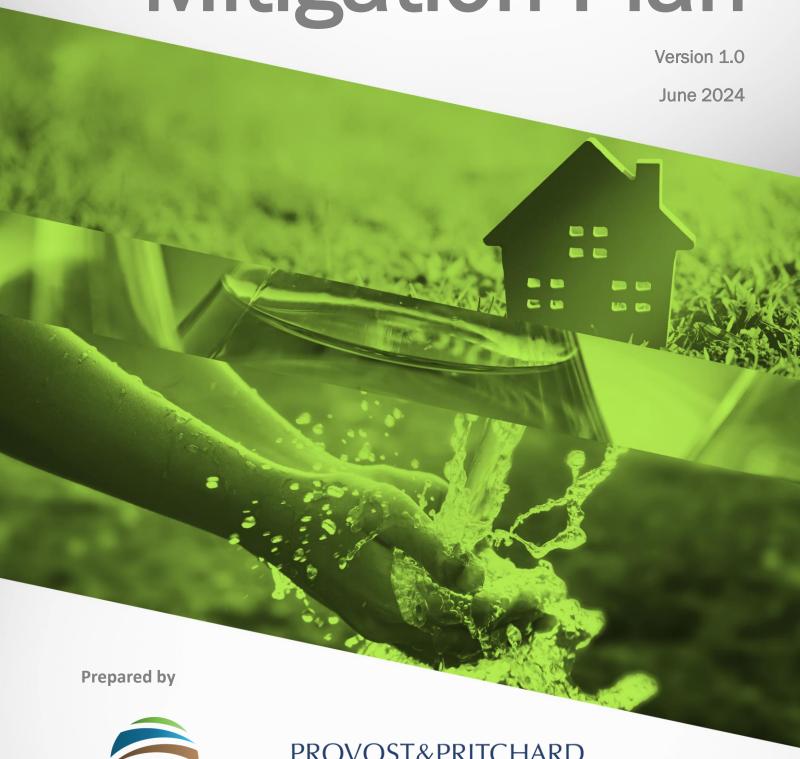
East Kaweah Groundwater Sustainability Agency

# Mitigation Plan





PROVOST&PRITCHARD CONSULTING GROUP

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## **Acronyms & Abbreviations**

Ag Agriculture

CVP Central Valley Project

CV-SALTS Central Valley Salinity Alternatives for Long-Term Sustainability

DWR Department of Water Resources

EKGSA East Kaweah Groundwater Sustainability Agency

ft Feet

GSA Groundwater Sustainability Agency
GSP Groundwater Sustainability Plan

KWF Kaweah Water Foundation
M&I Municipal and Industrial
MO Measurable Objective
MOA Memorandum of Agreement

MT Minimum Threshold

SAFER Safe and Affordable Funding for Equity and Resilience

SHE Self-Help Enterprises

SGMA Sustainable Groundwater Management Act

Subbasin Kaweah Groundwater Subbasin

SWRCB State Water Resources Control Board

WCR Well Completion Report



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 claims 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/

For claims regarding non-drinking water wells (such as agricultural wells) and critical infrastructure, please contact your respective Groundwater Sustainability Agency (GSA):

#### **East Kaweah GSA**

315 E. Lindmore Ave Lindsay, CA 93247

Phone Number: (559) 697-6095

Website: ekgsa.org

Email: groundwater@ekgsa.org General Manager: Mike Hagman

#### **Greater Kaweah GSA**

2975 Farmersville Rd Farmersville, CA 93223

Phone Number: (559) 302-9987 Website: greaterkaweahgsa.org Email: info@greaterkaweahgsa.org

General Manager: Mark Larsen

#### Mid-Kaweah GSA

6826 Ave 240 Tulare, CA 93274

Phone Number: (559) 686-3425 Website: midkaweah.org

General Manager: Aaron Fukuda



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: <a href="https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/">https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/</a>

Para reclamos relacionados con pozos de agua no potable (como pozos agrícolas) e infraestructura crítica, comuníquese con su respectiva Agencia de Sostenibilidad de Aguas Subterráneas (GSA) a través de la información de contacto anterior.



#### Kaweah Subbasin

# MITIGATION PROGRAM

**VERSION 1.0** JUNE 2024

# What is the Kaweah Subbasin **Mitigation Program?**

The Kaweah Subbasin Mitigation Program (Version 1.0) is a subbasin-wide program intended to provide mitigation services and technical assistance for those impacted by groundwater overdraft conditions, such as: chronic lowering of groundwater levels, land subsidence, and groundwater quality induced by pumping-related changes in groundwater levels. The Mitigation Program includes two tracks (described in the following two pages).

If your household has lost access to drinking water, please call Self-Help Enterprises at your earliest convenience to arrange emergency bottled water supplies within 24-hours and an interim measure (such as a water tank) within 72-hours. Tenants or well owners may call to arrange.



- 🚱 www.selfhelpenterprises.org
- 8445 W Elowin Ct Visalia CA

cicultura/ Wo



## **Drinking Water Well Track**

## **Technical Assistance Track**





For questions regarding the Mitigation Program, contact your GSA

#### EAST KAWEAH GSA

#### GREATER KAWEAH GSA

#### MID-KAWEAH GSA

(559) 697-6095

(559) 30<u>2-9987</u>

(559) 686-3425

🚱 www.ekgsa.org

www.greaterkaweahgsa.org

\*www.midkaweah.org

• 315 E Lindmore Ave, Lindsay, CA • 2975 Farmersville Rd, Farmersville, CA

• 6826 Ave 240, Tulare, CA

# KAWEAH SUBBASIN MITIGATION PROGRAM VERSION 1.0 DRINKING WATER WELL MITIGATION TRACK

Available June 2024

The Kaweah Subbasin Mitigation Program's Drinking Water Well Mitigation Track is intended to provide emergency and interim drinking water supplies and long-term mitigation for those experiencing a loss of access to drinking water due to groundwater overdraft conditions such as chronic lowering of groundwater levels, subsidence, and/or water quality induced by groundwater management in the Kaweah Subbasin. If translation services are needed, please contact Self-Help Enterprises to arrange.

If your household has lost access to drinking water, please call Self-Help Enterprises at your earliest convenience to arrange emergency bottled water supplies within 24-hours and an interim measure (such as a water tank) within 72-hours. Tenants or well owners may call to arrange access to emergency and interim supplies; however, well owners are required to submit claims to receive long-term solutions.



(559) 802-1685



www.selfhelpenterprises.org



8445 W Elowin Ct, Visalia CA

#### WHO CAN SUBMIT A CLAIM?







#### CRITERIA FOR A CLAIM TO QUALIFY

- The well was impacted after January 1, 2015, and has undergone the on-site assessment via the Kaweah Subbasin Mitigation Program claims process.
- The well or critical infrastructure impact was induced by overdraft conditions associated with the GSA's groundwater management.
- The well or system of wells shall not have contributed to overdraft by pumping in excess of their individual prorata share of the sustainable yield for the GSA or contributed to other undesirable results. \*This criterion does not apply to domestic (house) wells

#### **CLAIMS PROCESS**

- Well user (owner or tenant) contacts Self-Help Enterprises (SHE) upon loss of drinking water supplies to receive emergency bottled water within 24 hours
- The well owner then fills out an online intake form or calls SHE for assistance https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/
- SHE staff perform site assessment and gather information from well owner.
- SHE, GSA staff, and technical committee(s) evaluate the likely causation of well failure to determine if the claim qualifies for funding via the Mitigation Program or an alternative program.
- If the claim qualifies for any program that SHE administers, then SHE will arrange for long-term a solution and serve as the lender.
- If the claim qualifies for the Mitigation Program, then the GSA will reimburse SHE for all materials and administrative, technical, and mitigation services associated with the claim.

# KAWEAH SUBBASIN MITIGATION PROGRAM VERSION 1.0 TECHNICAL ASSISTANCE TRACK

Available June 2024 for EKGSA

Available June 2025 for MKGSA & GKGSA Contact MKGSA or GKGSA to arrange interim technical support before June 2025

The Kaweah Subbasin Mitigation Program's Technical Assistance Track is intended to provide GSA funding and/or technical resources to identify meaningful solutions to non-drinking water well and/or critical infrastructure (pipelines, canals, etc) that are impacted by overdraft conditions within the Kaweah Subbasin.

#### EAST KAWEAH GSA

- (559) 697-6095
- www.ekgsa.org

#### GREATER KAWEAH GSA

- **L** (559) 302-9987
- www.greaterkaweahgsa.org
- 315 E Lindmore Ave, Lindsay, CA
  2975 Farmersville Rd, Farmersville, CA

#### MID-KAWEAH GSA

- (559) 686-3425
- ♦ www.midkaweah.org
- 6826 Ave 240, Tulare, CA

#### WHO CAN SUBMIT A CLAIM?









#### CRITERIA FOR A CLAIM TO QUALIFY

- The well or critical infrastructure was impacted after January 1, 2015, and has undergone the on-site assessment via the Kaweah Subbasin Mitigation Program claims process.
- The well or critical infrastructure impact was induced by overdraft conditions associated with the GSA's groundwater management.
- The well or system of wells shall not have contributed to overdraft by pumping in excess of their individual prorata share of the sustainable yield for the GSA or contributed to other undesirable results. \*This criterion does not apply to claims for critical infrastructure

#### **CLAIMS PROCESS**

- Well or critical infrastructure owner contacts their respective GSA staff to set up a meeting to fill out the claim application together and disucss the program.
  - Following the initial meeting, GSA staff and/or a technical contractor will perform a site assessment and analyses to determine the likely causation of well or infrastructure impacts'.
  - GSA staff and technical committee review findings of assessment and determine if the claim qualifies for technical assistance funding via the Mitigation Program.
  - If the claim qualifies via the Mitigation Program, the GSA and Claimant (well/infrastructure owner) will enter an agreement and the GSA will fund technical assistance to support long-term solution(s) to the impacted well or critical infrastructure.

## 1 Introduction

## 1.1 Sustainable Groundwater Management Act Background

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) and is codified in Section 10720 et seq. of the California Water Code. In his signing statement, Governor Edmund G. Brown, Jr., emphasized that "groundwater management in California is best accomplished locally." This legislation created a statutory framework for groundwater management in a manner that can be sustained during the planning and implementation horizon without causing undesirable results.

SGMA requires governments and water agencies of high and medium priority basins to achieve sustainability by avoiding undesirable results. Under SGMA, these basins should reach sustainability within 20 years of implementing their sustainability plans. For critically over-drafted basins, including the Kaweah Subbasin to which the East Kaweah Groundwater Sustainability Agency (EKGSA) is a portion, the deadline for achieving sustainability is 2040.

In order to comply with the requirements of SGMA, the EKGSA and the two other Kaweah Subbasin Groundwater Sustainability Agencies (GSAs) have prepared a groundwater sustainability plan (GSP). The GSP serves to do the following:

- Describe the EKGSA basin setting (Hydrogeologic Conceptual Model) to define and describe the geographic and geologic and hydrogeologic conditions, as we understand them.
- Identify and describe the Sustainability Goal for the Kaweah Subbasin and the EKGSA area.
- Identify and describe the six sustainability indicators set forth in SGMA, as they pertain to the Kaweah Sub-Basin and the EKGSA jurisdictional area.
- Identify and describe the specific Minimum Thresholds and Measurable Objectives required for the EKGSA to achieve the Sustainability Goal.
- Define and identify Projects and Management Actions proposed by EKGSA to achieve the Sustainability Goal.

(EKGSA GSP, page 1-1)

## 1.2 East Kaweah Groundwater Sustainability Agency Background

The EKGSA (**Figure 1**) is made up of seven participating member agencies including County of Tulare, City of Lindsay, and several irrigation districts. Of these agencies the County of Tulare and the City of Lindsay are the only member agencies with direct land use planning authority. However, all the member agencies have an interest in land use planning policies, and how it will impact their continued development and water supplies.

EKGSA covers approximately 117,300 acres. Beneficial users within the plan area were identified by the Advisory Committee during the development of the Communication and Engagement Plan. These users are described in detail in **Section 1.5.2 of Chapter 1.** There are approximately 1,680 wells within the EKGSA boundary, based on information available from the Well Completion Report (WCR) database.

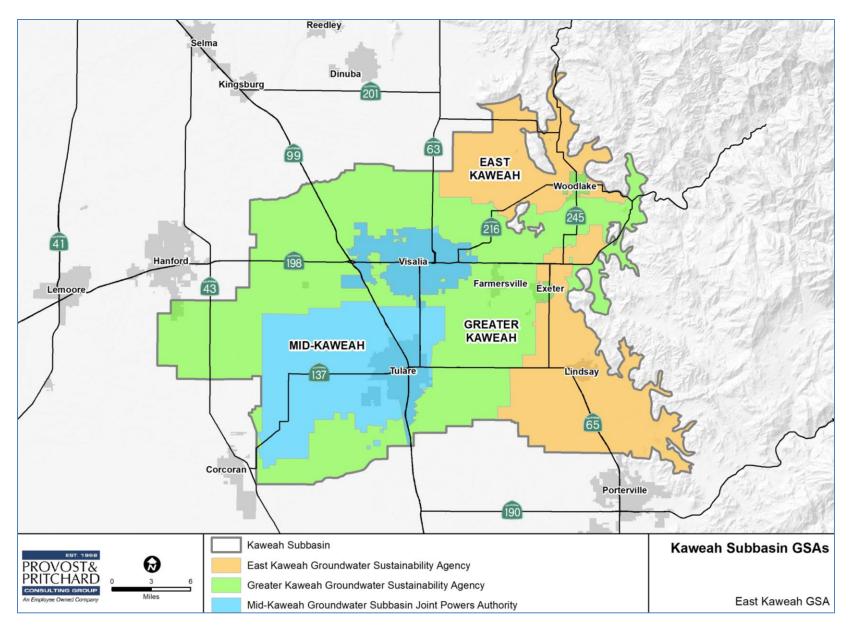


Figure 1. East Kaweah Groundwater Sustainability Agency Boundary within the Kaweah Subbasin

In the EKGSA and Kaweah Subbasin, the primary surface water sources for groundwater replenishment include precipitation, Kaweah River flows, and San Joaquin River water via Friant-Kern Canal Central Valley Project (CVP) contracts. Average annual precipitation is 7 to 13 inches, increasing eastward. The EKGSA goals are to develop several recharge, storage, conservation, and/or water recycling projects utilizing these supplies (EKGSA GSP, page ES-1).

As part of the effort to consider interests of all beneficial uses and users of groundwater, the EKGSA formed two committees, a Technical Advisory Committee and the Advisory Committee, to assist in developing policy and giving guidance from technical, social, and impacted party perspectives. The EKGSA is led by an Executive Director under the direction of the EKGSA Board of Directors. The Executive Director's role is to coordinate all the Board-provided resources toward developing and implementing a GSP with the intention of achieving goals of SGMA by the year 2040 (EKGSA GSP, page ES-2).

The EKGSA is located on the eastern side of the Kaweah Subbasin and covers approximately one quarter of the Subbasin acreage. It is made up of two areas bisected by the Kaweah River. The unconsolidated sediments of the EKGSA form a single unconfined aquifer. Four different geomorphic regions are delineated in order to relate wells of similar hydrology. The major land use in the EKGSA is agriculture (EKGSA GSP, page ES-2).

## 1.3 Mitigation Plan Purpose

Prior to SGMA, groundwater pumping in the Kaweah Subbasin resulted in overdraft conditions that may have contributed to impacts to wells and critical infrastructure. Since the implementation of the first iteration of the EKGSA GSP, the GSA and Subbasin partners have introduced projects and management actions to correct the overdraft conditions and achieve sustainability before the regulatory requirement of 2040 and beyond. While on the path towards sustainability, it is recognized that transitional pumping in overdraft has the potential to contribute to impacts to wells and critical infrastructure.

The purpose of the EKGSA Mitigation Plan (Plan) is to mitigate adverse impacts on wells and critical infrastructure adversely affected by declining groundwater levels, land subsidence, and degraded groundwater quality caused while EKGSA is implementing its GSP.

Recognizing the importance of mitigation, the three Kaweah Subbasin GSAs committed to a Mitigation Program that has been revised concurrently with the Mitigation Plan development. The original iteration of the Mitigation Program was included as Appendix 6 of the Kaweah Subbasin Coordination Agreement contained in the 2022 Amended EKGSA GSP (July 2022). The revised Mitigation Program coordinates the development of individual GSA mitigation Plans with details on the Mitigation Program and Plans' claims processes, qualification criteria, and schedule.

The Kaweah Subbasin Mitigation Program requires mitigation be awarded for qualifying drinking water wells following adoption of this Mitigation Plan. The Mitigation Program also allows each GSA to elect to include technical assistance funding to be awarded to qualifying non-drinking water wells and/or critical infrastructure. EKGSA has elected to include all production well types (drinking and non-drinking water) and critical infrastructure to be considered for mitigation qualification. A description of the unique vulnerabilities of each is detailed in **Sections 1.5 through 1.8.** 

## 1.4 Partnerships with Existing Mitigation Programs

Two local programs offer mitigation support for those affected by impaired access to drinking water within the Kaweah Subbasin, (1) The Kaweah Water Foundation (KWF) and (2) Self-Help Enterprises (SHE). The KWF supplies free drinking water and water testing, and SHE offers emergency drinking water supplies, long-term mitigation support, and well stewardship educational resources for those that qualify under their program. Both local programs have been consulted for their feedback and recommendations in developing this Mitigation Program. The KWF and SHE have recommended that the Kaweah Subbasin GSAs partner with their existing services rather than develop additional overlapping mitigation programs which may confuse potential claimants and community members.

The Kaweah Subbasin has entered into an agreement to financially support SHE's existing well mitigation, interim supplies, bilingual communications, and well stewardship educational services to implement the Kaweah Subbasin Mitigation Program most effectively. The agreement between the Kaweah Subbasin GSAs and SHE is such that the GSAs shall reimburse SHE for costs associated with program administration, groundwater quality sampling, interim drinking water supplies, and long-term mitigation measure for all drinking water well claims that qualify for Kaweah Subbasin mitigation. SHE serves as a contract mediator and lender for the claimants to arrange mitigation with well drillers to perform the long-term physical mitigation.

There are many reasons why a well may experience operational failure. The GSAs are responsible for mitigating wells that have been impacted by overdraft conditions since January 1, 2015. Impacts from overdraft may be reflected by chronic lowering of groundwater levels dewatering a well, land subsidence causing structural damage to a well, and/or declining water levels introducing new groundwater quality contamination to a well. Therefore, the GSAs are reimbursing SHE for addressing claims in which the impact was induced by groundwater overdraft after January 1, 2015 (see *Claims Process* for more information). SHE offers emergency drinking water assistance and mitigation for households who have lost drinking water supplies due to non-groundwater overdraft induced well failure, and the funding for those activities are sourced by other state initiatives in the spirit of protecting the human right to water.<sup>1</sup>

All claims for non-drinking water wells and critical infrastructure shall be administered, evaluated, and if applicable, funded directly by the GSAs.

#### 1.5 Well and Critical Infrastructure Vulnerabilities within EKGSA

## **Domestic Drinking Water Well Vulnerabilities**

Where available from well permit information, the average depths of domestic wells are shown on **Figure 2.** Domestic drinking water wells in the EKGSA are drilled to a depth more shallow than agricultural production wells, on average. Shallower wells are more vulnerable to chronically declining

<sup>&</sup>lt;sup>1</sup> In instances in which a drinking water well may not meet the criteria above, the well user is encouraged to contact Self-Help Enterprises to access mitigation assistance via alternative programs.

Website: <a href="https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/">https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/</a>
SHE's Phone Number: (559) 802-1685

water levels; therefore, the Kaweah Subbasin required drinking water wells to be a requirement of all the Subbasin's Mitigation Plans.

The lack of location, construction, and production data from domestic wells across the Subbasin serves as a primary challenge in predicting adverse impacts to domestic wells. Well data available to the EKGSA is from the California Department of Water Resources (DWR) WCR dataset. The WCR dataset relies on requirements of California Water Code Section 13751 that anyone who constructs, alters, or destroys a water well, cathodic protection well, groundwater monitoring well, or geothermal heat exchange well must file with the DWR a report of completion within 60 days of the completion of the work. It is acknowledged that not all existing and active drinking water wells may be documented in available resources from DWR. To be able to better identify all drinking water wells, the Mitigation Program includes a commitment to implement a Well Registration Program by June 2025 in conjunction with ongoing outreach within the GSA's communities. Mitigation Program and EKGSA's focused outreach is described in **Section 2**.

In addition to outreach, the Kaweah Subbasin GSAs are in the process of developing a Well Registration Program with the aim of addressing this niche data gap. More information on that is described in **Section 3.4**.

#### Agricultural (Ag) Water Well Vulnerabilities

The agricultural wells in the Kaweah Subbasin are often drilled deeper than domestic wells; however, the unique geomorphology of the EKGSA creates a shallow depth to bedrock for the eastern half of the GSA. As a result, many of the EKGSA agriculture wells are drilled much shallower than the western portion of the Subbasin, with less aquifer storage capacity (**Figure 3**). Considering subsidence has not historically been an issue in the EKGSA with the Corcoran Clay tapering before entering the GSA boundary, the greatest vulnerability to the GSA's agricultural wells may be linked to the chronic lowering of groundwater levels. However, interbedded clays have been documented within the western portion of EKGSA. Therefore, as a precautionary measure and in alignment with Kaweah Subbasin Mitigation Program Framework requirements, the GSA has included subsidence related adverse impacts to wells as a possible need for mitigation in this Plan. Average depths of agricultural wells are depicted in **Figure 3**.

#### Municipal and Industrial (M&I) Well Vulnerabilities

The conditions that induce vulnerabilities for both drinking water wells and agricultural wells are comparable to the vulnerabilities for M&I wells. Vulnerability of wells to allowable overdraft is most strongly correlated with a well's depth. Wells drilled shallower are more vulnerable to the adverse impacts of the groundwater conditions associated with allowable overdraft. Average depths of public supply wells are depicted in **Figure 4.** 

#### **Critical Infrastructure Vulnerabilities**

The greatest vulnerability to critical infrastructure within the Kaweah Subbasin includes subsidence induced structural damage that may impair function and, in some cases, increase flood risk. The EKGSA has not historically experienced significant subsidence, due to the Corcoran Clay's extent tapering before the EKGSA boundary; however, interbedded clays are being studied throughout the Subbasin and may contribute to subsidence induced adverse impacts to critical infrastructure in EKGSA. Therefore, critical infrastructure has been included in this Plan.

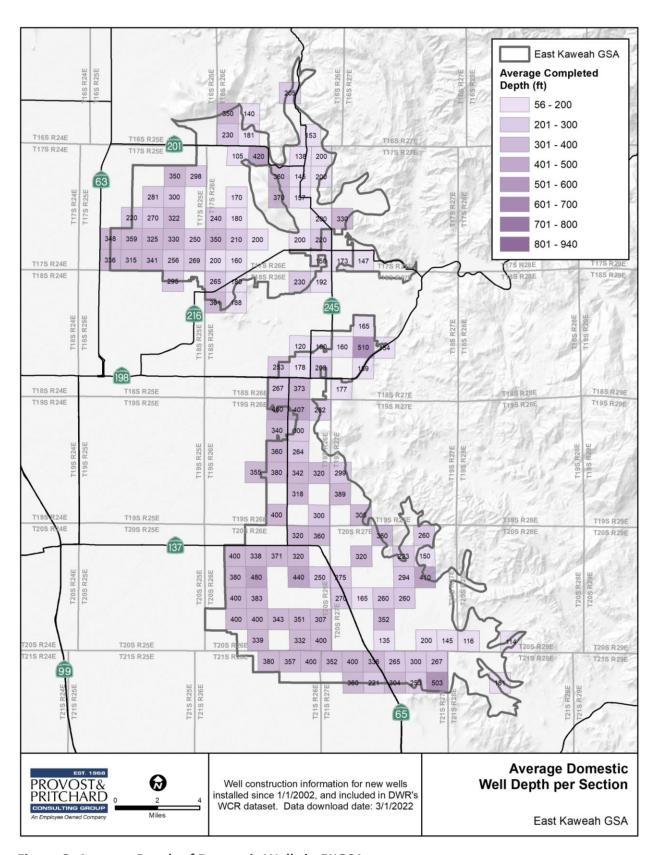


Figure 2. Average Depth of Domestic Wells in EKGSA

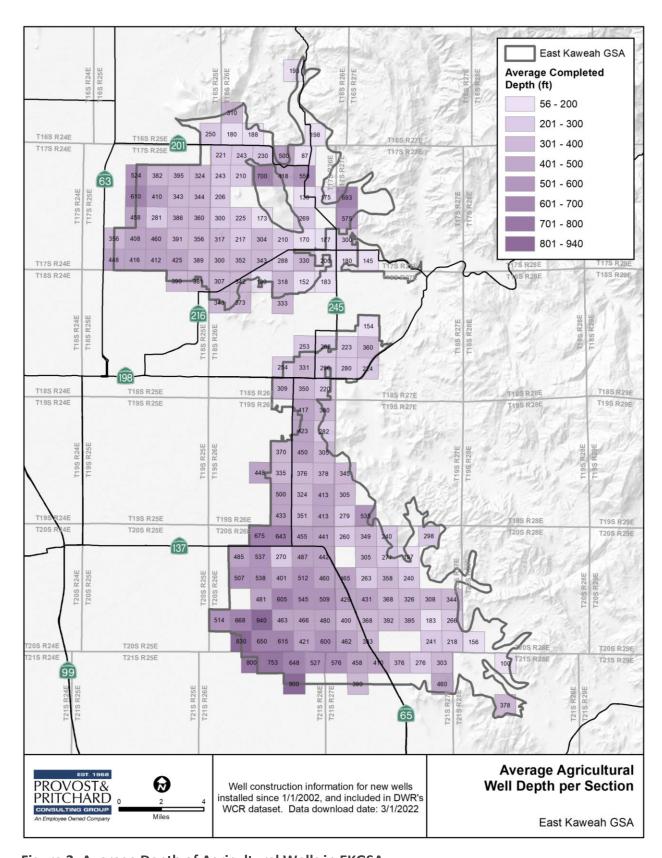


Figure 3. Average Depth of Agricultural Wells in EKGSA

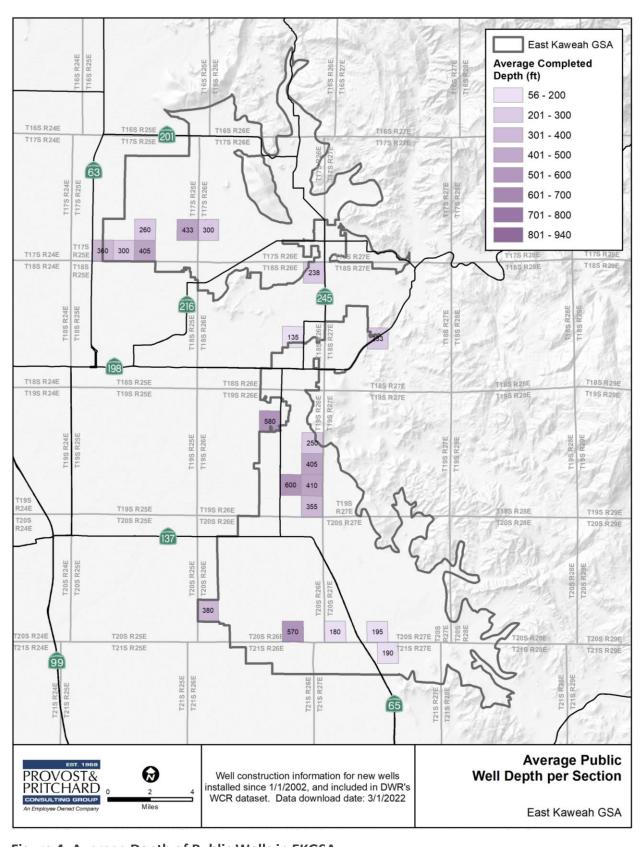


Figure 4. Average Depth of Public Wells in EKGSA

## 2 Mitigation Plan Description

The Kaweah Subbasin Mitigation Program establishes subbasin-wide criteria for the three GSAs to implement in the GSA-specific Mitigation Plans (**Figure 5**). The intention of the Mitigation Program guidance is to standardize information, processes, and logistics to minimize confusion for impacted parties and stakeholders alike. The Mitigation Program establishes requirements for mitigation of wells and critical infrastructure demonstrated to have been adversely affected by declining groundwater levels, land subsidence, and groundwater quality degradation associated with groundwater overdraft. **Figure 6** clarifies the qualification criteria.

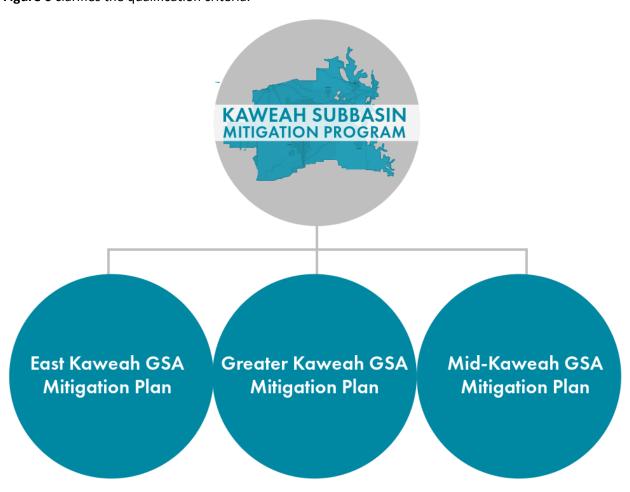
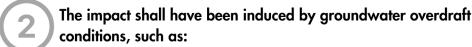


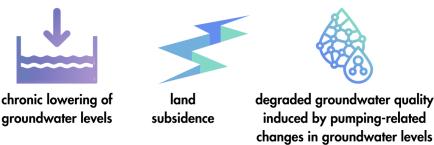
Figure 5. Kaweah Subbasin Mitigation Program Coordination

## Kaweah Subbasin Mitigation Program Qualification Criteria

To qualify for mitigation or technical assistance via the Kaweah Subbasin Mitigation Program, the following impact noted in the claim must meet the following criteria:







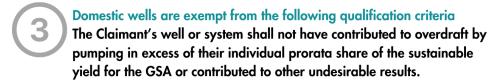


Figure 6. Kaweah Subbasin Mitigation Program Qualification Criteria

## 2.1 Program Tracks

The EKGSA recognizes that multiple different types of wells and infrastructure may be impacted from groundwater management activities within the Kaweah Subbasin. Furthermore, differences in well types and infrastructure may warrant different responses and mitigation. The Kaweah Subbasin Mitigation Program offers two tracks for assistance, Drinking Water Well Mitigation and Technical Assistance for non-drinking water wells and critical infrastructure. Drinking water wells include all wells used for potable supply including private domestic wells, agricultural wells also used for domestic potable supply, and community wells. Non-drinking water wells are those wells used solely for irrigation or industrial uses (including agricultural wells). These differences are reflected in the track descriptions below.

## **Drinking Water Well Mitigation Track**

The Drinking Water Well Mitigation Track of the Kaweah Subbasin Mitigation Program is intended for claims related to drinking water wells. Drinking water wells are defined as any well used to supply drinking water to household. This may include but is not limited to domestic, small community water systems, and multi-purpose potable wells, such as wells that supply for irrigation and domestic purposes. The Drinking Water Well Mitigation Track becomes active upon all three GSA Board of Directors' adoption of this Mitigation Program in **June 2024**.

Kaweah Subbasin constituents who are experiencing impacts to their drinking water well are encouraged to contact Self-Help Enterprises (SHE) at their earliest convenience to initiate the mitigation process and secure emergency drinking water supplies.

#### **Self-Help Enterprises**

(559) 802-1685

8445 W Elowin Ct Visalia, CA 93291

An online intake form is available on SHE's website:

https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/

More information on the partnership between SHE and the Kaweah Subbasin GSAs is available under the **Partnerships with Existing Programs** subsection.

#### Who is covered by the Drinking Water Well Mitigation Track?

#### **Private Domestic Well Owners**

As stated in the California Water Code Section 106.3, "every human being has the right to safe, clean, affordable, and accessible water adequate for human consumption, cooking, and sanitary purposes." In the EKGSA, many private residences in the small communities and rural portions of the area rely on private wells to meet their domestic water supply needs. As these wells are typically shallow, they are vulnerable to, among other things, lowered groundwater levels from overdraft conditions. A primary objective of the EKGSA Mitigation Plan is protection of the human right to water for the most vulnerable populations, which are residents who rely on individual domestic wells for their water supply.

The EKGSA Mitigation Plan is structured to ensure a drinking water supply for domestic well owners impacted by Kaweah Subbasin groundwater management.

#### Agricultural Well Owners Using Their Agricultural Well for Domestic Supply

Some private well owners use their wells for both domestic potable supply and irrigation. For these well owners, the EKGSA Mitigation Plan stipulates full mitigation and funding for impacts attributed to GSA groundwater pumping.

#### **Small Community Water System Owners**

Small community wells/systems identified as being at-risk by the State Water Resources Control Board's metrics for small community wells will receive proactive mitigation via the Small Community Well Proactive & Protective Action Program (Attachment D).

Interim and emergency supplies are available for community wells that serve a max of 300-connections. This limit is based on the State Water Resources Control Board's contract with the existing mitigation service agency within the San Joaquin Valley. This limit was based on the feasibility capabilities of local water supply deliveries and the extent to which federal support is needed. The GSAs have an ethical and financial interest in avoiding impacts to these small community wells and after consultations with local community well mitigation providers, it was determined the most effective and helpful mitigation for

small community wells is to avoid the need for mitigation altogether. That said, the GSAs intend to avoid impacts to these community wells through a series of site-specific proactive measures, which may include but are not limited to the options listed below. The proactive measure(s) implemented will vary on a case-by-case basis.

- 1) Assess what next steps are needed to avoid or mitigate impacts to support Contingency Plan development and/or improvement
- Develop or support development of Preliminary Engineer Reports for small community wells that have been stuck with lack of funding or resources to take the next steps in their own contingency plans
- 3) Implement groundwater pumping restriction policies near at-risk community wells
- 4) Host Financial Empowerment Workshops to map out long-term planning for resiliency and maintenance, with a focus on prioritizing future access to affordable drinking water
- 5) Support grant writing and cost-share, when funding and opportunities allow
- 6) Consider additional technical assistance that meets the unique needs of the at-risk small community well.

Although the claims process is designed more for private domestic and multi-use drinking water well owners, community well owners may still notify Self-Help Enterprises in the event of potential impacts to their well.

This process will establish continued trust-building with the leaders within these at-risk communities. Before proactive technical assistance/mitigation is underway, the GSAs are committed to meeting with community leaders to understand their unique challenges to map out the best strategy for contingency plans and supplemental assistance.

More information on the technical assistance/mitigation services available for small community water wells is available in **Attachment D**.

#### **Technical Assistance Track**

The Technical Assistance Track of the Kaweah Subbasin Mitigation program is intended to award funding for Technical Assistance for qualifying claims related to non-drinking water wells and critical infrastructure. Non-drinking water wells are defined as any production well used exclusively for non-potable purposes, such as agricultural wells, etc. Critical infrastructure is defined as canals, levees, pipelines, roads, bridges, and railways. The Technical Assistance Track is planned to become available in June 2025 for all GSAs although GSAs may elect to initiate this Track of the Kaweah Subbasin Mitigation Program sooner.

Subsidence in the Kaweah Subbasin generally correlates with the Corcoran Clay, which is exclusive within MKGSA and GKGSA. EKGSA has not experienced subsidence and is not underlaid with the materials conducive to inelastic subsidence. Therefore, EKGSA may elect to implement the Technical Assistance Track with a focus on non-drinking water wells before MKGSA and GKGSA implement the Technical Assistance Track in June 2025.

Additional analyses associated with subsidence impacts on critical infrastructure are not available at this time and are needed for a holistic Mitigation Program that addresses all beneficial users, uses and

property interests that may be impacted by overdraft conditions in the Kaweah Subbasin. The Kaweah Subbasin GSAs have decided to implement the Drinking Water Well Mitigation Track (June 2024) before the Technical Assistance Track (June 2025) to avoid delays in supporting community members' access to safe and reliable drinking water. EKGSA has elected to implement the Technical Assistance Track in June 2024, with GKGSA and MKGSA electing to implement this track in June 2025 to perform analyses noted above. In the interim, the MKGSA and GKGSA may offer interim technical assistance via sharing water level, subsidence, and any other available data that may be helpful. If interested in interim technical assistance in MKGSA or GKGSA please contact your respective GSA to schedule a meeting to discuss further. If interested in submitting a Technical Assistance claim in EKGSA, please contact the GSA via the contact information provided below:

East Kaweah GSA (559) 697-6095 groundwater@ekgsa.org

The following next steps are in process and expected to be completed within the next year and inform a clearer and more robust Technical Assistance Track, especially for critical infrastructure.

- 1) Complete the 1D subsidence model's critical infrastructure impact analysis.
- 2) Identify which critical infrastructure are at risk of subsidence-induced impacts.
- 3) Revisit the Dry Well Susceptibility Analysis results and identify the count of non-drinking water wells at risk of impacts induced by the chronic lowering of groundwater levels.
- 4) Define the types of technical assistance that may be awarded to qualifying critical infrastructure and non-drinking water well claims.
- 5) Assign cost assumptions for the technical assistance and perform a technical assistance cost estimate for all critical infrastructure and non-drinking water wells at risk of potentially being impacted by overdraft conditions.
- 6) Work with stakeholders and GSAs' Board of Directors to determine funding mechanism to generate sufficient funds for the technical assistance cost estimate from Step 5.

Version 1.0 claims process of the Technical Assistance Track is available in the Non-Drinking Water Well and Critical Infrastructure Technical Assistance Claims Process subsection for GSAs electing to implement the Technical Assistance track in advance of June 2025. Version 2.0 (available June 2025) is planned to include more clarity on what types of technical assistance would be available and what funding award amounts correlate to these different types of assistance.

## Who is covered by the Technical Assistance Track?

#### Non-Potable Agricultural (Ag) Well Owners

Agricultural wells used exclusively for non-potable irrigation water supply that are impacted by overdraft conditions may be eligible for technical assistance from the EKGSA to identify the cause of the impact, management actions to prevent further impacts, and mitigation options. Agricultural irrigation supply well owners (non-potable) will not be eligible for full mitigation (e.g. well replacement, lowering pumps, wellhead treatment, etc.).

#### **Industrial Well Owners**

Industrial wells used for non-potable water supply that are impacted by overdraft conditions may be eligible for technical assistance from the EKGSA to identify the cause of the impact, management actions to prevent further impacts, and mitigation options. Industrial non-potable water supply well owners will not be eligible for full mitigation (e.g. well replacement, lowering pumps, wellhead treatment, etc.).

#### Critical Infrastructure Well Owners

Critical infrastructure (canals, levees, pipelines, roads, bridges, electrical lines, and railways) impacted by overdraft conditions may be eligible for technical assistance from the EKGSA to identify the cause of the impact, management actions to prevent further impacts, and mitigation options. Critical infrastructure owners will not be eligible for full mitigation (e.g. canal replacement, pipeline repair, etc.).

## 2.2 Mitigation Plan Outreach

The EKGSA is conducting an outreach campaign to promote the EKGSA Mitigation Plan to individuals and communities. The outreach strategy is multi-phased to reflect outreach during development of the Plan and outreach following adoption and implementation of the Mitigation Plan. Phase 1 outreach for the Mitigation Plan will begin prior to approval of the Plan with a 45-day public comment period.

#### **Outreach Phase 1 – Mitigation Plan Development**

EKGSA has completed Phase 1 of outreach with the following actions:

- 1. EKGSA mass-mailed a flyer to all landowners within the EKGSA notifying of the Board Meeting on June 23, 2023, to consider release of the document for public comment. Stakeholders are encouraged to attend and provide public comment.
- 2. EKGSA has hand delivered flyers in Spanish to all locations recommended by Community Water Center and Self-Help Enterprises to ensure Severely/Disadvantaged Communities are reached in the most effective manner.
- 3. EKGSA released an electronic mailer, it was sent to all identified interested parties that includes information on the Mitigation Plan development and upcoming public comment period.
- 4. Social media outreach campaign related to the Mitigation Plan has been kicked-off.
- 5. EKGSA has increased the meeting frequency with the [stakeholder] Advisory Committee during the development of the EKGSA Mitigation Plan.
- 6. EKGSA launched a Mitigation webpage on their website, available in English and Spanish (https://ekgsa.org/mitigation).
- 7. Kaweah Subbasin GSAs have held two workshops with drinking water advocacy groups and groundwater dependent grower advocacy groups to improve transparency on the technical analyses completed to inform the Mitigation Cost Estimates used to inform the GSA-specific budgets and funding mechanisms. These hybrid-workshops were held on November 8, 2023 and February 5, 2024.

## Outreach Phase 2 – Mitigation Plan Implementation

Phase 2 outreach will disseminate information on how to access resources via the Mitigation Plan. During this intensive outreach phase, a minimum of two public workshops will be held in underrepresented communities: one for City of Lindsay and the other for the communities of Plainview

and Strathmore. EKGSA is in coordination with SHE to collaborate on Phase 2 outreach to maximize accessibility of information, including translation services. In addition to the workshops, the EKGSA will maintain the EKGSA Mitigation webpage to provide detailed information on how to participate in the Claims Process and access to both the EKGSA Mitigation Plan and Kaweah Subbasin Mitigation Program, accessible in both English and Spanish. For those who don't have access to the internet, forms and assistance filling out the forms will be provided by the EKGSA upon request.

## 2.3 Evolving Program

As the GSAs gather data and understanding from changes in demand management, projects, improved analysis tools (including the revised Kaweah Subbasin model, pending completion in June 2024), and Well Registration Program, opportunities to refine the Mitigation Program are expected. In addition to improved data and analytics, lessons will be learned through the implementation of the Mitigation Program and associated Mitigation Plans. Costs to mitigate wells, provide interim supplies, and administration may also evolve over the 15+ year implementation horizon. The Kaweah Subbasin GSA's intend the Mitigation Program to be iterative and evolve as new information, funding, and efficiencies are understood. Do note, this initial Mitigation Program is identified as "Version 1.0" with the expectation of future revisions. **Figure 7** clarifies the Mitigation Program schedule and plans for Version 2.0.

#### June 2024

#### Upon adoption of Mitigation Program Version 1.0

- Drinking Water Well Mitigation Track initiated
- Emergency drinking water supplies available (within 24-hours of request)
- Interim drinking water supplies available (within 72-hours of request)
- $\bullet \mbox{Long-term physical mitigation available for qualifying drinking water well claims } \\$
- Interim technical assistance available through GSAs for impacted non-drinking water wells and critical infrastructure
- Continued demand management and implementations of projects to reduce future mitigation circumstances

#### June 2025

#### Upon adoption of Mitigation Program Version 2.0

- Technical Assistance Track added to the Mitigation Program
- Technical assistance funding available for qualifying non-drinking water wells claims
- Technical assistance funding available for qualifying critical infrastructure claims
- Well Registration Program Phase 1 completed (data forms and initial outreach performed)
- Improved claims dispute process added to the Mitigation Program
- Phases 1-4 of the Small Community Well Proactive & Protective Action Program complete

#### June 2026

- Well Registration Program active and available for all well users within the Kaweah Subbasin to voluntarily participate in. Phase 2 and 3 completed (usable database and active notification protocol).
- Phase 5 of the Small Community Well Proactive & Protective Action Program completed/ongoing

Figure 7. Kaweah Subbasin Mitigation Program Schedule

## 2.4 Proactive Measures to Avoid the Need for Mitigation

In addition to the mitigation measures detailed in the Claims Process section below, the Kaweah Subbasin Mitigation Program also implements proactive measures to avoid installing wells that may

cause or contribute to undesirable results in the Kaweah Subbasin. Proactive mitigation refers to GSA activities to help prevent future well failures.

#### Small Community Well Proactive & Protective Action Plan (PPAP)

The Small Community Well Proactive & Protective Action Program (PPAP) is in development to address at-risk small community well current and future challenges through contingency planning, strategic demand management policies, and resource sharing with the GSAs through strengthened relationships with small community well operators and administrators. The small community wells identified as being at-risk by the State Water Resources Control Board's metrics for small community wells will receive mitigation in the form of proactive technical assistance/mitigation via the PPAP which is developed in conjunction with the Kaweah Subbasin Mitigation Program and GSA Mitigation Plans.

The GSAs have an ethical and financial interest in avoiding impacts to these small community wells and after consultations with local community well mitigation providers, it was determined the most effective and helpful mitigation for small community wells is to avoid the need for mitigation altogether. That said, the GSAs intend to avoid impacts to these community wells through a series of site-specific proactive measures, which may include but are not limited to:

- 1) Contingency plans to assess what next steps are needed to avoid or mitigate impacts
- 2) Preliminary Engineer Reports or other technical process documentation for small community wells that have been stuck with lack of funding or resources to take the next steps in their own contingency planning
- 3) Groundwater pumping restriction policies near at-risk community wells
- 4) Additional technical assistance that meets the unique needs of the at-risk small community well

This process will require continued trust-building with the leaders within these at-risk communities. Before proactive technical assistance/mitigation is underway, the GSAs are committed to meeting with community leaders to understand their unique challenges to map out the best strategy for contingency plans and supplemental assistance. The first phase, initial engagement, The five phases and their respective schedule is summarized in Figure D-1 of Attachment D.

### **Well Permit Application Review**

The Kaweah Subbasin GSAs have coordinated with Tulare County to receive all domestic and agricultural well permit applications, which provides the GSAs the information necessary to reach out to the landowner if the proposed well appears to be at-risk of experiencing impacts or if the well may induce impacts. In either case, the GSA will also provide recommendations on well depth, location, opportunities to connect to a municipal or community system, etc. to support the applicant's groundwater access while avoiding unintended impacts as a result of new wells drilled without GSA consultation.

- The proposed location of the new well.
- The planned depth and perforated interval of the new well; GSA will determine which aquifer (Upper, Lower, or Single) the well is planned to extract from.
- The planned use of the water from the well (domestic supply, agricultural irrigation, etc.).
- Identifying the closest Representative Monitoring Sites to the proposed well to determine minimum thresholds for groundwater levels, water quality and subsidence.
- Identifying existing domestic wells and critical infrastructure in the area.
- Estimating current groundwater levels around the proposed well.

#### **Notification Process**

The effectiveness of the Plan will be improved with a notification activation process, intended to notify well users and critical infrastructure owners of groundwater conditions nearing the possibility of potential adverse impacts to their well/infrastructure. The 2022 Amended EKGSA Groundwater Sustainability Plan included a preliminary activation system for domestic wells (Table 5-12 of EKGSA GSP). The criteria established in the 2022 GSP serves as the beginning basis for the EKGSA Notification and Mitigation Activation, included in **Table 1** below. **Table 1** clarifies EKGSA's commitment to sustainability and addressing adverse impacts along the way. EKGSA's approach is multi-dimensional, acknowledging that mitigation and sustainable management must be addressed from various angles, such as through the GSA's implementation of groundwater allocations, new recharge and supply projects, educational outreach, and this Mitigation Plan.

The notification activation process will be improved as the GSA implements a well registration program, which will improve data and analyses on wells outside of the GSA's existing database, particularly domestic wells. By having the necessary details on domestic well existence, location, and construction, the GSAs can then compare the site-specific information to groundwater levels, groundwater quality, and subsidence monitoring results to identify where at-risk wells exist and have the contact information available to notify the landowner and/or tenants. The well registration program is scheduled to be rolled out in a later iteration of the Mitigation Plan by June 2025. More information on the upcoming well registration program is available in **Well Registration Program** subsection below.

#### **Well Registration Program**

The Kaweah Subbasin GSAs have committed to developing a Well Registration Program to be completed in phases and available for full implementation in Spring 2026. The purpose of voluntary registration of wells is to create a baseline record for each well in the event of a future claim and to have the necessary information on file to identify at-risk domestic wells for notification and advance mitigation purposes. The Well Registration Program is designed to gather as much data on well construction, location, ownership, use, groundwater levels, and groundwater quality.

This can be particularly beneficial for drinking water wells, as many of these wells' construction, maintenance, exact location, site-specific groundwater levels and quality are considered a data gap. SGMA noted wells that extract less than 2 acre-ft per year were deemed De Minimis, and not required to participate in the GSP process. Existing domestic well records through the DWR include inactive and abandoned wells and documentation errors. The exact locations of most domestic wells are not well understood. The registration will require the well owner to provide information on well location, construction, water quality, and well maintenance history. Having a well registered will not be a prerequisite for Mitigation Plan qualification, but it should speed up the GSAs' assessment of claims, should it arise, because there is already background information on the well. Additionally, if a well is registered it may be possible to apply for mitigation before the well goes dry. Although there is an emphasis on domestic wells, all well types will be asked to voluntarily enroll in the program, as the more data and information available can improve water management, planning, and proactive efforts.

This management action requires considerable time and resource commitments to make usable. The upfront effort is for the GSAs to continue efforts to build trust in the local communities and communicate the benefits that well users will receive if enrolling (early notification and early processing). The GSAs are expecting there to be initial hesitation out of concern for the landowners private data to become public and impact property values and future economic opportunities. That said,

the Well Registration Program entails three primary phases listed below. Additional phases may be added as the program is being developed and implemented.

Phase 1 (Spring 2025): Initial outreach campaign and development of data and information forms (consider online submittal options).

Phase 2 (Fall 2025): The well registration database is structured to receive registrants' data and information and beta tested.

Phase 3 (Spring 2026): Voluntary well registration active and available for all well owners in the Kaweah Subbasin and risk notification and consideration of management changes proceeds for all at-risk wells.

An important element of the partnership between the Kaweah Subbasin GSAs and SHE is the data, information, and resource sharing across the agencies. This includes the opportunity for existing and future participants of SHE's emergency services to be educated on the importance of SGMA, data sharing, and existing GSA programs.

This management action is still in the conceptual phases and more information on the approach will be made available at GSA public meetings in early 2025.

**Table 1. EKGSA Notification and Mitigation Activation Process** 

Activati on	Conditions	Investigation	Outreach	Mitigation	Groundwater Management
Green	Groundwater conditions are stable at or above established Measurable Objective (MO). No issues are anticipated	Continued GSP monitoring	Annual Report	None expected. (continue existing practices). In the event a Mitigation Claim is approved within a "green" Analysis Zone (formerly referred to as "Threshold Region"), then the GSA will evaluate the efficacy of the sustainable management criteria within that Analysis Zone.	Continue current groundwater management strategies as laid out in the GSP.
Yellow	Groundwater conditions below MO and above 50% of operational range and above the established Minimum Threshold (MT) by Analysis Zone (formerly referred to as "Threshold Region <sup>2</sup> ")	Review monitoring network and results to identify specific conditions that need further investigation.     Initiate investigation and vetting of specific conditions.     Revaluate monitoring frequency.	Annual Report to include GSA map indicating impacted and/or vulnerable areas.	Impacted wells to undergo Mitigation Claim process via this Mitigation Plan.  GSA in conjunction with existing drinking water mitigation agencies to provide effective mitigation measures, outreach, and well stewardship education.	GSA to evaluate annual groundwater allocation amount for the next allocation period.
Orange	Groundwater conditions below 50% of the operational range and above the established MT by Analysis Zone (formerly referred to as "Threshold Region")		Annual Report to include visualization of impacted areas on GSA map. Outreach and communication initiative with impacted well users.		GSA to evaluate and implement (if necessary) localized groundwater pumping limits and actions.
Red	Groundwater conditions at or below established MTs by Analysis Zone (formerly referred to as "Threshold Region")	Review monitoring network and results to identify specific conditions that need further investigation.     Initiate investigation and vetting of specific conditions.     Increase monitoring frequency.	Annual Report to include visualization of impacted areas on GSA map. Outreach and communication initiative with impacted well users.  Local agencies consulted to improve investigation, outreach, and opportunities for improved management.	Impacted wells to undergo Mitigation Claim process via this Mitigation Plan.  GSA in conjunction with existing drinking water mitigation agencies to provide effective mitigation measures, outreach, and well stewardship education. GSA to investigate long-term, larger scale solutions.	GSA to evaluate and implement (if necessary) broader groundwater pumping limits or alternative actions.

<sup>&</sup>lt;sup>2</sup> Figure 5. offers a depiction of the EKGSA's Analysis Zones in relation to the GSA's management areas.

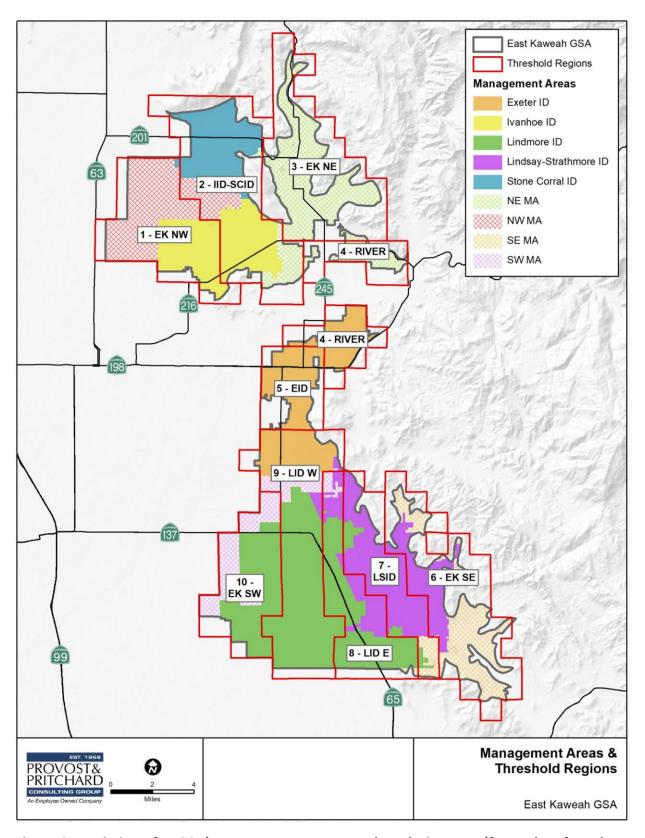


Figure 8. Depiction of EKGSA's Management Areas and Analysis Zones (formerly referred to as "Threshold Regions")

## 3 Mitigation Claims Process

There are separate processes for claims related to impacted drinking water wells (**Figure 9** and **Figure 10**) and claims related to non-drinking water wells and critical infrastructure (**Figure 11** and **Figure 12**). Drinking water well claims may qualify for funding for interim drinking water supplies and physical well mitigation. Non-drinking water wells and critical infrastructure claims may qualify for funding for the claimant for technical assistance.

## 3.1 Drinking Water Well Mitigation Claims Process

Claimants who have lost access to drinking water shall contact Self-Help Enterprises to initiate the mitigation application process. A mitigation agreement will be made with the landowner; however, tenants shall receive interim drinking water supplies, independent of land/well ownership. For questions on the claims process or tenant questions on advocating for mitigation support with your landlord(s), please contact EKGSA and/or SHE.

#### **Self-Help Enterprises**

(559) 802-1685 8445 W Elowin Ct Visalia, CA 93291

An online intake form is available on SHE's website to learn more about assistance with community wells or https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/

#### **East Kaweah GSA**

(559) 697-6095

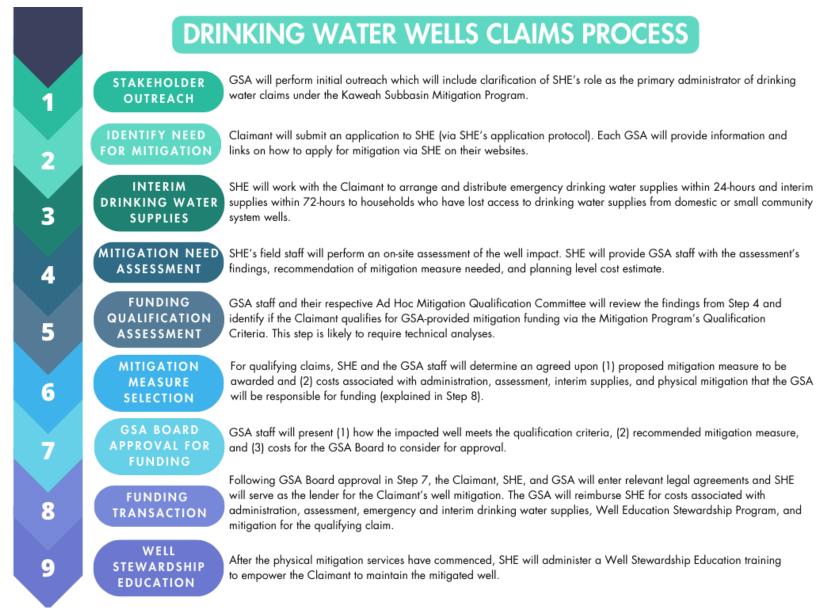
groundwater@ekgsa.org

physical office is moving, please visit website for most current location information https://ekgsa.org/

## **Drinking Water Mitigation Claims Organization**



Figure 9. Drinking Water Mitigation Claims Organization



**Figure 10. Drinking Water Claims Process** 

#### Step 1. Stakeholder Outreach

Public participation and communication are critical to implementing an effective Mitigation Program. Upon release of each GSA's Mitigation Plan, the GSAs will conduct an outreach program to inform domestic well owners and landowners of the availability of the Mitigation Program and how they can apply for assistance should their wells or land uses be impacted. Outreach will be provided in multiple languages as determined appropriate by the GSA. Outreach will continue throughout the process to maintain stakeholder engagement with the Mitigation Program.

Effective outreach starts with public participation ahead of adoption; therefore, the initial stakeholder outreach must include at a minimum notification of the Mitigation Program, qualifications, and how to submit a claim via:

- Update on Mitigation Program progress at each GSA's respective advisory committee meeting (prior to Mitigation Plan adoption).
- Website notification (prior to Mitigation Plan adoption).
- Email notification to each GSA's listed stakeholders (prior to/following Mitigation Plan adoption).
- Mitigation Program Presentation and Q&A at the Kaweah Subbasins' shared community outreach events: (i.e. 2024 Groundwater Day), Dry Well Susceptibility Workshops which cover how the technical analyses informed the Mitigation Program funding feasibility and planning with drinking water advocacy groups, representing disadvantaged communities within the Subbasin (November 2023 and February 2024).

#### Continued Stakeholder Outreach must include at a minimum:

- 1. At least three workshops in April through May 2024, following adoption of the Mitigation Program to notify the public of the resources, claims process, and opportunities available to support the local communities. At least one workshop shall be held in each GSA, preferably in an underrepresented community in English and Spanish translation services available. Self-Help Enterprises shall partner with the GSAs in workshop outreach.
- 2. Each GSA's respective advisory committee and Board of Directors must hold an agenda item to discuss Mitigation Plan implementation at least once every quarter.
- 3. Each GSA must develop a notification-proactive warning criteria and notification system, intended to notify well users and critical infrastructure owners of groundwater conditions nearing the possibility of potential impacts to their well/infrastructure. Each GSA is to develop its own criteria for defining the proactive warning and notification protocol.
- 4. GSAs must develop and keep an updated page on their respective websites that outlines the Kaweah Subbasin Mitigation Program and their individual GSA Mitigation Plan. Materials explaining the process, mitigation and the application will be housed on this website page and accessible in English and Spanish.
- 5. Domestic Well Education materials will be provided by SHE and/or the GSA following mitigation services or by request.

#### **Step 2. Identify Need for Mitigation**

Claimants seeking mitigation support for drinking water well impacts shall submit an application consistent with SHE's existing application protocol and system. Each GSA shall provide information on how to submit a drinking water mitigation claim with SHE with links to their website and contact information for the GSA and SHE. In addition, information on where immediate access to drinking water

supplies shall also be available. For example, the Kaweah Water Foundation free drinking water kiosks are available 24 hours a day at the following locations:

- Okieville on the corner of Road 48 & Avenue 229
- Hanford at the transit station at 200 Santa Fe Ave. #A, Hanford, CA 93230
- Farmersville at the Kaweah Delta Conservation District at 2975 N Farmersville Blvd, Farmersville, CA 93223

Claim 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 well user is encouraged to contact the GSA, and the GSA will work with SHE to notify the well owner how to apply for mitigation and the benefits of the Mitigation Program.

#### **Step 3. Interim Drinking Water Supplies**

Following the Claimant notifying SHE of the need for mitigation, SHE shall arrange emergency drinking water supplies within 24 hours in the form of bottled water for Claimants who have lost access to drinking water due to impacted domestic or small community system wells. Interim supplies, which may include water tanks with delivered supplies, or other appropriate interim measures shall be arranged for these households within 72-hours. The GSAs shall fund and/or reimburse SHE for administering and supplying emergency and interim drinking water supplies for qualifying Claimants (see Step 7).

#### **Step 4. Mitigation Need Assessment**

SHE's field staff shall perform an initial assessment, to include a site visit and discussions with the landowner and/or tenants. Translation services for Spanish, Punjabi, and/or Hmong shall be made available by SHE, as needed. Following the assessment, SHE shall provide the GSA and Claimant with their findings, documentation, initial recommendation for mitigation needed, and a planning level cost estimate.

### **Step 5. Funding Qualification Assessment**

Following the receival of SHE's Mitigation Need Assessment findings, documentation, initial recommendation for mitigation needs, and planning level cost estimate, GSA staff and their respective Mitigation Qualification Committees shall review all materials. The Mitigation Qualification Ad Hoc Committees may be composed of qualified technical contractors and/or GSA stakeholder committee members. The Mitigation Qualification Committee may review additional localized data, such as groundwater level trends, recent-historic subsidence, groundwater quality, land use, and more to determine if the Claim qualifies for funding reimbursement under the Kaweah Subbasin Mitigation Program. To qualify for GSA funding reimbursement, the well impact must have (1) occurred <a href="https://example.com/after-shall-receive

To determine if an impact was induced by groundwater overdraft conditions, the Mitigation Qualification Ad Hoc Committee will compare groundwater level trends local to the impacted well and compared to the well construction information, such as well completion depth, perforated intervals, pump depth, and nearby land use and groundwater extractions. If the impact is physical damage to the well casing and/or screen, recent-historic subsidence shall be evaluated.

The purpose of the Mitigation Qualification Ad Hoc Committee is to:

• Review well evaluation and mitigation recommendations from SHE.

- Review other hydrogeological data, such as (but not limited to) groundwater level trends, precipitation trends, recent-historical subsidence, groundwater quality, and local land use.
- Conduct additional analyses, as needed, to assess the relative cause of EKGSA pumping on the well impacts observed. This could include analyses using the calibrated groundwater flow model of the Kaweah Subbasin.
- Evaluate any links between the reported impact and groundwater pumping, in overdraft, by the EKGSA.
- If appropriate, coordinate with SHE to refine their recommendations based on additional analyses.
- Review and provide comments on the proposed mitigation planning-level cost estimate.
- Provide recommendations to the EKGSA Board for funding the claim.

If the Claimant's existing groundwater use is contributing to overdraft, such as extracting more than their prorata sustainable yield allocation, they shall not qualify for mitigation support from the GSAs. In these instances, the Claimant may be invited to a meeting with GSA staff to discuss ways the Claimant can improve their demand management and localized groundwater stewardship.

There may be limited data available which may hinder the extent of the qualification assessment. The GSA staff shall coordinate with SHE and the Claimant, as needed, to determine reasonable mitigation solutions and impact attribution determinations.

#### Step 6. Mitigation Measure Selection Agreement

In cases where the claim meets the qualification criteria of the drinking water well being impacted by groundwater overdraft conditions and the impact occurring after January 1, 2015, SHE and GSA staff shall agree on the proposed mitigation and costs association with administering, assessing, and implementing the mitigation (including interim supplies). The GSA and SHE shall determine the appropriate funding mechanism, which may involve reimbursement following the completion of the long-term mitigation installation with an up-front deposit. The funding transaction protocol shall be assessed on a case-by-case basis until SHE and the GSAs have identified the most effective and efficient method. Lessons are expected to be learned during the first year of Mitigation Program implementation, and intentional flexibility is necessary to facilitate timely adoption of the Mitigation Program.

In case where the claim does not meet the qualification criteria, the Claimant may qualify for mitigation support via other programs that SHE administers. SHE will work directly with those Claimants to discuss what options they may have.

SHE and the GSA staff shall consider each claim on a case-by-case basis to identify the most effective long-term mitigation measure. Long-term mitigation for drinking water wells may include (but not necessarily limited to):

- 1. Deepen the well.
- 2. Construct a new well.
- 3. Modify pump equipment, including lowering the pump.
- 4. Consolidation with an existing water system in the vicinity.
- 5. Establishment of a new small public water system.
- 6. With the consent of the affected user, providing other acceptable means of mitigation.

#### **Step 7. GSA Board Approval for Funding**

Following SHE and GSA staff agreement on an appropriate mitigation measure for qualifying claims, GSA staff shall present the recommended mitigation measure and cost estimates for the GSA Board to consider approval for deposit and reimbursements. The GSA Board shall consider long-term mitigation reimbursement within one GSA Board Meeting cycle, following SHE and GSA staff completion of Step 6.

#### **Step 8. Mitigation Funding Award**

Following completion of all necessary legal and transactional agreements, SHE shall lend the Claimant funding to implement the agreed upon mitigation measure. SHE does not carry out the mitigation measures but acts as a contract coordinator and lender between the driller/pump contractor and the Claimant. The GSAs shall reimburse SHE for the funding lent to the Claimant for all mitigation support services, including interim supplies and Mitigation Program administration. SHE and the GSAs may agree to deposits to maintain sustainable cashflow for SHE's administration of the Mitigation Program.

#### Step 9. Well Stewardship Education

After the qualifying claim's long-term mitigation is implemented and the household is no longer provided interim supplies, SHE will coordinate and host a Well Stewardship Training for the Claimant to educate and empower long-term maintenance and financial planning associated with well ownership. Following completion of the training, the Claimant will be supplied with educational resources to reference in the future (translation services available).

# 3.2 Non-Drinking Water Well and Critical Infrastructure Technical Assistance Claims Process

The Kaweah Subbasin Mitigation Program is planned to extend mitigation in the form of technical assistance funding (capping at \$25,000 per qualifying claim) to landowners who have experienced impacts to their non-drinking water wells and/or critical infrastructure in Q2 2025. GSAs have discretion to implement inclusion of technical assistance for non-drinking water well and critical infrastructure claims in their respective Mitigation Plans. To qualify, the impacts must be induced by groundwater overdraft and have occurred after January 1, 2015. If the Claimant is contributing to overdraft by extracting more than their allocated amount (use of transitional groundwater pumping) on any Kaweah Subbasin parcel, then the Claimant shall not qualify for Technical Assistance funding via the Mitigation Program or Plans.

The Non-Drinking Water Well and Critical Infrastructure Technical Assistance Claims Applications shall be made available on each GSA website. For questions, please contact EKGSA.

#### East Kaweah GSA

(559) 697-6095 groundwater@ekgsa.org https://ekgsa.org/mitigation

315 E. Lindmore Ave Lindsay, CA 93247

Non-Drinking Water Wells & Critical Infrastructure
Technical Assistance Claims Organization



Figure 11. Technical Assistance Claims Organization

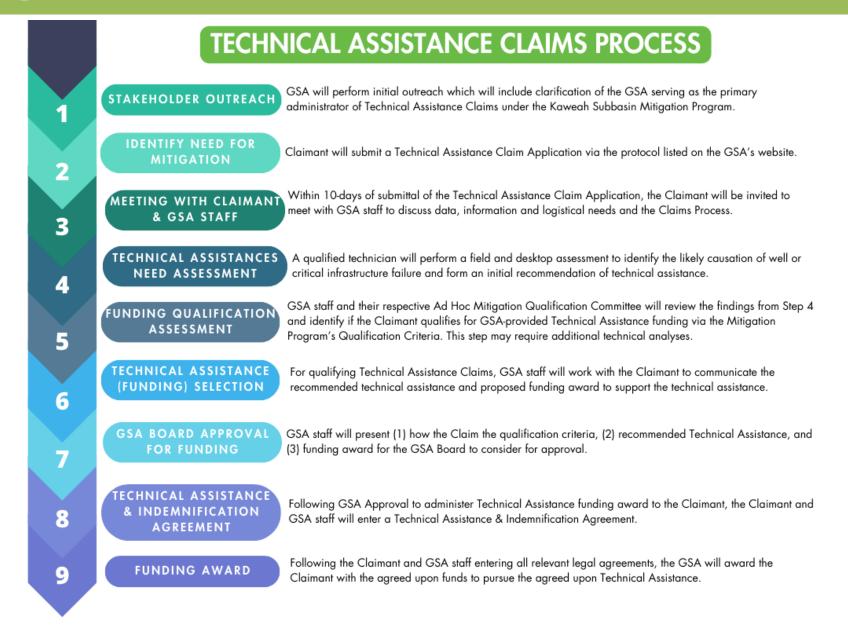


Figure 12. Non-Drinking Water and Critical Infrastructure Technical Assistance Claims

### **Step 1. Stakeholder Outreach**

Stakeholder outreach for non-drinking water wells and drinking water well mitigation is consistent. For more information, visit **Drinking Water Claims – Step 1. Stakeholder Outreach** above.

### Step 2. Identify Need for Technical Assistance

Claimants seeking mitigation support for non-drinking water well impacts and/or critical infrastructure shall submit an application on their respective GSA website. The GSA website shall differentiate the application protocols and mitigation award for drinking water wells versus non-drinking water wells and critical infrastructure. The Technical Assistance Claim Application is attached as **Attachment A**. More information shall be obtained and discussed with the Claimant in Step 3 below.

### Step 3. Meeting with Claimant and GSA Staff

Within 10 days of submittal of the Technical Assistance Claim Application, GSA staff shall contact the Claimant to meet and discuss the impact, additional data and information needed, and Claims process.

### **Step 4. Technical Assistance Needs Assessment**

A qualified technician, arranged by the GSA, shall perform a field and desktop assessment to identify the likely cause of well or infrastructure failure and make an initial recommendation of whether technical assistance is needed. The information is to be documented in a memorandum with photos and any other relevant information for the GSA's Mitigation and Qualification Committee to review in Step 5. The Mitigation Qualification Ad Hoc Committees may be composed of qualified technical contractors and/or GSA stakeholder committee members. **Attachment B** includes considerations that may be made during the assessment.

### **Step 5. Funding Qualification Assessment**

Following completion of the Technical Assistance Needs Assessment, the GSA staff and their respective Mitigation Qualification Ad Hoc Committee shall review all provided materials. The Mitigation Qualification Ad Hoc Committee may review additional localized data, such as groundwater level trends, recent-historic subsidence, groundwater quality, land use, and more to determine if the claim qualifies for funding reimbursement under the Kaweah Subbasin Mitigation Program. To qualify for GSA funding reimbursement, the well impact must be (1) induced by groundwater overdraft conditions and (2) having occurred after January 1, 2015. In addition, if the Claimant's groundwater use is contributing to or has contributed to overdraft (after January 1, 2015), such as extracting more than their native yield allocation, then they shall not qualify for mitigation support from the GSAs/Mitigation Program. In these cases, the Claimant may be invited to a meeting with GSA staff to discuss ways the Claimant can improve demand management and localized groundwater stewardship.

To determine if an impact was induced by groundwater overdraft conditions, the Mitigation Qualification Committee will compare groundwater level trends local to the impacted well and well construction information, such as well completion depth, perforated intervals, pump depth, and nearby land use and groundwater extractions. If the impact is physical damage, recent-historic subsidence shall be evaluated and compared to well construction. **Attachment B** includes considerations that may be made during the assessment.

There may be limited data available which may hinder the extent of the qualification assessment. The GSA staff shall coordinate with the Claimant and original well driller, construction manager, or design

engineer, as needed, to determine reasonable mitigation solutions and impact attribution determinations.

### Step 6. Technical Assistance (Funding) Selection Agreement

In cases where the claim meets the qualification criteria for technical assistance award, the GSA staff shall communicate the recommended technical assistance and funding award amount (maximum \$25,000 per qualifying Claim) to the Claimant. During this communication, the GSA staff shall reiterate the GSA is providing funding for the technical assistance and not administering, arranging, or performing the technical assistance in-house. The GSA staff and Claimant shall enter a verbal and written agreement (email documentation is acceptable) confirming both parties agree with the recommended funding amount to be proposed to the GSA Board for consideration.

### Step 7. GSA Board Approval for Funding

Following agreement between the Claimant and GSA staff (Step 6), GSA staff shall present the recommended technical assistance funding award for GSA Board consideration of approval within one GSA Board meeting cycle following completion of Step 6.

### Step 8. Technical Assistance and Indemnification Agreement

Following GSA Board approval for administering funds for qualifying Claims, the GSA staff and Claimant shall enter a legal agreement acknowledging the amount of funding, intent of use, and indemnification of liabilities. This step must be completed prior to funding award. A draft concept of the agreement is attached as **Attachment C**. The actual agreement may vary on a case-by-case basis considering the nuances of every impact and claim.

### Step 9. Technical Assistance Funding Awarded by GSA

After the qualifying Claimant and GSA enter a Technical Assistance and Indemnification Agreement (Step 8 and **Attachment C**) the GSA shall provide the qualifying Claimant with the agreed upon funding award.

# 3.3 Claims Dispute

In the event a claimant disagrees with the mitigation proposed by the GSA, a third party shall be arranged by the GSA to perform their own evaluation. The Kaweah Subbasin Mitigation Program Framework requires all GSAs to develop clarified claims dispute processes to be included in a later iteration of their respective Mitigation Plans by June 2025.

## 3.4 Claims Privacy

Once a claim application and subsequent information is provided to the GSA, it becomes subjected to the California Public Records Act, which may allow the information provided to become public. If a Claimant is concerned about sensitive information requested in the Mitigation Claim Application (Attachment A), EKGSA requests the Claimant contact the GSA to discuss data and information-sharing confidentiality solutions.

# 4 Criteria for Determining GSA-Related Impacts to Wells and Infrastructure

### 4.1 Groundwater Level Impacts

Groundwater pumping in overdraft results in systemic, long-term lowering of groundwater levels. While overdraft can result in land subsidence (see Section 4.2 herein), the most vulnerable infrastructure to lowered groundwater levels is water wells, and particularly shallow wells. 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 13**). DWR released a guidance document in March 2023 detailing additional considerations to identify adverse impacts to drinking water wells. This guidance document has informed both the Kaweah Subbasin Mitigation Program and the EKGSA Mitigation Plan.<sup>3</sup>

During the funding qualification assessment (Step 5 of Section 3), groundwater pumping in overdraft will need to be distinguished from seasonal and longer-term precipitation patterns (i.e. drought). These differences can be distinguished through an analysis of groundwater level hydrographs for representative monitoring wells in the vicinity of the claim of impact. Apart from clear cases of seasonal impact in wells with total depths shallower than 50 ft, the overriding conclusion from claims of impact in the EKGSA during periods when EKGSA groundwater pumping exceeds the sustainable yield and where the impact is determined to be related to groundwater levels will be that the impact is caused by EKGSA activities.

<sup>&</sup>lt;sup>3</sup> 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

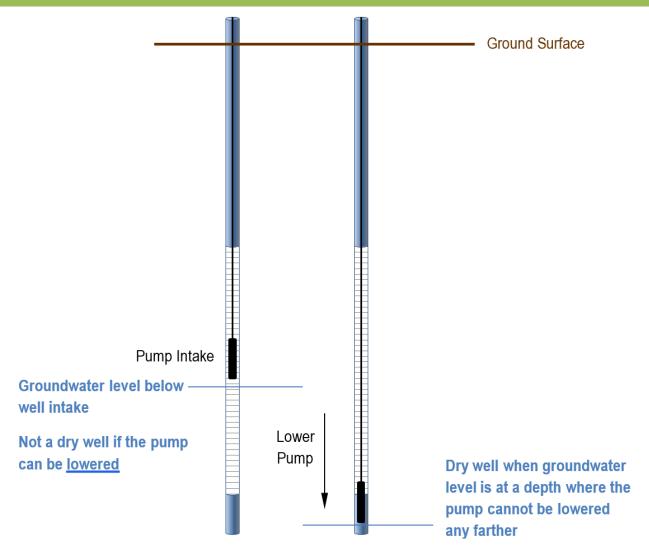


Figure 13. Groundwater Levels Relative to Pump Intake and Bottom of Well

## 4.2 Subsidence Impacts

Groundwater pumping in the lower aquifer of the Kaweah Subbasin can cause land subsidence. Most of the EKGSA is not underlaid with the Corcoran Clay which is the aquitard associated with subsidence within the Subbasin. The southwestern most portion of EKGSA has the capacity to experience subsidence and will be monitored for signs of subsidence impacts.

Subsidence related impacts in the Kaweah Subbasin may include but are not limited to conveyance infrastructure damage (pipeline, canals, etc.), transportation infrastructure damage (roads, railways, etc.), powerline damage, and impact to well structural integrity.

EKGSA performed a subsidence-risk analysis on the southwestern most portion of the GSA, and found that the existing conveyance infrastructure is not at risk of impacts with projected subsidence; however, there may be instances of well structural damage induced by subsidence within EKGSA during the implementation period. The most common subsidence-related impact to wells is well casing failure. The most common cause of subsidence is the Kaweah Subbasin is related to groundwater extraction influencing subsurface pressure gradients. In this case, subsidence occurs when groundwater overdraft

decreases pressure in subsurface clay layers, causing the clays to permanently collapse. Wells installed across subsiding clay layers are subject to compressive forces that can deform and eventually break well casing. Potential damage from subsidence, shown on **Figure 14**, includes breaks or ruptures in casing, spiraling casing, oval casing or out of round casing, and rippling casing. A well can be destroyed by subsidence, but in some less severe cases the damage can be repaired. Often wells can be repaired by installing a sleeve to patch the damaged area, commonly called swaging.

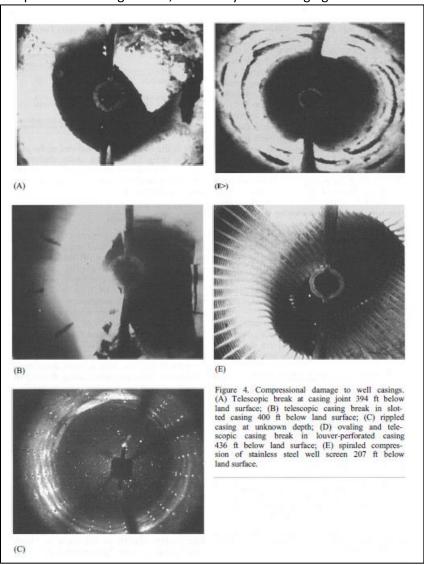


Figure 14. Well Damage Attributed to Subsidence (Borchers et al., 1998)

## 4.3 Groundwater Quality Impacts

Lowering of groundwater levels has been shown in some cases to degrade groundwater quality.<sup>4</sup> While most groundwater meets drinking water standards, some groundwater can contain high concentrations of nitrate, uranium, arsenic, pesticides, and other contaminants. Nitrate levels in groundwater also come from naturally occurring mountain block and mountain front recharge. Nitrate is the most common groundwater quality constituent found at concentrations higher than regulatory standards in

<sup>&</sup>lt;sup>4</sup> https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2021GL094398

shallow aquifers in the Kaweah Subbasin, including EKGSA. Nitrate application in fertilizer is widespread and it is also released from dairy operations and septic systems throughout the EKGSA. Because nitrate is introduced into shallow groundwater from prevalent land use practices, there are no defined nitrate plumes (Burton, 2012).

The Kaweah Subbasin Mitigation Program Framework and EKGSA Mitigation Plan are intended to mitigate adverse impacts associated with the allowable overdraft; therefore, groundwater quality issues must be related to chronic lowering of groundwater levels to be considered for mitigation qualification. Degraded groundwater quality may be related to allowable overdraft if chronic lowering of groundwater levels has a direct correlation with introduction of a new constituent of concern or significant increase in concentration of a constituent of concern. The causation and correlations of changes in groundwater quality are to be considered during the mitigation need assessment and funding qualification assessment phases of the mitigation claims process.

# 5 Mitigation Funding and Anticipated Costs

The EKGSA's financial model is designed to avoid making a profit; therefore, in Fall 2023 the EKGSA Board approved changes to the rules and regulations to generate funding for the Mitigation Plan via groundwater extraction fees and surface water transfer fees. The funding mechanism is designed to generate over \$1.2 million per year dedicated to implementing the Mitigation Plan, with most of the funds being available before adoption of this Mitigation Plan.

The Kaweah Subbasin Technical Team has performed a Dry Well Susceptibility Analysis, which provided a conservative cost mitigation cost estimate under different drought scenarios. The mitigation cost estimates include costs to physically mitigate wells, emergency and interim supplies, SHE's administration of the program, GSAs' administration of the program, and contractor assistance during the assessment phase. EKGSA and the other Kaweah Subbasin GSAs' mitigation budgets are designed to be sufficient to address mitigation needs, independent of the positive projects and demand management changes that are being made and have been made, such as EKGSA and MKGSA setting groundwater allocations to sustainable yield. More information on this analysis will be available in the 2024 Amended GSP upon adoption.

In the event the costs to implement the Mitigation Program require revisions, the Kaweah Subbasin GSAs shall revisit their funding mechanisms and mitigation budgets to meet the mitigation commitments herein this Mitigation Plan. Alternatives may include raising groundwater extraction fees and/or a property-based tax.

The GSAs will explore grant funding at the state and federal levels. The state 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) funding is not permitted to be used for Mitigation Program implementation. County, state, and federal assistance may be needed to best maximize the Mitigation Program in conjunction with similar programs that sprout up from similar regulatory programs to SGMA, like Central Valley Salinity Alternatives for Long-Term Sustainability (CV-SALTS). The GSAs will also work with local non-governmental organizations that may be able to aid or seek grant monies to assist Mitigation Program implementation.

# 6 References

- Borchers, J.W., 1998, Land Subsidence Case Studies and Current Research. Belmont: Star Publishing Company. ISBN: 0-89863 197-1
- Burton, C.A., Shelton, J.L., and Belitz, Kenneth, 2012, Status and understanding of groundwater quality in the two southern San Joaquin Valley study units, 2005–2006—California GAMA Priority Basin Project: U.S. Geological Survey Scientific Investigations Report 2011–5218, 150 p. https://pubs.usgs.gov/sir/2011/5218/pdf/sir20115218.pdf
- DWR. March 2023. Considerations for Identifying and Addressing Drinking Water Well Impacts.

  <a href="https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Files/Considerations-for-Identifying-and-Addressing-Drinking-Water-Well-Impacts\_FINAL.pdf">https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Files/Considerations-for-Identifying-and-Addressing-Drinking-Water-Well-Impacts\_FINAL.pdf</a>
- Levy, Z. F., Jurgens, B. C., Burow, K. R., Voss, S. A., Faulkner, K. E., Arroyo-Lopez, J. A., & Fram, M. S. 2021. Critical aquifer overdraft accelerates degradation of groundwater quality in California's Central Valley during drought. Geophysical Research Letters, 48, e2021GL094398. <a href="https://doi.org/10.1029/2021GL094398">https://doi.org/10.1029/2021GL094398</a>

# **Attachment A**

Technical Assistance Claim Application for Non-Drinking Water Wells and Critical Infrastructure

# Kaweah Subbasin Technical Assistance Claim Application

If you are unsure of which GSA your claim is in, contact any of the Kaweah Subbasin GSAs via number and email listed on their websites and they can assist you in identifying. 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.

Please circle which GSA your impact claim applies: Mid-Kaweah GSA Greater Kaweah GSA East Kaweah GSA Claimant Name: Claimant Contact Information: Are you the landowner of the property in which this Claim 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 Claim process. Landowner Name: Landowner Contact Information: \_\_\_\_\_\_ As the Claimant, will you allow physical access to the adversely impacted well (or critical infrastructure for the GSA staff or authorized case worker 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 the nature of your well or critical infrastructure impact:

# Kaweah Subbasin Technical Assistance Claim Application

to be completed with GSA staff

This portion of the claim application is to be completed with GSA staff during the Data and Information Request Meeting. Please gather all potentially relevant data and information related to your Claim in advance of the meeting with GSA staff to support your Claim. This may include level data, well construction, driller information, and water quality reports for wells and design and construction documentation for critical infrastructure.

#### **Claimant information:**

Date:			
First Name:	Last Name:	Middle Initial:	-
Address:	City:	Zip:	-
Mailing Address:			
Phone # Home:	Cell:		
Email:	Text Ok? Y	'es No	
Accessors Parcel Number:			
Does the impacted well or critical in	frastructure support access to safe	drinking water? Yes No	0

### Impacted Non-Drinking Water Well Information

This section of the application shall be completed with GSA staff during the initial meeting. If making a claim regarding critical infrastructure, please skip this section and proceed to the "Critical Infrastructure Information" section. The Kaweah Subbasin Mitigation Program does not require GSAs to mitigate for critical infrastructure and/or non-drinking water wells until June 30, 2025.

#### Please circle response:

Impacted Well's Use	Monitoring	Agricultural	Municipal/Industrial	
Shared Well?:	Yes	No	Unsure	
Shared Well Agreement?:	Yes	No	Unsure	
Well Water Source:	Aquifer	Spring	Other	
Units Connected to Well:	1	2	3+	

#### Please provide as much of the following documentation as is available:

Provide all the information that you have. Ask neighbors and family that might know. More information helps the Claims process and not information might stall or disqualify the Claim.

- 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:

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

- Driveways
- Trees
- Power Poles/Lines
- **Existing Wells**
- Neighboring Homes/Properties (left, right, across)
- Distance of Connection(s) if known

<ul> <li>Septic Tank/Leach Lines</li> </ul>	<ul> <li>Dogs/Animals on the Property</li> </ul>	
Annotated photos or aerial images of the prope	erty may be used in place of a sketch.	
Please also attach photos of the i	mpacted well and pump.	
Mark the well impacted and any ot	her wells on the property.	

### **Impacted Critical Infrastructure Information**

This section of the Claim Application shall be completed with GSA staff during initial meeting. If making a claim regarding a well, please skip this section and ensure the "Well Information" section is completed. The Kaweah Subbasin Mitigation Program Framework does not require GSAs to mitigate for critical infrastructure until June 30, 2025.

	Please ci	rcle response:			
Infrastructure Type If other, please	canal	road	pipeline	ditch	Other
explain: Privately Owned?	Yes	No	Unsure		

#### Please provide as much of the following documentation as is available:

Provide all the information that you have. Ask neighbors and family that might know. More information helps the Claims process and not information might stall or disqualify the Claim.

- Infrastructure design documentation
- Photographs
- Operation and maintenance records
- Documentation from neighboring infrastructure's construction, operations, and maintenance
- Any permits relevant to the parcel and/or infrastructure

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:

When was the infrastructure constructed?	
When did the infrastructure become operational?	
When did the infrastructure stop working??	
When was the last modification to the infrastructure made? What was the	
modification?	
Have neighboring infrastructure experienced subsidence related issues? If so,	
when?	

# Impacted Critical Infrastructure Site Map Sketch

Include in sketch:

- Dogs/Animals on the Property
- Property boundaries
- Structures
- All Known Water Conveyance Infrastructure (above and below ground)
- All Known Water Storage Infrastructure
- 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

Annotated photos or aerial images of the property may be used in place of a sketch.



# **Attachment B**

Claims Process – Assessment Phase

### **IMPACT ASSESSMENT**

# GSA to perform desktop assessment:

# Claims related to chronic lowering of groundwater levels

#### **GSA** to review:

Historic static groundwater levels
Historic pumping groundwater levels
Well operation and maintenance history
Well construction history
Historic monthly production volume
Potential for consolidation to public water
system
Nearby historic land and water use
Depth to bedrock

Well depth, perforated intervals, pump depth

Nearby conjunctive use activity

# Claims related to degraded water quality

#### **GSA** to review:

Historic groundwater quality at well
Historic groundwater quality at nearby wells
Historic static groundwater levels
Historic pumping groundwater levels
Well operation and maintenance history
Well construction history
Historic monthly production volume
Potential for consolidation
Nearby historic land and water use
Depth to bedrock
Nearby conjunctive use activity
Well depth, perforated intervals, pump depth

### Claims related to land subsidence

### GSA to review:

Historic InSAR data
Historic static groundwater levels
Historic pumping groundwater levels
Operation and maintenance history
Construction history
Historic monthly capacity
Potential for consolidation
Nearby historic land and water use
Depth to bedrock
Nearby conjunctive use activity
Well depth, perforated intervals, pump
depth
Photos of physical damage

## GSA to perform field assessment:

#### **GSA** may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter
- (4) Conduct video log
- (5) Investigate site to inform estimated water demand
- (6) Investigate nearby land and water use
- (7) Investigate site for consolidation feasibility

#### **GSA** may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter
- (4) Conduct video log
- (5) Collect water quality samples at Claimants well
- (6) Collect water quality samples at wells nearby impacted well
- (7) investigate site for consolidation feasibility
- (8) Investigate site and nearby land use

### **GSA** to investigate:

- (1) Evidence of ground fissures consistent with subsidence
- (2) Visible casing collapse, damage, or protrusion attributable to subsidence.

# For well claims, GSA may perform the following:

- (1) Pull pump and measure pump intake depth, well bottom, static water level.
- (2) Modify wellhead to install sounding port to measure static and pumping level.
- (3) Modify wellhead to install flowmeter
- (4) Conduct video log

GSA may request additional data and information. GSA may reach out to original driller or design engineer to confirm information provided.

Mitigation Claim proceeds to Qualification phase.



# **Attachment C**

Technical Assistance and Indemnification Agreement

### Kaweah Subbasin Technical Assistance and Indemnification Agreement

The undersigned ("the Claimant") having been awarded funding to support technical assistance by  Groundwater Sustainability Agency of the Kaweah			
Subba	asin ("the GSA") hereby agree	· · · · · · · · · · · · · · · · · · ·	
2.	Consultant Staff, Advisor Members, Offices, Third-Paliability of any character aris any person, persons, or proprint misconduct, or in violation of during the Claimant's mitigate The GSA shall not be liable on the property in which mis The Claimant is responsible Claimant receives as a result.	e for paying all taxes owed for income or property value the	
Name o	of Claimant		
Signatu	ure of Claimant `	Date	
Name o	of GSA General Manager		
Signatu	ure of GSA General Manager	Date	

# **Attachment D**

Small Community Well Proactive & Protective Action Program (PPAP)

A new Subbasin-wide management action developed in conjunction with the Mitigation Program.

## Management Action Description and Schedule 354.44(b)(4)

Small community wells/systems identified as being at-risk by the State Water Resources Control Board's metrics for small community wells will receive proactive mitigation via the Small Community Well Proactive & Protective Action Program (Attachment D).

Interim and emergency supplies are available for community wells that serve a max of 300-connections. This limit is based on the State Water Resources Control Board's contract with the existing mitigation service agency within the San Joaquin Valley. This limit was based on the feasibility capabilities of local water supply deliveries and the extent to which federal support is needed. The GSAs have an ethical and financial interest in avoiding impacts to these small community wells and after consultations with local community well mitigation providers, it was determined the most effective and helpful mitigation for small community wells is to avoid the need for mitigation altogether. That said, the GSAs intend to avoid impacts to these community wells through a series of site-specific proactive measures, which may include but are not limited to the options listed below. The proactive measure(s) implemented will vary on a case-by-case basis.

- 1) Assess what next steps are needed to avoid or mitigate impacts to support Contingency Plan development and/or improvement
- Develop or support development of Preliminary Engineer Reports for small community wells that have been stuck with lack of funding or resources to take the next steps in their own contingency plans
- 3) Implement groundwater pumping restriction policies near at-risk community wells
- 4) Host Financial Empowerment Workshops to map out long-term planning for resiliency and maintenance, with a focus on prioritizing future access to affordable drinking water
- 5) Support grant writing and cost-share, when funding and opportunities allow
- 6) Consider additional technical assistance that meets the unique needs of the at-risk small community well.

Although the claims process is designed more for private domestic and multi-use drinking water well owners, community well owners may still notify Self-Help Enterprises in the event of potential impacts to their well.

This process will establish continued trust-building with the leaders within these at-risk communities. Before proactive technical assistance/mitigation is underway, the GSAs are committed to meeting with community leaders to understand their unique challenges to map out the best strategy for contingency plans and supplemental assistance.

More information on the schedule and approach of the PPAP is available in Figure D-1.

# Small Community Well Proactive & Protective Action Program

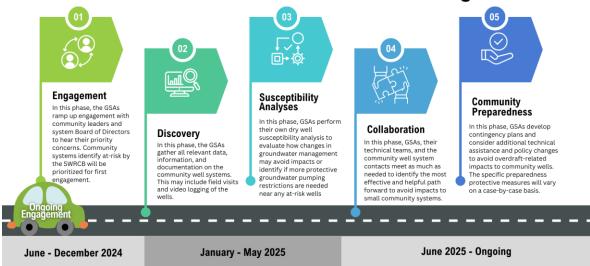


Figure D-1. Small Community Well Proactive & Protective Action Program (PPAP) Approach and Schedule

## Measurable Objectives Addressed 354.44(b)(1)

This management action will directly address the impacts of chronic lowering of groundwater levels, reduced groundwater in storage, groundwater quality, and land subsidence caused by lowered groundwater levels by providing strategies to avoid impacts to small community wells and identify next steps to confirm their sustainability and resiliency.

# Circumstances and Criteria for Implementation 354.44(b)(1)(A)

This is a high-priority management action needed to maintain access to a water supply that meets basic health and safety needs by mitigating impacts of declining water levels, land subsidence, and groundwater quality induced by pumping-influenced water level changes. Declining groundwater levels created by allowable overdraft during the implementation phase of the GSPs may induce unintended groundwater quality impacts. Therefore, the Kaweah Subbasin GSAs are committed to taking protective, proactive measures to avoid the need for mitigation of the small community water systems.

## Process to Provide Notice of Implementation 354.44(b)(1)(B)

The public and relevant entities must be given the opportunity and time to comment on the Program prior to adoption by the GSA. Opportunities to comment will be made available at stakeholder advisory committee meetings, Amended GSP public comment period, and at GSA Board Meetings.

# Estimated Annual Program Benefits 354.44(b)(2)

This management action is designed to provide the following benefits for small community water systems:

Improved risk management and planning

- Reduced risk of experience impacts related to:
  - reduction in groundwater storage <sup>1</sup>;
  - chronic lowering of groundwater levels<sup>1</sup>;
  - land subsidence<sup>1</sup>; and
  - degraded water quality<sup>1</sup>

# Permitting and Regulatory Requirements 354.44(b)(3)

The GSA will confirm with the Claimant that any mitigation efforts that are non-exempt from California Environmental Quality Act (CEQA) and National Environmental Policy Act (NEPA) requirements will comply with CEQA and NEPA prior to approval and issuance of mitigation assistance. New wells must comply with the Tulare County well permitting process.

# **Evaluation of Benefits 354.44(b)(5)**

SGMA required annual reporting provides the GSAs the opportunity to review progress on this management action and regularly assess if the risk status of the Subbasin's small community wells' changes.

# How will the Project be accomplished and what is the water source? 354.44(b)(6)

The Mitigation Program is not reliant on securing new groundwater or surface water sources. **Figure E-1** details the phases to accomplish this management action.

## Legal Authority 354.44(b)(7)

California Water Code Section 10725.2 provides the GSA has the powers and authorities "perform any act necessary or proper" to implement SGMA regulations and allows the GSA to adopt rules, regulations, ordinances, and resolutions necessary for SGMA implementation. (23 CCR §355.4(b)(6).)

## Program Cost 354.44(b)(8)

The program cost is still unknown; however, it is projected to be within existing technical consultant contracts if projected into the future following GSP Amendment submittals.

# Funding Source 354.44(b)(8)

The primary source of funding for the Mitigation Program is through GSA fees. The same funding source is used to fund outreach and technical consultant costs associated with GSA administration and GSP implementation.

induced by chronic lowering of groundwater levels (via overdraft during GSP implementation)

## Management of Groundwater Extractions and Recharge 354.44(b)(9)

This management action may provide critical insight into allocation decisions and groundwater recharge needs across the GSA. The primary path towards sustainability in the Kaweah Subbasin is founded on significant improvements in demand management via allocation revisions and projects and management actions. This management action may provide insights on where to prioritize demand management to avoid impacts on small community water systems.

## Level of Uncertainty 354.44(d)

The GSAs are committed to this management action component of the Kaweah Subbasin Mitigation Program. As this management action will be the first of its kind in the region, there is considerable uncertainty associated with budget, schedule, and available data and information. The GSAs have experience developing methods of navigating uncertainty, such as sensitivity analyses and adapting schedules and budget priorities to achieve sustainability initiatives. The schedule and budget are subject to change as additional information and experience are gained through development and implementation.