

# Summary of GSP Updates: Chapter 1

Chapter 1	<ul style="list-style-type: none"><li>• <b>Chapter 1</b> - GSP Update combines what previously was in the GSPS as Chapter 1 Introduction and Chapter 2 Agency Information</li></ul>
	<ul style="list-style-type: none"><li>• <b>1.1 Introduction and Purpose</b> - Description of what this GSP Update is and how it relates to the original GSP submitted in 2020</li></ul>
	<ul style="list-style-type: none"><li>• <b>1.3 Agency Coordination</b> - section added to complete the assessment required of an update/amendment, as described in 356.4: (j) Where appropriate, a summary of coordination that occurred between multiple Agencies in a single basin, Agencies in hydrologically connected basins, and land use agencies.</li></ul>

# Summary of GSP Updates: Chapter 2

Chapter 2	<ul style="list-style-type: none"><li>• <b>Chapter 2</b> - In the original GSP, communications and public engagement was included as Chapter 11. This GSP Update incorporates this content as Chapter 2, similar to the 2022 GSPs, so that the GSP describes the stakeholders who the GSP is written for and the process up front. This chapter is also updated with more recent efforts by the GSA to develop strategic communication and engagement documents.</li></ul>
	<ul style="list-style-type: none"><li>• Maps updated to show additional data or improve layout</li></ul>

# Summary of GSP Updates: Chapter 3

Chapter 3	<ul style="list-style-type: none"><li>• <b>3.1.2.2. County Jurisdiction</b> - Added paragraph about MCWRA</li></ul>
	<ul style="list-style-type: none"><li>• <b>Table 3-1 Land Use</b> - Updated land use summary</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.2.1 Water Source Type</b> - Additional detail added</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.2.2 Water Use Sectors</b> - Added to "other" to water use sectors to account for rural residential water use. The regulations outline these water use sectors and allow for 'other'.</li></ul>
	<ul style="list-style-type: none"><li>• Maps updated to show additional data or improve layout</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.4.1 Groundwater Elevation Monitoring (Existing Monitoring Programs)</b> - Groundwater elevation monitoring data was updated and some redundant information was eliminated because it is also in Chapter 7</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.4.3.2 Other Groundwater Quality Monitoring (Existing Monitoring Programs)</b> – updated with respect to system size regulated by different agencies</li></ul>

# Summary of GSP Updates: Chapter 3

Chapter 3	<ul style="list-style-type: none"><li>• <b>3.6.5 County Ordinance 5302 and 5303 Regarding Deep Aquifer Wells</b> - updated section</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.7 New Regulations, Ordinances, Enforcement, and Legal Action</b> - New section to meet regulations: (g) A description of relevant actions taken by the Agency, including a summary of regulations or ordinances related to the Plan; (h) Information describing any enforcement or legal actions taken by the Agency in furtherance of the sustainability goal for the basin</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.8 County Public Policy of Safe and Clean Water</b> – Added to address the Human Right to Water</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.9 Incorporating Existing Programs into the GSP and Limits on Operational Flexibility</b> – combined what was previously two sections</li></ul>
	<ul style="list-style-type: none"><li>• <b>3.11.1 Land Use Plans in the Subbasin</b> – details included in appendix rather than text</li></ul>

# Summary of GSP Updates: Chapter 4

Chapter 4	<ul style="list-style-type: none"><li>• <b>Chapter 4</b> - Introduction added to Hydrogeologic Conceptual Model chapter</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.2.1 Geologic Formations</b> - Greater detail added</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.1.1. Salinas Valley Aquitard</b> - Per DWR recommended corrective actions, revised section about Salinas Valley Aquitard, how the Aquitard is described in "Natural Recharge Areas" section and "Groundwater Dependent Ecosystems" section and the connectivity between principal aquifers.</li></ul>
	<ul style="list-style-type: none"><li>• Maps updated to show additional data or improve layout</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.1.5 400-Foot/Deep Aquitard</b> - section separated from Deep Aquifers into own section and greater description added</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.1.6 Deep Aquifers</b> - separated into own section</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.1.7 Cross sections</b> - separated into own section</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.5.1 Potential Interconnected Surface Water</b> – section added</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.5.2 Groundwater Dependent Ecosystems</b> – section added</li></ul>
	<ul style="list-style-type: none"><li>• <b>4.4.5.2 Groundwater Dependent Ecosystems</b> - Per DWR recommended corrective actions, included more details on connection between river, shallow sediments, and principal aquifers, and added description of field verification of GDEs.</li></ul>

# Summary of GSP Updates: Chapter 5

Chapter 5	<b>5 Groundwater Conditions</b> - Data throughout chapter updated to 2019, or 2020 where data is available.
	<b>5.1.1 Data Sources</b> - Simplified section to avoid repetition
	<b>5.1.2 Groundwater Elevation Contours and Horizontal Groundwater Gradients</b> - Data updated
	<b>5.1.3 Hydrographs</b> - Example hydrographs included on maps in chapter. Larger hydrographs for all Representative Monitoring Sites are included in appendix
	<b>5.2 Change in Groundwater Storage</b> - Revised method of calculation to improved method (storage change due to groundwater level changes plus storage change due to seawater intrusion). Storage change due to groundwater level changes completed in 2 manners: by aquifer and for the subbasin as a whole. Prior method (storage change calculation based on cumulative groundwater level hydrograph) still included, but as a check. Text added to describe methods and results. Additional appendix added to explain in greater detail.
	<ul style="list-style-type: none"><li>• <b>Figure 5-24. Annual and Cumulative Change in Groundwater Storage and Total Annual Groundwater Extraction in the 180/400-Foot Aquifer Subbasin, Based on Groundwater Elevations (adapted from MCWRA, 2018a, personal communication)</b> - Figure included to meet regulations, and 1995-2020 best-fit line added</li></ul>

# Summary of GSP Updates: Chapter 5

Chapter 5	<b>5.3 Seawater Intrusion</b> – Data updated
	<b>5.4 Groundwater Quality Distribution and Trends</b> – Data updated
	<b>Table 5-6. Water Quality Constituents of Concern and Exceedances</b> - Analysis added based on GAMA groundwater information system data up to 2020
	<b>5.5 Subsidence</b> – Data updated
	<b>5.6 Interconnected Surface Water</b> - Since Salinas Valley Integrated Hydrologic Model became available, this section was updated with analysis of locations and rate of interconnection between surface water and groundwater
	<b>5.7 Water Use</b> - New section added to meet regulations for GSP amendment

# Summary of GSP Updates: Chapter 6

Chapter 6	<ul style="list-style-type: none"><li>Water budget updated with version of SVIHM/SVOM used for the 2022 GSP water budgets</li></ul>
	<ul style="list-style-type: none"><li><b>Figure 6-4</b> – SVIHM map of Surface Water Network included</li></ul>
	<ul style="list-style-type: none"><li><b>6.3 Historical and Current Water Budgets</b> – Pumping from the model is adjusted based on GEMS reported extraction for all time periods to reflect best available data, and description added to text. Historical pumping included as a range (+/- 1 standard deviation) to reflect uncertainty in GEMS data.</li></ul>
	<ul style="list-style-type: none"><li><b>6.3 Historical and Current Water Budgets</b> – Net change in storage and seawater intrusion rates estimated from observed groundwater levels and seawater intrusion (rather than model), as explained in the text. Model estimates of seawater intrusion are significantly less than estimates based on observed intrusion (MCWRA chloride isocontours); calculations based on observed rates is considered best available data. Model estimates of storage change due to groundwater levels are significantly more than estimates based on observed levels; calculations based on observed elevations is considered best available data. Overall rates of storage change from observed values are similar to model results.</li></ul>
	<ul style="list-style-type: none"><li><b>6.4 Projected Water Budgets</b> - Pumping adjusted based on GEMS data and description added to text</li></ul>
	<ul style="list-style-type: none"><li><b>6.4 Projected Water Budgets</b> - Historical change in storage is used for projected change in storage because future land use in model is set at 2014 conditions and does not change; urban pumping in SVOM is the same as SVIHM.</li></ul>
	<ul style="list-style-type: none"><li>Sustainable yields do not include overdraft in the Deep Aquifers due to lack of data.</li></ul>



# Summary of GSP Updates: Chapter 7

Chapter 7	<p><b>7.2 Groundwater Level Monitoring Network</b> - The 180/400 GSP noted we would expand the groundwater level monitoring network, so we have done that here. Groundwater level monitoring network expanded from 23 CASGEM wells to 91 wells, and groundwater elevations from a total of 157 wells are used to develop groundwater elevation contours.</p>
	<p><b>Figure 5. Data Gaps in the Groundwater Level Monitoring Network for the Deep Aquifers</b> - Refined data gaps based on new, expanded monitoring network</p>
	<p><b>7.3 Groundwater Storage Monitoring Network</b> - Revised to rely on groundwater elevations and seawater intrusion, per the January 2022 Subbasin Implementation Committee decision on the SMC approach</p>
	<p><b>Figure 7-6. 180/400-Foot Aquifer Subbasin Seawater Intrusion Monitoring Network</b> - Updated with MCWRA's current monitoring network</p>
	<p><b>7.5 Groundwater Quality Monitoring Network</b> - Similar to the 180/400 GSP, but small water system wells are no longer planned to be included until the data becomes more readily available. The State is in the process of setting up the SAFER Program to do this.</p>
	<p><b>7.7 Interconnected Surface Water Monitoring Network</b> – SMC, and therefore monitoring network, changed from relying on the SVIHM to monitoring ISW through shallow groundwater elevations near locations of interconnected surface water, per the January 2022 Subbasin Committee SMC direction.</p>
	<p><b>7.8 Other Monitoring Networks</b> - New section added because these monitoring networks are not directly used to monitor SMC, but we report on the data from them in the annual reports.</p>

# Summary of GSP Updates: Chapter 8

Chapter 8

**8.2 Sustainability Goal** - Project list condensed to a higher level summary. The intent here is the same as in the original GSP – to show DWR that we have sufficient options to meet sustainability, as defined by these sustainability criteria.

**8.1 Achieving Long-term Sustainability** - New section developed during the 2022 GSPs to address confusion around ‘average hydrogeological year’. This explains that SGMA’s intent is for long term groundwater management

**8.4 Sustainable Management Criteria** - Additional explanation added for clarity.

**Table 8-1. Sustainable Management Criteria Summary** - Updated according to the sections below. Interim Milestones removed from table since they just pointed to the sections below.

**8.5.2 Minimum Thresholds** - For all SMC, reiteration of the GSP Regulations removed unless necessary to understand the section because it was repetitive.

MT/MO/Undesirable Results statements put at the top of each respective section in italics to be clear.

**Table 8-2. Chronic Lowering of Groundwater Levels Minimum Thresholds and Measurable Objectives** - Updated to include expanded monitoring network

**Figure 8-1. Groundwater Elevation Minimum Threshold Contour Map for the 180-Foot Aquifer** - Same contours, but with additional wells in the expanded monitoring network

# Summary of GSP Updates: Chapter 8

Chapter 8

**Figure 8-2. Groundwater Elevation Minimum Threshold Contour Map for the 400-Foot Aquifer -**  
Same contours, but with additional wells in the expanded monitoring network

**8.5.2.1 Information and Methodology Used to Establish Minimum Thresholds and Measurable Objectives** - Clarified wording, but steps didn't change. Original MTs and MOs did not change, and same process was followed to add expanded monitoring network wells.

**Figure 8-3. Cumulative Groundwater Elevation Change Hydrograph with Selected Measurable Objective and Minimum Threshold for the 180/400-Foot Aquifer Subbasin -**  
Adjusted to be for the 180/400 Subbasin, not MCWRA Pressure Area, which includes the Monterey Subbasin too

**8.5.2.2 Minimum Thresholds Impact on Domestic Wells** - Same basic analysis but some refinements added to increase certainty based on feedback during the 2022 GSP development process. Results added to this section.

**8.5.2.2 Minimum Thresholds Impact on Domestic Wells** - Revision in wording, thanks to feedback, but same two main potential relationships.

**8.5.2.7 Method for Quantitative Measurement of Minimum Thresholds** – Number of RMS wells updated

**8.5.4.1 Criteria for Defining Chronic Lowering of Groundwater Levels Undesirable Results** – Added for clarification

# Summary of GSP Updates: Chapter 8

Chapter 8	<b>8.5.4.1 Criteria for Defining Chronic Lowering of Groundwater Levels Undesirable Results</b> - Updated based on expanded monitoring network, but with the same percentages
	<b>8.5.4.2 Potential Causes of Undesirable Results</b> - Added current status, per GSP regulations for Assessment
	<b>8.6 Reduction in Groundwater Storage SMC</b> - Revised per stakeholder input, and correspondingly the relationships between other SMC and this indicator were also revised to reflect that this is benchmarked to the groundwater level and seawater intrusion minimum thresholds and measurable objectives.
	<b>8.7.2.2 Relationship between Individual Minimum Thresholds and Relationship to Other Sustainability Indicators</b> – Additional explanation added
	<b>8.8.4 Undesirable Results</b> - Section updated according to Board consideration of an updated approach, based on DWR's review of the 180/400 GSP
	<b>8.9.4.1 Criteria for Defining Undesirable Results</b> - Additional description added to address concerns about not being explicit enough about how we will determine whether there is an Undesirable Result
	<b>8.1- Depletion of Interconnected Surface Water SMC</b> - SMC approach revised based on Jan 2022 180/400 Subbasin Committee motion, and correspondingly the relationships between other SMC and this indicator were also revised in the sections above. Text regarding the Biological Opinion and reservoirs has also been revised based on consultation with NMFS and MCWRA since GSP submittal.
	<b>8.10.2.1.1 Establishing Groundwater Elevations as Proxies</b> - New section added because it is needed with the new approach of using groundwater elevations as proxies for ISW depletion

# Summary of GSP Updates: Chapter 9

Chapter 9	<b>9 PROJECTS AND MANAGEMENT ACTIONS</b> - General Project Provisions was a standalone section before, but now those provisions are included under each project due to variation between projects. Chapter updated to include actions on projects since submittal and some rearrangement based on progress since GSP submittal; only include those that are within the Subbasin or could have substantial impact on Subbasin; update project descriptions based on further scoping; separate demand management from funding; clarify there is no prioritization.
	<b>9.1 Introduction</b> - Same general content, but small tweaks for clarity based on things stakeholders found confusing during the development of 2022 GSPs, and references to water charges framework taken out.
	<b>9.2 General Process for Developing Projects and Management Actions</b> - Process was previously separated under management actions and projects. Now it is pulled up into this section and revised to include the GSP Update process.
	<b>9.2.2 Estimation of Project Benefits</b> - New section to note the difference in modeling of project benefits between the original GSP and SVOM results.
	<b>9.2.3 Cost Assumptions Used in Developing Projects</b> - Bumped up. Previously was within Projects section. Costs completed for original GSP in 2019 and not updated due to further project scoping are escalated by 20% to account for inflation.
	<b>9.3 Overview of Projects and Management Actions</b> - New section added
	<b>Table 9-1. Projects and Management Actions</b> - Added. Updated based on revisions to projects and management actions throughout the chapter.
	<b>9.4.3 MA 3: Conservation and Agricultural BMPs</b> - Updated based on work since submittal to add ET data.
	<b>9.5 Projects</b> - Summary of the types of projects removed and folded in with the definitions

# Summary of GSP Updates: Chapter 9

Chapter 9	<b>9.5.1 P1: Multi-benefit Stream Channel Improvements</b> - Revised, building on work done with the 2022 GSPs. This includes the invasive species eradication work that was in the original GSP, plus adds Stream Maintenance Program and floodplain restoration for a more holistic project.
	<b>9.5.1 P1: Multi-benefit Stream Channel Improvements</b> -Previous modeling of invasive species eradication does not align with current project scope, so previous modeling is mentioned and references original GSP, but groundwater elevation contours are not included in GSP Update.
	<b>9.5.2.2 CSIP Optimization</b> – Updated based on further work since GSP submittal, including updates to cost and benefits.
	<b>9.5.3 P3: Modify Monterey One Water Recycled Water Plant – Winter Modifications</b> - Adjusted based on more recent MCWRA/M1W since the original GSP, including refinement of cost and benefits.
	<b>9.7 Implementation Actions</b> - These were added based on work done since GSP submittal.
	<b>9.7.1 Implementation Action 1: Well Registration</b> - Was previously folded under water charges framework. Now pulled out as an Implementation Action
	<b>9.7.2 Implementation Action 2: GEMS Expansion and Enhancement</b> - Was previously folded under water charges framework. Now pulled out as an Implementation Action
	<b>9.8 Other Groundwater Management Activities</b> - Very slight wording updates, and last one on wastewater added.
	<b>9.8.5 Support Reuse and Recharge of Wastewater</b> -Added

# Summary of GSP Updates: Chapter 10

Chapter 10	<b>10 GROUNDWATER SUSTAINABILITY PLAN IMPLEMENTATION</b> - Structure revised slightly to mirror SVBGSA 2022 GSPs, and content is updated based on action since GSP submittal.
	<b>10.1 Progress Towards GSP Implementation of GSP</b> - New section required as part of Assessment; needed to meet GSP Regulations for an amendment.
	<b>10.2.1 Annual Monitoring and Reporting</b> - Groundwater Level monitoring updated with expanded monitoring network. ISW monitoring network updated according to moving to shallow groundwater elevations. Some other small clarifications on wording.
	<b>10.2.2 Updating the Data Management System</b> - Bumped up to be included under the broader heading of Data, Monitoring, and Reporting
	<b>10.2.3 Improving Monitoring Networks</b> - Folded under the broader heading of Data, Monitoring, and Reporting. Groundwater levels updated based on expanded monitoring network. ISW added based on new approach.
	<b>10.2.4 Address Identified Data Gaps in the Hydrogeologic Conceptual Model</b> - Folded under the broader heading of Data, Monitoring, and Reporting. Deep Aquifers Study deleted because it is underway.
	<b>10.3 Communication and Engagement</b> - This was expanded from what was in the original GSP, based on communication planning done since then.
	<b>10.5 Five-Year Update</b> - Updating USGS groundwater model (SVIHM/SVOM) incorporated into here.
	<b>10.6 Start-up Budget and Funding Strategy</b> - Section revised to discuss the Operational fee and what it covers, and separate that from the start-up budget and funding specifically for projects and management actions.
	<b>Table 10-1. 180/400-Foot Aquifer Subbasin Specific Estimated Planning-Level Costs for next 5 Years of Implementation</b> - Revised to not include staff time and general operating costs, which are now included in the previous section that discusses the operational fee. This table reflects 180/400-specific costs.



# Summary of GSP Updates: Chapter 10

Chapter 10 **10.6.3 Funding for Projects and Management Actions** - Section added to include a range of potential funding mechanisms

**Figure 10-1. General Schedule For Start-Up Plan** - Revised