

DRAFT

Kaweah Subbasin Mitigation Program Amendment 1.0

COORDINATION AGREEMENT AMENDMENT

Appendix 6

Groundwater Levels, Land Subsidence and Groundwater Quality

June 2023

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Introduction

The Kaweah Subbasin Groundwater Sustainability Agencies (GSAs) agree to implement a subbasin-wide Mitigation Program (Program) which entails the GSAs implementing individual Mitigation Plans that follow the coordinated framework outlined in this Kaweah Subbasin Mitigation Program Amendment 1.0 description (Figure 1).

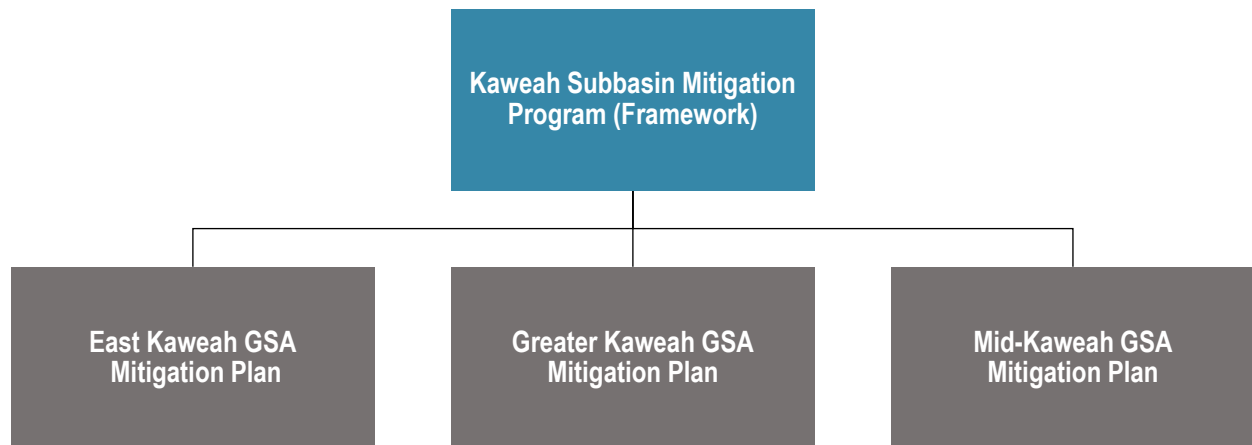


Figure 1. Kaweah Subbasin Mitigation Program Framework Coordination

In 2022, the three Kaweah Subbasin GSAs committed to a Mitigation Framework. The Mitigation Framework is included in Section 6 of the Kaweah Subbasin Coordination Agreement contained in the First Amended Groundwater Sustainability Plan (GSP) (July 2022). This Program Amendment 1.0 includes revised clarification on the process, funding opportunities, and roles of the GSAs in the Program. Future amendments to this Program are expected, as the Kaweah Subbasin GSAs identify opportunities for clarification or improvements revealed through implementing the Mitigation Plans. The Mitigation Program aims to mitigate impacts induced by continued overdraft pumping that lowers groundwater levels and causes land subsidence and changes in groundwater quality.

The Mitigation Program is a component of the Kaweah Subbasin GSAs efforts to achieve sustainability and avoid significant and unreasonable impacts induced by unsustainable groundwater conditions. This Mitigation Program complements the GSAs' groundwater extraction allocations, groundwater recharge projects, on-farm recharge, stakeholder education/outreach efforts, and water marketing program, which have all shown promising contributions to achieving the Kaweah Subbasin's sustainability goal. In addition, the Kaweah Subbasin GSAs are in the process of improving the sustainable management criteria, which support measuring and guiding the success of GSP implementation.

Program Description 354.44(a)

The Mitigation Program Framework establishes minimum requirement 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 pumping during the period when the GSAs implement projects and management actions to reach sustainability by 2040. **Figure 2** clarifies the sustainability indicators and well uses considered in the Mitigation Program.



All Kaweah Subbasin GSAs are required to include the following sustainability indicators in their Mitigation Plans:



Chronic Lowering of Groundwater Levels



Land Subsidence



Degraded Groundwater Quality



All Kaweah Subbasin GSAs are required to include the following in their Mitigation Plans:



Small Community Drinking Water Systems



Drinking Water Wells

The GSAs may elect to include the following in their Mitigation Plans:



Agricultural Wells



Critical Infrastructure



Industrial Wells



Municipal Wells

¹There may be instances in which a well is used for multiple purposes, such as agriculture and domestic. The GSA must at a minimum address interim drinking water supply and may elect the appropriate extent of mitigation, should the claim qualify for GSA mitigation funding.

²Drinking Water Wells: Any well that is used for supplying potable water for drinking water purposes.

³Small Community Drinking Water Systems: Must be a community well used for supplying potable water for drinking water purposes to the small community (small water systems that do not supply drinking water may not qualify for required mitigation funding or assistance by the GSA).

Figure 2. Kaweah Subbasin Mitigation Program Considerations

The Kaweah Subbasin has been in overdraft for many years resulting in a significant lowering of the regional and local groundwater levels. As required by the Sustainable Groundwater Management Act (SGMA), the Kaweah Subbasin GSAs plan to reach sustainability by 2040. The Kaweah Subbasin GSAs are each managing their respective areas to achieve sustainability by avoiding undesirable results, outlined in each GSP. However, until then, groundwater levels in parts of the Subbasin will continue to decline and land subsidence will continue to occur while the GSAs implement projects and management actions to achieve sustainability by 2040. Declining groundwater levels created by allowable overdraft during

the implementation phase of the GSPs may also induce unintended, post-2020¹ groundwater quality impacts. Therefore, the Kaweah Subbasin GSAs are committed to mitigating such impacts.

The Mitigation Program and respective GSA Mitigation Plans are required to address significant adverse impacts induced by allowable overdraft for drinking water wells. Each GSA may elect to include additional well and land uses (**Figure 2**). The existing representative monitoring network includes wells representative of drinking water and non-drinking water related beneficial uses. The Mitigation Program's process includes a mitigation claim application and a subsequent analysis performed by the GSA to evaluate the potential causation of impacts to the well. In the event the nearest representative monitoring well does not represent the Claimants' well use and land use, supplemental data from the Department of Water Resources (DWR) and local agencies will be reviewed to support the investigation analysis.

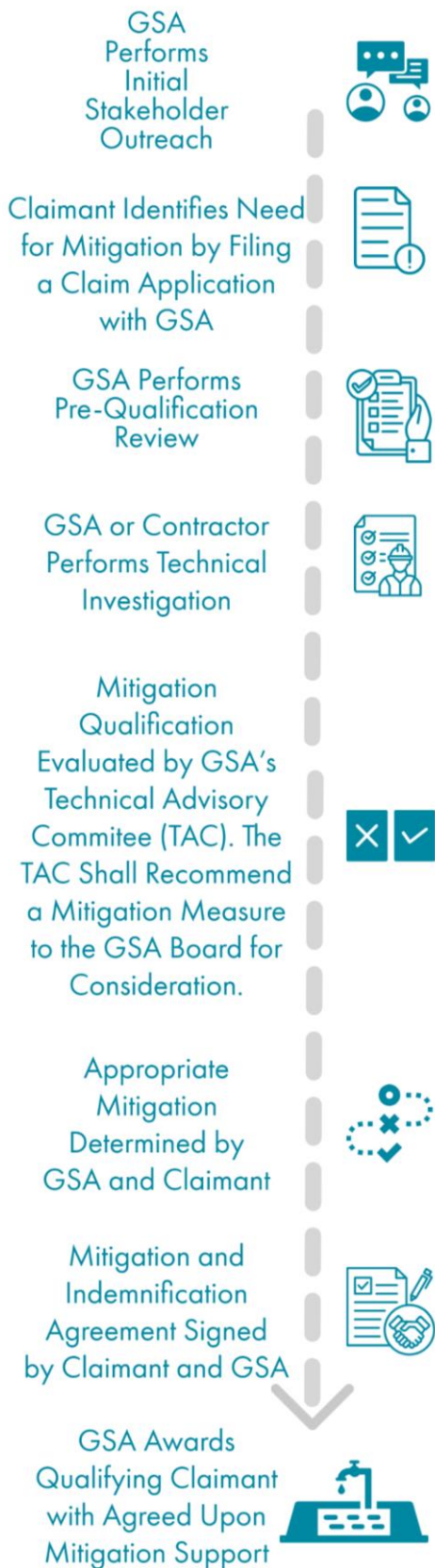
Two local programs offer mitigation support for those affected by impaired access to drinking water within the Kaweah Subbasin, (1) The Kaweah Water Foundation (KWF) and (2) Self-Help Enterprises (SHE). The KWF supplies free drinking water and water testing, and SHE offers emergency drinking water supplies, 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 the development of this Mitigation Program Framework. The Kaweah Subbasin GSAs were advised to utilize existing services rather than interfere by developing competing programs. Therefore, the Kaweah Subbasin GSAs will identify Claimants that qualify for these existing programs' mitigation services during the pre-qualification phase, and coordinate with the Claimant and KWF and/or SHE.

KWF and SHE do not have stringent criteria for those in need of immediate, interim drinking water supply. SHE requires the affected household(s) to be below 80% of California's median household income to qualify for long-term mitigation support. Claimants who have lost access to drinking water that do not qualify for mitigation support from existing programs may qualify for GSA-funded mitigation through the Kaweah Subbasin Mitigation Program and the respective GSA Mitigation Plans.

The GSPs in the Subbasin set Minimum Thresholds to avoid significant and unreasonable impacts to all beneficial users of groundwater. For groundwater levels, Minimum Thresholds reflect the minimum water level elevations required to avoid significant and unreasonable land subsidence impacts at specific wells deemed representative of their Analysis Zone (adjacent areas). To set the subsidence Minimum Thresholds in future Amended GSPs the analysis must include, at a minimum, a review of historical lower aquifer extractions from the impacted well and neighboring wells, the presence or absence of the Corcoran Clay or other compressible clays, and historic rates and magnitude of subsidence. Water quality sustainable management criteria correspond with that of existing state Maximum Contaminant Levels (MCL) and Agricultural Water Quality Goals.

These improved analyses will be used to support the investigations of the reported well(s) and/or infrastructure impacted and be used to determine the appropriate mitigation approach. Local funding supplemented with federal, state, and regional technical assistance and grant programs will be the source of funding for the Mitigation Program.

¹ The Kaweah Subbasin GSPs were submitted in January 2020, kicking off their implementation period.



Process

The Mitigation Program's process is implemented at the GSA level via their respective Mitigation Plans which are to include the steps depicted in **Figure 3**.

Stakeholder Outreach

Public participation and education are critical to the Mitigation Program's success. Upon release of each GSA's Mitigation Plan, extensive coordinated outreach will be needed to perform the initial stakeholder outreach to inform landowners and well users of the Mitigation Program requirements, qualifications, and how they can apply for assistance. Outreach should be provided in multiple languages as determined appropriate by the GSA. Outreach should 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:

1. Notification of the Mitigation Program, qualifications, and how to submit a claim via:
 - a. Agenda item at each GSA's respective advisory committee meeting (prior to Mitigation Plan adoption)
 - b. Website notification (prior to Mitigation Plan adoption)
 - c. Email notification to each GSA's listed stakeholders (prior to/following Mitigation Plan adoption)
 - d. Mitigation Program Q&A at the Kaweah Subbasins' shared community outreach events: (I.e. 7/13/2023 Groundwater Day) Three Mitigation Program and Mitigation Plan workshops, one in each GSA and hosted in both English and Spanish. These workshops must be held in advance of Mitigation Plan implementation and may be held during the public comment period.

Continued Stakeholder Outreach must include at a minimum:

1. Each GSA's respective advisory committee must hold an agenda item to discuss Mitigation Plan implementation at least once every quarter.
2. Each GSA must develop a notification-trigger 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 trigger and notification protocol.

3. 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.
4. Domestic Well Education materials will be provided by SHE, KWF, and/or the GSA following mitigation services or by request.

Identification of Need for Mitigation

The Mitigation Program requires GSAs to support Claimants identification of wells or critical infrastructure in need of mitigation. The Identification of the need for mitigation must include:

1. Outreach to notify stakeholders of the Mitigation Program and claims process (see Stakeholder Outreach above)
2. Filing of a claim by the landowner or well owner (using Kaweah Subbasin claims application, see **Attachment A**)
3. Data collection by the GSA
4. Determination of the need and nature of mitigation
5. Communication of the mitigation plan to the affected party

Claims 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 KWF and/or SHE and notify the well owner how to apply to the appropriate GSA for mitigation. KWF and SHE supplies interim drinking water supplies for both tenants and landowners throughout the San Joaquin Valley, without income qualification.

Mitigation Pre-Qualification

Following claim submission to the GSA, the GSA will pre-qualify the claim. Pre-Qualification is intended to identify the immediate considerations:

1. Confirm if the Claimant provided sufficient data and information to perform investigation and qualification. Requested data and information is available in **Attachment A**.
2. identify if the Claimant requests interim drinking water supplies (GSA to then proceed to arrange).

If the Claimant's well supplies drinking water and the Claimant is not able to access potable drinking water via the impacted well, then the Claimant will qualify for interim drinking water supply and is encouraged to note this in the Pre-Qualification section of the Claim Application (**Attachment A**) In the event the Claimant requests and qualifies for an interim drinking water supply, the GSA must work with the Claimant to notify SHE of the request within 10-business days. The GSA must also notify the Claimant of SHE's contact information and process. The Claimant will be advised to contact SHE directly as soon as feasible to expedite services.

SHE emergency services program includes tank and bottled water supply assistance for those who have lost access to drinking water within the San Joaquin Valley. The emergency assistance program resources are explained in greater detail under "Funding Source" section of this Program framework. The Kaweah Subbasin GSAs have committed to continue collaboration with SHE and intend to further develop the Mitigation Program with their guidance and insight.

Investigation

Once a Claimant with a potentially adversely impacted well (or critical infrastructure, if applicable) has submitted a claim application to their respective GSA, the GSA will initiate an investigation to determine whether the well/infrastructure impact can be attributed to allowable continued overdraft conditions expressed as declining groundwater levels, land subsidence, and/or degraded groundwater quality.

The investigation will consider the well (or critical infrastructure, if applicable) type and sustainability indicator of concern via the hierarchy process in Attachment B. Each GSA can expand their consideration criteria as appropriate to support a thorough investigation. The Claimant must allow physical access to the well for the GSA (or authorized third-party) to perform a field investigation.

Once a claim has been submitted by a groundwater user, the GSA shall process the claim in a timely fashion, not to be longer than 60 days. Upon completion of the investigation or at 60 days, whichever comes first, the GSA shall inform the applicant of the findings of the investigation. If the Claimant requests and qualifies for an interim water supply, the GSA has 10 business days to make arrangements for an interim water supply from the date the claim was submitted to the GSA.

GSAs will utilize existing staff and/or third parties (such as technical consultants) to conduct investigations. However, if GSA staffing cannot manage or meet the investigations in a timely fashion, the GSAs can contract with a third-party entity that has staffing and experience in managing well mitigation programs and more specifically investigations into well mitigation claims.

Kaweah Subbasin GSAs are not required to include critical infrastructure in their Mitigation Plan. For GSAs that elect to include critical infrastructure, the investigation of those claims may include the following criteria for attributing structural/facility impacts to land subsidence induced by the subbasin's allowable overdraft:

- The total amount of land subsidence and, if applicable, change in land surface slope at the structure/facility since 2020 based on the best available data.
- Evidence of cracking or sagging at the structure/facility that can be linked to active land subsidence in the area from other data.
- For gravity-driven water conveyance facilities, proof of reduced flow capacity relative to 2020, affecting the functionality of the facility.
- For wells: observed casing collapse, damage, or protrusion attributable to subsidence.
- For flood control facilities, changes in water height or channel slope attributable to subsidence since 2020 that affects the functionality of the facility.
- For highways, railroads, pipelines, and bridges: observed damage attributable to subsidence.
- For wastewater collection, utilities, and buildings: observed damage attributable to subsidence.

Mitigation Qualification

GSAs may qualify mitigation based on a user's compliance with the GSA's GSP, Rules & Regulations, Emergency Ordinance, and other laws or regulations set forth by the GSAs. Considerations to inform the Kaweah Subbasin GSAs' Mitigation Plans' qualifications are listed in **Table 1** below. **Table 1** will be used to determine if a well qualifies for mitigation and to guide the appropriate mitigation action(s). Kaweah Subbasin GSAs vary by population density, geology, and land use. Therefore, each GSA's Mitigation Plan can expand upon the qualification considerations listed in **Table 1**. Each GSA may define additional processes of qualifications such as legal and third-party review.

Table 1. Mitigation Qualification Considerations

Kaweah Subbasin Mitigation Qualifications Considerations Questionnaire <i>Each GSA may expand on the questions listed below</i>
All Impacted Well Considerations
Have you replaced a well since GSP Implementation (2020)?
Are there records available on the well (including maintenance, pump company)? If so, provide to GSA.
Has there been a notable change in production capacity? If so, since when? If so, provide records to GSA
Does the impacted well extract from a hard rock/fissure well?
Do neighboring ¹ wells extract from the same aquifer?
Has the impacted well been active within the last 6-months?
Has the well undergone significant updates (deepened, casing replacement, lowering pump)?
When was the impacted well installed and operational?
Does the impacted well have a history of water quality issues? Provide water quality analysis if available.
Is the impacted well located within 50-feet of any sewer (sanitary, industrial, or storm; main or lateral)? ³
Is the impacted well located within 100-feet of a watertight septic tank or subsurface sewage leaching field? ³
Is the impacted well located within 100-feet of animal or fowl enclosure? ³
Is the impacted well located within 100-feet of a cesspool or septic pit? ³
Do neighboring ¹ wells have a history of water quality issues?
Has the well user received or is expected to receive financial assistance from a third party to mitigate noted well issue? Third-party must not be GSA staff or GSA's SGMA consultants.
Impacted Domestic Well Considerations
Is the well serving a low-income household (or located in a S/DAC ²)?
Have there been requests/attempts to consolidate well with nearby municipality?
Have there been requests/attempts to consolidate well with a new small community water system?
If GSA elects to include Critical Infrastructure, the following may be considered:⁴
Are there records available on infrastructure maintenance? If so, provide to GSA.
Are there records on operational/flow history (for water conveyance infrastructure)? If so, provide to GSA.
Has the infrastructure owner received or is expecting to receive financial assistance from a third party to mitigate noted infrastructure impact? Third-party must not be GSA staff or GSA's SGMA consultants.
Does the impacted infrastructure pose a flood risk (directly or indirectly)?
Has there been a notable loss in conveyance capacity? If so, since when? (for water conveyance infrastructure)?
When was the infrastructure built and when did operation begin?

¹Neighboring is defined as any wells within a 1,000-foot radius of the impacted well. This is based on industry standard of well impact analyses in the San Joaquin Valley.

²The GSAs will use the current years' definition of low-income household as defined by the State of California's Department of Housing and Community Development. S/DAC represents Severely Disadvantaged Community or Disadvantaged Community. As of June 2023, this includes households with an income less than 80% of the state's median household income.

³Based on California Well Standards, Part II Water Well Construction, Section 8. Well Location with Respect to Contaminations and Pollutants. <https://water.ca.gov/Programs/Groundwater-Management/Wells/Well-Standards/Combined-Well-Standards/Water-Construction>

⁴ Critical infrastructure within the Kaweah Subbasin includes the Friant-Kern Canal, other non-native water conveyance infrastructure (such as canals, pipelines, and irrigation structures), railways, and county roads.

Claims Evaluation and Mitigation Prioritization

Each GSA has the discretion to identify the most appropriate method of mitigation prioritization.

Well users (including tenants) who are at or below 80% of the state's median household income (MHI) of \$67,278² for a household of four qualify for SHE's long-term well mitigation services. SHE offers emergency drinking water via tanks and bottled water for those in need, independent of income. The GSA claims process requires the landowner to submit the claim application; however, if a tenant is experiencing loss of drinking water supplies, they are encouraged to contact their respective GSA for assistance in coordinating with SHE and the landowner to notify them of how to apply to the existing Mitigation Programs.

The Mitigation Program is intended to mitigate adverse impacts induced by the Subbasin's allowable overdraft groundwater pumping, independent of socioeconomic status or other extraneous factors. GSAs may elect to define prioritization criteria, such as feasibility, resource capacity, and responsiveness of Claimant.

Mitigation Measures

Once a well has been identified as adversely impacted due to lowered groundwater levels, land subsidence, and/or degraded groundwater quality, the appropriate mitigation to alleviate impacts must be determined. Examples of mitigation measures are listed below. In addition to the listed mitigation measures, interim water supplies may be arranged based on the need and the timing of mitigation.

Each claim is presumed to contain conditions unique to the Claimant's impact scenario; therefore, there is no one-size-fits-all mitigation measure recommendation. Each claim shall be evaluated on a case-by-case basis, with the optimal mitigation measures expected to vary.

For groundwater level and subsidence-related adverse impacts on drinking water wells (or non-drinking water wells, if applicable), the GSA may elect to perform any of the following:

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. Grant writing and submittal assistance (for relevant well improvements or securing new water supply source).
7. Technical support, such as well or water conveyance infrastructure design and/or review.
8. With the consent of the affected user, providing other acceptable means of mitigation.

For water quality impacts induced by allowable overdrafts' declining water levels, the GSA may elect to perform any of the following:

1. Guidance on which existing programs for which the well user may qualify.

² MHI may change overtime. 80% of the state's MHI as of June 2023 is \$67,278 for a household of four.
https://www.waterboards.ca.gov/drinking_water/services/funding/documents/srf/mhi.pdf

2. Technical support, such as water treatment design or review.
3. Representation support with the Kaweah Basin Water Quality Coalition and Kaweah Water Foundation.
4. Identify consolidation opportunities with existing water systems.
5. In circumstances where consolidation opportunities are unavailable and the adverse impacts affect households that qualify as low-income and wells within Severely Disadvantaged/Disadvantaged Communities, the GSA may elect to either:
 - a. provide financial and technical assistance for wellhead treatment,
 - b. facilitate the establishment of a new small public water system, or
 - c. provide funding to lower the well pump and/or deepen well
 - d. install a reverse-osmosis filter (can be an interim measure)
6. Grant writing and submittal assistance for water treatment, consolidation, or establishment of a new small public water system; or
7. With the consent of the affected user, providing other acceptable means of mitigation.

The Kaweah Subbasin Mitigation Program Framework does not require GSAs to include critical infrastructure in their Mitigation Plans. For GSAs that elect to include critical infrastructure, the GSA may elect to perform any of the following:

1. Increased restrictions in groundwater extractions for specific regions of the Subbasin.
2. Technical support, such as infrastructure repair design or review.
3. Repair to canals, turnouts, stream channels, water delivery pipelines, and basins.
4. Repair to other damaged infrastructure including county highways, roads, bridges, utilities, and buildings.
5. With the consent of the affected user, providing other acceptable means of mitigation.

In the event the Claimant disagrees with the GSA's proposed mitigation, the GSA may arrange a technically qualified third-party to facilitate and recommend a proposed mitigation measure. The GSA and/or the GSA's arranged third-party has the discretion to identify which mitigation measure is optimal on a case-by-case basis. The third party's role is to provide an unbiased recommendation and mitigation would require GSA Board and/or GSA Manager approval before proceeding. For adversely impacted wells and infrastructure that qualify for mitigation, a Mitigation and Indemnification Agreement will be provided for signature to successful Claimants that requires the Claimant to indemnify the GSA after mitigation has been completed. **Attachment D** includes a copy of the Mitigation and Indemnification Agreement.

Measurable Objectives Addressed 354.44(b)(1)

The Mitigation Program 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 funding for replacement wells, well modifications, alternative water supplies, or critical infrastructure (if applicable) improvements to eligible landowners. In addition, the Mitigation Program will directly support water system consolidation, well replacement or modifications, and/or well treatment for qualifying wells that experience groundwater quality due to groundwater conditions induced by the GSAs' allowable overdraft.

Circumstances and Criteria for Implementation

354.44(b)(1)(A)

This is a high-priority Mitigation Program needed to maintain access to a water supply that meets basic health and safety needs by mitigating impacts of declining water levels and land subsidence. 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 mitigating such impacts by committing to implementing this Program. Funding is available for the Program through GSAs implementation of assessments, fees, charges, and penalties. In addition, the GSAs will explore other state, federal, and private funding opportunities including grant programs.

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. Each GSA must engage with its advisory committee(s) and stakeholders as detailed in the Stakeholder Outreach phase of the Mitigation Plan process. As outlined in the Outreach Section, each GSA and the Kaweah Subbasin plans on an aggressive and broad outreach program to inform groundwater users of the Mitigation Program along with ensuring public input in the development of the Mitigation Program and Plans.

Estimated Annual Program Benefits 354.44(b)(2)

The proposed Program will directly mitigate impacts due to the following:

- reduction in groundwater storage¹;
- chronic lowering of groundwater levels¹;
- land subsidence¹; and
- degraded water quality¹

¹*induced by chronic lowering of groundwater levels (via allowable overdraft during GSP implementation)*

The Program will provide a direct benefit to beneficial users in the GSA who have had their well or infrastructure adversely impacted because of continued overdraft conditions while the GSA implements other projects and management actions to achieve sustainability. The metric for measuring Mitigation Program benefits will be the number of wells that are adversely impacted and mitigated and the Subbasin's ability to manage groundwater levels to the measurable objectives and avoid the need for mitigation. The Kaweah Subbasin GSAs will provide an annual accounting of the number of wells and other impacts that are identified and mitigated in the Kaweah Subbasin Annual Report, provided to the Department of Water Resources in April of each year.

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. Non-exempt critical

infrastructure mitigation projects may have various permits in conjunction with the environmental planning process. New wells must comply with the Tulare County well permitting process.

Program Schedule 354.44(b)(4)

Each GSA shall take appropriate action to provide a public review draft of the Program **no later than June 30, 2023**. **The public review period must be a minimum of 30 days. Following the public comment period, the GSA shall adopt the final Mitigation Plan and Mitigation Program Framework within 30-days, contingent on stakeholder approval and considerations.**

The GSAs will work with Tulare County to request a review of new or deepened domestic well permits in addition to the Mitigation Program and Mitigation Plans. Each GSA will modify the Mitigation Program as needed for their specific conditions and develop a funding mechanism for the Mitigation Program which is dependent on the specific GSA needs for specific expected impacted wells within each GSA. During Mitigation Program development, the GSAs will refer landowners to these local programs as well as other resources and funding programs from the county, state, or non-profit organizations.

The following improvements must be made in a revision to the Kaweah Subbasin Mitigation Program Framework and a revision of the GSAs' Mitigation Plans in a public review draft by **June 30, 2024**.

1. A Well Registration Program must be developed to support impact evaluations, trigger notifications, and effective outreach. A Claimant will not be required to register their well to qualify for mitigation.
2. A Claims Dispute Process must be identified, and roles and responsibilities of the Claimant and GSA must be clarified.

The Kaweah Subbasin Mitigation Program and associated plans are intended to be iterative and grow as new resources, mitigation needs, information are known as well as partnerships with existing mitigation entities are formed or strengthened.

Evaluation of Benefits 354.44(b)(5)

The Program will help to make sure that users of wells that are impacted by continued overdraft conditions are properly mitigated while the GSAs implement projects and management actions to achieve sustainability.

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.

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. Because DWR is required to evaluate

whether the GSP provides a reasonable means to mitigate continued overdraft, a mitigation program is an act necessary or proper to implement SGMA. (23 CCR §355.4(b)(6).)

Program Cost 354.44(b)(8)

The following are preliminary actions that generate costs for implementing the program. The actual costs will vary by GSA. These will be refined during project development and finalized prior to efforts to secure funding.

Development of Policies and Procedures. Each GSA will have varying consulting and legal costs to develop the Mitigation Program policies and procedures.

Develop Funding. The Subbasin will collaborate with programs and funding sources that already exist. Each GSA will need to develop a long-term funding mechanism and shall describe the long-term funding plan in their individual GSA Mitigation Plan. This could include the preparation of grant applications, land assessments, increasing groundwater extraction fees, or other options. Costs of common drinking water mitigation measures as organized by Community Water Center and Self-Help Enterprises are included in Attachment C and serve as an estimate of anticipated mitigation costs.

Public Outreach. Public outreach will be performed in each GSA. These costs will vary by GSA and will be estimated during the development of the Mitigation Program and the GSA Mitigation Plans.

Project Administration. GSAs general administration costs will vary and will be determined during the development of the Mitigation Program and the GSA Mitigation Plans.

Well Mitigation. Well mitigation costs will vary by GSA in accordance with groundwater levels, measurable objectives, and the specific minimum thresholds that have been established. An estimate of well mitigation costs will be developed by each GSA as part of their Mitigation Plan development and funding plan development.

Funding Source 354.44(b)(8)

Funding is available for the Mitigation Program through GSAs implementation of assessments, fees, charges, and penalties. In addition, 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. County, state and federal assistance will be needed to successfully implement this Program. The GSAs will also work with local non-governmental organizations (NGO) that may be able to aid or seek grant monies to assist program funding.

Drinking Water Assistance for Households

The State Water Resources Control Board (SWRCB) has funding available for projects that address either drought-related urgent drinking water needs or long-term resilience. The SWRCB does not provide direct funding to individuals; however, the SWRCB does provide funding to SHE to facilitate drinking water assistance. Table 2 lists organization and contact information to obtain immediate relief for dry wells and water service interruptions for domestic users.

Table 2. Drinking Water Assistance for Households

Organization	Services Provided	Contact Information
Tulare County	Bottled water	Contact: Sandra Sabin Email: Bottled waterssabin@tularecounty.ca.gov Phone: (559) 624-7071 *Tulare County’s bottled water services have been suspended as they have coordinated with Self-Help Enterprises. This resource is included in the event the County resumes emergency bottled water supply services.
Self-Help Enterprises	Bottled water, tanks/hailed water, domestic well assessment / repair / replacement	Bottled water, tanks/hailed water, domestic well assessment / repair / replacement. Dry domestic wells: (559) 802-1685 Bottled water, tanks/hailed water, domestic well assessment / repair / replacement. Bottled water: (559) 802-1284 Bottled water, tanks/hailed water, domestic well assessment / repair / replacement. Well repair/replacement/connection: (559) 802-1289 Bottled water, tanks/hailed water, domestic well assessment / repair / replacement. General drought support: (559) 802-1685 Website: https://www.selfhelpenterprises.org/programs/emergency-services/
Kaweah Water Foundation	Bottled water, water kiosks fill stations	Address: 2975 Farmersville Rd. Farmersville, CA 93223 Email: admin@kawahwater.org Phone: (559) 325-4463 Website: kawahwater.org

Note: Adversely impacted well users should file a claim with their respective GSA as described in the Process portion of the Program description regardless of if they obtain assistance from other organizations.

Dry Well Tank Replacement. A storage tank and hauled water can be provided as an emergency short-term solution to households whose private wells have gone dry. Income qualification applies for the drinking water assistance program. Applicants to this program are also eligible for the bottled water program described below and will be provided with additional information about funding options for a replacement well or another water source. Property owners (not tenants) can apply for this program. Tenants qualify for the bottled water assistance described below. Call Self-Help Enterprises at (559) 802-1685 or email droughtsupport@selfhelpenterprises.org.

Bottled Water. This program is available for households that are experiencing dry wells and/or contamination in their water and meet income qualifications. Qualifying households will receive a total of 60 gallons of bottled water delivered to their home monthly to use for drinking and cooking. Note: Residents living in communities with a population larger than 1,000 must request assistance from the SWRCB directly and are not eligible for the Tulare County Bottled Water Program (i.e., Cities of Tulare, Visalia, Exeter, and Lindsay). Impacted residents, whether they are tenants or property owners, can apply for this program. Call the Tulare County Resource Management Agency at (559) 624-7071 or email bottledwater@tularecounty.ca.gov.

Kiosks. This program provides drinking water kiosks that are open to everyone because of a nitrate settlement between the SWRCB and nitrate dischargers. Residents must take their own refillable containers (up to 5-gallon bottles) to the kiosks and service themselves.

Currently, there are drinking water kiosks located within or near the Kaweah Subbasin in 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

CV SALTS Management Zones Drinking Water. Communities impacted or threatened by nitrate can access a free program that includes nitrate well testing and safe drinking water via bottled water (subject to eligibility). Residents are also able to access drinking water kiosks as previously described. The Safe Drinking Water Program Inquiry Form for the Kaweah Water Foundation is available at <https://kawahwater.org/>.

The Kaweah Subbasin GSAs may seek funding from existing programs including but not limited to those listed above to cover the cost of interim water supply. If the GSA determines that the claim is not a result of activities within the scope of the Kaweah Subbasin's allowable overdraft, then GSA may cease funding the interim emergency water supply. If it is determined by a subsequent investigation that the issue is not attributable to the Kaweah Subbasin's allowable overdraft conditions, then the GSA would have no further financial obligation. The GSA may extend the duration of interim emergency water supply provided by SHE beyond 60 days at its discretion if it is determined that additional time is required to make a determination regarding a claim.

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

The Mitigation Program may provide critical insight into allocation decisions and groundwater recharge needs across the GSA. The education and outreach program may extraction decisions as the status of analysis zones will be transparent. The Mitigation Program is meant to mitigate impacts to wells and infrastructure caused by continued overdraft pumping until sustainability has been reached.

Level of Uncertainty 354.44(d)

The GSAs are committed to the Mitigation Program and required through this amendment to the Coordination Agreement to implement the Mitigation Program by the schedule defined herein. The Mitigation Program Framework and respective Mitigation Plans are subject to change as additional information and experience are gained through implementation.

Attachment A

Kaweah Subbasin Well Mitigation Claim Application

Kaweah Subbasin Mitigation Claim Application

Pre-Qualification Information:

Please circle which GSA your impact claim applies:

East Kaweah GSA

Mid-Kaweah GSA

Greater Kaweah GSA

For drinking water well claims, is an interim water supply such as bottled water or tank requested?

Yes No

As the Claimant, will you allow physical access to the adversely impacted well (or critical infrastructure, if applicable) for the GSA or authorized third-party to perform a field investigation?

Yes No

Is the Claimant the owner³ of the adversely impacted well (or critical infrastructure, if applicable) in which this claim application applies?

Yes No

For drinking water well claims, is an interim water supply such as bottled water or tank requested?

Yes No

Please state your household's income and how many people are in your household. Your income and number of people in your household will not be used to disqualify you from mitigation wualification. This information can be used to inform applicability of this claim to Self-Help Enterprise's long-term mitigation services

Household annual income: _____

Number of people in household: _____

Please describe the reason behind this mitigation claim application:

³ The Claimant must own the asset of the this claim application. If you are not the owner of the impacted well and/or infrastructure, please provide contact information of the owner to support the GSA in pursuing communication on the Mitigation Program and how to support.

Claimant information:

Date: _____

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

Address: _____ City: _____ Zip: _____

Mailing Address: _____

Phone # Home: _____ Cell: _____

Email: _____ Text Ok? Yes No

APN: _____ Size of Property: _____ acre(s)

Number of Residential Units: _____

Unit1 Address: _____

Unit2 Address: _____

Unit 3 Address: _____

Please circle response:

Within City Limits?:	Yes	No	Unsure, request GSA assistance to confirm
Water System Near By:	Yes	No	Unsure, request GSA assistance to confirm
Water Main in Front of Home:	Yes	No	Unsure, request GSA assistance to confirm
Flood Zone:	Yes	No	Unsure, request GSA assistance to confirm

Impacted Well Information:

If making a claim regarding critical infrastructure (non-well), please skip this section and proceed to the "Critical Infrastructure Information" section. The Kaweah Subbasin Mitigation Program Framework does not require GSAs to mitigate for critical infrastructure and/or non-drinking water wells. If you are completing this claim application for critical infrastructure or non-drinking water wells, please confirm with your GSA's Mitigation Plan to determine if critical infrastructure and/or non-drinking water wells are included in your GSA's Mitigation Plan.

Please circle response:

Impacted Well's Use	Domestic	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:

Understand that the more information available, the more effective the claims process and potential mitigation may be. In the event not enough information is available to inform an appropriate mitigation measure or possible causation of well impact, the claim may be disqualified.

- | | |
|--|--|
| <ul style="list-style-type: none"> • Well completion report • Well design documentation • Water level records • Water quality records and/or lab reports • Photos | <ul style="list-style-type: none"> • Well maintenance records • Well driller name 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:

Do you have an idea what the impacted well's issue may be? If so, please explain:	
When was the well installed?	
When did the well become operational?	
When did the well become non-operational?	
Depth of well	
Depth and length of well screen	
Size of pump	
Depth of pump in well	
Is the condition of the pump serviceable?	
Has the pump been removed from the well?	
When was the last modification to the well made? What was the modification?	
Has the well been abandoned? If so, why?	
Does the well have a pump saver?	
What is the designed capacity of the well?	
What is the recent capacity of the well (note units including daily or monthly)	
Has the well experienced water quality issues? If so, when?	
Have neighboring wells experienced water quality issues? If so, when?	
Is the well located near septic? If so, please provide more information.	

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.

Impacted Critical Infrastructure Information:

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. Please confirm with your GSA's Mitigation Plan to determine if critical infrastructure is to be considered.

Please circle response:

Infrastructure Type canal road pipeline ditch Other

If other, please explain:

Privately Owned? Yes No Unsure

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

Understand that the more information available, the more effective the claims process and potential mitigation may be. In the event not enough information is available to inform an appropriate mitigation measure or possible causation of well impact, the claim may be disqualified.

- Infrastructure design documentation
- Photos
- Maintenance records
- Documentation from neighboring infrastructure's 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 infrastructure constructed?	
When did the infrastructure become operational?	
When did the well become non-operational?	
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 – Investigation Phase

Claims Process - Investigation Phase

This process applies for (1) chronic lowering of groundwater levels, (2) land subsidence, and (3) degraded water quality

INVESTIGATION

GSA to perform desktop investigation:

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
- Nearby historic land and water use
- Depth to bedrock
- Nearby conjunctive use activity
- Well depth, perforated intervals, pump depth

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
- Original well/infrastructure survey/design

GSA to perform field investigation:

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 water requirement
- (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.

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

Mitigation Claim proceeds to Qualification phase.

Attachment C

Estimated Drinking Water Mitigation Costs

Costs and Potential Funding Sources

(From Framework for a Drinking Water Well Impact Mitigation Program, Self-Help Enterprises, Leadership Counsel for Justice and Accountability, and the Community Water Center)

Solution	Problem	Options	General Overview of Pros and Cons	Estimate of Costs ⁹	
Interim Solution	Water Quality	Point-of- Use	Treats water for one tap within the household. While this option does provide safe drinking water in the home, if everything is perfect, maintenance can be inadequately carried out and assistance must be provided until a long-term solution is implemented.	<ul style="list-style-type: none"> - \$2,500 - \$5,000 per unit per home, for one year. - Costs include: initial capital costs (installation, treatment system, monitoring system) and also ongoing operation, maintenance, routine monitoring, and waste disposal costs. - Costs vary depending on the contaminant and filtration. 	
		Bottled water	Bottled water provides an effective and reliable source of safe drinking water and may be the only option available depending upon contaminant concentrations. However, bottled water can be expensive over a long period of time and can come with distribution challenges.	\$75 per month, per house, includes delivery. Costs vary on household size.	
	Access to Water	Water tank program with bottled water	Tank water can meet basic sanitation needs but should not be used to meet drinking water needs, as tank water is susceptible to bacteriological or other issues making it unsafe for consumptive purposes. Instead, the program must be paired with delivery of bottled water to meet drinking water needs.	<p>One-time fees:</p> <ul style="list-style-type: none"> - 2,600 gallon water tank and materials: approximately \$6,000 including labor - Electrical permit: \$80, depending on the county. <p>On-going fees:</p> <ul style="list-style-type: none"> - For bottled water: \$60 per month per house, including delivery. - Not estimated: Delivery charge by water hauler, per load or per hour. Other fees associated with ongoing maintenance of the tank, including routine cleaning. 	
				- All costs above are for one house per parcel. Costs can vary depending on conditions.	
Permanent Solution	Water Quality	Water treatment system	Technical, managerial, and financial capacity of the community should be considered when assessing water treatment options.	Costs vary depending on the technology, water contaminant(s), and number of households.	
		Alternate supply source	Options include surface water, construction of a new well, and consolidation with a nearby water system.	Costs vary depending on the desired solution, technology, and number of households.	
	Access to Water	Lowering of well pump	Least expensive long-term solution, if conditions allow. The following factors should be taken into account: lowering of a pump in the well is limited by the depth of the well, pumps near the base of the well increases energy consumption, may require more frequent screen cleaning, and water quality may be degraded due to sediments that are drawn in.	One time cost: Between \$15,000 and \$25,000.	
		Drill a new deeper well	A well test is necessary to assess yield capacity and water quality on deeper levels.	Private wells	\$70,000 (usually 500 - 600 ft)
				Water systems	Up to \$1.5M.
Alternative water supply source	Options include surface water or consolidation with a nearby water system. Recommend considering consolidation when households understand and agree with the advantages and disadvantages of connecting to a local water system.	Costs vary depending on the desired solution, technology, and number of households			

Attachment D

Mitigation Agreement

Kaweah Subbasin Mitigation and Indemnification Agreement

The undersigned (“the Claimant”) having been awarded mitigation assistance by _____ Groundwater Sustainability Agency of the Kaweah Subbasin (“the GSA”) hereby agrees as follows:

- 1. The Claimant will indemnify and hold harmless the GSA, its Board of Directors, Staff, Consultant Staff, Advisory Committee Members, Technical Advisory Committee Members, Offices, Third-Party Facilitators from any and all claims, 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 Claimant’s act or omission, neglect, or misconduct, or in violation of any law, ordinance, or regulation, which was caused to occur during the Claimant’s mitigation development or implementation.
- 2. The GSA shall not be liable to the Claimant’s staff or guests for any injury incurred while on the property in which mitigation will take place.
- 3. The Claimant is responsible for paying all taxes owed for income or property value the Claimant receives as a result of the mitigation measure.
- 4. The GSA is awarding the Claimant the following mitigation measure(s):

Name of Claimant

Signature of Claimant

Date

Name of GSA Manager

Signature of GSA Manager

Date