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Section 5: Plan Implementation

Groundwater management has been ongoing in the South American Subbasin (SASb) and the neighboring North American Subbasin (NASb) and Cosumnes Subbasin for decades. As described in prior sections, a variety of projects and management actions (PMAs) have been implemented in recent years which have largely stabilized current groundwater conditions in terms of groundwater levels, storage volume and interconnected surface waters. As planned changes in land use occur, a small annual decline in storage volume is likely to occur and will increase under potential future climate change conditions. Additional projects are currently planned and being implemented by local entities which will contribute to the maintenance of sustainable conditions in the SASb over the implementation horizon of this Groundwater Sustainability Plan (GSP). PMAs described in **Section 4** will improve groundwater conditions in the SASb and enable the continued and effective use of groundwater with sufficient flexibility to ensure a sustainable groundwater system into the future. These projects include recycled water use, winter recharge in years with adequate peak stream flows, and regional conjunctive use projects; management actions include well protection actions, GSA coordination activities, and information gathering that will benefit all uses and users in the SASb.

In this section, the elements of GSP implementation are identified and described. Those elements include:

- GSA management, administration, legal and day-to-day operations
- Implementation of the GSP monitoring program activities described in **Section 3**
- Technical support, including model updates and other technical analysis
- Coordination and partnership activities among GSAs within SASb and with other entities
- Reporting, including preparation of annual reports and 5-year evaluations and updates
- Projects and Management Actions (PMAs) as described in **Section 4**
- Ongoing outreach activities to local, regional, state and federal stakeholders
- Actions in response to Undesirable Results

Cost estimates and elements of a plan for funding GSP implementation are also presented in this section.

It should be noted that an effort has been performed to develop an agreement and governance structure for the implementation of the SASb GSP by the GSAs responsible for this GSP. This agreement (which is submitted as a companion document to this GSP) will establish the framework for joint activities by the GSAs that are described 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 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 administrative, technical and finance staff support and related expenses; office supplies; insurance; and grant writing to support funding for specific projects and/or management actions. GSA staff and/or contractors will provide work products, administrative support, staff leadership, and management for the GSAs.

As the GSP implementation begins in 2022, staffing support and ongoing administrative and management needs will be further evaluated so that necessary budget refinements can be incorporated. Staffing needs will be reevaluated annually during the early years of GSP implementation to gain a better understanding of the support required. Staffing needs during out-years will be assessed on an as-needed basis.

Each of the GSAs in the SASb are administered independently. These agencies run their own meetings and oversee individual GSA projects and programs. GSA administration activities include coordination meetings within each GSA; coordination with other GSAs on projects or studies; coordination meetings of a GSP Implementation Ad-hoc Committee; email communications for updating GSA members about on-going activities; administration of projects implemented by the GSA; public outreach; and general oversight. Coordination meetings between the GSAs are anticipated to occur quarterly. Other coordination, oversight and administrative activities will occur on an as-needed basis.

Each GSA is responsible for and authorized to take appropriate action to achieve sustainable management of groundwater within their portion of the Subbasin based on the authority granted under Section 6 of the California Water Code. As such, GSAs may retain legal counsel to assist in these actions.

5.1.2 Implementation of the Monitoring Program Activities

This category covers the functions associated with monitoring activities, including logistics and coordination with entities performing monitoring of wells in the GSP Monitoring Network, and associated management of monitoring data. The GSP Monitoring Networks for groundwater level and groundwater quality, including the agencies performing that monitoring, are explained in **Section 3**.

To address data gaps that are identified during GSP implementation, improvements to or expansion of the GSP Monitoring Network may be necessary. In that event, coordination with existing well owners will be explored as a first step in expanding the monitoring network. This work may include data acquisition at additional monitoring wells; drilling new dedicated monitoring wells; monitoring well instrumentation; sampling and in-situ measurements; sample analysis; and maintenance and upkeep of associated data management system and data

analysis and reporting. Costs for those facilities and activities are uncertain at this time but will be developed as the need arises during GSP implementation.

Areas of particular interest for additional data collection include information regarding well depth and screened intervals for specific wells in the GSP Monitoring Network and groundwater monitoring wells and stream gages along the middle reach of the Cosumnes River. These activities are included in the GSP as a management action and are described in **Section 4**.

Annual monitoring and data-related activities include:

- Groundwater Elevation Monitoring
- Groundwater Quality Monitoring
- Groundwater Extraction Monitoring/Modeling
- Stream flow Monitoring
- Obtaining and utilizing available satellite imagery and/or vegetation data to monitor GDEs as described in **Section 3**
- Monitoring Data Management (including data management system [DMS] maintenance), data validation (QA/QC), data entry and security, and data sharing

5.1.3 Technical Support, Including CoSANA Model Updates, Sustainable Management Criteria (SMC) Tracking, Other Data Analysis and Technical Support

CoSANA Model updates – Management activities and ongoing performance evaluation of the SMC are informed by CoSANA model output, which will require periodic updates and refinements as additional data and new information become available. Model updates and refinements will improve the model functionality and its capabilities in providing representative and defensible model output. These activities will include incorporation of new modeling tools and features; data input and model parameter updates; calibration updates as additional data from the monitoring network and stream gages are obtained; use of CoSANA to update water budgets, assess water usage, and assess the status of the SASb-wide groundwater storage volume; and related work to support ongoing analysis of implementation of PMAs, including conjunctive use, recharge and water banking projects.

SMC tracking – Synthesis of data will be performed to analyze and track the status of compliance with SMC at the representative monitoring point (RMP) wells in the SASb Monitoring Network. This synthesis will provide essential information for inclusion in the annual reports and 5-year GSP updates and will also provide information to trigger action by GSAs in the event problems in achieving SMC are detected.

Database Management System (DMS) – As data on groundwater conditions become available, the DMS will be updated and refined to support the annual reporting requirements, as well as supporting model refinements and updates. This data includes, but is not limited to, annual land use and cropping patterns, water demands by urban water purveyors and agricultural entities, groundwater levels, groundwater use, surface supply use, and hydrologic conditions data, including precipitation and streamflow. Additionally, new groundwater quality data will be added to the DMS.

Data analysis and other technical support – Data analysis will be needed for the annual reporting and 5-year GSP update and to support outreach activities. The GSAs may require support to integrate new information into the GSP as ongoing work proceeds to fill identified data gaps. In addition, as-needed data analysis and other technical support needs may arise to support the GSAs in implementation of the GSP.

5.1.4 Coordination Activities with Other GSAs and Entities

As identified in **Section 4**, GSAs in the SASb will need to budget for ongoing coordination during GSP implementation to meet SGMA requirements and to enable/promote sustainability of the SASb. Coordination will be required with the following entities on the following topical areas as a management action under the GSP:

- With other GSAs in SASb on GSP implementation measures, including, but not limited to, joint management actions, regional water bank/accounting, and grant applications supporting recharge projects.
- With agencies in SASb with land use jurisdiction to identify activities that may impact SASb groundwater sustainability.
- With GSAs in adjacent subbasins to coordinate possible future agreements, information exchange, monitoring network augmentation, and to resolve any issues regarding SMC along their common boundary. Additionally, as the CoSANA model is a common analysis tool among the NASb, SASb, and COSb, coordination is needed among various GSAs in these subbasins regarding data collection, model upgrades, calibration updates, and application.
- With water supply agencies to obtain updated information on monthly water use volumes, implementation of water use efficiency programs, and information regarding the impacts of those programs on water demands.
- With entities sponsoring projects in the SASb that will provide benefits to attainment of sustainability goals and objectives, including support for grant funding.
- With other regional entities to work on regional water bank development and implementation and to continue to refine climate change studies to develop the projections that can be used in preparing the 5-year update to the GSP.

To achieve this coordination, the SASb GSAs will need to develop governance and communication processes to support these activities efficiently and effectively.

5.1.5 Reporting, Including Preparation of Annual Reports and 5-year Evaluations and Updates

As part of GSP implementation, the GSAs must, either singly or jointly, prepare and submit annual reports and 5-year assessments to the California Department of Water Resources (DWR). Annual reports will be submitted to DWR by April 1st of each year for the previous water

year (WY), 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.

5.1.5.1 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 DWR. Each annual report will be submitted to DWR by April 1st for the previous WY (October 1st to September 30th). Development of each annual report will begin during October of each calendar year. Therefore, the first Annual Report will cover WY 2021 and will be submitted by the GSAs to DWR no later than April 1, 2022. (Note that WYs 2015 through 2020 will be included in the first annual report, as required by SGMA, because groundwater conditions have not been reported for those WYs.) The annual reports will be completed in a format consistent with Section 356.2 of the SGMA regulations and include the following three key sections:

5.1.5.1.1 General Information

General information will include a map of the Subbasin 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.

5.1.5.1.2 Basin Conditions

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

- Groundwater elevation data from monitoring wells in comparison to SMC and will include (1) groundwater elevation contour maps for the principal aquifer depicting seasonal high and low groundwater conditions, and (2) hydrographs of historical-to-current-reporting-year data showing groundwater elevations and WY type.
- Groundwater extractions during the WY 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.
- Surface water supply for groundwater recharge or in-lieu use, including the annual volume and sources for the WY.
- 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 WY type, groundwater use, annual change in groundwater in storage, and the cumulative change in groundwater storage for the Subbasin.

This information may change over time to incorporate potentially revised GSA priorities and to reflect new Subbasin conditions and applicable SGMA requirements.

5.1.5.1.3 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.

5.1.5.2 Periodic Evaluations Every 5 Years

Per Water Code Sections 10727.2, 10728, 10728.2, 10733.2, and 10733.8, SGMA regulations require the GSAs to provide a written assessment of GSP implementation and progress towards meeting the sustainability goal at least every 5 years. A similar evaluation must also be submitted whenever the GSP is amended. The 5-year assessment reports will be completed in a format consistent with Section 356.4 of the SGMA regulations and include the following elements:

5.1.5.2.1 Sustainability Evaluation

The overall Subbasin 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 RMPs in relation to minimum thresholds. The report shall describe any observed or anticipated problems in attaining SMC and actions taken by GSAs to either prevent or respond to such problems.

5.1.5.2.2 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.

5.1.5.2.3 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; collection of information to fill identified data gaps; exchange of information with adjacent subbasins; 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: Subbasin setting, water budgets, monitoring network, SMC, PMAs, GSP implementation, and/or inter-basin coordination.

5.1.5.2.4 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 steps taken to address them, and identification of areas within the Subbasin that are not monitored in a manner commensurate with the requirements of Sections 352.4 and 354.34(c) of the SGMA regulations.

5.1.5.2.5 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 Subbasin

setting and SMC, then corresponding revised descriptions will be included in the 5-year evaluation report.

5.1.5.2.6 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.

5.1.5.2.7 Legal or Enforcement Actions

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

5.1.5.2.8 Plan Amendments

Each 5-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.

5.1.5.2.9 Coordination

A summary of coordination activities will be provided in the 5-year assessment report, including activities between SASb GSAs, with GSAs in neighboring subbasins, and with agencies with jurisdiction over land use, water supply and well construction within the Subbasin.

The 5-year assessments will also include any other information deemed appropriate by the GSAs to support DWR in its periodic review of GSP implementation as required by Water Code Section 10733.

5.1.6 Projects and Management Actions

Section 4 of this GSP identifies three different groups of projects in the SASb, plus several management actions, as follows:

1. **Group 1** – Projects that are currently in place and will continue to be implemented by specific participating agencies within the SASb to support groundwater management and GSP implementation.
2. **Group 2** – Projects that are currently planned and will be implemented by specific participating agencies within the SASb in the near future which will contribute to attainment of SMC and the attainment of the SASb sustainability goal, and will otherwise support GSP implementation.
3. **Group 3** – Projects which have been identified which may occur in the SASb in the future, would provide benefits in contributing to the attainment of the sustainability goal and SMC, and would otherwise support GSP implementation.

4. Management actions that will be undertaken jointly by the SASb GSAs to provide assurance that beneficial uses and users of groundwater will be protected and maintained.

As described in **Section 4** and based on the results of CoSANA model scenario analyses, the projects in Groups 1 and 2 will be sufficient to ensure sustainability of the SASb and to avoid the occurrence of undesirable results. The Group 1 and 2 projects will be separately sponsored and funded by individual entities and will therefore not require funding by the GSAs. The supplemental multi-benefit projects in Group 3 would provide opportunity for improvement of groundwater conditions in the SASb and to support adaptive management in the event future conditions or outcomes are different than projected.

The management actions that will be undertaken by the GSAs in the SASb, either jointly or singly, include the following, which are described in greater detail in **Section 4**:

- Development and implementation of a Shallow/vulnerable well protection program in coordination with local well owners.
- Coordination with Sacramento County Environmental Management Wells Program to revise Well Construction requirements to protect existing wells and promote consistency with the GSP.
- Actions to fill identified data gaps in **Section 3**.
- A variety of coordination activities, including:
 - Coordination with GSAs in the SASb.
 - Coordination with agencies with local land use authority to enable appropriate consideration of GSP provisions in land use decisions and to establish regular communications between GSAs and those agencies.
 - Coordination with entities sponsoring the planned projects described in **Section 4** that will be beneficial to attainment of the goals of the GSP.
 - Coordination with water supply agencies to support water use efficiency measures and coordination with Regional Water Authority (RWA), Water Forum and local agencies regarding regional water supply planning and water resources management, including development of refined climate change projections.
 - Coordination with GSAs in adjacent basins to share information (e.g., groundwater levels and boundary fluxes) and to coordinate outreach activities and messages, as appropriate.
 - Coordination with RWA and others to support the development, formation and operation of the Sacramento Regional Water Bank and associated accounting framework in the SASb.

Table 5-1 presents management actions, responsible entity, and proposed means for generating revenues to support these actions.

Table 5-1: Proposed Responsible Entities and Proposed Funding Mechanisms for Proposed Management Actions

Management Actions	Proposed Responsible Entity	Proposed Funding Mechanism
Shallow Well Protection Program	GSAs under MOU	Combination of fees and property tax, potentially supplemented by grant funds
Well Construction coordination – Proposed Ordinance revisions	GSAs under MOU	Combination of fees and property tax
Actions to fill identified data gaps	GSAs under MOU	Combination of fees and property tax
Coordination activities with various entities	GSAs under MOU	Combination of fees and property tax

5.1.7 Outreach/Engagement with 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 GSP Working Group meetings that led to the development of the GSP and further described in the Communication and Engagement Plan, as described in **Section 2**. Such activities performed during GSP implementation include maintaining the SASb website and the online/social media presence of member agencies, convening regular community meetings, workshops, and public events. The formation of a stakeholder advisory group has been suggested by engaged stakeholders and should be considered by the GSAs, given the benefit derived from stakeholder input during GSP development and the basic premise of SGMA to promote such engagement. These activities may also include electronic newsletters, informational surveys, coordination with entities conducting outreach to diverse and/or disadvantaged communities in the Subbasin, coordination with tribal representatives, and development of brochures and print materials. Decisions regarding the nature and extent of these outreach activities will be made by the GSAs, acting either singly or jointly.

5.1.8 Actions in response to Undesirable Results

In the event Undesirable Results are either anticipated or observed based on the information derived from the monitoring and reporting functions described above, the GSAs will take the following actions:

- Clearly identify the information pointing to either anticipated or observed Undesirable Results, e.g. failure to meet SMC at specific Monitoring Network wells at problematic frequency or duration, failure to meet criteria for protection of GDE or ISW, unanticipated failures of shallow wells
- Commence an investigation to determine the cause of the anticipated or observed problem
- Develop and implement a plan and schedule for resolution of the problem, including allocation of resources.

- Track progress in resolution of the problem
- Report the above in the annual report to DWR.

It should be noted that the technical work supporting the development of this GSP does not project the occurrence of Undesirable Results in the SASb, based on best available information. The above process is described to address unanticipated future events.

5.2 Estimate of GSP Implementation Costs

The implementation costs for the SASb 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, GSP management actions, and outreach. GSP implementation costs will also cover the building of sufficient fiscal reserves to address other potential costs for the near-term GSP planning horizon.

Implementation of the SASb GSP over the 20-year implementation horizon by the SASb GSAs is projected to cost \$860,000 per year, to be shared among the GSAs, and does not include the cost of new wells or equipment. The estimated costs for management and administration of each GSA are separate and could range from \$120,000 to \$460,000 per year, depending on the specific GSA and its activities.

Table 5-2 summarizes the estimated costs by implementation element; the table includes a range of GSA-specific management and administrative costs in addition to the estimate of shared costs. These costs are based on the best available estimates at the time of Plan development and may vary during the period of Plan implementation. Grant awards may offset some costs. If the GSAs develop additional projects or management actions during the GSP implementation period, the cost estimates will be refined and reported to DWR through annual reports and the 5--year periodic assessments.

Development of this GSP was funded through a Proposition 1 Groundwater Grant Program and Proposition 68 Grant, with additional local share contributions. The GSAs may pursue additional grant funding for GSP implementation, if it is available. The GSAs will identify other sources of funding to cover GSP implementation costs, which may include parcel fees, groundwater extraction fees, increased water rates, other grants, and low interest loans. The exact funding mechanisms will vary by GSA and will depend on the legal authority of each GSA.

Table 5-2: Summary of Estimated GSP Implementation Costs

GSP Implementation Tasks	Annual Cost Range (varies by GSA)	Annual Costs (Shared Among GSAs)
GSA Management, Administration, Legal and Day-to-Day Operations		
Administrative Staff Support /Accounting	\$50,000 – \$190,000	
GSA management and staff support	\$50,000 – \$190,000	
Legal support	\$10,000 – \$40,000	
Implementation of the GSP Monitoring Program Activities		
Monitoring data collection, Coordination with monitoring entities, Data Validation		\$80,000
Data management		\$35,000
New monitoring wells, equipment (not including costs for Management Action 4)		To be determined (TBD)
Technical Support, including Model Updates and other Technical Analysis		
CoSANA Model updates		\$70,000
Special data analysis needs		\$20,000
SMC Tracking		\$40,000
GSP Reporting		
Annual Reports		\$60,000
5-Year GSP Assessments (annual contribution to fund \$1.0 million reserve for 5-year update to GSP)		\$200,000
GSP Management Actions		
Management Action 1 – Shallow/Vulnerable Well Protection Program		\$100,000
Management Action 2 – Well construction requirement revisions		\$20,000
Management Action 3 – Coordination activities		\$100,000
Management Action 4 – Address Data Gaps		\$30,000
Ongoing Outreach Activities to Stakeholders		
Outreach & Education		\$25,000
Contingency		
Contingency (~10%)	\$10,000-40,000	\$80,000
Total [not including new monitoring wells]	\$120,000-460,000	\$860,000

5.2.1 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.

5.2.2 GSP Implementation Costs Through 2042

Implementation of this GSP is estimated to have a total annual cost as described in **Table 5-2**. The estimated annual costs include an approximate 10% contingency amount which would be used for unanticipated expenditures.

5.3 Schedule for Implementation

The schedule for agency administration, management and coordination activities, GSP reporting, and community outreach and education is provided in **Table 5-3**. While most activities are continuous during GSP implementation, annual reports will be submitted to DWR by April 1st of each year and periodic 5-year assessment reports will be submitted to DWR by April 1st every five years after the initiation of Plan implementation in 2022 (i.e., assessment report submittal in 2027, 2032, 2037, and 2042).

Table 5-3: GSP Implementation Schedule

Description	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042
GSP Development & Adoption																						
GSP Submittal to DWR																						
Agency Administration & Operations Management & Coordination																						
Monitoring: Groundwater																						
Monitoring: Streamflow																						
Data Collection																						
Data Management																						
GSP Reporting																						
Annual Reports																						
Five-year Assessment Report																						
Outreach & Education																						

5.4 GSP Implementation Funding Approach

The SGMA regulations require various financial information for the implementation of a GSP. The requirements state that a GSP must include:

1. An estimate of the cost of implementation of the GSP and a description of how the GSA(s) will meet those costs.

2. Cost estimates for each project and management action that the GSA(s) will implement that will help the basin achieve sustainability and a description of how the GSA(s) will meet those costs.

A summary of the costs related to implementation of the GSP (**Table 5-2**), was provided previously in this Section. In Section 4, the project and management actions (PMAs) identified to meet the requirements of SGMA and meet the sustainability requirements for the SASb are described. Given this information, the following sub-sections outline the funding approach for the identified activities, management actions, and projects.

5.4.1 Legal and Financial Resources

As noted in this report, the SASb contains six separate GSAs. Five of the six GSAs entered into an MOU (**Appendix 1-B**) to establish the GSPWG. RD 551, the sixth GSA, subsequently entered into an agreement with the NDGSA to be represented on the GSPWG. Each GSA is a slightly different type of public agency, but all are local agencies that were approved by DWR as meeting the requirements to serve as a GSA for their portion of the subbasin. As a GSA, the local agencies have the legal authority to:

“...impose **fees**, including, but not limited to, permit fees and fees on groundwater extraction or other regulated activity, to fund the costs of a groundwater sustainability program, including, but not limited to, preparation, adoption, and amendment of a groundwater sustainability plan, and investigations, inspections, compliance assistance, enforcement, and program administration, including a prudent reserve.” (Water Code Section 10730)

The following sections present a summary of the GSAs, their legal authority and financial means to fund the implementation of the GSP and associated management actions. More background information about each GSA is presented in Section 1.4.1. The GSAs will execute an MOU to address governance and cost sharing for GSP implementation.

5.4.1.1 Sacramento Central Groundwater Authority GSA

The Sacramento Central Groundwater Authority (SCGA) is a Joint Powers Authority of five entities in the South American Subbasin: the cities of Sacramento, Folsom, Rancho Cordova, and Elk Grove, and the County of Sacramento. These five agencies are the signatories of the JPA. The governing board of the SCGA is made up of sixteen members that include representation from nine public agencies, two private water purveyors, one representative of agricultural interests, one representative of agriculture-residential groundwater users, one representative of commercial/industrial self-supplied groundwater users, one representative of conservation landowners, and one representative of public agencies that are self-supplied groundwater users.

SCGA recently completed a fee study outlining the level of annual fees necessary to support SCGA and the costs associated with implementing the GSP and funding for PMAs. A copy of the fee study can be found at <https://scgah2o.saccounty.net/Pages/SCGA-Groundwater-Fee.aspx>. The fee study outlined a funding methodology based on a “hybrid” approach. The “hybrid” component of this study is that the urban water purveyors will be billed directly and pay

SCGA based on the number of parcels and groundwater usage by the purveyor within their service area and located within the SCGA GSA. All other parcels, i.e., those outside the service areas of the urban water purveyors, will be billed through the property tax rolls and those revenues generated will be distributed to SCGA. Under this approach, all parcels within the SCGA GSA will be contributing to the funding of SCGA through a parcel fee and, if using groundwater, a groundwater usage fee.

The SCGA Board held several public meetings discussing the fee study approach, methodology, and charges. As part of the fee study approach, the fee program was implemented through a Proposition 218 process. In April 2021, SCGA mailed out a customer notification outlining the proposed fee to the affected parcels. On June 22, 2021, SCGA held a public hearing to receive customer comments and determine if a majority protest existed. A majority protest did not occur and subsequently the SCGA Board adopted the fee program.

5.4.1.2 Sacramento County GSA

Sacramento County GSA is an approximately 1,500-acre area of the South American Subbasin primarily overlying Cosumnes River Preserve lands. Sacramento County GSA has entered into a Memorandum of Understanding with SCGA to include this 1,500-acre area in its GSA and fee study. As a result, this area was included in the SCGA fee study and the County's share of costs could be funded using the methodology described under the SCGA GSA. Imposing this fee would require County action.

5.4.1.3 Sloughhouse Resource Conservation District GSA

SRCD is a resource conservation district (RCD) formed in 1956. RCDs are special districts of the State of California, set up to be locally governed agencies with their own locally appointed or elected, independent boards of directors. California RCDs implement projects on public and private lands, and educate landowners and the public about resource conservation. SRCD is governed by a five-member Board of Directors. SRCD is engaged in the discussions of a multi-GSA MOU to identify the cost sharing approach and estimated costs associated with GSP implementation and completion of PMAs. SRCD will develop its own fee structure to fund its portion of the SASb GSP implementation based on the estimated cost share as developed in the MOU.

5.4.1.4 Omochumne-Hartnell Water District GSA

OHWD is a California Water District formed 1953 and it has the authority to exercise powers related to groundwater management and rural irrigation services. OHWD is also engaged in discussions for an MOU to fund its share of the GSP implementation and completion of PMAs. OHWD recently completed a fee study that included the cost sharing assumptions as outlined in the MOU for those parcels within the South American Subbasin. The OHWD fee program is based on irrigable agriculture acreage as outlined by the California DWR Statewide Crop Mapping data. OHWD held a public meeting and adopted the fee study for the projected costs associated with the South American Subbasin GSP based on the MOU and cost sharing estimate.

5.4.1.5 Northern Delta GSA

The Northern Delta GSA (NDGSA) initially formed as a Joint Powers Agency by 17 local agencies, each with water management responsibilities. The individual agencies were formed to manage water for flood, irrigation, and drainage within their local area, typically an area encompassing a single island in the Sacramento-San Joaquin.

NDGSA Board of Directors has proposed to impose a fee to generate revenue sufficient to fund both annual Agency operations costs and expenses associated with the implementation of the GSP. Because the NDGSA overlies multiple groundwater basins, the income from fees will be maintained and accounted separately by basin. Any activities undertaken by the NDGSA that benefit all of the Agency's service area, such as administrative actions, will be funded by drawing down the separate funds proportionally by geographic area; any activities that only provide services and benefits to one groundwater basin will be financed with funds collected from property within that same basin. This accounting practice will ensure that each geographic area pays only its share of the costs.

The proposed fee schedule will apply to all assessable parcels within the Agency's boundaries as the NDGSA's administrative and GSP-development services are provided to all parcels. Some parcels may not be assessable due to public ownership. The actual fee will be set annually by the NDGSA Board, based on the budget needs, but not to exceed the proposed rate. If activities are proposed to attain the sustainability criteria established in the GSP that would require supplemental funding and fees greater than the fees recommended in this report, the NDGSA would need to adopt a new fee schedule to fund these costs, and if necessary, will comply with the requirements in Article XIID of the California Constitution, commonly referred to as Proposition 218 requirements.

5.4.2 Implementation Costs Split

The estimated annual costs to be shared among the GSAs are described in **Table 5-2**. The GSAs are currently developing an MOU to identify how these costs will be shared among the GSAs. Each of the GSAs is able to meet its commitments to the GSP Implementation, including management actions, from their individual adopted fee processes. Any additional funding needs may be made up through other grants, bonds, or cost-sharing opportunities, which will be determined as they are needed.

5.5 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. A portion of the funding for GSP implementation will be obtained from the annual contributions made by the GSA member agencies. This cost allocation may change as the GSA's understanding of GSP implementation evolves over time through data collection and the assessment of the beneficial impacts of PMAs on groundwater sustainability. The total and individual agency contributions will be evaluated and may be refined, as needed.

The GSAs may pursue funding from state and federal sources for GSP implementation. The GSAs will further evaluate funding mechanisms and fee criteria and may perform a cost-benefit

analysis of fee collection to support consideration of potential refinements. **Table 5-4** presents examples of potential financing options.

Table 5-4: Potential Funding Sources for GSP Implementation

Funding Source	Certainty
Ratepayers	High – User rates 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 when 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 SASb.
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 (passed by California voters in June 2018 and 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 DAC Involvement Program This program is not guaranteed to be funded in the future.