

PLAN IMPLEMENTATION

16 PLAN IMPLEMENTATION

§ 351(y). Definitions

"Plan implementation" refers to an Agency's exercise of the powers and authorities described in the Act, which commences after an Agency adopts and submits a Plan or Alternative to the Department and begins exercising such powers and authorities.

23 CCR § 351(y)

Per the California Code of Regulations Title 23 (23 CCR) § 351(y), "plan implementation" refers to "an [Groundwater Sustainability] Agency's exercise of the powers and authorities described in the Act, which commences after an Agency adopts and submits a Plan or Alternative to the Department and begins exercising such powers and authorities". The Delta-Mendota Subbasin Groundwater Sustainability Agencies (GSAs) may exercise all powers granted to GSAs in the Sustainable Groundwater Management Act (SGMA) to provide the maximum degree of local control and flexibility consistent with the Sustainability Goal of SGMA as set forth in the single Groundwater Sustainability Plan (GSP), including but not limited to all of the authorities provided in Chapter 4 (commencing with California Water Code [CWC] § 10723), Chapter 5 (commencing with CWC § 10725), Chapter 6 (commencing with CWC § 10727), Chapter 8 (commencing with CWC § 10730), and Chapter 9 (commencing with CWC § 10732) of SGMA. This section describes the activities that will be performed by the GSAs as part of GSP implementation within the Delta-Mendota Subbasin (Basin), with a focus on the first five years (i.e., through 2029). Key GSP implementation activities to be undertaken by the Basin GSAs over the next five years include:

- Implementation of the Basin's Pumping Reduction Plan (PRP; **Section 16.1.1**);
- Monitoring and data collection;
- Projects and/or Management Action (P/MA) implementation, funding, financing, and grant application(s);
- Addressing data gaps;
- Intra-basin and inter-basin coordination;
- Continued outreach and engagement with stakeholders;
- Response to the California Department of Water Resources (DWR) and State Water Resources Control Board (SWRCB) comments on the GSP;
- Continued monitoring, data collection, and annual reporting;
- Enforcement and response actions; and
- Evaluation and updates of the GSP as part of the required Periodic Evaluation.

Each of these activities is discussed in more detail below.

16.1 Plan Implementation Activities

16.1.1 Pumping Reduction Plan

In addition to the implementation of the planned supply augmentation projects, the Basin will need to reduce pumping by approximately 42,000 acre-feet per year (AFY), primarily from the Lower Aquifer, to achieve sustainable conditions based on the calculated historical overdraft (**Sections 9.3.4** and **15.6**). The overdraft is estimated over a long hydrological period and characterizes the excess groundwater demand not supplied through natural hydrologic processes, surface water deliveries, and other planned P/MAs. To address this overdraft, the Basin developed a coordinated PRP, which details the standards with which all GSAs must comply and includes a clear implementation plan and schedule to support successful execution by January 2025. The implementation plan requires the Basin GSAs, individually or as GSA Groups, to determine specific technical approaches and triggers that comply with the standards of the PRP by October 2024. The Basin GSAs are also required to implement and develop the needed monitoring, administrative, and technical tools, and to conduct the necessary education and outreach to achieve the Basin-wide objectives by January 2025.

Implementation of the PRP is supported by Exhibit C of the Memorandum of Agreement (MOA) between the Basin GSAs (**Appendix D**) which states in the event of a Minimum Threshold (MT) exceedance, “the GSA shall present a plan of action to the Coordination Committee to address how the GSA will mitigate an exceedance and in what timeframe.” Implementation is also supported by CWC § 10725-10726 which authorize GSAs to require registration and metering of wells; regulate groundwater extraction by methods including pumping restrictions, prohibitions on new wells, and allocations; and conduct recharge.

The PRP is comprised of six components that when collectively implemented should ensure successful compliance with the GSP’s Sustainable Management Criteria (SMCs) and pumping within the Sustainable Yield:

- 1) Monitoring and Data Collection Plan (**Section 16.1.1.1**);
- 2) Overdraft Mitigation Plan (**Section 16.1.1.2**);
- 3) Groundwater Level Minimum Threshold (GWL-MT) Avoidance Plan (**Section 16.1.1.3**);
- 4) Water Quality Minimum Threshold (WQ-MT) Exceedance Plan (**Section 16.1.1.4**); and
- 5) Subsidence Avoidance Plan (**Section 16.1.1.5**).
- 6) Groundwater Allocation Backstop (**Section 16.1.1.6**)

16.1.1.1 Monitoring and Data Collection Plan

Successful implementation of the PRP requires a minimum level of coordinated monitoring and data collection that facilitates decision-making, investigations, policy implementation, and enforcement. The *Monitoring and Data Collection Plan* outlines these requirements under a set implementation schedule and affirms the GSAs’ commitment to providing the standardized and consistent measurement and reporting needed for fair and equitable implementation of the PRP. These data collection efforts include monitoring of applicable Sustainability Indicators to be collected from the Basin-wide Monitoring Network in accordance with the protocols outlined in **Section 14.3**, as well as other data and information required for management and reporting under SGMA, as described below.

As part of the Basin-wide PRP, each GSA will commit to accomplishing the following, individually or as part of a GSA group, by the identified deadlines as prerequisites to successful management of the Basin. The Coordination Committee will review Basin-wide compliance with these commitments.

- 1) Conduct an assessment of the density of the monitoring network and make as-needed adjustments if required. This assessment will focus on aquifer-specific monitoring density using the monitoring network spatial distribution guidance presented in the DWR Monitoring Network *Best Management Practices* (BMP) document (DWR, 2016b).
- 2) Conduct quarterly groundwater level measurements at Representative Monitoring Wells for Chronic Lowering of Groundwater Levels (RMW-WLs), starting in Fall 2024 (e.g., with monitoring occurring in October, January, April and July).
- 3) Conduct semiannual water quality sampling during seasonal highs and lows for constituents defined in the GSP at all Representative Monitoring Wells for Degraded Water Quality (RMW-WQs), starting in Summer 2024.
- 4) Adopt a policy for mandatory metering and groundwater pumping measurement and reporting at all production wells or use of an equivalently sufficient method at the required resolution (*de minimis* users and small volume pumpers excluded) by October 2024, with complete implementation of meters no later than January 2026. Pumping measurements will ultimately be by metering. This will allow the GSAs to comply with the recommendation of the Conceptual Master Plan for Subsidence Monitoring and Management (Subsidence Master Plan) that groundwater extractions be estimated on a GSA level (GSI Environmental Inc., 2022) and, in turn, facilitate more accurate Basin-wide estimates.
- 5) Adopt a policy for the development and maintenance of a GSA well registry that, at a minimum, defines the location, perforated interval, and active status of a well. This information shall be collected in a consistent manner that allows for Basin-wide data sharing. The registry shall be fully catalogued by 2030. This action was recommended by the Subsidence Master Plan (GSI Environmental Inc., 2022) for areas near critical infrastructure but has been expanded to include the entire Basin.
- 6) Aquifer-specific pumping from composite wells to be calculated by a method agreed upon by the Coordination Committee.
- 7) Ensure that well construction information for all Representative Monitoring Wells (RMWs) is provided to the Coordination Committee by January 2025, as described in **Section 14.5**.
- 8) Replace composite RMW-WLs and active production RMW-WLs that have inaccurate measurements with aquifer-specific dedicated monitoring wells:
 - All composite RMW-WLs are to be replaced with aquifer-specific RMW-WLs by December 31, 2029.

- Active production RMW-WLs from which groundwater elevation measurements have been determined to be unreliable are to be replaced with aquifer-specific dedicated monitoring wells⁵² by the submittal of the second GSP Periodic Evaluation.

The GSAs will import quarterly groundwater elevation and semiannual groundwater quality measurements within one month of data collection/availability, subject to the availability of test results from analytical laboratories, into the Basin’s data management system (DMS) for the Coordination Committee to review. Monitoring frequencies outlined under this plan indicate minimum Basin-wide requirements for data collection. GSAs may need to increase the frequency of monitoring for groundwater elevations and/or water quality at selected RMWs due to the existence of known hotspots and/or triggering of the *GWL-MT Avoidance Plan* and/or *WQ-MT Exceedance Plan*. At the minimum, and if not required otherwise, the GSAs will report their water year’s aggregated groundwater pumping volumes, updates to their monitoring network, and their overall compliance status with the PRP to the Coordination Committee by the end of November of each year for inclusion in the Basin Annual Report.

16.1.1.2 Overdraft Mitigation Plan

As discussed above, the GSAs will collectively reduce total groundwater pumping by an estimated 42,000 AFY or implement additional projects to reduce overdraft in the Basin by 2030 to address the Basin’s historical overdraft. Groundwater pumping will be reduced from the average pumping from the overdraft evaluation period (Water Year [WY] 2003 to WY 2023). Starting in January 2025 and annually during the subsequent five years, the Basin will accomplish at least 20 percent of its total apportioned pumping reduction, accomplishing the total minimum reduction of 42,000 AFY by the end of 2030, as shown in **Table PI-1**.

Table PI-1 Minimum Pumping Reduction Required Under Overdraft Mitigation Plan

Implementation Year	Minimum Reduction in Overdraft Pumping (percent)	Minimum Basin-wide Reduction in Total Upper Aquifer Overdraft Pumping (AFY)	Minimum Basin-wide Reduction in Total Lower Aquifer Overdraft Pumping (AFY)	Minimum Basin-wide Reduction in Total Overdraft Pumping (AFY)
Jan 2025 (starting point)	0 percent	0	0	0
2026	20 percent	1,900	6,500	8,400
2027	40 percent	3,800	13,000	16,800
2028	60 percent	5,700	19,500	25,200
2029	80 percent	7,600	26,000	33,600
2030	100 percent	9,500	32,500	42,000

Abbreviations:
AFY = acre-feet per year

⁵² Repurposed or inactive production wells screened in a single principal aquifer may also be used as a substitute for an aquifer-specific dedicated monitoring well.

By October 2024, each GSA or GSA Group will determine and adopt the technical framework(s) under which they collectively achieve the minimum pumping or overdraft reduction for each principal aquifer as shown in **Table PI-1**. Multiple GSA Groups may also work together to develop their framework(s). The adopted technical framework(s) must detail the technical approach, criteria, and tools that will be used to determine the extent and magnitude of the pumping or overdraft reduction, and present sufficient justification that they will meet the minimum requirements under this *Overdraft Mitigation Plan*. The GSAs may count pumping reductions implemented under the *GWL-MT Avoidance Plan* (**Section 16.1.1.3**), *WQ-MT Exceedance Plan* (**Section 16.1.1.4**), and *Subsidence Avoidance Plan* (**Section 16.1.1.5**) towards their minimum reductions. The GSAs may not propose plans that impose reductions on other GSAs unless coordinated and agreed upon.

16.1.1.3 GWL-MT Avoidance Plan

Each GSA or GSA Group will develop and adopt a *GWL-MT Avoidance Plan* by October 2024 that complies with the general framework outlined under this Basin-wide PRP and will implement that plan on or before January 2025. The GWL-MT Avoidance Plan will consider groundwater levels in each RMW-WL relative to the MTs established using the Basin-wide methodology described in **Section 13.1.2**. In this *GWL-MT Avoidance Plan*, each GSA or GSA Group will define RMW-WL-specific groundwater level triggers based on the exceedance of an MT or projected exceedance of MT in a year following a four-year declining trend in seasonal low (Fall) groundwater levels. As groundwater level MTs are set at 2015 groundwater elevations and are thus protective of other sustainability indicators, implementation of this MT Avoidance Plan will also guard against exceedances of other MTs, such as Land Subsidence and Depletion of Interconnected Surface Water (ISW).

By the end of February of each year, the GSAs will compare the water level data at each RMW-WL to the defined trigger levels under the MT avoidance plan. If the groundwater level at an RMW-WL does not exceed the established trigger level, the RMW-WL is not projected to exceed its MT and the GSA will follow its normal management procedures. If the groundwater level at an RMW-WL exceeds the established trigger level, or is projected to exceed an MT, an investigation will be conducted to determine whether an area should be designated as an MT “hotspot” and will require an RMW-WL specific PRP. The PRPs will define the pumping reduction and/or other management actions to be implemented in the designated “hotspot” during the year to correct a potential MT exceedance. The PRP will evaluate the groundwater level deficit, define lands to be restricted, and develop a pumping reduction on an acre-foot per acre basis by principal aquifer to be implemented and maintained up to the end of the water year or until monitoring indicates the groundwater level recovers to be above the established trigger level.

In addition, an increased frequency of groundwater level and groundwater extraction monitoring and reporting (at least monthly) will be triggered for the RMW-WL that is designated as “hotspot” and additional nearby RMW-WLs. Increased monitoring will facilitate a better assessment of groundwater level recovery and the potential need for additional corrective actions for the following years or an opportunity to provide possible relief. The GSA Group(s) impacted by the MT hotspot may collectively decide to suspend their previously set allowable pumping limit if groundwater level trends increase to levels that ensure GWL-MT avoidance in the upcoming Fall season. This proposed process will be repeated in February of each year, providing annual adaptive management guidance for beneficial users of groundwater.

16.1.1.4 WQ-MT Exceedance Plan

Each GSA or GSA Group will coordinate and adopt a consistent *WQ-MT Exceedance Plan* by October 2024 that complies with the general framework outlined under this Basin-wide PRP and will be implemented using the authorities granted by CWC § 10726.2-4 (see **Section 13.4**) on or before January 2025. This *WQ-MT Exceedance Plan* will require the GSAs to evaluate water quality quarterly relative to MTs established using the Basin-wide methodology described in **Section 13.4.2** and consider the occurrence of any of the following criteria as an exceedance trigger for constituents of concern (COCs) as specified in the GSP:

- Exceedance of water quality MT at any RMW-WQ; or,
- Statistically significant⁵³ increasing trend in water quality concentration in three consecutive years of data at any RMW-WQ such that an MT exceedance is projected to occur within the next year.

Upon exceedance of the trigger at an RMW-WQ, GSAs will conduct an investigation within a 60-day period to assess if the degradation of water quality at the site is correlated with local and regional groundwater level changes or groundwater movement caused by the Basin's groundwater management. An investigation would include statistical and/or spatial analyses between water levels and water quality to determine causation, depending on the availability of data. For example, in an RMW-WQ that has at least five sampling points with water level data that temporally overlaps with water quality data, a granger causality test between water levels and water quality could be conducted. If such correlation is confirmed, the RMW-WQ is designated as an MT "hotspot" and the GSAs overlying the "hotspot" will have 60 days to provide the Coordination Committee with one of the following mitigation programs:

- If it is determined that management actions of the Basin related to groundwater recharge are the primary cause of the water quality degradation, the mitigation plan will include a short-term implementation schedule with identified action items including a temporary cessation of recharge to address or mitigate the impact; or
- If it is determined that groundwater level declines or groundwater migration due to pumping are the primary cause for the degradation of water quality, the mitigation plan will designate the location as a temporary GWL-MT hotspot, with a temporary trigger equal to the seasonal high groundwater level measurement in the previous water year at the same RMW-WQ or a nearby RMW-WL, to be maintained according to the GWL-MT avoidance plan and an established PRP for at least three years.

In addition, the frequency of monitoring at the RMW-WQ and at least one upgradient and one downgradient RMW-WQ (or other existing well) will be increased to quarterly measurements for the impacted COC(s). The increased monitoring frequency will help assess the source, movement, and trend of exceeding COC(s) and facilitate corrective actions or adapting the PRP.

16.1.1.5 Subsidence Avoidance Plan

Each GSA or GSA Group will develop and adopt a *Subsidence Avoidance Plan* by October 2024 that complies with the general framework outlined under this Basin-wide PRP and will implement that plan on or before January 2025. Multiple GSA groups may also work together to create their *Subsidence Avoidance*

⁵³ To determine statistical significance, hypothesis testing will be performed and the p-value will be calculated.

Plan(s). The *Subsidence Avoidance Plan* will be comprised of two components: a critical infrastructure protection component and subsidence hotspot mitigation component.

Critical Infrastructure Component: The critical infrastructure protection component will be triggered if the 3-year moving average rate of inelastic subsidence exceeds 0.2 feet per year (ft/year) at any location within 0.5 miles of critical infrastructure that is attributed to in-Basin pumping using a consistent source of monitoring data (Interferometric Synthetic Aperture Radar [InSAR] data and/or Representative Monitoring Site-Land Subsidence [RMS-LS]). As recommended by the Subsidence Master Plan, the 3-year period to evaluate the subsidence rate is intended to allow ample warning if land subsidence is progressing at an alarming rate (GSI Environmental Inc., 2022). This will facilitate timely, proactive mitigation to prevent subsidence from continuing above the allowed rate for the full five years that would indicate Minimum Threshold exceedance. A modeling exercise will be conducted to estimate the relative contributions of within-Basin and out-of-Basin pumping to the subsidence rate. Following a trigger exceedance, a management zone will be determined.

Lower Aquifer pumping will be reduced beyond current extraction volumes within an area of influence and construction of new Lower Aquifer wells⁵⁴ will be prohibited until after the 4-year moving average rate of inelastic subsidence falls below 0.1 ft/year, suggesting that the rate has stabilized. The pumping reduction may then be incrementally reversed. Reduction of Lower Aquifer pumping will be applied proportionally to all wells in the management zone known to extract from below the Corcoran Clay, including composite wells and wells with unknown depths of extraction. The critical infrastructure protection plan will be implemented by January 2025.

Hotspot Mitigation Component: The subsidence hotspot mitigation component will be triggered within areas projected to exceed 2 feet (ft) of cumulative subsidence by 2040 (calculated using the previous 5-years as the baseline) using consistent and comprehensive sources of monitoring data (such as InSAR, RMS-LS, and local subsidence monitoring). Within such areas, a modeling exercise will be conducted by January each year beginning in 2025 to estimate the relative contributions of within-Basin and out-of-Basin pumping to the subsidence rate. Incremental pumping reductions will be applied in these areas in a manner reflective of the tiered subsidence criteria recommended in the Subsidence Master Plan (GSI Environmental Inc., 2022). Lower Aquifer pumping will be limited proportional to the respective annual average rate of subsidence calculated between 2016-2023 that is attributable to in-Basin pumping, as follows:

- Areas that are projected to exceed the 2030 Interim Milestone (IM) will immediately reduce pumping of the Lower Aquifer. The pumping reduction and resultant mitigation will be evaluated annually and incrementally increased until subsidence due to Lower Aquifer pumping is eliminated.

The reduction of Lower Aquifer pumping will be applied proportionally to all wells within the subsidence hotspot known to extract from below the Corcoran Clay, including composite wells and wells with unknown depths of extraction. The Coordination Committee will actively meet with representatives from adjacent basins to seek reductions in out-of-Basin pumping that contributes to subsidence hotspots within the Basin.

⁵⁴ Replacement wells with similar design or operational use are exempted from this requirement.

In areas where both critical infrastructure protection and subsidence hotspot mitigation are triggered, the most stringent restrictions will apply. The GSAs can count pumping reduction as the result of the subsidence avoidance plan implementation towards their required total Lower Aquifer pumping reduction under the *Overdraft Mitigation Plan*.

16.1.1.6 Groundwater Allocation Backstop

Per Exhibit C of the MOA between the Basin GSAs, “In the event that the GSA is unable to mitigate or avoid future MT exceedances with its existing projects and management actions (“P&MAs”) and within the timeframe presented to the Coordination Committee, the GSA may seek assistance from the Coordination Committee. The Coordination Committee may recommend policies or programs to the GSA that the GSA could, in its discretion, adopt to remedy the existence of an MT exceedance and to avoid undesirable results. Furthermore, the Coordination Committee may consider setting triggers in the GSP for GSAs to implement management actions [e.g., sequencing P&MAs] or work on alternative options.”

Therefore, consistent with the process outlined in the MOA and the Undesirable Results definition for Chronic Lowering of Groundwater levels, if the GSA(s) have MT exceedances for two consecutive years due to groundwater management within their respective jurisdictional areas, and/or if GSA(s) fail to achieve their minimum pumping reduction required under the *Overdraft Mitigation Plan* by 2030, the relevant GSA(s) will be required to implement a groundwater allocation program to limit groundwater pumping to within the local Sustainable Yield⁵⁵.

16.1.2 Project and Management Action Implementation

To prevent potential Undesirable Results, P/MAs are planned as part of GSP implementation. As described in **Section 15**, a portfolio of P/MAs has been developed with the goal of proactively addressing relevant Sustainability Indicators. **Table PMA-1** and **Table PMA-2** provide the required details about each P/MA, including the circumstances under which they may be implemented.

The GSAs plan to begin implementation of selected P/MAs (**Table PMA-1**) based on the general “glide path” developed in 5-year increments (**Section 15.6**). In some cases, initial steps in implementation will include performing various studies or analyses to refine the concepts into actionable projects. Studies and work efforts may include, but are not limited to, California Environmental Quality Act (CEQA) studies and documentation, engineering feasibility studies, and preliminary design. The planning of P/MAs will be supported by the best available information and science.

In some cases, initial steps in implementation will include applying for grant funding to conduct pilot studies or demonstration projects. For example, the Basin received over \$6 million in grant funding to implement planned P/MAs through DWR’s Sustainable Groundwater Management (SGM) Program SGMA Implementation – Round 1 in 2022.

Once the necessary initial studies are completed and funding mechanisms are established, P/MAs will undergo, as necessary, final engineering design (in the case of infrastructure projects), permitting, and public noticing and outreach. At that point, construction of projects will occur, followed by ongoing

⁵⁵ The GSAs in the Basin acknowledge that there are several additional local and State rules, regulations, requirements, mandates, permits, and statutes applicable to the various public water suppliers and municipalities within the Basin, including, but not limited to, the “Human Right to Water” (CWC § 106.3). These will be considered as part of the Basin’s adaptive management process, which is designed to prevent an MT exceedance and Undesirable Results.

operations and maintenance, as necessary. It is anticipated that each implemented P/MA will have its own set of monitoring or data collection components to allow for P/MA assessment and, if necessary, modification.

16.1.3 Data-Gap Filling Efforts

The Basin GSAs will prioritize and begin to fill the key data gaps identified in this GSP related to the hydrogeologic conceptual model (HCM), groundwater conditions, water budget, and monitoring network. These efforts to fill data gaps will include the following.

Hydrogeologic Conceptual Model

As discussed in **Section 7.1.5**, there is greater uncertainty in the characterization of the Lower Aquifer as compared to the Upper Aquifer in terms of its thickness, hydraulic properties, and definable bottom (particularly the base of fresh water in the northern and central portions of the Basin) since fewer wells have been drilled to the deepest depth zones. As new borings are drilled in the Lower Aquifer or existing boring logs become available, the GSAs will refine the HCM to incorporate information collected from those borings and wells, including aquifer properties, significant stratigraphic horizons, and general water quality.

Groundwater Conditions

The GSAs will conduct additional data compilation and analysis of groundwater conditions using other public datasets and tools as they become available. Data gaps identified related to each Sustainability Indicator are detailed in **Section 8.9** and will be addressed as follows.

- **Groundwater Levels:** There are fewer groundwater level data available both temporally and spatially from the Lower Aquifer as compared to the Upper Aquifer. In both the Upper and Lower Aquifers, low spatial density of the prior monitoring networks in the central eastern portion of the Basin, specifically within the Grassland GSA Group and in the eastern portion of the San Joaquin River Exchange Contractors (SJREC) GSA Group limited historical data collection. As described in **Section 14**, the GSAs have significantly expanded the Representative Monitoring Network for groundwater levels. Data collected from the expanded monitoring network will help to fill existing identified data gaps. During GSP implementation, the GSAs will evaluate the potential to add additional RMW-WLs if more spatial coverage is needed.

Additionally, as shown on **Figure GWC-3**, there is a potential cone of depression in the southwest portion of the Basin under Fall 2015 conditions. Given that MTs for Chronic Lowering of Groundwater Levels are based on 2015 Low groundwater elevations, this apparent depression warrants further investigation to understand if it is caused by groundwater pumping, local hydrostratigraphy, data errors, or other hydrogeologic conditions that could influence groundwater levels in this area.

- **Groundwater Storage:** Data gaps for groundwater storage generally coincide with those noted above for groundwater levels. Additionally, uncertainty in the estimated aquifer storage properties and their spatial variability affects model calculations of change in storage. The distribution of pumping from the Upper and Lower Aquifers is generally determined using available well construction information and can be improved through measured pumping data, incorporation of the GSA's well census data, and better characterization of aquifer properties.

Additionally, existing uncertainties in model input data, including western boundary subsurface flows, boundary conditions, and the implementation of surface water diversions and deliveries within the modeled stream network, influence the simulation of groundwater levels, calculations of streamflow, surface water deliveries, and seepage, and ultimately the estimation of change in groundwater storage for each aquifer. As more data become available, these inherent uncertainties will be proportionally improved to better reflect the actual conditions in the Basin.

- **Groundwater Quality:** Limited water quality data are available for the Lower Aquifer, and in some portions of the Basin, for both aquifers. Extensive water quality testing of groundwater served to municipal customers by public water systems is required under Title 22, resulting in significant amounts of water quality data in urban areas within the Basin. In contrast, relatively fewer data are available in non-urban areas and for COCs that have not historically been a concern or whose appearance is highly localized, such as 1,2,3-trichloropropane (1,2,3-TCP) or gross alpha radioactivity. Additionally, much of the available water quality data comes from wells whose total depths and/or screen depths are unknown, making it impossible to determine which aquifer or aquifers the wells sample. This particularly limits the amount of data that can be definitively associated with the Lower Aquifer.

As described in **Section 14**, the GSAs have significantly expanded the Representative Monitoring Network for groundwater quality. Collection of monitoring data for all COCs from the expanded Representative Monitoring Network will help address these data gaps.

- **Land Subsidence:** As shown in **Figure GWC-48**, InSAR data collected by DWR do not fully cover the Basin, and significant gaps in coverage exist in the central portion of the Basin. These areas are partially covered by survey data collected by the United States Bureau of Reclamation (USBR) and DWR along the Delta-Mendota Canal (DMC) and California Aqueduct, respectively, as well as subsidence information retrieved from the San Joaquin River Restoration Program (SJRRP) Global Positioning System (GPS) stations and collected by individual GSAs. Therefore, this GSP has sufficient data to characterize subsidence conditions in the vicinity of critical infrastructure, but there is greater uncertainty in characterizing subsidence conditions in areas of the Basin further away from critical infrastructure, including the area south of Los Banos and west of Dos Palos. The GSAs will regularly evaluate DWR's InSAR data and information collected by other programs, such as the SJRRP's local surveying, to assess subsidence conditions in this area.
- **Interconnected Surface Water:** Insufficient groundwater elevation data exist in the shallow Upper Aquifer zone near the potential ISW and insufficient streamflow data (stage and flow rate) exist along the likely ISW. In response to these data gaps and uncertainties, the GSAs have substantially expanded the Basin's Representative Monitoring Network and are taking other measures to fill data gaps, as described in **Section 14.2.6**. As more data become available, these inherent uncertainties will be proportionally improved to better reflect the actual conditions in the Basin.

Water Budget

As highlighted in the Water Budget section of this GSP (**Section 9**), the Basin's integrated hydrological model (Model) adequately represents the Basin's groundwater conditions and water budget. However, the Model requires further calibration to improve its simulation of groundwater levels, subsidence, and stream flows as it currently lacks the resolution needed for local and GSA-level planning and operational

decision-making. Such refinements are required for successfully implementing the PRP and tracking progress towards compliance with SMCs for Depletion of ISW.

To address this data gap, the Model will need to be calibrated with a focus on better representation of groundwater levels and subsidence rate and extent in the Basin. As needed for annual report development and tracking of depletion of ISW SMCs, the Model will also need to be extended with additional data to represent current conditions in the Basin. Additionally, and upon further data collection, the Model will need to be recalibrated at least for each Periodic Evaluation of the GSP, or more frequently if needed for implementation of the PRP.

Monitoring Network

Within the Basin-wide monitoring network, there are several RMWs missing well construction information, such as total depth or screen interval information. The GSAs will continue to fill in missing well construction information for the Basin-wide Representative Monitoring Network during GSP implementation.

There is an approximately 50 square mile area in the southeastern portion of the Lower Aquifer that does not include any RMW-WLs. However, this is not considered a data gap since there is very little pumping, and this area is not expected to cause an Undesirable Result. Additionally, several RMW-WLs are production wells that may have limited monitoring frequencies due to pumping activities, and/or provide inaccurate results if insufficient time is given for recovery after a pumping event. Per the Basin's *Monitoring and Data Collection Plan*, all active production RMW-WLs that have inaccurate measurements are to be replaced with aquifer-specific dedicated monitoring wells by the submittal of the second five-year update after GSP submittal.

16.1.4 Intrabasin and Interbasin Coordination

As discussed in **Section 3.2.1**, the MOA between the 23 Basin GSAs establishes a Coordination Committee to provide a forum for the GSA Groups to work collaboratively and to develop recommendations for technical and substantive Basin-wide activities. The Basin Coordination Committee meets regularly to discuss topics related to the implementation of this GSP, including data collection, management efforts, and planning for stakeholder engagement.

Inter-basin coordination efforts with the adjacent basins will occur on an as-needed basis. The Subbasin Points of Contact (POCs) for the groundwater basins in the San Joaquin Valley have a regularly scheduled quarterly meeting that includes DWR staff. These meetings are an opportunity for DWR to inform the POCs about SGMA-related topics and for the POCs to discuss topics of mutual interest, including interbasin coordination. Past meetings have also involved representatives from GSAs in the discussions and stakeholders.

16.1.5 Stakeholder Engagement

The Basin's SGMA Communications Plan (**Appendix F**) is used as a framework for conducting the stakeholder outreach and engagement activities described in this document. Anticipated stakeholder engagement activities include, but are not limited to:

- Continued Coordination Committee and GSA Board meetings;
- Hosting as-needed stakeholder workshops; and,

- Posting of relevant announcements and information on the GSA's website (<https://deltamendota.org/>) and other direct mailings, as needed.

16.1.6 **Annual Reporting**

23 CCR § 356.2(b)(1)(2)(3)

Per 23 CCR § 356.2, an annual report on Basin conditions and GSP implementation status is required to be submitted to DWR by April 1 of each year following GSP adoption. These annual reports will be prepared by the GSA using data collected during GSP implementation, as described above. Annual reports will include, but not be limited to, the following:

- Groundwater elevation contour maps for both Spring and Fall conditions;
- Hydrographs of groundwater elevations in the RMW-WLs and Representative Monitoring Wells for Depletions of Interconnected Surface Water (RMW-ISWs);
- Annual groundwater extraction volumes by water use sector for the entire Basin, an explanation as to how groundwater extraction volumes were estimated, an accounting of accuracy, and an explanation as to how accuracy was determined;
- Annual surface water supply volumes used for the entire Basin, quantified by source type;
- Annual total water use for the entire Basin, quantified by water use sector and type, with an explanation for the method of measurement (direct or estimate) and accounting of accuracy; and
- Estimates of annual change in groundwater storage. The Model will be updated and extended to include the groundwater elevation data, groundwater extraction volumes, and hydrology datasets (i.e., precipitation and evapotranspiration) to estimate the annual change in groundwater storage.
- Evaluation of Basin conditions relative to SMCs established herein.

16.1.7 **Enforcement and Response Actions**

16.1.7.1 GWL-MT Avoidance Plan, WQ-MT Exceedance Plan, and Subsidence Avoidance Plan

Although the implementation of the *Overdraft Mitigation Plan* (**Section 16.1.1.2**) is expected to ensure long-term operation of the Basin within its Sustainable Yield, it lacks the adaptiveness to control adverse conditions due to localized impacts. Therefore, the *GWL-MT Avoidance Plan* (**Section 16.1.1.3**), *WQ-MT Exceedance Plan* (**Section 16.1.1.4**), and *Subsidence Avoidance Plan* (**Section 16.1.1.5**) are proposed to facilitate local and/or short- to mid-term mitigation of adverse conditions and ensure consistent operation of the Basin within its defined SMCs, avoiding Undesirable Results.

16.1.7.2 Well Mitigation Policy

The Basin GSAs have adopted a Well Mitigation Policy (Policy) to address impacts to domestic and small community water system wells associated with declining groundwater levels, as detailed in **Appendix M**. The Policy was developed in consideration of recommendations found in DWR's *Considerations for Identifying and Addressing Drinking Water Well Impacts* (DWR, 2023b) and Self-Help Enterprises' *Framework for a Drinking Water Well Impact Mitigation Program* (Self-Help Enterprises et al., 2022).

The framework of this Policy, including implementation details, eligibility, public notification, and funding are discussed below.

Eligibility

This Policy primarily applies to landowners using groundwater for domestic health and safety supply purposes at the time of GSP adoption. However, individual GSAs may consider including additional well uses, and owners of all well types are eligible to apply for assistance. GSA assistance is not guaranteed and will be subject to analysis by the applicable GSA and pursuant to the provisions of Executive Order (EO) N-3-23. Well owners must participate or agree to participate in a GSA's Well Registration Policy/Program to be eligible for mitigation, if such a policy exists or is developed. This Policy does not apply to wells installed after the date of adoption of this GSP if screen interval depths are shallower than MT groundwater levels designated by the applicable GSA during the well construction application process.

Public Notification

Initial stakeholder outreach was conducted during the development of the Policy and this GSP. The Policy was discussed in open and public meetings of the various GSAs, at open and public meetings of the Coordination Committee, and at open and public meetings of individual GSA or GSA Group meetings in the Basin. A draft of the Policy was posted to the Basin SGMA website (www.deltamendota.org) as both a separate item and as a part of the draft single GSP. The public was able to submit written comments on the Policy and the single GSP through the website.

Discussion of the Policy status and implementation will be placed on the Basin Coordination Committee meeting agendas no less than quarterly during GSP implementation. Similarly, the Policy may be placed on each of the GSAs' governing bodies' agendas at least semi-annually during the first year of single GSP implementation. The Policy will be available on the Basin SGMA website with relevant information such as electronic instructions for filing an application and a form to submit the application electronically via the website. GSAs may also place the policy on their own websites or have a link on their websites that direct interested persons to the Basin SGMA website.

As part of the GSP Adaptive Management Framework (see MOA, Exhibit "C"; **Appendix D**) the Basin Coordination Committee will review groundwater level readings at least twice annually during a regularly scheduled public meeting. In the unlikely event a groundwater level reading at an RMW-WL gets to within ten percent (10%) of its MT, GSAs may contact well users/owners within a one quarter (1/4) mile radius of the RMW-WL to begin collecting well data in the event a well goes dry to expedite the mitigation process described below. Each GSA may develop criteria, a notification method, and protocols to address such situations within its jurisdictional boundaries. A one quarter (1/4) mile radius was selected because it is consistent with the distance used as a part of the Basin's pumping reduction strategy for subsidence mitigation.

For example, if the MT of an RMW-WL well is 100 feet below ground surface (bgs), and a September well level measurement returns a reading of 90 feet bgs, the GSA may post information to its website that domestic well owners in a specific area may be affected. By internal policy, the GSA may also send postcard mailings to known domestic well owners within a one quarter (1/4) mile radius of the RMW. If the RMW is near the jurisdictional boundary between two or more GSAs, the GSA where the well is physically located will notify the adjacent GSA(s) of the potential impact to well owners located in that adjacent

GSA's jurisdictional area. The GSAs will cooperate according to the terms of the Adaptive Management Framework on any costs associated with notification.

Any notification provided to well users/owners pursuant to the above will include information on this Policy and how and where to file a claim for mitigation. Other information that may be included and/or requested in the notification will be determined by the individual GSAs.

Well Mitigation Process

GSAs will conduct public education and outreach to notify landowners as to how and where to file an application for assistance, and the information that the GSA will require to evaluate the mitigation application. Copies of the application form will be included with education and outreach materials. GSAs may, at their own discretion, require a reasonable application fee to pay for the processing of any claim. The application fee may be reimbursed or applied to any costs that may be deemed the responsibility of the well owner from a successful claim.

Upon receiving a completed application, the receiving GSA, or its representative, will conduct a preliminary review of the application to determine completeness. The applicant will be notified within two (2) business days, and the GSA will subsequently document such notification, if the application is complete or if there is any further information needed to evaluate the application. If deemed complete and appearing to meet all the requirements to receive assistance, the receiving GSA will provide a short-term emergency drinking water supply to domestic well users as soon as reasonably possible, but in all cases within two (2) business days of submission of a complete application, if then-available data suggests a domestic supply well has been de-watered due to extraction by in an area of influence. Short-term emergency water supplies shall consist of delivered bottled water and, after a site investigation, the delivery and installation of/or water tanks on a case-by-case basis at the GSA's discretion. The GSAs also commit to work with Self Help Enterprises, or similar entities, to assist with the feasibility of providing water tanks.

The short-term emergency water supply will be provided by the GSA at the location of the de-watered well. The GSA in which the well is located will be responsible for providing the short-term emergency water supply and the costs for the investigation. However, if it is determined that over-pumping is the result of another GSA, the GSAs will follow the Adaptive Management Framework process regarding cost sharing (see MOA, Article VII, Article X, Article XIII, and/or Exhibit "C"; **Appendix D**).

The GSAs may develop a professional well assessment report to investigate the age of the well, well construction information (e.g., pump depth, screening intervals, and material), well maintenance information, indication of past well performance and any recent performance changes, any recent changes in well use or related land use, and other additional information as necessary to determine if the failure is caused by declining water levels and/or GSA groundwater management actions.

The preliminary review of the well mitigation application shall consist of:

- A review of well construction information;
- A review of well and pump maintenance records;
- A review of historic water level data for nearby RMW-WLs;
- A review of nearby known production well information;

- A review of nearby land use and any recent land use changes; and,
- An analysis of nearby conjunctive use activity.

If the nearest RMW-WL does not represent water level data that can be used as evidence for consideration of the applicant's claim, a GSA may review additional data from other wells in the monitoring network, or supplemental data from DWR and/or local agencies to support the preliminary review analysis.

If, after completion of the preliminary review, a GSA determines a well may be eligible for mitigation, the GSA will measure water levels in the applicant's well and in RMW-WLs in the area, and may perform a field investigation. To be eligible for mitigation assistance, the applicant must consent to the field investigation/inspection and/or execute an appropriate release with the GSA. Failure to consent to the field investigation/inspection and/or execute an appropriate release voids the application for mitigation. The field investigation may include but is not limited to:

- Removing pump to measure intake depth, well bottom, and static water level;
- Conducting video log;
- Modifying wellhead to measure static and pumping level;
- Investigating site for consolidation feasibility; and/or,
- Investigating nearby land and water use.

The field investigation may show the well as ineligible for mitigation. Such criteria indicating ineligibility include, but are not limited to

- Pump failure;
- Clogged screens;
- Well pipe and/or casing failure or collapse which are unrelated to lowering groundwater levels or other potential GSA actions;
- Other maintenance-related well or pump issues unrelated to lowering of groundwater levels or other potential GSA actions; and/or,
- Normal wear and tear based on the age of the well.

The GSA will notify the applicant if the well is ineligible for mitigation and subsequently document such notification. This finding will also be included in the Basin's annual report.

If the applicant desires to appeal the results of the GSA's investigation, the applicant may do so in writing to the Basin Coordination Committee. The Coordination Committee shall create an ad hoc committee of no more than three members to review the GSA's written investigation, obtain additional data if necessary, and either (a) confirm the findings of the GSA, (b) provide guidance to the GSA and request further review by the GSA, or (c) propose to the Coordination Committee that it adopts its own findings. If the Coordination Committee chooses to adopt its own findings and recommendations, those shall be binding upon the GSA, to the extent allowed by the MOA.

If, after the field investigation, a GSA determines a well is eligible for mitigation, the GSA will work with the well owner on a solution appropriate for the site (each, a "Mitigation Measure"). Such Mitigation Measures may include but are not limited to:

- Lowering the well pump or otherwise modifying pump equipment;
- Deepening the well if the existing well has an open bottom;
- Installing a new well;
- Assisting landowner with facilitating a connection to a municipal or community water system or other water supply, if feasible; or,
- Other appropriate mitigation as agreed to by both parties.

If the applicant disagrees with the proposed Mitigation Measure(s), a technically qualified third-party agreed to by both the GSA and applicant may facilitate and recommend a mutually agreeable Mitigation Measure(s). However, the GSA has the right to identify which Mitigation Measure(s) is optimal on a case-by-case basis. The technically qualified third party's role is to provide a recommendation. The appropriate GSA Board and/or Manager shall approve the application before well mitigation, other than provision of emergency drinking water, begins.

The applicant must sign a Mitigation and Indemnification (MI) Agreement prior to commencing the Mitigation Measure. The terms of the MI Agreement will depend on the nature of the Mitigation Measure provided. New wells will be required to meet state and county well drilling standards and comply with EO N-3-23. In order to be eligible for mitigation from a GSA, the MI agreement may stipulate minimum criteria in addition to state and county requirements for new wells as they apply to GSA review and the opinion granted under EO N-3-23. Criteria may include well construction materials, minimum depth beyond 2015 seasonal low groundwater level measurements, and/or screening interval levels, among other potential criteria.

At its discretion and in the event a new well is installed as mitigation for a failed well, the GSA may choose to convert the abandoned well into a monitoring well. Such provision(s) may be included in the MI Agreement and agreed to by both parties. In such a case, the MI Agreement shall grant access by the property owner to the GSA for the monitoring well for SGMA data gathering and compliance activities, and ownership of the abandoned and converted monitoring well will revert to the GSA. Terms and conditions for access to the monitoring well may be negotiated between the GSA and the well's former owner.

If the well will be abandoned as part of a Mitigation Measure agreed to by the GSA and will not be converted to a monitoring well under SGMA, the cost for sealing/destroying the well shall be borne by the GSA as part of the Mitigation Measure.

Funding

GSAs in the Basin desire to mitigate/compensate for legitimate impacts resulting from GSA management actions failing to maintain water levels at or above 2015 seasonal lows. A total of only 37 replacement well applications were received by counties in the Basin since 2015. However, it is unknown how many of

those wells, if any, were dewatered due to the groundwater levels falling below 2015 seasonal low levels, or how many of those are wells for domestic use.

Individual GSAs will fund the mitigation of wells within their boundaries upon determining whether Mitigation Measures pursuant to this Policy are appropriate and justified as detailed in the “Well Mitigation Process” section. In some cases, where historical wells are impacted, adjustments may be made for equipment depreciation. All costs to mitigate claimed impacts at a well site will be initially allocated to the applicable GSA where the well is located.

In the event of interbasin or intra-basin disagreements for determining responsibility for dewatering of a domestic well, GSAs shall follow the Adaptive Management Framework processes as outlined in the executed MOA (**Appendix D**), including Article VII, Article X, Article XIII, and/or Exhibit C therein.

Though the stochastic predictive modeling indicates no more than three domestic wells in the Basin will be dewatered annually due to groundwater management activities, GSAs will establish a common financial account sufficient to annually mitigate ten (10) domestic wells. A limit of ten (10) wells annually was selected because it reflects the undesirable result for lowering of groundwater levels in the GSP.

Not all GSAs in the Basin have domestic wells located within their jurisdictional areas. However, the seven GSA groups that are represented on the Coordination Committee agree to equally fund a common account to a total of \$300,000⁵⁶. Costs to fund this reasonably prudent reserve will be split based on Coordination Committee costs identified in the MOA and will be funded over three years (i.e. \$100,000 per year, until the fund reaches \$300,000). Funds from the common financial account may be used only for approved Mitigation Measure costs. GSAs receiving funds will be required to repay the total amount withdrawn.

Subject to the provisions in the previous section (Well Mitigation Process), individual GSAs will be responsible for all other costs for implementing this Policy, including but not limited to: preliminary review, a professional well assessment report, a field investigation, and/or emergency water supply expenses. Specific escrow instructions for use of the common account will be developed.

Other Resources

If an application requires immediate action, qualifies only for partial mitigation, or receives no mitigation by a GSA, there are other programs that may assist well owners, especially for rural domestic/*de minimus* wells.

- Self Help Enterprises has a water sustainability program that includes tank water access, domestic well repair or replacement, and water system connections. Their services are free, based on income eligibility and other qualifications. They may be contacted at 1-559-802-1865 or visit their website at <https://www.selfhelpenterprises.org/programs/emergency-services/water-sustainability/>.
- California’s Office of Emergency Services recommends residents contact their County Office of Emergency Services to begin the process of seeking assistance with drinking water wells that go dry.

⁵⁶ Recent (5/2/2024) cost estimates for domestic well replacement vary from a low of less than \$15,000/well up to \$30,000/well.

- The SWRCB manages the Safe and Affordable Funding for Equity and Resilience (SAFER) Program. The SAFER Program provides assistance with interim drinking water supplies, emergency repairs, technical assistance, administrators, planning, operations and maintenance and construction projects via various funding sources.
- Additionally, the GSAs in the Basin will commit to working with the existing water quality coalitions and drainage authorities to provide support to domestic well owners whose wells are negatively impacted by water quality degradation as a result of GSA management activities in the Basin or water level declines unrelated to GSA management activities.

16.1.8 Periodic Evaluations of GSP

23 CCR § 356.4

Per 23 CCR § 356.4, the Basin GSAs will conduct a Periodic Evaluation of its GSP at least every five years and will amend the GSP as necessary to ensure that the Sustainability Goal for the Basin is achieved. The GSP elements that will be covered in the Periodic Evaluation are described below and are consistent with DWR's *A Guide to Annual Reports, Periodic Evaluations, & Plan Amendments* (DWR, 2023a).

16.1.8.1 New Information Collected

This section will provide a description of significant new information that has been made available since the adoption of this GSP, including data obtained to fill identified data gaps. This section will discuss whether new information warrants changes to any aspect of the GSP, including evaluation of the Basin Setting or SMCs, and whether those changes associated with the new information led to a Plan Amendment (**Section 16.1.8.8**).

16.1.8.2 Groundwater Conditions Relative to Sustainable Management Criteria

This section will assess the GSAs' progress toward achieving groundwater sustainability by evaluating current groundwater conditions against the SMCs for each Sustainability Indicator, including progress toward achieving IMs and Measurable Objectives (MOs). If this evaluation indicates that the GSP implementation has not been effective in making progress towards achieving sustainability, this section will include an explanation for any lack of progress and strategies for improvement.

16.1.8.3 Status of Projects and Management Actions

This section will evaluate the current implementation status of planned P/MAs, along with an updated implementation schedule and any new P/MAs that are not included in this GSP.

16.1.8.4 Basin Setting Based on New Information or Changes in Water Use

This section will provide an evaluation of the Basin Setting based on new information or changes in water use. This section will describe any changes in understanding of the HCM, Groundwater Conditions, and Water Budget and provide a description of any Model updates that have occurred since adoption of this GSP.

16.1.8.5 Monitoring Networks

This section will provide a description of the SGMA Representative Monitoring Network, including a summary of changes to the monitoring network since adoption of the GSP, identification of data gaps,

assessment of monitoring network function with an analysis of data collected to date, identification of actions that are necessary to improve the monitoring network, and development of plans or programs to fill data gaps.

16.1.8.6 GSA Authorities and Enforcement Actions

This section will describe any new authorities the Basin GSAs have gained, established, or exercised since the adoption of this GSP and summarize actions implemented to advance groundwater sustainability, such as the Basin's PRP (**Section 16.1.1**).

16.1.8.7 Outreach, Engagement, and Coordination with Other Agencies

This section will describe, as appropriate, the inter-agency coordination efforts and activities that occurred between the Basin GSAs, GSAs in adjacent basins, land use agencies, and federal, state, and local agency coordination related to SGMA implementation. Additionally, this section will describe any outreach efforts the Basin has conducted to engage interested parties, the public, and the Basin's beneficial users.

16.1.8.8 Summary of Revisions to Plan Elements

This section will summarize key takeaways from the Periodic Evaluation. Per 23 CCR § 356.4(c), elements of the GSP, including the Basin Setting, SMC, and P/MA sections, may be revised at the GSAs' discretion as part of a separate Plan Amendment. This section will provide the rationale for developing a Plan Amendment if a Plan Amendment is deemed necessary based on findings from the Periodic Evaluation.

16.2 Plan Implementation Costs

23 CCR § 354.6(e)

Per 23 CCR § 354.6(e) and 354.44(b)(8), this section provides estimates of the costs to implement this GSP and potential sources of funding to meet those costs.

16.2.1 Estimated Costs

The estimated costs for the Basin to implement this GSP may be associated with the following activities:

- 1) GSA Administration costs, including
 - Costs of monitoring, data collection, and filling data gaps;
 - Costs associated with stakeholder outreach and coordination;
 - Costs associated with reporting;
 - Costs of enforcements and response actions; and,
- 2) Costs to implement P/MAs, including capital/one-time costs and ongoing costs.

Over the first 5-year period (i.e., 2025-2030), Basin-wide costs associated with GSA administration are estimated to range from \$2.4M per year in 2025 to \$3.9M per year in 2040, as shown in **Table PI-2**. Costs to implement individual P/MAs are included in **Table PMA-2**.

Table PI-2. Plan Implementation Costs

Groundwater Management Activity	Estimated Average Annual GSP Implementation Costs (2024 Dollars)			
	2025	2030	2035	2040
Monitoring and Data Collection				
<i>Monitoring</i>	\$215,000	\$219,000	\$224,000	\$229,000
<i>Data Management System</i>	\$61,000	\$64,000	\$67,000	\$71,000
Data Gap Removal	\$125,000	\$125,000	\$110,000	\$85,000
Intra-Basin Coordination	\$67,000	\$70,000	\$74,000	\$78,000
Stakeholder Engagement	\$59,000	\$61,000	\$65,000	\$68,000
Annual Reporting	\$217,000	\$223,000	\$230,000	\$238,000
Enforcement and Response Actions				
<i>Well Mitigation Program</i>	\$100,000	\$100,000	\$100,000	\$100,000
<i>Pumping Reduction</i>	\$185,000	\$466,000	\$608,000	\$750,000
Periodic Evaluations	\$0	\$700,000	\$700,000	\$700,000
Other Management and Administration	\$1,397,000	\$1,456,000	\$1,527,000	\$1,615,000
Average Annual Cost (Basin)	\$2,426,000	\$3,484,000	\$3,705,000	\$3,934,000
Average Annual Cost (GSA Group)	\$347,000	\$498,000	\$529,000	\$562,000

16.2.2 Sources of Funding to Meet Costs

The Basin GSAs will likely meet the estimated costs for GSA Administration through water rates, benefit assessments and a combination of grant funding, as available. Anticipated sources of funding for individual P/MAs are listed in **Table PMA-2** and described in **Section 15.12**.

16.3 Plan Implementation Schedule

This section discusses a general estimated schedule for GSP implementation. The GSP Regulations do not specifically require that a schedule for GSP implementation over the 20-year implementation period (i.e., 2020 through 2040) be provided, and any such schedule would be subject to considerable uncertainty. However, the following factors and constraints inherent to the GSP process guide the schedule for GSP implementation:

- 23 CCR § 354.24 requires the establishment of a Sustainability Goal (i.e., avoidance of Undesirable Results) that will be reached within 20 years of GSP adoption, or by 2040 (for critically overdrafted basins like the Delta-Mendota Subbasin).
- Annual reports are due by April 1 of every year following GSP submission.
- Periodic Evaluations are required at least every five years. Therefore, the first Periodic Evaluation of this GSP shall be submitted by July 2029.