

Note: Further refinements to this section are also anticipated during the Public DRAFT GSP review process.

SIERRA VALLEY GSP CHAPTER 5 PLAN IMPLEMENTATION

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5 Plan Implementation

This section describes in general how the GSAs will implement the Sierra Valley Subbasin Groundwater Sustainability Plan (GSP). The SVGMD will be coordinating with other agencies, organizations, and landowners in the region to effectively manage the groundwater basin. As described in prior sections, a variety of projects and management actions (PMAs) that support groundwater levels, groundwater storage, and interconnected surface waters (ISWs) are currently being, have previously been, or are proposed to be implemented. Existing and planned PMAs will contribute to the attainment of the Basin's groundwater sustainability goal over the planning horizon of this GSP. These PMAs, as described in Chapter 4, enable the continued use of groundwater, and protect all 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 five-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 education and 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

5.1.1.1 GSAs 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, supplemented by contractors, as-needed, will provide work products, administrative support, staff leadership, and management for the GSAs provide work products, administrative support, staff leadership, and management for the GSA.

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

41 GSAs administration activities include meeting coordination with other organizations on projects
42 or studies, email and website updates to inform stakeholders about ongoing activities within the
43 Basin, administration of projects implemented by the GSA, and general oversight and
44 coordination. Other oversight and administrative activities will occur on an as-needed basis. The
45 GSAs is responsible for, and authorized to take, appropriate action to achieve sustainable
46 management of groundwater within the Basin based on the authority granted under Section 6 of
47 the California Water Code. On an as-needed basis, the GSAs may seek legal services to assist
48 in the interpretation of legal requirements and provide legal advice during GSP implementation.

49 GSP implementation costs include GSAs administration, management actions, monitoring
50 protocols, data management, sustaining a sufficient fiscal reserve, and other potential costs for
51 the twenty-year implementation horizon. The estimated annual cost of ongoing activities, as well
52 as the estimated cost of activities anticipated to be conducted within the next five years, are
53 classified as major categories. For each category, an estimated five-year total cost and an
54 associated annualized cost is provided below and in **Appendix 5-2**.

55 **5.1.1.2 Reporting, including preparation of annual reports and five-year evaluations and** 56 **updates**

57 As part of GSP implementation starting in 2022, the GSAs must prepare and submit to the
58 Department of Water Resources (DWR) annual reports and five-year assessments. Annual
59 reports will be submitted to DWR by April 1st of each year and an initial five-year GSP
60 assessment and update will be due to DWR by April 2027. Requirements for each of these
61 reports are explained below.

62 **5.1.1.3 Annual Reporting**

63 Per Water Code Sections 10727.2, 10728, and 10733.2, SGMA regulations require the GSAs to
64 submit an annual report on the implementation of the GSP to the DWR. Annual reports will
65 cover the preceding water year, October 1 through September 30. The report will be submitted
66 to DWR no later than April 1st of the year following the covered water year. A template for
67 annual reporting is provided as **Appendix 5-1**. Annual reports will be completed in a format
68 consistent with Section 356.2 of the SGMA regulations and will include three key sections:

69 **5.1.1.3.1 General Information**

70 General information will include a map of the Basin and an executive summary that includes a
71 summary of the sustainability goal, ongoing PMAs in the subbasin, newly implemented PMAs
72 and their progress, as well as a current/updated implementation schedule.

73 **5.1.1.3.2 Basin Conditions**

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

- 77 • Groundwater elevation data from monitoring wells, including (1) groundwater elevation
78 contour maps for the principal aquifers in the Basin depicting seasonal high and low
79 groundwater conditions, and (2) hydrographs of historical-to-current-reporting-year data
80 showing groundwater elevations and water year type.

- 81 • Groundwater extractions during the preceding water year summarized by water use
82 sector (i.e., agricultural, domestic, municipal, etc.), including a map showing the general
83 location and volume of groundwater extractions, as well as the method of measurement
84 (direct or estimate) and accuracy of measurements.
- 85 • Surface water supply for managed groundwater recharge, off-stream storage, or in-lieu
86 use, including the annual volume and sources for the preceding water year.
- 87 • Total water uses by water use sector and water source type (i.e., groundwater, surface
88 water), including the method of measurement (direct or estimate) and accuracy of
89 measurements.
- 90 • Maps of changes in groundwater storage for the principal aquifer and a graph depicting
91 historical-to-current-reporting-year water year type, groundwater use, annual change in
92 groundwater in storage, and the cumulative change in groundwater storage for the
93 Basin.

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

96 *5.1.1.3.3 Plan Implementation Progress*

97 The progress made toward achieving interim milestones and implementation of PMAs will be
98 explained in more detail in this section, along with a summary of plan implementation progress
99 and sustainability progress.

100 **5.1.1.4 Periodic Evaluations every Five Years**

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

107 *5.1.1.4.1 Sustainability Evaluation*

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

112 *5.1.1.4.2 Plan Implementation Progress*

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

115 *5.1.1.4.3 Reconsideration of GSP Elements*

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

121 *5.1.1.4.4 Monitoring Network Description*

122 This section will provide an assessment of the monitoring network's function, an analysis of data
123 collected to date, a discussion of data gaps and the need to address them, and identification of

124 areas within the Basin that are not monitored in a manner commensurate with the requirements
125 of Sections 352.4 and 354.34(c) of the SGMA regulations.

126 *5.1.1.4.5 Consideration of New Information for Basin Setting and SMC*

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

130 *5.1.1.4.6 Regulations or Ordinances*

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

133 *5.1.1.4.7 Legal or Enforcement Actions*

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

136 *5.1.1.4.8 Plan Amendments*

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

140 *5.1.1.4.9 Coordination*

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

146 **5.1.2 Implementation**

147 ***5.1.2.1 Implementation of the monitoring program activities described in Chapter 3***

148 This section covers the functions associated with monitoring activities, including logistics and
149 coordination with third party entities performing monitoring in the GSP Monitoring Network and
150 any related monitoring data management. The GSP Monitoring Networks for groundwater level,
151 interconnected surface waters and groundwater quality, including the agencies performing that
152 monitoring, are detailed in Chapter 3.

153 To address data gaps that are identified during GSP implementation, improvements to or
154 expansion of the GSP Monitoring Network may be necessary. In that event, additional
155 monitoring wells, monitoring well instrumentation; sampling and in-situ measurements; sample
156 analysis; and associated data management and analysis may be required in the future. Costs
157 for those facilities and activities are not addressed in this section.

158 Monitoring and data-related activities include:

- 159 • Groundwater Elevation Monitoring.
- 160 • Groundwater Quality Monitoring.
- 161 • Streamflow Monitoring.
- 162 • Subsidence Monitoring, based on data provided by DWR and via monuments
- 163 • Monitoring data management (including data management system (DMS) maintenance),
164 data validation (QA/QC), data entry and security, and data sharing.
- 165 • As needed groundwater-dependent ecosystems (GDEs) monitoring



166 **5.1.2.2 Technical support, including Sierra Valley Subbasin Integrated Hydrological**
167 **Model (SVIHM) model updates, SMC tracking, other data analysis and technical**
168 **support**

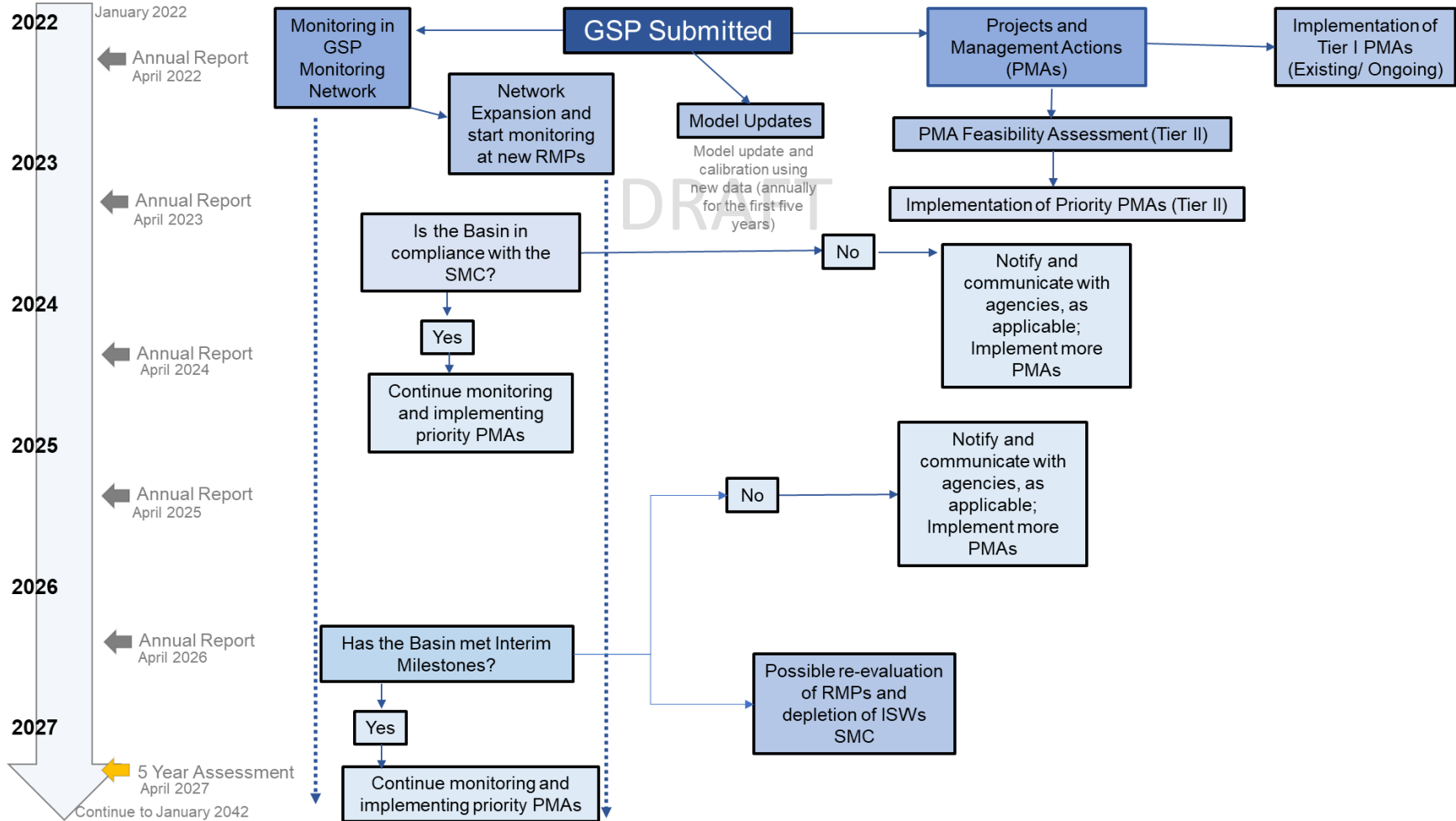
169 **SVIHM updates** – Management activities and ongoing performance evaluation of the SMC are
170 informed by SVIHM model output, which will require periodic updates and refinements as more
171 data become available. Model updates and refinements help maintain, and potentially improve,
172 the model functionality and its capabilities in providing more representative simulation results.
173 These activities include incorporation of new model tools and features, data input and model
174 parameter updates, calibration updates as additional data from the monitoring network and
175 stream gauges is obtained, use of SVIHM to update water budgets, assess water usage, and
176 assess the status of Basin-wide storage volumes, and related work to support ongoing
177 simulations of PMAs and reporting requirements.

178 **SMC tracking** – synthesis of data to analyze and track the status of compliance with SMC at
179 the RMP wells and other monitoring locations included in the Monitoring Network. This
180 information will comprise an essential element of the annual reports and five-year updates. A
181 template for SMC tracking based on the annual report requirements from DWR is available in
182 **Appendix 5-1**

183 **Data analysis** – Additional data analysis and associated technical support, outside of the GSAs'
184 resource capabilities, will be needed for annual reporting and five-year GSP update and
185 outreach activities. The GSAs may also have an ongoing need for technical and administrative
186 support for the Subbasin management, such as vulnerability assessments for climate change,
187 hydrologic technical support, assessment of managed aquifer recharge opportunities, economic
188 and funding mechanisms assessments, and studies to address data gaps.

189 Results of the monitoring program activities will inform GSAs management actions and next
190 steps. The flowchart shown in **Figure 5.1.2-1** illustrates the process and decision points for the
191 first five years of GSP implementation. This process will be refined, as necessary, throughout
192 the first five years of GSP implementation and will be updated in parallel with the five-year
193 evaluations. The initial GSP is a starting point toward achievement of the sustainability goal for
194 the Basin. Although available information and monitoring data have been evaluated throughout
195 the GSP planning process to set SMC and define projects and management actions, there are
196 gaps in knowledge and additional monitoring requirements. Information gained in the first five
197 years of plan implementation, and through the planned monitoring network expansions, will be
198 used to further refine the strategy outlined in this version of the GSP. The GSAs will work
199 towards implementation of the GSP to meet all provisions of SGMA and will utilize available
200 local resources, and likely resources from State and Federal agencies to achieve this. It is
201 anticipated that coordination with other agencies that conduct monitoring and/or management
202 activities will occur throughout GSP implementation to fund and conduct this important work. As
203 described in Appendix 5-2, additional funding required may be achieved through fees, or other
204 means, to support progress towards compliance with SGMA. The GSAs will use this preliminary
205 flowchart to develop a more defined roadmap at the beginning of the implementation period in
206 February 2022. Further detail on the prioritization and implementation timeline of PMAs can be
207 found in the discussion of PMAs below.

208 **Figure 5.1.2-1: GSP implementation process for the first five years of implementation. The road map is expected to be similar for the**
 209 **following five-year cycles.** *[figure may be modified based on adjustments to process or schedule]*



210 **5.1.2.3 Re-evaluation of depletion of ISWs sustainable management criteria**

211 As discussed in **Chapter 3**, SMC set for ISWs are based on groundwater levels due to existing
212 data gaps. However, installation of streamflow gages is an element of the ISW monitoring
213 network, and a framework is proposed to re-assess available data, upon collection of additional
214 data and information during GSP implementation to update depletion of ISWs SMC and set
215 them based on the rate and/or volume of depletion at stream gage locations along monitoring
216 transects. This action is planned to be preferably conducted during the first five-year evaluation
217 of the Plan, or if available data is not sufficient, at the second five-year evaluation of the GSP.
218 The cost of this re-evaluation which includes subtasks including but not limited to data analysis,
219 SVIHM updates, and calibration, and additional monitoring will be included in the respective
220 round of periodic evaluation of GSP

221 **5.1.2.4 Re-evaluation of RMPs for different sustainability indicators**

222 Similar to the re-evaluation of depletion of ISWs SMC, **Chapter 3** discusses the possible re-
223 evaluation of RMPs for chronic lowering of groundwater elevations, subsidence, depletion of
224 ISWs, and degradation of groundwater quality monitoring networks and SMC. The GSP is
225 primarily utilizing the existing wells with established records of monitoring for its RMPs.
226 However, efforts are ongoing to supplement the monitoring networks with wells at suitable
227 locations, establishing monitoring records. Upon collection of a sufficiently long record of
228 measurements at such wells, it may be beneficial to the management of the Basin if those
229 dedicated monitoring wells are considered as RMPs. Needed analysis to assess if those wells
230 satisfy the requirements of an RMP will be done before updating the plan. The cost of this re-
231 evaluation will be included in the respective round of periodic evaluation of GSP.

232 **5.1.2.5 Projects and Management Actions described in Chapter 4.**

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

- 235 1. Tier I: Existing PMAs that are currently being implemented and are anticipated to
236 continue to be implemented and enhanced as proposed in Chapter 4.
- 237 2. Tier II: PMAs planned for near-term initiation and implementation (2022–2027) by
238 individual member agencies or PMAs that may be implemented in the future, as
239 necessary (initiation and/or implementation 2027–2042).

240 The PMAs listed in **Chapter 4** reflect a collection of potential options that may be employed to
241 support the sustainability goals outlined in this plan. Tier I PMAs are anticipated to continue to
242 be implemented throughout the GSP implementation period. For the Tier II Potential PMAs and
243 proposed enhancements to Tier 1 PMAs, a preliminary strategy for prioritization and associated
244 criteria has been developed. As a first step in Plan implementation, Tier II PMAs and Tier II
245 enhancements will be ranked using criteria including the projected effectiveness, complexity,
246 cost, and level of support for the project or management action. This preliminary prioritization
247 step will be initiated immediately after submission of the GSP to provide the GSAs with enough
248 time to evaluate projects feasibility and include the selected projects into future funding
249 requests. The GSAs are expected to continue to refine this prioritization as more information on
250 the feasibility, costs and anticipated benefits becomes available for these PMAs.

251 **5.1.3 Outreach**

252 **5.1.2.6 Coordination activities with other entities**

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

- 255 • With agencies in the Basin with land use jurisdiction to identify and communicate
256 regarding activities that may impact Basin sustainability.
- 257 • With local utility districts and irrigators, to obtain updated information regarding water
258 use efficiency programs, encourage such programs, and obtain information regarding
259 the impacts of those programs on water demands.
- 260 • With Sierra and Plumas County Environmental Health Divisions to implement as needed
261 updates environmental regulations, ordinances, and existing procedures for new and
262 existing groundwater wells such as well permitting.
- 263 • With entities sponsoring projects, such as recharge, forest management or efficiency
264 improvements in the Basin that will provide benefits to attainment of sustainability goals
265 and objectives, including support for grant funding.
- 266 • With any other entities working in the Basin to support the sustainability goal and
267 aspirational watershed goal, as applicable.

268 To achieve this coordination, the GSAs may need to develop additional governance and
269 communication processes to support these activities efficiently and effectively.

270 **5.1.2.7 Outreach to stakeholders**

271 Activities under this element of the GSP implementation plan include continuation of education,
272 outreach, and engagement with stakeholders, building off the framework and activities
273 established in the Communication and Engagement Plan, as described in **Appendix 2-3**. Such
274 activities performed during GSP implementation include maintaining the SVGMD website and
275 the online/social media presence, community meetings, workshops, and public events. These
276 activities may also include electronic newsletters, informational surveys, coordination with
277 entities conducting outreach to diverse communities in the Basin, and development of brochures
278 and print materials. Decisions regarding the nature and extent of these outreach activities will be
279 made by the GSA.

280 **5.2 Estimate of GSP Implementation Costs**

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

287 **5.2.1 Projected Implementation Costs**

288 Implementation of the GSP over the 20-year planning horizon is projected to cost \$68,500 -
289 \$142,000 annually for operation and maintenance along with capital projects, which are
290 expected to be funded through future available grants. A breakdown of these costs by
291 implementation element is summarized in **Table 5.2.1-1**. These costs are based on the best

292 available estimates at the time of Plan development and may vary throughout the period of Plan
293 implementation. Costs include 3% annual Consumer Price Index increases and the cost of each
294 task may vary in different years. For example, the five-year assessment cost may need to be
295 primarily funded every 4 to 5 years. Overall, GSP implementation cost is estimated to fall within
296 the total range provided. If the GSAs develop additional projects or management actions during
297 the GSP implementation period, the cost estimates will be refined and reported to DWR through
298 the annual reports or five-year periodic assessments. Similarly, grant awards may offset some
299 of the costs estimated and shown in **Table 5.2.1-1**.

300 Development of this GSP was funded largely through a Proposition 1 Groundwater Grant
301 Program and Proposition 68 Grant. The GSAs will pursue additional grant funding for GSP
302 implementation as it is available. In the following analysis, it is assumed that the GSAs will
303 identify other sources of funding to cover GSP implementation costs. Sources of funding are
304 being considered and are presented in **Appendix 5-2**. The exact funding mechanisms will be
305 decided by the GSAs and will depend on their legal authority.

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306 **Table 5.2.1-1 Summary of GSP Implementation Costs [PRELIMINARY]**

GSP Implementation Tasks	Recurring Annual Cost
GSAs Management, Administration, Legal and Day-to-Day Operations \$7,000-\$22,000	
Administrative Staff Support /Accounting	TBD
GSAs management and staff support	TBD
Legal support	TBD
Data management	TBD
GSP Reporting	
Annual Reports	\$11,000-\$20,000
5-Year GSP Assessments	TBD
Tier I: Existing or Ongoing Projects and Management Actions	
Inventory and Metering	Included in Monitoring
Monitoring	\$32,000-\$45,000
Modeling Updates	\$11,500 - \$37,000
Education & Outreach	\$7,000-\$18,000
Well Permit Ordinance	TBD
Water Reuse	TBD
Sierra Brooks-Smithneck Wildland Urban Interface Fuels Reduction Project	TBD
Tier II: Planned Projects and Management Actions	
Agricultural Efficiency Improvements	TBD/Prop 68 Funding
Agricultural Water Use Management	TBD
Aquifer Characterization and Analysis	TBD
Reoperation of Surface Water Supplies	TBD
Off-Stream Storage	TBD
Drought Mitigation Planning	TBD
Water Conservation and Demand Management	TBD
Watershed and Upland Management and Restoration	TBD/Leverage multiple funding sources
Voluntary Managed Land Repurposing	TBD
Groundwater Recharge/Managed Aquifer Recharge	TBD
Assessment of Post-Fire Hydrology and Potential Water Supply Augmentation	TBD
Total	\$68,500-\$142,000

307 **5.2.2 Financial Reserves and Contingencies**

308 To mitigate financial risks associated with expense overruns due to unanticipated expenditures
309 and actual expenses exceeding estimated costs, the GSAs may carry a general reserve with no
310 restrictions on the types of expenses for which it can be used. Adoption of a financial reserves
311 policy is authorized by SGMA Sections 10730(a) and 10730.2(a)(1).

312 **5.2.3 Total Implementation Costs Through 2042**

313 The Implementation of this GSP is estimated to have a total annual cost of \$68,500 – 142,000
314 excluding capital projects based on the best available information at the time of Plan preparation
315 and submittal. Actual cost of the GSP implementation for each year will depend on the specific
316 tasks that need to be conducted during that year. The breakdown of this total estimated annual
317 cost is presented by major budget category in **Table 5.2.1-1**.

318 **5.3 Schedule for Implementation**

319 The final GSP will be presented to the GSA Boards for adoption in November or
320 December 2021 and will be submitted to DWR no later than January 31, 2022.

321 **5.3.1 Preliminary Schedule**

322 The preliminary schedule for agency administration, management, and coordination activities,
323 GSP reporting, and community outreach and education are provided in **Table 5.3.1**. While most
324 activities are continuous during GSP implementation, annual reports will be submitted to DWR
325 by April 1st of each year and periodic five-year assessment reports will be submitted to DWR by
326 April 1st every five years after the initiation of Plan implementation in 2022 (i.e., assessment
327 report submittal in 2027, 2032, 2037, and 2042).

328

329 To provide a sense of how the planned GSP implementation actions will need to be
330 coordinated, a more detailed potential schedule for implementing the existing and potential
331 management actions is shown in **Table 5.3.2**. The table provides a detailed list of actions for
332 each quarter of 2022, details for the following years will be developed at the beginning of the
333 implementation phase and based on preliminary results of the PMAs that are being
334 implemented.

335 **Table 5.3.1: Preliminary GSP Implementation Schedule**

	Start	2022-2042																				
		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	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
5-Year Evaluations	April 2027						●					●					●					●
Possible re-evaluation of GSP RMPs	April 2027						●					●										
Possible re-evaluation of depletion of ISWs SMC	April 2027						●					●										
Monitoring																						
Monitoring: Groundwater (all)	Quarterly or 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	Continuous																					
Projects and Management Actions																						
Teir I PMAs: Ongoing	January 2022																					
Teir II PMAs: Feasibility study and prioritization upon funding availability	January 2022	●																				
Teir II PMAs: Implementation of highly prioritized PMAs depending of funding availability	January 2023		●																			

336

337

338
339

Table 5.3.2 Preliminary Schedule and Status for Projects and Management Actions *[to be modified based on stakeholder input]*

Task	Status	Funding	GSP Implementation Year ¹							
			1 (2022)				2	3	3	5
			Q1	Q2	Q3	Q4	2023	2024	2025	2026
Monitoring Implementation - Existing (on-going) and Required										
Flow Meter Readings during Irrigation Season	On-going, Monthly	SVGMD Existing O&M		x	x	x	x	x	x	x
Flow Meter Replacements (nineteen planned)	On-going (completion by April 15, 2022)	DWR Grant - Existing	x	x						
Water Level Measurements at existing SVGMD MW1-MW7 and W1-W6 (includes winter monthly monitoring for post-pumping recovery)	On-going, Monthly except in winter months	SVGMD Existing O&M		x	x	x	x	x	x	x
Water level data uploads to data portal	Quarterly	NOT CURRENTLY FUNDED		x	x	x	x	x	x	x
Annual Report (water levels, pumped volumes, differences in water levels, on-going and planned actions)	Required, April 1st Submittal to DWR	NOT CURRENTLY FUNDED, but propose using existing DWR grant to develop first report and template	x				x	x	x	
5-Year Basin Status Report	Required	NOT CURRENTLY FUNDED								x
Additional Proposed in GSP Monitoring										
Water Level Monitoring										
Expand water level monitoring network (thirty-six wells including nested piezometers in proposed network) - add five more wells (currently existing - not newly drilled)	Review possible additional well sites in next year	DWR Grant - Existing, and DWR TSS for video services if needed	x	x	x					

¹ x = occurs, blue = funded by existing DWR grant to SVGMD, orange = funded by existing SVGMD revenue, yellow = funded directly by DWR)

Task	Status	Funding	GSP Implementation Year ¹								
			1 (2022)				2	3	3	5	
			Q1	Q2	Q3	Q4	2023	2024	2025	2026	
Water level monitoring, including winter months measurements, at SVGMD monitoring wells	Monthly	NOT CURRENTLY FUNDED		x	x	x	x	x	x	x	x
Continued DWR - CASGEM water level monitoring, including new DWR monitoring well sites	Semi-annual	DWR - No funding required		x		x	x	x	x	x	x
Install water level recorders (transducers) in select monitoring wells	As funding becomes available, TBD	NOT CURRENTLY FUNDED, Possible DWR Funding		x							
Transducer data downloads, data compile, data uploads to data portal	As funding becomes available, TBD	NOT CURRENTLY FUNDED		x	x	x	x	x	x	x	x
Subsidence Monitoring											
Install of four Subsidence (land surface elevation) Monuments	Schedule for Spring 2021	DWR Grant - Existing		x							
Subsidence land surface elevation surveying at four monuments	Semi-annual for first two years at water level highs and lows, annual thereafter thru first 5 years	NOT CURRENTLY FUNDED		x		x	x	x	x	x	x
InSAR satellite processing	As available from DWR	Assume DWR will compile and provide annually for the next 5 years									x
Water Quality Monitoring											
Add five additional water quality sites (wells) to existing network for water quality monitoring, plus eight new volunteer wells	Next two years	NOT CURRENTLY FUNDED, but could be included in existing DWR Grant (cost minimal) assuming additional existing well identified, No Funding for Drilling New Wells		x	x						

Task	Status	Funding	GSP Implementation Year ¹							
			1 (2022)				2	3	3	5
Task	Status	Funding	Q1	Q2	Q3	Q4	2023	2024	2025	2026
Conduct Annual Water Quality Sampling and Analyses at seventeen GAMA, expanded to include eight addition wells, plus five data gap wells	Annually	NOT CURRENTLY FUNDED				x	x	x	x	x
Task	Status	Funding	Q1	Q2	Q3	Q4	2023	2024	2025	2026
Groundwater Dependent Ecosystems (GDE) - Interconnected Surface Water (ISW)										
Add shallow aquifer monitoring wells, thirteen existing wells and two new wells.	Schedule within first two years	DWR Grant - Existing, could potentially be sufficient for new well implementations (review existing wells or drilling new shallow wells). Possible DWR TSS funding for new well drilling?		x	x	x	x			
GDE - Installation of seven Staff Gages in pooled surface water sources near monitoring wells	Schedule for Spring 2021	DWR Grant - Existing		x						
Monitoring Water Levels at Staff Gages and Shallow Monitoring Wells	Monthly	NOT CURRENTLY FUNDED		x	x	x	x	x	x	x
ISW - Stream flow gages installations at nine locations	Schedule for Spring 2021	DWR Grant - Existing, may be wholly or partially be sufficient for gage equipment installation		x						
Stream gage measurements and maintenance, rating curve development, data downloads, data compile and annual discharge computations	Monthly, Water Master makes some field measurements of flow during irrigation diversion season	NOT CURRENTLY FUNDED		x	x	x	x	x	x	x

Task	Status	Funding	GSP Implementation Year ¹								
			1 (2022)				2	3	3	5	
			Q1	Q2	Q3	Q4	2023	2024	2025	2026	
Install telemetry system for gages, key monitoring wells, and/or well meters	As funding becomes available, TBD	NOT CURRENTLY FUNDED						x	x	x	x
NDVI satellite vegetation indices determination of extent and variance of GDEs	2 to 5 year intervals, depending on water year type	NOT CURRENTLY FUNDED						x			x
Modeling											
Aquifer Characterization (Pumping Tests) and Analysis	As funding becomes available, TBD	NOT CURRENTLY FUNDED			x	x		x	x	x	
Integrated Surface Water - Groundwater Model Updates	Annually, up to 5 year reporting	NOT CURRENTLY FUNDED				x		x	x	x	x
Proposed Advancement of Potential Projects & Management Actions											
Agricultural Efficiency Improvements	To be initiated Q4 2021 and Q1 2022	ID opportunities covered by existing DWR grant, IMPLEMENTATION NOT FUNDED	x	x	x	x		x	x	x	
Preliminary Feasibility Review for Frenchman Reservoir and Little Last Chance Creek Resource	Q1 - Q3 2022	Existing DWR Grant		x	x	x					
Preliminary Feasibility Review for Lake Davis water source utilization	Q1 - Q3 2022	Existing DWR Grant		x	x	x					
Preliminary Feasibility Review for Additional Off-Stream Storage	Q1 - Q3 2022	Existing DWR Grant		x	x	x					
Preliminary Feasibility for Groundwater Recharge/Managed Aquifer Recharge	Q1 - Q3 2022	Existing DWR Grant		x	x	x					
Prepare Additional Grant Funding Applications based on Feasibility Reviews	Q3-Q4 2022 (as available)	NOT CURRENTLY FUNDED				x		x	x	x	x
Public Outreach	Quarterly to Annual (TBD)	NOT CURRENTLY FUNDED after GSP completion	x		x			x	x	x	x

Task	Status	Funding	GSP Implementation Year ¹							
			1 (2022)				2	3	3	5
			Q1	Q2	Q3	Q4	2023	2024	2025	2026
Additional Possible Projects & Management Actions in 5-year Horizon										
Drought Mitigation Planning	Scheduling Pending release of State Funding, TBD	NOT CURRENTLY FUNDED - SEEK STATE FUNDING	x	x	x	x	x	x	x	x
Watershed and Upland Management and Restoration	Feasible projects identified within two years Implementation within five years contingent on funding	NOT CURRENTLY FUNDED - SEEK FUNDING OPPORTUNITIES AND PARTNERS	x	x	x	x	x	x	x	x
Voluntary Managed Land Repurposing	Feasible projects identified within two years Implementation within five years contingent on funding	NOT CURRENTLY FUNDED - SEEK FUNDING OPPORTUNITIES AND PARTNERS	x	x	x	x	x	x	x	x

340

341 **5.4 Funding Sources and Mechanisms**

342 SGMA authorizes GSAs to charge fees, such as pumping and permitting fees, to fund the costs
343 of groundwater management and sustainability programs. Consistent with this approach,
344 SVGMD has been funded by contributions from Sierra and Plumas Counties, management
345 charges on parcels and on wells, and grants as described in more detail in **Appendix 5-2**.

346 **5.3.2 Funding Opportunities**

347 The GSAs will pursue various funding opportunities from state and federal sources for GSP
348 implementation. As the GSP implementation proceeds, the GSAs will further evaluate funding
349 mechanisms and may perform a cost-benefit analysis of fee collection to support consideration
350 of potential refinements. **Appendix 5-2** presents examples of potential financing options. At the
351 start of the GSP implementation, the GSAs will be funded according to the current fee structure
352 as described in **Appendix 5-2**.

353