MT exceedance notification has been issued through the DMS, the following steps shall be taken by the GSA, or multiple GSAs, depending on prior exceedances and GSA actions.

Pending future Action Plan revisions, the GSA will determine if the exceedance has been previously identified, and, if so, will examine previous GSA management actions taken to address the exceedance.

- If GSA-related exceedance persists such that the inelastic subsidence rate after four consecutive quarterly sampling events exceeds the IM and/or MT extent, additional focused GSA management actions (such as localized metering, new well moratoriums, pumping restrictions, etc.) will be timely scheduled and implemented (i.e., within 60 days, unless otherwise specified), and will be informed by the Exceedance Investigation as described in the Action Plan Steps 1 through 4.
- If no prior exceedance has been identified and no GSA management actions have been taken to address the exceedance, the Action Plan Steps 1 through 5 will be implemented. The GSA will also identify potential beneficial users at risk due to the exceedance.

The detailed technical evaluation and reporting of IM and/or MT exceedances will occur over an approximate 180-day period following initial identification of an exceedance. An additional 100 days can be used to finalize the exceedance evaluation report, associated technical documentation, and any recommended Projects and Management Actions (P/MAs), for a total of 280 days.

Step 1: Investigate Area Around Exceedance

Within 60 days of notification, the GSA will designate a qualified, credentialed professional to perform an Exceedance Investigation based on relevant, existing data and information.

The professional will investigate the area around the IM and/or MT exceedance, identifying any pertinent changes in land or water use, and comparing nearby land subsidence trends, as follows:

- Locate nearby wells and identify status and use, document any new wells or groundwater users;
- Map current land use and compare to recent changes in local land use;
- Describe local hydrogeology;
- Plot hydrographs of nearby Kern Subbasin wells (within a radius of 2.5 miles of an IM and/or MT subsidence exceedance point);
- Plot cumulative displacement since July 2015 based on InSAR, since 2016 based on DWR CASP precise survey data, and/or since 2015 based on FWA precise survey data;
- Document GSA operating conditions (i.e., beneficial users at risk, water demand patterns, surface water availability, etc.);
- Document GSA-related groundwater extractions using either direct methods (metered data) or indirect methods (Land IQ evapotranspiration data, or best available data); and
- Where possible, estimate critical head[7] using 1-D modeling[8] and/or empirical approaches and compare to groundwater levels.

The GSA may develop a coordinated field investigation protocol in consultation with relevant and appropriate agencies (e.g., DWR, CASP, FWA etc.) as part of this Action Plan.

Step 2: Review Outside Contributing Factors

The professional will review outside contributing factors to the IM and/or MT exceedance, including conditions in adjacent GSA(s) and/or subbasin(s), climactic conditions, and non-GSA factors, as follows:

- Communicate, coordinate, and share data with neighboring GSAs and subbasins;

[8] Ten 1D models are documented in Bulletin 118 Appendix I and are available for download on the California Natural Resources Agency website.

- Review regional contour maps and/or DMS for the RMW-WL network groundwater levels;
- Review regional land subsidence trends; and
- Review for potential non-GSA factors: map local soil types, identify nearby faults, identify nearby oil and gas operations and quantify extractions and reinjections using data provided on CalGEM dashboard.

Step 3: Evaluate Root Cause

The professional will evaluate potential root causes for the exceedance to support a determination of whether the exceedance is due to groundwater management activities within the GSA's authority to manage.[9] Assessments will include the elements described below.

For direct measurements of land subsidence (land-based survey or InSAR):

- Analyze trends;
- Assess for seasonal variations;
- Assess data source accuracies and data agreement between subsidence measurements, noting consistent trends observed over longer periods;
- Using empirical and/or modeling methods, evaluate, where possible, groundwater elevations compared to the critical head; and evaluate the potential root cause to determine if subsidence is inelastic or elastic, and if it is ongoing or residual.
- Identify exceedance cause:
    - Compare DWR TRE-Altamira quarterly Kern Subbasin InSAR data for the previous four consecutive quarters at the reported IM/MT Exceedance location (i.e., including surrounding 2.5-mile radius) with previously available data at the mile post or within the HCM Area with the IM/MT Exceedance;
    - Identify all wells and uses in the assessment area and, if non-GSA activities are identified, collect and review supplemental evidence (e.g., CalGEM production information, Underground Injection Control (UIC) Application data, etc.) and published hydrogeologic information for submittal to the relevant and appropriate agencies; and
    - Determine if a more refined InSAR analysis is needed (e.g., InSAR Time Series utilizing DWR TRE-Altamira data or other appropriate method such as the summarized 12-step data processing utilized for refined assessment provided in the 2025 Plan Section 8.5.

[9] As discussed in the 2025 Plan, similar investigations have been conducted along the Aqueduct by the Subbasin GSAs and the Westside District Water Authority (WDWA) GSA in consultation with CASP and DWR to identify the disparate causes of subsidence, not all of which are GSA-related.

- Determine if land surface changes are related to, and within the range of, historic elastic subsidence and rebound.

Step 4: Evaluate and Initiate GSA Projects or Management Actions

If the cause of the exceedance is determined to be GSA-related, the GSA will evaluate the need for targeted GSA P/MAs, as follows:

- Identify area of influence for GSA P/MAs;
- Identify whether a single GSA P/MA or suite of targeted GSA P/MAs are needed to address the exceedance. Potential targeted P/MAs may include:
  - Well registration,
  - New well moratorium,
  - Metered production,
  - Groundwater pumping charges, and/or
  - Pumping restrictions.
- Finalize corrective P/MAs and next steps in consultation with the Coordination Committee and relevant and appropriate agencies; and
- Implement GSA P/MAs in consultation with relevant and appropriate agencies, as necessary.

If the cause of an exceedance is determined to be non-GSA related, the GSA will document and report such findings to all relevant and appropriate agencies.

Friant-Kern Canal: Appendix G-2 of the 2025 Plan provides information on additional data collection and modeling being conducted by a consortium of GSAs to evaluate future impacts on water levels and subsidence adjacent to areas of interest along the Friant-Kern Canal.

California Aqueduct: DWR CASP is currently studying the options for long-term rehabilitation projects. Once CASP publishes the framework for rehabilitation (expected to be completed in the next few years), mitigation alternative(s) may be included in this Step as a P/MA, as needed.

While the current Action Plan for Land Subsidence is not a mitigation plan, it is important to note that the GSAs located near the primary Aqueduct subsidence “choke points” are also member units of the Kern County Water Agency and, through their Statements of Charges, are financially contributing to broader repair and mitigation efforts undertaken by DWR. This ongoing financial participation provides a strong incentive for these GSAs to meet subsidence management targets and reinforces alignment with CASP's goals without requiring duplicative or premature commitments. The Kern Subbasin GSAs will continue to engage with CASP on this issue as CASP releases additional information (including scope, timeline, and cost structure) for the

California Aqueduct Subsidence Planning Study Alternatives and Formulation and Evaluation Phase.

Step 5: Report to Subbasin GSAs, CASP/FWA, or Local Infrastructure Owner, as appropriate

The GSA(s) will annually submit a summary of exceedances to other Subbasin GSAs and relevant and appropriate agencies as part of the annual reporting process. The summary will include the following:

- Tabulate the GSA's MT exceedances over the water year;
- Document the professional's findings as to whether the MT exceedance is due to GSA groundwater management activities; and
    - If yes, the GSA will describe any targeted P/MA(s) to be implemented, including timeline(s) for initiations;
    - If no, or related to well-documented elastic changes in land surface elevations, the GSA will continue to monitor, document, and report to relevant and appropriate agencies (e.g., DWR, CASP, CalGEM, FWA, etc.).

Appendix K-2

Degraded Water Quality Implementation Provisions

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K-2 DEGRADED WATER QUALITY IMPLEMENTATION PROVISIONS

Version 2.0 (August 2026)

Establishing appropriate Sustainability Management Criteria (SMCs) for Degraded Water Quality is a critical component of the Sustainable Groundwater Management Act (SGMA) and the 2025 Amended Groundwater Sustainability Plan (2025 Plan). Equally important is understanding how the SMCs for Degraded Water Quality will be implemented by the Kern County Subbasin Groundwater Sustainability Agencies (Kern Subbasin GSAs). The 2025 Plan ensures that the Kern Subbasin GSAs have a consistent methodology for evaluating data against the SMCs and consistent triggers for taking certain actions based on data results. For example, the 2025 Kern Subbasin Exceedance Policy (Appendix K-1), sets forth consistent methodologies for evaluating data against the Degraded Water Quality SMCs, notifying groundwater beneficial users of water quality objective (WQO) and MT exceedances, and for conducting Minimum Threshold (MT) exceedance investigations. The 2025 Kern County Subbasin Mitigation Program (Appendix G-1) explains the Degraded Water Quality Mitigation Program Track and how it will be implemented throughout the Kern Subbasin.

This document details actions that will be taken by Kern Subbasin GSAs based on the results of data evaluation and against the Degraded Water Quality SMCs and under the Degraded Water Quality Mitigation Program Track. This Appendix also summarizes and explains the Kern Subbasin GSAs' coordination efforts with other existing state and local programs related to water quality. Collectively, the Kern Subbasin GSAs refer to these combined elements as the Degraded Water Quality Implementation Provisions.

For ease in understanding the comprehensive nature of the Degraded Water Quality Implementation Provisions, this Appendix includes four parts:

- Part I – Summary of Degraded Water Quality SMCs and Constituents of Concern
- Part II – Stakeholder Roles, Responsibilities and Coordination
- Part III – Implementation of SMCs for Degraded Water Quality
- Part IV – Public Notification and Mitigation for Degraded Water Quality

In summary, the 2025 Plan includes multiple details, descriptions, data evaluations and more related to Degraded Water Quality throughout various sections of the 2025 Plan. However, to better understand the comprehensive nature of the Degraded Water Quality program contained in the 2025 Plan, the Kern Subbasin GSAs have developed this stand-alone appendix for stakeholders to better understand the totality of the Degraded Water Quality Implementation Provisions.

K-2.1 Part I – Constituents of Concern and Degraded Water Quality SMCs

In Section 8.4 of the 2025 Plan, the Kern Subbasin GSAs provide a thorough analysis of groundwater quality conditions across the Kern Subbasin and identifies constituents of concern (COCs) based on this analysis. In Section 13.3, the Kern Subbasin GSAs establish SMCs for Degraded Water Quality. The SMCs include criteria for Undesirable Results (URs), Minimum Thresholds (MTs) and Measurable Objectives (MOs). A summary of each is provided in sections A and B, respectively.

A. Constituents of Concern

To identify appropriate constituents of concern (COCs), the Subbasin GSAs conducted a consistent assessment across the Subbasin of existing groundwater conditions to identify groundwater constituents that are most prevalent and may be potentially impacted by groundwater management activities (Sections 8.4.1 and 8.4.2). The Kern Subbasin GSAs then developed SMCs for COCs that meet all of the following criteria (Section 13.3.1.4):

- *Existence of Water Quality Objective Based on a Drinking Water Standard*[1]*:* A COC meets this criterion if there is an adopted water quality objective in the Water Quality Control Plan for the Tulare Lake Basin (Basin Plan) based on a maximum contaminant level (MCL). For this process, water quality objectives include primary Maximum Contaminant Levels (MCLs), and Secondary Maximum Contaminant Levels (SMCLs). SMCs were not developed for COCs that do not have existing water quality objectives. For COCs where there are no adopted water quality objectives based on state-adopted drinking water standards (i.e., emerging constituents), such COCs will be reevaluated in the next periodic evaluation to determine (1) if new water quality objectives are available; and, (2) if the COC meets other criteria as detailed in Section 8.4. Notably, where there is no water quality objective, but an otherwise adopted drinking water standard exists, the Kern Subbasin, at its discretion, may use such standard for evaluation of emerging constituents (e.g., PFOS and PFOA).
- *Post-SGMA Exceedance of Water Quality Objective*: A COC meets this criterion if, based on GAMA data from 2015 through 2023, at least 5 percent of wells sampled Subbasin-wide exceed the applicable water quality objective for the COC, as described in Section 8.4.1. SMCs were not developed for COCs that

[1] Maximum Contaminant Levels (MCLs) are legally enforceable standards that apply to the finished water, meaning the water delivered to the consumer, not to the source water. Treatment is often required to by public and community water systems to meet drinking water standards. Primary maximum contaminant levels and secondary maximum contaminant levels set forth in Title 22 of the California Code of Regulations (Title 22) are incorporated by reference into the Basin Plan. The incorporation-by-reference of Title 22 maximum contaminant levels in the Basin Plan is prospective, including future changes to the incorporated provisions as the changes take effect.

had reported water quality objective exceedances in less than 5 percent of sampled wells.

- *Potential to Impact Beneficial Users:* A COC meets this criterion when both of the following conditions apply: (1) the COC is prevalent throughout the Subbasin; and (2) concentrations are or have the potential to be exacerbated by groundwater management activities taken by the GSAs. A COC is considered prevalent throughout the Subbasin if post-SGMA (i.e., 2015-2023) median concentrations exceed the water quality objective in any HCM area, as described in Section 8.4.1. A COC would have the potential to be exacerbated by groundwater management activities if concentrations are affected by groundwater level or chemistry changes. A COC was considered to have high potential to impact beneficial users if both criteria were met, moderate potential if one of these criteria was met, and low potential if neither of these criteria were met. SMCs were not developed for COCs with low potential to impact beneficial users.

The results of the screening process for each identified COC are summarized in Table 1 (same as Table 13-6). The COCs applicable for the development of Degraded Water Quality SMCs, as shown in bold text in Table 1, are arsenic, nitrate (as N), nitrite, total dissolved solids (TDS), 1,2,3-Trichloropropane (1,2,3-TCP), and uranium. The COCs that were evaluated against the criteria but for which Degraded Water Quality SMCs were not developed are included in Table 1.

Table 1. Criteria for Developing Degraded Water Quality SMCs

Constituent of Concern	Existing Water Quality Objective	% of Wells Exceeding Water Quality Objective	Potential to Impact Beneficial Users	SMC Developed
Arsenic	10 ppb	22.4%	High	Yes
Nitrate (as N)	10 ppm	14.9%	Moderate	Yes
Nitrate + Nitrite (as N)	10 ppm	24.9%	Moderate	Yes
Nitrite (as N)	1 ppm	1.8% [1]	Moderate	Yes
Total Dissolved Solids	1,000 ppm	11.7%	Moderate	Yes
1,2,3-Trichloropropane (1,2,3-TCP)	5 ppt	44.5%	Moderate	Yes
Uranium	20 pCi/L	7.2%	Moderate	Yes
1,2 Dibromoethane (EDB)	20 ppt	0.7%	Low	No
1,2,-Dibromo-3-chloropropane (DBCP)	200 ppt	2.0%	Low	No
Benzene	1 ppb	0.5%	Low	No
Gross Alpha	15 pCi/L	5.1%	Low	No
Perfluorooctanoic acid (PFOA)	4 ppt	14.8%	N/A[2]	No[2]
Perfluorooctanoic sulfonate (PFOS)	4 ppt	6.9%	N/A[2]	No[2]

Constituent of Concern	Existing Water Quality Objective	% of Wells Exceeding Water Quality Objective	Potential to Impact Beneficial Users	SMC Developed
Selenium	50 ppb	0.9%	Low	No

[1]As discussed in Section 8.4, nitrite is primarily non-detect in the Kern Subbasin. Median concentrations and exceedance locations of total nitrate/nitrite (as N) are similar to the prevalence of nitrate. SMCs were established for individual nitrate species because they contribute to the total nitrate/nitrite (as N).

[2] In April 2024, the USEPA announced the Final MCLs for PFOA and PFOS of 4 ppt. Per the USEPA's final rule, public water systems have three years (by 2027) to complete initial monitoring and five years (by 2029) to implement solutions. In California, the DDW is in the process of developing primary MCLs consistent with California Code of Regulations, Title 22 for PFOA and PFOS. Once primary MCLs are adopted by DDW, they are incorporated into the 2025 Plan as a water quality objective. Due to limited existing data at a Subbasin-wide scale and lack of an adopted water quality objective, SMCs for PFOA and PFOS are not set at this time. Kern Subbasin GSAs will use emerging data from public water systems to conduct an initial assessment of Kern Subbasin conditions. SMCs for PFOA and PFOS will be informed by data collected during Plan implementation and will be evaluated as part of the first Periodic Evaluation.

As described more fully in Section 13.3.1, the Kern Subbasin GSAs have identified domestic well owners[2] as the most vulnerable beneficial users for the Degraded Water Quality sustainability indicators. The SMCs for Degraded Water Quality are thus designed to prioritize protection of the most vulnerable beneficial users, which are inherently protective of all other beneficial users. By prioritizing the protection of the most vulnerable groundwater users, the Degraded Water Quality SMCs are designed to ensure the protection of all beneficial users in the Subbasin.

In setting MTs for Degraded Water Quality (Section 13.3.2), the Kern Subbasin GSAs have evaluated data from 2006 through the present (where data is available) to set MTs at either (1) an estimated baseline condition based on available data; or, (2) based on applicable water quality objectives for protection of the municipal and domestic supply (MUN) beneficial use.[3] In all cases, the Kern Subbasin GSAs have compared available data against applicable water quality objectives for protection of MUN to establish appropriate and protective MTs.

[2] The terms domestic well owner and non-public well as used in this appendix mean domestic wells that serve up to four service connections. Reference to state small water systems in this appendix means a drinking water system as defined in Health and Safety Code section 116275, which services at least 5, but not more than 14 service connections and does not regularly serve drinking water to mor than an average of 25 individuals daily for more than 60 days out of the year. Notably, as part of the 2025 Plan, and as documented therein, the Kern Subbasin has prepared an extensive well inventory that categorizes well type by their use, which is set forth in Section 5, Table 5-5. Use of such terminology for purposes of the well inventory and data analysis should not be construed to conflict with similar terms as defined and applied by the State Water Resources Control Board's Division of Drinking Water, which regulates water systems that are considered to be public water systems used for drinking water, because the terms are used for different purposes.

[3] The Water Quality Control Plan for the Tulare Lake Basin (Basin Plan) defines MUN to mean "[u]ses of water for community, military, or individual water supply systems, including, but not limited to, drinking water supply." To protect MUN, the Basin Plan incorporates by reference state drinking water standards for both primary and secondary contaminants (i.e., primary and secondary MCLs).

Other beneficial uses of groundwater, e.g., agricultural irrigation or industrial use, are generally less sensitive than MUN and thus such uses are sufficiently protected by using water quality objectives designed to protect MUN. Furthermore, the 2025 Plan establishes a network of representative monitoring wells for water quality (RMW-WQ) with sufficient Subbasin-wide coverage to monitor impacts to all Subbasin beneficial users. Details regarding the Degraded Water Quality monitoring program are available in Section 15.2.4.

B. Degraded Water Quality SMCs

Degraded Water Quality SMCs include criteria for Undesirable Results (URs), Minimum Thresholds (MTs) and Measurable Objectives (MOs). The legal definitions for each are included in Section 11.

Consistent with the legal definitions, the Kern Subbasin GSAs have established criteria for each SMC, which are set forth in detail in Section 13.3.

K-2.1.1 Undesirable Results (URs)

The Subbasin-wide definition of URs for Degraded Water Quality is as follows (Section 13.3.1):

> *The point at which significant and unreasonable impacts occur over the planning and implementation horizon, as caused by water management actions, that affect the reasonable and beneficial use of, and access to groundwater by overlying users.*

Notably, the Kern Subbasin GSAs' approach to Degraded Water Quality does not address Degraded Water Quality URs that occurred before and not corrected by January 1, 2015 (CWC § 10727.2(b)(4)), which is consistent with SGMA. The URs definition focuses on whether water quality conditions have degraded due to GSA projects and groundwater management actions activities since the effective date of SGMA, January 1, 2015.

To implement the Subbasin-wide UR definition, the Kern Subbasin GSAs have identified quantitative UR criteria for Degraded Water Quality for the applicable COCs:

1. Subbasin-wide, 15 percent of RMW-WQ exceed the MT for COCs per water year based on confirmed sample and MT Exceedance investigation results[4]; or
2. Annually, 5 percent of domestic wells have an assumed MT Exceedance[3] based on radius of influence analysis around the RMW-WQ that exceeds the MT, with cumulative maximum of 15 percent of domestic wells through 2040; or,
3. A GSA is unable to meet well mitigation needs[3]

[4] Water quality exceedances and mitigation applications are evaluated as defined in the Exceedance Policy and Action Plan for Degraded Water Quality (Appendix K-1) and Well Mitigation Program (Appendix G-1).

For purposes of evaluating compliance with the UR criteria, a domestic well means both a domestic well that serves less than two connections and non-public or state small water systems that serve less than 25 people.

The three separate and distinct UR criteria are designed to evaluate if URs are occurring on a Subbasin basis or localized basis, or in the case of the third criteria, if a GSA is unable to provide sufficient resources to mitigate Degraded Water Quality for impacts caused by their projects and management activities within their GSA area.

Implementation of the UR criteria is explained further in Part 3 below.

K-2.1.2 Minimum Thresholds

MTs for Degraded Water Quality (Section 13.3.2) are set for the six COCs at each of the RMW-WQ and are tied to regulatory water quality standards – namely, water quality objectives that are considered protective of the MUN beneficial use (i.e., primary and secondary MCLs contained in CCR Title 22), as applicable to each COC. The MT and MOs for Degraded Water Quality for each RMW-WQ are shown in Section 13, Table 13-8. The MT is set for each RMW-WQ based generally on the following criteria:

1. MT is set at the water quality objective if the following condition is met:
    a. Limited or no historical water quality sample results (data)
2. If historical data exceeds the water quality objective:
    a. And at least 5 sample results are available, MT is set at the 80th Percentile of all data
    b. If there are less than 5 sample results, proxy data is used to set the MT at the 80th Percentile of all available data
3. Discretion is applied in setting the MT when data shows a trend
    a. If there is an increasing trend, MT set at the 80th Percentile of Pre-2015 data
    b. If there is a decreasing trend, MT set as close to the water quality objective as reasonable considering the following
        i. Timeframe for calculating the 80th Percentile is Post-2015 data
        ii. Median value, rather than 80th Percentile
        iii. Other circumstances for a lower MT may apply when most historical data is at or below the MT
    c. If the 80th Percentile is within 10% of the water quality objective, the MT is set at the water quality objective
4. Proxy Data is used primarily to demonstrate baseline conditions that support the MT, discretion may be applied when
    a. The MT may be based on proxy well data when RMW-WQ and proxy well are similar enough to represent the same lithology/aquifer conditions

b. Sample results show consistent concentration and/or trends

Implementation of the MTs is explained further in Part 3 below.

K-2.1.3 Measurable Objectives

MOs for Degraded Water Quality (Section 13.3.3) are defined for key COCs: arsenic, nitrate, nitrite, TDS, 1,2,3-TCP, and uranium. The MOs for Degraded Water Quality are set at the water quality objective for protection of the MUN beneficial use. The MOs for Degraded Water Quality for each RMW-WQ are shown in Section 13, Table 13-8.

K-2.2 Part II - Stakeholder Roles, Responsibilities and Coordination

With respect to Degraded Water Quality, there are many other agencies and entities operating in the Kern Subbasin that also seek protect water quality throughout the Subbasin. Section 5.7.5 describes existing groundwater quality monitoring and management programs within the Kern Subbasin. Implementation of such responsibilities and authorities must be coordinated to the extent feasible to ensure that degraded groundwater quality conditions improve, future degradation does not occur or is minimized, and those reliant on groundwater as a source of domestic and municipal water supply have access to safe and affordable drinking water. It is also imperative that these various entities coordinate their activities so that the Kern Subbasin can more efficiently use its resources to protect public health and avoid duplication of activities.

Accordingly, the Kern Subbasin GSAs' implementation efforts for Degraded Water Quality include working closely with multiple entities and stakeholders for the benefit of all stakeholders across the Kern Subbasin. To better understand the roles and responsibilities of key entities within the Kern Subbasin that play a part in the Kern Subbasin's groundwater quality conditions, such roles, responsibilities and coordination amongst the entities are summarized here.

K-2.2.1 Kern Subbasin GSAs

When it comes to groundwater quality conditions, the Kern Subbasin GSAs are required by SGMA to manage the groundwater basin in a manner that does not result in significant and unreasonable degradation of groundwater quality beyond conditions in existence as of January 1, 2015 (CWC §§ 10721(x)(4), 10727.2(b)(4)) due to groundwater management activities. To avoid such degradation, the Kern Subbasin GSAs have established SMCs for Degraded Water Quality. However, just establishing SMCs is not enough, and the Kern Subbasin GSAs must affirmatively take actions toward implementation of the SMCs.

In summary, these actions include:

- Monitoring for impacts from projects and management activities and evaluating the relationship between the SMCs and such activities (Section 15);

- Identifying and taking corrective actions if groundwater management activities are degrading water quality below applicable SMCs (Section 14);

Reporting monitoring results, impacts and findings from studies and investigations conducted and making such results available to the public (Section 15.2.4 and Appendix K-1);

- Informing domestic and non-public well owners about local groundwater conditions that may represent groundwater conditions for their well (Appendix K-1);
- Informing domestic and non-public well owners about local resources available for domestic well testing (Appendix K-1);
    - Providing mitigation to domestic and non-public well users if degraded water quality conditions are due to groundwater management activities (Appendix G-1); and,
    - Working closely with community partners for the benefit of the Kern Subbasin as a whole.

The Kern Subbasin GSAs understand they are in a unique position to coordinate efforts with respect to groundwater quality conditions throughout the Kern Subbasin. For example, as the Kern Subbasin GSAs implement the monitoring program, which includes monitoring for the COCs twice a year at the RMW-WQs, data regarding groundwater quality conditions will be collected. It is important that the Kern Subbasin GSAs work with other entities and agencies to share this data and information with domestic well owners within a radius of influence of an RMW-WQ and notify domestic well and non-public well owners of available resources when water quality objectives have been exceeded.

Further details specific to notifications and mitigation for Degraded Water Quality are provided in Part 4 below.

K-2.2.2 State Water Board's Division of Drinking Water

The Division of Drinking Water (DDW) within the State Water Board regulates public water systems and enforces standards established in Title 22 for public water systems to protect public health. A public water system is defined by law to mean a system for the provision of water for human consumption through pipes or other constructed conveyances that has 15 or more service connections or regularly serves at least 25 individuals daily at least 60 days out of the year (Health and Safety Code § 116275(h)). Domestic, non-public, or wells for state small systems that do not meet the definition of being a public water system are either not regulated or are regulated by Kern County. Notably, as explained in footnote 2 above, DDWs regulations apply to finished water served by public water systems and do not regulate groundwater conditions within the aquifer.

DDW's primacy with respect to regulating public water systems does not change due to the existence and implementation of SGMA. Similarly, regulation, or lack thereof, for domestic and non-public wells does not change due to SGMA. Rather, the Kern Subbasin GSAs serve an important role by further promoting the importance of safe drinking water throughout the Subbasin for all beneficial users. Specific to Kern Subbasin GSAs authorities and responsibilities, the Kern Subbasin GSAs will implement the SMCs in the manner described in the 2025 Plan to avoid degrading groundwater quality above water quality objectives for protection of MUN beneficial uses as set forth in the Basin Plan or above MTs, as applicable. If degradation to a domestic well does occur and such degradation is due to GSA groundwater management activities – mitigation for such actions is available through the Kern Subbasin Well Mitigation Program (Appendix G).

K-2.2.3 Central Valley Regional Water Quality Control Board

The Central Valley Regional Water Quality Control Board (Central Valley Water Board) has primary authority to protect "waters of the state" from discharges of waste. Waters of the state are defined broadly to include all surface and groundwaters within California. Through this authority under the Porter-Cologne Water Quality Control Act (Porter-Cologne), the Central Valley Water Board prescribes requirements on discharges to groundwater that must implement the Basin Plan, which includes both the designated beneficial uses and water quality objectives necessary to reasonably protect beneficial uses (Wat. Code, § 13263). When it issues waste discharge requirements, the Central Valley Water Board may authorize use of assimilative capacity in local groundwater as long as the discharge will not cause groundwater to exceed applicable water quality standards and the discharge is to the maximum benefit to the people of the state.

Within the Kern Subbasin, the Central Valley Water Board regulates a number of dischargers and their discharges of constituents that overlap with the COCs identified in the 2025 Plan. Dischargers regulated by the Central Valley Water Board include irrigated agriculture, dairy facilities, publicly owned treatment works, oil and gas activities, industrial dischargers, land application of biosolids, food processors and others. To a lesser extent, the Central Valley Water Board maintains an oversight role with respect to septic systems through its review and approval process of Local Agency Management Plans (LAMPs) for septic systems.

Two constituents of significant interest for both the Kern Subbasin and the Central Valley Water Board are nitrate (as N) and salts (expressed in this 2025 Plan as total dissolved solids or TDS). Through a multi-year stakeholder process commonly referred to as CV-SALTS (Central Valley Salinity Alternative for Long-Term Sustainability), the Central Valley Water Board adopted and the State Water Board approved a Central Valley-Wide Salt and Nitrate Control Program, which incorporates two independent programs for salt and nitrate into the Basin Plan: Salt Control Program and Nitrate

Control Program. The Kern Subbasin is actively coordinating with local groups and entities directly involved in implementation of both programs (see below for further details)

The Central Valley Water Board also maintains significant enforcement authority to bring actions against dischargers or potential dischargers of contaminants to groundwater. Such actions include authority to issue Cleanup and Abatement Orders (Wat. Code, § 13304) to sources of groundwater contamination – typically associated with some sort of industrial discharge or plume created from industrial activities. Through its groundwater monitoring activities, if Kern Subbasin GSAs become aware of some significant source of contamination that appears to be degrading groundwater, the Kern Subbasin GSAs intend to share that information with the Central Valley Water Board as appropriate.

K-2.2.4 Kern Water Collaborative

The Kern Water Collaborative (KWC) is a local, non-profit organization that was organized in conjunction with the Central Valley Water Board's Nitrate Control Program under CV-SALTS. In summary, the KWC provides those entities that are subject to the Nitrate Control Program an option for participating in a management zone – as allowed under the Basin Plan. As a management zone, the KWC is directed by the Basin Plan to interact and coordinate its efforts with those being implemented under SGMA.

More specifically, the KWC is taking an active role in helping domestic well owners that may be impacted by nitrate in groundwater. Starting in February of 2025, KWC began its efforts to reach local domestic well owners and let them know that they can have their well tested for nitrate by the KWC at no cost to the owners. Then, if their well exceeds the nitrate drinking water standard, the KWC will provide bottled water deliveries to the residents at no cost to the resident. As the KWC program further develops, KWC may seek to obtain SAFER grant funding in the future to offer testing for additional contaminants of concern.

Moreover, over the next 12 to 18 months, the KWC will need to develop a comprehensive Management Zone Implementation Plan that will set forth for an implementation schedule for long-term drinking water solutions for nitrate and a program for reducing nitrate discharges within certain portions of the Subbasin to meet water quality objectives. As part of the Management Zone Implementation Plan, the KWC will need to consider Kern Subbasin efforts under the 2025 Plan and their impact to nitrate levels in groundwater.

Considering the overlapping nature of activities and interests between the KWC and the Kern Subbasin GSAs, KWC and the Kern Subbasin GSAs have entered into a Memorandum of Understanding (MOU) to coordinate efforts and avoid duplication. Through this MOU, the programs look to initially share data and information and coordinate outreach efforts to domestic well owners regarding resources for well testing

and available resources. As both programs mature in their efforts, the programs are committed to exploring other opportunities to enhance coordination of efforts for the betterment of the Subbasin.

K-2.2.5 Irrigated Lands Regulatory Program

The Central Valley Water Board regulates discharges of waste to surface and ground waters from irrigated agricultural lands through a series of general waste discharge requirements. Irrigated lands in the Kern Subbasin are regulated under Waste Discharge Requirements General Order for Growers within the Tulare Lake Basin Area that are Members of a Third-Party Group, which is commonly referred to as the long-term Irrigated Lands Regulatory Program, or ILRP. Under the ILRP, growers may join a third-party group, which assists growers in complying with the provisions of the program and administers certain monitoring and reporting requirements under the ILRP on behalf of their members. In the Kern Subbasin, there are four third-party groups that assist growers: Buena Vista Coalition, Cawelo Water District Coalition, Kern River Watershed Coalition Authority and Westside Water Quality Coalition (collectively hereafter referred to as “Coalitions”).

Among other requirements, the ILRP requires the Coalitions to assist growers in complying with nitrate specific provisions to protect groundwater quality, a primary COC within the Kern Subbasin. Nitrate specific provisions include, but are not limited to: (1) focused education and outreach on best management practices designed to minimize nitrate leaching into groundwater; (2) development and implementation of an individual Irrigation and Nitrogen Management Plan; (3) farm evaluations; (4) reporting on the amounts of nitrogen applied annually to crops and the amount of nitrogen removed or sequestered in permanent wood; and, (5) testing of domestic wells on agricultural parcels for nitrate. Further, on behalf of their grower members, the Coalitions conduct groundwater trend monitoring, direct compliance with the Salt Control Program and Nitrate Control Program, comprehensively assess groundwater conditions on a periodic basis, and administer grower implementation under the Groundwater Management Plan.

In the Kern Subbasin, there is significant coordination between the Coalitions and the Kern Subbasin GSAs. Several of the Coalitions are administered by agencies that also serve as an individual GSA for their area of the Kern Subbasin. With such considerable overlap, there is constant communication between the Coalitions and the Kern Subbasin GSAs with respect to their various roles each plays with respect to groundwater quality. In the future, this coordination may be expanded if the Coalitions and the Kern Subbasin GSAs determine it is in the best interest of the Subbasin.

K-2.2.6 CV-SALTS: Salt Control Program

The Salt Control Program is a phased program, with Phase I consisting of implementation of a Prioritization and Optimization Study (P&O Study). Phase II

consists of permitting and planning for preferred management actions, and Phase III is slated for implementation of the preferred management actions. Considering the complexity of managing salt across the Central Valley, each phase is expected to take at least 10 years. Currently, the Salt Program is approximately five years into Phase I.

The P&O Study is a multi-year, comprehensive study that seeks to determine the most efficient and effective ways to manage salts throughout the whole of the Central Valley on local and regional scales. The effort includes development of interlinking models to evaluate salt fate and transport in both surface and ground waters as water moves across the valley through the various water projects. With the models, and as part of the P&O Study, CV-SALTS will model various management scenarios over decades to evaluate salt impacts. As part of this process, GSP implementation will be considered as it is a critical component of groundwater management for the Central Valley generally and the Kern Subbasin specifically.

The Kern Subbasin GSAs are informed of P&O Study efforts and coordinates with the Central Valley Salinity Coalition on salt related issues. As the P&O Study continues to be implemented and salt management actions are further evaluated, the Kern Subbasin will provide data and information if determined to be useful for P&O Study efforts.

K-2.2.7 Kern County

Kern County Public Health and its Environmental Health Services Department play an important role in SGMA, as detailed in Section 5. For this Appendix, Kern County's role and coordination with respect to groundwater quality is summarized. Importantly, Kern County Public Health actively participates in sharing groundwater quality data for the Kern Subbasin's Well Inventory, coordinates well permitting processes, and updates Kern Subbasin GSAs in their development of the Kern County's Drought Resilience Plan in accordance with Senate Bill 552.

As described in Section 5.6, the County has actively supported the Subbasin-wide well inventory by providing requested data from County files to cross reference with well completion reports including permit numbers, well location coordinates, intended use, and other data as requested. Records were also provided to identify all non-public and state small water systems with well locations and parcels served.

Importantly, the County's Environmental Health Services Department administers an Onsite Wastewater Treatment System (OWTS) program under the Local Agency Management Plan. While large areas of the Kern Subbasin are currently within a sewer boundary, there are a large number of unincorporated parcels in the Metropolitan Bakersfield area that rely on septic systems as well as small communities and subdivisions. According to the 2017 Local Agency Management Plan, the Kern Subbasin has an estimated 4,961 OWTS. While nitrate loading from septic systems may not be a widespread problem, it can degrade water quality in localized areas and in domestic wells that may be inappropriately sited near a septic system.

K-2.2.8 Local Cities within the Kern Subbasin

Local Cities and water system purveyors in the Kern Subbasin continue to actively participate in the GSP development process and related groundwater management activities. Municipalities and water system purveyors participate in stakeholder meetings, share experiences with groundwater issues and potential impacts to their operations, and invite Kern Subbasin GSAs to take an active role in Urban Water Management Plan development sharing goals for communities with respect to water resource needs. The Kern Subbasin GSAs are committed to continuing its efforts to coordinate with the local cities throughout the County.

K-2.3 Part 3 - Implementation of SMCs: Determining URs and Exceedances of MTs

The Kern Subbasin GSAs use a consistent methodology for evaluating data to determine if URs have occurred and if MT exceedances are due to groundwater management activities. Section 13.3.1 and Appendix K-1 discuss the UR definition and the exceedance evaluation when UR criteria are met. Additional details and examples for making such determinations are provided here for illustrative purposes.

A. Determining URs

To apply the first two UR criteria, the Kern Subbasin GSAs will implement the following methodology with respect to "counting wells" towards determining if there is a significant and unreasonable effect due to groundwater management activities. The first two UR criteria are as follows (Section 13.3.1):

1. Subbasin-wide, 15 percent of RMW-WQ exceed the MT for COCs per water year based on confirmed samples and MT Exceedance investigation results[5]; or
2. Annually, 5 percent of domestic wells have an assumed MT Exceedance[21] based on radius of influence analysis around the RMW-WQ that exceeds the MT, with cumulative maximum of 15 percent of domestic wells through 2040.

The methodology starts with evaluating monitoring data results from an RMW-WQ against its' applicable MT. If an RMW-WQ well exceeds the assigned MT, the Kern Subbasin GSAs will implement the Exceedance Policy Action Plan for Degraded Water Quality (Appendix K-1), and perform an MT exceedance investigation, as applicable. Through implementation of the Exceedance Policy, Kern Subbasin GSAs will determine if there are domestic wells within the zone of influence (i.e., approximately 3-mile radius) that are *assumed* to be impacted due to groundwater management activities. The term "*assumed"* from the Exceedance Policy is as a special term of art that means a well that

[5] Water quality exceedances and mitigation applications are evaluated as defined in the Exceedance Policy and Action Plan for Degraded Water Quality (Appendix K-1) and Well Mitigation Program (Appendix G-1).

may be impacted due to groundwater management activities because of its characteristics as compared to the RMW-WQ and likelihood of being impacted due to the COC's properties. If a well within the 3-mile zone of influence is *assumed* to be impacted, it counts towards determining if there is a significant or unreasonable effect based on 5 percent of domestic wells and non-public water systems combined annually and 15 percent cumulatively.

Currently, within the Kern Subbasin, there are an estimated 2,322 domestic wells and non-public wells, collectively. Based on this number, a significant and unreasonable effect will occur if 116 wells (5 percent of 2,322) are *assumed* to be impacted in any single water year. For the cumulative portion of this UR criteria, a significant and unreasonable effect will occur if 348 (15 percent of 2,322) wells are *assumed* to be impacted through 2040. An *assumed* impacted well may be removed from this count if an assumed well is subsequently tested and the test result is below the MT.

K-2.3.1 Example Scenario #1

In Example Scenario #1, monitoring results indicate that hypothetical RWW-WQ XYZ exceeds the MT for arsenic, which for this well is based on the water quality objective. Based on the Kern Subbasin's February 2025 well inventory, 33 wells are determined to be within the 3-mile zone of influence. Of these 33 wells, 32 are domestic wells and 1 is a non-public well. After implementing the Exceedance Policy, the Kern Subbasin GSAs conclude that 3 of the 33 wells are *assumed* to be impacted by groundwater management activities. Determinations of impact may be based on aquifer characteristics, baseline conditions, well depths and other factors specifically related to the COC at issue with the MT exceedance.

- RMW-XYZ exceeds the arsenic MCL
- **32** domestic and **1** non-public **wells** are within the 3-mile zone of influence
- Of the **33** collective wells, MT Exceedance Investigation finds **3 wells** equal or deeper than RMW-XYZ (705-ft bgs) and likely impacted by groundwater management activities
- **3** wells assumed to be impacted by groundwater management activities
- **3** wells count towards the 5 percent annual UR criterion per water year number
- **3** wells count towards the 15 percent cumulative maximum through 2040 UR criterion
- If an *assumed* well is subsequently tested and results find that the *assumed* impacted well does not exceed the water quality objective, it will be removed from the well count

K-2.3.2 Example Scenario #2

In Example Scenario #2, the MT exceedance is for nitrate at hypothetical RMW-WQ well XYZ and the MT for this well based on the nitrate water quality objective. There are 241 domestic wells within the 3-mile zone of influence. After conducting an MT exceedance investigation under the Exceedance Policy (Appendix K-1), the GSA finds that 196 of the 241 domestic wells are comparable to the RMW-XYZ and thus are *assumed* to be impacted by groundwater management activities. Notably, this hypothetical is for illustrative purposes only and does not represent an actual anticipated scenario with respect to implementation of the 2025 Plan.

- RMW-XYZ exceeds the nitrate water quality objective
- **241 domestic wells** are within the 3-mile zone of influence
- MT exceedance investigation finds **196 wells** comparable to RMW-XYZ (410-ft bgs) but of the **196 wells**, the MT exceedance investigation finds that **100** of the wells exceeded the nitrate water quality objective prior to January 1, 2015
- **96 wells** are *assumed* to be impacted by groundwater management activities
- **96** wells count towards the 5 percent annual UR criterion
- **96** wells count towards the 15 percent cumulative maximum through 2040 UR criterion
- If an *assumed* well is subsequently tested and results find that the *assumed* impacted well does not exceed the water quality objective, it will be removed from the well count

By combining example scenarios #1 and #2 to count *assumed* impacted wells, Table 2 demonstrates if a UR has occurred based on the 5 percent annual, per-water year criteria for *assumed* impacts.

Table 2. Annual Groundwater Level MT Exceedances and UR Check

WY 2028	Subbasin Count of RMWs	MT Exceedances	UR Trigger	UR Occur?
Domestic Wells	2,327	99 impacted	5% (116 wells)	**No**

Table 3 demonstrates hypothetically if an UR has occurred based on the cumulative criteria for *assumed* impacts.

Table 3. Cumulative Groundwater Level MT Exceedances and UR Check

	MT Exceedances	Impacted Wells		Annual UR Triggered?	Cumulative UR Triggered?
		Annual	Cumulative		
WY 2028	3	199	199	Yes	No
WY 2029	1	20	219	No	No
WY 2030	5	220	439	Yes	Yes

For the second UR criteria, which is based on 15 percent of RMW-WQ wells Subbasin-wide exceeding an MT annually (on a water year basis), wells are counted for this criterion based on an actual confirmed sample result that exceeds the MT and a finding that the MT exceedance is the result of groundwater management activities. In the examples presented here for illustrative purposes only, there are 55 RMW-WQ wells, resulting in a trigger of 8 RMW-WQ wells per water year for an UR to occur. Notably, as data gaps are filled and additional wells are added to the RMW-WQ network, these numbers will change.

In the hypothetical scenario depicted in Table 4 of this appendix for WY 2028, there are 3 confirmed MT exceedances – meaning that the MT exceedance is based on a confirmed sample and the result of groundwater management activities, as determined through the Exceedance Policy (Appendix K-1). Because the number of confirmed MT exceedances is below the trigger of 15 percent within the water year, an UR has not occurred. Conversely, if there were 8 or more confirmed MT exceedances, then a UR will have occurred and the Kern Subbasin would need to initiate corrective actions.

Table 4. Annual Groundwater Quality MT Exceedances and UR Check

WY 2028	Subbasin Count of RMW-WQ wells	MT Exceedances	UR Trigger	UR Occur?
RMW-WQs	55	3	15% (8 wells)	No

For the third UR criteria, an UR will be deemed to occur if mitigation program funds are not available as compared to the need for mitigation. Currently, the Kern Subbasin GSAs have funded a $3.5 million Mitigation Program reserve that will be replenished annually based on incurred expenses (see Section 16.2.1.1). Note, the $3.5 million mitigation budget includes funding for uncertainty in the analysis, inflation, and climate change as well as funding for program administration, technical assistance for municipal, industrial and community wells, and mitigation for groundwater level related impacts. The Kern Subbasin $3.5 million Well Mitigation Program reserve also includes a conservative estimate of potential costs associated with water quality mitigation based on an estimate of $2,500 per domestic well mitigated due to groundwater management activities.

A. Implementation of Minimum Thresholds for Degraded Water Quality

As detailed in Section 13.3.1.4, COCs were screened to consider risks to vulnerable drinking water beneficial users based on water quality objectives that incorporate by reference drinking water standards promulgated in the Basin Plan and based on areas of the Subbasin where groundwater quality may be impacted by groundwater management activities. As shown in Table 1 of this appendix, the COCs with established SMCs in the Kern Subbasin are arsenic, nitrate (as N), nitrite, TDS, 1,2,3-TCP, and uranium.

MTs for Degraded Water Quality are set for each RMW-WQ and are tied to regulatory water quality standards – namely, water quality objectives that are considered protective of the MUN beneficial use (i.e., primary and secondary MCLs contained in CCR Title 22), as applicable to each COC (Section 13.3).

Final MTs for Degraded Water Quality for each RMW-WQ are shown in Section 13.3 in Table 13-8. Additionally, Appendix I-4 contains chemographs that plot historical water quality concentrations, the MT, and the MO for each RMW-WQ and for each COC. In total, there are 330 MTs, which incorporate 6 COCs for the 55 RMW-WQ wells (Table 13-8, Section 13.3).

The Kern Subbasin monitoring program will test each RMW-WQ twice yearly for the identified COCs (Section 15). Sampling of the RMW-WQs will occur in association with monitoring of groundwater levels to the extent possible. Spring samples will be collected between January 15 and March 30 when groundwater is typically considered to be at its seasonal high; fall samples will be collected between August 15 and November 15 when groundwater is typically considered to be at its seasonal low. Monitoring results are uploaded to the Kern Subbasin data management system (DMS), and once uploaded, are managed and addressed in accordance with the Kern County Subbasin Coordination Agreement and Exceedance Policy. All results uploaded to the DMS are available publicly.

If monitoring results at a RMW-WQ exceed a water quality objective or a Degraded Water Quality MT (Table 13-8, Section 13.3), GSAs will implement the Action Plan for Degraded Water Quality as set forth in the Exceedance Policy (Appendix K-1).

- Step 1 of the Action Plan for Degraded Water Quality looks to confirm the sample result, which may include resampling the well. If there is a confirmed sample for nitrate above the water quality objective, the GSA(s) will proceed to Step 2.
- Step 2 of the Action Plan will identify domestic well owners and non-public wells used for domestic purposes (i.e., wells that serve two to four connections) located generally within a 3-mile radius of the RMW-WQ. Once identified, the GSA(s) will send direct mail notification to these well owners of record within 30-days of sample confirmation of the water quality objective exceedance and provide owners with information regarding the Kern Water Collaborative's program for well-testing specific to nitrate, at no cost to the well owner.

If there is a confirmed sample for a non-nitrate COC above the water quality objective and/or MT, then the GSA(s) will proceed directly to Step 3 of the Action Plan, which is the Exceedance Investigation. After implementation of Step 3 of the Action Plan for Degraded Water Quality, a GSA (or GSAs) will use the findings from the exceedance investigation to determine if wells are *assumed* to be impacted due to groundwater management activities and to implement the notification procedures detailed in the Action Plan for Degraded Water Quality within 10-days after completion of the Exceedance Investigation Report (Appendix K-1).

In summary, the GSAs will implement a notification process to inform domestic and non-public well owners of record when monitoring results at an RMW-WQ are confirmed to exceed water quality objectives that are based on primary maximum contaminant levels (MCLs). The Kern Subbasin GSAs will also administer a mitigation program that seeks to mitigate Degraded Water Quality impacts to domestic wells that are degraded due to groundwater management activities (Appendix G-1).

K-2.4 Part IV – Notification and Mitigation for Degraded Water Quality

A. Notification Process

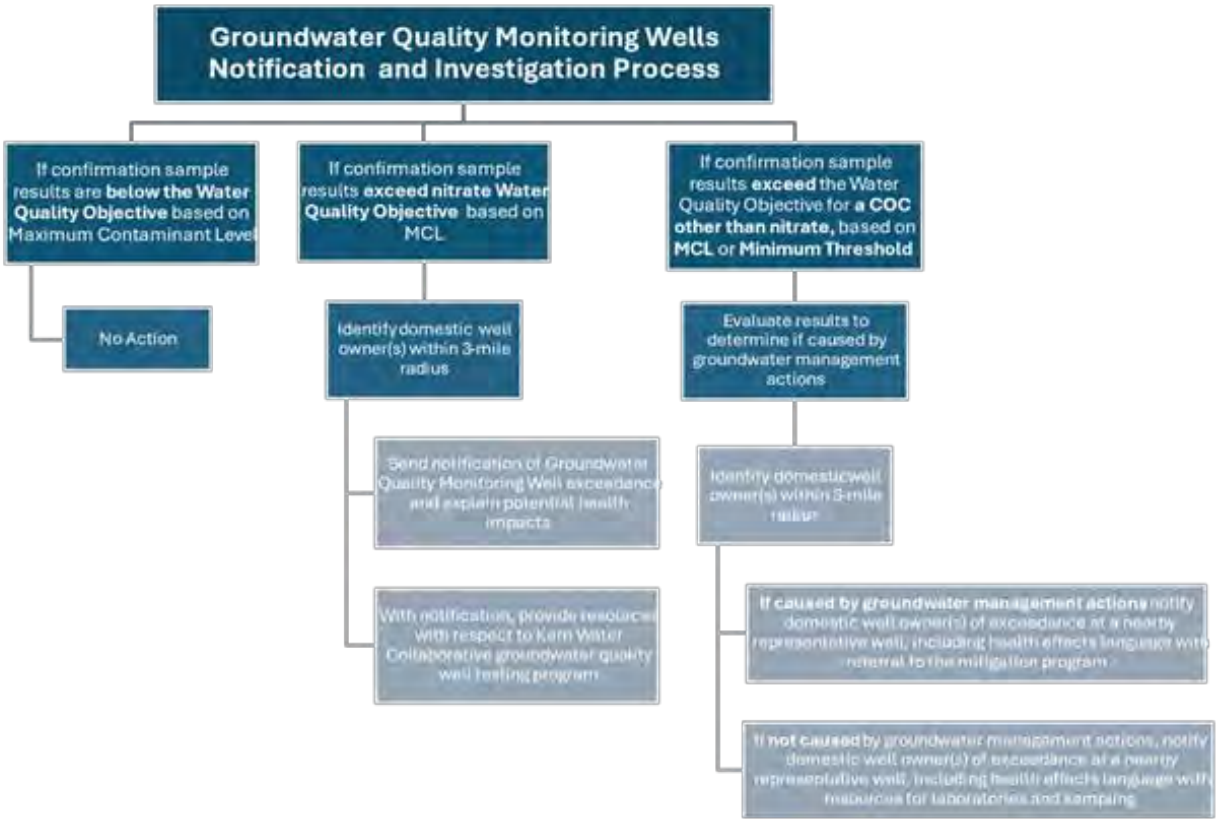
With respect to notification, the Kern Subbasin GSAs will provide notice to all domestic and non-public well owners of record generally within the 3-mile radius of an RMW-WQ that exceeds a primary MCL to inform them of potential health risk based on the RMW-WQ result. The content of the notice will vary depending on if the primary MCL exceedance at the RMW-WQ is also an MT Exceedance and if the MT exceedance investigation finds that domestic or non-public wells are *assumed* to be impacted due to groundwater management activities.

Notably, a water quality result at an RMW-WQ above a primary MCL does not necessarily mean that a particular domestic or non-public well exceeds the applicable primary MCL. Actual risk cannot be determined until that well is sampled. Thus, the notice provided will explain the differences between an RMW-WQ result and potential impact to domestic and non-public wells within the zone of influence.

Per the Exceedance Policy and Action Plan for Degraded Water Quality (Appendix K-1), direct mail notice to domestic and non-public well owners for confirmed samples that exceed the nitrate water quality objective will be provided within 30-days of sample confirmation. For confirmed nitrate exceedances, well owners will be provided information specific to the Kern Water Collaborative's program for testing wells for nitrate, at no cost to the owner, and alternative drinking water supplies for wells that exceed the nitrate water quality objective.

For non-nitrate COCs, notice of water quality objective exceedance will be provided to domestic and non-public well owners of record if the exceedance is also an exceedance of primary MCL. The content of the notice will vary depending on if the MT exceedance investigation finds that domestic or non-public wells are *assumed* to be impacted due to groundwater management activities. The notice will be provided within 10-days after completion of the Exceedance Investigation Report.

- Notice 1: If the independent professional has determined that the MT exceedance is due to GSA groundwater management activities, then domestic and non-public well owners of record for the *assumed* impacted wells will be provided notice that includes the following information:
  - Notice of the exceedance
  - Notice that their well may be impacted
  - Notice of the public health impacts associated with such exceedances
  - Specific information regarding the process available for submittal of an Application for Mitigation, which would include the opportunity for the *assumed* impacted well to be sampled and tested
- Notice 2: If the independent professional has determined that the MT exceedance is NOT due to GSA groundwater management activities, or the well is NOT one of the *assumed* impacted wells, then the domestic well and non-public well owners of record will be provided notice that includes the following information:
  - Notice of the exceedance
  - Notice that their well is NOT *likely* to be impacted by groundwater management activities but that does not mean their well water is safe to drink as other factors may contribute to exceedances of primary MCLs
  - Notice of the public health impacts associated with exceedances of primary MCLs of concern
  - General information regarding available resources should the domestic or non-public well owner desire to have their well sampled and tested



B. Mitigation for Degraded Water Quality

The Kern Subbasin Well Mitigation Program (Appendix G-1) includes a specific mitigation track for Degraded Water Quality that is similar to the mitigation program track for dry wells. For the Degraded Water Quality Mitigation Track, the Kern Subbasin GSAs anticipate that they will receive applications for mitigation in one of two manners: (1) Application received due to domestic or non-public well owner receiving a notice directly from the Kern Subbasin GSA that their well may be impacted due to groundwater management activities (Notice 1); or, (2) Application received based on general public outreach throughout the Subbasin GSAs of the Kern Subbasin Well Mitigation Program. The primary distinction between the two is based on when the application for mitigation receives technical review and analysis from an independent qualified professional to determine if the domestic or non-public well in question has degraded water quality due to groundwater management activities. In the first scenario (i.e., via Notice 1), the independent technical evaluation is implemented under the Exceedance Policy's Action Plan for Degraded Water Quality (Appendix K-1). Under the second scenario, the independent technical evaluation for making such a finding is done as part of the application review process. The steps associated with the Degraded Water Quality Mitigation Track (Appendix G) are summarized in Table 5 below.

Table 5. Degraded Mitigation Program Track Application Steps

Degraded Mitigation Program Track Application Steps			
Scenario 1 – Per MT Exceedance Policy, well *assumed* to be impacted due to groundwater management activities and receives Notice 1		**Scenario 2 – Unknown if well is impacted due to groundwater management activities; application unrelated to receiving Notice 1 per MT Exceedance Policy**	
Step 1	Specific Notice re: Degraded Water Quality Mitigation Program	Step 1	General Notice re: Degraded Water Quality Mitigation Program
Step 2	Well owner submits Application to Kern Subbasin Single Point of Contact	Step 2	Well owner submits Application to Kern Subbasin Single Point of Contact
Step 3	Contractor/Entity tests domestic well, provides short-term drinking water if MCL exceeded *Note: If domestic well does not exceed COC associated with MT exceedance, no further steps apply as it relates to Kern Subbasin Mitigation Program. Contractor/entity may continue forward as their independent program allows.*	Step 3	Contractor/Entity tests domestic well, provides short-term drinking water if MCL exceeded *Note: If domestic well does not exceed any of the Kern Subbasin COCs, no further steps apply as it relates to Kern Subbasin Mitigation Program. Contractor/entity may continue forward as their independent program allows.*
Step 4	Contractor/Entity conducts well evaluation & recommends potential long-term mitigation measure	Step 4	Contractor/Entity conducts well evaluation & recommends potential long-term mitigation measure
Step 5	Qualified Professional identified by Kern Subbasin GSAs performs evaluation of well evaluation and recommendation for long-term mitigation provided by contractor/entity	Step 5	Independent qualified professional performs investigation/evaluation using same factors for consideration and information identified in the Exceedance Policy, as applicable, to determine if degraded water quality is due to groundwater management activities. Further, qualified professional evaluates recommendation for long-term mitigation provided by contractor/entity
Step 6	Kern Mitigation Evaluation Committee will review information and findings from steps 2 through 4 to determine if well mitigation is eligible for reimbursement and provides recommendation to GSA Board.	Step 6	Kern Mitigation Evaluation Committee will review information and findings from steps 2 through 4 to determine if well mitigation is eligible for reimbursement and provides recommendation to GSA Board.
Step 7	GSA Board considers KMEC recommendation for approval of application for mitigation.	Step 7	GSA Board considers KMEC recommendation for approval of application for mitigation.
Step 8	Implementation of Long-term Solution & GSA Reimbursement If an application is approved under Step 6, GSA will work with its contractor/entity to reimburse costs for implementation of long-term solution based on terms of agreement between Kern Subbasin GSA and contractor/entity.	Step 8	Implementation of Long-term Solution & GSA Reimbursement If an application is approved under Step 6, GSA will work with its contractor/entity to reimburse costs for implementation of long-term solution based on terms of agreement between Kern Subbasin GSA and contractor/entity.

More information with respect to each step is included in the Kern Subbasin Well Mitigation Program (Appendix G-1). Further, the Kern Subbasin Well Mitigation Program

includes an appeal process if an applicant disagrees with the mitigation proposed or if an application is denied by the GSA Board. The appeal's process is explained in the Kern Subbasin Well Mitigation Program.

K-2.5 Conclusion

The Kern Subbasin's 2025 Plan incorporates a comprehensive Degraded Water Quality implementation program that goes beyond the requirements of SGMA and its implementing regulations. Through the implementation of its multiple provisions devoted to groundwater quality, Kern Subbasin water quality will be protected and mitigated as necessary and appropriate.

SEPTEMBER 2026

KERN COUNTY SUBBASIN
WELL MITIGATION PROGRAM

VERSION 3.0

PRODUCED FOR

KERN COUNTY SUBBASIN
KCS
GROUNDWATER SUSTAINABILITY AGENCIES

PRODUCED BY

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Attention

If you have experienced a loss of drinking water, please contact **Self-Help Enterprises** at **(559) 802-1685**. Self-Help Enterprises is available to assist with accessing emergency drinking water and interim drinking water supplies.

For applications regarding drinking water wells (including agricultural wells used for drinking water purposes), please fill out the online intake form on Self-Help Enterprises' website:
https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/

Atención

Si experencia pérdida de agua potable, comuníquese con **Self-Help Enterprises** al **(559) 802-1685**. Self-Help Enterprises está disponible para ayudarle con el acceso a agua potable de emergencia y suministros provisionales de agua potable.

Para reclamos relacionados con pozos de agua potable (incluidos los pozos agrícolas utilizados para fines de agua potable), complete el formulario de admisión en línea en el sitio web de Self-Help Enterprises:
https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/

Section 1: Introduction

On September 16, 2014, Governor Jerry Brown signed into law a three-bill legislative package, composed of Assembly Bill 1739 (Dickinson), Senate Bill 1168 (Pavley), and Senate Bill 1319 (Pavley), collectively known as the Sustainable Groundwater Management Act (SGMA), which is codified in Section 10720 et seq. of the California Water Code. In his signing statement, Governor Brown emphasized that "groundwater management in California is best accomplished locally." This legislation created a statutory framework for groundwater management that can be sustained during the planning and implementation horizon without causing undesirable results.

SGMA requires high and medium priority basins to achieve sustainability by avoiding undesirable results. These basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, such as the Kern County Subbasin (Kern Subbasin), the deadline for achieving sustainability is 2040.

The Kern Subbasin is comprised of 20 Groundwater Sustainability Agencies (hereafter collectively referred to as the "Kern Subbasin GSAs") working together to achieve groundwater sustainability (**Figure 1**). To comply with SGMA Regulations, the Kern Subbasin GSAs prepared a coordinated Groundwater Sustainability Plan (2025 Plan) to achieve sustainability by 2040. The Well Mitigation Program is considered part of the 2025 Plan.

In general, the Kern Subbasin GSAs will fund administration, outreach, analyses, technical assistance, financial assistance and mitigation services necessary to restore drinking water for households that have lost access to safe drinking water due to groundwater management activities associated with implementation of the 2025 Plan. While households may lose access to their water supply for many reasons, the purpose of this Well Mitigation Program is to avoid or address impacts caused by groundwater management activities undertaken by the Kern Subbasin GSAs after January 1, 2015. For portions of the Well Mitigation Program, the Kern Subbasin GSAs have partnered with Self-Help Enterprises, a local expert in providing solutions for households losing access to drinking water described in Section 2. Separate from this Well Mitigation Program, Self-Help Enterprises also administers services for households losing access to their water supply due to causes other than the Kern Subbasin GSAs' groundwater management activities. This collaboration between the Kern Subbasin GSAs and Self-Help Enterprises with respect to loss of access to safe drinking water allows Self-Help Enterprises to generally serve as a single point of contact for households in the Kern Subbasin losing access to drinking water as described.

Well Mitigation Program Updates

In Version 2.0 of the Well Mitigation Program, the Kern Subbasin GSAs established a dedicated program track to address degraded water quality. This Degraded Water Quality Mitigation Track is distinct from the Dry Well Mitigation Track and is described further herein.

Here, in Version 3.0, the Kern Subbasin GSAs have established a financial assistance track for state small water systems (i.e., 5 to 14 connections and less than 25 residents) to address dry wells, or wells at risk of becoming dry, due to groundwater management activities. Financial assistance for state small water systems is separate from the technical assistance track, which applies to public water systems that are also a community water system. Under the Dry Well Financial Assistance Track for State Small Water Systems, eligible systems may receive up to $100,000.

The Kern Subbasin GSAs are committed to implementing this Well Mitigation Program within the Plan Area to provide emergency drinking water supplies and interim water supplies (as applicable), as well as long-term solutions, for households that rely on domestic wells[1] and have lost access to drinking water due to groundwater management activities occurring after January 1, 2015. In addition, the Well Mitigation Program provides alternative drinking water supplies to domestic well users that experience water quality degradation due to groundwater management activities occurring after January 1, 2015.

The Well Mitigation Program document explains the application process, funding mechanisms, and the roles and responsibilities of the Kern Subbasin GSAs and Self-Help Enterprises to implement the Well Mitigation Program and the four tracks within the Well Mitigation Program. The Well Mitigation Program document also explains how the Kern Subbasin GSAs will determine if applications are eligible for assistance.

[2] The terms community water systems and small community water systems as used in this Appendix mean the same as defined in Health and Safety Code, § 116275.

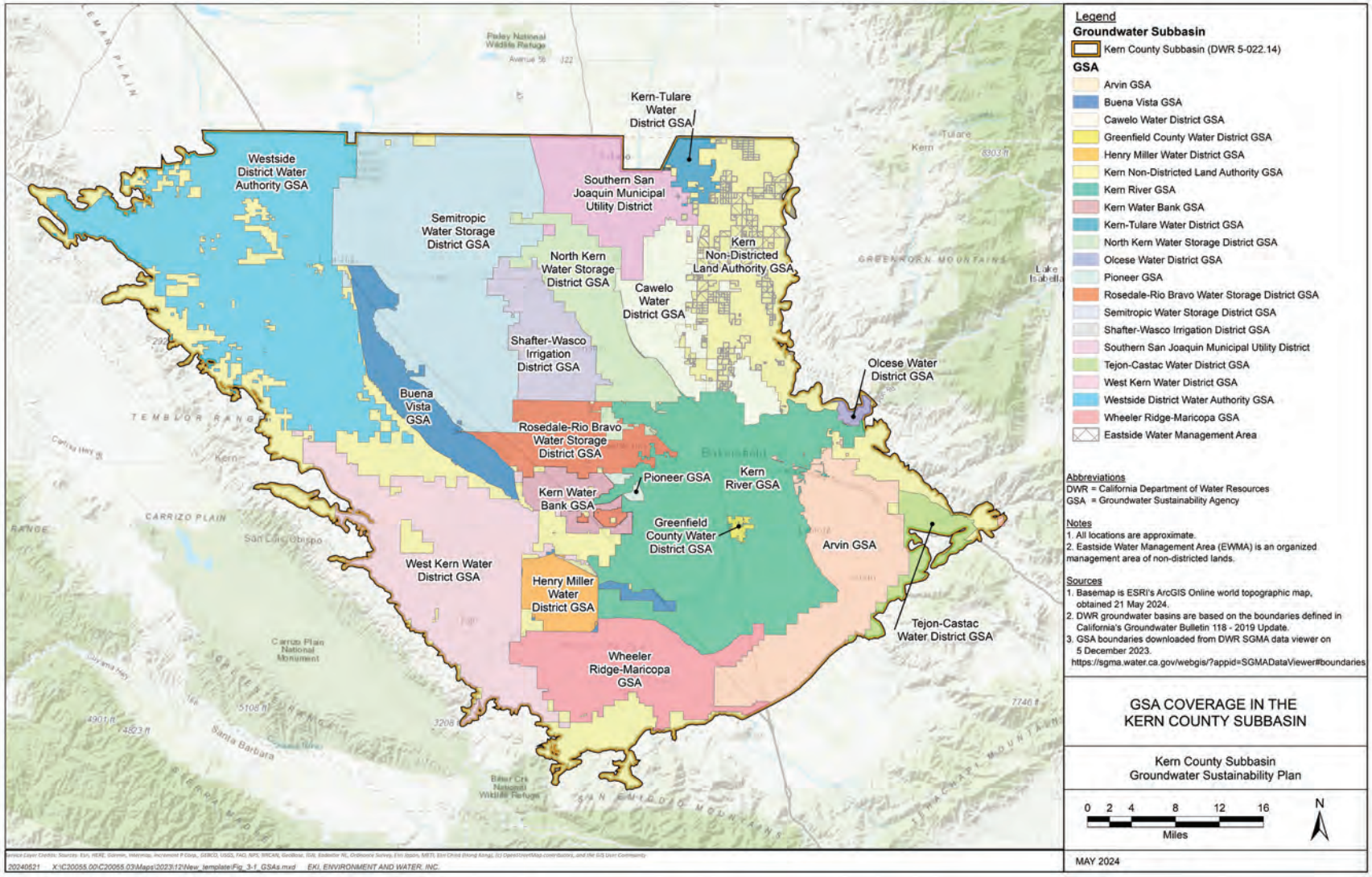


Figure 1. Kern Subbasin

Section 2: Program Overview

The Well Mitigation Program (or "Program") provides mitigation for impacts to domestic wells, financial assistance to state small water systems and technical assistance for public water systems that are also a community water system, where it can be demonstrated that groundwater supply wells have been adversely affected by declining groundwater levels due to groundwater management activities occurring after January 1, 2015. The Well Mitigation Program also addresses impacts on domestic wells adversely affected by groundwater quality degradation resulting from groundwater management activities occurring after January 1, 2015.

Mitigation, financial assistance and technical assistance under this Program are not available for impacts that were subject to a prior domestic well impact application that was settled and mitigated under another well mitigation plan or program, or if financial or technical assistance was provided to an agency previously. To be eligible under this Program, an application for mitigation must generally be submitted no later than one year after the date of the impact. For impacts occurring between January 1, 2015, and January 1, 2025, applications must be submitted no later than January 1, 2027, which is approximately two years after adoption of this Program For state small water systems applying for dry well financial assistance, to be eligible an application must be presented no later than January 1, 2028, for an impact occurring between January 1, 2015, and January 1, 2026, and no later than one year after the date of the impact for all other applications.

The Well Mitigation Program may be revised as lessons are learned, data gaps are resolved, new analytical tools are available, and mitigation and administrative costs evolve. The Well Mitigation Program is designed as an iterative document with adaptive management at the forefront.

Program Need

The Kern Subbasin GSAs are collaboratively managing water supplies within the Plan Area to achieve sustainability by 2040 through implementation of the 2025 Plan, which includes actions established in the exceedance policies detailed in Appendix K to the 2025 Plan.

However, groundwater levels in parts of the Kern Subbasin may decline, and land subsidence may occur while the Kern Subbasin GSAs implement projects and management actions (P/MAs) through the planning and implementation horizon. Declining groundwater levels created by groundwater management activities during the implementation phase of the 2025 Plan may also induce unintended groundwater quality impacts. The Kern Subbasin GSAs recognize potential impacts may occur and thus have identified the need for establishing this Well Mitigation Program to be protective of beneficial uses and users within the Plan Area.

Self-Help Enterprises

The Kern Subbasin GSAs are collaborating with Self-Help Enterprises to administer emergency drinking water supplies, interim water supplies, long-term mitigation support, and well stewardship educational resources for qualifying applications for those experiencing a loss in access to drinking water supplies. Self-Help Enterprises' Emergency Services team are local experts in well mitigation, administering these same services for low-income households across the San Joaquin Valley. This Well Mitigation Program expands Self-Help Enterprises' existing program to support households regardless of income-limitation and addresses Kern Subbasin GSAs local approaches to mitigating potential undesirable results as defined in the 2025 Plan.

The Kern Subbasin GSAs have entered into an agreement with Self-Help Enterprises to provide financial support for their implementation services of the Well Mitigation Program as it relates to dry wells and loss of access to drinking water for those that rely on domestic wells, and financial assistance for state small water systems. The agreement between the Kern Subbasin GSAs and Self-Help Enterprises provides that the Kern Subbasin GSAs will reimburse Self-Help Enterprises for costs associated with program administration, groundwater quality sampling, emergency drinking water supplies, interim water supplies, and long-term mitigation measures for applications qualifying for mitigation under this Well Mitigation Program.

Self-Help Enterprises will continue to serve as a contract mediator and lender for applicants to arrange mitigation with well drillers and others to perform long-term physical mitigation.

As agreed on by the Kern Subbasin GSAs and Self-Help Enterprises, the Kern Subbasin GSAs are responsible for reimbursing Self-Help Enterprises for costs related to implementation of the Dry Well Mitigation Track, Dry Well Financial Assistance Track for State Small Water Systems and Degraded Water Quality Mitigation Track due to impacts caused by groundwater management activities after January 1, 2015. Where a well is impaired for reasons other than groundwater management activities, Self-Help Enterprises may offer emergency drinking water assistance and mitigation through alternative programs. It is important to the Kern Subbasin GSAs and Self-Help Enterprises to lessen the burden on households experiencing drinking water issues, where possible. Self-Help Enterprises collaboration is intended to create a “one-stop-shop” for emergency drinking water supplies, interim water supplies and mitigation and allows the financial exchanges to be handled by the Kern Subbasin GSAs and Self-Help Enterprises administrative teams.

In the case of nitrate, the Kern Subbasin GSAs will work with the Kern Water Collaborative to address emergency or interim drinking water supplies, and long-term solutions for nitrate impacts, as determined appropriate.

Evolving Program

As the Kern Subbasin GSAs collect more data and gain insights from demand management changes, project implementation, improved analytical tools and well registration, opportunities to refine the Well Mitigation Program are expected to emerge. In addition to improved data and analytics, lessons will be learned through the implementation of the Well Mitigation Program. Costs to mitigate wells, provide emergency and interim water supplies, and administration may also evolve over time. The Kern Subbasin GSAs intends for the Well Mitigation Program to be iterative and evolve as new information, funding, and efficiencies are understood.

Section 3: Well Mitigation Program Tracks

The Well Mitigation Program has four tracks: (1) Dry Well Mitigation Track; (2) Dry Well Financial Assistance Track for State Small Water Systems; (3) Dry Well Technical Assistance Track for Public Water Systems; and (4) Degraded Water Quality Mitigation Track. **Figure 2** summarizes who qualifies for each track. More detail on the application process for each track is described under their respective sections of this Program (starting on **Page 12** for the Dry Well Mitigation Track, **Page 18** for the Dry Well Financial Assistance Track for State Small Water Systems, **Page 24** for the Dry Well Technical Assistance Track for Public Water Systems, and **Page 31** for the Degraded Water Quality Mitigation Track).

Dry Well Mitigation Track

The Dry Well Mitigation Track offers emergency drinking water supplies within 24-hours of notification to Self-Help Enterprises, interim water supplies (hauled tank water) and long-term mitigation solutions for domestic wells that have been impacted and meet the qualification criteria explained starting on **Page 8**.

Under this Well Mitigation Program, domestic wells are defined as having at maximum of 4 service connections to 4 separate households. An eligible domestic well may also be a multi-use domestic well, which is an agricultural well used to supply drinking water to at least one but no more than four households. Agricultural wells used solely for agricultural purposes are not eligible for assistance under the Program.

More information on the application process for the Dry Well Mitigation Track starts on **Page 12**.

Dry Well Financial Assistance Track for State Small Water Systems

The Dry Well Financial Assistance Track offers up to $100,000 in financial assistance to support long-term mitigation solutions for state small water systems that have been impacted and meet the qualification criteria explained on **Page 8**. The Dry Well Financial Assistance Track for State Small Water Systems also offers emergency drinking water (i.e., bottled water) to households served by the state small water system for an appropriate period of time. State Small Water Systems are systems that provide piped water to the public for human consumption that serves at least five, but not more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year. Dry Well Financial Assistance for State Small Water Systems may include assistance in the form of grant development, feasibility planning, technical assistance, capital improvements and other forms of assistance to support long-term solutions.

More information on the application process for the Dry Well Financial Assistance Track starts on **Page 18**.

Dry Well Technical Assistance Track

The Dry Well Technical Assistance Track offers up to $50,000 in funding to support technical assistance in the form of grant development, feasibility planning, or other mechanisms useful to support public water

systems that are also community water systems (including small community water systems)[2] that have been impacted and meet the qualification criteria explained below.

More information on the application process for the Technical Assistance Track starts on **Page 16**.

Degraded Water Quality Mitigation Track

The Degraded Water Quality Mitigation Track offers alternative drinking water for users that rely on domestic wells. Alternative drinking water may consist of supplying bottled water on an interim basis until a long-term solution is identified or until the water no longer exceeds primary maximum contaminant levels (MCLs). Long-term solutions will vary and may consist of installation of point of use or point of entry treatment systems within the home or at the well – depending on the circumstances. Domestic wells are those wells serving no more than four connections. An eligible domestic well may also be a multi-use domestic well, which is an agricultural well used to supply drinking water to at least one but no more than four households. Agricultural wells used solely for agricultural purposes are not eligible for assistance under the Program.

More information on the application process for the Degraded Water Quality Mitigation Track starts on **Page 31**.



Figure 2. Mitigation Program Tracks

[2] The terms community water systems and small community water systems as used in this Appendix mean the same as defined in Health and Safety Code, § 116275.

Section 4: Application Qualification Criteria

Application Qualification Criteria for Dry Well Tracks

Not all impacts to wells qualify for mitigation under the Well Mitigation Program's Dry Well Tracks. For example, a well's electrical or mechanical failure may be due to reasons independent of groundwater management activities. Therefore, criteria were established to determine if an application qualifies for assistance under the Well Mitigation Program tracks. The Dry Well Mitigation Program's qualification criteria are shown in **Figure 3**. The same criteria apply the Dry Well Mitigation Track, Dry Well Financial Assistance Track for State Small Water Systems and the Dry Well Technical Assistance Track for Public Water Systems.

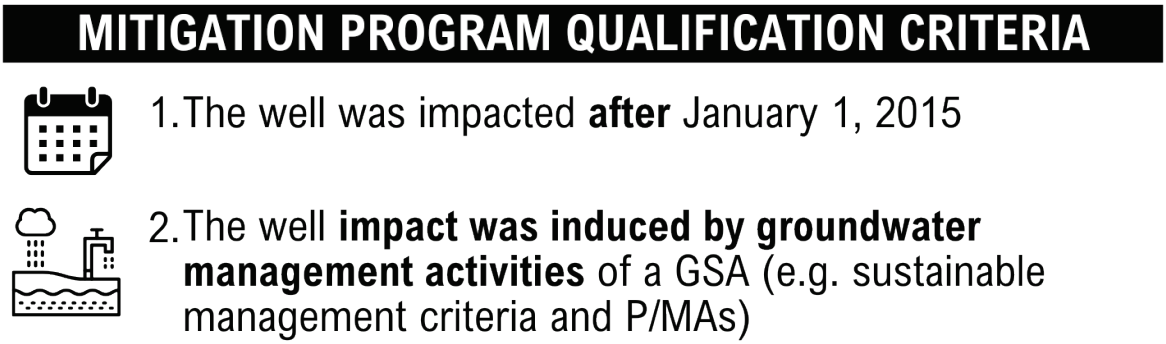


Figure 3. Application Qualification Criteria

Applicants are encouraged to submit applications immediately upon impact. Reimbursement for impacts already mitigated is not available under this Program. Applications need to be submitted within one year of the impact to qualify. For impacts older than one year, the Kern Subbasin GSAs may consider such applications on a case-by-case basis, but such applications need to include comprehensive documentation of the impact. Documentation that is relevant to the application are photos of the well, photos and descriptions of site conditions, recorded groundwater level measurements, and groundwater quality data. The documentation is necessary because the current well conditions would be unrepresentative of conditions during the time of impact, hindering an effective desktop and field evaluation to assess qualification criteria.

The Well Mitigation Program launched in January 2025 for Dry Well Mitigation and Dry Well Technical Assistance and was expanded in January 2026 for Dry Well Financial Assistance to State Small Water Systems. Starting January 1, 2027 (or two-years from Program adoption), Dry Well Mitigation and Dry Well Technical Assistance applications for impacts older than one year will not be eligible for consideration, except under unique circumstances. Starting January 1, 2028 (or two-years from Program expansion for Dry Well Financial Assistance for State Small Water Systems), applications for financial assistance for state small water systems older than one-year will not be eligible for consideration, except under unique circumstances. This is because well conditions over a year old would be unrepresentative of current conditions, making it more difficult to perform a site-assessment. The first two years of implementation offers an exemption from this criterion because the Well Mitigation Program, or parts thereof, are new and it will take some time for

the general public to be made aware of the resources available to them, and relevant timelines, through ongoing public engagement and outreach initiatives.

Evaluating Application Eligibility for Dry Well Tracks

Application eligibility will be evaluated on a case-by-case basis. The application processes, described for the Dry Well Mitigation Track on **Page 12**, Dry Well Financial Assistance Track on **Page 18**, and for the Dry Well Technical Assistance Track on **Page 24**, detail how an application is processed, including evaluations of eligibility based on the qualification criteria identified in the Section above and **Figure 3**. The evaluation of eligibility will occur in two stages:

Stage 1 – Initial Screening: A Qualified Professional (e.g., PG, PE, CHG) will perform a technical evaluation determining if the impact (1) occurred after January 1, 2015 and was (2) induced by groundwater management activities. The qualified professional will evaluate available data and information, including considerations similar to that when evaluating potential causes of exceedances, consistent with the approach described in Appendix K of the 2025 Groundwater Sustainability Plan (Exceedance Policy and Action Plans for Exceedances). The qualified professional will also consider the context of well vulnerability described in described in **Section 11: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs** (starting on **Page 38**).

Stage 2 – KMEC Eligibility Evaluation: The Kern Subbasin Mitigation Evaluation Committee (KMEC) is a three-seat committee intended to minimize bias in the recommendation process, as shown in **Figure 4**. The KMEC will provide an intermediate evaluation between the technical evaluation performed by the Qualified Professional and the applicable Kern Subbasin GSA's final determination. The KMEC's evaluation will include both technical considerations and locally relevant stakeholder input.

Application Qualification Criteria for Degraded Water Quality Track

Not all wells will qualify for mitigation under the Well Mitigation Program's Degraded Water Quality Mitigation Track. For example, a well that was already degraded for the constituent of concern (COC) prior to January 1, 2015, will not qualify. Wells impacted by degraded water quality will only qualify for mitigation under this program if the degradation is due to groundwater management activities. Wells affected by other, unrelated factors will not be eligible for mitigation through this program.

Degraded Water Quality for the purposes of eligibility under this Well Mitigation Program track will be evaluated on a case-by-case basis. For some, initial eligibility may be pre-determined through the Kern Subbasin Exceedance Policy and Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan) whereby domestic well owners with an *assumed* water quality impact due to GSA management activities receive notice with respect to potential Degraded Water Quality Mitigation and information on the application process for seeking mitigation. For others, their application will be subject to a case-by-case evaluation as part of the application process that considers readily available data and information and consideration of factors similar to those considered as part of a minimum threshold exceedance investigation, as described in Step 3 of the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan), as applicable. Notably, and as described in the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan), where there are nitrate exceedances above the nitrate water quality objective at representative monitoring wells for water quality, domestic well owners will be provided notice and information with respect to the Kern Water Collaborative's program for well-testing specific to nitrate, at no cost to the well owner. Further, under the Kern Water Collaborative's program, alternative drinking water supplies are offered to residents reliant on a domestic well that exceeds the water quality objective for nitrate.

To ensure transparency and clarity, the application review steps for the Degraded Water Quality Mitigation Track are set forth for two distinct scenarios:

Scenario 1: In accordance with the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan), a domestic well owner *assumed* to be impacted due to GSA management activities will receive a notice related to degraded water quality for non-nitrate constituents of concern when there is an exceedance of a water quality objective based on a primary drinking water quality standard at a representative monitoring well for water quality. The non-nitrate constituents of concern for the Kern Subbasin that are based on primary drinking water quality standards are arsenic, 1,2,3-trichloropropane, and uranium. The notice provided will include instructions for submitting an application.

Scenario 2: In this scenario, the Kern Subbasin GSAs' single point of contact or Self-Help Enterprises may receive an application for mitigation unrelated to notice provided per the Action Plan for Degraded Water Quality. In this scenario, there is no known assumption that the well may be impacted due to GSA management activities.

While the scenarios and their associated steps are generally similar to each other—and to those in the Dry Well Mitigation Track—there are some minor differences. These distinctions are explained here.

Evaluating Application Eligibility for Degraded Water Quality

The Kern Subbasin GSAs anticipate that applications for mitigation of Degraded Water Quality will be received by a single point of contact or Self-Help Enterprises. The applications will be screened as follows:

Stage 1 – Initial Screening: Wells *assumed* to be impacted due to groundwater management activities pursuant to the Exceedance Policy will receive direct and specific notice of their potential eligibility for mitigation—subject to additional confirmation—and notice regarding the application process.

For applications received under Scenario 2, initial screening and evaluation will be conducted by Self-Help Enterprises after it has been submitted to Self-Help Enterprises or the Kern Subbasin GSAs appointed single point of contact.

For both scenarios, domestic well sampling and analysis for the Kern Subbasin COCs will be part of the initial screening process to determine if the well associated with the application exceeds one or more water quality objectives based on primary MCLs and if such an exceedance is related to GSA management activities. The Kern Subbasin GSAs anticipate that Self-Help Enterprises will perform well sampling and analysis as part of their agreement with the Kern Subbasin GSAs. The Kern Subbasin GSAs and Self-Help Enterprises will work in tandem with the Kern Water Collaborative for addressing domestic wells that may only exceed the nitrate water quality objective.

Stage 2 – **Domestic Well Eligibility Evaluation**: Depending on the result(s) for the well sample, Stage 2 will either consist of (1) no further action necessary and the domestic well owner of record will be notified of such; or (2) be eligible for further evaluation to determine eligibility for mitigation. No further action will be necessary if the well test results indicate that there are no exceedances of water quality objectives based on primary MCLs that were tested. The Kern Subbasin GSAs are mindful of sharing only factual information and not making false claims regarding the safety of drinking water overall. Notices will be developed in a thoughtful and mindful manner to avoid implying that a well is safe to drink in light of the number of emerging contaminants for which testing may not yet occur.

If there is an exceedance of the nitrate water quality objective but no exceedances of water quality objectives for non-nitrate constituents of concern based on primary MCLs, the application will be referred to the Kern Water Collaborative for assistance.

If there are exceedances for the non-nitrate COCs, application eligibility will be further evaluated in the same manner as applications for dry wells.

(A) A Qualified Professional (e.g., PG, PE, CHG) will perform a technical evaluation of the initial assessment performed, including the proposed mitigation solution in the initial assessment. As part of the technical evaluation, the Qualified Professional will also further evaluate the individual domestic well in question, its location, and potential causes for degradation to determine if degraded water quality is due to groundwater management activities. The Qualified Professional may review the Exceedance Investigation Report prepared under the Action Plan for Degraded Water Quality, if available.

(B) The Kern Subbasin Mitigation Evaluation Committee (KMEC) will conduct its evaluation. The KMEC is a three-seat committee intended to minimize bias in the recommendation process, as shown in **Figure 4**. The KMEC will provide an intermediate evaluation between the technical evaluation performed by the Qualified Professional and the GSA's final determination. The KMEC's evaluation will include both technical considerations and locally relevant stakeholder input.

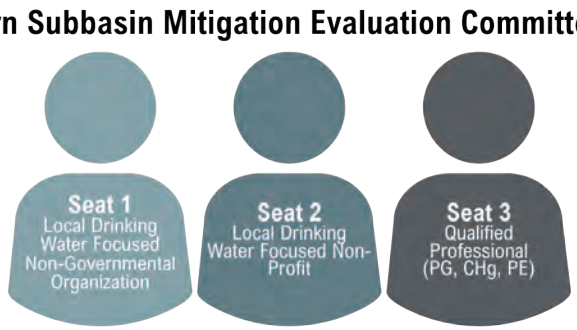


Figure 4. Kern Subbasin Mitigation Evaluation Committee (KMEC)

Section 5: Dry Well Mitigation Track Application Process

The Well Mitigation Program includes three tracks specifically applicable to dry wells or wells experiencing a loss of access to drinking water, based on the type of well and forms of mitigation or assistance available (**Figure 2**). This section describes the Dry Well Mitigation Track, which includes emergency drinking water supplies, interim water supplies, and long-term solutions for domestic wells impacted by GSA management activities that occurred after January 1, 2015. The application process for the Dry Well Mitigation Track is explained below and in **Figure 5**.

Who can apply under the Mitigation Track?



Private Domestic Well Owners[3]

In the Kern Subbasin, private residences in some unincorporated and unconsolidated small communities and rural portions of the County rely on private wells to meet their domestic water supply needs. Households relying on individual domestic wells for their water supply may apply for assistance under the Dry Well Mitigation Track. For purposes of this Well Mitigation Program, domestic wells are defined as wells with a maximum of four household connections for drinking water purposes.



Multi-Use Drinking Water Wells (Agricultural Well Owners Using Agricultural Wells for Domestic Supply)

Some private well owners use their wells for both domestic potable supply to a residence and irrigation. Households relying on these wells for drinking water supply may apply for assistance under the Dry Well Mitigation Track. For purposes of this Well Mitigation Program, multi-use drinking water wells are defined as wells used for both agricultural and domestic household purposes with a maximum of 4 service connections.

Dry Well Mitigation Track Application Process

Step 1. Stakeholder Outreach

Stakeholder outreach is critical to implementing an effective Well Mitigation Program and informing domestic well owners of the availability of assistance if they are experiencing a dry well or threatened with a dry well.

The Kern Subbasin GSAs will maintain public awareness of this Well Mitigation Program through postings on GSA websites, agenda items at GSA Board Meetings and stakeholder meetings, locally relevant public events and coordinating with Self-Help Enterprises' outreach initiatives in the Kern Subbasin. This ongoing outreach

[3] Wells used for drinking water purposes that have four or less connections are considered 'domestic' wells in this program. Wells with more than four connections used for drinking water purposes are considered state small systems or community water systems (depending on the connection count), consistent with the terms as defined in Health and Safety Code § 116275.

also includes coordination with Kern Water Collaborative, in which it will publicize the Well Mitigation Program as part of the Memorandum of Understanding between the Kern Subbasin GSAs and the Kern Water Collaborative. All ongoing outreach will be made available in English and Spanish, as needed.

Step 2. Identify Need for Mitigation

Applicants who have lost access to drinking water must contact Self-Help Enterprises to initiate the mitigation application process. Due to existing laws limiting site access, applications must be submitted by landowners on whose property the adversely impacted well is located; however, in the event a tenant is experiencing loss of access to drinking water, the tenant well user is encouraged to contact the GSA, and the GSA will work with Self-Help Enterprises to notify the well owner of how to apply for mitigation and the benefits of the Well Mitigation Program.

For questions on the applications process or tenant questions on advocating for mitigation support with a landlord(s), a tenant well user should contact the local GSA (**Table 1**) and/or Self-Help Enterprises.



Self-Help Enterprises

(559) 802-1685

8445 W Elowin Ct

Visalia, CA 93291

An online intake form is available on Self-Help Enterprises' website:
https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/

Translation services are available via phone or in-person.

Step 3. Emergency Water and Interim Supplies

After an application for mitigation is submitted, Self-Help Enterprises will arrange temporary emergency drinking water supplies within 24 hours in the form of bottled water to applicants. Interim supplies, which may include water tanks with delivered supplies, or other appropriate interim measures will be arranged for these households as determined appropriate by Self-Help Enterprises and the Kern Subbasin GSAs in accordance with the agreement between the Parties. The relevant Kern Subbasin GSA will fund and/or reimburse Self-Help Enterprises for administering and supplying emergency drinking water supplies and interim water supplies for qualifying applications per the terms of the agreement between the Parties.

Step 4. Mitigation Need Assessment

Self-Help Enterprises' field staff will perform an initial assessment, including a site visit and discussions with the landowner and/or tenants. Translation services for Spanish and Punjabi can be made available by Self-

Help Enterprises, as needed. Following the assessment, Self-Help Enterprises will provide documentation and findings to the Kern Subbasin Project Manager for administration of the Well Mitigation Program (hereafter referred to as the "Kern Subbasin Project Manager").[4] The Kern Subbasin Project Manager will notify the appropriate GSA of the impacted well location and provide Self-Help Enterprises' initial assessment to the designated qualified professional (who will be performing the evaluation in Step 5).

Kern Subbasin Project Manager for the Well Mitigation Program

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Step 5. Mitigation Qualification Assessment

As directed by the Kern Subbasin Project Manager, the designated qualified professional (e.g., PG, CHg, PE) will perform a technical evaluation of the information from Self-Help Enterprises on the well, historical groundwater conditions, land use data, and other relevant data and information to determine if the application qualifies for mitigation under the Well Mitigation Program. The qualified profession will document their evaluation, findings and recommendation in a written memorandum that is delivered to the Kern Subbasin Project Manager. Following receipt of the qualified professionals documented evaluation, findings and recommendations, the Kern Subbasin Project Manager will convene the Kern Mitigation Evaluation Committee (KMEC) for further review as discussed under Step 6.

See the Kern Subbasin's 2025 Groundwater Sustainability Plan's Appendix K and **Section 11: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs** for more information on the type of data and information to be considered and assessed during this step.

Step 6. KMEC Evaluation and Recommendation to Kern Subbasin Project Manager

The KMEC's primary purpose is to review the qualified professional's evaluation, findings and recommendations, and then make a recommendation regarding well mitigation and well eligibility for mitigation under the Well Mitigation Program. The KMEC consists of three representatives from objective organizations. The KMEC's recommendation (i.e., recommending mitigation or recommending denial of mitigation) is then conveyed to the Kern Subbasin Project Manager, who then conveys the KMEC's recommendation to the applicable GSA and Self-Help Enterprises. The KMEC retains the authority to override the qualified professional's recommendation based on its independent review of the circumstances present.

Where the application is determined to be qualified for mitigation by the KMEC, the KMEC evaluates the findings and recommendation of mitigation measure(s). The KMEC prepares an agreed upon recommendation of (1) proposed mitigation measure(s) and (2) estimated costs associated with administration, assessment, interim supplies (if appropriate), and physical mitigation to be shared with the Board of Directors of the GSA in which the impacted well is located.

The KMEC's recommendation for long-term mitigation may include, but is not limited to:

- Deepen the well

[4] The Kern Subbasin GSAs have collectively identified a single Project Manager for administration of the Well Mitigation Program to ensure efficient and consistent communications regarding implementation of the Well Mitigation Program between Self-Help Enterprises, the KMEC, qualified professional and Kern Subbasin GSAs.

- Construct a new well
- Modify pump equipment, including lowering the pump
- Consolidation with an existing water system in the vicinity
- Establishment of a new small public water system
- With the consent of the applicant and Self-Help Enterprises, provide other acceptable means of mitigation

Where the KMEC finds the application to not be qualified for mitigation under the Well Mitigation Program, the KMEC will document its decision and provide an explanation with respect to its decision.

As noted previously, the KMEC's recommendation will be conveyed to the Kern Subbasin Project Manager, who will manage subsequent communications to Self-Help Enterprises and the relevant GSA.

Notably, in cases where the application does not meet the qualification criteria as determined by the qualified professional and the KMEC, the applicant may qualify for mitigation support via other programs that Self-Help Enterprises administers. Self-Help Enterprises will work directly with those applicants to identify options.

Step 7. GSA Board Action

After receiving the KMEC recommendation from the Kern Subbasin Project Manager, the GSA Board of Directors must act to either consider approval of mitigation funding reimbursement or accept a KMEC recommendation that denies mitigation reimbursement. After considering and acting on the KMEC recommendation (approving or not approving mitigation funding reimbursement), the GSA will notify the Kern Subbasin Project Manager in writing of its final decision. The Kern Subbasin Project Manager will notify Self-Help Enterprises of the GSA's decision, who in turn will then inform the applicant of the GSA's determination.

Where the GSA has acted to approve mitigation funding reimbursement, the GSA may thereafter communicate directly with Self-Help Enterprises with respect to implementation of the identified mitigation measure. Where the GSA has acted to deny mitigation funding reimbursement or acted to accept a KMEC recommendation of denial, applicants may appeal the decision pursuant to the Appeal Process. More information is available in the **Section 9: Appeal Process** on **Page 37**.

Step 8. Funding Transaction For Implementation of Mitigation

Upon receiving notice of a GSA's decision with respect to approval of mitigation funding reimbursement from the Kern Subbasin Project Manager, Self-Help Enterprises will move forward with completing an agreement and all other necessary documentation with the Applicant. Except as otherwise agreed by the Kern Subbasin GSAs and Self-Help Enterprises under their Agreement, Self-Help Enterprises will advance funding to implement the agreed upon mitigation measure(s). The applicant must complete all of Self-Help Enterprises required legal agreements before reimbursement between Self-Help Enterprises and the Kern Subbasin GSAs is administered. Self-Help Enterprises does not carry out the mitigation measure(s) but acts as a contract coordinator and funding source between the driller/pump contractor and the applicant. The GSA, pursuant to the terms of the Agreement between the Parties, will reimburse Self-Help Enterprises for funding all qualifying mitigation support services, including emergency drinking water supplies and interim water supplies, and Well Mitigation Program administration. Self-Help Enterprises and the Kern Subbasin GSAs may establish a funding protocol, including the necessary documentation, for advancing funds, and may agree to deposits to maintain sustainable cashflow for Self-Help Enterprises' administration of the Well

Mitigation Program. While the Kern Subbasin GSAs fund well mitigation, neither the GSA, member agencies of the GSA, nor Self-Help Enterprises will be liable or responsible for any work performed by contractors.

Step 9. Well Stewardship Education

After the physical mitigation services have commenced, Self-Help Enterprises will administer a Well Stewardship Education training to empower the applicant to maintain the mitigated well. The Well Stewardship Education training involves well and water system filtration maintenance training and financial planning guidance to save for long-term well maintenance.

Dry Well Mitigation Track for Domestic & Multi-Use Domestic Wells



Figure 5. Mitigation Track Application Process (Domestic Wells)

Section 6: Dry Well Financial Assistance Track for State Small Water Systems

The Well Mitigation Program includes a Dry Well Financial Assistance Track for State Small Water Systems that have been impacted by groundwater management activities after January 1, 2015. The Dry Well Financial Assistance Track includes up to $100,000 in financial assistance per system for implementation of mitigation actions or for grant application development, contingency planning, feasibility studies, or well design. The application process for the Dry Well Financial Assistance Track is described below and in **Figure 6**.

Who can apply for the Dry Well Financial Assistance Track?



State Small Water Systems

In the Kern Subbasin, some private residences in unincorporated communities (outside of City service area limits) receive their drinking water supplies via a consolidated system of a single or multiple wells. For this Well Mitigation Program, state small systems are defined as wells or system of wells that serve at least 5, but no more than 14, service connections and does not regularly serve drinking water to more than an average of 25 individuals daily for more than 60 days out of the year.

Step 1. Stakeholder Outreach

Stakeholder outreach is critical to implementing an effective Well Mitigation Program and informing State Small Water Systems of the availability of financial assistance if they are experiencing a dry well or threatened with a dry well.

The Kern Subbasin GSAs will make the public aware of this Dry Well Financial Assistance Track through postings on GSA websites, agenda items at GSA Board Meetings and stakeholder meetings and events and coordinating with Self-Help Enterprises' outreach initiatives in the Kern Subbasin. This ongoing outreach includes coordination with Kern Water Collaborative, in which it will publicize the Well Mitigation Program as part of the Memorandum of Understanding between the Kern Subbasin and the Kern Water Collaborative. All ongoing outreach will be made available in English and Spanish, as needed.

Step 2. Identify Need for Mitigation

State small water systems who have lost access to drinking water must contact Self-Help Enterprises to initiate the financial assistance application process. Due to existing laws limiting site access, applications must be submitted by someone who has legal authority to speak on behalf of the state small water system. However, in the event an end-user reliant on the state small water system is experiencing loss of access to drinking water, the end-user is encouraged to contact the Kern Subbasin Project Manager or the GSA, and the GSA will work with Self-

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Help Enterprises to notify the appropriate individual or individuals how to apply for financial assistance and the benefits of the Well Mitigation Program.

For questions on the applications process or end-user questions on advocating for financial assistance with the appropriate individuals, an end-user should contact the Kern Subbasin Project Manager, local GSA (Table 1) and/or Self-Help Enterprises.

Self-Help Enterprises
(559) 802-1685
8445 W Elowin Ct
Visalia, CA 93291
An online intake form is available on Self-Help Enterprises' website:
https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/
Translation services are available via phone or in-person.

Step 3. Emergency Drinking Water Supplies

After an application for financial assistance is submitted, Self-Help Enterprises will arrange temporary emergency drinking water supplies within 24 hours in the form of bottled water to those reliant on the state small water system and that choose to receive emergency drinking water supplies. The Kern Subbasin GSAs will fund and/or reimburse Self-Help Enterprises for administering and supplying emergency drinking water supplies based on the terms of the agreement between the Parties.

Step 4. Financial Assistance Needs Assessment

Self-Help Enterprises' field staff will perform an initial assessment, including a site visit and discussions with the authorized individuals on behalf of the state small water system. Translation services for Spanish and Punjabi can be made available by Self-Help Enterprises, as needed. Following the assessment, Self-Help Enterprises will provide documentation and findings to the Kern Subbasin Project Manager. The Kern Subbasin Project Manager will notify the appropriate GSA of the impacted well location and provide Self-Help Enterprises' initial assessment to the Kern Subbasin's designated qualified professional (who will be performing the evaluation in Step 5).

Step 5. Financial Assistance Qualification Assessment

As directed by the Kern Subbasin Project Manager, a designated qualified professional (e.g., PG, CHg, PE) will perform a technical evaluation of the information from Self-Help Enterprises on the well, historical groundwater conditions, land use data, site visit (as necessary) and other relevant data and information to determine if the application qualifies for financial assistance under the Well Mitigation Program. The qualified professional will document their evaluation, findings and recommendation(s) in a written memorandum that is delivered to the Kern Subbasin Project Manager. Following receipt of the qualified professionals documented evaluation, findings and recommendations, the Kern Subbasin Project Manager will convene the Kern Mitigation Evaluation Committee (KMEC) for further review as discussed under Step 6.

See the Kern Subbasin's 2025 Groundwater Sustainability Plan's Appendix K and **Section 11: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs** for more information on the type of data and information to be considered and assessed during this step.

Step 6. KMEC Evaluation and Recommendation to Kern Subbasin Project Manager

The KMEC's primary purpose is to review the qualified professional's evaluation, findings and recommendations, and then make a recommendation regarding financial assistance under the Well Mitigation Program. The KMEC consists of three representatives from objective organizations. The KMEC's recommendation (i.e., recommending financial assistance or recommending denial of financial assistance) is then conveyed to the Kern Subbasin Project Manager, who then conveys the KMEC's recommendation to the applicable Kern Subbasin GSA and Self-Help Enterprises. The KMEC retains the authority to override the qualified professional's recommendation based on its independent review of the circumstances present.

Where the application is determined to be qualified for financial assistance by the KMEC, the KMEC evaluates the findings and recommendation regarding the form of financial assistance. The KMEC prepares an agreed upon recommendation of (1) proposed form and amount for financial assistance and (2) estimated costs associated with administration, assessment, emergency drinking water supplies, physical mitigation, grant assistance, feasibility studies, etc. to be shared with the Board of Directors of the GSA in which the impacted well is located.

The KMEC's recommendation for financial assistance may include, but is not limited to:

- Capital Improvement projects such as:
    - Deepen the well
    - Construct a new well
    - Modify pump equipment, including lowering the pump
    - Consolidation with an existing water system in the vicinity
- Technical assistance such as:
    - Grant application assistance
    - Feasibility studies
    - Design assistance
    - Matching funds

In all cases, financial assistance is limited in an amount of up to $100,000 per state small water system. Self-Help Enterprises and the staff of the GSA in which the impacted well is located will consider each application on a case-by-case basis to identify the most effective form of financial assistance for long-term water supply reliability for the state small water system.

Where the KMEC finds the application to not be qualified for financial assistance under the Well Mitigation Program, the KMEC will document its decision and provide an explanation with respect to its decision.

As noted previously, the KMEC's recommendation will be conveyed to the Kern Subbasin Project Manager, who will manage subsequent communications. Notably, in cases where the application does not meet the qualification criteria as determined by the qualified professional and the KMEC, the

applicant may qualify for mitigation or financial support via other programs that Self-Help Enterprises administers. Self-Help Enterprises will work directly with those applicants to identify options.

Step 7. GSA Board Action

After receiving the KMEC recommendation from the Kern Subbasin Project Manager, the GSA Board of Directors must act to consider approval of financial assistance reimbursement, accept a KMEC recommendation that denies financial assistance reimbursement, or act to override a KMEC recommendation. After considering and acting on the KMEC recommendation (approving or not approving mitigation funding reimbursement), the GSA will notify the Kern Subbasin Project Manager in writing of its final decision. The Kern Subbasin Project Manager will notify Self-Enterprises of the GSA's decision, who in turn will inform the applicant of the GSA's determination.

Where the Board of Directors of the GSA has acted to approve financial assistance reimbursement, the GSA may communicate directly with Self-Help Enterprises with respect to implementation of the identified financial assistance. Where the GSA has acted to deny financial assistance reimbursement or acted to accept a KMEC recommendation of denial, applicants may appeal the decision pursuant to the Appeal Process. More information is available in **Section 9: Appeal Process** on **Page 37**.

Step 8. Funding Transaction for Implementation of Financial Assistance

Depending on the form of financial assistance approved, the GSA in which the which the impacted well is located will work with Self-Help Enterprises and the applicant to identify the appropriate process and method for providing reimbursement for the approved financial assistance. To the extent that it is agreed Self-Help Enterprises will advance funding to implement the approved financial assistance, the applicant must complete all of Self-Help Enterprises required legal agreements before the funding transaction between Self-Help Enterprises and the Kern Subbasin GSA is administered. Self-Help Enterprises does not carry out implementation of financial assistance but acts as a contract coordinator and funding source between the contractor performing the agreed-on assistance and the applicant, as applicable. Self-Help Enterprises and the Kern Subbasin GSAs will establish a funding protocol, including the necessary documentation, for advancing funds, and may agree to deposits to maintain sustainable cashflow for Self-Help Enterprises' administration of the Dry Well Financial Assistance Track for State Small Water Systems. While the Kern Subbasin GSAs may provide financial assistance, neither the GSAs, member agencies of the GSAs, nor Self-Help Enterprises will be liable or responsible for any work performed by contractors.

In some instances, the GSA, Self-Help Enterprises and the applicant may determine that financial assistance is better provided by supporting a Technical Assistance Provider or some other entity that is working directly with the state small water system to address a dry well issue. Or alternatively, the applicant and GSA in which the impacted well is located may complete necessary agreements that allow the applicant to proceed with the agreed upon financial assistance and then seek reimbursement from the GSA. If the applicant is to be reimbursed by the GSA, the qualifying applicant must submit all invoicing information to be entitled to reimbursement. The GSA in which the impacted well is located will reimburse the agreed upon amount (Step 6 and Step 7) within a reasonable amount of time after receiving the invoice from the qualifying applicant.

Overall, the Kern Subbasin GSAs intend to be flexible with respect to the manner in which financial assistance is provided to state small water systems and will consider each approved application on a case-by-case basis. However, in all circumstances, the Kern Subbasin GSAs want to ensure that the financial assistance is being used in the best way possible for ensuring long-term water supplies.

Step 9. Well Stewardship Education

If appropriate and applicable, Self-Help Enterprises will administer a Well Stewardship Education training to empower the state small water system to maintain the water system. The Well Stewardship Education training involves well and water system filtration maintenance training and financial planning guidance to save for long-term well maintenance.

Dry Well Financial Assistance Track for State Small Water Systems



Figure 6 Dry Well Financial Assistance Track for State Small Water Systems

Section 7: Dry Well Technical Assistance Track Application Process

The Well Mitigation Program includes a Dry Well Technical Assistance Track for community water system wells (including small community water systems) that have been impacted by groundwater management activities after January 1, 2015. The Dry Well Technical Assistance Track includes up to $50,000 reimbursement funding for grant application development, contingency planning, feasibility study, or well design. The application process for the Dry Well Technical Assistance Track is described below and in **Figure 7**.

Who can apply for the Technical Assistance Track?



Community Water Systems

Most drinking water users in the Kern Subbasin receive their drinking water supplies from public water systems. For purposes of this Well Mitigation Program, community water systems are defined as a public water system that serves at least 15 service connections used by yearlong residents or regularly serves at least 25 yearlong residents of the area served by the system. Owners of wells that are part of a community water system may submit an application for technical assistance. Public water system wells used exclusively for non-drinking water purposes, such as irrigating golf courses, landscaping, parks, etc. do not qualify for technical assistance.

Technical Assistance Application Process

Step 1. Stakeholder Outreach

Stakeholder outreach for the Dry Well Technical Assistance Track is consistent with the stakeholder outreach outlined in the Dry Well Mitigation Track's **Step 1. Stakeholder Outreach**.

Step 2. Identify Need for Technical Assistance

Applicants must submit a complete Technical Assistance Application (**Attachment G1**), and email, mail, or hand deliver the completed application to the Kern Subbasin Project Manager or the GSA in which the impacted well is located. Contact information for the Kern Subbasin Project Manager and each GSA is available in **Table 1**.

To identify the GSA where the well is located, see **Figure 1** for a map of the GSAs in the Kern Subbasin. For an interactive map of GSAs and location, see the SGMA Data viewer (https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer) and turn on the reference layers for Bulletin 118 Basins and Groundwater Sustainability Agencies (see **Figure 6**).

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jsanchez@mljenvironmental.com

For support filling out the Technical Assistance Application, the applicant should contact the Kern Subbasin Project Manager or the appropriate GSA (**Table 1**). If you are having trouble identifying your GSA or would prefer to identify your GSA via coordination with Kern Subbasin GSA staff, please send an email to comments@kerngsp.com and someone will get back to you in a timely manner.

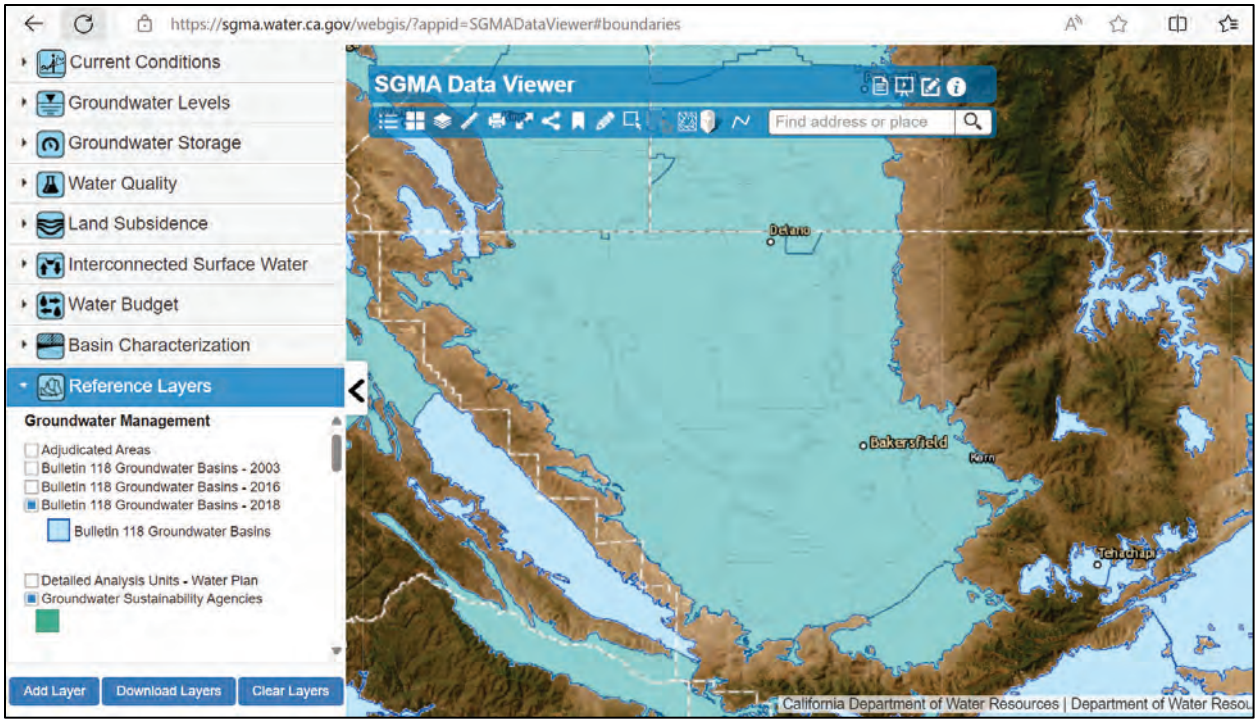


Figure 7. Guidance on Identifying GSA Identification via SGMA Data Viewer

The in-house administrative, financial, and technical resources available to small community systems are often more limited than that for larger community water systems. This can hinder the ability to administer proactive measures to avoid impacts before they occur. Therefore, small community systems may submit a proactive application to get a head-start on administering assistance in advance of a potential impact. Small community wells who may submit a proactive application can identify if their well is at-risk via the State Water Resources Control Board's Risk Assessment Tool Dashboard : https://gispublic.waterboards.ca.gov/portal/apps/dashboards/4f7795ba4349464f9883827ad2e6b67a
The proactive application involves the same application in **Attachment G1** and held to the same qualification criteria as other applications (with the revision of the highly probable impact occurring after January 1, 2015 and it being induced by groundwater management activities).

Table 1. GSA Contact Information

GSA	Address	GSA Manager and E-mail	Phone
Arvin GSA www.aewsd.org	20401 E. Bear Mountain Blvd. PO Box 175 Arvin, CA 93203	Jeevan Muhar Engineer-Manager jmuhar@aewsd.org	661-854-5573
Buena Vista GSA www.bvh2o.com	525 North Main Street PO Box 756 Buttonwillow, CA 93206	Tim Ashlock Engineer-Manager tim@BVH2O.com	661-764-2901
Cawelo Water District GSA www.cawelowd.org	17207 Industrial Farm Road Bakersfield, CA 93308	David Halopoff Assistant General Manager dhalopoff@cawelowd.org	661-393-6072
Greenfield County Water District GSA	551 Taft Highway Bakersfield, CA 93307	Nick Cooper ncooper@greenfieldcwd.org	661-831-0989
Henry Miller Water District GSA	101 W. Walnut Street Pasadena, CA 91103	Jeof Wyrick President / Chairman jwyrick@jgboswell.com	626-583-3000
Kern Non-Districted Land Authority GSA[5] (formerly Kern Groundwater Authority GSA) www.kerngwa.com	1518 Mill Rock Way, Suite 100 Bakersfield, CA 93311	Jenny Holtermann[3] Executive Director jenny@kndla.org	(661) 616-5900
Kern River GSA www.kernrivergsa.org	1000 Buena Vista Road Bakersfield, CA 93311	Daniel Maldonado Assistant Director drmaldonado@bakersfieldcity.us	661-326-3715
Kern Water Bank GSA www.kwb.org	1620 Mill Rock Way, Ste 500 Bakersfield, CA 93311	Jonathan Parker jparker@kwb.org	661-398-4900
Kern-Tulare Water District GSA www.kern-tulare.com	5001 California Ave., Ste 102 Bakersfield, CA 93309	Vanessa Yap Staff Engineer vanessa@kern-tulare.com	661-327-3132
North Kern Water Storage District GSA www.northkernwsd.com	33380 Cawelo Ave. Bakersfield, CA 93308	David Hampton General Manager dhampton@northkernwsd.com	661-393-2696
Olcese Water District GSA	15701 Hwy 178 Bakersfield, CA 93306	Jeff Siemens jsiemens@nfllc.net	661-872-5050
Pioneer GSA www.kcwa.com/	3200 Rio Mirada Drive Bakersfield, CA 93308	Michelle Anderson Geologist manderson@kcwa.com	661-634-1479
Rosedale-Rio Bravo Water Storage District GSA www.rrbwsd.com	849 Allen Road Bakersfield, CA 93314	Dan Bartel Engineer-Manager dbartel@rrbwsd.com	661-589-6045

[5] Eastside Water Management Area https://kernewma.com is covered by Kern Non-Districted Land Authority GSA. Eastside Water Management Area is managed by: Taylor Blakslee TBlakslee@hgcpm.com 661-477-3385.

GSA	Address	GSA Manager and E-mail	Phone
Semitropic Water Storage District GSA www.Semitropic.com	1101 Central Ave. Wasco, CA 93280	Jason Gianquinto General Manager jgianquinto@semitropic.com	661-758-5113
Shafter-Wasco Irrigation District GSA www.swid.org	16294 Central Valley Hwy. Wasco, CA 93280	Kris Lawrence General Manager klawrence@swid.org	661-758-5153
Southern San Joaquin Municipal Utility District GSA	11281 Garzoli Ave. Delano, CA 93215	Roland Gross General Manager/Secretary roland@ssjmud.org	661-725-0610
Tejon-Castac Water District GSA	4436 Lebec Road Lebec, CA 93243	Angelica Martin Water Resources Director amartin@tejonranch.com	661-663-4262
West Kern Water District GSA	800 Kern Street Taft, CA 93268	Greg Hammett General Manager ghammett@wkwd.org	661-763-3151
Westside District Water Authority GSA	21908 7th Standard Road McKittrick, CA 93251	Mark Gilkey General Manager mgilkey@westsidewa.org	661-633-9022
Wheeler Ridge-Maricopa GSA	12109 Highway 166 Bakersfield, CA 93313	Sheridan Nicholas Engineer-Manager snicholas@wrmwsd.com	661-527-6075

Step 3. Meeting with Applicant and GSA Staff

Within 10 days of submittal of the application, the Kern Subbasin Project Manager will work with staff of the GSA in which the impacted well is located to contact the applicant to schedule a meeting to discuss the impact, additional data and information needed and application review process. Notes and information from this meeting will be shared with the qualified professional in Step 4.

Step 4. Technical Assistance Needs Assessment

As directed by the Kern Subbasin Project Manager, a qualified professional (e.g., PG, CHg, PE), arranged by the Kern Subbasin Project Manager, will perform a field and desktop assessment to identify the likely cause of impact and identify if the application qualifies for technical assistance under the Well Mitigation Program's qualification criteria. See the Kern Subbasin's 2025 Groundwater Sustainability Plan's Appendix K and the **Section 11: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs** provides considerations for the assessment.

The qualified professional will document their evaluation, findings and recommendations in a written memorandum that is delivered to the Kern Subbasin Project Manager. Following receipt of the qualified professional's documented evaluation, findings and recommendations, the Kern Subbasin Project Manager will convene the KMEC for further review as discussed under Step 5.

Step 5. KMEC Evaluation and Recommendation to Kern Subbasin Project Manager

The KMEC's primary purpose is to review the qualified professional's evaluation, findings and recommendations, and then make a recommendation regarding technical assistance and technical assistance eligibility under the Well Mitigation Program. The KMEC consists of three representatives from objective organizations. The KMEC's recommendation (i.e., recommending technical assistance or

recommending denial of technical assistance) is then conveyed to the Kern Subbasin Project Manager, who then conveys the KMEC's recommendation to the applicable GSA. The KMEC retains the authority to override the qualified professional's recommendation based on its independent review of the circumstances present.

Where the application is determined to be qualified for technical assistance by the KMEC, the KMEC evaluates the findings and recommendation of the form of technical assistance. The KMEC prepares an agreed upon recommendation of proposed form and amount of technical assistance to be shared with the Board of Directors of the GSA in which the impacted well is located.

Options for technical assistance include, but are not limited to:

1. Grant application preparation
2. Well Design
3. Contingency Plan Development
4. Feasibility Plan Development
5. With the consent of the applicant and GSA in which the impacted well is located, an alternative form of technical assistance (in an amount up to $50,000)

These recommendations will be prepared and conveyed in writing to the Kern Subbasin Project Manager.

Where the KMEC finds the application to not be qualified for technical assistance under the Well Mitigation Program, the KMEC will document its decision and provide an explanation with respect to its decision.

The KMEC's recommendation will be conveyed to the Kern Subbasin Project Manager, who will manage subsequent communications to the applicant and the Board of Directors for the GSA in which the impacted well is located.

Step 6. GSA Board Action

After receiving the KMEC recommendation from the Kern Subbasin Project Manager, the GSA Board of Directors must act to consider approval of technical assistance funding, accept a KMEC recommendation that denies technical assistance funding, or act to override the KMEC recommendation. After considering and acting on the KMEC recommendation (approving or not approving technical assistance), the GSA will notify the Kern Subbasin Project Manager in writing of its final decision. The Kern Subbasin Project Manager will notify the applicant of the GSA's decision. Where the application does qualify, the GSA in which the impacted well is located will work with the applicant of the proposed technical assistance amount (i.e., up to $50,000) awarded. The GSA in which the impacted well is located may provide funding up-front or contract the reimbursement directly with the qualified professional performing the technical assistance (up to $50,000) instead of the well owner upon a showing of financial hardship by the applicant.

Step 7. Technical Assistance and Indemnification Selection Agreement

Following approval by the GSA in which the impacted well is located, the GSA and applicant will enter into an agreement acknowledging the amount of funding, intent of use, and indemnification for liabilities. This step must be completed prior to funding. A conceptual example of an indemnification agreement is included in **Attachment G2** for context purposes. The actual agreement may vary on a case-by-case basis based on the particular situation.

Step 8. Funding Transaction

After the applicant and GSA in which the impacted well is located complete all necessary agreements, the applicant will proceed with the agreed upon technical assistance. The qualifying applicant must submit all invoicing information to be entitled to reimbursement. The GSA in which the impacted well is located will reimburse the agreed upon amount (Step 6 and Step 7) within 45 days of receiving the invoice from the qualifying applicant.

TECHNICAL ASSISTANCE TRACK FOR DRY COMMUNITY WELLS



Figure 8. Technical Assistance Track Application Process (Community Wells)

Section 8: Degraded Water Quality Mitigation Track Application Process

The Degraded Water Quality Mitigation Track applies to domestic drinking water wells. This section describes the Degraded Water Quality Mitigation Track, which includes emergency drinking water supplies, and long-term solutions for domestic wells impacted by Degraded Water Quality as determined through the Action Plan for Degraded Water Quality (Appendix K), or through this Well Mitigation Program. The application process for the Degraded Water Quality Mitigation Track is explained below and in **Figure 8**.

Who can apply under the Mitigation Track?



Private Domestic Well Owners[6]

In the Kern Subbasin, private residences in some unincorporated and unconsolidated small communities and rural portions of the County rely on private wells to meet their domestic water supply needs. Households relying on individual domestic wells for their water supply may apply for assistance under the Degraded Water Quality Mitigation Track. For purposes of this Well Mitigation Program, domestic wells are defined as wells with at maximum four household connections for drinking water purposes.



Multi-Use Drinking Water Wells (Agricultural Well Owners Using Agricultural Wells for Domestic Supply)

Some private well owners use their wells for both domestic potable supply to a residence and irrigation. Households relying on these wells for drinking water supply may apply for assistance under the Degraded Water Quality Mitigation Track. For purposes of this Well Mitigation Program, multi-use drinking water wells are defined as wells used for both agricultural and domestic household purposes with a maximum of four service connections.

Degraded Water Quality Mitigation Track Application Process

Step 1. Public Outreach & Engagement

Public outreach and engagement are critical to implementing an effective Well Mitigation Program.

The GSAs will maintain public awareness of the Degraded Water Quality Mitigation Track by providing direct notice to domestic well owners of record located generally within a 3-mile radius when a Representative Monitoring Well for Water Quality (RMW-WQ) exceeds a Minimum Threshold for a Constituent of Concern (COC), the Minimum Threshold exceedance is found to be caused by GSA actions

[6] Wells used for drinking water purposes that have four or less connections are considered 'domestic' wells in this program. Wells with more than four connections used for drinking water purposes are considered state small systems or community water systems (depending on the connection count).

during the minimum threshold exceedance investigation under the Action Plan for Degraded Water Quality, and the domestic well is *assumed* to also be degraded due to groundwater management activities (Appendix K of the Kern Subbasin 2025 Groundwater Sustainability Plan). Further, general notice of the program will be maintained on GSA websites and will be continually highlighted at stakeholder meetings and events and in coordination with similar outreach initiatives taking place in the Kern Subbasin. This ongoing outreach includes coordination with Kern Water Collaborative, who will publicize the Degraded Water Quality Mitigation Track as part of the existing Memorandum of Understanding between the Kern Subbasin and the Kern Water Collaborative. All ongoing outreach can be made available in English and Spanish, as needed.

Step 2. Applicant Applies for Assistance

Applicants who believe they may have Degraded Water Quality must first submit an application for mitigation to Self-Help Enterprises. The Kern Subbasin will provide information with respect to the process for submitting an application on all relevant websites and in notices to domestic well owners of record per the Action Plan for Degraded Water Quality, as applicable. The applicant's submittal of the application will initiate the review process and determination of eligibility.

Due to existing laws limiting site access, applications must be submitted by landowners on whose property the potentially adversely impacted well is located; however, in the event a tenant believes they may have degraded drinking water, the tenant well user is encouraged to contact the Kern Subbasin Project Manager and the Kern Subbasin Project Manager will work with Self-Help Enterprises to notify the well owner of how to apply for mitigation and the benefits of the Degraded Water Quality Mitigation Track.

Kern Subbasin Project Manager for the Well Mitigation Program

Jennifer Sanchez

(209) 225-3914

jsanchez@mljenvironmental.com

For questions on the applications process or tenant questions on advocating for mitigation support with a landlord(s), a tenant well user should contact the Kern Subbasin Project Manager, local GSA (**Table 1**) and/or Self-Help Enterprises.

Self-Help Enterprises
(559) 802-1685
8445 W Elowin Ct
Visalia, CA 93291
An online intake form is available on Self-Help Enterprises' website:
https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/
Translation services are available via phone or in-person.

Step 3. Domestic Well Testing and Emergency Drinking Water Supplies

After an application for Degraded Water Quality mitigation is submitted, Self-Help Enterprises will arrange to sample and analyze the domestic well for COCs. Based on the sampling results, Self-Help Enterprises will arrange for emergency drinking water supplies if the domestic well exceeds water quality objectives based on Primary drinking water standards for non-nitrate COCs. If the domestic well exceeds the nitrate water quality objective, Self-Help Enterprises will provide sample results to the Kern Water Collaborative so that the Kern Water Collaborative can arrange for the residents to receive emergency drinking water supplies. If the domestic well does not exceed primary MCLs for any of the

Kern Subbasin COCs, no further steps apply as it relates to the Kern Subbasin's Degraded Water Quality Mitigation Track. However, non-related exceedances of primary MCLs may be eligible for assistance from other, unrelated programs.

Step 4. Mitigation Needs Assessment

Self-Help Enterprises field staff will perform a well evaluation and recommend a potential long-term mitigation measure for the domestic well, if necessary. This includes conducting a site inspection of the well to evaluate sources of contamination that may be causing degraded water quality (e.g., septic system near domestic well). Translation services for Spanish and Punjabi can be made available, as needed. Following the assessment, Self-Help Enterprises will provide the documentation and findings to the Kern Subbasin Project Manager for administration of the Well Mitigation Program. The Kern Subbasin Project Manager will notify the appropriate GSA of the impacted well location and provide Self-Help Enterprises' initial assessment to the Kern Subbasin's designated qualified professional (who will be performing the evaluation in Step 5).

Step 5. Mitigation Qualification Assessment

As directed by the Kern Subbasin Project Manager, a designated qualified professional (e.g., PG, CHg, PE) will perform a technical evaluation of the information provided from Self-Help Enterprises. For this technical evaluation, the qualified professional will evaluate historical groundwater conditions, readily available data and information, and conduct a case-by-case evaluation using the factors identified in the Action Plan for Degraded Water Quality. This evaluation may be more limited if the domestic well is one that has been identified as a well *assumed* to be degraded due to groundwater management activities per the minimum threshold exceedance investigation (Appendix K of the 2025 Plan). The qualified professional will also evaluate the recommended long-term mitigation measure proposed by Self-Help Enterprises. The qualified professional will document their evaluation, findings, and recommendation in a written memorandum that is delivered to the Kern Subbasin Project Manager. Following receipt of the qualified professional's documented evaluation, findings and recommendations, the Kern Subbasin Project Manager will convene the KMEC for further review as discussed under Step 6.

Step 6. KMEC Evaluation and Recommendation to Kern Subbasin Project Manager

The KMEC's primary purpose is to review the qualified professional's evaluation, findings and recommendations, and then make a recommendation regarding well mitigation and well eligibility for mitigation under the Well Mitigation Program. The KMEC consists of three representatives from objective organizations. The KMEC's recommendation (i.e., recommending mitigation or recommending denial of mitigation) is then conveyed to the Kern Subbasin Project Manager, who then conveys the KMEC's recommendation to the applicable GSA. The KMEC retains the authority to override the qualified professional's recommendation based on its independent review of the circumstances present.

Where the application is determined to be qualified for mitigation by the KMEC, the KMEC evaluates the findings and recommendation of mitigation measure(s). The KMEC prepares an agreed upon recommendation of (1) proposed mitigation measure(s) and (2) estimated costs associated with administration, assessment, interim supplies (if appropriate), and physical mitigation to be shared with the Board of Directors of the GSA in which the impacted well is located.

The KMEC's recommendation for long-term mitigation may include, but is not limited to:

- Installation of a Point of Use or Point of Entry treatment system – depending on the level and presence of primary MCLs
- Construct a new well
- Consolidation with an existing water system in the vicinity
- With the consent of the applicant, providing other acceptable means of mitigation

Where the KMEC finds the application to not be qualified for mitigation under the Well Mitigation Program, the KMEC will document its decision and provide an explanation with respect to its decision.

As noted previously, the KMEC's recommendation will be conveyed to the Kern Subbasin Project Manager, who will manage subsequent communications. Notably, in cases where the application does not meet the qualification criteria as determined by the qualified professional and the KMEC, the applicant may qualify for mitigation support via other programs that Self-Help Enterprises administers. Self-Help Enterprises will work directly with those applicants to identify options.

Step 7. GSA Board Action

After receiving the KMEC recommendation from the Kern Subbasin Project Manager, the GSA Board of Directors must act to consider approval of mitigation funding reimbursement, accept a KMEC recommendation that denies mitigation reimbursement, or act to override a KMEC recommendation. After considering and acting on the KMEC recommendation (approving or not approving mitigation funding reimbursement), the GSA will notify the Kern Subbasin Project Manager in writing of its final decision. The Kern Subbasin Project Manager will notify Self-Help Enterprises of the GSA's decision, who in turn will then inform the applicant of the GSA's determination.

Where the GSA has acted to approve mitigation funding reimbursement, the GSA may communicate directly with Self-Help Enterprises with respect to implementation of the identified mitigation measure. Where the GSA has acted to deny mitigation funding reimbursement or acted to accept a KMEC recommendation of denial, applicants may appeal the decision pursuant to the Appeal Process. More information is available in the **Section 9: Appeal Process** on **Page 37.**

Step 8. Funding Transaction for Implementation of Mitigation

Upon receiving notice of the GSA's decision with respect to approval of mitigation funding reimbursement from the Kern Subbasin Project Manager, Self-Help Enterprises will move forward with completing an agreement and all other necessary documentation with the Applicant. Except as otherwise agreed by the Kern Subbasin GSAs and Self-Help Enterprises under their Agreement, Self-Help Enterprises will advance funding to implement the agreed upon mitigation measure(s). The applicant must complete all of Self-Help Enterprises required legal agreements before reimbursement between Self-Help Enterprises and the Kern Subbasin GSAs is administered. Self-Help Enterprises does not carry out the mitigation measure(s) but acts as a contract coordinator and funding source between the contractor and the applicant. The GSA, pursuant to the terms of the Agreement between the Parties, will reimburse Self-Help Enterprises for funding all qualifying mitigation support services, including emergency drinking water supplies, and Well Mitigation Program administration. Self-Help Enterprises and the Kern Subbasin GSAs may establish a funding protocol, including the necessary

documentation, for advancing funds, and may agree to deposits to maintain sustainable cashflow for Self-Help Enterprises' administration of the Well Mitigation Program. While the Kern Subbasin GSAs fund well mitigation, neither the GSA, member agencies of the GSA, nor Self-Help Enterprises will be liable or responsible for any work performed by contractors.

Step 9. Well Stewardship Education

After physical mitigation services have commenced, Self-Help Enterprises will administer a Well Stewardship Education training to empower the application to maintain the mitigated well or maintain treatment systems that may be installed at the well or in the home. The Well Stewardship Education training involves well and water system filtration maintenance training and financial planning guidance to save for long-term well maintenance. As applicable, mitigation awarded for groundwater quality may include providing the applicant with 3-years of filters to ease the initial financial burden of the treatment system's stewardship.

Degraded Water Quality Mitigation Track for Domestic & Multi-Use Domestic Wells

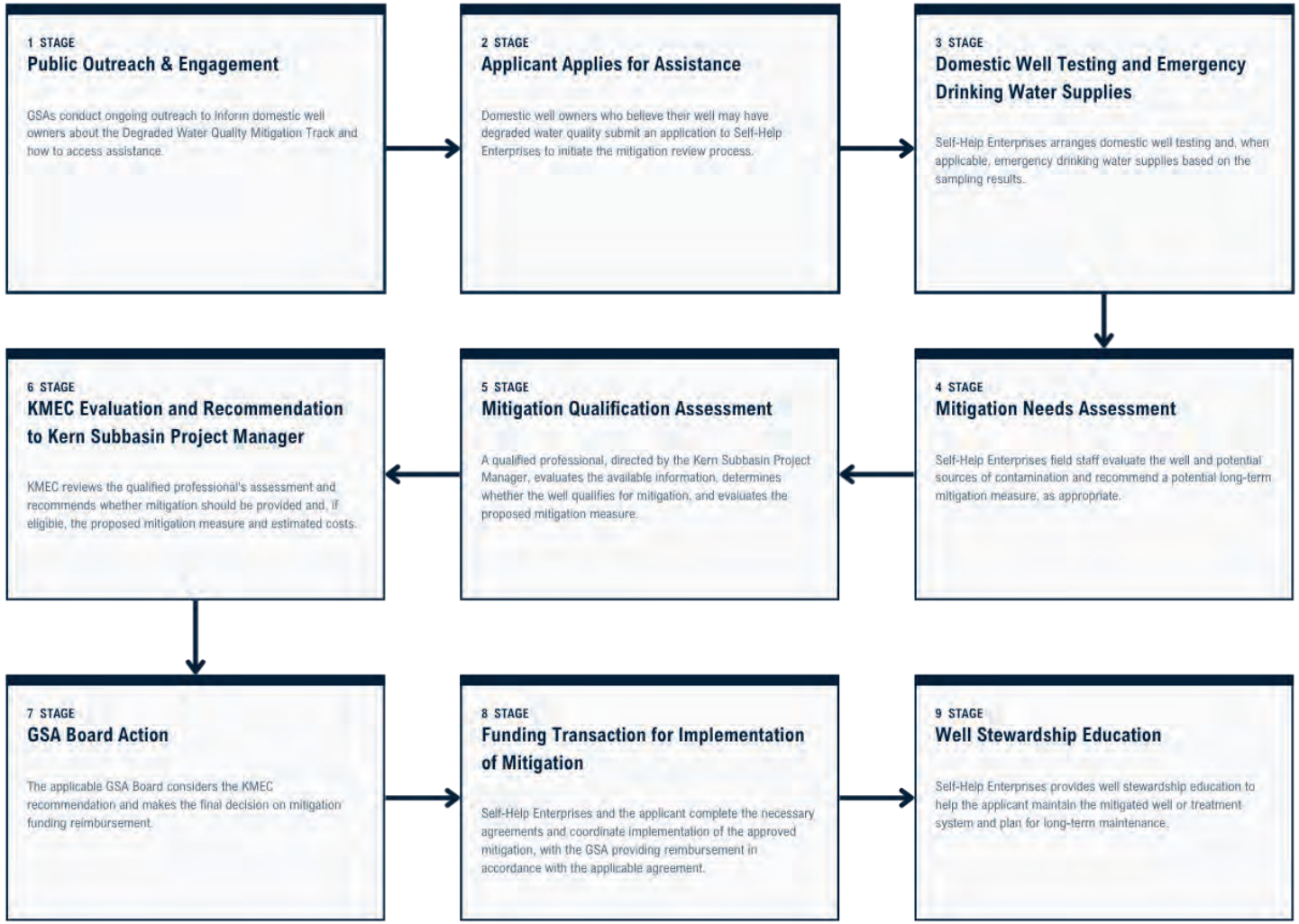


Figure 9. Degraded Water Quality Mitigation Track Application Process (Domestic Wells)

Section 9: Appeal Process

If an applicant disagrees with the mitigation proposed by a GSA or denial of assistance, the applicant may submit a request for appeal to the GSA's Board of Directors. This can be arranged by contacting the Kern Subbasin Project Manager, who in turn will contact the GSA in which the application was processed and request the appeal be placed on an agenda for an upcoming GSA Board of Directors meeting. The applicant must provide sufficient technical documentation to support the appeal. "Sufficient technical documentation" means enough data and information for the qualified professional and KMEC to effectively evaluate the application. This includes:

(1) well construction information such as well depth, perforated intervals, casing size, inclusion of a compression sleeve;

(2) well sampling data and information that may be available;

(3) well operation information such as well maintenance and electrical records;

(4) site information such as specific well location, septic location (if relevant), and any additional pertinent land use information; and

(5) photos and access to the site for an in-person assessment.

Because the Kern Subbasin GSAs funded a similar, robust technical analysis performed by a qualified technical professional (PG, CHg, or PE) in the application process evaluation phase, it is the applicant's responsibility to fund any additional technical analyses necessary to support the applicant's appeal.

The appeal must be submitted within 30 days of the GSA Board of Directors' determination. The GSA Board of Directors must include the appeal for consideration at the next regularly scheduled Board meeting or within 45 days of being notified by the applicant of an appeal, whichever is sooner.

During the GSA Board meeting when the appeal is heard, the applicant (or a representative for the applicant) must present the technical basis for the appeal. The GSA Board will take action to: (1) agree to qualify the application; (2) refer the application and appeal documentation to the KMEC for further evaluation; or, (3) deny the appeal. If option 2 is selected by the GSA Board, the Kern Subbasin Project Manager will reconvene the KMEC.

When the appeal is referred to the KMEC, the KMEC may revise its recommendation or affirm its existing recommendation and shall document the technical components in writing explaining the evaluation for its determination. The KMEC's final recommendation will be conveyed to the Kern Subbasin Project Manager, who will then communicate the recommendation to the GSA Board of Directors for final GSA Board Action at their next regularly scheduled Board of Directors meeting.

As with all elements of the Well Mitigation Program, the appeal (and dispute resolution) protocols are subject to revision as lessons are learned through Well Mitigation Program implementation.

Section 10: Application Privacy

Once an application and subsequent information is provided to a GSA, it becomes subject to the California Public Records Act, which may require public disclosure of the information on request. If an

applicant is concerned about sensitive information requested in the application process, the applicant should contact the GSA to discuss data and information-sharing confidentiality solutions.

Section 11: Criteria for Determining if the Impact is within the Scope of Responsibility of the Kern Subbasin GSAs

Not all impacts to wells fall within the scope of responsibility for GSA mitigation, financial assistance or technical assistance. For example, a well experiencing an electrical or mechanical failure may be due to reasons independent of groundwater management activities. Therefore, qualification criteria are established to determine if an application falls within GSA responsibility. The qualification criteria under this Well Mitigation Program are explained in **Figure 3**.

This section describes the technical considerations to be made during the qualified professional's evaluation in the qualification assessment step identified for each track.

Groundwater Level Impacts

Groundwater pumping in overdraft results in systemic, long-term lowering of groundwater levels. In a water well, if the groundwater levels decline such that a pump in the well is no longer adequately submerged, the pump may not operate correctly. Further lowering of groundwater levels below the pump's intake will render the pump inoperable. If there is no room to further lower the pump in the well, the well is considered dry (**Figure 9**). DWR released a guidance document in March 2023 detailing additional considerations to identify adverse impacts to drinking water wells, which has informed this Well Mitigation Program.[7]

During the qualification assessment step of the application process, groundwater pumping in overdraft will need to be distinguished from seasonal and longer-term precipitation patterns (e.g., drought, non-chronic lowering of groundwater levels). These differences can be distinguished through an analysis of groundwater level hydrographs for representative monitoring wells in the vicinity of the application of impact.

The total well depths across the Kern Subbasin for different well types (domestic, small community, M&I) are depicted in **Figure 10**, **Figure 11**, and **Figure 12**.

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby households of the exceedance. These are detailed in Appendix K of the 2025 GSP.

Further, Self-Help Enterprises maintains independent qualifications in the administration of their program. To ensure consistency for Self-Help Enterprises' administrative purposes for this and its other

[7] DWR. March 2023. Considerations for Identifying and Addressing Drinking Water Well Impacts. https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Files/Considerations-for-Identifying-and-Addressing-Drinking-Water-Well-Impacts_FINAL.pdf

programs, Self-Help Enterprises may have additional qualifications that may apply for a dry well to qualify for mitigation under this Well Mitigation Program.

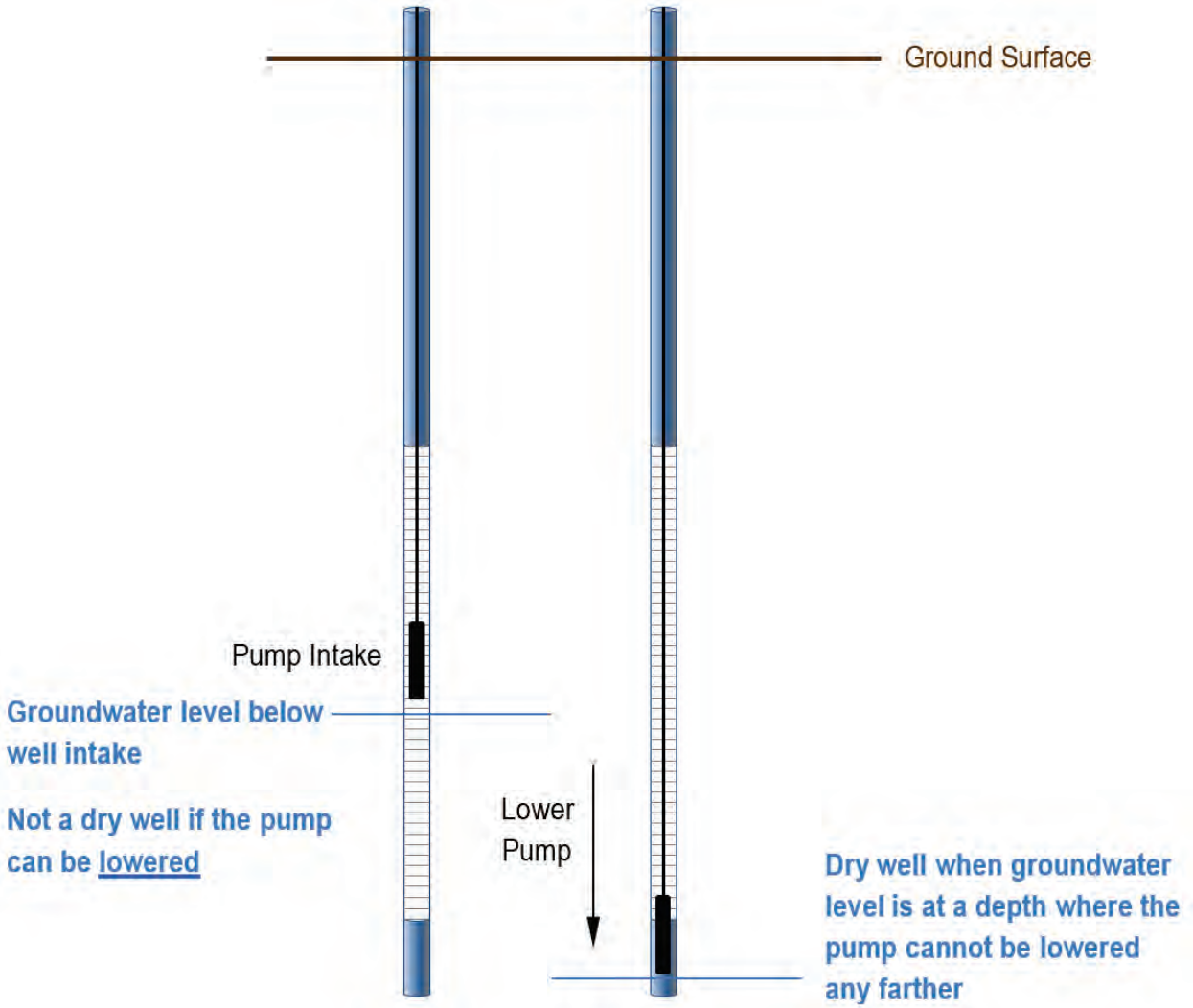


Figure 10. Groundwater Levels Relative to Pump Intake and Bottom of Well

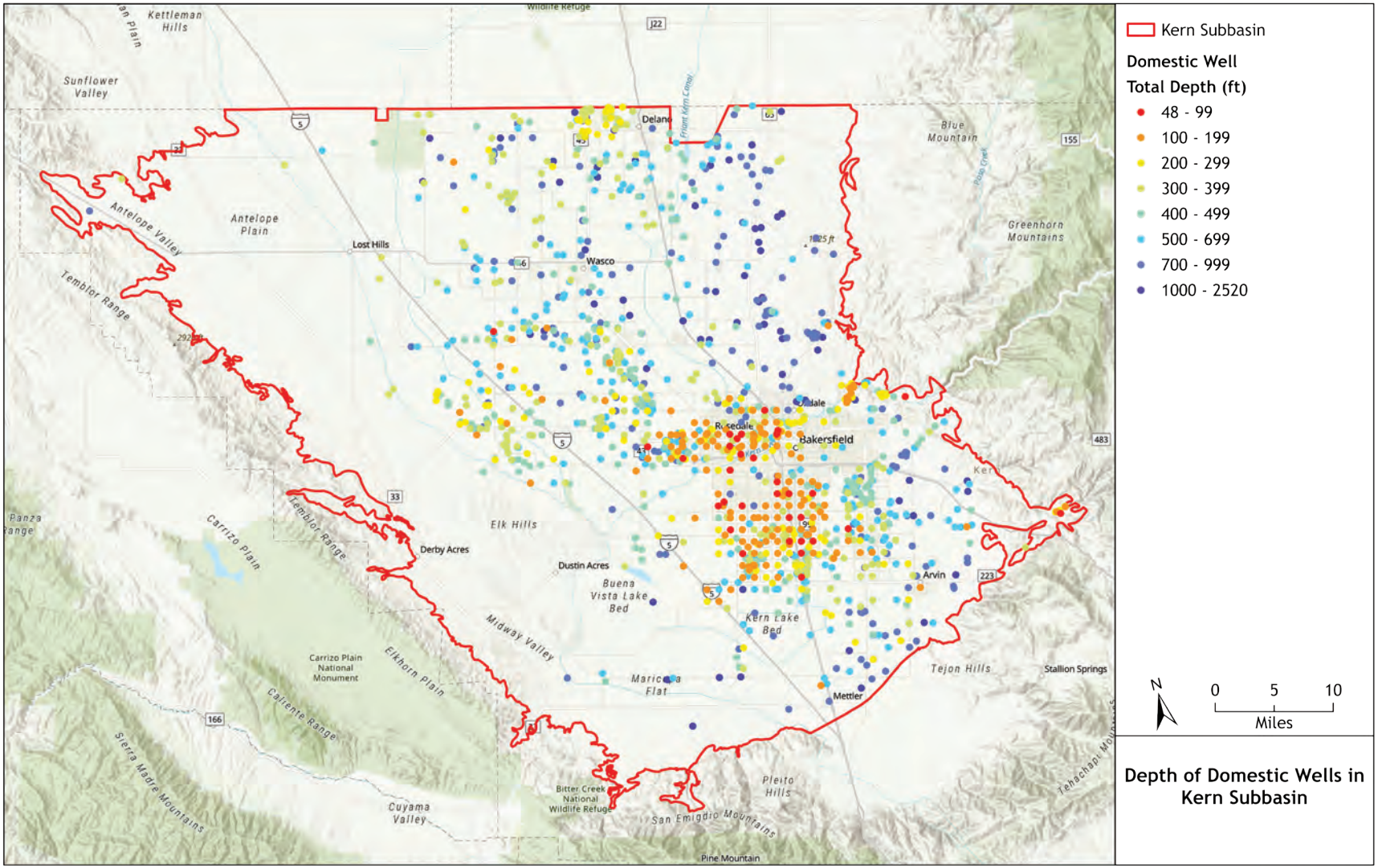


Figure 11. Domestic Well Depths in the Kern Subbasin (as of November 2024)

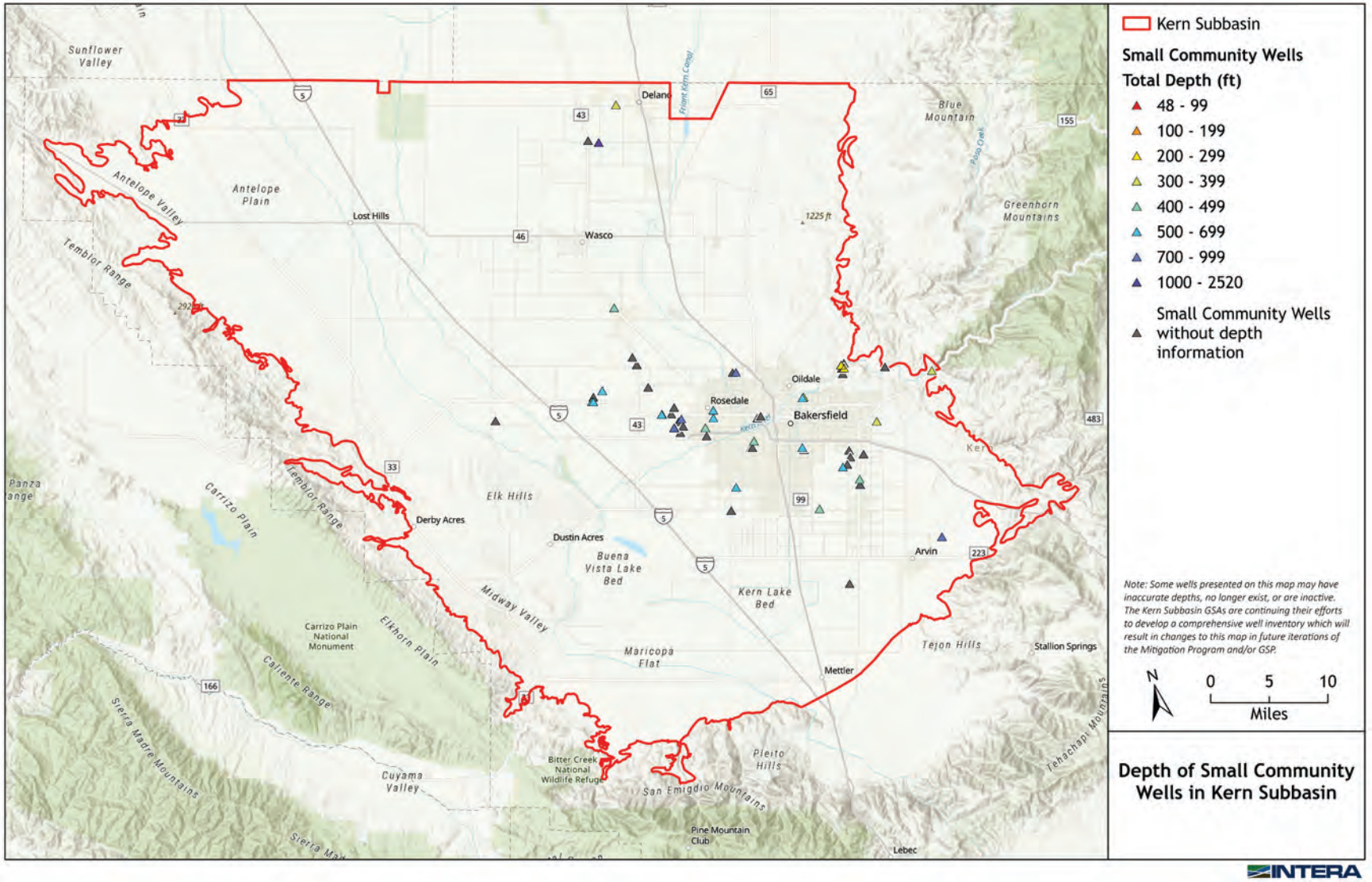


Figure 12. Small Community Well Depths in the Kern Subbasin (as of November 2024)

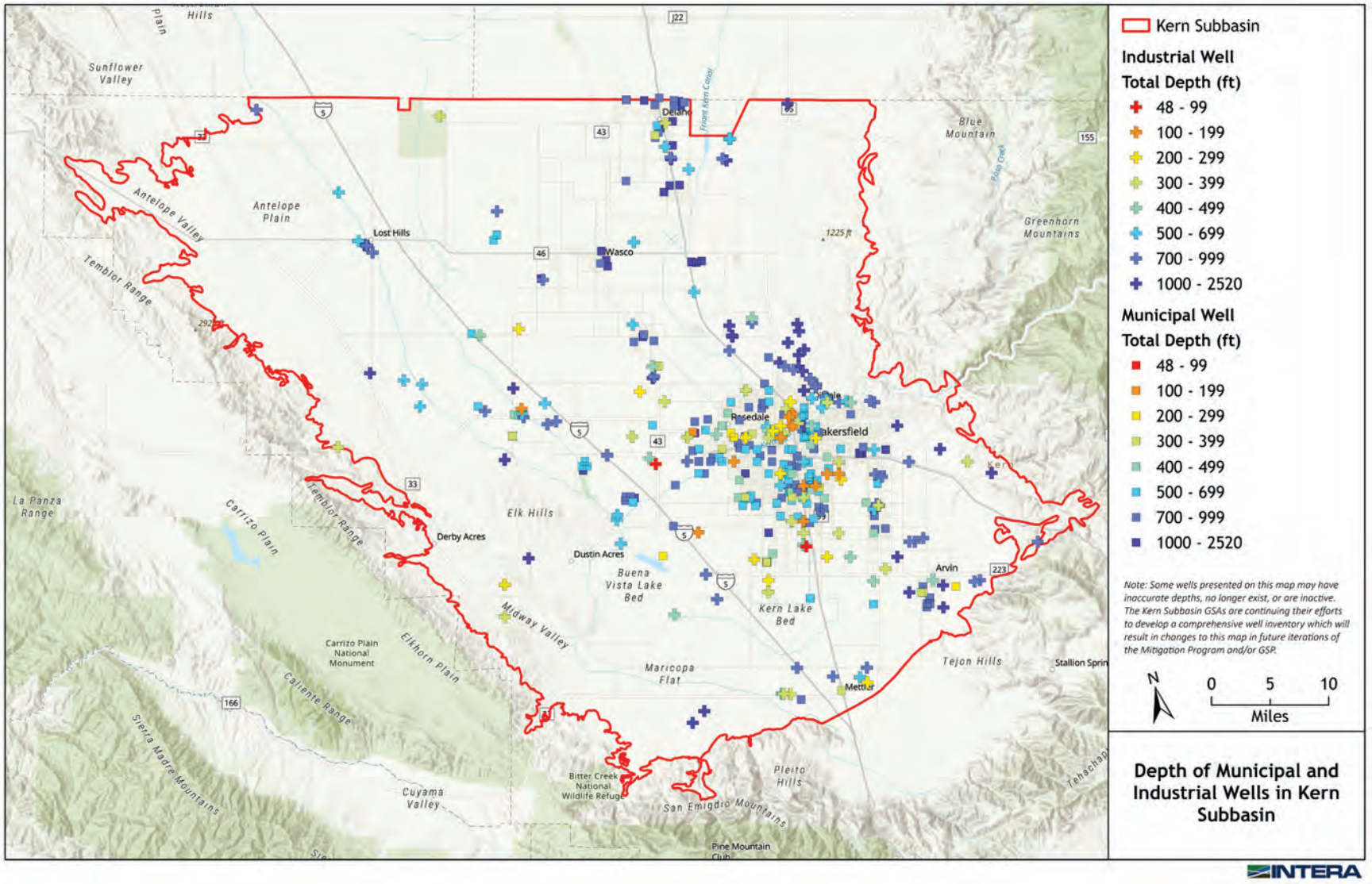


Figure 13. Municipal & Industrial Well Depths in the Kern Subbasin (as of November 2024)

Groundwater Quality Impacts

Groundwater level changes have been shown in some cases to degrade groundwater quality. While most groundwater meets drinking water standards, some groundwater can contain high concentrations of arsenic, nitrate, nitrite, and 1,2,3-Trichloropropane (1,2,3-TCP), which all have associated primary MCLs.[8] In addition to these constituents, the Kern Subbasin 2025 Plan also includes uranium as a COC. Note, the application must meet the qualification criteria of the impact having occurred after January 1, 2015, and degraded water quality in the domestic well must be due to groundwater management activities, as determined through implementation of the Action Plan for Degraded Water Quality or as part of the Well Mitigation Program's determination of eligibility.

The Degraded Water Quality Mitigation Track is intended to mitigate or provide technical assistance for adverse impacts associated with groundwater management activities; therefore, groundwater quality issues must be related to chronic lowering of groundwater levels, degradation caused by localized recharge and banking activities, or other groundwater management activity that results in increases in concentrations of COC in groundwater to be considered for mitigation qualification, as determined through implementation of the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan), or through the technical evaluation performed under Step 5 of the Degraded Water Quality Mitigation Track.[9] Ultimately, determinations of Degraded Water Quality will need to be a case-by-case evaluation considering a number of factors, as explained in the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan).

Some factors for consideration include, but are not limited to:

(1) An exceedance [or exceedances] of a Minimum Threshold at a Representative Monitoring Well for Water Quality (RMW-WQ) as set forth in the 2025 GSP;

(2) The COC is a primary MCL – not a secondary MCL;

(3) Location of the domestic well(s) in relationship to the RMW-WQ and location in relationship to GSA projects and management activities;

(4) Baseline water quality conditions that existed or may have existed prior to January 1, 2015, to determine if degradation occurred prior to January 1, 2015, for the COC;

(5) Whether groundwater management activities are related to ongoing, standard basin operations that are consistent with operations taking place prior to 2015; or,

(6) If the presence of the constituents/contaminants in the aquifer are due to the actions of others that are a likely responsible parties.

Degraded groundwater quality may be related to groundwater management activities if changes in groundwater levels has a direct correlation with introduction of a new COC or significant increase in concentration of a COC from 2015 or earlier conditions. The causation and correlations of changes in groundwater quality are to be considered during the exceedance investigation and mitigation

[8] Descriptions of constituents of concern as described in the Kern Subbasin GSP.
[9] Potential causes of Undesirable Results for degraded groundwater quality are listed in the Kern Subbasin Groundwater Sustainability Plan.

qualification assessment phases. Groundwater quality increasing and decreasing trends since pre-2015 conditions can be assessed using trend analyses such as the Mann-Kendall Trend test.

With respect to groundwater quality conditions, the Kern Subbasin GSAs will also coordinate with other state and local agencies that have some level of regulatory oversight, control, or involvement with ensuring that drinking water in the Kern Subbasin meets appropriate drinking water standards. These coordination efforts are explained in the Degraded Water Quality Implementation Provisions and are not repeated here (Appendix K-2 of the 2025 Plan). Moreover, the Kern Subbasin GSAs are actively coordinating with the Kern Water Collaborative, a nonprofit organization focused on nitrate issues within the Kern Subbasin. The Kern Water Collaborative and Kern Subbasin GSAs have entered into a Memorandum of Understanding to further establish their complementary roles in managing groundwater resources and domestic well protections in the Kern Subbasin. For example, the Kern Water Collaborative offers free nitrate testing for domestic wells within the Kern Subbasin. Additionally, data from these domestic wells can be useful in groundwater management analyses and decision-making.

Notably, the Kern Subbasin GSAs have protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby domestic well owners of record of the exceedance. These notice procedures are detailed in the Action Plan for Degraded Water Quality (Appendix K of the 2025 Plan) and explained in the Degraded Water Quality Implementation Provisions (Appendix K-2 of the 2025 Plan).

Section 12: Mitigation Funding and Anticipated Costs

The Well Mitigation Program budget for the Kern Subbasin GSAs is up to an aggregate of $3.5 million for the combined first two years of implementation. This cost estimate includes mitigation of qualifying dry wells, reverse-osmosis systems for qualifying groundwater quality-based applications (including filter replacement for three years), technical assistance for other drinking water well types, uncertainty buffers[10], GSA administration of the Well Mitigation Program, as well as Self-Help Enterprises' administration of the Dry Well Mitigation, Dry Well Financial Assistance and Degraded Water Quality Mitigation Tracks of the Well Mitigation Program.

The mitigation cost and budget will be reevaluated every 2 years (or more frequently, if necessary) by the Kern Subbasin GSAs.

The Kern Subbasin GSAs' mitigation budget is informed by cost estimates generated by the Kern Subbasin GSAs' Dry Well Susceptibility Analysis.[11] The Dry Well Susceptibility Analysis identified potentially at-risk wells by use type across the Kern Subbasin. All potentially at-risk domestic wells were assumed to receive mitigation of $90,000 per well (well replacement with all associated emergency/interim supply and administrative costs included). Potentially at-risk other drinking water well types were assumed to receive the maximum technical assistance award of $50,000 per well. The Dry Well Financial Assistance Track for State Small Water Systems was added after the Dry Well Susceptibility Analysis was completed and is not included in this assessment. However, the Kern Subbasin GSAs are committed to funding the state small water systems financial assistance track.

Note, the $3.5 million mitigation budget includes funding for uncertainty in the analysis, inflation, and climate change as well as funding for program administration, application evaluation, and mitigation for groundwater quality impacts as well as the funding for mitigation and technical assistance for dry wells.

The funding mechanism for each GSA comes from its existing fee and GSA funding structures. All participating GSAs have mitigation funding as appropriate for their GSA to meet the $3.5 million Kern Subbasin GSAs budget requirement.

The Kern Subbasin GSAs will use an impact-attribution based funding structure once the development of the attribution-based analytical tool(s) is complete. Once the tool is developed, it will be used to "true-up" mitigation funding provided under this mitigation program prior to the completion of the tool development. This will require the GSA responsible for the impact to fund the mitigation. More information on this impact-attribution based structure will be provided in future versions of this Well Mitigation Program, as the analytical tools required to perform the attribution analyses become available.

The Kern Subbasin GSAs will continue to explore grant funding at the State and federal levels to support program funding opportunities. The State of California has many existing grant programs for community water systems and well construction funding; however, the State's Safe and Affordable Funding for Equity and Resilience (SAFER) Program funding will not be relied upon by the Kern Subbasin GSAs for

[10] An uncertainty buffer refers to monies reserved for uncertainty in available data, information, and analytical tools used to develop the cost estimates which informed the Mitigation Program budget. This uncertainty includes consideration for external factors, such as climate change and changes in state and federal policies affecting surface water allocations.
[11] Appendix Q of the Kern Subbasin Groundwater Sustainability Plan

mitigation of domestic well impacts due to groundwater management activities. County, State, and Federal assistance may be needed to best maximize the Well Mitigation Program in conjunction with programs that are developed to address similar issues (i.e. degraded water quality) to SGMA, such as CV-SALTS. The Kern Subbasin GSAs will also work with local non-governmental organizations that may be able to aid or seek grant monies to assist Well Mitigation Program implementation.

Attachment G1

Technical Assistance Track Application

Kern Subbasin
Technical Assistance Application

See the "Technical Assistance Application Process" Section of the Well Mitigation Program for information on how to identify the GSA in which the impacted well is located and for GSA contact information. If you are unsure of how to answer any questions, please leave blank and this can be further discussed during a meeting with GSA staff. Once all known information is filled out, please email, mail, or hand-deliver this filled-out application to the GSA in which the well was impacted to start the application process.

For applications pertaining to domestic wells or agricultural wells used for domestic purposes, please do not fill out this application. Instead, contact **Self-Help Enterprises** at **(559) 802-1685**. Self-Help Enterprises is available to assist with accessing emergency drinking water and interim drinking water supplies.

Please write which GSA your impact application applies:

_____

Applicant Name: _____

Applicant Preferred Contact Information: _____

Are you the landowner of the property in which this application applies?

Yes No

If no, please provide the name and contact information of the landowner and the GSA shall contact the landowner to notify of the need for their participation in the application process.

Landowner Name: _____

Landowner Contact Information: _____

As the applicant, will you allow physical access to the adversely impacted well for authorized qualified professional(s) to perform a field assessment?

Yes No

Please attach available documentation for the well (for example the State Department of Water Resources Driller's Log, other well construction information, pump depth, groundwater level, or other information).

Please describe your well impact:

_____

_____

_____

Applicant information:

Date: _____

First Name: _____ Last Name: _____ Middle Initial: ___

Address: _____ City: _____ Zip: _____

Mailing Address: _____

Phone # Home: _____ Cell: _____

Email: _____ Text Ok? Yes No

Accessors Parcel Number: _____

Has the impacted well support access to safe drinking water within the last 60-days? Yes No

If no, explain: _____

Kern Subbasin Technical Assistance Application
Impacted Well Information

Please circle response:

Impacted Well's Use	Community	State Small	
Well Water Source:	Aquifer	Spring	Other _____

Please provide as much of the following documentation as is available:
Provide all the information that you have. Ask neighbors and family or well pump repair companies that might know. More information helps the Applications process and not information might stall or disqualify the Application.

- Well completion report (well drillers log)
- Well design documentation
- Water level records
- Water quality records and/or laboratory/test reports
- Photographs
- Well maintenance records
- Well driller name and contact information
- Well pump contractor and contact information
- Documentation from neighboring wells' construction, operations, and maintenance

Please fill out the following information to the best to your ability. Additional information may be requested and/or a site visit may be requested by the GSA:

How many connections are associated with this well?	
When was the well drilled?	
When was water first pumped from the well?	
When did the pump stop working?	
Depth of well	
Depth and length of well screen	
Size of pump (horsepower (HP)	
Depth of pump in well	
Can the pump be fixed?	
Has the pump been removed from the well?	
When was the well last worked on by a pump contractor? What did they work on?	

Has the well been abandoned? If so, why?	
Does the well have a pump saver? *A pump saver is a PVC sleeve with slots on the lower end to allow water to enter while keeping sand particulate out*.	
How much water should this well be pumping?	
How much water has the well been pumping recently? (note units including daily or monthly)	
Has the well experienced water quality issues? Describe the issue and when it started	
Have neighboring wells experienced water quality issues? Describe the issue and when it started.	
Is the well located near septic tanks? If so, please provide the distance between well and septic tank and/or leaching field.	

Well Site Map Sketch

Include in sketch:

- Property boundaries
- Structures
- Cross Streets/Roads
- Fences/Gates
- Access
- North Arrow
- Pools/Ponds
- Septic Tank/Leach Lines
- Driveways
- Trees
- Power Poles/Lines
- Existing Wells
- Neighboring Homes/Properties (left, right, across)
- Distance of Connection(s) if known
- Dogs/Animals on the Property

Annotated photos or aerial images of the property may be used in place of a sketch.
Please also attach photos of the impacted well and pump.
Mark the well impacted and any other wells on the property.

Attachment G2

Conceptual Indemnification Agreement Example for Technical Assistance Track Applications

EXAMPLE INDEMNIFICATION AGREEMENT FOR TECHNICAL ASSISTANCE APPLICATIONS

The undersigned ("the Applicant") having been awarded funding to support technical assistance by _____ Groundwater Sustainability Agency of the Kern Subbasin ("the GSA") hereby agrees as follows:

1. The Applicant will indemnify and hold harmless the GSA, its Board of Directors, Staff, Consultant Staff, Committee Members, Offices, Third-Party Facilitators from any and all applications, suits, actions, and liability of any character arising or alleged to arise, out of injuries or damages sustained by any person, persons, or property on account of the Applicant's act or omission, neglect, or misconduct, or in violation of any law, ordinance, or regulation, which was caused to occur during the Applicant's mitigation development or implementation.
2. The GSA shall not be liable to the Applicant's staff or guests for any injury incurred while on the property in which mitigation will take place.
3. The Applicant is responsible for paying all taxes owed for income or property value the Applicant receives as a result of the mitigation measure.
4. The GSA is awarding the Applicant funding for the following technical assistance activities:

_____

_____

_____

_____

_____

Name of Applicant

_____

Signature of Applicant `

Date

_____ _____

Name of GSA General Manager

_____

Signature of GSA General Manager

Date

_____ _____

KERN SUBBASIN GSP
COST SHARING AGREEMENT (27-01)

This Cost Sharing Agreement ("Agreement") is entered into on _____by and among the following Groundwater Sustainability Agencies ("GSAs") and Management Areas located within the Kern Subbasin, each a "Party" and collectively referred to as the "Parties":

1. Arvin GSA
2. Wheeler-Ridge Maricopa GSA
3. Tejon-Castac Water District GSA
4. Kern River GSA
5. Southern San Joaquin Municipal Utility District GSA
6. Shafter-Wasco Irrigation District GSA
7. KNDLA GSA
8. North Kern Water Storage District GSA
9. Cawelo Water District GSA
10. Semitropic Water Storage District GSA
11. West Kern Water District GSA
12. KCWA - Pioneer GSA
13. Kern Water Bank GSA
14. Kern-Tulare Water District GSA
15. Eastside Management Area
16. Westside District Water Authority GSA
17. Rosedale-Rio Bravo Water Storage District GSA
18. Henry Miller Water District GSA
19. Olcese Water District GSA
20. Buena Vista GSA

RECITALS:

WHEREAS, prior to the State Water Resources Control Board's ("SWRCB") hearing on the Kern Subbasin, held on September 17, 2025, the Parties collectively revised and submitted Groundwater Sustainability Plans ("GSPs") for the Kern Subbasin to satisfy the requirements of the Sustainable Groundwater Management Act ("SGMA");

WHEREAS, following the September 17, 2025, hearing, the SWRCB recommended that the Kern Subbasin be returned to oversight by the Department of Water Resources ("DWR") provided the Kern Subbasin addresses issues identified by the SWRCB;

WHEREAS, several Parties will retain consultants to perform the work necessary for the recurring annual tasks required to implement the GSPs, with each consultant engaged under a separate agreement with its respective Party;

WHEREAS, the total cost of the consultant work for 2027 is eight hundred thirty-eight thousand three hundred sixty-seven dollars. ($838,367), as set forth in the scopes of work attached hereto and incorporated herein as **Exhibits A through H** (collectively, the "Scopes of Work");

WHEREAS, the Parties acknowledge that sharing the costs associated with this process is beneficial and cost-effective;

WHEREAS, the Parties wish to appoint Buena Vista Water Storage District as the custodian of the shared funds for the purpose of this Agreement;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the Parties agree as follows:

AGREEMENT TERMS:

1. Cost Sharing: The Parties agree to collectively share the total cost of $838,367 for the Scopes of Work, with each Party contributing their share of the total cost as shown in Table 1, which is attached and incorporated into this agreement. Buena Vista Water Storage District will issue two cash calls for the Parties' respective cost-share contributions: the first in January 2027 and the second on or about July 2027. A Party will not be entitled to joint ownership of any work product unless and until it timely pays its full cost-share contribution.

2. Payment to Buena Vista Water Storage District: The Parties shall deposit their respective contributions with Buena Vista Water Storage District, which will serve as the custodian of the funds. For a consultant's fee to be eligible for cost sharing under this Agreement, it must be consistent with the Scopes of Work, and the consultant must be under contract with at least one Party. Consultant invoices will be sent directly to the contracting Party, and a copy of each invoice shall be forwarded to Buena Vista Water Storage District for payment following review by the Parties for consistency with the scopes of work. The Plan Manager will facilitate the Parties' timely review of invoices.

3. Accounting: Buena Vista Water Storage District shall maintain accurate accounting records and other documentation pertaining to all monies concerning this Agreement. Such records and documentation shall be kept at Buena Vista Water Storage District's office during the term of this Agreement, and for a period of three (3) years from the date the final invoice is received from any of the Parties. Buena Vista Water Storage District shall, at any time during regular business hours, make available to any requesting Party the accounting records pertaining to that requesting Party.

4. Amendments: This Agreement may only be amended in writing and signed by all Parties hereto.

5. Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of California.

6. Joint Ownership of Work Product: All work product generated pursuant to this Agreement shall be jointly owned by the Parties so that each will have access and ability to utilize said work product.

7. Electronic Signatures: Electronic signatures shall be binding.

EXECUTION:

IN WITNESS WHEREOF, the Parties hereto have executed this Cost Sharing Agreement as of the date first above written.

[Signature Block for Each Entity]

Arvin GSA

_____
Derek Yurosek, Director

Wheeler-Ridge Maricopa GSA

_____
Dennis Atkinson, President

Tejon-Castac Water District GSA

_____
Angelica Martin, Board Secretary

Kern River GSA

_____
Rodney Palla, Board Chair

Southern San Joaquin Municipal Utility District

_____
Roland Gross, General Manager

Shafter-Wasco Irrigation District GSA

_____
Randy Bloemhof, Board Member

KNDLA GSA

_____
Barry Watts, Board Chairman

North Kern Water Storage District GSA

_____
Kevin Andrew, Board President

Cawelo Water District GSA

_____
David Halopoff, Assistant General Manager

Semitropic Water Storage District GSA

_____
Dan Waterhouse, Board President

West Kern Water District GSA

_____
Greg A. Hammett, General Manager

KCWA - Pioneer GSA

_____
Lauren Bauer, Water Resources Manager

Kern Water Bank GSA

_____
Joseph Butkiewicz, General Manager

Kern-Tulare Water District GSA

_____
Skye Grass, General Manager

Eastside Water Management Area

_____
Chad Hathaway, President

Westside District Water Authority GSA

_____
Justin Rowe, General Manager

Rosedale-Rio Bravo Water Storage District GSA

_____
Dan Bartel, Engineer-Manager

Henry Miller Water District GSA

_____
Jeof Wyrick, President, Chairman

Olcese Water District GSA

_____
James L. Nickel, President

Buena Vista GSA

_____
Terry Chicca

TABLE 1

AGMT No. 27-01		$ 838,367.00	
GSA Name	**Developed Acreage**	75.00%	120.45%
TCWDGSA	317	$ 31,438.76	
OWDGSA	1,142	$ 31,438.76	
PioneerGSA	1,462	$ 31,438.76	
WKWDGSA	5,881	$ 31,438.76	
EWMA	6,895	$ 31,438.76	
KWBGSA	8,336	$ 31,438.76	
KTWDGSA	10,041	$ 31,438.76	
KNDLA	10,634	$ 31,438.76	
HMWDGSA	18,565	$ 31,438.76	
CWDGSA	38,975		$ 50,492.56
BVGSA	39,902		$ 50,492.56
RRBWSDGSA	41,449		$ 50,492.56
SWIDGSA	44,270		$ 50,492.56
SSJMUDGSA	56,973		$ 50,492.56
NKWSDGSA	60,531		$ 50,492.56
WRMGSA	62,186		$ 50,492.56
Arvin GSA	88,891		$ 50,492.56
WDWAGSA	113,856		$ 50,492.56
SWSDGSA	139,857		$ 50,492.56
KRGSA	190,253		$ 50,492.56
		$ 282,948.86	$ 555,418.14
			$ 838,367.00

Kern Subbasin Cost Share Agreement (27-01)

	Date:	Amount:
Base Agreement (27-01):		$838,367.00
Exhibit A - Kern Subbasin POC/Plan Manager:		
EKI	1/1/27 - 12/31/27	$65,300.00
(WRMGSA)		$65,300.00
Exhibit B - Kern Subbasin Technical Coordinator:		
Intera (EKI sub):	1/1/27 - 12/31/27	$178,960.00
(SWIDGSA)		$178,960.00
Exhibit C - DMS/Website Hosting / Support:		
GEI:	1/1/27 - 12/31/27	$28,541.00
(BVGSA)		$28,541.00
Exhibit D - Annual Report Preparation:		
Todd GW:	11/1/26 - 12/31/27	$124,703.00
(KRGSA)		$124,703.00
Exhibit E - Water Quality Monitoring Program:		
MLJ Environmental:	1/1/27 - 12/31/27	$23,990.00
(RRBGSA)		
Kahn, Soares & Conway:	1/1/27 - 12/31/27	$27,500.00
(CGSA)		
Todd GW:	1/1/27 - 12/31/27	$23,990.00
(CGSA)	Task 3 only (1&2 Direct Bill)	$75,480.00
Exhibit F - Well Mitigation Program:		
MLJ Environmental:	1/1/27 - 12/31/27	$16,560.00
(RRBGSA)		
Self-Help	1/1/27 - 12/31/27	$5,000.00
(RRBGSA)		$21,560.00
Exhibit G - Outreach and Engagement:		
Intera:	1/1/27 - 12/31/27	$66,000.00
(SWIDGSA)		$66,000.00
Exhibit H - Subsidence Monitoring Program:		
Aquilogic:	1/1/27 - 12/31/27	$89,000.00
(WDWAGSA)		
EKI:	1/1/27 - 12/31/27	$76,000.00
(WRMGSA)		
Intera:	1/1/27 - 12/31/27	$49,123.00
(SWIDGSA)		
Todd GW:	1/1/27 - 12/31/27	$63,700.00
(CGSA)		$277,823.00
Contingency 0%:		$0.00
	Sub Total:	$838,367.00
	Total with Contingency:	**$838,367.00**

**Task 1&2 will be direct billed to the GSA where the investigation is being conducted.*

Placeholder - Future Scope Needed

Corporate Office
2001 Junipero Serra Boulevard, Suite 300
Daly City, CA 94014
(650) 292-9100
ekiconsult.com

2 October 2026

Derek Yurosek
Coordination Committee Chair
Kern County Subbasin

Subject: Proposal for Kern County Subbasin Plan Manager
Kern County Subbasin, Kern County, CA
(EKI C20055.15)

Dear Mr. Yurosek:

EKI Environment and Water, Inc. (EKI) has prepared this Scope of Work and budget to provide Plan Manager Support for the Kern County Subbasin (Subbasin) through calendar year 2027, with an Optional Task to provide Plan Manager Support for the Fourth Quarter of 2026. This proposal supports the Subbasin's engagement with California Department of Water Resources (DWR) and continued implementation of the coordinated Kern County Subbasin Groundwater Sustainability Plans (2025 Plan).

SCOPE OF WORK

On 8 December 2025 the SWRCB submitted a letter to DWR returning the Subbasin to DWR jurisdiction. Plan Manager Support is needed to manage the interactions with DWR as it pertains to the 2025 Plan and Annual Reports, maintain coordination between Groundwater Sustainability Agencies (GSAs) and DWR, and fulfill Sustainable Groundwater Management Act (SGMA) reporting requirements.

Task 1 – Meeting Support, Coordination with DWR, and Project Management

Under Task 1 EKI will provide meeting support for various meetings and coordinate with DWR as the Point-of Contact (POC) for the Subbasin. EKI support will include:

- Schedule, coordinate, and develop and transmit agendas for Managers' Meetings and Subbasin Meetings.
- Schedule and attend meetings with the Coordination Committee Chair, Managers' Representative, and Technical Coordinators to prepare agenda topics for upcoming Managers' and Subbasin Meetings (referred to herein as "Preparation Meetings").
- Coordinate via email and/or calls as the POC with DWR.
- Attend quarterly San Joaquin Valley (SJV) POC Meetings and as-needed meetings with DWR and transmit meeting minutes.
- Project management tasks including monthly invoice preparation and client coordination.

Task 1 Deliverables:

- Meeting agendas.
- SJV POC meeting minutes.

- Correspondence (emails, meeting presentations, etc.) with DWR.

Task 1 Key Assumptions:

- Managers' Meetings are assumed to be held every Friday with the exception of the first and fifth Friday of each month and will not be held over federally recognized holidays. For 2027, a total of up to 38 Managers' Meetings is anticipated. Managers' Meetings will take up to two hours (2) each.
- Subbasin Meetings will be held monthly (total of 12). Subbasin Meetings will take up to hour (1) each.
- Preparation Meetings will be held bi-monthly (total of 24). Preparation Meetings will take up to 30 minutes each.
- Meeting minutes for Subbasin and Managers' Meetings are beyond this scope of work.
- EKI will attend up to four (4) one (1) hour long Coordination Meetings with DWR.
- SJV POC Meetings with DWR will occur quarterly (total of four [4]) and will take up to 1.5 hours each.
- Coordination with DWR will take up to 1.5 hours per month.
- The budget for Task 1 includes virtual attendance at all meetings described above by one (1) member of EKI staff.

Task 2 – SGMA Data Portal Support

Under Task 2, EKI will provide SGMA Data Portal support through 2027. EKI support will include the following:

- Coordination with GSAs to support complete Spring and Fall 2027 reporting for Representative Monitoring Wells for Chronic Lowering of Groundwater Levels (RMW-WLs), including running Kern Subbasin Data Management System (DMS) reports, performing quality control and quality assurance (QA/QC) against the RMW-WL list; coordinating with individual GSAs for any as needed information; and submitting Spring and Fall 2027 RMW-WL data to the SGMA Data Portal by 1 July 2027 and 1 January 2028, respectively.
- Coordination with Todd Groundwater and submittal of the Water Year (WY) 2026 Annual Report to DWR by 1 April 2027.
- Coordination with GSA(s) that may have jurisdictional boundary changes requiring updates on the SGMA Data Portal.

Key assumptions:

- GEI will provide technical management and support for the DMS.
- RMW-WL data in the DMS and SGMA Data Portal is assumed to be accurate and maintained by the GSAs. Only data uploaded to the DMS will be included in the Spring and Fall 2027 Reports.

- GSAs will ensure groundwater level measurements at each RMW-WL site are collected and added to the DMS.
- GSAs will be responsible for updating the SGMA Data Portal with any RMW-WL changes.
- Fall 2026 upload (due by 1 January 2027) is beyond this Task (see Optional Task 4).

Deliverables:

- Updates and confirmations of Spring/Fall Submittal and WY 2026 Annual Report to DWR will be provided during subsequent Coordination Committee and Managers' Meetings (*see Task 1*).
- DWR confirmation of Spring and Fall 2027 RMW-WL data submittal.
- DWR confirmation of Final WY 2026 Annual Report submittal.

Task 3 – As-Needed Task Support

Task 3 involves as-need support as directed by the Coordination Committee. Support for this Task may include:

- Review any correspondence (e.g. Letters) from DWR.
- Coordination of response to correspondence from DWR including additional meeting support, supporting drafting of formal response as needed, and additional coordination with the GSAs and the Technical Working Group.
- Other as-needed tasks requested by the Coordination Committee.

Key Assumptions:

- As-needed additional tasks will be at the direction of the Coordination Committee during Subbasin Meetings.
- Public outreach and engagement, ad-hoc committee or subcommittee directed work, or attendance at meetings conducted by separate consultants or GSA managers is beyond this scope of this work.

Optional Task 4 – Fourth Quarter 2026 Support

Optional Task 4 involves as-needed POC support for Fourth Quarter 2026. Support for this Task may include:

- Preparation for and attendance at all Fourth Quarter 2026 Managers' Meetings, Subbasin Meetings, and Preparation Meetings.
- Uploading Fall 2026 RMW-WL data to the SGMA Data Portal by 1 January 2027.
- Coordination with DWR, including attendance at the fourth quarter SJV POC Meeting.
- Project management tasks including monthly invoice preparation and client coordination.

Key Assumptions:

- The same assumptions (as applicable to the tasks included under Optional Task 4) included for Task 1 and Task 2 apply for Optional Task 4.
- One EKI staff member will attend seven (7) Manager's Meetings, three (3) Subbasin Meetings, six (6) Agenda Preparation Meetings and one (1) SJV POC Meeting.

BUDGET

Compensation for consulting services by EKI will be on a time and expense reimbursement basis in accordance with our current Schedule of Charges. Based on the proposed Scope of Work described above, we propose a budget of $65,300 (see also Table 1) for the performance of Tasks 1 through 3, based on our best estimate at this time. Upon authorization, an additional $16,400 will be available to complete Optional Task 4, bringing the total budget to $81,700. This budget will not be exceeded without additional authorization from the Client. EKI's staff members who will lead this project include Anona Dutton, P.G., C.Hg., Christina Lucero, P.G., and Meghan Engh. Other EKI staff members will be assigned to assist with the performance of the tasks as required to meet project commitments.

Table 1. Estimated Budget

TASK	Cost Estimate
Task 1 – Meeting Support, Coordination with DWR, and Project Management	$49,900
Task 2 – SGMA Data Portal Support	$9,100
Task 3 – As-Needed Task Support	$6,300
TOTAL (*without Optional Task 4*)	**$65,300**
OPTIONAL Task 4 – Fourth Quarter 2026 Support	$16,400
TOTAL (*with Optional Task 4*)	**$81,700**

27-01

SCHEDULE

Upon authorization to proceed, EKI is prepared to start work on the above Scope of Work starting 1 January 2027. Tasks 1 and 3 in this Scope of Work will cover work efforts conducted 1 January 2027 through 31 December 2027. If directed by the Subbasin, Optional Task 4 would start 1 October 2026.

TERMS AND CONDITIONS

This work will be conducted pursuant to our existing agreement with the Wheeler Ridge-Maricopa Water Storage District.

We are happy to discuss the proposed approach and anticipated level of effort for these tasks in more detail with you and look forward to working with you on this important project.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.



Anona L. Dutton, P.G., C.Hg.
Vice President / Principal-In-Charge

AUTHORIZATION

Signed _____

Printed Name _____

Title _____

Date _____

cc: Sheridan Nicholas, Wheeler Ridge-Maricopa Water Storage District

Exhibit B

INTERA Incorporated
3838 W. Carson Street, #380
Torrance, CA 90503
+1 (424) 275 4055
INTERA.com

October 16, 2026

Derek Yurosek
Kern Coordination Committee Chair
Email: DYurosek@bolthouseproperties.com
Ph: (661)556-4540

RE: Proposal for Kern County Subbasin Technical Coordinator for 2027

Dear Mr. Yurosek,

The Kern County Subbasin (Kern Subbasin) Groundwater Sustainability Agencies (GSAs) are managing groundwater and implementing several projects and management actions (P/MAs) under the adopted 2025 Kern County Subbasin Groundwater Sustainability Plan (2025 Plan), which covers the entire Kern County Subbasin and brings together the 20 Kern Subbasin GSAs under the umbrella of a coordinated Plan. The 2025 Plan is under review by the California Department of Water Resources (DWR), with an expected review and comment by January 2028 (within two years of the submittal of the 2025 Plan to DWR in January 2026). Given the hydrogeologic, management, and policy complexities inherent in the Kern Subbasin, continued coordination and consistency in Plan implementation remain important priorities for the Kern Subbasin GSAs. INTERA, in partnership with EKI, is leading the Technical Working Group and acting as the technical liaison with DWR Staff during the 2025 Plan implementation and review phase.

The Kern Subbasin GSAs are interested in continued technical coordination during the implementation phase under a Subbasin Technical Coordinator (TC). Similar to 2026, the TC's primary responsibilities would be to ensure that a) 2025 Plan technical implementation tasks are completed and consistent with the adopted GSP/Exceedance Policy/Action Plan using the best available and Subbasin-specific datasets, tools, and methodologies, and b) Kern Subbasin GSAs continue to be responsive to DWR, other regulatory entities, and stakeholders regarding technical or implementation issues of interest. Implementation of different aspects of the Plan will be led by task-specific subcommittees and/or consultant teams working with the 20 GSAs. This includes consulting teams (part of the Technical Working Group or TWG) and/or subcommittees that lead:

1. Data Management System;
2. Well registrations and inventory[1];
3. Groundwater monitoring data gaps (as identified in the 2025 Plan);
4. Water level Sustainability management Criteria (SMC) analysis and exceedance evaluations;
5. Water quality data collection, SMC analysis, reporting, and notifications;
6. Water quality exceedance evaluations;

[1] While there is no subcommittee/consultant that currently leads the well registration and inventory process, it is anticipated that this may be a need in 2027.

7. Subsidence SMC analysis, reporting, and exceedance evaluations;
8. Water level and water quality mitigation;
9. Basin Study and groundwater modeling;
10. Grant and funding opportunities; and
11. Community outreach and engagement (COE).

All SMCs and project and management actions will also be summarized in the annual report submitted to DWR. Based on information provided by the Kern Subbasin GSAs, the TC is expected to:

- Coordinate the calculation and determination of SMC compliance with the appropriate subcommittee/consulting teams.
- Provide quality assurance and quality control (QA/QC) of subcommittee/TWG final work products to confirm consistency with the 2025 Plan and related components. Communicate directly with the Chair/Policy group for any potential "non-compliance" concerns of a GSA.
- Provide adequate review of interim TWG work products including any feedback and next steps.
- Identify and present future changes to all GSP components based on implementation tasks including new Scope of Works, Schedules, and Budget requirements.
- Identify grant opportunities to support ongoing and future implementation and planning efforts.

INTERA is proposing on the above TC scope, continuing the successful partnership with EKI as Technical Working Group co-leads and SWRCB technical liaison from the 2025 Plan revision phase. INTERA proposes Dr. Abhishek Singh, PhD, PE as the lead TC, working in partnership with Ms. Christina Lucero, PG, EKI, with Ms. Anona Dutton, PG, CHG, EKI providing strategic support. Additional technical staff will support, as-needed review and QA/QC sub-tasks. Our team will ensure coordination, consistency, and quality control across datasets, analyses, and implementation details for the Subbasin. To reduce redundancy and avoid duplication of efforts, the INTERA and EKI team will split the subcommittee meetings and associated review/QA/QC of subcommittee/consultant teams interim work products. The INTERA and EKI team will also be coordinating with the subcommittees/consultant teams on their future scopes/budgets while identifying future grant opportunities that could support ongoing implementation efforts. INTERA and EKI are already on the subsidence subcommittee and have existing task-orders for subsidence analysis, subsidence SMC QA/QC, and agency coordination on Friant Kern Canal and the California Aqueduct, respectively. Given that INTERA and EKI have existing scope and budget for subsidence SMC analysis, review, QA/QC, and exceedance evaluation, this scope/budget will *not* be including under the TC scope/budget outlined below. This represents budget and schedule efficiencies for the Subbasin.

Dr. Singh and Ms. Lucero will maintain regular engagement with the Coordination Committee (CC) and GSA Manager teams to ensure the technical tasks incorporate Subbasin policy and management considerations, while providing the Subbasin managers recommendations to support future policy and management decision-making and scopes, schedules, budgets for future implementation tasks. Dr. Singh and Ms. Lucero will split their engagement with various TWG leads and GSAs based on their understanding and experience on a particular technical/policy topic. This approach maintains efficiency across the TC roles and drives coordination, maintains quality control, minimizes redundancy, and integrates the

technical, policy, and management considerations, while leveraging GSA-specific expertise to keep the Subbasin progressing cohesively.

The sections below provide more detailed descriptions of the TC scope and level of effort. The outlined scope covers the calendar year 2027. The scope/budget for future TC involvement will be developed at the end of 2027, based on direction from the Kern Subbasin GSA managers and policy representatives.

1.0 Scope of Work

1.1 Technical Review and QA/QC of Implementation Tasks

INTERA will track the overall 2025 Plan implementation approach and progress. INTERA will maintain a GSA task tracking and budget matrix, which will track subcommittee progress against 2025 Plan commitments. To ensure technical implementation tasks are completed and consistent with the 2025 Plan, INTERA and EKI will split the review of materials produced by subcommittees. INTERA will lead review of interim and final work products produced by the data gaps, well registration/well inventory, mitigation, and stakeholder engagement subcommittees. EKI will lead review of materials related to groundwater levels and water quality subcommittees. The review performed will focus on consistency with the 2025 Plan, use of best available data and science, and coordination across different GSAs. Subcommittees/consulting teams are responsible for developing and implementing the SMC approach and detailed QA/QC of the data and analysis.

Review of subcommittee materials includes the following tasks:

- EKI will review calculations comparing groundwater levels and water quality samples against SMCs for consistency with the approaches outlined in the 2025 Kern Plan. Calculations will be produced semi-annually either through the Kern Data Management System (DMS) or compiled by the Water Quality SMC Implementation Plan Administrator.

- EKI will compile a list of Exceedance Investigation Report(s) required, date produced, and resultant key actions on a semi-annual basis.

- INTERA will review recommendations for filling data gaps using a) existing wells, and b) drilling new wells.

- INTERA and EKI will review up to 4 Water Quality and/or Subsidence Exceedance Investigation Reports, as requested by either the Water Quality or Subsidence TWG leads.

- INTERA and EKI will participate on the DMS subcommittee to develop recommendations (including relevant scope/budget) for changes to the DMS and/or Well Inventory.

- INTERA and EKI will review any changes to the representative monitoring network

- INTERA will review and comment on interim and final work products produced by the mitigation subcommittee/consulting team.

- EKI will coordinate with the Kern Subbasin Point of Contact on GSA boundary modification(s).

This scope of work assumes TWG subcommittee/consulting teams will produce two technical work products every quarter requiring 4 hours of review for each work product. The technical review will be split between INTERA and EKI. However, the frequency and nature of subcommittee work products may change based on implementation progress and issues encountered. Any change in the assumed level of effort involved with the subcommittee/consulting team coordination and review will be reported to the Kern Subbasin Coordination Committee Chair and GSA Managers.

INTERA and EKI will also review the Water Year (WY) 2026 Annual Report (submitted in the first quarter of 2027) for consistency with the 2025 Plan, and provide comments and suggested edits to the consultant producing the Annual Report. This is to ensure consistency of the WY2026 Annual Report with the 2025 Plan (and associated Action Plans), while maintaining coordination across the 20 GSAs.

DWR is expected to release a Guidance Document on Interconnected Surface Water (ISW). INTERA will work with the Subbasin ISW lead to review the guidance document and develop recommendations for GSA consideration. The summary of the ISW Guidance Document and any recommendations for GSA consideration will be presented at a Manager's Meeting.

Finally, DWR will be reviewing the 2025 Plan and may submit their review comments or provide feedback on the 2025 Plan in 2027. Having not received the DWR review comments so far, this proposal *does not* include scope/budget for review and response to DWR review comments. However, the TC team can provide the scope/budget for DWR comment review and recommendations to address the comments upon direction of the Subbasin Chair and GSA Managers.

INTERA and EKI will both provide strategic technical support to the Kern Subbasin GSAs managers/policy group. Through the year, the TCs will track technical consultant scopes and budgets, and work with the TWG leads to identify any deviations from agreed upon scope/budget and develop necessary amendments to address these changes.

At the end of the year, INTERA and EKI will review subcommittee scopes of work and provide recommendations for future TWG scopes of work.

Deliverables:

- Updates to the GSA implementation task tracker and consultant budget tracker.
- Review comments to subcommittee/consulting teams' work products and Annual Report.
- Two Exceedance Investigation Report summaries.
- Review comments on subcommittee/consulting teams' future SOWs/budgets.
- Presentation on DWR ISW Guidance and recommendations for GSA considerations.

- Brief Technical Memorandum documenting recommendations for future changes to the 2025 Plan.

1.2 Grant and Funding Support

EKI will be primary on this effort, with INTERA's support. EKI will track and report on forthcoming solicitations for SGMA GSP implementation—or related to project(s) that support recharge, conservation, and/or demand management—that become available during 2027, and aid the GSAs in selection of which funding opportunities to pursue as a Subbasin. Potential grant funding opportunities include, but are not limited to:

- DWR Sustainable Groundwater Management (SGM) Program. Draft guidelines and draft Proposal Solicitation Package (PSP) are released, with public comments due December 4. Concept proposals anticipated to be due early 2027.
- Department of Conservation (DOC) Multibenefit Land Repurposing Program (MLRP), draft guidelines expected in October 2026.
- DWR Watershed Resilience Program. Draft guidelines are released, with public comments due November 9. For the Conservation Implementation Program, concept proposals will be due in early 2027. For the Watershed Resilience Planning+ Program, the draft proposal solicitation package is expected Winter 2026/27 with concept proposals anticipated to be due in late 2027.

EKI will closely monitor each solicitation, and work with the GSAs to confirm the proposed lead applicant(s), proposed project(s), requested funding amount, and application strategy after review of the final guidelines and PSPs. As the final guidelines and PSPs are released by DOC and DWR, EKI will work with the GSAs on defining the project(s) scope and associated budget to meet the specific needs of each Program application. Development and submittal of grant applications and/or supporting materials is not included in this scope of work/budget. Once final PSPs are released, EKI can provide an updated scope of work/budget for grant application development and submittal upon direction of the Subbasin Chair and GSA Managers.

Deliverables:

- Presentation providing recommendations for application approach for up to three (3) grant solicitations.

1.3 Subbasin Meetings

Subcommittee and GSA Meetings

INTERA and EKI will engage with subcommittees to track implementation progress, and to understand and confirm consistency of overall approach (datasets, analysis, models, etc.) with the 2025 Plan. Subcommittees/consulting teams are responsible for developing and implementing the approach and detailed QA/QC.

INTERA will lead and EKI will attend monthly TWG meetings with chairs/leads from all subcommittee/consulting firms. Meetings will focus on understanding key milestones, challenges, schedules, and budgets from each subcommittee. Meetings will ensure that all subcommittee/consulting firms' efforts are coordinated across the Subbasin. Outcomes will be documented in a quarterly progress report. Content from these meetings will also be used to inform the development of any presentations needed for meetings with DWR. INTERA will bring in EKI to lead TWG meetings, as needed.

INTERA and EKI will split additional technical consultant/subcommittee meetings (and any pertinent meetings with GSAs), whereby INTERA will attend meetings related to data gaps, well registration/well inventory, mitigation, and stakeholder engagement and EKI will attend meetings related to groundwater levels, water quality, and grants. INTERA and EKI will both attend meetings related to DMS and WQ. Subsidence subcommittee attendance by INTERA and EKI will be handled under the existing subsidence subcommittee scopes of work for both firms.

Finally, INTERA and EKI will provide up to 12 hours total in general support and/or meetings with individual GSAs as it pertains to 2025 Plan implementation, compliance, boundary modifications, etc. Detailed assumptions regarding meetings' level of effort are documented in the budget spreadsheet attachment.

Deliverables:

- TWG meeting notes.
- Quarterly implementation progress reports.

Managers, Policy, and PoC Meetings

The TCs will attend the Kern Subbasin GSAs managers and PMA meetings (assumed to be 3/month) and CC meetings (1/month) to provide a TC update report on coordinating implementation tasks and identify technical coordination issues and associated impacts. Additionally, both Dr. Singh and Ms. Lucero will participate in two meetings per month with the Kern Subbasin Point of Contact and Subbasin Chair.

Deliverables:

- Meeting presentations as needed

DWR SGMO Meetings

DWR is currently reviewing the 2025 Plan and is expected to finish their review by January of 2028. However, DWR or the Kern Subbasin GSAs may need to meet to discuss any questions or issues that may come up during the review period. For the purpose of this proposal, we assume up to three meetings with DWR SGMO staff in 2027 – one focused on their review of the 2025 Plan and two focused on subsidence.

INTERA will take the lead, with EKI's support, on coordinating the meetings with DWR and working with TWG members and GSAs to prepare for and follow-up from the DWR meetings. INTERA will develop the agenda, compile the presentation and address any Kern Subbasin GSAs managers/policy comments, and

take meeting notes. Time for the 2025 Plan review meeting is included in this proposal. Time for subsidence related meetings is captured under a separate subsidence support proposal.

Note that the level of engagement with DWR is yet to be determined. This proposal assumes the DWR meetings will be 2-hour meetings with half a day needed for preparation. If the level of effort for DWR engagement changes then this will be reported to the Subbasin chair and GSA managers.

Finally, this proposal does not include any scope/budget to review or address DWR comments on the 2025 Plan, in case these are released in 2027 (prior to the expected January 2028 date). If DWR comments are released in 2027, then the TCs will identify the additional scope/budget required to review and respond to these comments, as needed.

Deliverables:

- Agenda(s)
- Compiled presentation(s)
- Meeting notes

Stakeholder and Community Outreach and Engagement

INTERA will participate in up to four stakeholder/community outreach events upon direction from the Subbasin Chair and GSA Managers. INTERA will provide slides to cover any technical components of the stakeholder/community outreach presentations.

Deliverables:

- Participation and technical slides for up to four stakeholder/community outreach events.

1.4 TC Coordination and Project Management

INTERA will provide project management services to track scope, schedule, and budget. INTERA will hold internal weekly meetings with EKI to ensure coordination and consistency across the TC roles. This task also includes preparation of combined invoices (with EKI as sub) on a monthly basis.

Deliverables:

- Monthly invoices.

2.0 Assumptions

To ensure transparency and shared understanding, we have outlined the assumptions that form the basis of our proposed scope and approach. Additional detailed assumptions on hours and assumed level of effort are provided in the budget table.

- Dr. Abhishek Singh will be the designated INTERA TC lead.
- Ms. Christina Lucero will be the designated EKI TC co-lead.

- Ms. Anona Dutton will provide strategic direction and targeted principal review.
- All meetings will be held virtually.
- 4/month Managers/PMA/Policy meeting (both INTERA and EKI attending).
- 1/month TWG leads meetings (INTERA lead and EKI attending).
- 2/month technical subcommittee and 1/month GSA meetings (split between INTERA and EKI).
- 2/month Subbasin POC and Subbasin Chair meetings (Both INTERA + EKI).
- 3/year DWR meetings (INTERA lead and EKI attending).
- Weekly Internal TC meetings (INTERA + EKI leads).
- 1/quarter Stakeholder/Community Outreach Events (INTERA).
- QA/QC of work products assumed to consist of limited high-level review for compliance with 2025 Plan objectives/criteria. As the number and nature of the deliverables is currently unknown, preliminary assumptions on the number of deliverables and review hours are included in the budget table.

3.0 Schedule

This proposal covers identified tasks for the period from January 2027 through December 2027.

4.0 Budget

The budget for the scope outlined above is $189,378. The breakdown of hours and budget by staff and tasks is shown in the tables below. INTERA and EKI will bill on a time and material basis, hence scope outlined above but not executed will not be billed. Any deviation in scope will be promptly communicated to Kern Managers.

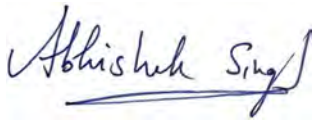
Table 1. Technical Coordinator Budget for 2027

Task No.	2027 Estimated Hours by Staff Type							Task Totals	
	INTERA			EKI					
	Principal Engineer/ Scientist	Senior Engineer/ Scientist	Engineer/ Scientist	Principal Engineer/ Scientist	Senior Engineer/ Scientist	Engineer/ Scientist	Grant Specialist	Total Task Hours	Total Task Cost
Task 1.1 Technical Review and QA/QC of Implementation Tasks	56	12	16	4	36	24		148	$46,532
~~Task 1.2. Grants and Funding Support~~	~~3~~			~~3~~	~~3~~	~~0~~	~~24~~	~~33~~	~~$10,418~~
Task 1.3. Subbasin Meetings (Managers, CC, TWG, GSAs, DWR)	156	8	12	0	136			312	$109,701
Task 1.4. TC Meetings & Project Management	36				27			63	$22,726
Total Hours by Staff Type	251	20	28	7	202	24	24	556	
								Estimated 2027 Budget	~~$189,378~~ $178,960

The INTERA and EKI team value the trust and confidence placed in our team and look forward to continuing to support the Kern Subbasin GSAs on technical coordination and implementation of the 2025 Plan. Please do not hesitate to reach out with any questions or concerns regarding our proposal.

Sincerely,

INTERA Incorporated



Abhishek Singh, PE, PhD
President - Water Resources & Supply, Principal Engineer

Attachment: Kern Subbasin TC - Detailed Budget Spreadsheet.xlsx

Exhibit C

GEI Consultants

October 12, 2026

Consulting Engineers and Scientists

Tim Ashlock
Buena Vista Water Storage District
525 N. Main Street
Buttonwillow, CA 93206

Subject: Kern Subbasin DMS and Website Support—Revised October 12, 2026

Dear Mr. Ashlock:

The purpose of this Task Order is to define the Scope of work and the cost estimate for GEI Consultants, Inc. (GEI) to continue providing technical support and hosting for the Kern Data Management System (DMS) and Kern GSP website maintenance.

Task 1. Data Management System

GEI will continue hosting the Kern DMS on a secure, dedicated server which includes routine server maintenance and assistance with unexpected bug fixes. The hosting fee is $100 per month. Technical support will be provided as needed throughout the calendar year and invoiced based on the actual labor effort each month. Time is billed based on a minimum of 15-minute intervals, and work will be performed on an as-requested basis. Bryan Thoreson will serve as the Project Manager (PM) to the Subbasin and liaison to GEI's programming team.

Assumptions

- Estimated labor effort is primarily for responding to GSA requests for DMS support, minor fixes identified by responses to GSA requests updating groundwater level sustainability indicators, routine maintenance tasks and project management.
- The monthly hosting fee remains $100.
- Three GSA requests for DMS support per month (based on one-half of the number of requests received during the first 8 months of 2026) with each request assumed to require 4 hours to resolve for approximately 144 hours of labor effort estimated for bug fixes and technical support.
- Contingency funds will be available to augment the budget if the number of GSA requests for DMS support is more than the assumed three requests per month.

Deliverables

- Hosting and server maintenance from January 1 through December 31, 2027.
- As-needed support with data fixes

Task 2. Website Maintenance

The Kern Subbasin website was developed in 2024 and populated with various documents and information to provide easy access to the public on Subbasin-wide SGMA activities. GEI will support website maintenance by paying annual fees, troubleshooting technical errors, and updating documents as requested. Support will be provided as needed throughout the calendar year and invoiced based on the actual labor effort each month. Bryan Thoreson will serve as the Project Manager (PM) to the Subbasin and liaison to GEI's web developer.

Assumptions

- Estimated labor effort is primarily for minor fixes or updates and project management. No significant changes or updates to the website content or materials are anticipated in 2027.
- Pass through expenses are estimated up to $350 to renew the domain name, website registration, and WPForms tool that enables people to register for the Kern Subbasin email distribution list.
- Approximately 15 hours of labor effort is estimated for minor fixes and content updates.

Deliverables

- Website maintenance and minor fixes/content updates from January 1 through December 31, 2027.

Budget

The estimated budget of $28,541 is based on the proposed scope of work, assumptions regarding the number of support requests that will be received in 2027 and the level of effort required to resolve the support requests. Billing for all work completed under this proposal will be in accordance with the terms of the Professional Services Agreement between GEI and Buena Vista Water Storage District, with labor billed at 3.05 times the labor rate. Invoices are prepared on a time-and-materials basis and submitted within one month of performing the work. The Subbasin will only be billed for the actual hours worked. Total Project billings will not exceed the authorized budget amount without obtaining written authorization.

Table 1. Budget Estimate

Task	Hours	Budget
1. DMS Management System	144	$ 24,991
Monthly Hosting Fee		$ 1,200
2. Website Maintenance	15	$ 2,000
Domain and Website Fees		$ 350
Total Budget Estimate		$ 28,541

We appreciate the opportunity to be of continued service to the Kern Subbasin. Please contact our Project Manager, Bryan Thoreson at 530.867.2510 or via email at bthoreson@geiconsultants.com if you have questions.

Sincerely,

GEI Consultants, Inc.

Bryan Thoreson, Ph.D., P.E.
Project Manager

Dave Miller, Ph.D., P.E.
Principal-in-Charge

TODD GROUNDWATER

October 16, 2026

MEMORANDUM

To: Abhishek Singh, Intera, Kern Subbasin Technical Coordinator
Christina Lucero, EKI, Kern Subbasin Technical Coordinator

From: Mike Maley, PG, CHG, Principal Hydrogeologist, Todd Groundwater
Maureen Reilly, PE, Principal Engineer, Todd Groundwater

Re: Todd Groundwater 2027 Proposal - Preparation of WY2026 Annual Report and Review of DWR Interconnected Surface Water Guidance

1 INTRODUCTION

The Kern County Subbasin (Subbasin) Groundwater Sustainability Agencies (GSAs) submitted adopted Groundwater Sustainability Plans (GSPs) covering the entire Subbasin to the Department of Water Resources (DWR) on January 31, 2020. The Annual Report is an annually recurring task required by the Sustainable Groundwater Management Act (SGMA) to provide a compilation and analysis of data in the basin from the previous water year and a summary of GSP implementation progress. Annual Reports are due to DWR "by April 1 of each year following the adoption of the Plan" (§356.2). The Subbasin GSAs are currently cooperating in preparation of the eighth SGMA Annual Report covering Water Year (WY) 2026 for the Kern County Subbasin.

Todd Groundwater successfully prepared and submitted the previous seven Annual Reports (WY2019 through WY2025) to DWR. We envision working cooperatively with Subbasin GSAs and their consultants to compile and incorporate information that either is currently available or is being collected as part of GSP implementation. As occurred during the preparation of the previous annual reports, we assume that all the Subbasin GSAs will provide upload the required water budget data and GSP Implementation Progress Summaries for the Annual Report via the Subbasin Data Management System (DMS). Emphasis will be placed on coordinating with technical working group (TWG) subcommittees to provide updated and/or revised input for the following:

- Sustainability indicators with emphasis on subsidence and water quality,
- Project and Management Action (PMA) implementation,
- Water budget updates using Kern-IWFM model,
- Implementation activities for stakeholder outreach, well mitigation and other topics.

Todd Groundwater will work with the Subbasin Technical Coordinators (Abhi Singh and Christina Lucero) to coordinate communications with Subbasin GSAs and DWR.

2 APPROACH

Preparation of the WY2026 Annual Report will continue to follow regulatory requirements provided in reporting standards for Annual Report data in Article 3 (§352.4) and additional reporting provisions in Article 4 (§353.4). In October 2023, DWR issued a Guidance[1] document for preparation of Annual Reports that included additional information requirements. The new DWR Guidance document lists three primary sections for the Annual Report. These include:

- Executive Summary
- Data Analysis Summary
- Progress Toward Implementation

The Executive Summary and Data Analysis Summary sections in the previous Annual Report are generally consistent with the requirements of the new DWR Guidance document with only minor modifications. The Progress Toward Implementation provided a more detailed description of the reporting requirements than were listed in Article 7 of the GSP regulations (§356). These include the following topics:

Since this is an expanded component the Annual Report based on the amended 2025 Groundwater sustainability Plan (2025 Plan) for the Subbasin, we anticipate that this section will require considerable review by the Subbasin GSAs before it can be finalized in the Annual Report. Additional requirements that may be added to those outlined above may require an additional scope of work. It is important for Subbasin GSAs for provide timely Annual Report input so that there is sufficient time to prepare and review this section before the April 1, 2027, submittal deadline.

3 GSA INPUT TO ANNUAL REPORT

Todd Groundwater will coordinate with the Subbasin Technical Coordinators and DMS Group for the collection of the water budget data and GSP Implementation Progress summaries for the WY2026 Annual Report. Proposed target dates for GSA input for the Annual Report are as follows:

- **The target date for getting GSAs to update the DMS with their water budget data is January 16, 2027.**
- **The target date for getting TWG Subcommittee summaries is January 31, 2027.**
- **Coordination on GSP Implementation Progress summaries and PMA Portal input will be coordinated through the ongoing PMA meetings with the managers.**

The water budget data serves a dual purpose of populating the DWR water budget templates and providing the required groundwater extraction and change in storage maps. Todd Groundwater will generate hydrographs of the Subbasin monitoring network wells that conform with the new DWR Guidance document. To provide sufficient time to incorporate this data into the annual report with sufficient time for Subbasin GSA review to meet the April 1, 2027, submittal deadline, we request that all the Subbasin GSAs provide their data and information in a timely manner following the proposed schedule.

[1] Groundwater Sustainability Plan Implementation: A Guide to Annual Reports, Periodic Evaluations & Plan Amendments, California Department of Water Resources, October 2023.

4 SCOPE OF SERVICES

Tasks associated with the proposed scope of services are summarized below. Todd Groundwater intends to follow a similar approach used for previous annual reports to maintain consistency in methodology and presentation. The WY2026 Annual Report is planned to be organized similarly to the WY2025 Annual Report. The tasks are organized to focus the development of the regulatory required data, information and technical analysis related to specific sections of the Annual Report as outlined below:

- Task 1 – Section 3
- Task 2 – Sections 4 and 5
- Task 3 – Sections 2, 6 and 7
- Task 4 – Executive Summary, Section 1, compilation of appendices, and review and editing of Section 2 through 7.

Task 1: Update of WY2026 Groundwater Conditions

The guidance from Article 7 of the GSP regulations specified annual reporting requirements that include presentation of water budget data, hydrographs, groundwater elevation maps that are compiled from GSAs, member agencies, and other entities throughout the Subbasin. The existing format is considered to meet the requirements of the new DWR Guidance, so no substantial report format changes are considered necessary for these sections. The generation of hydrographs will be based on DMS groundwater elevation data for all representative monitoring wells (RMWs) that were actively monitoring in WY2026. The subtasks described below outline the steps necessary to meet these annual reporting requirements.

Subtask 1A: Update Hydrographs

In compliance with regulatory requirements and the new DWR Guidance document, hydrographs will be prepared for all of the GSP network wells in the Subbasin. These will be as an appendix to the Report. The hydrographs will present overall trends and fluctuations for WY1995 through WY2026, which will be described briefly in the context of water year type. Hydrographs will include the minimum threshold and measurable objective for each well; therefore, any updates to these values will need to be provided by the reporting GSA. A map showing the location of submitted hydrographs will be developed and PDF files of each hydrograph will be included in an appendix of the Annual Report.

Subtask 1B: Construct Groundwater Elevation Contour Maps

Subbasin-wide water level contour maps for the Primary Principal Aquifer will be developed consistent with interpretations with the recently adopted GSP. Water level data required for the contour maps will be downloaded from the DMS. For the three additional local Principal Aquifers (Upper Principal Aquifer in the northwest, Santa Margarita Principal Aquifer in the northeast, and the Olcese Principal Aquifer in the east), Todd Groundwater will work directly with the GSAs responsible for those aquifers. It is preferred that the responsible GSA develop the localized groundwater elevation maps to the extent that data are available to better ensure that the interpretation is consistent with their GSP. Todd Groundwater will coordinate with the appropriate agencies to incorporate the Fall 2025 and Spring 2026 maps into the Annual Report.

Subtask 1C: Evaluate Groundwater Elevation Changes

In compliance with regulatory requirements and the new DWR Guidance document, hydrographs will be prepared for all of the GSP network wells in the Subbasin. These will be as an appendix to the Report. The hydrographs will present overall trends and fluctuations for WY1995 through WY2026, which will be described briefly in the context of water year type. Hydrographs will include the minimum threshold and measurable objective for each well; therefore, any updates to these values will need to be provided by the reporting GSA. A map showing the location of submitted hydrographs will be developed and PDF files of each hydrograph will be included in an appendix of the Annual Report.

Task 2: Subbasin Water Supply and Use Updates for WY2026

The guidance from Article 7 of the GSP regulations specified annual reporting requirements that include a summary of Subbasin water supply and use for WY2026, development of groundwater extraction and change in storage maps, and submittal of water budget data to DWR via the SGMA Portal. We will use the updated Kern-IWFM model and continue to follow the same technical approach used in the previous annual reports, to support the data analysis for the WY2026 Annual Report.

Subtask 2A: Kern-IWFM Model Updates

Data for the model update will be compiled by the DMS using similar data templates that were sent to each district in prior years. WY2026 ET rates, precipitation and crop acreages for the Kern County Subbasin will be provided by LandIQ. The Kern River and Poso Creek streamflow for WY2026 will be updated based on locally measured weir data. Precipitation data will be supplemented using publicly available precipitation data from the PRISM Climate Group at Oregon State University. The monthly rainfall data for Kern County for WY2026 will be mapped into Kern-IWFM input files. Todd Groundwater will utilize these data sets to develop the WY2026 Annual Report water budget update.

Subtask 2B: Prepare Water Budget Templates

DWR provides four required templates documenting water types, sources, and use within the Subbasin. Working with the individual agencies, Todd Groundwater will compile water supply data for the following categories:

- Groundwater Extractions tabulated by water use sector.
- Groundwater extraction measurement methods and accuracy.
- Surface Water Supply tabulated by water use source type.
- Total Water Use.

In accordance with guidance from Article 7 of the GSP regulations, data from more than 40 member agencies, municipalities and other entities throughout the Subbasin will be compiled through the DMS. Metered groundwater extractions, surface water supplies and water use data will be compiled for the DWR water budget templates via the DMS. The Kern-IWFM model update will be used to calculate agricultural water demand. Reported data will be reviewed for consistency with the previous templates and with information provided for the model update. For example, the total surface water supply will be compared to total diversions into the basin to check for potential major discrepancies.

Subtask 2C: Analyze Change in Groundwater in Storage and Groundwater Extraction

GSP regulations (§ 356.2 (b)(5)(B)) for the Annual Report require both a map and graph of changes in groundwater in storage and groundwater extraction be developed over the entire groundwater basin. Todd Groundwater will develop change in groundwater in storage maps and graphs using the Kern-IWFM model, using the same tool and methodology as in previous annual reports to maintain consistency in the results. One annual change in groundwater storage map and one groundwater extraction map will be developed for WY2026 for the entire Kern County Subbasin using the updated Kern-IWFM subbasin-wide results. Map generation will follow methodology similar to that used for the previous annual reports.

Task 3: Compile TWG Subcommittee Input

For the WY2026 Annual Report, additional assessment of new or expanded implementation or GSP requirements developed by their respective TWG subcommittees. The TWG subcommittee will provide the technical input, including any necessary figures and tables. Todd Groundwater will coordinate with the TWG subcommittees on Annual Report requirements and incorporate the technical input from the subcommittees into the Annual Report.

Subtask 3A: Progress Made on Recommended Corrective Actions

Subtask 2A will provide a summary to document the activities and coordination by the Subbasin GSAs to implement the amended 2025 Plan. The current conditions for each sustainability indicator section should also include a description of efforts to fill data gaps during the preceding water year and how new data and information are being applied to improve basin understanding and reduce management uncertainty identified in the Plan. New information obtained from existing wells in the monitoring network during the preceding water year, such as well video surveys, reference elevation surveys, and geophysical data can also be described and used to update the understanding of the basin and the SGMA Portal Monitoring Network Module.

Subtask 3B: Current Sustainability Indicator Conditions

Input for assessing the current sustainability indicator conditions will be based on GSA data input and GSP Implementation Progress Summaries submitted via the DMS compared to the appropriate section of the applicable GSP. Todd Groundwater will provide an assessment of current information for the following sustainability indicators:

- groundwater elevation,
- change in storage and
- interconnected surface water and groundwater dependent ecosystems

For the WY2026 Annual Report, additional documentation will be required for new or expanded implementation activities for subsidence and water quality sustainability indicators. Technical information will be provided by the TWG Subcommittees and Todd Groundwater will incorporate their input into the Annual Report.

These data will be described, tabulated, and presented graphically to represent how current sustainability indicator conditions compare to minimum thresholds, interim milestones, and measurable objectives identified in the Plan, including an evaluation whether minimum threshold exceedances have

occurred and determine if those exceedances constitute an undesirable result in the basin, for each applicable sustainability indicator.

The DWR Guidance document lists the following information to be provided for each sustainability indicator with applicable monitoring and data collected during the previous water year:

- Definition of significant and unreasonable conditions
- Description of sustainable management criteria (minimum threshold, measurable objective and interim milestones, undesirable results)
- Representative monitoring site information (e.g., name and location of well or subsidence InSAR mapping data)
- Measurement information and monitoring methods
- Comparison of measurement to sustainable management criteria
- Discussion of results and potential causes of observed conditions

The DWR Guidance document further recommends assessing whether impacts to beneficial users from changes in groundwater conditions have occurred during the preceding water year. These will be documented in the Examples provided include:

- Dry wells
- Subsidence-related infrastructure damage
- Emergency water shortages
- Changes in water quality

Subtask 3C: Other Information on Implementation Progress

For the WY2026 Annual Report, additional documentation of new or expanded implementation activities for stakeholder outreach, well mitigation and other topics will be developed by their respective TWG subcommittees. The TWG subcommittee will provide the technical input, including any necessary figures and tables. Todd Groundwater will coordinate with the TWG subcommittees on Annual Report requirements and Todd Groundwater will incorporate their input into the Annual Report.

Each of these TWG subcommittee updates should provide information or accomplishments related to implementation efforts that it is using to achieve the sustainability goal for the basin, such as obtaining additional funding. Finally, the GSA should outline anticipated implementation activities and efforts to occur in the upcoming water year, such as planned data gap filling efforts or project and management action implementation.

Subtask 3D: Projects and Management Actions (PMAs)

Reporting of GSP Implementation Progress is currently being re-evaluated during the PMA Meetings by the managers. We will continue to coordinate through this group and will utilize their recommendations on PMA presentation in the Annual Report. Technical work supporting these changes is included in a separate scope of work for the PMA Subcommittee and is not included in this scope.

Previous annual reports included a GSP Implementation Progress Summary submitted by each GSA via the DMS. This task is to utilize data developed through those efforts in the annual report. Documentation of progress with GSP implementation will need to be consistent with the current Revised GSPs for each GSA. Todd Groundwater will review each summary, and any questions will be

directed to the reporting GSA. The final GSP Implementation summaries will be compiled into the WY2026 Annual Report.

The new DWR Guidance document requires that each GSA should provide updates in the Annual Report on implemented, planned, or proposed actions to address observed impacts. The PMA Progress Summary will include information on the following:

- status of the various projects proposed in the GSP (e.g., active, pre-planning, conceptual, inactive),
- the benefits observed from active PMAs, expected schedule for projects and management actions in planning stages, and
- descriptions of anticipated benefits to occur within the next water year, to be reported in the next Annual Report.
- assessment of PMAs necessary to respond to hydrologic or climate conditions and the response of those activities on achieving the sustainability goal for the basin.
- brief evaluation of whether the implementation of PMAs are resulting in adverse impacts to the various sustainability indicators, adjacent groundwater basins, or beneficial uses and users
- methods and processes that occurred during the water year to publicly notice and engage interested parties concerning the status and implementation of PMAs

Task 4: Prepare Administrative Draft, Draft, and Final Annual Report

Task 3 provides for the preparation of the Annual Report document. Prior to the submittal of the Final Report to DWR, Todd Groundwater will prepare a series of draft reports that will be circulated to the Subbasin GSAs for review and comment. The general schedule for the draft and final reports are planned as follows:

- Review Draft Annual Report: Updated Annual Report sections will be provided as they become available. These sections will be posted on the Manager Portal for Subbasin GSA review and comment. Initial results of these updated sections will be presented at the Subbasin GSA Manager Meeting as they become available.
- Complete Draft Annual Report will provide a complete document where includes revisions based on comments on the Review Draft. This draft will be provided to the Subbasin GSAs for review and comment. This draft is tentatively scheduled for **March 16, 2027**.
- A Draft Final Annual Report will be provided prior to submittal for any last-minute minor additions or corrections, if necessary.
- The Final Annual Report will be coordinated by Todd Groundwater and the Subbasin Plan Manager for submittal of the report prior to the deadline of **April 1, 2027**.

The draft report review period will be to address remaining data deficiencies, incorporate comments, and review the report for compliance with Annual Report regulations. Todd Groundwater, or the respective TWG subcommittee, will respond to comments. Todd Groundwater will coordinate document production during this period. The final report will be prepared as a PDF document that will be uploaded to the DWR SGMA portal and distributed to the Subbasin GSAs.

The DWR Water Budget Templates that will be uploaded separately to DWR along with this Annual Report. Each of the main budget data types will be summarized in the Annual Report along with a brief data description using a similar format as was used for the previous annual reports.

Task 5: Coordination, Communication and Meetings

Todd Groundwater will work with the Subbasin Technical Coordinators to coordinate communications with Subbasin GSAs, TWG subcommittees and DWR. As indicated above, there will be a need for communication with Subbasin GSAs and TWG subcommittees to obtain comparable data across the entire Subbasin for inclusion in the WY2026 Annual Report. Communications may include individual calls/emails with Subbasin agencies, conference calls with TWG subcommittees, and video conference meetings to present progress to date and discuss outstanding items or issues. In particular, any questions or contacts with DWR regarding clarifications of Annual Report requirements will be coordinated through the Subbasin Plan Manager or Technical Coordinators.

For budget and planning purposes, two Teams Meeting updates on the Annual Report are assumed as part of this scope. Because of the large number of attendees, the Subbasin Managers Meetings – typically held on Friday mornings – will be used as a forum for data requests, discussion, and comments regarding the Annual Report preparation process.

Task 6: Review Interconnected Surface Water Guidance

DWR is expected to release guidance for setting sustainable management criteria (SMCs) for Interconnected Surface Water (ISW) in late 2026. Todd Groundwater will review the new guidance and prepare a presentation for the Kern GSA mangers on the impact to Kern Subbasin and the GSP. The presentation will summarize the guidance, the current methodology to define ISWs in the basin, and identify potential action items for the Basin. We anticipate a small group discussion with interested managers and technical consultants to further discuss next steps.

5 BUDGET AND SCHEDULE

To better facilitate preparation of the WY2026 Annual Report, our work on the Annual Report data requests will begin upon receipt of a notice to proceed. The Todd Groundwater team will include staff members who worked on previous SGMA annual reports and are all familiar with the Kern County Subbasin and GSP data in order to meet the regulatory submittal date of April 1, 2027.

A budget summary by task is provided in Table 1. Execution of the scope of work described herein is estimated to cost $124,7033. This budget has increased from WY2025 to provide additional time for expanded technical work and coordination with TWG subcommittees for expanded documentation water quality, PMAs, well mitigation and other topics will be developed. Incorporating these new reporting requirements takes additional time to develop and address comments. It is anticipated that after this initial adjustment period of increased reporting requirements from the amended 2025 GSP, a stable annual report template will be in place that will allow for cost stabilization or reductions for future annual reports.

This cost estimate is considered a not-to-exceed estimate and Todd Groundwater will not exceed this cost without written authorization from the Subbasin GSAs. In addition, work will be conducted on a time and materials basis and only the costs expended will be invoiced. However, implementing the increased reporting requirements from the amended 2025 GSP may result in additional reporting tasks not covered in this scope. Addition or expansion of the tasks outlined in this scope will be considered as an extra scope of work. Todd Groundwater will look first to accommodate potential extra work scope under the approved budget. However, due to time constraints, these tasks may be required to be

completed with only verbal approval. Todd Groundwater will internally track scope variations. Following submission of the Annual Report, Todd Groundwater may submit a budget request for extra work performed if the overall budget is exceeded.

TABLE 1 – Budget Summary to Complete the WY2026 Annual Report

TASKS	Total Labor Hours	2027 Cost Estimate
Task 1: Update Groundwater Conditions	78	$17,250
Task 2: Subbasin Water Supply and Use	168	$39,460
Task 3: Compile TWG Subcommittee Input	96	$27,280
Task 4: Prepare Administrative Draft, Draft, and Final Annual Report	110	$29,550
Task 5: Coordination, Communication and Meetings	19	$5,460
Task 6: Review Interconnected Surface Water Guidance	21	$5,703
TOTAL	492	$124,703

Scope of Work – Kern County Subbasin Water Quality Implementation Services

January 1, 2026, Amended on May 15, 2026

The following Kern County Subbasin WQ scope amendment for MLJ Environmental is proposed to address changes in project assumptions, level of effort, and requested services that differ from the original scope and budget. Primary factors contributing to the increased level of effort are summarized for the 2026 and 2027 calendar years.

1. The total number of wells included in the program is higher than originally assumed in the budget (approximately 70 wells versus the assumed 55 wells).

    - Monitoring Coordination to support coordination associated with the increased number of wells included in the program; and
    - Domestic Well Notification to support preparation and distribution of additional notifications associated with the expanded well inventory.

2. Additional time has been required to address workflow coordination during initiation of the program, including the lack of electronic analytical result files and inconsistencies in sample identification information (additional time to associate results to well IDs). Some of this additional effort may decrease as processes become more streamlined and standardized.

    - Processing analytical results received as PDF reports rather than electronic data deliverables (EDDs); and
    - Tracking result sample IDs back to assigned RMW IDs used for the program.

3. Additional tasks outside the original scope have been requested, including attendance at meetings and preparation of summary emails to GSAs. Depending on project priorities and budget considerations, these tasks could be reduced, reassigned, or discontinued moving forward.

    - Attendance at Kern Subbasin Program Managers meetings;
    - Attendance at monthly technical program lead meetings;
    - Coordination check-ins with technical leads; and
    - Preparation and distribution of summary status update emails to GSA managers.

Table 1-A. Budget Adjustment Breakdown by Category.

Budget Adjustment Category	2026 Amendment		2027 Amendment	
Task 1. WQ SMC Implementation	Hours	Cost	Hours	Cost
1. Higher Well Count (approximately 70 wells vs. 55 wells assumed)	15	$2,550	15	$2,550
2. Additional Workflow Coordination During Program Initiation	24	$4,080	24	$4,080
3. Additional Coordination and Communication	32	$5,440	32	$5,440
Total Amendment Amount	**71**	**$12,070**	**71**	**$12,070**

This amendment is intended to align the scope, budget, and level of effort with current project conditions and requested services. As summarized in **Table 2-A**, certain changes, such as the increased number of wells included in the program, represent ongoing adjustments that affect both the 2026 and 2027 scope and budget assumptions. Other factors, including additional workflow coordination and supplemental communication tasks, are more variable in nature and are included in the amendment based on the current level of effort. These items may be revisited for 2027 depending on project needs, process improvements, and the level of support requested as the program gains efficiencies.

Table 2-A. Amended MLJ Environmental Cost Estimate for 2026 and 2027 Water Quality Implementation Services.

Tasks	2026 Original Budget	*Amendment (5/15/26)*	Revised 2026 Budget	2027 Original Budget	*Amendment (5/15/26)*	Revised 2027 Budget
Task 1. WQ SMC Implementation	$6,120	*$12,070*	$18,190	$6,120	*$12,070*	$18,190
Task 2. Coordination with Well Inventory Database Representative	$2,040	*$0*	$2,040	$2,040	*$0*	$2,040
Task 3. Annual Report Coordination	$3,060	*$0*	$3,060	$3,760	*$0*	$3,760
Total	**$11,220**	***$12,070***	**$23,290**	**$11,900**	***$12,070***	**$23,990**

Project Background and Description

MLJ Environmental recognizes that successful implementation of the Kern County Subbasin WQ SMC requires more than executing a set of technical tasks; it requires consistent coordination across agencies, disciplined data management practices, and proactive communication with the Subbasin's partners and consultants. Because water quality responsibilities intersect with the Well Mitigation Program, domestic well notifications, Subbasin data management, and annual reporting requirements, MLJ's role centers on **ensuring that these interconnected workflows function smoothly and predictably**.

The Kern County Subbasin GSAs rely on a unified process for tracking water quality trends, documenting exceedances, and communicating with affected well owners. MLJ understands that **accuracy, transparency, timely notifications, and clearly documented decisions** are essential for maintaining compliance with the GSP, supporting the Well Mitigation Program, and producing defensible Annual Report content. MLJ also recognizes the importance of alignment with other Subbasin service providers such as GEI, the Well Mitigation Program Implementation Consultant, and the Kern Water Collaborative, to maintain a consistent and streamlined process across all GSAs.

For annual reporting, MLJ Environmental will prepare well mitigation summaries and supporting narrative for incorporation into the Subbasin's GSP Annual Report, including tracking of exceedance-related notifications and program performance metrics.

As the program evolves, MLJ Environmental will identify opportunities for improving efficiency, consistency, and alignment with GSP requirements, and will draft recommended revisions to the Well Mitigation Program document for GSA review. This approach ensures a transparent, consistent, and well-documented process that the subbasin can rely on as mitigation activity increases in future years.

Project Scope

MLJ will implement the Kern County Subbasin WQ SMC through three coordinated tasks to ensure consistency, accuracy, and timely communication. All work described below will be performed by Project Manager, Jennifer Glenn.

Task 1. Water Quality Sustainable Management Criteria Implementation

Task 1.1 Monitoring Collection Program Coordination

MLJ will support the bi-annual RMW WQ monitoring program by coordinating with the GSAs and the laboratories responsible for collecting samples from the 55 representative monitoring wells and analyzing the six constituents of concern (arsenic, nitrate as N, nitrite, total dissolved solids (TDS), 1,2,3-Trichloropropane (1,2,3-TCP), and uranium). MLJ will confirm that all planned Spring and Fall sampling is completed on schedule. MLJ will provide suggested revisions to the Monitoring Protocol and updated electronic reporting templates by January 31, 2026, to support Spring 2026 sampling.

Upon receiving laboratory results, MLJ will review and validate the data, including checking for completeness, assessing hold-time compliance, and following up with the laboratory regarding any questions or issues. MLJ will coordinate with the appropriate GSA if any re-sampling is required.

MLJ will track all water quality results against the established minimum thresholds and water quality objectives, identify any exceedances that require Subbasin action, and notify the independent qualified professional assigned to conduct the Minimum Threshold Exceedance Investigation. MLJ will provide the data and communication support needed for investigations, as necessary. MLJ will also coordinate with the Well Mitigation Program Implementation Consultant when an exceedance is associated with a domestic well mitigation request.

Throughout each monitoring cycle, MLJ will maintain organized monitoring records and prepare bi-annual data packages formatted for GEI's DMS, including implementing any necessary template updates or recommended monitoring protocol refinements.

Task 1.1 Deliverables

- Document tracking the coordination and notification steps.
- Reviewed laboratory Excel data files (bi-annually).
- Excel file tracking water quality exceedances and monitoring completeness.
- Template and protocol update recommendations.

Task 1.1 Assumptions

- Timely receipt of laboratory data
- Laboratory data meets QA/QC standards.
- MLJ provides coordination and data support only.
- GEI DMS templates will be provided; any template updates will require approval.

Task 1.2 Domestic Well Notification Program

MLJ will manage the domestic well notification workflow for all water quality exceedances by using the Subbasin's approved notification templates and the existing domestic well notification database. MLJ will identify domestic wells located within the required radius of each exceedance and prepare complete notification packages for the GSAs to deliver to the landowners of record.

Coordination with the Kern Water Collaborative will focus on confirming notification procedures and documenting the distribution of nitrate-related exceedance notifications. MLJ will also ensure compliance with all notification deadlines, including the 30-day requirement for nitrate exceedances and the 60-day requirement for non-nitrate exceedance notifications or investigations.

All notification activities will be logged and summarized to support Subbasin reporting needs, ongoing data management, and preparation of the Annual Report.

Task 1.2 Deliverables

- Notification packages for GSAs.
- Tracking and summarizing notifications for reporting.

Task 1.2 Assumptions

- MLJ will receive up to date notification templates.
- GSAs are responsible for sending notifications to landowners of record
- MLJ will be provided with landowner information.
- Well location data are accurate.

Task 2. Coordination with the Well Inventory Database Representative

MLJ will coordinate with the Well Inventory Database Representative to support the maintenance, refinement, and application of the well inventory database for notification and water quality tracking purposes. MLJ will also work with other Subbasin consultants so that WQ SMC implementation, data formatting requirements, and DMS integration are aligned and compatible across all related workflows.

Task 2 Deliverables

- Recommendations for database improvements.
- Coordination summaries.

Task 2 Assumptions

- Well inventory is maintained by the Inventory Database Representative.

Task 3. Annual Report Coordination

MLJ will support preparation of the Kern County Subbasin Annual Report by compiling, summarizing, and reporting water quality monitoring results. This work includes preparing narrative text, data

summaries, exceedance counts, and WQ SMC compliance evaluations, such as tracking the percentage of RMW WQ samples exceeding thresholds and determining whether undesirable results criteria are triggered. MLJ will coordinate with both the Well Mitigation Program Implementation Consultant and the Annual Report consultant so that all water quality content is accurate, consistent, and ready for inclusion in the April 2027 submission.

Task 3 Deliverables

- Annual Report content, including:
  - Complete monitoring results
  - Exceedance summaries
  - Notification documentation
  - Narrative text on WQ SMC implementation

Task 3 Assumptions

- Timely data and guidance from Subbasin consultants.

Project Schedule

The following schedule assumes a January 2026 start date and spans 12 months. The timeline and associated budget assumes that preparation for the Annual Report due in April 2027 will take place in November and December 2026.

- **Project Kick-Off (January 2026):** Review of program protocols, receipt of templates, and confirmation of workflow pathways.
- **Monthly:** monthly updates on coordination activities and water quality result tracking.
- **Spring Implementation (January – June 2026):** Coordination with the GSAs regarding well monitoring in the spring including data receipt and review, completeness checks, exceedance tracking, and exceedance notification packages (as needed).
- **Fall Implementation (May – October 2026)**: Coordination with the GSAs regarding well monitoring in the fall including data receipt and review, completeness checks, exceedance tracking, and exceedance notification packages (as needed).
- **Annual Reporting (November 2026 – December 2026):** Prepare the narrative for the Annual Report pertaining to water quality monitoring and exceedance notifications (including supporting Excel files).

Budget

The budget itemized in **Table 1** estimates the cost on a time-and-materials basis to facilitate and coordinate the Water Quality Implementation tasks as outlined in the Scope of Work above, for work performed for 2026 and 2027 (January 1 – December 31). Jennifer Glenn will notify the Kern County Subbasin if any project implementation differs from assumptions outlined above that could affect costs and/or timelines. MLJ will not perform work that exceeds the budget without consent from the Kern County Subbasin.

As Principal-in-Charge, Melissa Turner will provide strategic oversight and high-level program direction as part of MLJ Environmental's commitment to this project at no additional cost. This approach reflects MLJ's commitment to cost-effective program delivery by allocating billable hours only to staff directly responsible for day-to-day implementation, while still ensuring that the project benefits from senior-level expertise and consistent program stewardship.

Table 1. MLJ Environmental Cost Estimate for 2026 Water Quality Implementation Services.

Tasks	Hourly Rate	2026 Hours	2026 Cost	2027 Hours	2027 Cost
Task 1. WQ SMC Implementation					
1.1 Preparation of recommended updates to protocols and reporting templates.	$170	5	$850.00	5	$850.00
1.1 Coordination on sampling logistics, analytes, and schedules.	$170	15	$2,550.00	15	$2,550.00
1.1 Validation of laboratory data and comparison to thresholds.	$170	4	$680.00	4	$680.00
1.1 Formatting results for GEI DMS, preparation of bi-annual data submittals.	$170	4	$680.00	4	$680.00
1.2 Preparation of notification packages and tracking.	$170	8	$1,360.00	8	$1,360.00
	Task 1 - 2026 Subtotal		***$6,120.00***	***2027 Subtotal***	***$6,120.00***
Task 2. Coordination with Well Inventory Database Representative					
2.1 Database updates and coordination.	$170	12	$2,040.00	12	$2,040.00
	Task 2 - 2026 Subtotal		***$2,040.00***	***2027 Subtotal***	***$2,040.00***
Task 3. Annual Report Coordination					
3.1 Annual Report text and tables, analysis of SMC performance metrics.	$170	16	$2,720.00	20	$3,420.00
3.1 Coordination with Subbasin consultants	$170	2	$340.00	2	$340.00
	Task 3 Subtotal		***$3,060.00***	***2027 Subtotal***	***$3,760.00***
	2026 Total		**$11,220.00**	**2027 Total**	**$11,900.00**

MLJ Environmental Rate Sheet – 2026

MLJ Environmental will submit monthly invoices by the 15th of each month for the work performed in the prior month.

Labor Classifications	Rate Per Hour
Principal	240
Senior Cloud Architect	240
Senior Developer	230
Senior Program Manager	230
Program Manager	220
Cloud Architect	207
Database Administrator	180
Senior Data Manager	180
Product Manager	180
Data Manager	170
Project Manager/Senior Staff	170
Business Analyst	160
QA Officer	160
Product Designer	160
GIS Specialist	150
Web Developer	145
Staff Scientist III	140
Junior Project Manager	140
Data Analyst II	140
GIS Analyst	135
Staff Scientist II /Data Analyst	130
GIS Technician	120
Data Associate	115
Staff Scientist	115
Administrative Assistant	100

Other Direct Charges

Personal Vehicle Mileage	$0.70/mile*
Travel and Subsistence	Actual Cost
4-Wheel Drive Truck Rental	$135.00 per day
Truck Rental Less than 6 hours	$22.50 per hour
Meter Rentals	$30 - $90 per day
Black and White Printing	$0.05 each
Color Printing	$0.50 each
Scanning	$0.50 each

- Large Document Reproduction, Binding, *etc.* Subcontracted ..... Actual Cost + 10%
- Rented Vehicles, Tools, and Other Equipment (including fuel, *etc.*) ..... Actual Cost + 10%
- Express Delivery and Courier Services for Projects ..... Actual Cost + 10%

Online Database Access for Projects ..... Actual Cost + 10%

*Based on current IRS 2025 rates. May be adjusted per IRS notifications.

SCOPE OF WORK FOR KAHN, SOARES & CONWAY
ASSISTANCE TO KERN COUNTY GSAS RE: DEGRADED WATER QUALITY PROVISIONS AND WELL MITIGATION PROGRAM IMPLEMENTATION

JANUARY – DECEMBER 2027

The Scope of Work provided here covers the time-period of January through December 2027.

Task	Estimated Hours	Estimated Costs
Task 1 – Coordination and Internal Meetings with Subbasin Committees, Subbasin leads, Cawelo Water District	30 hours	$ 15,000.00
Task 2 – Provide input, as necessary re: Kern Subbasin Well Mitigation Program, Exceedance Policy and GWQ Action Plan	10 hours	$ 5,000.00
Task 3 – Coordination with Mitigation Sub-Committee, as requested; Advise Mitigation Sub-Committee on Mitigation and Degraded Water Quality Implementation; review annual report materials as necessary	15 hours	$ 7,500.00
Total		$ 27,500.00

TODD GROUNDWATER

September 23, 2026

PROPOSAL – SCOPE OF WORK

To: Kern County Subbasin GSAs

From: Mike Maley, PG, CHG, Principal Hydrogeologist, Todd Groundwater
Maureen Reilly, PE, Principal Engineer, Todd Groundwater

Re: **Proposal –Kern County Subbasin Water Quality Exceedance Investigation and Technical Evaluation Calendar Year 2027**

APPROACH FOR WATER QUALITY EXCEEDANCE INVESTIGATIONS

The Kern Subbasin continues to coordinate the implementation of the 2025 Plan. The Kern GSAs continues to present a single, unified approach to implementing water quality monitoring, data management, and data assessment for the entire Subbasin. This scope aims to continue the implementation of the 2025 Plan and the clear and transparent process that was developed for the 2026 monitoring for water quality exceedances.

We assume the process for evaluating water quality exceedances will be the same as the process we developed in 2026 and plan to utilize the same templates prepared for the Spring monitoring for future exceedances. As such our scope no longer includes the development of the template but focuses on the three main task categories summarized below:

- **Exceedance Investigation – Biannual RMW Network Monitoring**
- **Technical Evaluation - Domestic Wells**
- **Coordination and Annual Reporting**

1. **Exceedance Investigation – Biannual RMW Network Monitoring:** Todd Groundwater will implement the exceedance investigation process for each biannual monitoring event. These monitoring events are defined in the 2025 Plan and should include Subbasin-wide RMW sampling in the spring and fall. MT exceedances in any individual well will trigger an Exceedance Investigation that will apply the steps identified in the RMW Water Quality MT (RMW-WQ MT) template. Todd staff responsible for the investigation will give a full report on these evaluations, including recommendations for next steps on all exceedances, to the Kern GSAs in a Manager's Meeting.
2. **Technical Evaluation - Domestic Wells**: As specified in the mitigation policy in the 2025 Plan, domestic well owners and users may monitor or request monitoring of their wells. If testing of any domestic wells shows water quality constituent concern concentrations above the relevant MT, Todd Groundwater initiate a Technical

Evaluation. Domestic well Exceedance Investigations will include review the water quality data from the affected domestic well, assessment of conditions in other wells close to the domestic well(s), and evaluation of current and historical land use in the affected area. The Exceedance Investigation will focus on assessing if the Water Quality Objective (WQO) exceedance is a result of groundwater management activities and evaluate the long-term mitigation proposed in the 2025 Plan Domestic Well Assessment. These investigations will be conducted on an as-needed basis. Todd staff responsible for domestic well Exceedance Investigations will report to the Kern GSAs in a Manager's Meeting. It should be noted that, as of September 2026, we had no requests for domestic well Exceedance Investigations in 2026.

3. **Coordination and Annual Reporting:** Todd Groundwater will continue to coordinate with the Kern GSAs and all consultants who are involved with the well mitigation program, water quality monitoring, and well inventory efforts. This task includes meetings between Todd Groundwater and other Kern GSA consultants and Todd Groundwater preparation for and attendance at Kern GSA meetings. This task also includes summarizing the water quality exceedances and investigations for the Annual Report and preparing relevant sections that documents the WQ exceedance process.

PROPOSED SCOPE OF SERVICES

The framework established by SGMA and described in the 2025 Plan defines water quality exceedances as an undesirable result to be mitigated by sustainable groundwater management. If water quality exceedances are reported, the 2025 Plan requires that an investigation assesses if they are the result of groundwater management activities (e.g., groundwater pumping and/or recharge activities). This framework was implemented in 2026 and 18 Water Quality Exceedance Investigations were prepared for 14 wells for the Spring 2026 monitoring event. Fall 2026 is ongoing and no notifications of exceedances have been received as of September 23, 2026.

Water quality is monitored biannually by the Kern GSAs at RMWs. Water quality at each RMW is compared to established RMW-WQ MTs to check for the occurrence of exceedances. If exceedances are identified, an Exceedance Investigation will assess if the exceedances are the result of groundwater management activities. The monitoring approach assumes that water quality at RMWs also represents conditions in the domestic and non-public wells within the RMWWQ Zone of Influence surrounding each RMW. Adverse findings in an RMW thus require that a water quality investigation consider those private wells.

Additional water quality data may be reported from private wells outside of the biannual sampling program defined in the 2025 Plan. For wells outside of an RMW-WQ Zone of Influence, non-nitrate WQOs are used to establish exceedances at private wells, and a separate Technical Evaluation workflow and report template is to be followed.

The following proposed scope of services includes the development of WQ exceedance reports for RMW and domestic wells and includes coordination including input to the Annual

Report. Both the workflow and investigations will be coordinated with the Kern Subbasin Water Quality Consultant.

Task 1. RMW-WQ MT Exceedance Investigation

Task 1 consists of the development of the RMW-WQ MT Exceedance Reports. Our approach used is based on the requirement outlined in Appendix K (Kern Subbasin Exceedance Policy and Action Plans**)** of the 2025 Plan and the templates we developed in 2026.

Task 1a Post-Event Data Initial Screening

Following each semi-annual water quality sampling event, analytical results from RMWs will be compared to RMW-WQ MTs exceedances and exceedances will be identified.

Data screening after sampling events and any subsequent investigations will be coordinated with the Well Inventory Database Representative to identify and document relevant domestic and non-public well locations and construction information. We will coordinate with the Water Quality Consultant and Data Management System Representative to review, evaluate, and utilize water quality and well information as publicly available groundwater quality information to be utilized in the RMW-WQ Exceedance Investigation(s) are incorporated into the Subbasin databases.

We will also identify whether an Exceedance Investigation was already completed for each exceedance identified in 2027. Depending on the outcome of previous exceedance reports, additional exceedances will be handled differently, as described below.

Task 1b RMW-WQ MT Exceedance Investigations

The workflow established in Task 1a will be followed to assess if each exceedance is a result of groundwater management activities.

If an Investigation links water quality exceedances to management activities, the investigation will evaluate whether domestic and other non-public wells within the respective RMWWQ Zone of Influence are also impacted due to groundwater management activities for constituents of concern identified in Section 13 of the Kern GSP.

Results will be reported in the Final RMW-WQ MT Exceedance Investigation report(s), signed by a Todd Groundwater State of California-licensed Professional Geologist or Engineer. Todd Groundwater staff will be available to attend Kern Subbasin Mitigation Evaluation Committee *(*KMEC) meetings to provide technical support as it relates to RMW-WQ MT Exceedance Investigations.

If, in the course of Task 1a, a well was identified as having previous Exceedance Report completed for the specific water quality indicator, the outcome of the previous report and the context of the current exceedance will determine the workflow. If a determination was made that the prior exceedance was not the result of groundwater management activities, a

brief Exceedance Investigation report may be developed to confirm no significant changes has occurred in the area. If changes have occurred, the exceedance will be treated as a new exceedance. If the prior Exceedance Investigation resulted in an inconclusive finding due to a lack of available data, the new data will be evaluated to assess whether the additional data permits a defensible positive or negative determination.

Task 2. Technical Evaluation

Task 2 consists of the development of domestic well WQO exceedance Technical Evaluations. Our approach used is based on the requirement outlined in Appendix G – Section 7 (Degraded Water Quality Mitigation Track Application Process) of the 2025 Plan.

Task 2a Data Screening

Todd Groundwater will screen domestic well water quality analyses to identify if WQO exceedances are present. Screening of data received from the Well Mitigation Program Consultant and Domestic Well Assessment completed by Kern Subbasin contractors and/or partners is assumed to be an ongoing and continuous process. We will coordinate with the Water Quality Consultant and Data Management System Representative to utilize publicly available groundwater quality information in Technical Evaluation screening processes. If an exceedance is identified, the screening process will identify if an RMW-WQ Exceedance Investigation has been completed in the proximate area. If not, a Technical Evaluation will be conducted.

Task 2b Technical Evaluations

For private well non-nitrate WQO exceedances not associated with RMW-WQ Exceedance Investigations, a Technical Evaluation will be completed following the template similar to the Exceedance Investigation reports describes in Task 1.

If it is found in the Technical Evaluation that a non-nitrate WQO exceedance is a result of groundwater management activities, the Technical Evaluation will evaluate the long-term mitigation proposed in the Domestic Well Assessment. Results will be reported in Final Technical Evaluation report(s), signed by a Todd Groundwater State of California-licensed Professional Geologist or Engineer. Todd Groundwater staff will be available to attend KMEC meetings to provide technical support as it relates to Technical Evaluations.

Task 3. Coordination and Annual Reporting

Todd Groundwater will consult and coordinate with the Water Quality Consultant and Data Management System Representative as it relates to publicly available groundwater quality information to be utilized in the RMW-WQ Exceedance Investigation(s) and Technical Evaluation(s). Todd Groundwater is experienced in interacting with the Kern County Subbasin Data Management System (DMS) through our work on the Annual Report and model updates. When identified on the published agenda which Todd Groundwater

contributes to, we will prepare and present water quality updates and findings at regular Kern GSA meetings.

In addition, Todd will summarize the water quality exceedances for the Annual Report and prepare relevant sections that document the WQ exceedance process.

COST ESTIMATE AND SCHEDULE

The proposed scope of services includes activities associated with Kern County Subbasin Water Quality Investigations and Evaluations. The cost estimate, schedule and project team for completing this scope of services are described below.

Cost Estimate

Based on the scope of work described herein, we have estimated costs for the Kern County Subbasin Water Quality Investigations and Evaluations as shown on the Table 1. The proposed cost estimate is a "not-to-exceed" amount of $118,280. The largest level of effort is assigned to Task 1 for the RMW-WQ MT Exceedance Investigation.

Based on our work in 2026, we estimate approximately 20 RMW-WQ MT Exceedance Investigations. While no Technical Evaluations were developed in 2026, we are budgeting for 8 Technical Evaluations in 2027. The water quality mitigation program is still ramping up and more activity in this area is expected. Our proposed level of effort is provided by task in Table 1 (following the text).

We understand that costs incurred for Task 1 and Task 2 are ultimately the responsibility of the individual GSAs with jurisdiction over each well that requires an Exceedance Investigation or Technical Evaluation. Task 3 is understood to be a cost-share between all GSAs.

Table 1. Cost Proposal for Water Quality Investigations and Evaluations

TASKS	Estimated Hours	Estimated Cost
Task 1: RMW-WQ MT Exceedance Investigation	240	$67,350
Task 2: Technical Evaluation	96	$26,840
Task 3: Coordination and Annual Reporting	78	$23,990
TOTAL	~~414~~	~~$118,280~~

Schedule

The MT Exceedance Schedule will be determined by the water quality monitoring. We assume that we will receive two batches of RMW-MT Exceedances to evaluate from the Subbasin's

Water Quality Consultant that correspond to the semi-annual reporting of data to DMS. The investigations must be completed within 90 days of receipt of an RMW-MT Exceedance.

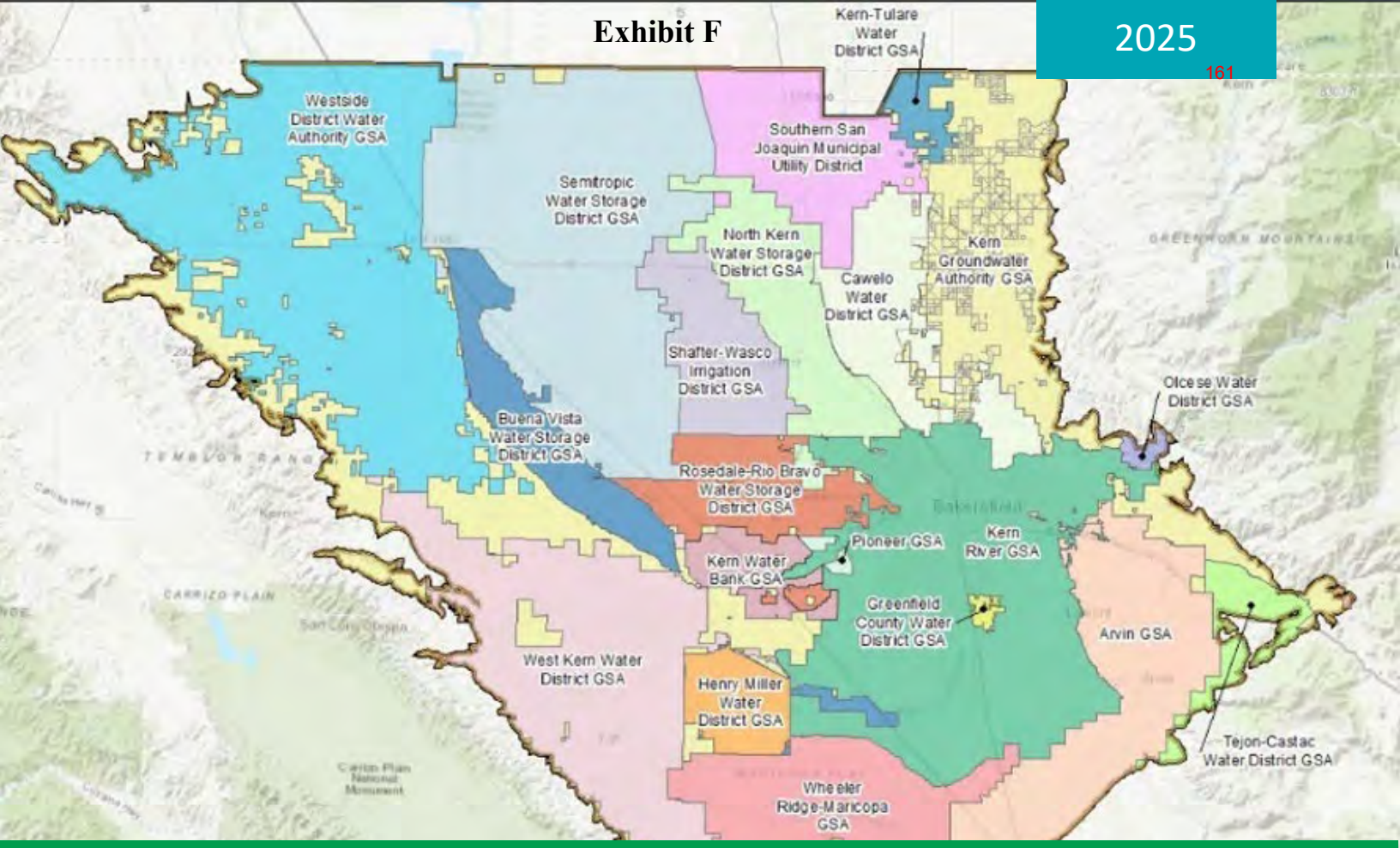
The private well non-nitrate WQO exceedances Technical Evaluation Schedule will be determined by their submittal to the Kern County Subbasin under the Well Mitigation Program. No set time period was identified in the GSP for completing the Technical Evaluation. We will coordinate with the Subbasin Well Mitigation Subcommittee on completion of this task to determine the appropriate time necessary on a case-by-case basis depending on the overall complexity of the issue.

KEY PROJECT TEAM MEMBERS

Todd Groundwater proposes a selected team, who bring groundwater basin management experience, SGMA expertise, requisite technical skills, and knowledge of the Kern County Groundwater Subbasin. This team is unchanged from the team that completed the 2026 Water Quality scope.

- Maureen Reilly, PE, will be the Technical Lead who will work closely with the technical team to set up the Water Quality Exceedance Investigations and Technical Evaluations consistent with the procedures that provide Water Quality and Well Mitigation Programs for the 2025 Plan for the Subbasin.
- Mike Maley, PE, PG, CHg, CEG, will serve as the Project Manager and provide resource on hydrogeological and groundwater management knowledge of the Subbasin.
- Menso de Jong, PhD, PG, has extensive water quality background with permit applications and water quality investigations. He will be the primary technical analyst for developing the WQ MT Exceedance Investigation and Technical Evaluations.
- Walt McNab, PhD. PG, CHg, has extensive quantitative analysis background in evaluating the impacts of agricultural operations and artificial aquifer recharge on groundwater quality. His key role is assessing the potential of groundwater management activities on water quality.
- Mike Wottrich, GISP, is a well experienced GIS and data analyst who will support the WQ MT Exceedance Investigation and Technical Evaluations with mapping, database access, and GIS spatial analysis.

Todd Groundwater technical staff will assist the Key Project Team members to support the GSP preparation and data analysis, as needed. Additional staff will provide support with graphics and administrative support.



Kern County Subbasin Groundwater Sustainability Agencies: Proposal for Well Mitigation Program Consultant Assistance

Submitted to:

Kern County Subbasin

Attn: Trent Taylor
849 Allend Road
Bakersfield, CA 93314

Submitted by:

MLJ Environmental

Melissa Turner
2520 Venture Oaks Way, Suite 310
Sacramento, CA 95833

mturner@mljenvironmental.com
C: 916.607.5602 | O: 530.756.5200

Trent Taylor, Assistant General Manager
Kern County Subbasin

Dear Mr. Taylor,

MLJ Environmental is pleased to submit our proposal to serve as the Well Mitigation Program Consultant for the Kern County Subbasin. The Well Mitigation Program is moving from concept to full implementation, and MLJ brings exactly the mix of program coordination, data-driven process design, and multi-agency workflow management needed to establish a reliable, defensible system for the Subbasin.

Our firm offers three core strengths essential to this work:

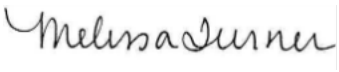
Proven experience implementing multi-track groundwater programs. For more than 25 years, MLJ has managed complex groundwater programs across California, including ILRP Coalitions, SGMA monitoring efforts, and basin-scale data collaboratives. This background provides tested methods for coordinating among multiple agencies, standardizing procedures, and documenting decisions clearly, all of which are central to a functional Well Mitigation Program.

Strong data management and tracking capabilities. MLJ has built and maintained data systems for large regional programs, giving us a deep understanding of how to structure tracking tools, ensure data integrity, and maintain transparent records across large teams. With program activities spanning dry well mitigation, water-quality-related claims, technical assistance, and State Small Water System support, our ability to integrate data and workflow documentation is a direct advantage for the Subbasin.

A highly responsive team tailored for coordination and communication. The Well Mitigation Program relies on clear, consistent communication among GSAs, SHE, the Water Quality Implementation Representative, KMEC, and Subbasin consultants. MLJ excels in this environment. Melissa Turner, Principal-in-Charge and current member of the GRA Board, will provide strategic guidance. Jennifer Sanchez, Senior Data Manager, brings extensive experience in parcel-based tracking systems, high-volume notifications, and coalition outreach, skills that directly support the administrative and coordination needs of this program.

We welcome the opportunity to help the Kern County Subbasin implement a clear, defensible, and coordinated Well Mitigation Program. Please feel free to contact us with any questions about our proposal.

Sincerely,



Melissa Turner, President
MLJ Environmental
mturner@mljenvironmental.com

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Firm Qualifications and Project Team

MLJ Environmental (MLJ) is pleased to submit this proposal to the Kern County Subbasin Groundwater Sustainability Agencies (GSAs) for consideration as the Well Mitigation Program Consultant. MLJ brings over 25 years of experience protecting communities and natural resources through science-driven, cost-effective environmental consulting, with specialized expertise in water-quality monitoring program design, groundwater data management, and regulatory compliance across California. Our deep background in both the Irrigated Lands Regulatory Program (ILRP) and Sustainable Groundwater Management Act (SGMA), including multi-party program coordination and defensible data management, aligns directly with the objectives of the Well Mitigation Program Consultant Assistance Scope of Work.

Our small-firm structure ensures highly responsive service, streamlined communication, and customized solutions, providing the Subbasin with a cost-effective alternative to larger firms while maintaining exceptional technical rigor. We understand the importance of delivering consistent, well-documented, and defensible mitigation decisions across GSAs while maintaining transparency for stakeholders and regulatory partners.

MLJ is particularly well-positioned to support this Well Mitigation Program because of our extensive experience coordinating long-term groundwater programs that require consistent workflows, multi-stakeholder alignment, defensible data, and clear regulatory reporting. Across such programs, MLJ provides program implementation, stakeholder coordination, QA/QC, and transparent documentation, skills directly aligned with the Subbasin's need to operationalize and refine the Well Mitigation Program. Company highlights include:

- **Extensive California water-quality and regulatory experience**, including SGMA, ILRP, and Nitrate Control Program coordination.
- **Integrated data, mapping, and dashboard capabilities**, enabling efficient tracking of claims, notifications, well conditions, and mitigation actions.
- **Cost-effective, responsive consulting model**, focused on providing high value to our clients.
- **Multidisciplinary team** spanning groundwater science, QA/QC, regulatory compliance, data systems, and stakeholder coordination.
- **Proven success** managing multi-agency coordination programs, including the Central Valley Groundwater Monitoring Collaborative (CVGMC) and the Central Coast Groundwater Coalition (CCGC).

Our combination of project management expertise, scientific rigor, regulatory fluency, and data-management capabilities uniquely positions MLJ to deliver high-quality, reliable implementation support for all four mitigation tracks and the Subbasin's long-term reporting needs. Further details on related projects are provided in the **Project References** section, showcasing MLJ Environmental's expertise in groundwater quality regulatory compliance, project coordination, and program oversight.

Project Team

MLJ Environmental's proposed project team combines scientific leadership with data and project management expertise to ensure high-quality and efficient project implementation. Melissa Turner, Principal-in-Charge, provides oversight and assures project quality, while Jennifer Sanchez, Senior Data Manager, will implement the work outlined in the RFP. Additional details on Ms. Turner's and Ms. Sanchez's qualifications and relevant projects are provided in the **Staff Resumes** section.



Melissa Turner

PRINCIPAL-IN-CHARGE

Years of Experience: 25+

Years with Firm: 20+

DEGREE(S)

MS, Animal Biology and BS, Wildlife, Fisheries, and Conservation Biology

Relevant Experience

Program Management of Multi-Stakeholder Monitoring Programs

Regulatory Compliance and Reporting under ILRP and Nitrate Control Program

Data System Design and Oversight for Multi-Coalition Monitoring

Ms. Turner brings over 25 years of experience in water quality monitoring, surface and groundwater data management, and project coordination. As founding partner, President, and Principal-in-Charge at MLJ Environmental, she provides strategic oversight for all major projects and ensures high-quality, defensible program implementation. Ms. Turner currently serves on the Board of Directors for the Groundwater Resources Association (GRA), contributing statewide leadership on groundwater policy and management. She has led large-scale data systems, ensuring QA/QC and regulatory compliance, and has managed multi-coalition programs, integrating complex datasets and supporting coordination across diverse stakeholders.



Jennifer Sanchez

SENIOR DATA MANAGER

Years of Experience: 25+

Years with Firm: 13+

DEGREE(S)

B.A., Mass Communication & Journalism, Fresno State University

Relevant Experience

Groundwater Data Management for Multi-Coalition Monitoring

Groundwater Data Compilation / Interpretation

Coordination and Communication

Ms. Sanchez brings extensive experience in groundwater program coordination, data management, and high-volume outreach. She has managed logistics and execution of more than 20,000 annual notifications to landowners and growers within the ILRP, maintaining parcel-based databases, tracking participation, and ensuring timely delivery of regulatory updates. Ms. Sanchez is proficient in SQL, relational databases, mass-mailing systems, Telerik reporting, and Quicksight dashboards, skills directly relevant to documenting mitigation activities and coordinating with the Subbasin's Data Management System consultants. Her combined background in outreach, tracking, and technical data systems will support efficient, transparent, and accurate implementation of the Well Mitigation Program.

Project Understanding and Approach

The Scope of Work identifies key roles for the Well Mitigation Program Consultant, including:

- Overseeing implementation of the Well Mitigation Program (dry-well track, degraded water-quality mitigation track, State Small financial assistance track),
- Coordinating between GSAs, contractors, and the Kern Subbasin Mitigation Evaluation Committee (KMEC),
- Supporting notifications to domestic well owners when water-quality thresholds are exceeded,
- Maintaining accurate records for the Annual Report, and
- Revising program documents.

MLJ's expertise aligns closely with these needs.

MLJ Environmental will implement a structured, coordination-driven approach that builds on the Subbasin's existing workflow while establishing clear, defensible procedures for processing domestic well mitigation requests.

During project initiation, our team will review and refine the existing internal communication flowchart and convert it into an operational workflow supported by task-specific standard operating procedures for each mitigation track, including dry wells, technical assistance, State Small Water System support, and water-quality-driven claims.

The Senior Data Manager will serve as the single point of contact for the KMEC and each GSA, ensuring timely information exchange, consistent communication, and the preparation of monthly progress updates that include narrative summaries and Excel-based tracking tables.

MLJ Environmental will develop and maintain a centralized tracking system to document claim intake, verification, coordination steps, timelines, and outcomes, with linkages to the Subbasin's Data Management System (DMS) where applicable.

Throughout the year, our team will coordinate directly with relevant GSAs, the Water Quality Implementation Consultant, KMEC, Self-Help Enterprises (SHE), and other Subbasin consultants, as needed, to support complete and timely processing of each request.

For annual reporting, MLJ Environmental will prepare well mitigation summaries and supporting narrative for incorporation into the Subbasin's GSP Annual Report, including tracking of exceedance-related notifications and program performance metrics.

As the program evolves, MLJ Environmental will identify opportunities for improving efficiency, consistency, and alignment with GSP requirements, and will draft recommended revisions to the Well Mitigation Program document for GSA review. This approach ensures a transparent, consistent, and well-documented process that the subbasin can rely on as mitigation activity increases in future years.

Scope of Work

MLJ Environmental will implement the Well Mitigation Program through a structured set of tasks that provide consistent program coordination, rigorous data management, timely domestic well notifications, and comprehensive reporting to support the Kern County Subbasin's SGMA requirements. Our approach emphasizes clarity, traceability, and seamless coordination across GSAs, SHE, KMEC, and the DMS consultant. All work described below will be performed by Senior Data Manager, Jennifer Sanchez.

Task 1: Well Mitigation Program Implementation & Coordination

MLJ will provide day-to-day leadership of Well Mitigation Program implementation. Jennifer Sanchez will serve as the centralized point of contact, coordinating all communications between GSAs, SHE, KMEC, and other partners. Applicants to the Well Mitigation Program for dry wells (Dry Well Track) will be reviewed by the KMEC for eligibility; Ms. Sanchez will facilitate and coordinate this process to ensure it is completed by the Kern County Subbasin Qualified Professional and KMEC and processed through the next steps of the Well Mitigation Program. Ms. Sanchez will ensure that eligible applicants who have dry wells are transferred to SHE in order to offer emergency drinking water within 24-hours of notification and forwarded to the appropriate contact for financial assistance (Dry Well Technical Assistance Track). If the well falls in the Degraded Water Quality Mitigation Track, Ms. Sanchez will coordinate with the Water Quality Implementation Representative as described in Task 2.

Work includes facilitating monthly coordination meetings, tracking action items, and maintaining program momentum across all mitigation tracks (dry wells, water-quality exceedances, technical assistance, and State Small System support). Ms. Sanchez will attend monthly KMEC meetings which are estimated to be 30 minutes each. MLJ will also summarize decisions, document meeting notes, and communicate follow-up actions from these meetings to the appropriate GSA. MLJ will revise and update the Well Mitigation Program document, maintain internal workflows and process flowcharts, and ensure alignment with Subbasin-wide mitigation procedures. MLJ will also maintain the mitigation-tracking database, coordinate data structure needs with the DMS consultant, and provide monthly program summaries, including invoice tracking, and implementation status updates.

MLJ will prepare monthly mitigation-activity summaries, maintain tracking systems documenting program actions, and support review of program progress. MLJ will prepare the mitigation implementation section for the Annual Report, including required narrative content, tables, figures, and recommended updates to the Well Mitigation Program. MLJ will coordinate with the Annual Report consultant to ensure seamless integration into the overall subbasin report and maintain documentation needed for audits, GSP updates, and future refinements to mitigation procedures.

TASK 1 DELIVERABLES

- Monthly updates on mitigation activities (pdf and Excel)
- Annual Report write up reflecting mitigation practices
- Attend monthly meetings and provide summary of action items

TASK 1 ASSUMPTIONS

- Application documents will be created by the KMEC
- SHE will be responsible for providing short, interim, and long term solutions for eligible wells
- KMEC will determine eligibility of applicants
- Assumes up to 12 well applications per year

Task 2: Water Quality Sustainable Management Criteria Implementation

Ms. Sanchez will coordinate with the Water Quality Implementation Representative as it relates to domestic well notifications. When a well exceeds a Minimum Threshold (MT), it is assumed that the impact is due to GSA projects and the well owner will be notified according to the Exceedance Policy. This notification will include instructions for submitting an application to be assessed by the KMEC for eligibility. Ms. Sanchez will ensure that efficient coordination occurs between the Well Mitigation Program and the exceedance notifications. It is expected that efforts will be needed to track status of initial screening and domestic well eligibility evaluation. Ms. Sanchez will work to make processes as automated as possible to ensure timely communications.

TASK 2 DELIVERABLES

- Refinement of procedures to ensure timely communications
- Tracking of screening and evaluation of wells with degraded water quality

TASK 2 ASSUMPTIONS

- Application materials will be provided by the KMEC
- Exceedance notifications will be the responsibility of the Water Quality Implementation Representative

Project Schedule

The following schedule assumes a January 2026 start date and corresponds with the visual timeline shown in **Figure 1.** The timeline and associated **Proposed Budget** spans 24 months, allowing for one full year of implementing the Well Mitigation Program followed by a complete Annual Report cycle. Some effort is expected early in the project to support the April 2026 Annual Report with a brief write-up, while additional time has been allocated for the more extensive April 2027 Annual Report, which will reflect a larger number of wells tracked under the program.

- **Project Kickoff (January 2026):** Review of existing workflows and procedures, project timeline refinements, and review of communication procedures. Set clear expectations for the Well Mitigation Program Consultant.
- **Implementation (January – December 2026):** Launch and manage mitigation tracks, issue notifications, produce monthly reporting.
- **Annual Reporting (November 2026 – January 2027):** Prepare the program's Annual Report section and provide recommended revisions.
- **Continuation (January – December 2027):** Ongoing program refinement, continued implementation, and outreach.

Proposed Budget

The budget itemized in **Table 1** estimates the cost on a time-and-materials basis to facilitate and coordinate the Well Mitigation Program as outlined in the Scope of Work above, for work performed for 2026 and 2027 (January 1 – December 31). Jennifer Sanchez will notify the Kern County Subbasin if project implementation differs from assumptions outlined above that could affect costs and/or timelines. MLJ will not perform work that exceeds the budget without consent from the Kern County Subbasin.

As Principal-in-Charge, Melissa Turner will provide strategic oversight and high-level program direction as part of MLJ Environmental's commitment to this project at no additional cost.

Table 1. MLJ Environmental Cost Estimate for 2026 and 2027 Well Mitigation Program Consultant Services.

Tasks	Hourly Rate	2026 Hours	2026 Cost	2027 Hours	2027 Cost
Task 1. Well Mitigation Program Implementation & Coordination					
Kickoff meeting including preparation, attendance, and follow up notes.	$180	4	$720.00	4	$720.00
Monthly progress reports with Excel summaries.	$180	12	$2,160.00	12	$2,160.00
Monthly calls (if needed).	$180	12	$2,160.00	12	$2,160.00
Communication with other tracks, GSAs, SHE, and KMEC.	$180	12	$2,160.00	12	$2,160.00
Tracking of well mitigation process.	$180	24	$4,320.00	24	$4,320.00
Process review and updates to the Well Mitigation Program documents.	$180	6	$1,080.00	6	$1,080.00
Annual Reporting (due April each year).	$180	7	$1,260.00	9	$1,620.00
		Task 1 - 2026 Subtotal	***$13,860.00***	***2027 Subtotal***	***$14,220.00***
Task 2. Water Quality Sustainable Management Criteria Implementation					
Coordination with water quality implementation representative on domestic well notification system	$180	6.5	$1,170.00	6.5	$1,170.00
Notification procedure updates	$180	6.5	$1,170.00	6.5	$1,170.00
		Task 2 – 2026 Subtotal	***$2,340.00***	***2027 Subtotal***	***$2,340.00***
		2026 Total	**$16,200.00**	**2027 Total**	**$16,560.00**

Project References

The projects summarized below highlight MLJ Environmental's strength in program coordination, data management, and technical leadership for groundwater quality initiatives. Our team brings extensive experience developing and managing complex regulatory programs, maintaining high-quality data systems, and ensuring that project workflows remain timely, accurate, and compliant with all applicable requirements. Each example identifies MLJ's specific role, the year of completion, and reference contact information.

Central Valley Groundwater Monitoring Collaborative (CVGMC)

Years Performed	2019 – present
Firm Role	Subcontractor for Data Management and Quality Control
Reference Contact Information	David Cory, (916) 716-5815, farmeratlaw@comcast.net

Description and Staff Roles
In partnership with Luhdorff & Scalmanini Consulting Engineers (LSCE), MLJ Environmental provides comprehensive program coordination, data management, and technical leadership to the 10 participating Coalitions in the Central Valley Groundwater Monitoring Collaborative (CVGMC). MLJ manages the flow of all groundwater monitoring data, including collection, verification, and QA/QC review of submitted analytical and field datasets, resolution of discrepancies with field crews and laboratories, and preparation of final datasets for regulatory reporting. MLJ facilitates continuous communication and coordination with LSCE and other technical consultants, Coalition leads, and laboratories, ensuring consistent data standards, efficient workflows, and defensible reporting across multiple organizations. Under the leadership of Melissa Turner, Principal-in-Charge, MLJ developed, maintains, and actively utilizes the CVGMC Data Management System (DMS), a centralized, secure repository that enables standardized data storage, multi-Coalition trend analyses, and future enhancements for online data visualization and participant engagement. MLJ's long-standing role with the CVGMC highlights our expertise in coordinating across regulatory programs (ILRP, Nitrate Control Program Management Zones, and GSAs), managing complex datasets, and delivering accurate, timely, and fully transparent groundwater quality information.

East San Joaquin Water Quality Coalition (ESJWQC)

Years Performed	2004 – present
Firm Role	Technical Consultant for ILRP Compliance (R5)
Reference Contact Information	Caitie Diemel, (209) 522-727, caitiec@stanfarmbureau.org

Description and Staff Roles
As the lead contractor to the ESJWQC, MLJ Environmental has provided comprehensive program coordination, data management, and technical leadership since the Coalition's formation under the first General Order for a third-party group in 2003. MLJ guided the development of foundational regulatory documents, including the first Groundwater Assessment Report and Groundwater Quality Trend Monitoring Work Plan, prepared by Luhdorff and Scalmanini Consulting Engineers (LSCE), and has since overseen the integration,

organization, and evaluation of groundwater quality datasets across both ILRP and SGMA programs. Under the leadership of Melissa Turner, Principal-in-Charge, and Senior Data Manager Jennifer Sanchez, MLJ manages all regulatory deliverables, maintains consistent data standards, coordinates with technical consultants and the Regional Water Board, and ensures that program elements remain aligned with evolving requirements. MLJ's role includes managing data flows from multiple sources, supporting SGMA–ILRP data alignment where monitoring networks overlap, and ensuring that all information is processed, validated, and reported accurately and efficiently.

Central Coast Groundwater Coalition (CCGC)

Years Performed	2013 – 2020
Firm Role	Lead contractor
Reference Contact Information	Parry Klassen, (559) 288-8125, klassenparry@gmail.com

Description and Staff Roles

MLJ Environmental served as the lead contractor for the Central Coast Groundwater Coalition groundwater monitoring and reporting program and provided comprehensive oversight of subcontractors delivering groundwater technical services. Under the direction of Melissa Turner, Project Manager, and Senior Data Manager Jennifer Sanchez, MLJ managed all aspects of program implementation and coordination including working closely with the geology firm, Hydrofocus, and eventually LSCE when they were brought in towards the end of the project. Through this work, MLJ developed an exceptional understanding of the unique needs and challenges of large-scale groundwater trend monitoring programs, including the logistics and effort required to sample hundreds of wells across a broad geographic region. MLJ also created essential tools to support program implementation, such as groundwater monitoring QAPPs, sampling and analysis plans, custom databases for tracking well and well owner information, including demographic details, precise locations, water quality data, and exceedance notifications consistent with Central Coast Regional Water Quality Control Board requirements.

Staff Resumes



Melissa Turner

PRINCIPAL-IN-CHARGE

Years of Experience: 25+

Years with Firm: 20+

DEGREE(S)

MS, Animal Biology, University of California, Davis

BS, Wildlife, Fisheries, and Conservation Biology, University of California, Davis

Relevant Experience

Program Management of Multi-Stakeholder Monitoring Programs

Regulatory Compliance and Reporting under ILRP and Nitrate Control Program

Data System Design and Oversight for Multi-Coalition Monitoring

SGMA Compliance

BACKGROUND

Ms. Turner has over 25 years of experience in water quality monitoring, data management, chemistry and toxicity, fish ecology, and project management. As a founding partner and current President of MLJ Environmental, she has overseen the development and implementation of data systems, monitoring networks, and compliance reporting that directly parallel the objectives of the WWD groundwater monitoring project. Her expertise bridges the technical, regulatory, and stakeholder aspects of large-scale agricultural water quality monitoring programs.

Ms. Turner was the initial manager of the Central Valley Regional Data Center at the University of California, Davis, which provides one of the largest water quality datasets in the Central Valley to the California Environmental Data Exchange Network (CEDEN). She has since managed regional monitoring programs and multi-coalition collaborations, focusing on integrating diverse datasets into comparable formats, ensuring QA/QC, and supporting regulatory submittals - critical experience for ensuring the completion of the WWD groundwater monitoring as proposed within budget and timeframe.

RELEVANT PROJECTS

Irrigated Lands Regulatory Program (ILRP) Monitoring

Ms. Turner has extensive experience designing, implementing, and evaluating monitoring programs to assess agricultural discharges and their impacts on downstream beneficial uses. She has provided technical support for multiple Central Valley agricultural coalitions, including the San Joaquin County & Delta Water Quality Coalition, East San Joaquin Water Quality Coalition, Westside San Joaquin River Water Coalition, Grassland Drainage Authority Coalition, and Westlands Water Quality Coalition. Her expertise extends statewide, supporting coalitions in the Sacramento Valley, Central Coast, and Colorado River Region.

Central Valley Groundwater Collaborative (CVGMC)

As Project Manager for the CVGMC, Ms. Turner oversees development of a Data Management System enabling ten coalitions to load groundwater data via online tools for efficient trend

analysis across coalition boundaries. The system supports ILRP compliance and Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS) Surveillance and Monitoring Program requirements. She also manages the development of a QuickSight-based visualization tool, allowing coalition members to generate real-time graphs and charts with customizable filters.

Central Valley Salinity Alternative Long-Term Solution (CV SALTS)

SAMP Workplan

Melissa Turner has been a key leader in developing the CV-SALTS Surveillance and Monitoring Program (SAMP) Workplan, applying her long-standing expertise in groundwater quality, regulatory compliance, and data integration across the Central Valley. She developed the SAMP data workflows, QA/QC procedures, and reporting processes that support Management Zones and align with ILRP and SGMA requirements which are included in the SAMP Workplan. Through her leadership of the Central Valley Groundwater Monitoring Collaborative, she has helped harmonize nitrate and trend-monitoring data across agencies, streamline reporting burdens for growers, and ensure that SAMP outputs are scientifically defensible and usable for regulatory decisions. Her role consistently bridges technical implementation with collaborative stakeholder coordination, making her a trusted contributor to CV-SALTS' basin-wide monitoring efforts.

Management Zone Dashboard

Melissa Turner leads the design, development, and ongoing implementation of the CV-SALTS Management Zone Dashboard, an integrated data system that supports the Nitrate Control Program's reporting, transparency, and compliance needs. The team performs data validation, harmonizes data structures with CV-SALTS and State Water Board requirements, and develops interactive visualizations, geospatial displays, and automated summary tables that provide real-time insight into well testing progress, exceedances, replacement water delivery, and Management Zone performance milestones. MLJ also coordinates directly with Management Zone administrators and participating dischargers to ensure consistent data definitions, troubleshoot data issues, and train users, while continually enhancing the dashboard to increase automation, improve accuracy, and support effective compliance communication across all participating Management Zones.



Jennifer Sanchez

SENIOR DATA MANAGER

Years of Experience: 25+
Years with Firm: 13+

DEGREE(S)

B.A., Mass Communication & Journalism, Fresno State University

Relevant Experience

Compliance documentation
Data management
Member invoicing including applying accounting practices
Data management and auditing
Workflow simplification and automation
Mass mailing coordination

BACKGROUND

Jennifer Sanchez brings extensive experience in data management, program tracking, and high-volume outreach, specializing in regulatory programs that rely on parcel-based landowner associations. She has overseen logistics and facilitation of more than 20,000 annual notifications to landowners and growers, including coordinated mailings and large-scale email communications. Her outreach background is grounded in years of direct work with growers and third-party coalitions under the Irrigated Lands Regulatory Program (ILRP), where accuracy, consistency, and timely communication are essential.

Ms. Sanchez maintains and updates complex internal databases that track member participation, correspondence, and compliance documentation. She designs and administers structured workflows for notifications, reminders, invoicing, and reporting—ensuring that all communication and compliance processes are executed systematically and documented thoroughly. Her hands-on familiarity with ILRP administrative systems, parcel tracking, and compliance monitoring translates directly to the Kern County Subbasin's needs for accurate, transparent, and well-organized Well Mitigation Program records.

In addition to her outreach and program management experience, Ms. Sanchez brings advanced technical capabilities in SQL, relational databases, mass-mailing platforms, query development, Telerik reporting, and Amazon Quicksight dashboards. These skills enable her to collaborate effectively with Data Management System consultants, identify workflow efficiencies, support data integration, and enhance tracking and reporting accuracy. Her combined strengths in communication logistics and data systems make her uniquely suited for managing the documentation, coordination, and tracking required for the Kern County Subbasin Well Mitigation Program.

RELEVANT PROJECTS

Central Coast Groundwater Coalition (CCGC) Program Administration and Data Tracking

Ms. Sanchez supported the Central Coast Groundwater Coalition by maintaining accurate and up-to-date member and parcel records, coordinating all outgoing notifications, and ensuring consistent tracking of participation and compliance with program requirements. She managed internal databases documenting correspondence, member updates, and required submissions,

and assisted with preparing and distributing coalition-wide reports. Her work for the CCGC emphasized systematic data organization, clear communication workflows, and reliable documentation, skills directly applicable to the administrative and tracking needs of the Kern County Subbasin Well Mitigation Program.

Irrigated Lands Regulatory Program (ILRP) Administration and Data Management

Ms. Sanchez has extensive experience supporting ILRP coalitions through comprehensive data management, outreach coordination, and compliance tracking. She has maintained parcel-based membership databases, executed large-scale notification and invoicing workflows, and overseen organized tracking of participation and regulatory requirements. Ms. Sanchez has provided administrative and data-system support to multiple ILRP coalitions, including the East San Joaquin Water Quality Coalition, San Joaquin County & Delta Water Quality Coalition, Coachella Valley ILRP, Sacramento Valley Water Quality Coalition, Imperial Valley ILRP, Kings River Water Quality Coalition, Westside San Joaquin River Watershed Coalition, and the Westlands Water Quality Coalition. Her work spans coordinated mailings, email communication, parcel and member verification, compliance documentation, and preparation of member-facing reports—ensuring that coalition processes remain accurate, efficient, and well-documented across diverse regions of California.

MLJ Environmental Rate Sheet – 2026

Expense Reimbursement Schedule

MLJ Environmental will submit monthly invoices by the 15th of each month for the work performed in the prior month.

LABOR CLASSIFICATIONS	RATE PER HOUR
Principal	240
Senior Cloud Architect	240
Senior Developer	230
Senior Program Manager	230
Program Manager	220
Cloud Architect	207
Database Administrator	180
Senior Data Manager	180
Product Manager	180
Data Manager	170
Project Manager/Senior Staff	170
Business Analyst	160
QA Officer	160
Product Designer	160
GIS Specialist	150
Web Developer	145
Staff Scientist III	140
Junior Project Manager	140
Data Analyst II	140
GIS Analyst	135
Staff Scientist II /Data Analyst	130
GIS Technician	120
Data Associate	115
Staff Scientist	115
Administrative Assistant	100

OTHER DIRECT CHARGES	
Personal Vehicle Mileage	$0.70/mile*
Travel and Subsistence	Actual Cost
4-Wheel Drive Truck Rental	$135.00 per day
Truck Rental Less than 6 hours	$22.50 per hour
Meter Rentals	$30 - $90 per day
Black and White Printing	$0.05 each
Color Printing	$0.50 each
Scanning	$0.50 each
• Large Document Reproduction, Binding, *etc.* Subcontracted	Actual Cost + 10%
• Rented Vehicles, Tools, and Other Equipment (including fuel, *etc.*)	Actual Cost + 10%
• Express Delivery and Courier Services for Projects	Actual Cost + 10%
Online Database Access for Projects	Actual Cost + 10%

*Based on current IRS 2025 rates. May be adjusted per IRS notifications.

INTERA Incorporated
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INTERA.com

October 12, 2026

Derek Yurosek
Kern Subbasin Manager
Kern River Groundwater Sustainability Agency
3200 Rio Mirada Drive
Bakersfield, CA 93308

RE: Proposal for Kern County Subbasin SGMA Support Services from January through December 2027

Dear Mr. Derek Yurosek,

The Kern Subbasin (Subbasin) continues to operate outside of State intervention under California Department of Water Resources (DWR) oversight and is focused on implementing its 2025 Groundwater Sustainability Plan (GSP). We are proud to have supported the Subbasin's community outreach and engagement throughout development of the 2025 GSP and its first year of implementation.

This proposal outlines a focused approach to sustain the Subbasin's outreach and engagement commitments through calendar year 2027. Unlike the intensive outreach strategy developed for the 2025 GSP, the proposed 2027 effort is streamlined and more closely aligned with the level of support provided in 2026.

The 2026 cost estimate exceeded the level of effort ultimately needed, as anticipated NGO engagement needs based on the intensive 2025 GSP development period did not materialize. The 2027 proposal has therefore been adjusted to better reflect demonstrated needs during implementation.

Our continued support will help the Subbasin communicate technical and policy information clearly and accessibly to State agencies, NGOs, water users, and the broader public.

1.0 Scope of Work

Task 1. Community Outreach & Engagement

This task will sustain the Subbasin's community outreach and engagement efforts through calendar year 2027, building on relationships established during development and implementation of the 2025 GSP. Activities will support continued communication with community groups, NGOs, nonprofit organizations, and other stakeholders, while maintaining effective coordination with DWR and the State Water Resources Control Board. All activities will align with the commitments outlined in the 2025 GSP's *Stakeholder Communications and Engagement Plan*.

The scope is intended to provide a streamlined level of outreach support consistent with the Subbasin's needs during the current implementation phase. Larger, project-specific efforts, such as outreach associated with future basin-wide studies, may be addressed under separate scopes of work.

Digital Content Development & Management

- Maintain the Subbasin's Facebook and Instagram accounts with consistent, multilingual content.
- Develop and coordinate up to five social media posts per month in English, Spanish, and Punjabi, as appropriate to ongoing activities.
- Update key sections of KernGSP.com, including the homepage, GSP Documents, Contact Us, and Meetings & Events Calendar, as needed.
- Develop public-facing materials, such as flyers and handouts, subject to GSA Manager and Policy Committee review and approval.
- Develop and coordinate translation and distribution of annual newsletter through the website and email list.

Stakeholder Inquiries and Coordination

- Facilitate a structured process for receiving, tracking, and coordinating responses to inquiries from NGOs, community members, and other stakeholders in coordination with the Subbasin Plan Manager.
- Monitor and promote relevant events and outreach opportunities hosted by partner organizations, such as the Kern Water Collaborative, Water Association of Kern County, and Kern County Farm Bureau.
- Identify optional media, presentation, and community engagement opportunities for consideration by GSA managers and staff.

Annual Report Workshop

- Plan and coordinate the annual public Annual Report Workshop, including meeting logistics, notifications, presenter coordination, and development of public-facing presentation materials based on the Annual Report.
- Coordinate outreach materials, website and email notifications, and live interpretation in English, Spanish, and Punjabi.

All outreach activities and stakeholder engagement will be tracked to support documentation in future Annual Reports and demonstrate continued implementation of the Subbasin's engagement commitments.

Task 1 Deliverables

- Monthly draft and final social media content, generally 2 posts per month, in English, Spanish, and Punjabi.
- Draft and final website update language, as needed, in English, Spanish, and Punjabi.
- Draft and final public-facing outreach materials, as needed, in English, Spanish, and Punjabi.
- One annual newsletter in English, Spanish, and Punjabi.
- Annual Report Workshop presentation, flyers, digital noticing language, and handout materials in English, Spanish, and Punjabi.
- Outreach and stakeholder engagement tracking for future Annual Report documentation.

Task 2. Annual Reporting Support

INTERA will support documentation of the Subbasin's community outreach and engagement activities for inclusion in the 2026 Water Year Annual Report. This effort will summarize key outreach activities and engagement metrics and is intended to provide a concise public record demonstrating the Subbasin's continued efforts to meet its community outreach and engagement commitments.

Task 2 Deliverable

- Documentation summarizing 2026 Water Year community outreach and engagement activities and metrics for inclusion in the 2026 Water Year Annual Report.

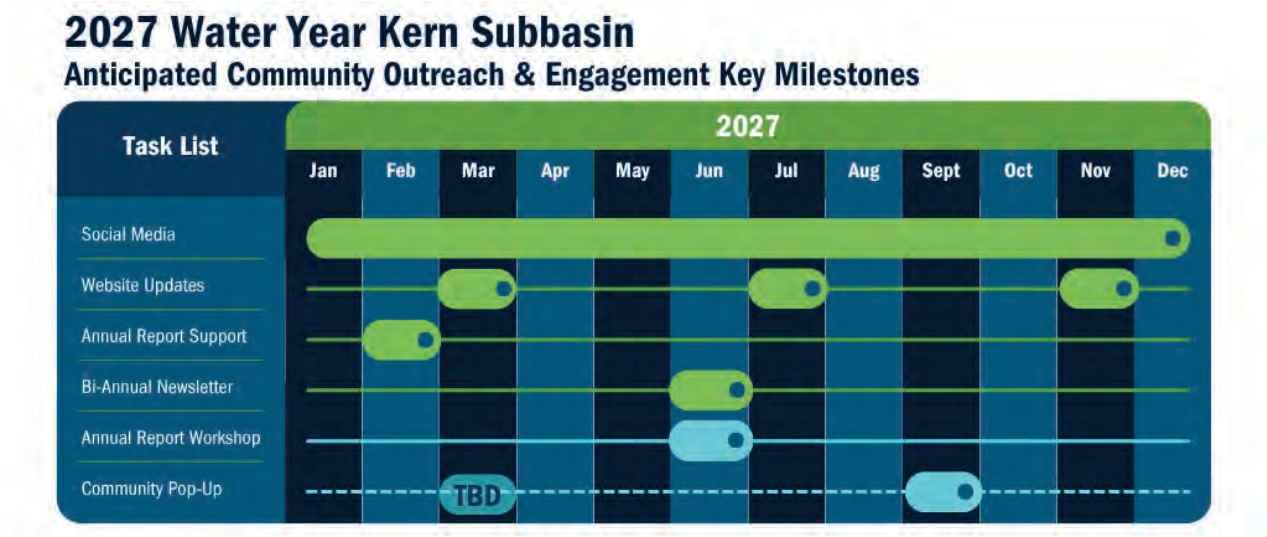
2.0 Assumptions

The following assumptions provide a transparent, shared basis for the proposed scope and budget:

- INTERA will provide one attendee from the Community Outreach & Engagement team for one Managers Committee meeting and one Policy Committee meeting per month.
- Meetings will be attended virtually.
- Translation and interpretation services will continue to be provided under a separate vendor agreement and are not included in this scope or budget.
- All required data and information provided to INTERA will undergo appropriate quality assurance/quality control prior to submittal.
- GEI will manage the KernGSP.com website, with INTERA providing content and language for requested updates.
- Major outreach efforts associated with future basin-wide studies or other substantial initiatives are not included in this scope and may require a separate scope and budget.

3.0 Schedule

This proposal covers identified tasks for the period from January 1, 2027, to December 31, 2027.



4.0 Budget

The budget for this period is organized by quarters, with most of the Subbasin's major outreach initiatives are scheduled for 2027, as depicted in the schedule above.

Period	Milestone Activity Summary	Total
Q1 2027	Social media and website updates; community outreach activities, 2026 water year annual report write-up	$13,000
Q2 2027	Social media and website updates; Annual Report Workshop; outreach material development, annual newsletter development	$25,000
Q3 2027	Social media and website updates; community outreach activities	$18,000
Q4 2027	Social media and website updates; outreach material development	$10,000
Total for Calendar Year 2027		**$66,000**

The timing of individual activities is subject to change based on Subbasin needs and the availability of information. Adjustments to the timing or sequencing of activities will be coordinated with the Subbasin Plan Manager and Managers Committee, as appropriate.

Thank you for considering our proposal to continue this important work. We are grateful for the opportunity to continue to build on our partnership. Should our approach be selected, we are ready to continue seamlessly supporting the implementation into 2027.

Sincerely,

INTERA Incorporated



Kait Palys
Senior Water Resources Scientist

aquilogic, Inc.
environment • water • strategy

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Web: www.aquilogic.com

October 7, 2026

Morgan Campbell
Director of Regulatory Affairs
Westside District Water Authority

sent via email to:
mcampbell@westsidewa.org

Re: Estimated 2027 Budget - Kern Subbasin SGMA Technical Consulting Support

Dear Morgan:

Per the request of the Subbasin Managers, Aquilogic Inc. **(aquilogic)** is submitting this proposed scope of work and cost estimate to provide SGMA technical consulting support to the Kern Subbasin. The period of support covered by this submittal is January 1, 2027, through December 31, 2027. To date, our work has focused on the preparation and implementation of the 2025 Subbasin Groundwater Sustainability Plan (2025 Plan) and resolution of the deficiencies identified by the Department of Water Resources (DWR). Specifically our work has focused on;

- The causes, rates and extent of land subsidence,
- Refining the distinction between Groundwater Sustainability Agency (GSA)-related versus non-GSA causes of subsidence,
- Establishing fact-based, defensible subsidence Interim Milestones (IMs) and Minimum Thresholds (MTs) for Subbasin regional critical infrastructure and GSA critical infrastructure, and
- Responding to technical queries from DWR and California Aqueduct Subsidence Project (CASP) staff.

Background

On September 17, 2025 the State Water Resources Control Board (SWRCB) determined that the seven Final 2025 Subbasin GSPs were conditionally approved for referal back to the DWR for review and oversight, pending DWR review. The DWR review of the 2025 Plan is anticipated to be completed in the next approximately 12 to 18 months. To help achieve the twin objectives of sustainability and SGMA implementation compliance, the Subbasin Coordination Committee

(SCC) formed an advisory technical working group (TWG). The TWG is comprised of a cadre of current GSA technical and environmental consultants, including **aquilogic**.

Our understanding of the purpose of this scope of work and cost estimate is to assist the Subbasin in continuing to successfully implement the 2025 Plan, with a focus on Subbasin subsidence-related issues including Quarterly monitoring and reporting requirements through the end of 2027 and to identify, implement and manage critical path tasks for subsidence compliance pertaining to Subbasin regional critical infrastructure (i.e., California Aqueduct and Friant Kern Canal) and the Subbasin Hydrogeologic Conceptual Model (HCM) areas. Work items for 2027 not included in this scope that may be requested by the California Aqueduct Subsidence Project (CASP) or DWR will be identified and discussed with the Subbasin Mangers for approval prior to conducting any such work. **Aquilogic** will continue its support for Subbasin issues related to the northern reaches of the Aqueduct (e.g., MP 189 to MP 250) and to coordinate with EKI who is continuing to manage the Subbasin issues related to the southern Aqueduct reaches. This **aquilogic** scope of work consists of the two tasks described below:

Task 1: 2027 Subbasin Subsidence Working Group Support

Aquilogic will, in coordination with the pertinent Subbasin Managers and Subsidence Working Group Subcommittee members, interact with the CASP, DWR, and other relevant agencies Geologic Energy Management [CalGEM] etc.) as needed to address Subbasin subsidence-related elements.

As part of Task 1 **aquilogic** will,

- Participate in up to eight remote 1-hour Subbasin Subsidence Working Group technical meetings to discuss subsidence data results and implementation of the current Subbasin Subsidence Action Plan as detailed in Appendix K of the 2025 Plan.
- Participate in up to four remote Quarterly 2-hour Subbasin check-in meetings with CASP to discuss any emerging technical issues and the status of subsidence Interim Measures (IM) and Minimum Thresholds (MTs) related to Aqueduct infrastructure and subsidence Sustainable Management Criteria (SMCs).
- Participate in up to three-(2 remote and 1 in-person) 2-hour technical meetings with DWR staff to discuss emerging issues pertaining to Subbasin subsidence data and reporting and DWR progress in reviewing the subsidence elements of the 2025 Plan, with an emphasis on GSA versus non-GSA causation factors.

- Coordinate with the Subsidence subcommittee to provide technical QA/QC review of expected DWR reports (e.g., LIDAR study) and subsidence subcommittee and other Subbasin deliverables and /data. An annual total of 16 hours is estimated for this element.

Task 2: 2026 Subbasin Technical Support

Aquilogic, in coordination with the relevant Subbasin Managers and Subsidence Subcommittee members, will continue to help implement the Subbasin coordinated subsidence monitoring and reporting elements articulated in the 2025 Plan and assist in the preparation of technical responses to items pertaining to identified regional critical infrastructure subsidence (e.g., Aqueduct) identified by CASP or the DWR as part of their final review of the 2025 Plan.

For this task of work, **aquilogi**c will,

- Participate in the analysis and reporting of 2027 Quarterly DWR Subbasin InSAR and other data to determine Subbasin SMC status and/or exceedances, if any, at Subbasin subsidence representative monitoring stations (RMS) and associated HCM areas.
- Participate in the analysis and reporting of any 2027 update of DWR precise survey data and continue the discussions with CASP/DWR pertaining to survey methodology and accuracy versus InSAR as it pertains to ongoing Subbasin subsidence monitoring, reporting and compliance.
- Assess and compare Continuous Global Positioning System (CGPS) satellite data to DWR InSAR datasets to better understand data uncertainty and accuracy constraints as it pertains to ongoing Subbasin planning and compliance monitoring.
- Conduct Quarterly subsidence SMC checks in consultation and coordination with the Subsidence Technical Working Group for reporting to the Managers.
- Evaluate the new Subbasin groundwater model being prepared by Todd Groundwater against Subbasin groundwater levels, and the nexus with subsidence in the Subbasin HCMs.
- Participate in the Subbasin assessment and implementation of the DWR Subsidence Best Management Practices (BMPs) such as 1-D models and critical head analysis in coordination with Intera.
- Participate in discussions and coordination, with CASP and DWR as they engage with CalGEM, the USGS and US Bureau of Reclamation and other key stakeholders to identify the likely causes (i.e., GSA versus non-GSA causes) and feasible solutions to subsidence identified along Aqueduct reaches in the Subbasin.
- Support, prepare and review subsidence-related technical elements and updates to the Annual Report to be prepared by Todd Groundwater.

Estimated Budget

The following is the proposed estimated budget for the period January 1, 2027, through December 31, 2027, for Tasks 1 and 2 described above:

#	Task	Estimated Budget
1	2027 TWG Support	$37,000
2	2027 Subbasin Support	$52,000
TOTAL		$89,000

Closing

All work will be billed on a time and materials basis up to a total amount above according to the attached preferred client fee schedule. Should a supplemental budget be required to complete the entire scope, a change order will be provided for SCC approval. No such supplemental or additional work will be performed without prior authorization. Should the Subbasin request that additional or supplemental work be performed, we will invoice the Subbasin for this work on a time and materials basis. We look forward to continuing our support to the Kern Subbasin. Should you have any questions, please do not hesitate to contact me at +1.714.770.8040 ext.133 or tom.watson@aquilogic.com.

Sincerely,
aquilogic, Inc.

Thomas Watson, PG
Principal Geologist
Encl.: Fee Schedule

aquilogic, Inc.
environment • water • strategy

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2026 SCHEDULE OF FEES FOR CONSULTING SERVICES

1. Professional Services

Professional Services performed by personnel of **aquilogic** (including full-time, part-time, and contract staff) for hours spent on project activity, including office, field, and travel time, will be charged as follows (in U.S. Dollars):

Professional Personnel	Rate	Professional Personnel	Rate
Principal-in-Charge	$500	Project Consultant	$255
Senior Principal Consultant	$420	Staff Consultant	$210
Principal Consultant	$400	Project Accountant (CPA)	$265
Project Manager/ Senior Consultant	$335	Intern or Technician	$110

Unless otherwise agreed to in writing, time will be billed in half hour increments. All overtime (hourly or non-exempt support staff) will be billed at 1.25 times the above rates. Night, weekend, and holiday work requested by the client (all staff) will be billed at 1.25 times the above rates. Specialist services (e.g., consulting boards, advisory panels or similar specialist consultation, trial preparation) will be billed at 1.5 times the above rates (with a four-hour minimum). Deposition testimony will be billed at $750 per hour (with a four-hour minimum), and trial testimony will be billed at $1,000 per hour (with a four-hour minimum). This fee schedule is effective for the calendar year indicated at the top of this page. **Aquilogic** will issue a new fee schedule in December of each year that will apply for services performed in the subsequent year unless a new separate, client-specific fee schedule is negotiated for any subsequent year.

2. Subsistence and Expenses

Living and travel expenses incurred by personnel of **aquilogic** associated with a project will be charged at cost plus twelve percent (12%). A fixed per diem can be negotiated for specific projects. All airline travel exceeding four hours airport gate to gate (on the most direct route) will be in business class.

3. Materials, Subcontracts, and Equipment Rental

Direct material, equipment, outside services, and other expenses contracted or incurred by **aquilogic** on behalf of a project will be charged at cost plus twelve percent (12%), excluding contract staff. These disbursements include but are not limited to: Field equipment (e.g., field vehicles, testing equipment); subcontractor services (e.g., laboratory analyses); materials and supplies (e.g., sampling supplies); and other expenses (e.g., work permits, bonds). Postage, non-overnight shipping, telephone (office and cellular), office computing, facsimile, photocopying (excluding color), and miscellaneous office supplies are now included in the hourly rate.

4. Billings

Statements normally will be issued monthly, or at the completion of the project, and are payable upon receipt, unless otherwise agreed in writing by **aquilogic**. Interest, at the rate of one percent (1%) per month, not to exceed the maximum rate allowed by law, will be payable on any amounts not paid within thirty (30) days; payment thereafter to be applied first to accrued interest and then to the principal unpaid amount. Unless otherwise specified in other contract documents or project proposal, all work on a project will cease should any invoice remain unpaid 60 days after the invoice has been submitted to the client. Work will not recommence until the account has been made current; that is, all outstanding invoices (including accrued interest) have been paid. For projects where **aquilogic** experts are offering testimony at deposition, trial, and/or part of an administrative hearing, all outstanding invoices must be paid prior to such testimony.

5. Indemnity

aquilogic shall indemnify, defend, and hold Client harmless from and against all claims, liabilities, suits, loss, cost, expense and damages for injury to or death of persons or damage to or destruction of property arising in

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connection with and to the extent of Consultant's negligence in the performance of the Services under this Agreement.

6. Warranty

aquilogic warrants that the Services shall be performed in accordance with the standards customarily provided by an experienced and competent professional engineering organization performing the same or similar Services. Consultant shall re-perform at its own expense any of said Services which were not performed in accordance with this standard, provided that Consultant is notified in writing of the nonconformity within twelve (12) months after the performance of the deficient Services, and provided further that the cost to Consultant of such remedial Services shall not exceed the amount paid to Consultant under this Agreement. The foregoing are Consultant's entire responsibilities and Client's exclusive remedies for Services performed or to be performed hereunder, and no other warranties, guarantees, liabilities or obligations are to be implied.

7. Consequential Damages

In no event shall **aquilogic** or its sub-consultants/sub-contractors or vendors of any tier be liable in contract, tort, strict liability, warranty, or otherwise for any special, indirect, incidental, or consequential damages such as but not limited to loss of product, loss of use, non-operation, or increased costs of operation of equipment or systems, loss of anticipated profits or revenue, costs of capital, or cost of purchased or replacement equipment or systems.

8. Limitation of Liability

In no event shall the total aggregate liability of **aquilogic** exceed the amount paid by Client for the Services performed.

9. Disputes

Any disputes between the Parties which arise out of this Agreement which cannot be settled amicably by the Parties shall be submitted to and settled under the arbitration rules of the American Arbitration Association with proceedings in Los Angeles, California. Such disputes shall be governed in accordance with the laws of the state of California, U.S.A.

10. Confidentiality

aquilogic and the Client agree to keep confidential all Information supplied by others and not to utilize, either directly or indirectly, any information for any purpose other than related to Services being performed, or to disclose it to anyone, including partners and affiliated companies, except on a "need to know" basis, without prior written consent from the party providing said confidential information. If required, **aquilogic** and the Client shall execute a non-disclosure or confidentiality agreement (NDA) that further defines the provision, use and disclosure of confidential information.

11. Termination

Client may at any time, by fifteen (15) days written notice to **aquilogic**, terminate all or any part of the unperformed Services under this Agreement. In such event, **aquilogic** shall be compensated for Services performed to the effective date of termination, plus the reasonable costs of demobilization and settlement of subcontracts, purchase orders, and other commitments incurred by **aquilogic** for performance of the Services.

12. Entire Agreement

In the absence of any other executed agreement, this schedule of fees and accompanying proposal constitute the entire agreement between the Client and **aquilogic** for the Services to be performed. No modification shall be effective unless it is in writing and executed by both Parties. This Agreement supersedes any and all other agreements between the Parties, whether written or oral, with respect to the subject matter hereof.

Corporate Office
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Daly City, CA 94014
(650) 292-9100
ekiconsult.com

11 October 2026

Derek Yurosek
Coordination Committee Chair
Kern County Subbasin

Subject: Proposal for Kern County Subbasin Subsidence Subcommittee Support through 2027
Kern County Subbasin, Kern County, CA
(EKI C20055.16)

Dear Mr. Yurosek:

The Kern County Subbasin (Subbasin) managers have requested that EKI Environment and Water, Inc. (EKI) prepare a Scope of Work and budget to support the Subsidence Subcommittee in its implementation of the coordinated Kern County Subbasin Groundwater Sustainability Plan (2025 Plan). In addition to being a technical member of the Subbasin-wide subsidence subcommittee, EKI has been identified as a Technical Working Group (TWG) lead for the California Aqueduct Working Group.

SCOPE OF WORK

The following scope of work focuses on key tasks separated into those that will be performed for the (1) California Aqueduct Working Group or (2) Subbasin Subsidence Subcommittee. Tasks 1 and 2 include ongoing 2025 Plan implementation support.

Task 1 – 2027 California Aqueduct Working Group

Task 1 involves 2027 work associated with the California Aqueduct Working Group, including communication with the California Aqueduct Subsidence Program (CASP). EKI support will include the following:

- Co-lead the California Aqueduct Working Group, including development of meeting agendas and materials as needed.
- Preparation for and attendance at quarterly meetings with CASP.
- Process, review and conduct quality checks of the California Aqueduct benchmark survey data and quarterly InSAR data along the California Aqueduct to identify exceedances of Minimum Thresholds (MTs) and/or Interim Milestones (IMs).
- Track MT exceedances, Exceedance Report submittals, and resultant targeted Projects and/or Management Actions (P/MAs) along the California Aqueduct for integration into quarterly reports and the Annual Report.
- Prepare four quarterly newsletters for the California Aqueduct that will present subsidence conditions and MT and/or IM exceedances in tabular, graphical, and transect format.

- Provide technical review of other anticipated subsidence-related DWR reports/data (e.g., LiDAR data and associated study).
- Support ongoing discussions with CASP related to GSA vs. non-GSA subsidence causes.

Key Assumptions:

- Attendance by up to two EKI personnel at four (4) California Aqueduct Working Group meetings; meetings will be one hour in length.
- Attendance by up to two EKI personnel at four (4) meetings with CASP; meetings will be two hours in length.
- All meetings will be conducted virtually.
- InSAR data will be publicly available for download through DWR. Processing and technical review of InSAR data will occur quarterly for a total of four processing events.
- CASP survey data will be provided by CASP. Processing and technical review of survey data will occur once during 2027.
- This scope of work does not include support for exceedance investigation(s).
- Exceedance Report(s) including details on targeted P/MAs will be provided by GSA(s).
- Exceedance investigation(s) will be conducted by the GSA(s) in which the exceedance(s) occur(s).

Deliverables:

- CASP meeting material(s).
- Four quarterly newsletters for the California Aqueduct.
- Text and attachments for the Water Year 2026 Annual Report.

Task 2 – 2027 Subbasin Subsidence Subcommittee

Under Task 2, EKI will provide technical support to the Subbasin Subsidence Subcommittee during 2027. EKI will conduct the following work efforts:

- Technical review of subsidence-related data, including InSAR data summaries for the GSA Area Infrastructure and HCM Areas, quarterly newsletters for the Friant-Kern Canal.
- Support other Subsidence Subcommittee members in conducting a data assessment for critical head analyses across the Subbasin and identifying recommendations for targeted areas for improvement of critical head estimation.
- Preparation for and attendance at up to two meetings with DWR Sustainable Groundwater Management Office (SGMO) and/or with the DWR land subsidence Best Management Practices (BMP) team.
- Attendance at up to eight virtual Subbasin Subsidence Subcommittee meetings.
- Technical support and review of the Water Year 2026 Annual Report as it relates to land subsidence and compliance with Sustainable Management Criteria (SMCs).
- Attendance at Friant Water Authority meetings, as the Technical Coordinator.

Key assumptions:

- Technical review of subsidence-related data will occur quarterly. InSAR data will be processed by other TWG members and will be provided in a format readily useable for comparisons.
- Attendance by up to two EKI personnel at up to eight (8) virtual subcommittee meetings; meetings will be one hour in length.
- Costs associated with attendance by EKI personnel at Kern Managers and Coordination Committee meetings are not included herein.
- Attendance by up to two EKI personnel at up to two (2) DWR SGMO meetings; meetings will be two hours in length. This scope assumes one virtual meeting and one in-person meeting at the DWR Fresno office.
- Attendance by one EKI personnel at up to two (2) virtual meetings Friant Water Authority; meetings will be two hours in length.
- This scope of work does not include support for exceedance investigation(s).

Deliverables:

- DWR BMP/SGMO meeting materials (co-produced by the Subsidence Subcommittee).
- Recommendations for areas for critical head refinement (co-produced by the Subsidence Subcommittee).

OPTIONAL TASK 3 – GROUNDWATER LEVEL MINIMUM THRESHOLD (MT) ASSESSMENT

Under Task 3, EKI will use Kern-IWFM to conduct a preliminary analysis on the relationship between groundwater level MTs and estimated critical head. Kern-IWFM is currently undergoing updates and a recalibration focused on groundwater levels, and subsidence simulation improvements are anticipated to occur in 2027. Therefore, Task 3 is optional, as it is contingent on model availability with improved subsidence simulation capabilities. The preliminary analysis will be used to inform a future task related to critical head assessment against groundwater level MTs across the Subbasin. EKI will conduct the following work efforts:

- Identify up to five Representative Monitoring Well (RMW) located in areas with measurable historical subsidence and extensive water level data records.
- Utilize projected model scenarios to assess modeled critical head and estimated projected land subsidence at groundwater levels MTs at up to five RMWs.
- Compare estimated projected land subsidence at groundwater level MTs to the approach used in the 2025 Plan.
- Develop recommendations for expanding analysis to the remaining RMWs.

Key assumptions:

- The Kern-IWFM model files will be provided to EKI. The model will be calibrated adequately to support critical head evaluation. No additional subsidence simulation calibration will be required, and no additional 1-D subsidence models will be developed.

Deliverables:

- Presentation on modeling methods, findings, and recommendations for expanded analysis.

BUDGET

Compensation for consulting services by EKI will be on a time and expense reimbursement basis in accordance with our current Schedule of Charges. Based on the proposed Scope of Work described above, we propose a budget of $76,000 (see also Table 1) for the performance of Tasks 1 and 2, based on our best estimate at this time. This budget will not be exceeded without additional authorization from the Client. We propose a budget of $18,100 for the performance of Optional Task 3, which will not be initiated unless directed by the Kern County Subbasin. EKI's staff members who will lead this project include Anona Dutton, P.G., C.Hg. and Christina Lucero, P.G. Other EKI staff members will be assigned to assist with the performance of the tasks as required to meet project commitments.

Table 1. Estimated Budget

TASK	Cost Estimate
Task 1 – 2027 California Aqueduct Working Group	$39,500
Task 2 – 2027 Subbasin Subsidence Subcommittee	$36,500
TOTAL	**$76,000**
~~Optional Task 3 – Groundwater Level MT Assessment~~	~~$18,100~~
~~**TOTAL with Optional Task 3**~~	~~**$94,100**~~

SCHEDULE

Upon authorization to proceed, EKI is prepared to start work on the above Scope of Work immediately. Tasks 1 and 2 in this Scope of Work will cover work efforts conducted 1 January 2027 through 31 December 2027. Optional Task 3 in this Scope of Work will begin only once the 2027 Kern-IWFM subsidence updates are completed and upon direction by the Kern County Subbasin to proceed, and will extend through 31 December 2027.

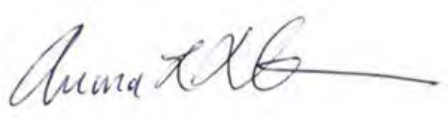
TERMS AND CONDITIONS

This work will be conducted pursuant to our existing agreement with the Wheeler Ridge-Maricopa Water Storage District.

We are happy to discuss the proposed approach and anticipated level of effort for these tasks in more detail with you and look forward to working with you on this important project.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.



Anona L. Dutton, P.G., C.Hg.
Chief Executive Officer / Principal-In-Charge

AUTHORIZATION

Signed _____

Printed Name _____

Title _____

Date _____

cc: Sheridan Nicholas, Wheeler Ridge-Maricopa Water Storage District

INTERA Incorporated
3838 W. Carson Street, #380
Torrance, CA 90503
+1 (424) 275 4055
INTERA.com

October 16, 2026

Morgan Campbell & Dave Hampton
Kern Subbasin Subsidence Committee Chairs
Sent via email: mcampbell@westsidewa.org; dhampton@northkernwsd.com

RE: Proposal for Kern County Subbasin – Subsidence Technical Services from January 2027 through December 2027

Dear Ms. Campbell and Mr. Hampton,

Since October 2025, INTERA has been supporting the Kern Subbasin (Subbasin) subsidence committee on various subsidence-related technical and implementation tasks. INTERA previous proposal (submitted, March 25, 2026) included scope for work performed from April 2026 through December 2026. Per the request of the Subbasin, INTERA is pleased to submit this proposal for ongoing subsidence tasks from January 2027 through December 2027.

This proposal outlines the scope for subsidence implementation support from January 2027 through December 2027, across two general categories of tasks: 1) Friant-Kern Canal subsidence technical support; and 2) Subbasin subsidence technical support.

1.0 Scope of Work

1.1 Friant Kern Canal Coordination and Subsidence Technical Support

INTERA will continue its role as technical lead on subsidence impacts to the Friant-Kern Canal (FKC). In this capacity, INTERA will analyze Interferometric Synthetic Aperture Radar (InSAR) data available from California Department of Water Resources (DWR) and assess sustainable management criteria (SMC) within a 2.5 mi buffer along the FKC on a quarterly basis. We will document and communicate subsidence trends and any SMC exceedances along the FKC. It is anticipated that there will be the need for additional coordination and communication with the Friant Water Authority (FWA) in 2027. For budgeting purposes, we have assumed two meetings (virtual) with the FWA, where we will present the 2025 Kern Plan updates, present ongoing subsidence trends along the FKC, and discuss future steps on FKC mitigation evaluation.

Deliverables:

- Cross-section and SMC Table documenting subsidence rates and extents and any SMC exceedances along the FKC (updated quarterly)
- A newsletter summarizing subsidence proximal to the FKC and results of SMC checks (quarterly)
- Presentation to the FWA

1.2 Subbasin Subsidence Coordination and Technical Support

Meetings with DWR Sustainable Groundwater Management Office (SGMO) Team

In their Land Subsidence Best Management Practice (BMP) Kick-Off Meeting, DWR indicated that they are interested in meeting with subbasins to discuss subbasin implementation progress and challenges. DWR also plans to organize a regional coordination meeting with multiple subbasins that have cross-subbasin subsidence issues (e.g., Kern, Tule, and Tulare Lake). INTERA will attend and support the subsidence discussions at these meetings with the DWR SGMO team. We assume three meetings in the year – one related to the review of the Kern Groundwater Sustainability Plan (GSP) and two related to BMP implementation. For budgeting purposes, we have assumed two DWR meetings will be virtual and one in-person. INTERA will contribute to the subsidence-related presentation material needed for the meeting(s).

Meetings with DWR California Aqueduct Subsidence Project (CASP) Team

INTERA will attend and support meetings with the DWR California Aqueduct team. For budgeting purposes, we have assumed one meeting (virtual) with CASP every quarter.

Subsidence Committee Meetings

INTERA will attend and support Subsidence Committee meetings on an ongoing basis. For budgeting purposes, we have assumed two Subsidence Committee meetings (virtual) every quarter.

Annual Reporting

INTERA will support the development of the Subbasin Annual Report. INTERA will provide content related to the FKC and provide technical review of subsidence components.

Review of Subsidence Subcommittee deliverables/data

INTERA will support the quality control of deliverables and data put forth by the Subsidence Subcommittee. Comments will be provided directly to the Subsidence Subcommittee members.

Deliverables:

- Review of Subsidence Subcommittee deliverables and data
- Content for DWR Meetings Presentations
- Content for and review of the Annual Report

1.3 Subbasin Critical Head Analysis (Phase II Continuation)

DWR's Land Subsidence BMP expects more rigorous, basin-wide analyses of critical head conditions. DWR also emphasized the importance of managing against critical heads in their Land Subsidence BMP Implementation Kick-Off meeting (March 10, 2026). Critical heads represent groundwater levels below which permanent inelastic subsidence can be triggered in the underlying clay interbeds and aquitards. The Kern Subbasin has established a "glide path" for groundwater levels and subsidence, such that there is no additional subsidence due to Groundwater Sustainability Agency (GSA) management activities beyond 2040. As such, it is important for the subbasin to evaluate groundwater level MTs vis-à-vis future

(2040) critical heads. It is also important for the subbasin to understand ongoing residual subsidence due to pre-SGMA and non-GSA activities. As such, critical head analysis will be an important component of the ongoing discussions with DWR.

As part of INTERA's Phase I critical head evaluation, we analyzed the nine Kern subbasin-specific one-dimensional (1-D) subsidence models provided by DWR in the Bulletin 118 Update. Predictive critical head analysis was performed with all published 1-D models to assess future subsidence under different groundwater level scenarios. INTERA documented this analysis and the results in a technical memorandum, presented to the subsidence subcommittee on August 18, 2026. INTERA also reviewed available groundwater-level and subsidence data in the Subbasin to identify locations where additional critical head analysis could be performed. This initial review found sufficient long-term, collocated groundwater-level and subsidence data to support three additional 1-D modeling sites. The GSAs are currently compiling additional groundwater level, geologic, and well data to support the 1D modeling. As such, it is not anticipated that the additional 1D modeling will be completed in 2026. Based on the recommendation of the Subsidence Subcommittee, the additional 1D modeling will be done in 2027. Since this work is a carryover item from the 2026 Critical Head Analysis (Phase II) budget, the unspent budget from 2026 has been included in this proposal for 2027.

The Land Subsidence BMP presents both modeling-based and empirical approaches for estimating critical head, providing complementary methods for evaluating when groundwater-level declines may trigger or accelerate inelastic compaction. As part of the ongoing critical head evaluation, INTERA will develop critical head estimates for at least 8 additional sites within the subbasin, using DWR recommended empirical methods. Sites near regional critical infrastructure like the California Aqueduct, FKC, or GSA critical infrastructure will be prioritized. The methodology and findings from the empirical critical head analysis will be documented and presented to the Subsidence Committee and the Managers for review and discussion. This work is also a carryover item from the 2026 budget for Critical Head Analysis (Phase II) with unspent budget from 2026 being included in this proposal for 2027.

Two additional items are proposed as new work for the 2027 budget. First, at the recommendation of the Subsidence Subcommittee, INTERA proposes to refine the model calibration for two of the original nine BMP/Bulletin 118 sites, contingent on additional data being provided by the GSAs. Second, INTERA will coordinate with other collaborating Kern Subbasin consultant teams to provide a regional evaluation of critical head estimates developed using the regional model, 1D modeling methods, and empirical analyses (described above). This effort will help to understand the consistency and uncertainties across methodologies and datasets.

Deliverables:

- Technical Memorandum documenting predictive subsidence 1-D modeling and empirical analysis and results
- Technical Memorandum documenting variability of critical head analyses across differing methodologies and datasets
- Presentation to the Subsidence Committee and the Managers group on the 1D modeling results
- Presentation to the Subsidence Committee and the Managers group on the empirical critical head analysis

2.0 Assumptions

To ensure transparency and shared understanding, we have outlined the assumptions that form the basis of our proposed scope and approach.

- Trey Driscoll will be the designated Subsidence Committee representative from INTERA.
- INTERA will typically have up to two attendees at Subsidence Committee meetings. An additional attendee may be added to present the InSAR SMC results and 1D modeling results, as needed.
- All meetings, except the one DWR in-person meeting, will be attended virtually.
- All required data and information will have undergone quality-assurance/quality-control prior to being sent to INTERA.
- Collaborating Kern Subbasin consultant teams will perform their respective Subbasin-wide tasks in a transparent and timely manner.
- No significant changes to jurisdictional boundaries are to occur (such as a new GSA formation).
- No significant changes to proposed methodologies are to occur.
- No significant changes will be made to the GSP document or subsidence SMC methodologies based on discussions with DWR.

3.0 Schedule

This proposal covers identified tasks for the period from January 2027 through December 2027.

4.0 Budget

The budget for the scope outline above is $93,893. The breakdown of hours and budget by staff and tasks is shown in the tables below in accordance with our 2027 rate schedule. INTERA will bill on a time and material basis, hence scope outlined above but not executed will not be billed. Any deviation in scope will be promptly communicated to Kern Managers.

Table 1. January 2027 through December 2027 Budget

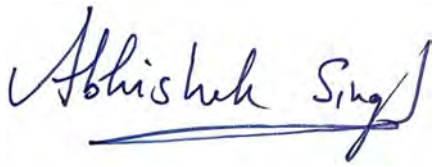
Task Name	2027 Estimated Hours by Staff Type									Task Totals	
	Principal Engineer/ Scientist I	Principal Engineer/ Scientist I	Principal Engineer/ Scientist III	Sr. Engineer/ Scientist II	Sr. Engineer/ Scientist II	Sr. Engineer/ Scientist III	Engineer/ Scientist I	Engineer/ Scientist III	Sr. Tech Editor	Total Task Hours	Total Task Cost
	Singh	Driscoll	Ellis	Saberi	Earll	Palys	Neely	Jordan	Davis		
Task 1.1 Friant-Kern Canal Subsidence Technical Support	0	4	0	0	0	4	60	0	4	72	$ 17,040
Task 1.2 Subbasin Subsidence Coordination & Technical Support	8	16	4	16	30	0	30	8	4	116	$ 32,083
~~Task 1.3 Subbasin Critical Head Analysis~~	~~4~~	~~8~~	~~16~~	~~80~~			~~30~~	~~24~~	~~10~~	~~172~~	~~$ 44,771~~
Total Hours by Staff Type	12	28	20	96	30	4	120	32	18	360	
									Estimated 2027 Budget		~~$93,893~~

$49,123

Thank you for considering our proposal to continue to support the Kern Subbasin on the critical issue of subsidence. We appreciate the continued trust and confidence in the INTERA team. Please do not hesitate to reach out to us if there are any questions or concerns regarding the proposal.

Sincerely,

INTERA Incorporated



Abhishek Singh, PE, PhD
President - Water Resources & Supply, Principal Engineer

TODD GROUNDWATER

October 9, 2026

MEMORANDUM

To: Abhishek Singh, Intera, Kern Subbasin Technical Coordinator
Christina Lucero, EKI, Kern Subbasin Technical Coordinator

From: Michael Maley, Principal Hydrogeologist, PE, PG, CEG, CHg

Re: Todd Groundwater 2027 Proposal - Subsidence Subcommittee Technical Work

The Kern County Subbasin (Subbasin) managers have requested the Subbasin Subsidence Subcommittee technical associates to prepare a Scope of Work and budget to support the subsidence implementation amended Kern County Subbasin Groundwater Sustainability Plan (2025 Plan). Todd Groundwater has been identified as the technical lead for the sitewide subsidence components that include the GSA Critical Infrastructure and the HCM Area analysis of other infrastructure.

This scope of work includes both recurring and non-recurring tasks. Annually recurring tasks include the Quarterly InSAR data assessment, Annual Report input preparation, DWR meetings and Subcommittee coordination and meetings. Non-recurring tasks include the regional critical head and model refinement tasks that will support ongoing subsidence assessments of Regional, GSA and Sitewide critical infrastructure.

SCOPE OF WORK

Todd Groundwater's work for the Subsidence Subcommittee will focus on sitewide subsidence activities, which are those subsidence related activities that are not associated with either the Friant-Kern Canal or California Aqueduct Subsidence Working Groups. This scope of work on the Subsidence Subcommittee covers calendar year 2027 through December 31, 2027. The following tasks describe the different work components included in this scope.

Quarterly Reporting of Subbasin-wide InSAR and Monitoring Data

The Subsidence Action Plan for the 2025 Plan calls for the analysis of quarterly InSAR data for the GSA Critical Infrastructure. Todd Groundwater will update the monthly InSAR from DWR and prepare for quarterly data of cumulative displacement measured by InSAR in GIS . A statistical analysis of subsidence will be developed for the GSA Critical Infrastructure and HCM areas following the approach we used for the 2025 GSP. The InSAR data will include data made available by DWR in 2027 that is anticipated to cover the period from October 2026 through September 2027.

Todd Groundwater will compile the WY2025 InSAR from DWR and prepare maps for monthly, annual and cumulative displacement measured by InSAR. A statistical analysis of subsidence will be developed for the Subbasin and HCM areas following the approach we used for the 2025 GSP. This information will be summarized in a brief report distributed to the Subsidence Subcommittee members for review .

Preparation of Annual Report Subsidence Summary

Coordination with the Subsidence Subcommittee members on developing an annual report summary on subsidence. The InSAR maps listed above will also be incorporated into the Annual Report. Initial coordination with Subbasin GSAs on their WY2026 subsidence work with the Subcommittee to develop input of these activities for the current annual report.

Regional Evaluation of Critical Heads

For this task, Todd Groundwater will develop a methodology based on input from the 1D modeling for critical head assessment to support developing regional Kern-IWFM model input files for subsidence parameters including critical head and parameters for simulation of both instantaneous and delayed subsidence. The subcommittee members will collaborate to evaluate and identify the methods for developing sitewide critical heads. The 1D critical head model data will be used in conjunction with Subbasin InSAR and hydrogeological data to define the regional distribution of critical heads and other subsidence parameters. Todd Groundwater will provide the subcommittee with GIS maps and data files of the subsidence parameters for review and comment. Based on this input, initial model files will be developed for the Kern-IWFM model.

Regional model subsidence refinements

This task includes time to incorporate these revised subsidence parameters developed by the subcommittee and evaluate their performance in simulating measured subsidence data both sitewide and along critical infrastructure. Using these results, we will further evaluate and refine the subsidence parameters for the regional model including the physical and mechanical material properties of the compressible clay layers and application of a sitewide critical head assessment. The subcommittee members will collaborate to evaluate model results and develop approaches to improve model performance in simulating subsidence. Work may include updating model parameters, updating model calibration of subsidence parameters, developing subsidence scenarios and running sensitivity analyses on key parameters to provide input to support the subcommittee review.

DWR Meetings

The scope includes participation in three DWR meetings including pre-meeting Subcommittee preparations. Potential topics include GSP Review and/or BMP requirements. The scope assumes two online meetings and one in-person meeting at a DWR office. This task also includes some limited time for Todd Groundwater administrative support.

Subcommittee Coordination & Meetings

Participation in Subbasin Subsidence Subcommittee meetings and coordination with subcommittee members on technical tasks. The budget assumes time for a monthly Subcommittee meetings and related coordination with other Subcommittee members between meetings. The scope includes participation in eight (8) subcommittee meetings including pre-meeting Subcommittee preparations. This tasks also includes 16 hours for review, QA/QC of subcommittee deliverables and data during 2027. This task also includes some limited time for Todd Groundwater administrative support.

ESTIMATED COST

The total budget for the scope of work is $95,700. A budget summary by task is provided in Table 1. The cost estimate covers the period through December 31, 2027. This cost estimate is considered a not-to-exceed estimate and Todd Groundwater will not exceed this cost without written authorization from the Subbasin GSAs. In addition, work will be conducted on a time and materials basis and only the costs expended will be invoiced. If Todd Groundwater is requested to provide support beyond what is described in this scope, that would be considered an extra scope of work.

This scope of work includes both annually recurring costs associated with required DWR reporting, and non-recurring costs associated with development of the regional Kern-IWFM model. Costs for Recurring tasks total $46,900 and costs for Non-Recurring tasks total $48,800.

Todd Groundwater work is focused on sitewide subsidence and does not include budget for work directly for either the California Aqueduct Working Group or the Friant-Kern Working Group. If Todd Groundwater is requested to help support these Working Groups directly, that would be considered an extra scope of work. Please let us know if you have questions regarding this proposal.

TABLE 1 – Budget Summary to Complete the Subsidence Subcommittee tasks through December 31, 2027

TASKS	Total Labor Hours	2027 Cost Estimate	Notes
Quarterly Reports of Sitewide InSAR Data	84	$21,120	Recurring Task
Annual Report Subsidence Summary	28	$7,760	Recurring Task
Regional evaluation of Critical Heads	56	$16,800	Non-Recurring Task
~~Regional model subsidence refinements~~	~~121~~	~~$32,000~~	~~Non-Recurring Task~~
DWR Meetings	18	$5,840	Recurring Task
Subcommittee Coordination & Meetings	40	$12,180	Recurring Task
TOTAL	~~347~~	~~$95,700~~	
		$63,700	

KERN SUBBASIN GSP
COST SHARING AGREEMENT (27-02)

This Cost Sharing Agreement ("Agreement") is entered into on _____by and among the following Groundwater Sustainability Agencies ("GSAs") and Management Areas located within the Kern Subbasin, each a "Party" and collectively referred to as the "Parties":

1. Arvin GSA
2. Wheeler-Ridge Maricopa GSA
3. Tejon-Castac Water District GSA
4. Kern River GSA
5. Southern San Joaquin Municipal Utility District GSA
6. Shafter-Wasco Irrigation District GSA
7. KNDLA GSA
8. North Kern Water Storage District GSA
9. Cawelo Water District GSA
10. Semitropic Water Storage District GSA
11. West Kern Water District GSA
12. KCWA - Pioneer GSA
13. Kern Water Bank GSA
14. Kern-Tulare Water District GSA
15. Eastside Management Area
16. Westside District Water Authority GSA
17. Rosedale-Rio Bravo Water Storage District GSA
18. Henry Miller Water District GSA
19. Olcese Water District GSA
20. Buena Vista GSA

RECITALS:

WHEREAS, prior to the State Water Resources Control Board's ("SWRCB") hearing on the Kern Subbasin, held on September 17, 2025, the Parties collectively revised and submitted Groundwater Sustainability Plans ("GSPs") for the Kern Subbasin to satisfy the requirements of the Sustainable Groundwater Management Act ("SGMA");

WHEREAS, following the September 17, 2025, hearing, the SWRCB recommended that the Kern Subbasin be returned to oversight by the Department of Water Resources ("DWR") provided the Kern Subbasin addresses issues identified by the SWRCB;

WHEREAS, several Parties will retain consultants to complete special projects related to implementing the GSPs, with each consultant engaged under a separate agreement with its respective Party;

WHEREAS, the total cost of this consultant work is estimated at three hundred nineteen thousand four hundred seventy-nine dollars. ($319,479), as set forth in the scopes of work attached hereto and incorporated herein as **Exhibits A through E** (collectively, the "Scopes of Work");

WHEREAS, the Parties acknowledge that sharing the costs associated with this process is beneficial and cost-effective;

WHEREAS, the Parties wish to appoint Buena Vista Water Storage District as the custodian of the shared funds for the purpose of this Agreement;

NOW, THEREFORE, in consideration of the mutual covenants contained herein, the Parties agree as follows:

AGREEMENT TERMS:

1. Cost Sharing: The Parties agree to collectively share the total cost of $319,479 for the Scopes of Work, with each Party contributing their share of the total cost as shown in Table 1, which is attached and incorporated into this agreement. Buena Vista Water Storage District will issue one cash call for the Parties' respective cost-share contributions in April 2027. A Party will not be entitled to joint ownership of any work product unless and until it timely pays its full cost-share contribution.

2. Payment to Buena Vista Water Storage District: The Parties shall deposit their respective contributions with Buena Vista Water Storage District, which will serve as the custodian of the funds. For a consultant's fee to be eligible for cost sharing under this Agreement, it must be consistent with the Scopes of Work, and the consultant must be under contract with at least one Party. Consultant invoices will be sent directly to the contracting Party, and a copy of each invoice shall be forwarded to Buena Vista Water Storage District for payment following review by the Parties for consistency with the scopes of work. The Plan Manager will facilitate the Parties' timely review of invoices.

3. Accounting: Buena Vista Water Storage District shall maintain accurate accounting records and other documentation pertaining to all monies concerning this Agreement. Such records and documentation shall be kept at Buena Vista Water Storage District's office during the term of this Agreement, and for a period of three (3) years from the date the final invoice is received from any of the Parties. Buena Vista Water Storage District shall, at any time during regular business hours, make available to any requesting Party the accounting records pertaining to that requesting Party.

4. Amendments: This Agreement may only be amended in writing and signed by all Parties hereto.

5. Governing Law: This Agreement shall be governed by and construed in accordance with the laws of the State of California.

6. Joint Ownership of Work Product: All work product generated pursuant to this Agreement shall be jointly owned by the Parties so that each will have access and ability to utilize said work product.

7. Electronic Signatures: Electronic signatures shall be binding.

EXECUTION:

IN WITNESS WHEREOF, the Parties hereto have executed this Cost Sharing Agreement as of the date first above written.

[Signature Block for Each Entity]

Arvin GSA

_____
Derek Yurosek, Director

Wheeler-Ridge Maricopa GSA

_____
Dennis Atkinson, President

Tejon-Castac Water District GSA

_____
Angelica Martin, Board Secretary

Kern River GSA

_____
Rodney Palla, Board Chair

Southern San Joaquin Municipal Utility District

_____
Roland Gross, General Manager

Shafter-Wasco Irrigation District GSA

_____
Randy Bloemhof, Board Member

KNDLA GSA

_____
Barry Watts, Board Chairman

North Kern Water Storage District GSA

_____
Kevin Andrew, Board President

Cawelo Water District GSA

_____
David Halopoff, Assistant General Manager

Semitropic Water Storage District GSA

_____
Dan Waterhouse, Board President

West Kern Water District GSA

_____
Greg A. Hammett, General Manager

KCWA - Pioneer GSA

_____
Lauren Bauer, Water Resources Manager

Kern Water Bank GSA

_____
Joseph Butkiewicz, General Manager

Kern-Tulare Water District GSA

_____
Skye Grass, General Manager

Eastside Water Management Area

_____
Chad Hathaway, President

Westside District Water Authority GSA

_____
Justin Rowe, General Manager

Rosedale-Rio Bravo Water Storage District GSA

_____
Dan Bartel, Engineer-Manager

Henry Miller Water District GSA

_____
Jeof Wyrick, President, Chairman

Olcese Water District GSA

_____
James L. Nickel, President

Buena Vista GSA

_____
Terry Chicca

TABLE 1

AGMT No. 27-02		$ 319,479.00	
GSA Name	**Developed Acreage**	75.00%	120.45%
TCWDGSA	317	$ 11,980.46	
OWDGSA	1,142	$ 11,980.46	
PioneerGSA	1,462	$ 11,980.46	
WKWDGSA	5,881	$ 11,980.46	
EWMA	6,895	$ 11,980.46	
KWBGSA	8,336	$ 11,980.46	
KTWDGSA	10,041	$ 11,980.46	
KNDLA	10,634	$ 11,980.46	
HMWDGSA	18,565	$ 11,980.46	
CWDGSA	38,975		$ 19,241.35
BVGSA	39,902		$ 19,241.35
RRBWSDGSA	41,449		$ 19,241.35
SWIDGSA	44,270		$ 19,241.35
SSJMUDGSA	56,973		$ 19,241.35
NKWSDGSA	60,531		$ 19,241.35
WRMGSA	62,186		$ 19,241.35
Arvin GSA	88,891		$ 19,241.35
WDWAGSA	113,856		$ 19,241.35
SWSDGSA	139,857		$ 19,241.35
KRGSA	190,253		$ 19,241.35
		$ 107,824.16	$ 211,654.84
			$ 319,479.00

Kern Subbasin Cost Share Agreement (27-02)

	Date:	Amount:
Base Agreement (27-02):		$319,479.00
Exhibit A - Kern Subbasin Model Refinement:		
Todd GW:	1/1/27 - 12/31/27	$61,990.00
(KRGSA)		$61,990.00
Exhibit B - Data Gap Analysis and Well Inventory:		
LSCE:	1/1/27 - 12/31/27	$10,000.00
(SWIDGSA)		
TBD:	1/1/27 - 12/31/27	$6,000.00
(TBD GSA)		$16,000.00
Exhibit C - PMA/Water Budget Support:		
Todd GW:	1/1/27 - 12/31/27	$56,200.00
(CGSA)		$56,200.00
Exhibit D - SGMA Grant Support:		
Intera/EKI - Grant Review:	1/1/27 - 12/31/27	$10,418.00
EKI - Grant Proposal (2):	1/1/27 - 12/31/27	$80,000.00
(WRMGSA)		$90,418.00
Exhibit E - Subsidence Program Support Non-Annual:		
EKI	1/1/27 - 12/31/27	$18,100.00
(WRMGSA)		
Todd GW:	1/1/27 - 12/31/27	$32,000.00
(CGSA)		
Intera:	1/1/27 - 12/31/27	$44,771.00
(SWIDGSA)		$94,871.00
Contingency 0%:		$0.00
	Sub Total:	$319,479.00
	Total with Contingency:	**$319,479.00**

**DMS upgrade/change costs not included above.

Placeholder - Future Scope Needed

TODD GROUNDWATER

Exhibit A

October 9, 2026

MEMORANDUM

To: Abhishek Singh, Intera, Kern Subbasin Technical Coordinator
Christina Lucero, EKI, Kern Subbasin Technical Coordinator

From: Michael Maley, Principal Hydrogeologist, PE, PG, CEG, CHg

Re: Todd Groundwater 2027 Proposal - Kern-IWFM Model Revisions

Todd Groundwater was requested to prepare a Scope of Work and budget for continued support, revisions and updates for the Kern-IWFM model. Todd Groundwater has been the technical lead for the development of the Kern-IWFM model and model subcommittee. Utilization of this scope of work for model updates and revisions will be contingent on review and approval this the specific tasks by the Kern County Subbasin (Subbasin) managers.

This scope of work is considered a non-recurring task. Annual updates of model input data for the previous water year will continue to be included in the Annual Report scope. Future model revisions are anticipated to be included as part of the SGMA-required 5-year GSP reviews or other specific projects where application of the Kern-IWFM model is required.

SCOPE OF WORK

This proposal provides scope for potential revisions to the Kern-IWFM model in 2027 during calendar year 2027 through December 31, 2027. The following tasks describe the different work components included in this scope.

Task 1: DWR Meetings

The DWR SGMA Modeling Group has requested meetings to discuss the recent Kern-IWFM upgrades and to discuss calibration in the southern San Joaquin Valley in general. This scope includes participation for two DWR meetings with the DWR SGMA Modeling Group to discuss collaboration between the DWR and the Subbasin modeling teams. The scope assumes one online meeting and one in-person meeting at a DWR office. Todd Groundwater will provide a written summary following each meeting to the Subbasin Technical Coordinators and provide an update at a Subbasin Manager Meeting.

Task 2: Kern-IWFM Model Updates

Todd Groundwater would compile a list of comments and unreconciled model issues following completion of the 2026 Model Updates. The working list would be discussed with the Subbasin Technical Coordinators to develop an initial recommendation for potential model upgrades. These recommendations will be presented at a Subbasin Manager Meeting. Work on the model updates would not occur until after receiving approval from the Subbasin Managers.

Todd Groundwater would then implement the recommended model updates and present the results including any issues encountered during implementation to the TWG Model Subcommittee. Comments from the TWG will be reconciled and the results of the model update will be presented at a Subbasin Manager Meeting. Work on the model updates, if approved, is anticipated to occur during the second half of 2027.

Task 3: Coordination and Meetings

This task includes time for coordination with the Subbasin Technical Coordinators, GSA Managers and TWG Model Subcommittee regarding questions or requests for information on the Kern-IWFM model. Two TWG Model Subcommittee meetings are included to discuss the requested updates and get a consensus on recommendations for which updates to address in 2027. A second meeting would present the results of the implementation of the recommended model updates to the TWG members for review and comment. Time is included to present updated model results at a Subbasin Manager Meeting.

ESTIMATED COST

The total budget for the scope of work is $61,990. A budget summary by task is provided in Table 1. The cost estimate covers the period through December 31, 2027. This cost estimate is considered a not-to-exceed estimate and Todd Groundwater will not exceed this cost without written authorization from the Subbasin GSAs. In addition, work will be conducted on a time and materials basis and only the costs expended will be invoiced. If Todd Groundwater is requested to provide support beyond what is described in this scope, that would be considered an extra scope of work.

This scope is considered a non-recurring budget item. Todd groundwater assumes that Tasks 1 and 3 are available for billable work upon approval of this scope. The Task 2 scope assumes that billable work requires approval by the Subbasin Technical Coordinators and GSA Managers. Todd Groundwater does not include any budget for participation in the PMA Subcommittee on behalf of our sponsoring GSAs, including Cawelo Water District and Kern River GSA.

TABLE 1 – Budget Summary to Complete the Kern-IWFM Model Updates through December 31, 2027

TASKS	Total Labor Hours	2027 Cost Estimate
Task 1: DWR Meetings	16	$5,120
Task 2: Kern-IWFM Model Refinements	192	$50,140
Task 3: Coordination & Meetings	22	$6,730
TOTAL	230	$61,990

Luhdorff & Scalmanini Consulting Engineers

Exhibit B

September 15, 2026

Project No. TBD

Kern County Subbasin Plan Manager
kernsubbasinpoc@riconconsultants

SUBJECT: Scope of Work and Budget for Groundwater Sustainability Plan Implementation Activities for Calendar Year 2027, Kern County Subbasin

Dear Plan Manager:

As requested, Luhdorff and Scalmanini Consulting Engineers (LSCE) has prepared the following Scope of Work and budget for technical services to support the Kern County Subbasin (Subbasin) for calendar year 2027. This Scope of Work and budget focuses on supporting the Subbasin's implementation the Kern County Subbasin Groundwater Sustainability Plans (Final 2025 Plan), with an emphasis on groundwater level and groundwater quality monitoring network data gap filling activities and replacement of existing monitoring network wells.

LSCE has supported the data gap filling and replacement well effort for 2026 and is providing this scope of services to continue that effort in 2027. As of September 2026, three data gaps remain. For purposes of this Scope of Work, the focus is on filling these three data gaps (listed in Table 1) and supporting monitoring network well replacements in 2027.

Table 1. Vertical Representation Data Gaps Remaining

Hexagon Number	GSA Associated With Data Gap	Status	Notes
18	KNDLA	Pending -	GSAs are working on finding an existing well to incorporate. If no well is found, a monitoring well will be drilled.
19	KNDLA	Pending -	GSAs are working on finding an existing well to incorporate. If no well is found, a monitoring well will be drilled.
30	AEWSD / Kern River / KNDLA	Pending -	GSAs are working on finding an existing well to incorporate.

SCOPE OF SERVICES

The following sections describe the tasks proposed under this Scope of Work.

Task 1. Support for Filling Data Gaps

This task encompasses continued support for the three data gaps outlined above. LSCE will provide guidance on screen intervals for potential candidate wells suitable for filling data gaps. Once candidate wells are identified, LSCE will confirm whether they are appropriate for filling data gaps. This confirmation will consider both the Subbasin technical criteria and the concerns and criteria raised by State Water Resources Control Board (SWRCB) staff during development of the Final 2025 Plan. Evaluation will include review of well construction details (e.g., depth, screened interval) as well as the availability, completeness, and representativeness of data from the wells.

Remaining data gaps may also be resolved through further refinements to the Well Inventory should further refinements occur in 2027. LSCE will consider updates to the well inventory for the hexagons listed above and determine if well inventory refinements have changed the status of any data gaps.

If data gaps remain following GSA attempts to identify existing wells to fill the gaps, GSAs will need to fill remaining gaps through construction of new groundwater level and/or groundwater quality monitoring wells. LSCE will support identification of remaining gaps that require new monitoring wells and provide technical assistance related to well design to ensure that proposed and final well designs comply with the vertical depth interval required to fill the data gap.

For well design, LSCE may either (a) prepare preliminary monitoring well designs or (b) review and confirm designs prepared by GSAs or their consultants. Design review will ensure compliance with Final 2025 Plan criteria. Well design considerations will include well depth, screened intervals, casing, and aquifer representativeness. Preliminary well designs will identify top and bottom screen elevations based on average elevations within the 24 square-mile hexagon.

GEI, as the Subbasin's Data Management System (DMS) consultant, will be responsible for incorporating finalized RMN updates into the DMS and supporting future DWR reporting.

LSCE will prepare a technical memorandum summarizing data gap implementation efforts completed in 2027. The memorandum will be structured to support inclusion in the WY2027 Annual Report to DWR.

Task 2. Support for Replacing Existing RMS Wells

GSAs may, on occasion, choose to replace existing groundwater level or groundwater quality monitoring well. The need for well replacement may arise due to a well being destroyed, access being revoked, the inability to sample, or another unforeseen circumstance. In any of these cases, a new monitoring well will need to be identified to replace the existing RMS well.

GSAs will identify candidate wells for consideration as a replacement well for an existing monitoring well. Once candidate wells are identified, LSCE will confirm whether they are appropriate for filling data gaps. This confirmation will include review of well construction details (e.g., depth, screened interval) as well as the availability, completeness, and representativeness of data from the wells.

Task 3. Project Coordination and Management

LSCE will provide project coordination and management to support timely and consistent implementation of the tasks described in this scope. This includes progress tracking, maintaining communication with GSAs, and supporting Subbasin-wide consistency in data gap filling and well replacement efforts. LSCE will also attend policy meetings as needed to provide updates on the data gap and well replacement tasks.

PROJECT BUDGET

LSCE proposes a lump sum of $10,000 for this scope of work distributed across the three tasks as indicated in Table 2. All services will be billed on a time-and-materials basis and invoiced monthly in accordance with our 2027 Schedule of Fees. All work under this contract will be completed by December 31, 2027.

Table 2. Estimated Project Budget

Tasks	Total Budget
Task 1. Support for Filling Data Gaps	$4,500
Task 2. Support for Replacing Existing RMS Wells	$4,500
Task 3. Project Coordination and Management	$1,000
Total Project Budget	**$10,000**

Sincerely,

LUHDORFF AND SCALMANINI
CONSULTING ENGINEERS



Pavan Dhaliwal
Senior Hydrogeologist

Exhibit C

TODD GROUNDWATER

October 9, 2026

MEMORANDUM

To: Abhishek Singh, Intera, Kern Subbasin Technical Coordinator
Christina Lucero, EKI, Kern Subbasin Technical Coordinator

From: Michael Maley, Principal Hydrogeologist, PE, PG, CEG, CHg

Re: Todd Groundwater 2027 Proposal - PMA Subcommittee Technical Support

The Kern County Subbasin (Subbasin) managers have requested the Todd Groundwater to prepare a Scope of Work and budget to continue support the Projects and Management Action (PMA) subcommittee work on developing a more representative methodology for assessing the GSA and Subbasin benefits results from PMA implementation. This is primarily a non-recurring task. It is anticipated that once this new methodology is fully implemented, the recurring work for updating the PMA implementation progress for the Annual Report will be conducted by the Subbasin GSAs and the reporting requirements will be folded back into the Annual Report scope of work.

SCOPE OF WORK

This scope covers work performed on behalf of the Subbasin GSAs that are part of the ongoing PMA Evaluation being conducted by the managers during the PMA Meetings. These meetings are currently scheduled to extend into 2027 with one of the stated goals of revising how PMAs are reported in the Annual Report and the DWR PMA Portal. This scope of work to support the PMA Subcommittee covers calendar year 2027 through December 31, 2027. The following tasks describe the different work components included in this scope.

Task 1: PMA Subcommittee Technical Support

Todd Groundwater has provided technical support to the PMA Subcommittee through revisions to the PMA tracking spreadsheets for each Subbasin GSA. Additional tabs have been added to these spreadsheets to provide additional capability to categorize and track the quantitative water budget benefit for each PMA. The current calendar for this Subcommittee extends into 2027. Based on this, task provides time for Todd Groundwater to further update, revise and distribute PMA tracking spreadsheets and potentially other supporting information for all of the Subbasin GSAs.

Task 2: PMA Portal and Annual Report Update

One of the goals of the PMA Subcommittee is to revise the PMA input into the Annual Report to better represent how PMA implementation is supporting the Subbasin's sustainability goals. This task provides time for Todd Groundwater to implement the recommendations of the Subcommittee to develop a revised PMA section for the Annual Report. This is anticipated to include development of revised graphics, tables and text for the annual report, and to coordinate updates into the PMA Portal input to

the DWR SGMA Portal. Work under this tasks includes development and review by the PMA Subcommittee in developing this new content. Once agreed to by the Subcommittee, this information will be passed to the Annual Report where it will be incorporated into the report.

Task 3: GSA Operational Water Budget Update

One of the recommendations of the PMA Subcommittee is to have annual updates to the GSA Operational Water Budgets developed for the 2025 Plan to assign PMA targets for each GSA. The Subcommittee is looking to utilize these water budgets to also support the evaluation of the quantitative benefits for the GSA and the Subbasin.

The GSA Operational Water Budgets currently consist to two spreadsheets. These are the Checkbook Water Budget and Banking Ledgers. The update includes compiling information from the DMS, GSAs and other sources. Currently, data that was not in the Subbasin DMS is entered manually. As a result, not all of these updates were optimized for future updates.

The GSA Operational Water Budgets will be updated during April to June 2027, following the submission of the Annual Report. A draft set of spreadsheets will be provided to the GSAs for review, and a final set of spreadsheets will be provided that address comments and revisions from the GSAs.

Task 4: DMS Coordination and Meetings

This task includes time for Mike Maley and Lindsay Hall to participate in the TWG DMS Subcommittee during 2027. Topics of discussion include how to incorporate the Checkbook Water Budget and Banking Ledgers into the DMS. Todd Groundwater will develop initial recommendations that will be discussed with the DMS group. From this, recommendations will be developed to present to the PMA Subcommittee for review and comment.

ESTIMATED COST

The total budget for the scope of work is $56,200. A budget summary by task is provided in Table 1. This scope of work includes both annually recurring costs associated with required DWR reporting, and non-recurring costs associated with development of the regional Kern-IWFM model. Costs for Recurring tasks total $33,960 and costs for Non-Recurring tasks total $22,240. Todd Groundwater does not include any budget for participation in the PMA Subcommittee on behalf of our sponsoring GSAs, including Cawelo Water District and Kern River GSA.

To better facilitate preparation of PMA summaries for the WY2026 Annual Report, our work on Tasks 1 and 2 may begin upon approval. The cost estimate covers the period through December 31, 2027. This cost estimate is considered a not-to-exceed estimate and Todd Groundwater will not exceed this cost without written authorization from the Subbasin GSAs. In addition, work will be conducted on a time and materials basis and only the costs expended will be invoiced. If Todd Groundwater is requested to provide support beyond what is described in this scope, that would be considered an extra scope of work.

TABLE 1 – Budget Summary to Complete the PMA Subcommittee technical support tasks through December 31, 2027

TASKS	Total Labor Hours	Total Labor Hours	Notes
Task 1: PMA Subcommittee Technical Support	42	$12,140	Non-Recurring Task
Task 2: PMA Portal Annual Report Update	46	$10,760	Recurring Task
Task 3: GSA Operational Water Budget Update	92	$23,200	Recurring Task
Task 4: DMS Coordination and Meetings	36	$10,100	Non-Recurring Task
TOTAL	216	$56,200	

Exhibit D

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October 16, 2026

Derek Yurosek
Kern Coordination Committee Chair
Email: DYurosek@bolthouseproperties.com
Ph: (661)556-4540

RE: Proposal for Kern County Subbasin Technical Coordinator for 2027

Dear Mr. Yurosek,

The Kern County Subbasin (Kern Subbasin) Groundwater Sustainability Agencies (GSAs) are managing groundwater and implementing several projects and management actions (P/MAs) under the adopted 2025 Kern County Subbasin Groundwater Sustainability Plan (2025 Plan), which covers the entire Kern County Subbasin and brings together the 20 Kern Subbasin GSAs under the umbrella of a coordinated Plan. The 2025 Plan is under review by the California Department of Water Resources (DWR), with an expected review and comment by January 2028 (within two years of the submittal of the 2025 Plan to DWR in January 2026). Given the hydrogeologic, management, and policy complexities inherent in the Kern Subbasin, continued coordination and consistency in Plan implementation remain important priorities for the Kern Subbasin GSAs. INTERA, in partnership with EKI, is leading the Technical Working Group and acting as the technical liaison with DWR Staff during the 2025 Plan implementation and review phase.

The Kern Subbasin GSAs are interested in continued technical coordination during the implementation phase under a Subbasin Technical Coordinator (TC). Similar to 2026, the TC's primary responsibilities would be to ensure that a) 2025 Plan technical implementation tasks are completed and consistent with the adopted GSP/Exceedance Policy/Action Plan using the best available and Subbasin-specific datasets, tools, and methodologies, and b) Kern Subbasin GSAs continue to be responsive to DWR, other regulatory entities, and stakeholders regarding technical or implementation issues of interest. Implementation of different aspects of the Plan will be led by task-specific subcommittees and/or consultant teams working with the 20 GSAs. This includes consulting teams (part of the Technical Working Group or TWG) and/or subcommittees that lead:

1. Data Management System;
2. Well registrations and inventory[1];
3. Groundwater monitoring data gaps (as identified in the 2025 Plan);
4. Water level Sustainability management Criteria (SMC) analysis and exceedance evaluations;
5. Water quality data collection, SMC analysis, reporting, and notifications;
6. Water quality exceedance evaluations;

[1] While there is no subcommittee/consultant that currently leads the well registration and inventory process, it is anticipated that this may be a need in 2027.

7. Subsidence SMC analysis, reporting, and exceedance evaluations;
8. Water level and water quality mitigation;
9. Basin Study and groundwater modeling;
10. Grant and funding opportunities; and
11. Community outreach and engagement (COE).

All SMCs and project and management actions will also be summarized in the annual report submitted to DWR. Based on information provided by the Kern Subbasin GSAs, the TC is expected to:

- Coordinate the calculation and determination of SMC compliance with the appropriate subcommittee/consulting teams.
- Provide quality assurance and quality control (QA/QC) of subcommittee/TWG final work products to confirm consistency with the 2025 Plan and related components. Communicate directly with the Chair/Policy group for any potential "non-compliance" concerns of a GSA.
- Provide adequate review of interim TWG work products including any feedback and next steps.
- Identify and present future changes to all GSP components based on implementation tasks including new Scope of Works, Schedules, and Budget requirements.
- Identify grant opportunities to support ongoing and future implementation and planning efforts.

INTERA is proposing on the above TC scope, continuing the successful partnership with EKI as Technical Working Group co-leads and SWRCB technical liaison from the 2025 Plan revision phase. INTERA proposes Dr. Abhishek Singh, PhD, PE as the lead TC, working in partnership with Ms. Christina Lucero, PG, EKI, with Ms. Anona Dutton, PG, CHG, EKI providing strategic support. Additional technical staff will support, as-needed review and QA/QC sub-tasks. Our team will ensure coordination, consistency, and quality control across datasets, analyses, and implementation details for the Subbasin. To reduce redundancy and avoid duplication of efforts, the INTERA and EKI team will split the subcommittee meetings and associated review/QA/QC of subcommittee/consultant teams interim work products. The INTERA and EKI team will also be coordinating with the subcommittees/consultant teams on their future scopes/budgets while identifying future grant opportunities that could support ongoing implementation efforts. INTERA and EKI are already on the subsidence subcommittee and have existing task-orders for subsidence analysis, subsidence SMC QA/QC, and agency coordination on Friant Kern Canal and the California Aqueduct, respectively. Given that INTERA and EKI have existing scope and budget for subsidence SMC analysis, review, QA/QC, and exceedance evaluation, this scope/budget will *not* be including under the TC scope/budget outlined below. This represents budget and schedule efficiencies for the Subbasin.

Dr. Singh and Ms. Lucero will maintain regular engagement with the Coordination Committee (CC) and GSA Manager teams to ensure the technical tasks incorporate Subbasin policy and management considerations, while providing the Subbasin managers recommendations to support future policy and management decision-making and scopes, schedules, budgets for future implementation tasks. Dr. Singh and Ms. Lucero will split their engagement with various TWG leads and GSAs based on their understanding and experience on a particular technical/policy topic. This approach maintains efficiency across the TC roles and drives coordination, maintains quality control, minimizes redundancy, and integrates the

technical, policy, and management considerations, while leveraging GSA-specific expertise to keep the Subbasin progressing cohesively.

The sections below provide more detailed descriptions of the TC scope and level of effort. The outlined scope covers the calendar year 2027. The scope/budget for future TC involvement will be developed at the end of 2027, based on direction from the Kern Subbasin GSA managers and policy representatives.

1.0 Scope of Work

1.1 Technical Review and QA/QC of Implementation Tasks

INTERA will track the overall 2025 Plan implementation approach and progress. INTERA will maintain a GSA task tracking and budget matrix, which will track subcommittee progress against 2025 Plan commitments. To ensure technical implementation tasks are completed and consistent with the 2025 Plan, INTERA and EKI will split the review of materials produced by subcommittees. INTERA will lead review of interim and final work products produced by the data gaps, well registration/well inventory, mitigation, and stakeholder engagement subcommittees. EKI will lead review of materials related to groundwater levels and water quality subcommittees. The review performed will focus on consistency with the 2025 Plan, use of best available data and science, and coordination across different GSAs. Subcommittees/consulting teams are responsible for developing and implementing the SMC approach and detailed QA/QC of the data and analysis.

Review of subcommittee materials includes the following tasks:

- EKI will review calculations comparing groundwater levels and water quality samples against SMCs for consistency with the approaches outlined in the 2025 Kern Plan. Calculations will be produced semi-annually either through the Kern Data Management System (DMS) or compiled by the Water Quality SMC Implementation Plan Administrator.

- EKI will compile a list of Exceedance Investigation Report(s) required, date produced, and resultant key actions on a semi-annual basis.

- INTERA will review recommendations for filling data gaps using a) existing wells, and b) drilling new wells.

- INTERA and EKI will review up to 4 Water Quality and/or Subsidence Exceedance Investigation Reports, as requested by either the Water Quality or Subsidence TWG leads.

- INTERA and EKI will participate on the DMS subcommittee to develop recommendations (including relevant scope/budget) for changes to the DMS and/or Well Inventory.

- INTERA and EKI will review any changes to the representative monitoring network

- INTERA will review and comment on interim and final work products produced by the mitigation subcommittee/consulting team.

- EKI will coordinate with the Kern Subbasin Point of Contact on GSA boundary modification(s).

This scope of work assumes TWG subcommittee/consulting teams will produce two technical work products every quarter requiring 4 hours of review for each work product. The technical review will be split between INTERA and EKI. However, the frequency and nature of subcommittee work products may change based on implementation progress and issues encountered. Any change in the assumed level of effort involved with the subcommittee/consulting team coordination and review will be reported to the Kern Subbasin Coordination Committee Chair and GSA Managers.

INTERA and EKI will also review the Water Year (WY) 2026 Annual Report (submitted in the first quarter of 2027) for consistency with the 2025 Plan, and provide comments and suggested edits to the consultant producing the Annual Report. This is to ensure consistency of the WY2026 Annual Report with the 2025 Plan (and associated Action Plans), while maintaining coordination across the 20 GSAs.

DWR is expected to release a Guidance Document on Interconnected Surface Water (ISW). INTERA will work with the Subbasin ISW lead to review the guidance document and develop recommendations for GSA consideration. The summary of the ISW Guidance Document and any recommendations for GSA consideration will be presented at a Manager's Meeting.

Finally, DWR will be reviewing the 2025 Plan and may submit their review comments or provide feedback on the 2025 Plan in 2027. Having not received the DWR review comments so far, this proposal *does not* include scope/budget for review and response to DWR review comments. However, the TC team can provide the scope/budget for DWR comment review and recommendations to address the comments upon direction of the Subbasin Chair and GSA Managers.

INTERA and EKI will both provide strategic technical support to the Kern Subbasin GSAs managers/policy group. Through the year, the TCs will track technical consultant scopes and budgets, and work with the TWG leads to identify any deviations from agreed upon scope/budget and develop necessary amendments to address these changes.

At the end of the year, INTERA and EKI will review subcommittee scopes of work and provide recommendations for future TWG scopes of work.

Deliverables:

- Updates to the GSA implementation task tracker and consultant budget tracker.
- Review comments to subcommittee/consulting teams' work products and Annual Report.
- Two Exceedance Investigation Report summaries.
- Review comments on subcommittee/consulting teams' future SOWs/budgets.
- Presentation on DWR ISW Guidance and recommendations for GSA considerations.

- Brief Technical Memorandum documenting recommendations for future changes to the 2025 Plan.

1.2 Grant and Funding Support

EKI will be primary on this effort, with INTERA's support. EKI will track and report on forthcoming solicitations for SGMA GSP implementation—or related to project(s) that support recharge, conservation, and/or demand management—that become available during 2027, and aid the GSAs in selection of which funding opportunities to pursue as a Subbasin. Potential grant funding opportunities include, but are not limited to:

- DWR Sustainable Groundwater Management (SGM) Program. Draft guidelines and draft Proposal Solicitation Package (PSP) are released, with public comments due December 4. Concept proposals anticipated to be due early 2027.
- Department of Conservation (DOC) Multibenefit Land Repurposing Program (MLRP), draft guidelines expected in October 2026.
- DWR Watershed Resilience Program. Draft guidelines are released, with public comments due November 9. For the Conservation Implementation Program, concept proposals will be due in early 2027. For the Watershed Resilience Planning+ Program, the draft proposal solicitation package is expected Winter 2026/27 with concept proposals anticipated to be due in late 2027.

EKI will closely monitor each solicitation, and work with the GSAs to confirm the proposed lead applicant(s), proposed project(s), requested funding amount, and application strategy after review of the final guidelines and PSPs. As the final guidelines and PSPs are released by DOC and DWR, EKI will work with the GSAs on defining the project(s) scope and associated budget to meet the specific needs of each Program application. Development and submittal of grant applications and/or supporting materials is not included in this scope of work/budget. Once final PSPs are released, EKI can provide an updated scope of work/budget for grant application development and submittal upon direction of the Subbasin Chair and GSA Managers.

Deliverables:

- Presentation providing recommendations for application approach for up to three (3) grant solicitations.

1.3 Subbasin Meetings

Subcommittee and GSA Meetings

INTERA and EKI will engage with subcommittees to track implementation progress, and to understand and confirm consistency of overall approach (datasets, analysis, models, etc.) with the 2025 Plan. Subcommittees/consulting teams are responsible for developing and implementing the approach and detailed QA/QC.

INTERA will lead and EKI will attend monthly TWG meetings with chairs/leads from all subcommittee/consulting firms. Meetings will focus on understanding key milestones, challenges, schedules, and budgets from each subcommittee. Meetings will ensure that all subcommittee/consulting firms' efforts are coordinated across the Subbasin. Outcomes will be documented in a quarterly progress report. Content from these meetings will also be used to inform the development of any presentations needed for meetings with DWR. INTERA will bring in EKI to lead TWG meetings, as needed.

INTERA and EKI will split additional technical consultant/subcommittee meetings (and any pertinent meetings with GSAs), whereby INTERA will attend meetings related to data gaps, well registration/well inventory, mitigation, and stakeholder engagement and EKI will attend meetings related to groundwater levels, water quality, and grants. INTERA and EKI will both attend meetings related to DMS and WQ. Subsidence subcommittee attendance by INTERA and EKI will be handled under the existing subsidence subcommittee scopes of work for both firms.

Finally, INTERA and EKI will provide up to 12 hours total in general support and/or meetings with individual GSAs as it pertains to 2025 Plan implementation, compliance, boundary modifications, etc. Detailed assumptions regarding meetings' level of effort are documented in the budget spreadsheet attachment.

Deliverables:

- TWG meeting notes.
- Quarterly implementation progress reports.

Managers, Policy, and PoC Meetings

The TCs will attend the Kern Subbasin GSAs managers and PMA meetings (assumed to be 3/month) and CC meetings (1/month) to provide a TC update report on coordinating implementation tasks and identify technical coordination issues and associated impacts. Additionally, both Dr. Singh and Ms. Lucero will participate in two meetings per month with the Kern Subbasin Point of Contact and Subbasin Chair.

Deliverables:

- Meeting presentations as needed

DWR SGMO Meetings

DWR is currently reviewing the 2025 Plan and is expected to finish their review by January of 2028. However, DWR or the Kern Subbasin GSAs may need to meet to discuss any questions or issues that may come up during the review period. For the purpose of this proposal, we assume up to three meetings with DWR SGMO staff in 2027 – one focused on their review of the 2025 Plan and two focused on subsidence.

INTERA will take the lead, with EKI's support, on coordinating the meetings with DWR and working with TWG members and GSAs to prepare for and follow-up from the DWR meetings. INTERA will develop the agenda, compile the presentation and address any Kern Subbasin GSAs managers/policy comments, and

take meeting notes. Time for the 2025 Plan review meeting is included in this proposal. Time for subsidence related meetings is captured under a separate subsidence support proposal.

Note that the level of engagement with DWR is yet to be determined. This proposal assumes the DWR meetings will be 2-hour meetings with half a day needed for preparation. If the level of effort for DWR engagement changes then this will be reported to the Subbasin chair and GSA managers.

Finally, this proposal does not include any scope/budget to review or address DWR comments on the 2025 Plan, in case these are released in 2027 (prior to the expected January 2028 date). If DWR comments are released in 2027, then the TCs will identify the additional scope/budget required to review and respond to these comments, as needed.

Deliverables:

- Agenda(s)
- Compiled presentation(s)
- Meeting notes

Stakeholder and Community Outreach and Engagement

INTERA will participate in up to four stakeholder/community outreach events upon direction from the Subbasin Chair and GSA Managers. INTERA will provide slides to cover any technical components of the stakeholder/community outreach presentations.

Deliverables:

- Participation and technical slides for up to four stakeholder/community outreach events.

1.4 TC Coordination and Project Management

INTERA will provide project management services to track scope, schedule, and budget. INTERA will hold internal weekly meetings with EKI to ensure coordination and consistency across the TC roles. This task also includes preparation of combined invoices (with EKI as sub) on a monthly basis.

Deliverables:

- Monthly invoices.

2.0 Assumptions

To ensure transparency and shared understanding, we have outlined the assumptions that form the basis of our proposed scope and approach. Additional detailed assumptions on hours and assumed level of effort are provided in the budget table.

- Dr. Abhishek Singh will be the designated INTERA TC lead.
- Ms. Christina Lucero will be the designated EKI TC co-lead.

- Ms. Anona Dutton will provide strategic direction and targeted principal review.
- All meetings will be held virtually.
- 4/month Managers/PMA/Policy meeting (both INTERA and EKI attending).
- 1/month TWG leads meetings (INTERA lead and EKI attending).
- 2/month technical subcommittee and 1/month GSA meetings (split between INTERA and EKI).
- 2/month Subbasin POC and Subbasin Chair meetings (Both INTERA + EKI).
- 3/year DWR meetings (INTERA lead and EKI attending).
- Weekly Internal TC meetings (INTERA + EKI leads).
- 1/quarter Stakeholder/Community Outreach Events (INTERA).
- QA/QC of work products assumed to consist of limited high-level review for compliance with 2025 Plan objectives/criteria. As the number and nature of the deliverables is currently unknown, preliminary assumptions on the number of deliverables and review hours are included in the budget table.

3.0 Schedule

This proposal covers identified tasks for the period from January 2027 through December 2027.

4.0 Budget

The budget for the scope outlined above is $189,378. The breakdown of hours and budget by staff and tasks is shown in the tables below. INTERA and EKI will bill on a time and material basis, hence scope outlined above but not executed will not be billed. Any deviation in scope will be promptly communicated to Kern Managers.

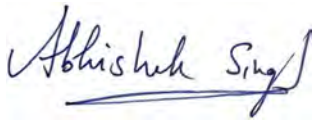
Table 1. Technical Coordinator Budget for 2027

Task No.	2027 Estimated Hours by Staff Type							Task Totals	
	INTERA			EKI					
	Principal Engineer/ Scientist	Senior Engineer/ Scientist	Engineer/ Scientist	Principal Engineer/ Scientist	Senior Engineer/ Scientist	Engineer/ Scientist	Grant Specialist	Total Task Hours	Total Task Cost
~~Task 1.1 Technical Review and QA/QC of Implementation Tasks~~	~~56~~	~~12~~	~~16~~	~~4~~	~~36~~	~~24~~		~~148~~	~~$46,532~~
Task 1.2. Grants and Funding Support	3			3	3	0	24	33	$10,418
~~Task 1.3. Subbasin Meetings (Managers, CC, TWG, GSAs, DWR)~~	156	~~8~~	~~12~~	0	~~136~~			~~312~~	~~$109,701~~
~~Task 1.4. TC Meetings & Project Management~~	~~36~~				~~27~~			~~63~~	~~$22,726~~
Total Hours by Staff Type	251	20	28	7	202	24	24	556	
								Estimated 2027 Budget	~~$189,378~~ $10,418

The INTERA and EKI team value the trust and confidence placed in our team and look forward to continuing to support the Kern Subbasin GSAs on technical coordination and implementation of the 2025 Plan. Please do not hesitate to reach out with any questions or concerns regarding our proposal.

Sincerely,

INTERA Incorporated



Abhishek Singh, PE, PhD
President - Water Resources & Supply, Principal Engineer

Attachment: Kern Subbasin TC - Detailed Budget Spreadsheet.xlsx

Corporate Office
2001 Junipero Serra Boulevard, Suite 300
Daly City, CA 94014
(650) 292-9100
ekiconsult.com

11 October 2026

Derek Yurosek
Coordination Committee Chair
Kern County Subbasin

Subject: Proposal for Kern County Subbasin Subsidence Subcommittee Support through 2027
Kern County Subbasin, Kern County, CA
(EKI C20055.16)

Dear Mr. Yurosek:

The Kern County Subbasin (Subbasin) managers have requested that EKI Environment and Water, Inc. (EKI) prepare a Scope of Work and budget to support the Subsidence Subcommittee in its implementation of the coordinated Kern County Subbasin Groundwater Sustainability Plan (2025 Plan). In addition to being a technical member of the Subbasin-wide subsidence subcommittee, EKI has been identified as a Technical Working Group (TWG) lead for the California Aqueduct Working Group.

SCOPE OF WORK

The following scope of work focuses on key tasks separated into those that will be performed for the (1) California Aqueduct Working Group or (2) Subbasin Subsidence Subcommittee. Tasks 1 and 2 include ongoing 2025 Plan implementation support.

Task 1 – 2027 California Aqueduct Working Group

Task 1 involves 2027 work associated with the California Aqueduct Working Group, including communication with the California Aqueduct Subsidence Program (CASP). EKI support will include the following:

- Co-lead the California Aqueduct Working Group, including development of meeting agendas and materials as needed.
- Preparation for and attendance at quarterly meetings with CASP.
- Process, review and conduct quality checks of the California Aqueduct benchmark survey data and quarterly InSAR data along the California Aqueduct to identify exceedances of Minimum Thresholds (MTs) and/or Interim Milestones (IMs).
- Track MT exceedances, Exceedance Report submittals, and resultant targeted Projects and/or Management Actions (P/MAs) along the California Aqueduct for integration into quarterly reports and the Annual Report.
- Prepare four quarterly newsletters for the California Aqueduct that will present subsidence conditions and MT and/or IM exceedances in tabular, graphical, and transect format.

- Provide technical review of other anticipated subsidence-related DWR reports/data (e.g., LiDAR data and associated study).
- Support ongoing discussions with CASP related to GSA vs. non-GSA subsidence causes.

Key Assumptions:

- Attendance by up to two EKI personnel at four (4) California Aqueduct Working Group meetings; meetings will be one hour in length.
- Attendance by up to two EKI personnel at four (4) meetings with CASP; meetings will be two hours in length.
- All meetings will be conducted virtually.
- InSAR data will be publicly available for download through DWR. Processing and technical review of InSAR data will occur quarterly for a total of four processing events.
- CASP survey data will be provided by CASP. Processing and technical review of survey data will occur once during 2027.
- This scope of work does not include support for exceedance investigation(s).
- Exceedance Report(s) including details on targeted P/MAs will be provided by GSA(s).
- Exceedance investigation(s) will be conducted by the GSA(s) in which the exceedance(s) occur(s).

Deliverables:

- CASP meeting material(s).
- Four quarterly newsletters for the California Aqueduct.
- Text and attachments for the Water Year 2026 Annual Report.

Task 2 – 2027 Subbasin Subsidence Subcommittee

Under Task 2, EKI will provide technical support to the Subbasin Subsidence Subcommittee during 2027. EKI will conduct the following work efforts:

- Technical review of subsidence-related data, including InSAR data summaries for the GSA Area Infrastructure and HCM Areas, quarterly newsletters for the Friant-Kern Canal.
- Support other Subsidence Subcommittee members in conducting a data assessment for critical head analyses across the Subbasin and identifying recommendations for targeted areas for improvement of critical head estimation.
- Preparation for and attendance at up to two meetings with DWR Sustainable Groundwater Management Office (SGMO) and/or with the DWR land subsidence Best Management Practices (BMP) team.
- Attendance at up to eight virtual Subbasin Subsidence Subcommittee meetings.
- Technical support and review of the Water Year 2026 Annual Report as it relates to land subsidence and compliance with Sustainable Management Criteria (SMCs).
- Attendance at Friant Water Authority meetings, as the Technical Coordinator.

Key assumptions:

- Technical review of subsidence-related data will occur quarterly. InSAR data will be processed by other TWG members and will be provided in a format readily useable for comparisons.
- Attendance by up to two EKI personnel at up to eight (8) virtual subcommittee meetings; meetings will be one hour in length.
- Costs associated with attendance by EKI personnel at Kern Managers and Coordination Committee meetings are not included herein.
- Attendance by up to two EKI personnel at up to two (2) DWR SGMO meetings; meetings will be two hours in length. This scope assumes one virtual meeting and one in-person meeting at the DWR Fresno office.
- Attendance by one EKI personnel at up to two (2) virtual meetings Friant Water Authority; meetings will be two hours in length.
- This scope of work does not include support for exceedance investigation(s).

Deliverables:

- DWR BMP/SGMO meeting materials (co-produced by the Subsidence Subcommittee).
- Recommendations for areas for critical head refinement (co-produced by the Subsidence Subcommittee).

OPTIONAL TASK 3 – GROUNDWATER LEVEL MINIMUM THRESHOLD (MT) ASSESSMENT

Under Task 3, EKI will use Kern-IWFM to conduct a preliminary analysis on the relationship between groundwater level MTs and estimated critical head. Kern-IWFM is currently undergoing updates and a recalibration focused on groundwater levels, and subsidence simulation improvements are anticipated to occur in 2027. Therefore, Task 3 is optional, as it is contingent on model availability with improved subsidence simulation capabilities. The preliminary analysis will be used to inform a future task related to critical head assessment against groundwater level MTs across the Subbasin. EKI will conduct the following work efforts:

- Identify up to five Representative Monitoring Well (RMW) located in areas with measurable historical subsidence and extensive water level data records.
- Utilize projected model scenarios to assess modeled critical head and estimated projected land subsidence at groundwater levels MTs at up to five RMWs.
- Compare estimated projected land subsidence at groundwater level MTs to the approach used in the 2025 Plan.
- Develop recommendations for expanding analysis to the remaining RMWs.

Key assumptions:

- The Kern-IWFM model files will be provided to EKI. The model will be calibrated adequately to support critical head evaluation. No additional subsidence simulation calibration will be required, and no additional 1-D subsidence models will be developed.

Deliverables:

- Presentation on modeling methods, findings, and recommendations for expanded analysis.

BUDGET

Compensation for consulting services by EKI will be on a time and expense reimbursement basis in accordance with our current Schedule of Charges. Based on the proposed Scope of Work described above, we propose a budget of $76,000 (see also Table 1) for the performance of Tasks 1 and 2, based on our best estimate at this time. This budget will not be exceeded without additional authorization from the Client. We propose a budget of $18,100 for the performance of Optional Task 3, which will not be initiated unless directed by the Kern County Subbasin. EKI's staff members who will lead this project include Anona Dutton, P.G., C.Hg. and Christina Lucero, P.G. Other EKI staff members will be assigned to assist with the performance of the tasks as required to meet project commitments.

Table 1. Estimated Budget

TASK	Cost Estimate
~~Task 1 – 2027 California Aqueduct Working Group~~	~~$39,500~~
~~Task 2 – 2027 Subbasin Subsidence Subcommittee~~	~~$36,500~~
~~**TOTAL**~~	~~**$76,000**~~
Optional Task 3 – Groundwater Level MT Assessment	$18,100
~~**TOTAL with Optional Task 3**~~	~~**$94,100**~~ **$18,100**

SCHEDULE

Upon authorization to proceed, EKI is prepared to start work on the above Scope of Work immediately. Tasks 1 and 2 in this Scope of Work will cover work efforts conducted 1 January 2027 through 31 December 2027. Optional Task 3 in this Scope of Work will begin only once the 2027 Kern-IWFM subsidence updates are completed and upon direction by the Kern County Subbasin to proceed, and will extend through 31 December 2027.

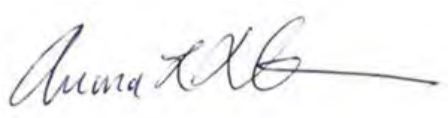
TERMS AND CONDITIONS

This work will be conducted pursuant to our existing agreement with the Wheeler Ridge-Maricopa Water Storage District.

We are happy to discuss the proposed approach and anticipated level of effort for these tasks in more detail with you and look forward to working with you on this important project.

Very truly yours,

EKI ENVIRONMENT & WATER, INC.



Anona L. Dutton, P.G., C.Hg.
Chief Executive Officer / Principal-In-Charge

AUTHORIZATION

Signed _____

Printed Name _____

Title _____

Date _____

cc: Sheridan Nicholas, Wheeler Ridge-Maricopa Water Storage District

TODD GROUNDWATER

October 9, 2026

MEMORANDUM

To: Abhishek Singh, Intera, Kern Subbasin Technical Coordinator
Christina Lucero, EKI, Kern Subbasin Technical Coordinator

From: Michael Maley, Principal Hydrogeologist, PE, PG, CEG, CHg

Re: Todd Groundwater 2027 Proposal - Subsidence Subcommittee Technical Work

The Kern County Subbasin (Subbasin) managers have requested the Subbasin Subsidence Subcommittee technical associates to prepare a Scope of Work and budget to support the subsidence implementation amended Kern County Subbasin Groundwater Sustainability Plan (2025 Plan). Todd Groundwater has been identified as the technical lead for the sitewide subsidence components that include the GSA Critical Infrastructure and the HCM Area analysis of other infrastructure.

This scope of work includes both recurring and non-recurring tasks. Annually recurring tasks include the Quarterly InSAR data assessment, Annual Report input preparation, DWR meetings and Subcommittee coordination and meetings. Non-recurring tasks include the regional critical head and model refinement tasks that will support ongoing subsidence assessments of Regional, GSA and Sitewide critical infrastructure.

SCOPE OF WORK

Todd Groundwater's work for the Subsidence Subcommittee will focus on sitewide subsidence activities, which are those subsidence related activities that are not associated with either the Friant-Kern Canal or California Aqueduct Subsidence Working Groups. This scope of work on the Subsidence Subcommittee covers calendar year 2027 through December 31, 2027. The following tasks describe the different work components included in this scope.

Quarterly Reporting of Subbasin-wide InSAR and Monitoring Data

The Subsidence Action Plan for the 2025 Plan calls for the analysis of quarterly InSAR data for the GSA Critical Infrastructure. Todd Groundwater will update the monthly InSAR from DWR and prepare for quarterly data of cumulative displacement measured by InSAR in GIS . A statistical analysis of subsidence will be developed for the GSA Critical Infrastructure and HCM areas following the approach we used for the 2025 GSP. The InSAR data will include data made available by DWR in 2027 that is anticipated to cover the period from October 2026 through September 2027.

Todd Groundwater will compile the WY2025 InSAR from DWR and prepare maps for monthly, annual and cumulative displacement measured by InSAR. A statistical analysis of subsidence will be developed for the Subbasin and HCM areas following the approach we used for the 2025 GSP. This information will be summarized in a brief report distributed to the Subsidence Subcommittee members for review .

Preparation of Annual Report Subsidence Summary

Coordination with the Subsidence Subcommittee members on developing an annual report summary on subsidence. The InSAR maps listed above will also be incorporated into the Annual Report. Initial coordination with Subbasin GSAs on their WY2026 subsidence work with the Subcommittee to develop input of these activities for the current annual report.

Regional Evaluation of Critical Heads

For this task, Todd Groundwater will develop a methodology based on input from the 1D modeling for critical head assessment to support developing regional Kern-IWFM model input files for subsidence parameters including critical head and parameters for simulation of both instantaneous and delayed subsidence. The subcommittee members will collaborate to evaluate and identify the methods for developing sitewide critical heads. The 1D critical head model data will be used in conjunction with Subbasin InSAR and hydrogeological data to define the regional distribution of critical heads and other subsidence parameters. Todd Groundwater will provide the subcommittee with GIS maps and data files of the subsidence parameters for review and comment. Based on this input, initial model files will be developed for the Kern-IWFM model.

Regional model subsidence refinements

This task includes time to incorporate these revised subsidence parameters developed by the subcommittee and evaluate their performance in simulating measured subsidence data both sitewide and along critical infrastructure. Using these results, we will further evaluate and refine the subsidence parameters for the regional model including the physical and mechanical material properties of the compressible clay layers and application of a sitewide critical head assessment. The subcommittee members will collaborate to evaluate model results and develop approaches to improve model performance in simulating subsidence. Work may include updating model parameters, updating model calibration of subsidence parameters, developing subsidence scenarios and running sensitivity analyses on key parameters to provide input to support the subcommittee review.

DWR Meetings

The scope includes participation in three DWR meetings including pre-meeting Subcommittee preparations. Potential topics include GSP Review and/or BMP requirements. The scope assumes two online meetings and one in-person meeting at a DWR office. This task also includes some limited time for Todd Groundwater administrative support.

Subcommittee Coordination & Meetings

Participation in Subbasin Subsidence Subcommittee meetings and coordination with subcommittee members on technical tasks. The budget assumes time for a monthly Subcommittee meetings and related coordination with other Subcommittee members between meetings. The scope includes participation in eight (8) subcommittee meetings including pre-meeting Subcommittee preparations. This tasks also includes 16 hours for review, QA/QC of subcommittee deliverables and data during 2027. This task also includes some limited time for Todd Groundwater administrative support.

ESTIMATED COST

The total budget for the scope of work is $95,700. A budget summary by task is provided in Table 1. The cost estimate covers the period through December 31, 2027. This cost estimate is considered a not-to-exceed estimate and Todd Groundwater will not exceed this cost without written authorization from the Subbasin GSAs. In addition, work will be conducted on a time and materials basis and only the costs expended will be invoiced. If Todd Groundwater is requested to provide support beyond what is described in this scope, that would be considered an extra scope of work.

This scope of work includes both annually recurring costs associated with required DWR reporting, and non-recurring costs associated with development of the regional Kern-IWFM model. Costs for Recurring tasks total $46,900 and costs for Non-Recurring tasks total $48,800.

Todd Groundwater work is focused on sitewide subsidence and does not include budget for work directly for either the California Aqueduct Working Group or the Friant-Kern Working Group. If Todd Groundwater is requested to help support these Working Groups directly, that would be considered an extra scope of work. Please let us know if you have questions regarding this proposal.

TABLE 1 – Budget Summary to Complete the Subsidence Subcommittee tasks through December 31, 2027

TASKS	Total Labor Hours	2027 Cost Estimate	Notes
~~Quarterly Reports of Sitewide InSAR Data~~	~~84~~	~~$21,120~~	~~Recurring Task~~
~~Annual Report Subsidence Summary~~	~~28~~	~~$7,760~~	~~Recurring Task~~
~~Regional evaluation of Critical Heads~~	~~56~~	~~$16,800~~	~~Non-Recurring Task~~
Regional model subsidence refinements	121	$32,000	Non-Recurring Task
~~DWR Meetings~~	~~18~~	~~$5,840~~	~~Recurring Task~~
~~Subcommittee Coordination & Meetings~~	~~40~~	~~$12,180~~	~~Recurring Task~~
TOTAL	347	$95,700	
		$32,000	

INTERA Incorporated
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Torrance, CA 90503
+1 (424) 275 4055
INTERA.com

October 16, 2026

Morgan Campbell & Dave Hampton
Kern Subbasin Subsidence Committee Chairs
Sent via email: mcampbell@westsidewa.org; dhampton@northkernwsd.com

RE: Proposal for Kern County Subbasin – Subsidence Technical Services from January 2027 through December 2027

Dear Ms. Campbell and Mr. Hampton,

Since October 2025, INTERA has been supporting the Kern Subbasin (Subbasin) subsidence committee on various subsidence-related technical and implementation tasks. INTERA previous proposal (submitted, March 25, 2026) included scope for work performed from April 2026 through December 2026. Per the request of the Subbasin, INTERA is pleased to submit this proposal for ongoing subsidence tasks from January 2027 through December 2027.

This proposal outlines the scope for subsidence implementation support from January 2027 through December 2027, across two general categories of tasks: 1) Friant-Kern Canal subsidence technical support; and 2) Subbasin subsidence technical support.

1.0 Scope of Work

1.1 Friant Kern Canal Coordination and Subsidence Technical Support

INTERA will continue its role as technical lead on subsidence impacts to the Friant-Kern Canal (FKC). In this capacity, INTERA will analyze Interferometric Synthetic Aperture Radar (InSAR) data available from California Department of Water Resources (DWR) and assess sustainable management criteria (SMC) within a 2.5 mi buffer along the FKC on a quarterly basis. We will document and communicate subsidence trends and any SMC exceedances along the FKC. It is anticipated that there will be the need for additional coordination and communication with the Friant Water Authority (FWA) in 2027. For budgeting purposes, we have assumed two meetings (virtual) with the FWA, where we will present the 2025 Kern Plan updates, present ongoing subsidence trends along the FKC, and discuss future steps on FKC mitigation evaluation.

Deliverables:

- Cross-section and SMC Table documenting subsidence rates and extents and any SMC exceedances along the FKC (updated quarterly)
- A newsletter summarizing subsidence proximal to the FKC and results of SMC checks (quarterly)
- Presentation to the FWA

1.2 Subbasin Subsidence Coordination and Technical Support

Meetings with DWR Sustainable Groundwater Management Office (SGMO) Team

In their Land Subsidence Best Management Practice (BMP) Kick-Off Meeting, DWR indicated that they are interested in meeting with subbasins to discuss subbasin implementation progress and challenges. DWR also plans to organize a regional coordination meeting with multiple subbasins that have cross-subbasin subsidence issues (e.g., Kern, Tule, and Tulare Lake). INTERA will attend and support the subsidence discussions at these meetings with the DWR SGMO team. We assume three meetings in the year – one related to the review of the Kern Groundwater Sustainability Plan (GSP) and two related to BMP implementation. For budgeting purposes, we have assumed two DWR meetings will be virtual and one in-person. INTERA will contribute to the subsidence-related presentation material needed for the meeting(s).

Meetings with DWR California Aqueduct Subsidence Project (CASP) Team

INTERA will attend and support meetings with the DWR California Aqueduct team. For budgeting purposes, we have assumed one meeting (virtual) with CASP every quarter.

Subsidence Committee Meetings

INTERA will attend and support Subsidence Committee meetings on an ongoing basis. For budgeting purposes, we have assumed two Subsidence Committee meetings (virtual) every quarter.

Annual Reporting

INTERA will support the development of the Subbasin Annual Report. INTERA will provide content related to the FKC and provide technical review of subsidence components.

Review of Subsidence Subcommittee deliverables/data

INTERA will support the quality control of deliverables and data put forth by the Subsidence Subcommittee. Comments will be provided directly to the Subsidence Subcommittee members.

Deliverables:

- Review of Subsidence Subcommittee deliverables and data
- Content for DWR Meetings Presentations
- Content for and review of the Annual Report

1.3 Subbasin Critical Head Analysis (Phase II Continuation)

DWR's Land Subsidence BMP expects more rigorous, basin-wide analyses of critical head conditions. DWR also emphasized the importance of managing against critical heads in their Land Subsidence BMP Implementation Kick-Off meeting (March 10, 2026). Critical heads represent groundwater levels below which permanent inelastic subsidence can be triggered in the underlying clay interbeds and aquitards. The Kern Subbasin has established a "glide path" for groundwater levels and subsidence, such that there is no additional subsidence due to Groundwater Sustainability Agency (GSA) management activities beyond 2040. As such, it is important for the subbasin to evaluate groundwater level MTs vis-à-vis future

(2040) critical heads. It is also important for the subbasin to understand ongoing residual subsidence due to pre-SGMA and non-GSA activities. As such, critical head analysis will be an important component of the ongoing discussions with DWR.

As part of INTERA's Phase I critical head evaluation, we analyzed the nine Kern subbasin-specific one-dimensional (1-D) subsidence models provided by DWR in the Bulletin 118 Update. Predictive critical head analysis was performed with all published 1-D models to assess future subsidence under different groundwater level scenarios. INTERA documented this analysis and the results in a technical memorandum, presented to the subsidence subcommittee on August 18, 2026. INTERA also reviewed available groundwater-level and subsidence data in the Subbasin to identify locations where additional critical head analysis could be performed. This initial review found sufficient long-term, collocated groundwater-level and subsidence data to support three additional 1-D modeling sites. The GSAs are currently compiling additional groundwater level, geologic, and well data to support the 1D modeling. As such, it is not anticipated that the additional 1D modeling will be completed in 2026. Based on the recommendation of the Subsidence Subcommittee, the additional 1D modeling will be done in 2027. Since this work is a carryover item from the 2026 Critical Head Analysis (Phase II) budget, the unspent budget from 2026 has been included in this proposal for 2027.

The Land Subsidence BMP presents both modeling-based and empirical approaches for estimating critical head, providing complementary methods for evaluating when groundwater-level declines may trigger or accelerate inelastic compaction. As part of the ongoing critical head evaluation, INTERA will develop critical head estimates for at least 8 additional sites within the subbasin, using DWR recommended empirical methods. Sites near regional critical infrastructure like the California Aqueduct, FKC, or GSA critical infrastructure will be prioritized. The methodology and findings from the empirical critical head analysis will be documented and presented to the Subsidence Committee and the Managers for review and discussion. This work is also a carryover item from the 2026 budget for Critical Head Analysis (Phase II) with unspent budget from 2026 being included in this proposal for 2027.

Two additional items are proposed as new work for the 2027 budget. First, at the recommendation of the Subsidence Subcommittee, INTERA proposes to refine the model calibration for two of the original nine BMP/Bulletin 118 sites, contingent on additional data being provided by the GSAs. Second, INTERA will coordinate with other collaborating Kern Subbasin consultant teams to provide a regional evaluation of critical head estimates developed using the regional model, 1D modeling methods, and empirical analyses (described above). This effort will help to understand the consistency and uncertainties across methodologies and datasets.

Deliverables:

- Technical Memorandum documenting predictive subsidence 1-D modeling and empirical analysis and results
- Technical Memorandum documenting variability of critical head analyses across differing methodologies and datasets
- Presentation to the Subsidence Committee and the Managers group on the 1D modeling results
- Presentation to the Subsidence Committee and the Managers group on the empirical critical head analysis

2.0 Assumptions

To ensure transparency and shared understanding, we have outlined the assumptions that form the basis of our proposed scope and approach.

- Trey Driscoll will be the designated Subsidence Committee representative from INTERA.
- INTERA will typically have up to two attendees at Subsidence Committee meetings. An additional attendee may be added to present the InSAR SMC results and 1D modeling results, as needed.
- All meetings, except the one DWR in-person meeting, will be attended virtually.
- All required data and information will have undergone quality-assurance/quality-control prior to being sent to INTERA.
- Collaborating Kern Subbasin consultant teams will perform their respective Subbasin-wide tasks in a transparent and timely manner.
- No significant changes to jurisdictional boundaries are to occur (such as a new GSA formation).
- No significant changes to proposed methodologies are to occur.
- No significant changes will be made to the GSP document or subsidence SMC methodologies based on discussions with DWR.

3.0 Schedule

This proposal covers identified tasks for the period from January 2027 through December 2027.

4.0 Budget

The budget for the scope outline above is $93,893. The breakdown of hours and budget by staff and tasks is shown in the tables below in accordance with our 2027 rate schedule. INTERA will bill on a time and material basis, hence scope outlined above but not executed will not be billed. Any deviation in scope will be promptly communicated to Kern Managers.

Table 1. January 2027 through December 2027 Budget

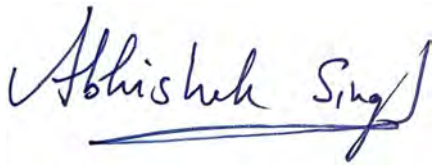
Task Name	2027 Estimated Hours by Staff Type									Task Totals	
	Principal Engineer/ Scientist I	Principal Engineer/ Scientist I	Principal Engineer/ Scientist III	Sr. Engineer/ Scientist II	Sr. Engineer/ Scientist II	Sr. Engineer/ Scientist III	Engineer/ Scientist I	Engineer/ Scientist III	Sr. Tech Editor	Total Task Hours	Total Task Cost
	Singh	Driscoll	Ellis	Saberi	Earll	Palys	Neely	Jordan	Davis		
~~Task 1.1 Friant-Kern Canal Subsidence Technical Support~~	0	4	0	0	0	4	60	0	4	72	$ 17,040
~~Task 1.2 Subbasin Subsidence Coordination & Technical Support~~	8	16	4	16	30	0	30	8	4	116	$ 32,083
Task 1.3 Subbasin Critical Head Analysis	4	8	16	80			30	24	10	172	$ 44,771
Total Hours by Staff Type	12	28	20	96	30	4	120	32	18	360	
										Estimated 2027 Budget	~~$93,893~~

$44,771

Thank you for considering our proposal to continue to support the Kern Subbasin on the critical issue of subsidence. We appreciate the continued trust and confidence in the INTERA team. Please do not hesitate to reach out to us if there are any questions or concerns regarding the proposal.

Sincerely,

INTERA Incorporated



Abhishek Singh, PE, PhD
President - Water Resources & Supply, Principal Engineer