#### DECEMBER 2021

#### CHAPTER 5: IMPLEMENTATION

### SISKIYOU COUNTY FLOOD CONTROL & WATER CONSERVATION DISTRICT

# Shasta Valley Groundwater Sustainability Plan

**FINAL DRAFT REPORT** 



Yreka	Montague	-3	
	0		
· ····································			
		oWeed	

### SISKIYOU COUNTY FLOOD CONTROL AND WATER CONSERVATION DISTRICT GROUNDWATER SUSTAINABILITY AGENCY SHASTA VALLEY GROUNDWATER SUSTAINABILITY PLAN

#### BOARD

Brandon Criss, County of Siskiyou Ed Valenzuela, County of Siskiyou Michael Kobseff, County of Siskiyou Nancy Ogren, County of Siskiyou Ray A. Haupt, County of Siskiyou

#### STAFF

Matt Parker, Natural Resources Specialist, County of Siskiyou

#### **TECHNICAL TEAM**

Laura Foglia, LWA Thomas Harter, UC Davis

Andrew Calderwood, UC Davis Brad Gooch, UC Davis Cab Esposito, LWA Katrina Arredondo, LWA Kelsey McNeil, LWA Claire Kouba, UC Davis Bill Rice, UC Davis

#### **ADVISORY COMMITTEE**

John Tannaci, Chair, Residential Blair Hart, Private Pumper Gregg Werner, Environmental/Conservation Justin Holmes, Edson Foulke Ditch Company Pete Scala, Private Pumper Grant Johnson, Tribal Representative Tristan Allen, Montague Water Conservation District Steve Mains, Grenada Irrigation District Robert Moser, Municipal/City Lisa Faris, Big Springs Irrigation District Justin Sandahl, Shasta River Water Users Association

Suggested Citation: Siskiyou County Flood Control and Water District Groundwater Sustainability Agency, Shasta Valley Groundwater Sustainability Plan (Public Draft), December 2021, https://www.co.siskiyou.ca.us/naturalresources/page/sustainable-groundwater-management-act-sgma

# Contents

List of Appendices	2
5.1. Description of GSP Implementation Elements	3
5.1.1 Management and administration	3
5.1.2 Implementation	6
5.1.3 Outreach	14
5.2 Estimate of GSP Implementation Costs	15
5.3 Schedule for Implementation	16
5.4 Funding Sources and Mechanisms	18

# **List of Appendices**

- Appendix 5-A PMA Prioritization and Scoring System
- Appendix 5-B Annual Reporting Template
- Appendix 5-C Financial Analysis for GSP Implementation
- Appendix 5-D Siskiyou County Agricultural Economics Analysis Considering Groundwater Regulation

Groundwater management has been conducted in the Shasta Valley Basin (Basin) for decades. As described in prior sections, a variety of project and management actions (PMAs) are currently, or have previously been, implemented, that support groundwater levels, groundwater storage and interconnected surface waters. Existing and planned PMAs will contribute to the attainment of the groundwater sustainability goal in the Basin over the planning horizon of this Groundwater Sustainability Plan (GSP). These PMAs, as described in Chapter 4, enable the continued use of groundwater and protection of groundwater uses and users into the future.

In this section, the GSP implementation plan for the Basin is defined. Elements of this plan include:

- 1) Management and Administration
  - a. GSA management, administration, legal and day-to-day operations.
  - b. Reporting, including preparation of annual reports and 5-year evaluations and updates.
- 2) Implementation
  - a. Implementation of the GSP monitoring program activities described in Chapter 3.
  - b. Technical support, including model updates, data collection and other technical analysis.
  - c. Projects and Management Actions (PMAs) as described in Chapter 4.
- 3) Outreach and Education
  - a. Coordination activities with stakeholders and entities in the Basin.
  - b. Ongoing outreach activities to stakeholders

Cost estimates and funding methods for GSP implementation are also presented in this section.

# **5.1. Description of GSP Implementation Elements**

The following tasks and functions will be required for implementation of this GSP:

### 5.1.1 Management and administration

#### GSA management, administration, legal and day-to-day operations

GSA functions associated with the management and administration of the GSP implementation activities are covered under this category, which includes the administrative, technical and finance staff support and related expenses, office supplies and materials, insurance, and grant writing to support funding for specific projects and/or management actions. GSA staff will provide work products, administrative support, staff leadership, and management for the GSA.

As the GSP implementation begins in February 2022, staffing support and ongoing administrative and management needs will be further evaluated so that the budget can be refined, as necessary. Staffing needs will be reevaluated annually during the early years of GSP implementation to gain a better understanding of the support required and associated costs.

GSA administration activities include coordination meetings with other organizations on projects or studies, email communications for updating GSA stakeholders about ongoing activities within the

Basin, administration of projects implemented by the GSA, and general oversight and coordination. Other oversight and administrative activities will occur on an as-needed basis.

The GSA is responsible for, and authorized to take, appropriate action to achieve sustainable management of groundwater within the Basin based on the authority granted under Section 6 of the California Water Code. On an as-needed basis, the GSA may seek legal services to assist in the interpretation of legal requirements and provide legal advice during GSP implementation.

#### Reporting, including preparation of annual reports and 5-year evaluations and updates

As part of GSP implementation starting in 2022, the GSA must prepare and submit to DWR annual reports and 5-year assessments. Annual reports will be submitted to DWR by April 1st of each year and an initial 5-year GSP assessment and update will be due to DWR by April 2027. Requirements for each of these reports are explained below.

#### Annual Reporting

Per Water Code Sections 10727.2, 10728, and 10733.2, SGMA regulations require the GSAs to submit an annual report on the implementation of the GSP to the Department of Water Resources (DWR). Development of the annual report will begin at the beginning of each water year, October 1, to assess the previous water year. The report will be submitted to DWR on April 1st of the following calendar year. A template for annual reporting is provided as Appendix 5-B. The annual reports will be completed in a format consistent with Section 356.2 of the SGMA regulations and will include three key sections: general information, Basin conditions and plan implementation progress.

#### **General Information**

General information will include a map of the Basin and an executive summary that includes a description of the sustainability goal, ongoing PMAs in the subbasin, jointly funded PMAs and their progress, as well as an updated implementation schedule.

#### **Basin Conditions**

This section will describe the current groundwater conditions and monitoring results, used to evaluate how groundwater conditions have changed in the Basin during the previous year. SGMA regulations require the following key components to be included in this section:

- Groundwater elevation data from monitoring wells, including (1) groundwater elevation contour maps for the principal aquifer in the Basin depicting seasonal high and low groundwater conditions, and (2) hydrographs of historical-to-current-reporting-year data showing groundwater elevations and water year type.
- Groundwater extractions during the preceding water year summarized by water use sector, including a map showing the general location and volume of groundwater extractions, as well as the method of measurement (direct or estimate) and accuracy of measurements. Metering of groundwater extraction is only included as a voluntary action and this information will be collected as the PMA is implemented, also based on availability of funding.
- Surface water supply for managed groundwater recharge or in-lieu use, including the annual volume and sources for the preceding water year.
- Total water uses by water use sector and water source type, including the method of measurement (direct or estimate) and accuracy of measurements.

 Maps of changes in groundwater storage for the principal aquifer and a graph depicting historical-to-current-reporting-year water year type, groundwater use, annual change in groundwater in storage, and the cumulative change in groundwater storage for the Basin. This information may change over time to incorporate potentially revised GSA priorities and to reflect new Basin conditions and applicable SGMA requirements.

#### Plan Implementation Progress

The progress made toward achieving interim milestones, as well as implementation of PMAs, will be explained in this section, along with a summary of plan implementation progress and sustainability progress.

#### Periodic Evaluations every Five Years

Per Water Code Sections 10727.2, 10728, 10728.2, 10733.2, and 10733.8, SGMA regulations require the GSA to provide a written assessment of GSP implementation and progress towards meeting the sustainability goal at least every five years. A similar evaluation must also be submitted whenever the GSP is amended. The five-year assessment reports will be completed in a format consistent with Section 356.4 of the SGMA regulations and include the following elements:

#### Sustainability Evaluation

The overall Basin sustainability and current groundwater conditions for each applicable sustainability indicator will be described, including progress toward achieving interim milestones and measurable objectives, and an evaluation of groundwater elevations at each of the representative monitoring points (RMPs) in relation to minimum thresholds.

#### Plan Implementation Progress

This section will describe the current implementation status of PMAs, along with the effect on groundwater conditions resulting from their implementation, if applicable.

#### Reconsideration of GSP Elements

Elements of the GSP may require revision due to one or more of the following: collection of additional monitoring data during GSP implementation; implementation of PMAs; significant changes in groundwater uses or supplies and/or land uses. Such new information may require revision to the following GSP elements: Basin setting, water budgets, monitoring network, SMC, or PMAs.

#### Monitoring Network Description

This section will provide an assessment of the monitoring network's function, an analysis of data collected to date, a discussion of data gaps and the needs to address them, and identification of areas within the Basin that are not monitored in a manner commensurate with the requirements of Sections 352.4 and 354.34(c) of the SGMA regulations.

#### Consideration of New Information for Basin Setting and SMC

New information made available after GSP adoption will be described and evaluated. If new information would warrant a change to the GSP, including a re-evaluation of the Basin setting and SMC, then corresponding revised descriptions will be included in the five-year evaluation report.

#### Regulations or Ordinances

If DWR adopts new regulations that impacts GSP implementation, the update will also identify and address those requirements that may require updates to the GSP.

#### Legal or Enforcement Actions

Any enforcement or legal actions taken by the GSA or their member agencies to contribute to attainment of the sustainability goal for the Basin will be summarized.

#### Plan Amendments

Each five-year assessment report will include a description of amendments to the GSP, including adopted amendments, amendments that are underway during development of the report, and recommended amendments for future adoption.

#### Coordination

A summary of coordination that has occurred between Basin, with different agencies in the Basin, or with agencies with jurisdiction over land use and well construction will be incorporated in the five-year assessment report. The five-year assessments will also include any other information deemed appropriate by the GSA to support DWR in its periodic review of GSP implementation, as required by Water Code Section 10733.

### 5.1.2 Implementation

#### **Monitoring Networks Summary**

The SMC monitoring networks were developed leveraging current and ongoing monitoring to assess minimum thresholds. A summary of the existing monitoring networks and planned expansion is presented in Table 1.

#### Groundwater level and storage

The current RMPs for the groundwater level and storage monitoring network currently includes 13 wells which are already part of either the existing CASGEM network or the current monitoring performed by the GSA. The groundwater levels monitoring network combined with the current DWR CASGEM network serves as basis for assessing all SMCs with the exception of water quality and depletions of interconnected surface waters. All 13 wells that have been selected for the groundwater level monitoring network are either existing GSA monitoring wells that are currently monitored by GSA or wells included in the CASGEM network and monitored by DWR twice per year. The current minimum monitoring frequency of twice each year (spring and fall) is used for all wells in the CASGEM network, except two wells with continuous monitoring. Criteria

for new wells is established in Chapter 3 and priorities listed in Appendix 3-A. Wells added to the monitoring network will be included among the RMPs in the 5-years GSP update. If funding is secured, additional continuous sensors can be installed with telemetry to increase the frequency of monitoring and remove the need for monitoring site visits. Groundwater storage uses the levels monitoring network as a proxy and has no additional requirements.

#### Groundwater quality

The 16 existing wells selected for the water quality monitoring network are part of the GAMA system. They are regularly monitored as municipal wells, but the frequency varies. The program seeks to augment the GAMA wells with additional wells for additional coverage (see Appendix 3-A). Results will be complemented with the ongoing monitoring undertaken by public health for the municipal wells mentioned above and included in the GAMA program. The monitoring plan will be augmented as needed if constituents will exceed the criteria or if specific increasing trends in constituent concentrations are observed.

#### Interconnected surface water and GDEs

The interconnected surface water monitoring network is preliminary with a planned expansion for the 5-year update. It consists of 2 continuously-monitored stream gages, 1 continuously monitored GDE proxy well, bi-monthly diversion data from SSWD, 3 piezometer transects, and 6 monthly-monitored springs. If funding is available, four additional stream gauges will be added for the 5-year update. Additional expansion will depend on funding.

#### Subsidence

DWR will periodically provide InSAR data that will be analyzed and assessed by the GSA for any occurrence or worsening subsidence trends.

#### Implementation of the monitoring program activities described in Chapter 3

This category covers the functions associated with monitoring activities, including logistics and coordination with third party entities performing monitoring in the GSP Monitoring Network and any related monitoring data management. The GSP Monitoring Networks for groundwater level and groundwater quality, including the agencies performing that monitoring, are detailed in Chapter 3. A summary of existing and proposed monitoring for the assessment of SMCs is presented in Table 1. The existing data in the first column of Table 1 are the representative monitoring points (RMPs) identified in Chapter 3 and will need to be monitored at the frequency specified and reported as part of the annual reports submitted by the GSA.

To address data gaps (extended data gap section is presented in Appendix 3-A) that are identified during GSP implementation, improvements to or expansion of the GSP Monitoring Network may be necessary. In that event, additional monitoring wells, monitoring well instrumentation; sampling and in-situ measurements; sample analysis; and associated data management and analysis may be required in the future. Costs for those facilities and activities are not addressed in this section.

Monitoring and data-related activities include:

- Groundwater Elevation Monitoring.
- Groundwater Quality Monitoring.

- Streamflow Monitoring.
- Monitoring data management (including data management system (DMS) maintenance), data validation (QA/QC), data entry and security, and data sharing.

SMC	Wells (Existing)	Wells (New)	Measurement (Existing)	Measurement (New)	Other, Based on Future Funding Availability
Groundwater Levels			Measured at least 2x/year	(a)	See Appendix 3-A (Data Gap Appendix)
			2 wells have continuous monitoring		
Storage	Groundwater Levels as Proxy				N/A
Water Quality	16 wells	At least 2 (b)	Once every two years, unless otherwise specified (see Chapter 3) (c)	Once every 2 or 3 years	See Appendix 3-A (Data Gap Appendix)
ISW	2 stream gauges (continuous)	4 stream gages (d)	13 at least quarterly	Spring Monitoring	See Appendix 3-A (Data Gap Appendix)(e)
	1 GDE well (continuous)		4 continuously		
	Diversion data from SSWD (bi-monthly)				
	3 piezometer transects				
Subsidence	InSAR Data	N/A	InSAR Data (f)	N/A	N/A

Table 1: Monitoring and Planned Expansion for Sustainable Mangement Criteria in Butte Valley.

<sup>a</sup> Telemetry may be employed to increase data collection frequency and minimize field visits.

<sup>b</sup> Two wells from the dairy monitoring program may be added after at least 10 years of historical data has been collected. In the North Coast Hydrologic Region, dairy operators are required to monitor and report groundwater data to the NCRWQCB, making them good candidates for network expansion. Annual groundwater monitoring of nitrate was first required in 2012 as a part of Waste Discharge Requirements for Dairies (Order No. R1-2012-0002). Order No. R1-2019-0001 extends the monitoring program but increases sampling frequency to every three years after the year 2022.

<sup>c</sup> Coordinate with existing GAMA water quality monitoring to obtain data

<sup>d</sup> If funding is available, four new stream gages will be added.

<sup>e</sup> More continuous data in existing shallow wells may be considered in the future as implementation funding become available and as the model provides more certainty about locations where these data are critical. Shallow wells will be paired with flow and/or stage gauges, pending funding availability over the first 5 years of the implementation period. Feasibility study required to assess potential locations. Gauges may benefit by using telemetry to provide continuous data.

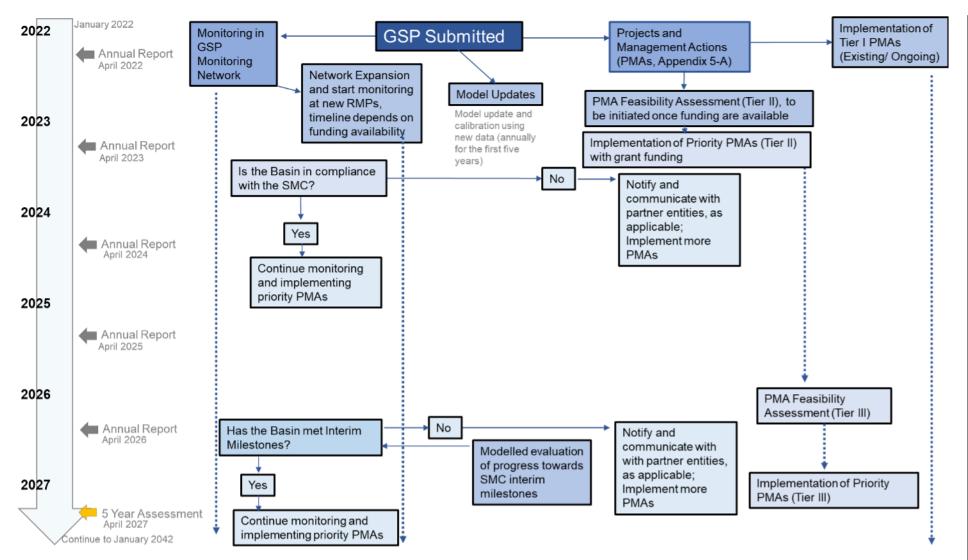
<sup>f</sup> InSAR data analyzed as it becomes available from DWR, but no more frequently than once every two years.

# Technical support, including SWGM model updates, SMC tracking, other data analysis and technical support

**Model updates** – Management activities and ongoing performance evaluation of the SMC are informed by SWGM model output, which will require periodic updates and refinements as more data become available. Model updates and refinements help maintain, and potentially improve, the model functionality and its capabilities in providing more representative simulation results. These activities include incorporation of new model tools and features, data input and model parameter updates, calibration updates as additional data from the monitoring network and stream gauges is obtained, use of SWGM to update water budgets, assess water usage, and assess the status of Basin-wide storage volumes, and related work to support ongoing simulations of PMAs, including recharge projects. Model updates may occur as frequent as annually and re-calibration is proposed to be completed every 5 to 10 years.

**SMC tracking** – synthesis of data to analyze and track the status of compliance with SMC at the representative monitoring points (RMP) wells in the Monitoring Network. This information will comprise an essential element of the annual reports and 5-year updates. A template for SMC tracking based on the annual report requirements from DWR is available in Appendix 5-B

**Data analysis** – Additional data analysis and associated technical support, outside of the GSA's resource capabilities, will be needed for annual reporting and 5-year GSP update and outreach activities. The GSA will also have an ongoing need for technical support for the Basin management, such as vulnerability assessments for climate change, hydrologic technical support, assessment of managed aquifer recharge opportunities, economic and funding mechanisms assessments, and studies to address data gaps. It is anticipated that the GSA may also require various planning and programmatic support assistance for ongoing GSP- and SGMA-related requirements.



 $\pm$ 

Figure 1: GSP implementation process for the first 5-years implementation. The road map is expected to be similar for the following 5-years cycles.

Results of the monitoring program activities inform GSA actions and next steps. The flowchart shown in Figure 1 illustrates the process and decision points for the first five years of GSP implementation. This process will be refined, as necessary, throughout the first five years of GSP implementation and will be updated in parallel with the five-year evaluations. Further detail on the prioritization and implementation timeline of PMAs can be found in the discussion of PMAs below, and in Appendix 5-A.

#### Projects and Management Actions described in Chapter 4.

Chapter 4 of this GSP identifies three different tiers of projects and management actions (PMAs) in the Basin, as follows:

- 1. Tier I: Existing PMAs that are currently being implemented and are anticipated to continue to be implemented.
- 2. Tier II: PMAs planned for near-term initiation and implementation (2022–2027) by individual member agencies.
- 3. Tier III: Additional PMAs that may be implemented in the future, as necessary (initiation and/or implementation 2027–2042).

The PMAs listed in Chapter 4 reflect a collection of potential options that may be employed to support the sustainability goals outlined in this plan. Although PMAs have been categorized into three tiers based on the anticipated timeframe for initiation and implementation, **these categorizations may change as additional monitoring data**, **information**, **and sources of funding are gained and as conditions change**. Tier I PMAs are anticipated to continue to be implemented throughout the GSP implementation period. A preliminary strategy for PMA prioritization and associated criteria, have been developed for PMAs. As a first step in Plan implementation, PMAs identified in the Tier II category will be ranked using criteria including the effectiveness, completeness, complexity, cost, uncertainty, and level of support for the project or management action. A full description of the criteria used in this evaluation and associated scoring system can be found in Appendix 5-A as well as a preliminary PMA assessment table. This preliminary prioritization step will be initiated immediately after submission of the GSP to provide the GSA with enough time to evaluate projects feasibility and include the selected projects into future funding requests. The GSA is expected to continue to refine this prioritization as more information on the feasibility, costs and anticipated benefits becomes available for these PMAs.

The management actions that will be undertaken by the GSA or in partnership with other entities active in the basin, include:

- A variety of coordination activities, including:
  - Coordination with agencies with local land use authority
  - Coordination with entities sponsoring major beneficial projects
  - Coordination to support water use efficiency measures
  - Coordination with Siskiyou County Environmental Health Division

As a priority during the first months of GSP implementation, the Advisory Committee will meet and evaluate project management actions. Based on factors including ability to secure funding, effectiveness and feasibility of implementation, the Advisory Committee will recommend a prioritization scheme based on factors including ability to secure funding, effectiveness and feasibility of implementation.

### 5.1.3 Outreach

#### Coordination activities with other entities

The GSA will need to budget for ongoing coordination during GSP implementation. Coordination will be required with the following entities on the following topical areas:

- With agencies in the Basin with land use jurisdiction to identify and communicate regarding activities that may impact Basin sustainability.
- With water supply agencies, such as irrigation districts or municipal providers, to obtain updated information regarding water use efficiency programs, encourage such programs, and obtain information regarding the impacts of those programs on water demands.
- With entities sponsoring projects, such as recharge or efficiency improvements, in the Basin that will provide benefits to attainment of sustainability goals and objectives, including support for grant funding.
- With any other entities working in the Basin to support the sustainability goal and aspirational watershed goal, as applicable. To achieve this coordination, the GSA will need to develop governance and communication processes to support these activities efficiently and effectively.

#### **Outreach to stakeholders**

Activities under this element of the GSP implementation plan include continuation of education, outreach, and engagement with stakeholders, building off the framework and activities established in the Communication and Engagement Plan, as described in Chapter 1. Such activities performed during GSP implementation include maintaining the Basin webpage on the County website and the online/social media presence, community meetings, workshops, and public events. These activities may also include electronic newsletters, informational surveys, coordination with entities conducting outreach to diverse communities in the Basin, and development of brochures and print materials. Decisions regarding the nature and extent of these outreach activities will be made by the GSA.

# **5.2 Estimate of GSP Implementation Costs**

The implementation costs for the Shasta Valley GSP will include funding for functions associated with the GSP implementation elements described above, including GSA management and administration, monitoring, technical support, data management, coordination, reporting, management actions, and outreach. GSP implementation costs will also cover the building of sufficient fiscal reserves to address other potential costs for the twenty-year implementation horizon.

Implementation of the GSP over the 20-year planning horizon is projected to cost between \$150,000 and \$262,500 per year. Table 2 summarizes the breakdown of these costs by implementation element. These costs are based on the best available estimates at the time of Plan development and may vary throughout the period of Plan implementation. Grant awards may offset some costs. If the GSA develops additional projects or management actions during the GSP implementation period, the cost estimates will be refined and reported to DWR through the annual reports or five-year periodic assessments.

Development of this GSP was funded largely through a Proposition 1 Groundwater Grant Program and Proposition 68 Grant. The GSA will pursue additional grant funding for GSP implementation as it is available. In the following analysis, it is assumed that the GSA will identify other sources of funding to cover GSP implementation costs.

#### **Financial Reserves and Contingencies**

To mitigate financial risks associated with expense overruns due to unanticipated expenditures and actual expenses exceeding estimated costs, the GSAs may carry a general reserve with no restrictions on the types of expenses for which it can be used. Adoption of a financial reserves policy is authorized by SGMA Sections 10730(a) and 10730.2(a)(1). A reserve for operations usually targets a specific percentage of annual operating costs and may consider factors such as billing frequency and the recurrence of expenses to address cash flow constraints.

#### **Total Implementation Costs Through 2042**

The total annual cost is estimated at \$168,750 to \$287,500 based on the best available information at the time of Plan preparation and submittal. These costs include a grant writing component in addition to the costs of GSP implementation, discussed above and presented by major budget category in Table 2.

GSP Implementation Tasks	Recurring Annual Costs						
GSA Management, Administration, Legal and Day-to-Day Operations	\$12,500-\$31,250						
Administrative Staff Support /Accounting	TBD						
GSA management and staff support	TBD						
Legal support	TBD						
Data management	TBD						
Monitoring and Technical Support							
Technical Work: SVIHM maintenance	\$50,000-\$100,000						
Monitoring, data analysis and management	\$56,250-\$75,000						
GSP Reporting							
Annual Reports	\$18,750-\$31,250						
5-Year GSP Assessments	\$12,500						
GSP Management Actions							
Management Action - Coordination activities	TBD						
Ongoing Outreach Activities to Stakeholders							
Outreach & Education	\$12,500-\$25,000						
Contingency							
Contingency (10%)							
Total	\$150,000-\$262,500						

Table 2: Summary of Annual GSP Operation and Implementation Costs.

## 5.3 Schedule for Implementation

The final GSP will be presented to the GSA Board for adoption in November or December 2021 and will be submitted to DWR no later than January 31, 2022. The preliminary schedule for agency administration, management, and coordination activities, GSP reporting, and community outreach and education are provided in Figure 2. While most activities are continuous during GSP implementation, annual reports will be submitted to DWR by April 1st of each year and periodic five-year assessment reports will be submitted to DWR by April 1st every 5 years after the initiation of Plan implementation in 2022 (i.e., assessment report submittal in 2027, 2032, 2037, and 2042).

		2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032 2033 2034 2035 2036 2037 2038 2039 2040 2041 2042																				
	Start	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
Data Management and Reporting																						
Milestones																						
GSP Submitted to DWR	January 2022	•																				
Groundwater Sustainability Goal Attained	January 2042																					•
Reporting																						
Annual Reporting	April 2022	•	۲	۲	۲	•	•	۲	٠	٠	•	٠	٠	٠	•	•	•	•	•	•	•	•
5-Year Evaluations	April 2027						•					•					•					
Monitoring																						
Monitoring: Groundwater (all)	Continuous																					
Monitoring: Streamflow Continuous																						
Monitoring: stream transects Continuous												_						_		_		
Groundwater Quality Monitoring Network Expansion January 2022																						
Data Management Continuous																						
Outreach and Education																						
Stakeholder Outreach and Education Continue																						
Projects and Management Actions																						
Tier I PMAs: ongoing	January 2022																					
Tier II PMAs feasibility study and prioritization upon funding availability	January 2022	•																				
Tier II PMAs: Implementation of highly prioritized PMAs (based on funding availability)	January 2023		•																			
Tier III PMAs Feasibility Study (based on funding availability)	January 2023			•																		

# **5.4 Funding Sources and Mechanisms**

SGMA authorizes GSAs to charge fees, such as pumping and permitting fees, to fund the costs of groundwater management and sustainability programs.

The GSA will pursue various funding opportunities from state and federal sources for GSP implementation. As the GSP implementation proceeds, the GSA will further evaluate funding mechanisms and fee criteria and may perform a cost-benefit analysis of fee collection to support consideration of potential refinements. A funding-options-analysis was conducted by SCI Consulting Group and the results of this analysis are presented as technical memorandum in Appendix 5-C. This technical memorandum summarizes the estimated costs for implementation, the recommended path to identify and prioritize funding during GSP implementation, and general funding recommendations. The recommended approach to funding is summarized in the "game plan," included on page 31 of Appendix 5-C, and shown below.

Game Plan:

- 1. Conduct community outreach regarding the Plan and its implementation.
- 2. Pursue use of existing revenue sources to fund implementation.
- 3. Pursue Grants and Loan Opportunities to fund implementation
- 4. Implement Regulatory Fees to offset eligible implementation costs.

If additional revenue is needed:

- 5. Conduct a survey and stakeholder outreach to better evaluate
  - a. Community priorities and associated messaging.
  - b. Optimal rate.
  - c. Preference of non-balloted property related fee versus special tax.
- 6. Use results of surveys, stakeholder input and other analyses to develop a community outreach plan.
- 7. Implement community outreach
- 8. Implement a property related fee or special tax balloting:
  - a. Include a cost escalator schedule or mechanism
  - b. Include the use of rate zones or other distinguishing factors.
  - c. Do not include a rate expiration date (also known as a "Sunset Clause").
  - d. Include a Discount Program to encourage better groundwater management by well owners.

Table 3 presents examples of potential financing options and the degree of certainty associated with each funding option. The "game plan" reflects an approach and order of priority given to seeking funding sources. The GSA is the lead in developing these funding sources, in partnership with other entities and agencies where appropriate. A working group will be convened in the first year of GSP implementation to identify and evaluate these funding sources.

Funding Source	Certainty						
Feepayers (a)	High - User fees pay for operation and maintenance (O&M) of a utility's system. Depends upon rate structure adopted by the project proponent and the Proposition 218 rate approval process. Can be used for project implementation as well as project O&M.						
General Funds or Capital Improvement Funds (of Project Proponents)	High - General or capital improvement funds are set aside by agencies to fund general operations and construction of facility improvements. Depends upon agency approval.						
Special taxes, assessments, and user fees (within Project Proponent service area or area of project benefit)	High - Monthly user fees, special taxes, and assessments can be assessed by some agencies should new facilities directly benefit existing customers. Depends upon the rate structure adopted by the project proponent and the Proposition 218 rate approval process.						
Bonds	Low - Revenue bonds can be issued to pay for capital costs of projects allowing for repayment of debt service over 20 to 30-year timeframe. Depends on the bond market and the existing debt of project proponents. Not anticipated in the Basin.						
Integrated Regional Water Management (IRWM) implementation grants administered by the California Department of Water Resources (DWR)	Medium - Proposition 1, IRWM Implementation Grants.						
Proposition 68 grant programs administered by various state agencies	Medium - Grant programs funded through Proposition 68, which was passed by California voters in June 2018, administered by various state agencies are expected to be applicable to fund GSP implementation activities. These grant programs are expected to be competitive, where \$74 million has been set aside for Groundwater Sustainability statewide.						
Disadvantaged Community (DAC) Involvement Program	Medium - DWR's DAC Involvement Program This program is not guaranteed to be funded in the future.						

Table 3: Potential Funding Sources for GSP Implementation.

<sup>a</sup> Feepayers can be well-owners or property owners depending on the selected approach.