

# Appendix K

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Kern County Subbasin Mitigation Program

DECEMBER  
2024

KERN COUNTY  
SUBBASIN  
**MITIGATION  
PROGRAM**

VERSION 1.0

PRODUCED FOR



PRODUCED BY





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# Attention

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

For applications regarding drinking water wells (including agricultural wells used for drinking water purposes), please fill out the online intake form on Self-Help Enterprises' website:

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

# Atención

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

Para reclamos relacionados con pozos de agua potable (incluidos los pozos agrícolas utilizados para fines de agua potable), complete el formulario de admisión en línea en el sitio web de Self-Help Enterprises:

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



# Introduction

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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 Brown emphasized that “groundwater management in California is best accomplished locally.” This legislation created a statutory framework for groundwater management that can be sustained during the planning and implementation horizon without causing undesirable results.

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

The Kern County Subbasin, referred to as the “Kern Subbasin” or “Subbasin,” has numerous groundwater sustainability agencies (GSAs) working together to achieve sustainability ([Figure 1](#)). To comply with the requirements of SGMA, the Kern Subbasin GSAs have prepared a coordinated groundwater sustainability plan (GSP) covering the entire Subbasin. Six of the GSAs submitted additional local information in so-called ‘blue pages’ as part of adopting their GSPs and are each considered a separate GSP. The GSPs serve to use the statutory framework created and design the strategy to achieve Subbasin sustainability by 2040. This Mitigation Program is considered part of the Subbasin GSP.

The Kern Subbasin GSAs have agreed to implement this Subbasin-wide Mitigation Program to provide emergency and interim drinking water supplies and implement long-term solutions for households reliant on domestic and multi-use wells that have lost access to drinking water due to groundwater management activities of a GSA (e.g. sustainable management criteria and projects and management actions (P/MAs) occurring after January 1, 2015 causing dry wells, lost well production or experiencing groundwater quality degradation).

The GSAs will fund administration, outreach, analyses, technical assistance and mitigation services necessary to restore drinking water access for households impacted by groundwater management activities. While households may lose access to drinking water for many reasons, the purpose of this Program is to avoid or address impacts caused by groundwater management activities undertaken by GSAs after January 1, 2015. The GSAs have partnered with Self-Help Enterprises, a local expert in providing solutions for households losing access to drinking water ([Partnerships with Existing Mitigation Programs](#)). Separate from this Mitigation Program, Self-Help Enterprises also administers services for households losing access to drinking water due to causes other than GSAs’ groundwater management activities, such as well structural failures and legacy groundwater degradation. This collaboration between the GSAs and Self-Help Enterprises allows Self-Help Enterprises to be a single point of contact for households in the Subbasin losing access to drinking water for any reason.

This Mitigation Program document explains who can apply for assistance, the application process, funding mechanisms, and the roles and responsibilities of the GSAs and Self-Help Enterprises in implementing the Mitigation Program.

The GSAs are implementing P/MAs to reach and maintain sustainability by 2040. The Subbasin GSP has identified this Mitigation Program as a management action (KSB-5) intended to address individual impacts caused by groundwater management activities, understanding the benefits associated with groundwater improvements from P/MAs require time to be realized.

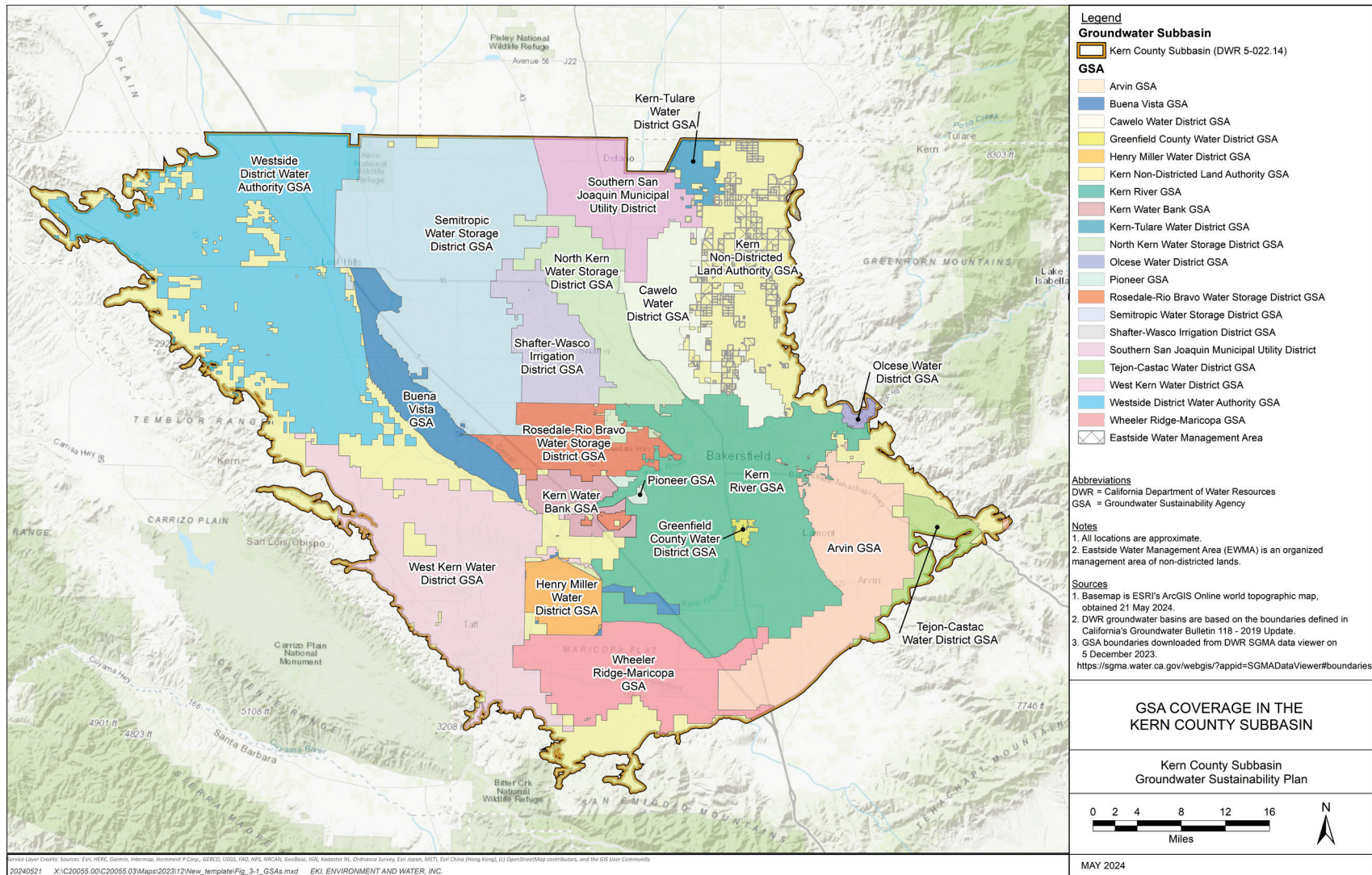


Figure 1. Kern Subbasin GSAs



## Program Description

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The Mitigation Program (or “Program”) provides mitigation for impacts to domestic wells and technical assistance for other drinking water wells (small community, municipal, and potable industrial wells) demonstrated to have been adversely affected by either declining groundwater levels or groundwater quality degradation due to groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs) occurring after January 1, 2015.

Mitigation and technical assistance under this Program are not available for impacts that were the subject of a prior domestic well impact application that was settled and mitigated under another well mitigation plan or program. To be eligible for consideration under this Program, an application for mitigation must be presented no later than two years after adoption of this Program for an impact occurring between January 1, 2015, and the date of adoption of the Program, and no later than two years after the date of the impact for all other applications.

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

### Program Need

The Kern Subbasin GSAs are managing their respective areas individually and collaboratively as a Subbasin to achieve sustainability by 2040 through P/MAs. This includes actions established in the exceedance policies detailed in Appendix W1 (of Appendix W Exceedance Policy) of the Kern Subbasin GSP.

However, groundwater levels in parts of the Subbasin may decline and land subsidence may occur while the GSAs implement P/MAs through the sustainability period. Declining groundwater levels created by groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs) during the implementation phase of the GSPs may also induce unintended groundwater quality impacts. The GSAs recognize the potential impacts that may occur and identified the need for establishing this Mitigation Program to be more protective of beneficial uses and users within the Subbasin.

### Self-Help Enterprises

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

The Kern Subbasin GSAs have entered into agreements with Self-Help Enterprises to financially support Self-Help Enterprises’ implementation of the Mitigation Program. The agreement between the Kern Subbasin GSAs and Self-Help Enterprises provides that the GSAs will reimburse Self-Help Enterprises for costs associated with program administration, groundwater quality sampling, interim drinking water supplies, and long-term mitigation measures for applications qualifying for mitigation under this Mitigation Program.





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

The GSAs are responsible for reimbursing Self-Help Enterprises for costs to mitigate impacts caused by groundwater management activities of a GSA (e.g. sustainable management criteria and PMAs) after January 1, 2015 (see [Mitigation Track Application Process](#) starting on Page 8 for more information on the steps to evaluate application qualification). Where a well is impaired for reasons other than groundwater management activities (such as mechanical failures, casing deterioration, lack of maintenance, etc.), Self-Help Enterprises offers emergency drinking water assistance and mitigation through alternative programs. It is important to the GSAs and Self-Help Enterprises to lessen the burden on households experiencing drinking water issues, where possible. The Self-Help Enterprises collaboration creates a “one-stop-shop” for emergency drinking water supplies and mitigation and allows the financial exchanges to be handled by the GSAs and Self-Help Enterprises administrative teams.

## Evolving Program

As the GSAs gather data and understanding from changes in demand management, projects, improved analysis tools and well registration, 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. Costs to mitigate wells, provide interim supplies, and administration may also evolve over time. The Kern Subbasin GSAs intend the Mitigation Program to be iterative and evolve as new information, funding, and efficiencies are understood.

## Mitigation Program Tracks

The Mitigation Program has two tracks: (1) Mitigation Track and (2) Technical Assistance Track. [Figure 2](#) summarizes who can apply for each track. More detail on the application process for each track is described under their respective sections of this Program (starting on Page 6 for the Mitigation Track and Page 14 for the Technical Assistance Track).

### Mitigation Track

The Mitigation Track offers emergency drinking water supplies within 24-hours of notification to Self-Help Enterprises, interim drinking water supplies (hauled tank water) within 72-hours, and long-term mitigation solutions for domestic wells and multi-use domestic wells that have been impacted and meet the qualification criteria explained on Page 5. Multi-use domestic wells are agricultural wells that are also used to supply the drinking water to at least one household. Agricultural wells used solely for agricultural purposes are not eligible for assistance under the Program.

Under this Mitigation Program, domestic wells and multi-use domestic wells are defined as having at maximum 4 service connections to 4 separate households.

More information on the application process for the Mitigation Track starts on Page 6.

### Technical Assistance Track

The Technical Assistance Track offers up to \$50,000 in funding to support technical assistance in the form of grant development, feasibility planning, or other mechanisms useful to support small community wells, municipal wells, and potable industrial wells used for drinking water purposes that have been impacted and meet the qualification criteria explained in the section below.



Under this Mitigation Program, small community wells are defined as wells or system of wells that serve between 5 and 299 connections with a year-round population of at maximum 2,299 people. Municipal wells are defined as wells or systems of wells that serve more than 300 connections with a year-round population of at minimum 3,300 people. Potable industrial wells are defined as wells used for both industrial and drinking water purposes. Industrial wells that do not serve drinking water purposes do not qualify under this Mitigation Program.

More information on the application process for the Technical Assistance Track starts on Page 14.



Figure 2. Mitigation Program Tracks

### Application Qualification Criteria

Not all impacts to wells qualify for mitigation under this Mitigation Program. For example, a well’s electrical or mechanical failure may be due to reasons independent of groundwater management activities of a GSA. Therefore, criteria were established to determine if an application qualifies for assistance under the Mitigation Program. The Mitigation Program’s qualification criteria are shown in **Figure 3**. The same criteria apply for both the mitigation track and the technical assistance track.



## MITIGATION PROGRAM QUALIFICATION CRITERIA



1. The well was impacted **after** January 1, 2015



2. The well **impact was induced by groundwater management activities** of a GSA (e.g. sustainable management criteria and P/MAs)

Figure 3. Application Qualification Criteria

Applicants are encouraged to submit applications immediately upon impact. Reimbursement for impacts already mitigated is not available under this Program. Applications for impacts older than 1-year without comprehensive documentation of the impact may not qualify. Documentation that is relevant to the application are photos of the well, photos and descriptions of site conditions, recorded groundwater level measurements, and groundwater quality data. The documentation is necessary because the current well conditions would be unrepresentative of conditions during the time of impact, hindering an effective desktop and field evaluation to assess qualification criteria.

This Mitigation Program is intended to be implemented in January 2025. In January 2027 (or two-years from Program adoption), applications for impacts older than 2-years will not be eligible for consideration. This is because 2-year-old well conditions would be unrepresentative of current conditions, making it unfeasible to perform a site-assessment. The first 2-years of implementation offers an exemption from this criterion as the Mitigation Program is new, and it will require several months for the general public to be made aware of the resources available to them, and relevant timelines, through ongoing public engagement and outreach initiatives.

### Evaluating Application Eligibility

Application eligibility will be evaluated on a case-by-case basis. The application processes, described for the Mitigation Track on Page 6 and for the Technical Assistance Track on Page 14, detail how an application is processed, including evaluations of eligibility based on the qualification criteria identified in the Section above and **Figure 3**. The evaluation of eligibility will occur in two stages:

- (1) A Qualified Professional (PG, PE, CHG) will perform a technical evaluation determining if the impact (1) occurred after January 1, 2015 and was (2) induced by groundwater management activities (e.g. sustainable management criteria, P/MAs). The qualified professional will evaluate available data and information, such as that listed in **Attachment A**, and consider the context of well vulnerability described in the Section **Criteria for Determining if the Impact is within the Scope of GSA Responsibility** (starting on Page 21).
- (2) The Kern Subbasin Mitigation Evaluation Committee (KMEC) is a three-seat committee intended to minimize bias in the recommendation process, as shown in **Figure 4**. The KMEC will provide an intermediate evaluation between the technical evaluation performed by the Qualified Professional and the GSA's final determination. The KMEC's evaluation will include both technical considerations and locally relevant stakeholder input.



## Kern Subbasin Mitigation Evaluation Committee

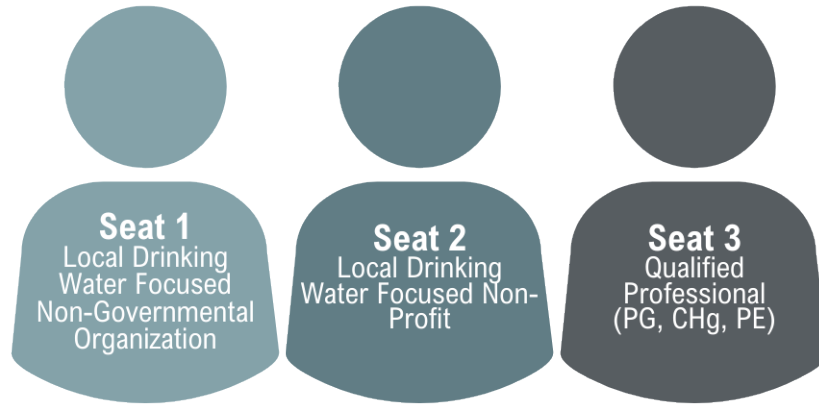


Figure 4. Kern Subbasin Mitigation Evaluation Committee (KMEC)



# Mitigation Track Application Process

The Mitigation Program includes two tracks, based on the type of well and forms of mitigation or assistance available (**Figure 2**). This section describes the Mitigation Track, which includes emergency supplies, interim supplies, and long-term solutions for domestic wells and multi-use domestic wells impacted by groundwater management activities that occurred after January 1, 2015. The application process for the Mitigation Track is explained below and in **Figure 5**.

## Who can apply under the Mitigation Track?



### Private Domestic Well Owners<sup>1</sup>

In the Kern Subbasin, private residences in some unincorporated and unconsolidated small communities and rural portions of the County rely on private wells to meet their domestic water supply needs. Households relying on individual domestic wells for their water supply may apply for assistance under the Mitigation Track. For purposes of this Mitigation Program, domestic wells are defined as wells with at maximum 4 household connections for drinking water purposes.



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

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

## Mitigation Track Application Process

### Step 1. Stakeholder Outreach

Public participation and communication are critical to implementing an effective Mitigation Program. Stakeholder outreach is organized into three phases: (1) Program development, (2) initial notification, and (3) ongoing outreach.

**Phase 1: Program Development.** During development of the Mitigation Program, the GSAs conducted a virtual workshop with attendance from various local drinking water advocacy groups to gather and incorporate feedback. This workshop summarized the key components of the Mitigation Program, including application process, qualification criteria, who can submit an application, and the basis for the budget and funding feasibility. In addition to the Workshop, the Kern Subbasin Mitigation Subcommittee, tasked with

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<sup>1</sup> Wells used for drinking water purposes that have four or less connections are considered 'domestic' wells in this program. Wells with more than four connections used for drinking water purposes are considered small community wells or municipal wells (depending on the connection count).



leading the development of the Mitigation Program, engaged in several small group meetings and discussions with Workshop participants to discuss the development of the Mitigation Program.

**Phase 2: Initial Notification.** Following adoption of the Mitigation Program, the GSAs will conduct an outreach campaign to notify Kern Subbasin residents of this new program. Outreach activities include: (1) an email blast to all landowners and participants on the GSAs’ interested parties lists and (2) flyers posted in community spaces across the Kern Subbasin. Community spaces include school district buildings, libraries, community centers, and other public locations. The flyers be available in English and Spanish.

**Phase 3: Ongoing Outreach.** The GSAs will maintain public awareness of this Mitigation Program through postings on GSA websites, agenda items at GSA Board Meetings and stakeholder meetings and events and coordinating with Self-Help Enterprises’ outreach initiatives in the Subbasin. This ongoing outreach includes coordination with Kern Water Collaborative (KWC), in which KWC will publicize the Mitigation Program as part of the Memorandum of Understanding between the Kern Subbasin GSAs and the KWC. All ongoing outreach will be available in English and Spanish.

## Step 2. Identify Need for Mitigation

Applicants who have lost access to drinking water must contact Self-Help Enterprises to initiate the mitigation application process.

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

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



### Self-Help Enterprises

(559) 802-1685

8445 W Elwin Ct

Visalia, CA 93291

An online intake form is available on Self-Help Enterprises’ website:

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

Translation services are available via phone or in-person.



### Step 3. Interim Drinking Water Supplies

After an application for mitigation is submitted, Self-Help Enterprises will arrange temporary emergency drinking water supplies within 24 hours in the form of bottled water to applicants. Interim supplies, which may include water tanks with delivered supplies, or other appropriate interim measures will be arranged for these households within 72 hours. The GSAs will fund and/or reimburse Self-Help Enterprises for administering and supplying emergency and interim drinking water supplies for qualifying applications (see Step 8). Temporary and interim drinking water supplies will continue until the application for assistance is resolved.

### Step 4. Mitigation Need Assessment

Self-Help Enterprises' field staff will perform an initial assessment, including a site visit and discussions with the landowner and/or tenants. Translation services for Spanish, Punjabi, and/or Hmong will be made available by Self-Help Enterprises, as needed. Following the assessment, Self-Help Enterprises will provide the documentation and findings to the GSA in which the impacted well is located and the GSA-arranged qualified professional (who will be performing the evaluation in Step 5).

### Step 5. Funding Qualification Assessment

A GSA-designated qualified professional (PG, CHg, PE) will perform a technical evaluation of the information from Self-Help Enterprises on the well, historical groundwater conditions, and land use data to determine if the application qualifies for mitigation under the Mitigation Program's qualification criteria and make a recommendation regarding mitigation. The evaluation, findings, and recommendation will be documented and shared with the GSA in which the impacted well is located and the KMEC (Step 6).

In instances in which the application does not qualify for mitigation based on the evaluation from the qualified professional, this information and the supporting documentation will be shared with the applicant by the GSA. The KMEC may reevaluate the determination of disqualification in Step 6 and override the recommendation for disqualification made by the qualified professional.

See [Attachment A](#) and the Section [Criteria for Determining if the Impact is within the Scope of Responsibility of the GSAs](#) for more information on the type of data and information to be considered and assessed during this step.

### Step 6. Mitigation Measure Selection Agreement

Where the application is determined to be qualified for mitigation in Step 5, the KMEC evaluates the findings and recommendation of mitigation measure(s). The KMEC prepares an agreed upon recommendation of (1) proposed mitigation measure(s) and (2) estimated costs associated with administration, assessment, interim supplies, and physical mitigation to be shared with the Board of Directors of the GSA in which the impacted well is located to consider for funding approval in Step 7.

The KMEC's recommendation for long-term mitigation may include:

- Deepen the well.
- Construct a new well.
- Modify pump equipment, including lowering the pump.
- Consolidation with an existing water system in the vicinity.
- Establishment of a new small public water system.



- With the consent of the applicant and Self-Help Enterprises, providing other acceptable means of mitigation.

Self-Help Enterprises and the staff of the GSA in which the impacted well is located will consider each application on a case-by-case basis to identify the most effective long-term mitigation measure(s).

In instances in which the application was disqualified in Step 5, the KMEC will evaluate the basis for that determination. The KMEC has authority to override this determination and recommend mitigation to the GSA Board of Directors in Step 7.

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

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

Where an application qualifies for mitigation reimbursement, as determined by the KMEC, the qualified professional from Steps 5 and 6 will present to the Board of Directors of the GSA in which the impacted well is located the findings from Step 5 and the KMEC's recommendation on (1) mitigation qualification, (2) proposed mitigation measure to be financially reimbursed, and (3) costs associated with the reimbursement.

The Board of Directors of the GSA in which the impacted well is located will consider approval of mitigation funding reimbursement.

The Mitigation Program includes an Appeal Process in the event the applicant disagrees with the determination of the qualified professional, KMEC, or respective GSA Board of Directors. More information is available in the Section [Appeals Process](#) on Page 20.

### **Step 8. Funding Transaction**

Following completion of an agreement and all other necessary documentation, Self-Help Enterprises will advance funding to implement the agreed upon mitigation measure(s). The applicant must complete all of Self-Help Enterprises required legal agreements before the funding transaction between Self-Help Enterprises and the GSAs is administered. Self-Help Enterprises does not carry out the mitigation measure(s) but acts as a contract coordinator and funding source between the driller/pump contractor and the applicant. The GSA in which the impacted well is located will reimburse Self-Help Enterprises for the funding for all qualifying mitigation support services, including emergency and interim supplies, and Mitigation Program administration. Self-Help Enterprises and the GSAs will establish a funding protocol, including the necessary documentation, for advancing funds, and may agree to deposits to maintain sustainable cashflow for Self-Help Enterprises' administration of the Mitigation Program. While the GSAs fund well mitigation, neither the GSA, member agencies of the GSA, nor Self-Help Enterprises will be liable or responsible for any work performed by contractors.

### **Step 9. Well Stewardship Education**

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





groundwater quality may include providing the applicant with 3-years of filters to ease the initial financial burden of the treatment system's stewardship.



**STEP 1**

**Public Outreach & Engagement**

GSA's notify Kern Subbasin well users of the new resources available to them and their community.



**STEP 2**

**Applicant Applies for Assistance**

Well owner (Applicant) applies for assistance through Self-Help Enterprises' website, phone call, or office visit.



**STEP 3**

**Emergency & Interim Drinking Water Supplies**

Self-Help Enterprises provides the household with emergency (bottled water) water and interim (hauled tank water) supplies.



**STEP 4**

**Site Visit & Evaluation**

Self-Help Enterprises field staff meet with the Applicant and perform a site evaluation. Findings are shared with the qualified technical professional in Step 5.



**STEP 5**

**Qualified Professional Performs Technical Evaluation**

Objective is to determine if the impact (1) occurred after January 1, 2015 and (2) was induced by groundwater management activities of a GSA undertaken pursuant to its adopted GSP, including projects and management actions, to manage groundwater sustainability.



**STEP 6**

**KMEC Evaluation & Recommendation for GSA**

Kern Subbasin Mitigation Evaluation Committee (KMEC) evaluates if the application is eligible and provides recommendation to GSA Board based on the findings of Step 4, Step 5, and any additional and pertinent information.



**STEP 7**

**GSA Board Considers KMEC's Recommendation for Application Approval**

This occurs at a public GSA Board Meeting in which the consideration is included on the Agenda.



**STEP 8**

**Instances in which the Application is approved  
Self-Help Enterprises Administers Long-Term Solution and GSA Reimburses Self-Help Enterprises**



**STEP 9**

**Applicant Attends a Well Stewardship Education Program Hosted by Self-Help Enterprises**

The educational program is intended to empower well owners on well maintenance 101 and financial planning for well maintenance.

Figure 5. Mitigation Track Application Process (Domestic Wells)



# Technical Assistance Track Application Process

The Mitigation Program includes a Technical Assistance Track for small community wells, municipal wells, and potable industrial wells used for drinking water purposes that have been impacted by groundwater management activities after January 1, 2015. As described above, groundwater management activities for purposes of this Mitigation Program are activities of a GSA (e.g. sustainable management criteria and P/MAs). The technical assistance includes up to \$50,000 reimbursement funding for grant application development, contingency planning, feasibility study, or well design. The application process for the Technical Assistance Track is described below and in [Figure 7](#).

## Who can apply for the Technical Assistance Track?



### Municipal Well Owners

Most drinking water users in the Kern Subbasin receive their drinking water supplies from municipal well systems. For purposes of this Mitigation Program, municipal wells are defined as wells or system of wells that serve 300 or more connections with a year-round population of 3,300 or more people. Owners of municipal production wells may submit an application for technical assistance. Municipal wells used exclusively for non-drinking water purposes, such as to irrigate golf courses, landscaping, parks, etc. do not qualify for technical assistance.



### Industrial Well Owners

Industrial wells in the Kern Subbasin can be used for a multitude of purposes, many of which are not used for drinking water purposes. For Mitigation Program, only potable industrial wells used for drinking water purposes may be eligible for technical assistance. Owners of potable industrial wells used exclusively or in part for drinking water may submit an application for technical assistance.



### Small Community Wells

In the Kern Subbasin, some private residences in unincorporated communities (outside of City service area limits) receive their drinking water supplies via a consolidated system of a single or multiple wells. For this Mitigation Program, small community wells are defined as wells or system of wells that serve between 5 and 199 service connections with a year-long population of at maximum 2,299 people.



## Technical Assistance Application Process

### Step 1. Stakeholder Outreach

Stakeholder outreach for technical assistance is consistent with the stakeholder outreach outlined in the Mitigation Track’s **Step 1. Stakeholder Outreach**.

### Step 2. Identify Need for Technical Assistance

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

To identify the GSA where the well is located, see **Figure 1** for a map of the GSAs in the Subbasin. For an interactive map of GSAs and location, see the SGMA Data viewer (<https://sgma.water.ca.gov/webgis/?appid=SGMADataViewer>) and turn on the reference layers for 2018 Bulletin 118 Basins and Groundwater Sustainability Agencies (see **Figure 6**).

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

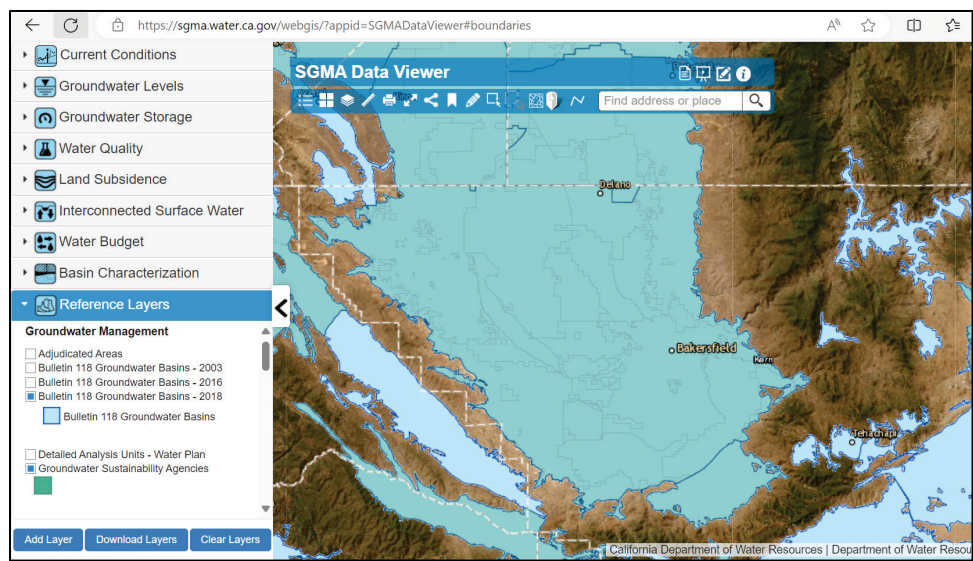


Figure 6. Guidance on Identifying GSA Identification via SGMA Data Viewer

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



**Table 1. GSA Contact Information**

<b>GSA</b>	<b>Address</b>	<b>GSA Manager and E-mail</b>	<b>Phone</b>
<b>Arvin GSA</b> www.aewsd.org	20401 E. Bear Mountain Blvd. PO Box 175 Arvin, CA 93203	Jeevan Muhar Engineer-Manager jmuhar@aewsd.org	661-854-5573
<b>Buena Vista GSA</b> www.bvh2o.com	525 North Main Street PO Box 756 Buttonwillow, CA 93206	Tim Ashlock Engineer-Manager tim@BVH2O.com	661-764-2901
<b>Cawelo Water District GSA</b> www.cawelowd.org	17207 Industrial Farm Road Bakersfield, CA 93308	David Halopoff Assistant General Manager dhalopoff@cawelowd.org	661-393-6072
<b>Greenfield County Water District GSA</b>	551 Taft Highway Bakersfield, CA 93307	Nick Cooper ncooper@greenfieldc wd.org	661-831-0989
<b>Henry Miller Water District GSA</b>	101 W. Walnut Street Pasadena, CA 91103	Jeof Wyrick President / Chairman jwyrick@jgboswell.com	626-583-3000
<b>Kern Non-Districted Land Authority GSA<sup>2</sup></b> (formerly Kern Groundwater Authority GSA) www.kerngwa.com	1800 J Street Sacramento, CA 95811	Valerie Kincaid <sup>3</sup> Manager vkincaid@pariskincaid.com	916-264-2046
<b>Kern River GSA</b> www.kernrivergsa.org	1000 Buena Vista Road Bakersfield, CA 93311	Daniel Maldonado Assistant Director dr Maldonado@bakersfieldcity.us	661-326-3715
<b>Kern Water Bank GSA</b> www.kwb.org	1620 Mill Rock Way, Ste 500 Bakersfield, CA 93311	Jonathan Parker jparker@kwb.org	661-398-4900
<b>Kern-Tulare Water District GSA</b> www.kern-tulare.com	5001 California Ave., Ste 102 Bakersfield, CA 93309	Vanessa Yap Staff Engineer vanessa@kern-tulare.com	661-327-3132
<b>North Kern Water Storage District GSA</b> www.northkernwsd.com	33380 Cawelo Ave. Bakersfield, CA 93308	David Hampton General Manager dhampton@northkernwsd.com	661-393-2696
<b>Olcese Water District GSA</b>	15701 Hwy 178 Bakersfield, CA 93306	Jeff Siemens jsiemens@nflc.net	661-872-5050
<b>Pioneer GSA</b> www.kcwa.com/	3200 Rio Mirada Drive Bakersfield, CA 93308	Michelle Anderson Geologist manderson@kcwa.com	661-634-1479
<b>Rosedale-Rio Bravo Water Storage District GSA</b> www.rrbwsd.com	849 Allen Road Bakersfield, CA 93314	Dan Bartel Engineer-Manager dbartel@rrbwsd.com	661-589-6045

<sup>2</sup> Eastside Water Management Area <https://kernewma.com> is covered by Kern Non-Districted Land Authority GSA. Eastside Water Management Area is managed by: Taylor Blakslee [TBlakslee@hgcpm.com](mailto:TBlakslee@hgcpm.com) 661-477-3385.



GSA	Address	GSA Manager and E-mail	Phone
<b>Semitropic Water Storage District GSA</b> www.Semitropic.com	1101 Central Ave. Wasco, CA 93280	Jason Gianquinto General Manager jgianquinto@semitropic.com	661-758-5113
<b>Shafter-Wasco Irrigation District GSA</b> www.swid.org	16294 Central Valley Hwy. Wasco, CA 93280	Kris Lawrence General Manager klawrence@swid.org	661-440-8559
<b>Southern San Joaquin Municipal Utility District GSA</b>	11281 Garzoli Ave. Delano, CA 93215	Roland Gross General Manager/Secretary roland@ssjmud.org	661-725-0610
<b>Tejon-Castac Water District GSA</b>	4436 Lebec Road Lebec, CA 93243	Angelica Martin Water Resources Director amartin@tejonranch.com	661-663-4262
<b>West Kern Water District GSA</b>	800 Kern Street Taft, CA 93268	Greg Hammett General Manager ghammett@wkwd.org	661-763-3151
<b>Westside District Water Authority GSA</b>	21908 7th Standard Road McKittrick, CA 93251	Mark Gilkey General Manager mgilkey@westsidewa.org	661-633-9022
<b>Wheeler Ridge-Maricopa GSA</b>	12109 Highway 166 Bakersfield, CA 93313	Sheridan Nicholas Engineer-Manager snicholas@wrwmwsd.com	661-527-6075

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

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

### Step 4. Technical Assistance Needs Assessment

A qualified professional (PG, CHg, PE), arranged by the GSA in which the impacted well is located, will perform a field and desktop assessment to identify the likely cause of impact and identify if the application qualifies for technical assistance under the Mitigation Program’s qualification criteria.

**Attachment A** and Section **Criteria for Determining if the Impact is within the Scope of Responsibility of the GSAs** provides considerations for the assessment.

The findings and recommendations from this evaluation will be documented and shared with the KMEC.

### Step 5. Funding Qualification Assessment

The KMEC (**Figure 4**) will meet and prepare a recommendation regarding (1) qualification for technical assistance and (2) the needed technical assistance based on the findings from Step 4.

Options for technical assistance include:

1. Grant application preparation
2. Well Design
3. Contingency Plan Development
4. Feasibility Plan Development



5. With the consent of the applicant and GSA in which the impacted well is located, an alternative form of technical assistance (in an amount up to \$50,000).

These recommendations will be prepared and presented to the GSA Board in Step 6.

### **Step 6. GSA Board Approval for Funding**

The Board of Directors of the GSA in which the impacted well is located will review the recommendations from the KMEC. Where the KMEC and Board of Directors determine the application does not qualify for assistance, that GSA will notify the applicant of the determination and the technical basis for it. Where the application does qualify, the GSA in which the impacted well is located will notify the applicant of the proposed technical assistance amount (i.e., up to \$50,000) awarded, which will be reimbursed in Step 8. The GSA in which the impacted well is located may provide funding up-front or contract the reimbursement directly with the qualified professional performing the technical assistance (up to \$50,000) instead of the well owner upon a showing of financial hardship by the applicant.

### **Step 7. Technical Assistance and Indemnification Selection Agreement**

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

### **Step 8. Funding Transaction**

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



**STEP 1**

**Public Outreach & Engagement**

GSA's notify Kern Subbasin well users of the new resources available to them and their community.



**STEP 2**

**Applicant Applies for Technical Assistance**

Applicant emails or mails the GSA a filled-out Technical Assistance Application.

*\*Note: Applicants representing community wells may submit an Application in advance of an impact if the community well is at-risk of going dry as identified by the SWRCB risk assessment tool.*



**STEP 3**

**Meeting with GSA Staff and Applicant**

The meeting includes an overview of the qualification criteria, review of the application, and discussion of the impact.



**STEP 4**

**Qualified Professional Performs Technical Evaluation**

Objective is to determine if the impact (1) occurred after January 1, 2015 and (2) was induced by groundwater management activities of a GSA undertaken pursuant to its adopted GSP, including projects and management actions, to manage groundwater sustainability. This evaluation may include a site visit and evaluation.



**STEP 5**

**KMEC Evaluation & Recommendation for GSA**

Kern Subbasin Mitigation Evaluation Committee (KMEC) evaluates if the application is eligible and provides recommendation to GSA Board based on the findings of Step 4, Step 5, and any additional and pertinent information.



**STEP 6**

**GSA Board Considers KMEC's Recommendation for Application Approval**

This occurs at a public GSA Board Meeting in which the consideration is included on the Agenda.



**STEP 7**

**Instances in which the Application is approved GSA and Approved Applicant Enter an Indemnification Agreement**



**STEP 8**

**Instances in which the Application is approved Approved Applicant sends GSA Invoice for Technical Assistance Services for GSA to Reimburse**

Reimbursement is up to \$50,000. GSAs have discretion to reimburse directly with a qualified technical professional in instances in which the Applicant represents a Disadvantaged Community.

Figure 7. Technical Assistance Track Application Process (Community, Municipal, and Industrial Wells)





## Appeal Process

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

- (1) well construction information such as well depth, perforated intervals, casing size, inclusion of a compression sleeve;
- (2) well operation information such as well maintenance and electrical records;
- (3) site information such as specific well location, septic location (if relevant), and any additional pertinent land use information;
- (4) photos and access to the site for an in-person assessment.

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

The appeal must be submitted within 30 days of the GSA's Board of Directors determination (Step 7 in the Mitigation Track and Step 6 in the Technical Assistance Track). The GSA's Board of Directors must include the appeal for consideration at the next regularly scheduled Board meeting or within 45 days of being notified by the applicant of an appeal, whichever is sooner.

During the GSA Board meeting when the appeal is heard, the applicant (or a representative for the applicant) must present the technical basis for the appeal. The GSA Board shall either (1) agree to qualify the application or (2) refer the application and appeal documentation to the KMEC for further evaluation. The KMEC's recommendation based on the appeal documentation and initial application will be provided to the Board of Directors of the GSA to consider at an upcoming GSA Board meeting.

When the appeal is referred to the KMEC, the KMEC may revise its recommendation or affirm its existing recommendation and shall document the technical components explaining the evaluation for its determination.

The KMEC's recommendation following evaluation of the appeal will be documented and submitted to the GSA Board of Directors for reconsideration at the next Board meeting.

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

## Application Privacy

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Once an application and subsequent information is provided to a GSA, it becomes subject to the California Public Records Act, which may require public disclosure of the information on request. If an applicant is concerned about sensitive information requested in the application process, the applicant should contact the GSA to discuss data and information-sharing confidentiality solutions.



# Criteria for Determining if the Impact is within the Scope of Responsibility of the GSAs

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Not all impacts to wells fall within the scope of responsibility for GSA mitigation. For example, a well experiencing an electrical or mechanical failure may be due to reasons independent of groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs). Therefore, qualification criteria were established to determine if an application falls within GSA responsibility. The qualification criteria under this Mitigation Program are explained in [Figure 3](#).

This section describes the technical considerations to be made during the qualified professional's evaluation in Step 4 of both Program tracks' application processes.

## Groundwater Level Impacts

Groundwater pumping in overdraft results in systemic, long-term lowering of groundwater levels. In a water well, if the groundwater levels decline such that a pump in the well is no longer adequately submerged, the pump may not operate correctly. Further lowering of groundwater levels below the pump's intake will render the pump inoperable. If there is no room to further lower the pump in the well, the well is considered dry ([Figure 8](#)). DWR released a guidance document in March 2023 detailing additional considerations to identify adverse impacts to drinking water wells, which has informed this Mitigation Program.<sup>3</sup>

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

The total well depths across the Kern Subbasin for different well types (domestic, small community, M&I) are depicted in [Figure 9](#), [Figure 10](#), and [Figure 11](#).

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts. These are details in Appendix W (Attachment W1) of the Kern Subbasin GSP. It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby households of the exceedance. These are detailed in Appendix W (Attachment W1) of the Kern Subbasin GSP.

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<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](https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Files/Considerations-for-Identifying-and-Addressing-Drinking-Water-Well-Impacts_FINAL.pdf)

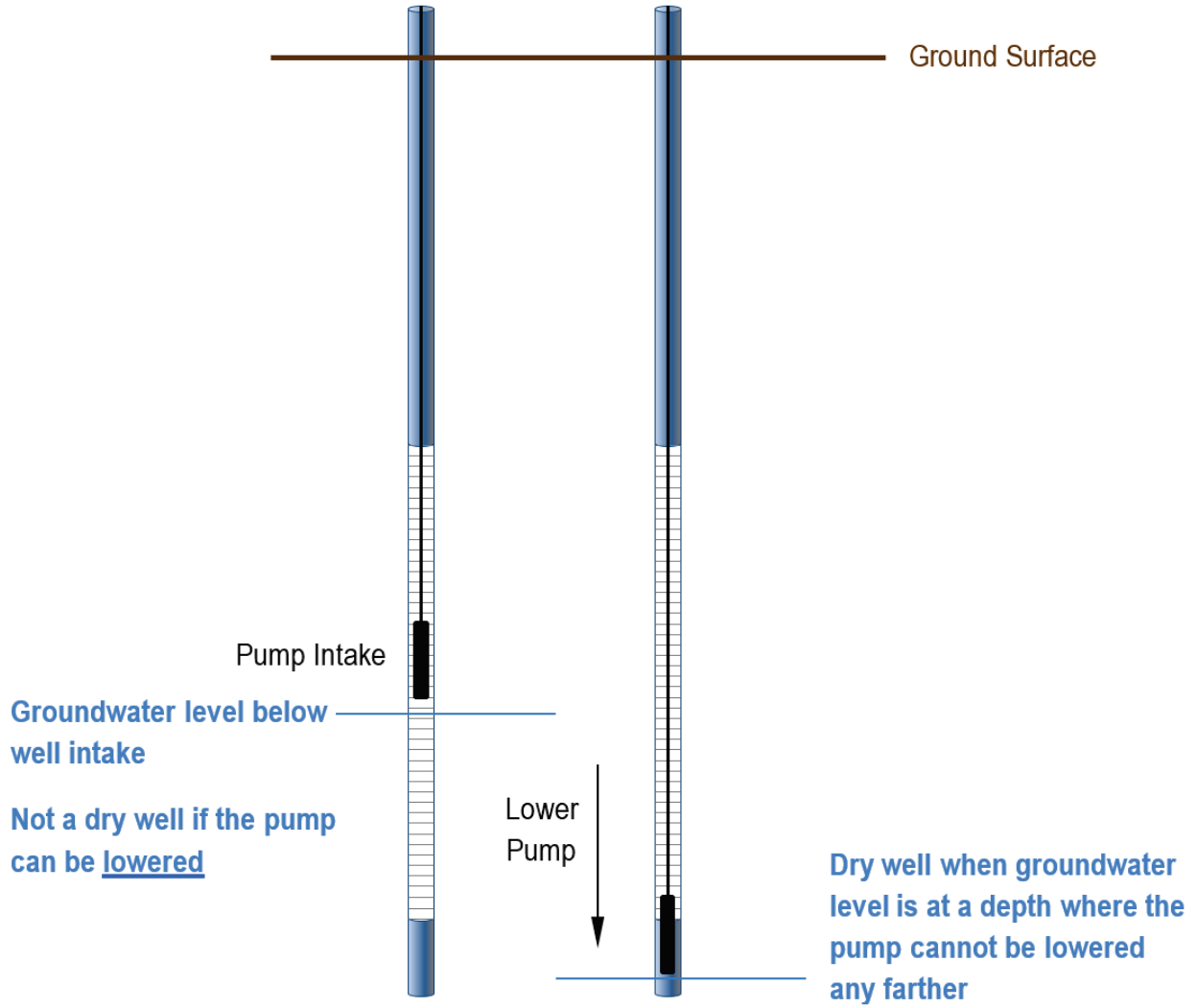


Figure 8. Groundwater Levels Relative to Pump Intake and Bottom of Well

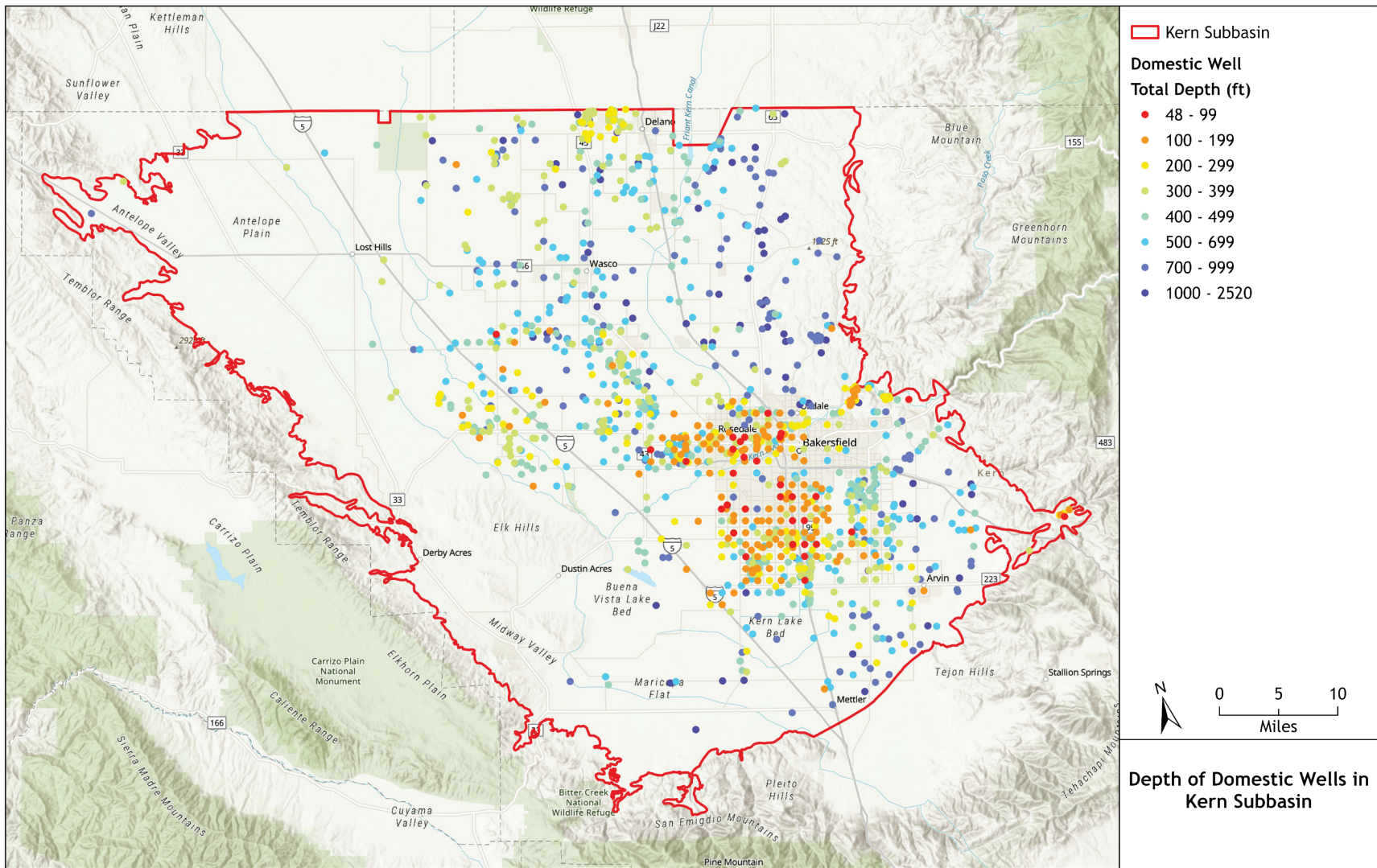


Figure 9. Domestic Well Depths in the Kern Subbasin (as of November 2024)

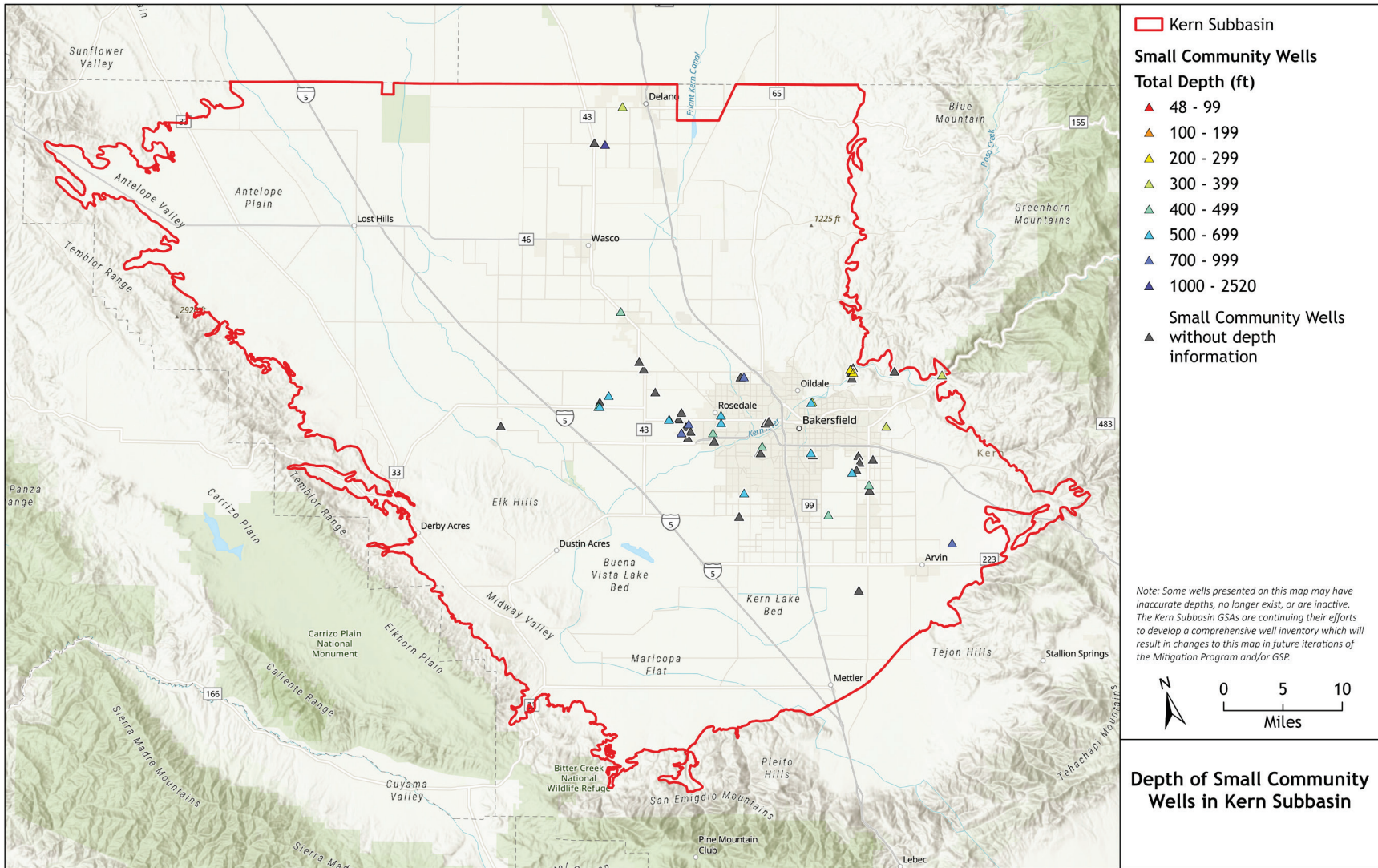


Figure 10. Small Community Well Depths in the Kern Subbasin (as of November 2024)



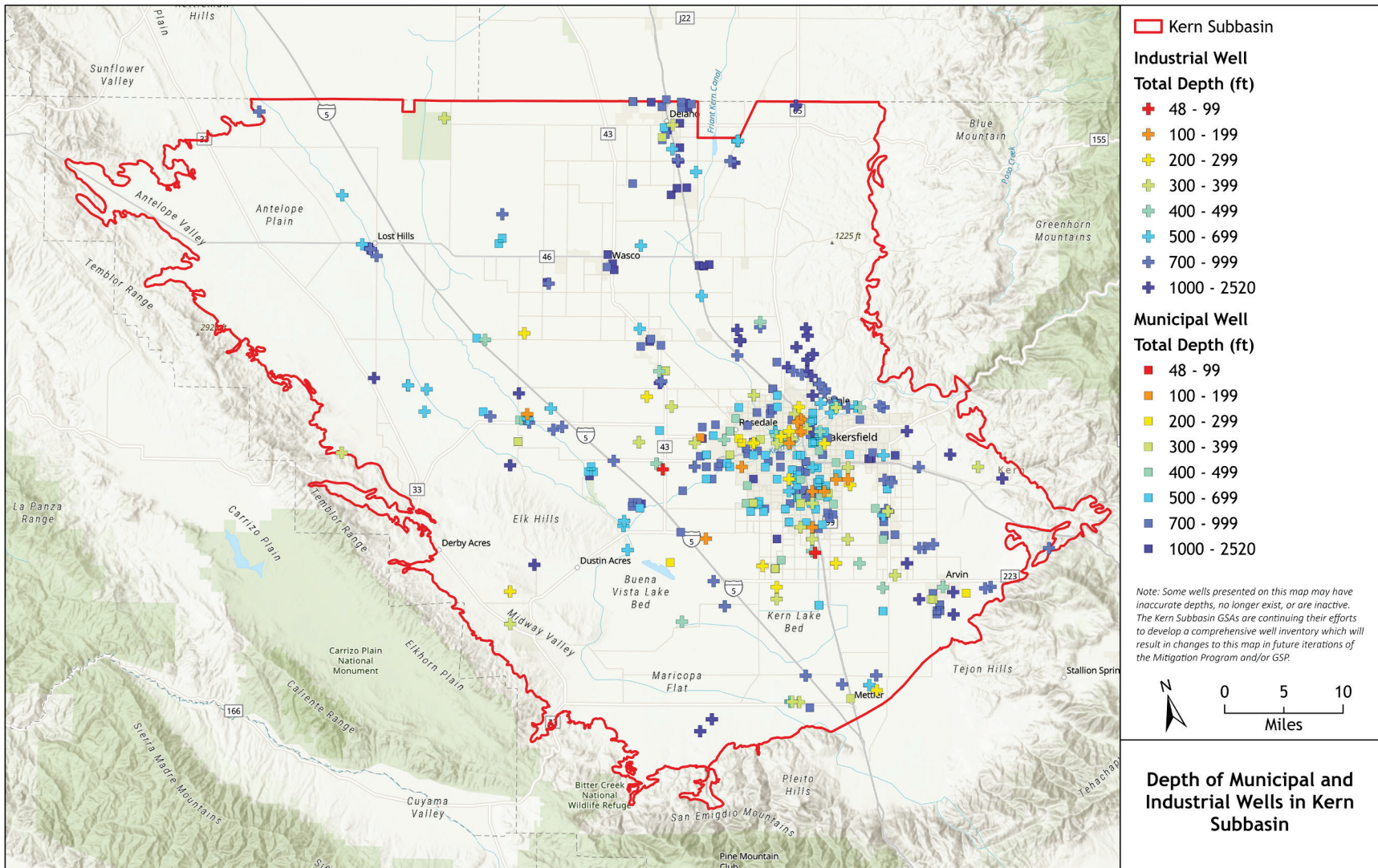


Figure 11. Municipal & Industrial Well Depths in the Kern Subbasin (as of November 2024)



## Subsidence Impacts

Land subsidence has been documented within the San Joaquin Valley over both historical and recent timeframes, with the greatest documented subsidence within the Kern Subbasin occurring in the northern portion of the Subbasin (Figure 13).

Land subsidence rates within the Subbasin range from 0 to 0.3 feet per year resulting in a cumulative land subsidence of 0 to 2.41 feet since 2015, as of 2023. The risk to wells related to land subsidence is well collapse or physical failure (Figure 12). Many irrigation and municipal wells within subsidence-prone regions of the San Joaquin Valley include a compression sleeve. The compression sleeve can withstand 9 to 12 feet of additional subsidence from the point of construction. Therefore, the limited land subsidence in the Kern Subbasin (and projected limited land subsidence) is not expected to result in well failures due to land subsidence.

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts. These are detailed in Appendix W (Attachment W1) of the Kern Subbasin GSP.

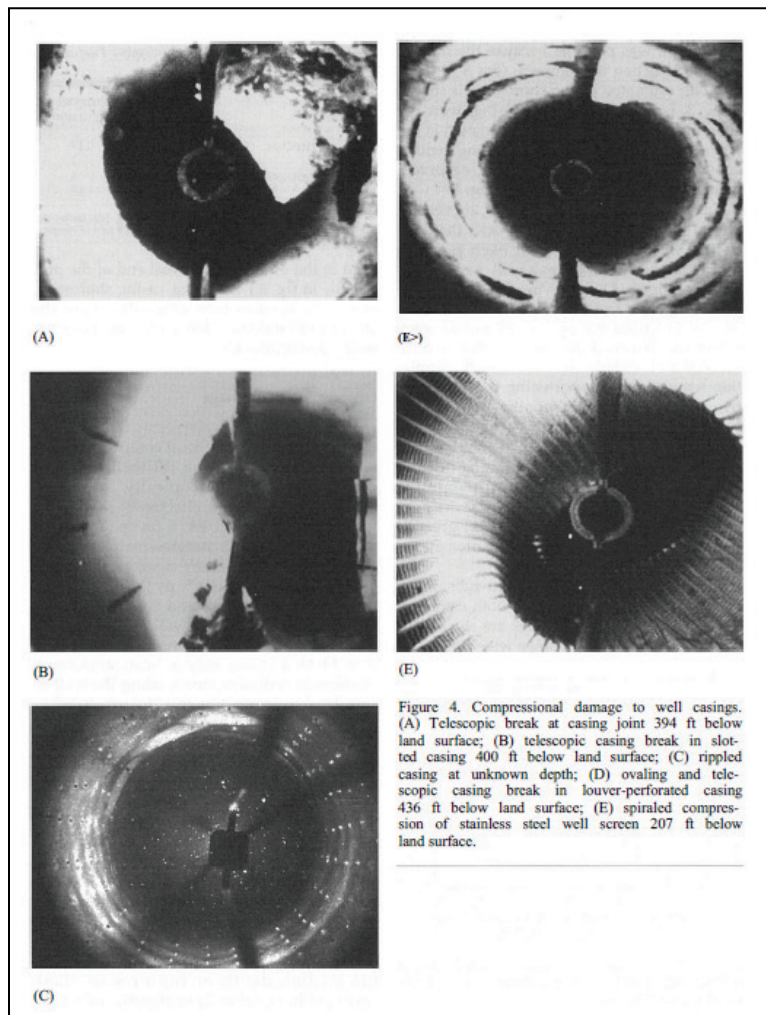


Figure 12. Well Damage Attributed to Subsidence (Borchers et al., 1998)

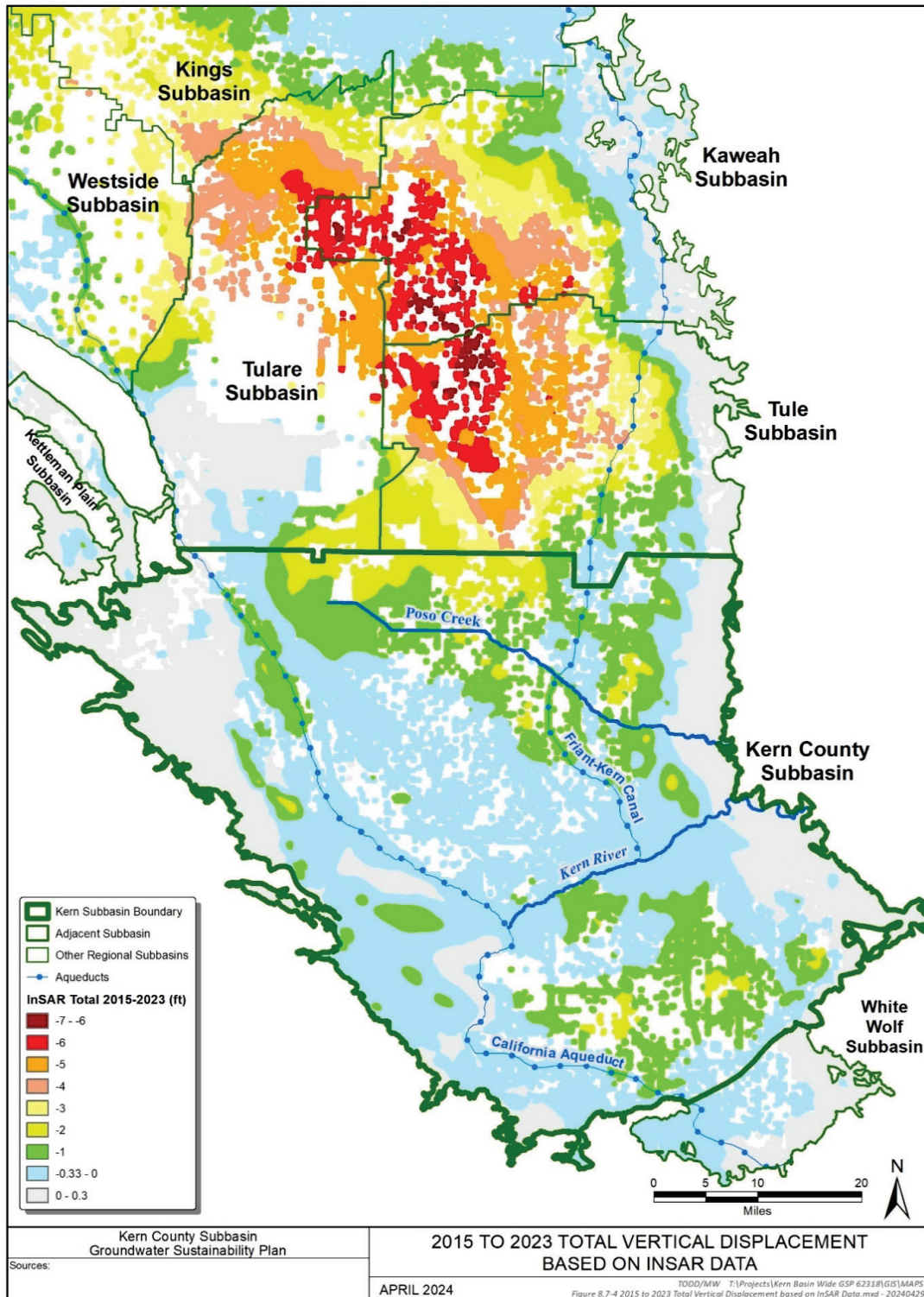


Figure 13. Cumulative Subsidence between 2015 – 2023 (ft) based on InSAR data





## Groundwater Quality Impacts

Groundwater level changes have been shown in some cases to degrade groundwater quality. While most groundwater meets drinking water standards, some groundwater can contain high concentrations of arsenic, nitrate, nitrite, total dissolved solids, and 1,2,3-Trichloropropane.<sup>4</sup> In addition to these constituents, the Kern Subbasin GSAs also include chrome-6 and uranium as constituents of concern (COC). It is important to clarify that a drinking water well may qualify for groundwater quality mitigation for any constituent exceedance (not just the constituents of concern listed in the GSP) impacting a household's access to drinking water. Note, the application must meet the qualification criteria of the impact having occurred after January 1, 2015, and being due to groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs).

The Mitigation Program is intended to mitigate or provide technical assistance for adverse impacts associated with groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs); therefore, groundwater quality issues must be related to chronic lowering of groundwater levels, localized recharge and banking activities, or other groundwater management activity that results in increases in concentrations of COC in groundwater to be considered for mitigation qualification.<sup>5</sup> In addition, much of the degraded groundwater quality in the Subbasin is legacy contamination, meaning the groundwater quality was degraded before 2015 (i.e., pre-SGMA).

Degraded groundwater quality may be related to groundwater management activities (such as groundwater pumping) if the changes in groundwater levels has a direct correlation with introduction of a new COC or significant increase in concentration of a COC from 2015 or earlier conditions. The causation and correlations of changes in groundwater quality are to be considered during the mitigation need assessment and funding qualification assessment phases of the mitigation application process. Groundwater quality increasing and decreasing trends since pre-2015 conditions can be assessed using trend analyses such as the Mann-Kendall Trend test.

The regulatory oversight authority for drinking water quality rests with the State Water Resources Control Boards (SWRCB) Division of Drinking Water (DDW), and therefore general measures to address drinking water quality served to the public are generally beyond the purview of the SGMA, except where directly impacted as a result of groundwater management within the GSA's control. Those regulatory oversight and enforcement actions have and will occur on their own mandated timelines and in accordance with DDW permitting, reporting and enforcement processes.

Additionally, the Central Valley Regional Water Quality Control Board (CVRWQCB) Basin Plan and stakeholder led Central Valley Salinity Alternative for Long-Term Sustainability (CV-SALTS) programs address groundwater quality degradation from all permitted dischargers (ILRP, dairies, food processors, wineries, wastewater treatment plants, industrial, etc.) through a Nitrate Control Program implemented by the Kern Water Collaborative for Kern County and a Salinity Program implemented by the larger CV Salinity Coalition.

The GSAs are actively coordinating with these entities and programs in the collection, sharing and analysis of applicable data. The Kern Water Collaborative and Kern Subbasin GSAs have entered a

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<sup>4</sup> Descriptions of constituents of concern as described in the Kern Subbasin GSP.

<sup>5</sup> Potential causes of Undesirable Results for degraded groundwater quality are listed in the Kern Subbasin Groundwater Sustainability Plan.



Memorandum of Understanding to further establish their complementary roles in managing groundwater resources and domestic well protections in the Kern Subbasin. For example, the Kern Water Collaborative offers free nitrate testing for domestic wells which can support a domestic well owner in identifying the need for mitigation via this Mitigation Program. Additionally, the data from these domestic wells can be useful in Kern Subbasin groundwater management analyses and decision-making.

It is important to note that the Kern Subbasin has protocols to address instances of Representative Monitoring Site exceedances of minimum thresholds. Those exceedance protocols initiate actions to avoid significant and unreasonable impacts and notify nearby households of the exceedance. These are detailed in Appendix W (Attachment W1) of the Kern Subbasin GSP.



## Mitigation Funding and Anticipated Costs

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The Mitigation Program budget earmark is up to an aggregate of \$3.5 million for the combined first two years of implementation. This cost estimate includes mitigation of qualifying dry wells, three-year reverse-osmosis systems for qualifying groundwater quality-based applications, technical assistance for other drinking water well types, uncertainty buffers<sup>6</sup>, GSA administration of the Mitigation Program, as well as Self-Help Enterprises' administration of the Mitigation Track of the Mitigation Program.

The mitigation cost and budget earmark will be reevaluated every 2 years (or more frequently, if necessary).

The Kern Subbasin's mitigation budget is informed by cost estimates generated by the Subbasin's Dry Well Susceptibility Analysis.<sup>7</sup> The Dry Well Susceptibility Analysis identified potentially at-risk wells by use type across the Subbasin. All potentially at-risk domestic wells were assumed to receive mitigation of \$90,000 per well (well replacement with all associated emergency/interim supply and administrative costs included). Potentially at-risk other drinking water well types were assumed to receive the maximum technical assistance award of \$50,000 per well.

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

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

The Kern Subbasin GSAs intend to transition to an impact-attribution based funding structure after the first two years or sooner, dependent on development of the attribution-based analytical tool(s). This would require the GSA responsible for the impact to fund the mitigation. More information on this impact-attribution based structure will be provided in future versions of this Mitigation Program, as the analytical tools required to perform the attribution analyses become available.

The GSAs will continue to explore grant funding at the State and federal levels to support program funding opportunities. The State of California has many existing grant programs for community water systems and well construction funding; however, the State's Safe and Affordable Funding for Equity and Resilience (SAFER) Program funding will not be relied upon by the GSAs for mitigation of domestic well impacts attributable to groundwater management activities of a GSA (e.g. sustainable management criteria and P/MAs). County, State, and Federal assistance may be needed to best maximize the Mitigation Program in conjunction with programs that are developed to address similar issues (i.e. degraded water quality) to SGMA, such as CV-SALTS. The GSAs will also work with local non-governmental organizations that may be able to aid or seek grant monies to assist Mitigation Program implementation.

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<sup>6</sup> An uncertainty buffer refers to monies reserved for uncertainty in available data, information, and analytical tools used to develop the cost estimates which informed the Mitigation Program budget. This uncertainty includes consideration for external factors, such as climate change and changes in state and federal policies affecting surface water allocations.

<sup>7</sup> Appendix Q of the Kern Subbasin Groundwater Sustainability Plan



# Attachment A

## Application Process – Technical Evaluation Considerations

## Application Process – Technical Evaluation Considerations

*The Technical Evaluation Consideration is intended to determine if the impacted well is within the scope of the GSAs responsibility for funding, or if the impact was induced by activities outside of the scope of SGMA and therefore shall be mitigated via existing alternative programs. Self-Help Enterprises administers mitigation services for wells qualifying for Kern Subbasin GSA's Mitigation Program and alternative programs.*

# TECHNICAL IMPACT ASSESSMENT

### GSA's Assigned Qualified Technician to Perform Desktop Assessment:

Applications related to chronic lowering of groundwater levels	Applications related to degraded water quality	Applications related to land subsidence
<p><b>GSA to review:</b></p> <ul style="list-style-type: none"> <li>Historical static groundwater levels.</li> <li>Historical pumping groundwater levels.</li> <li>Well operation and maintenance history.</li> <li>Well construction history.</li> <li>Historical monthly production volume.</li> <li>Potential for consolidation to public water system.</li> <li>Nearby historical land and water use.</li> <li>Depth to bedrock.</li> <li>Nearby conjunctive use activity.</li> <li>Well depth, perforated intervals, pump depth.</li> </ul>	<p><b>GSA to review:</b></p> <ul style="list-style-type: none"> <li>Historical groundwater quality at well.</li> <li>Historical groundwater quality at nearby wells.</li> <li>Historical static groundwater levels.</li> <li>Historical pumping groundwater levels.</li> <li>Well operation and maintenance history</li> <li>Well construction history.</li> <li>Historical monthly production volume.</li> <li>Potential for consolidation.</li> <li>Nearby historical land and water use.</li> <li>Depth to bedrock.</li> <li>Nearby conjunctive use activity.</li> <li>Well depth, perforated intervals, pump depth.</li> </ul>	<p><b>GSA to review:</b></p> <ul style="list-style-type: none"> <li>Historical InSAR data.</li> <li>Historical static groundwater levels.</li> <li>Historical pumping groundwater levels.</li> <li>Operation and maintenance history.</li> <li>Construction history.</li> <li>Historical monthly capacity.</li> <li>Potential for consolidation.</li> <li>Nearby historical land and water use.</li> <li>Depth to clay or usable water.</li> <li>Nearby conjunctive use activity.</li> <li>Well depth, perforated intervals, pump depth.</li> <li>Photos of physical damage.</li> <li>Original well/infrastructure survey/design.</li> </ul>

### GSA's Assigned Qualified Technician to Perform Field Assessment:

<p><b>GSA may perform the following:</b></p> <ol style="list-style-type: none"> <li>(1) Pull pump and measure pump intake depth, well bottom, static water level.</li> <li>(2) Modify wellhead to install sounding port to measure static and pumping level.</li> <li>(3) Modify wellhead to install flowmeter(3) Modify wellhead to install flowmeter.</li> <li>(4) Conduct video log.</li> <li>(5) Investigate site to inform estimated water demand.</li> <li>(6) Investigate nearby land and water use(6) Investigate nearby land and water use.</li> <li>(7) Investigate site for consolidation feasibility.</li> </ol>	<p><b>GSA may perform the following:</b></p> <ol style="list-style-type: none"> <li>(1) Pull pump and measure pump intake depth, well bottom, static water level.</li> <li>(2) Modify wellhead to install sounding port to measure static and pumping level.</li> <li>(3) Modify wellhead to install flowmeter.</li> <li>(4) Conduct video log.</li> <li>(5) Collect water quality samples at Applicant's well.</li> <li>(6) Collect water quality samples at wells nearby impacted well.</li> <li>7) investigate site for consolidation feasibility.</li> <li>8) Investigate site and nearby land use for source of water quality impact.</li> </ol>	<p><b>GSA to assess:</b></p> <ol style="list-style-type: none"> <li>(1) Evidence of ground fissures consistent with subsidence.</li> <li>(2) Visible casing collapse, damage, or protrusion attributable to subsidence.</li> </ol> <p><b>For well Applications, the GSA may perform the following:</b></p> <ol style="list-style-type: none"> <li>(1) Pull pump and measure pump intake depth, well bottom, static water level.</li> <li>(2) Modify wellhead to install sounding port to measure static and pumping level.</li> <li>(3) Modify wellhead to install flowmeter.</li> <li>(4) Conduct video log.</li> </ol>
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GSA may request additional data and information. GSA may reach out to original driller or design engineer to confirm information provided.

**Mitigation Application proceeds to Qualification phase.**



# Attachment B

## Technical Assistance Track Application

## Kern Subbasin Technical Assistance Application

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

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

Please write which GSA your impact application applies:

\_\_\_\_\_

Applicant Name: \_\_\_\_\_

Applicant Preferred Contact Information: \_\_\_\_\_

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

Yes    No

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

Landowner Name: \_\_\_\_\_

Landowner Contact Information: \_\_\_\_\_

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

Yes    No

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

Please describe your well impact:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

## Applicant information:

Date: \_\_\_\_\_

First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Middle Initial: \_\_\_\_\_

Address: \_\_\_\_\_ City: \_\_\_\_\_ Zip: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Phone # Home: \_\_\_\_\_ Cell: \_\_\_\_\_

Email: \_\_\_\_\_ Text Ok? Yes No

Accessors Parcel Number: \_\_\_\_\_

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

If no, explain: \_\_\_\_\_



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 Impacted Well Information**

**Please circle response:**

Impacted Well's Use      Community    Municipal    Industrial  
 Well Water Source:      Aquifer       Spring       Other \_\_\_\_\_

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

Provide all the information that you have. Ask neighbors and family or well pump repair companies that might know. More information helps the Applications process and not information might stall or disqualify the Application.

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

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

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

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

## Well Site Map Sketch

**Include in sketch:**

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

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



# Attachment C

## Conceptual Indemnification Agreement Example for Technical Assistance Track Applications

EXAMPLE INDEMNIFICATION AGREEMENT FOR TECHNICAL ASSISTANCE APPLICATIONS

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

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

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Name of Applicant

\_\_\_\_\_

Signature of Applicant

Date

\_\_\_\_\_

\_\_\_\_\_

Name of GSA General Manager

\_\_\_\_\_

Signature of GSA General Manager

Date

\_\_\_\_\_

\_\_\_\_\_