

Section 1: Introduction

Groundwater Sustainability Plan for Petaluma Valley Groundwater Basin

Table of Contents

1	INTRODUCTION.....	1-1
1.1	Purpose of the Groundwater Sustainability Plan.....	1-3
1.2	Guide to the Groundwater Sustainability Plan	1-4
1.3	Groundwater Sustainability Agency Authorities and Administrative Information....	1-11
1.3.1	Petaluma Valley Groundwater Sustainability Agency	1-12
1.3.2	Petaluma Valley Groundwater Sustainability Agency Board and Advisory Committee	1-13
1.3.3	Groundwater Sustainability Agency Coordination	1-14
1.4	Stakeholder Engagement and Communication	1-14
1.4.1	Beneficial Uses and Users of Groundwater	1-15
1.4.2	Sustainable Groundwater Management Act Phases of Work	1-15

Tables

Table 1-1.	Cross-Reference of GSP Regulations and GSP Section Numbers	1-5
Table 1-2.	Cross-reference of SGMA Statute Related to GSP Requirements and GSP Section Numbers	1-8

Figure

Figure 1-1.	Plan Area/Petaluma Valley Groundwater Basin.....	1-2
-------------	--	-----

Appendices

Appendix 1-A. Comments Received on Petaluma Valley Groundwater Sustainability Plan

Appendix 1-B. Resolution of the Board of Directors of the Petaluma Valley Groundwater Sustainability Agency Forming a Groundwater Sustainability Agency for the Petaluma Valley Basin

Appendix 1-C. Petaluma Valley Groundwater Sustainability Agency Board and Advisory Committee Members

Appendix 1-D. Petaluma Valley Groundwater Sustainability Agency Advisory Committee Charter

Appendix 1-E. Petaluma Valley Groundwater Sustainability Agency Advisory Committee Meetings 2017-2021

Appendix 1-F. Community Engagement Plan for Development and Adoption of a Groundwater Sustainability Plan Petaluma Valley Groundwater Sustainability Agency

Appendix 1-F-1. Consideration of Interests

Appendix 1-F-2. Other Interested Parties

Appendix 1-G. Stakeholder Assessment Report: Findings and Recommendations on Implementing the Sustainable Groundwater Management Act in Sonoma County

1 INTRODUCTION

In 2014, the State of California enacted the Sustainable Groundwater Management Act (SGMA), which substantially changes the way groundwater is managed in California. This law requires groundwater basins and subbasins in California designated as high- or medium-priority by the California Department of Water Resources (DWR) under SGMA to be managed sustainably.^[1] To satisfy the requirements of SGMA, local agencies must do the following:

1. Form one or more Groundwater Sustainability Agencies (GSAs) to fully cover the SGMA high- or medium-priority basin/subbasin
2. Develop one or multiple Groundwater Sustainability Plans (GSPs) that fully cover the SGMA high- or medium-priority basin/subbasin
3. Implement the GSP and manage to achieve quantifiable objectives and sustainability within 20 years of GSP adoption
4. Report data and GSP progress to the DWR

The Petaluma Valley Groundwater Basin (Basin), designated as basin number 2-1 in DWR's Bulletin No. 118 (DWR 2016a), is categorized as a medium-priority basin by DWR (DWR 2020) and is, therefore, required to comply with SGMA (**Figure 1-1**).

^[1] DWR prioritizes groundwater basins as critically overdrafted, high-, medium-, low-, and very low-priority based on a variety of technical factors. Refer to <https://water.ca.gov/Programs/Groundwater-Management/Basin-Prioritization>.

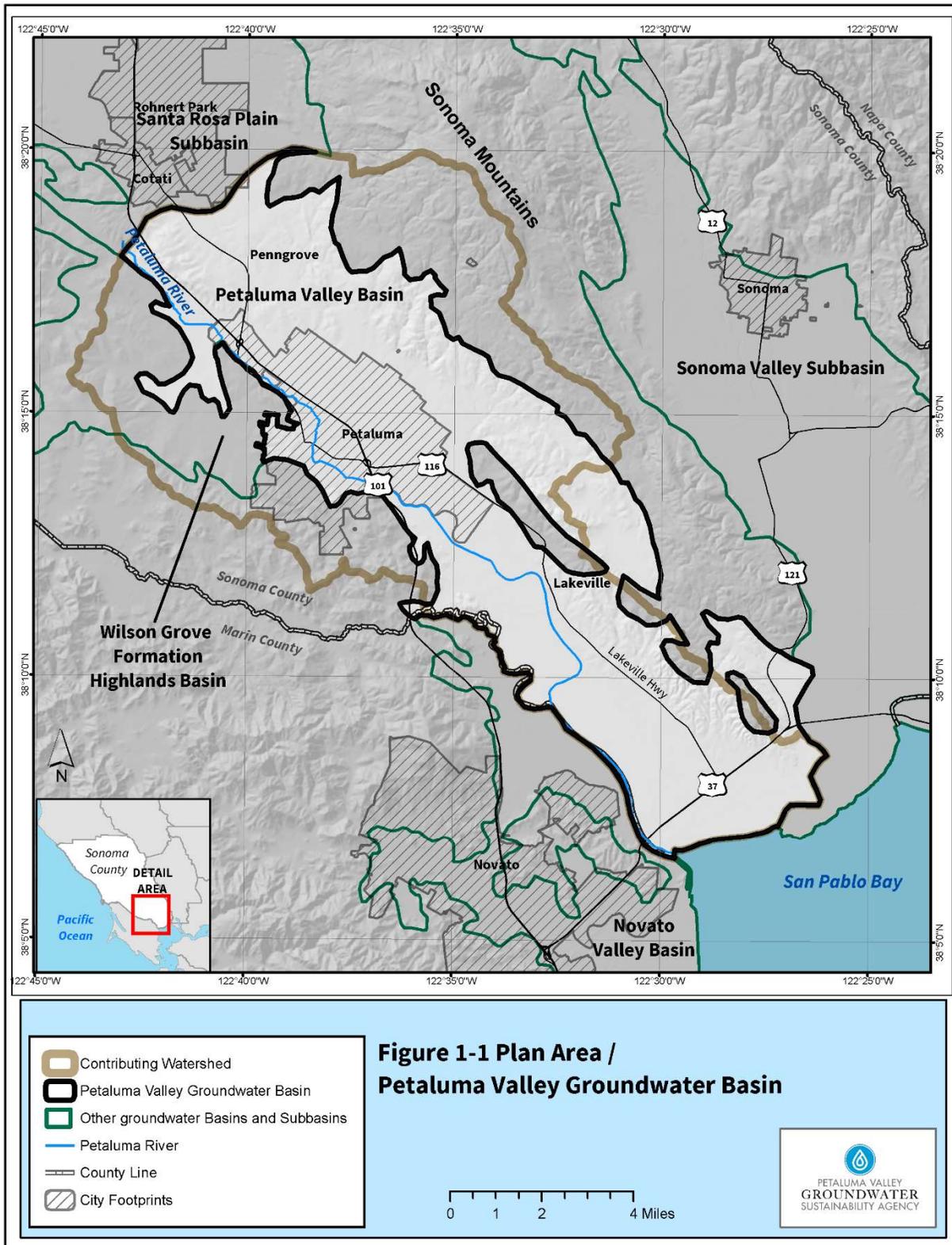


Figure 1-1. Plan Area/Petaluma Valley Groundwater Basin

1.1 Purpose of the Groundwater Sustainability Plan

The purpose of this document is to fulfill the GSP requirement and present paths for sustaining groundwater resources in the Basin. Primary objectives addressed by this GSP are to:

- Meet the requirements of SGMA and DWR’s GSP Emergency Regulations (GSP Regulations) by establishing criteria and management actions that will achieve and maintain sustainable groundwater management in the Basin within 20 years of GSP adoption.
- Incorporate the best available scientific and technical information by building on the strong technical foundation established through previous technical studies and voluntary groundwater management activities in Petaluma Valley.
- Integrate the perspectives and interests of the many diverse users and uses of groundwater resources within the Basin through a process that provides opportunity for significant public and community engagement. Dozens of comments were received and considered during multiple phases of revising the GSP (**Appendix 1-A**).
- Leverage the limited available funding and local resources through continued regional coordination and information sharing with other local entities and GSAs.

The development of this GSP benefits from collaborative groundwater and water-resource planning and studies by local stakeholders, which had focused on addressing groundwater sustainability issues in the Basin prior to the passage of SGMA.

The purpose of the GSP is not to tackle water supply risk and resilience issues or prepare emergency response plans for community drinking water systems. The America’s Water Infrastructure Act (AWIA) of 2018 requires community drinking water systems to develop or update risk assessments and emergency response plans to identify vulnerabilities, including malevolent acts and natural disasters, such as floods and droughts, that may potentially threaten the ability of community water systems to deliver safe drinking water.

The Petaluma Valley GSA, in collaboration with Sonoma County Water Agency (Sonoma Water), other Sonoma County GSAs, and local water suppliers, has and will continue to provide information to the local community on the severe multiyear drought occurring during the preparation of this GSP and other droughts in the future, including, but not limited to:

- News releases on the status of historically low surface water reservoir supplies
- Messaging to encourage communities to change everyday habits and adapt to eliminate water waste, and to conserve and reduce water usage by 20 percent
- Participation in public workshops on drought conditions and what the community can do to help address this issue

The GSAs do have the authority to mandate conservation and manage extractions but ultimately cannot affect water rights under SGMA. While California’s Human Right to Water (California Water Code [CWC] 106.3) does not apply to the Petaluma Valley GSA (which does not provide drinking water and is not a State agency), the GSP is developed to be protective of both groundwater levels and groundwater quality for all beneficial users, including residential well owners and disadvantaged communities (DACs). By addressing all beneficial uses and users, the GSP has addressed California’s Human Right to Water.

1.2 Guide to the Groundwater Sustainability Plan

The Petaluma Valley GSP is organized sequentially, starting with a high-level overview of the Basin (**Section 2**), and drilling into more details on hydrology, geology, and the current and projected groundwater conditions (**Section 3**). A discussion of what sustainability means locally is provided in **Section 4**, and **Section 5** details how sustainability will be monitored over time. **Sections 6** (Projects and Management Actions) and **7** (Implementation Plan) describe how sustainability will be achieved. Each section builds on the prior section and contributes to the reader’s understanding of the issues facing the Basin and the proposed solutions.

This document is composed of the following sections:

- **Front Matter** – This includes a table of contents that can help readers locate specific plan components, and a list of acronyms and abbreviations that can help readers navigate arcane water lingo.
- **Executive Summary** – A brief overview of the GSP, providing high-level information about the Basin, sustainability goals, and how the GSP will be implemented.
- **Section 1, Introduction** – Basic administrative information about the GSA, its composition and authorities, and how it communicates with and engages stakeholders.
- **Section 2, Plan Area** – A description of the Basin, including jurisdictions, land uses, water uses, and well permitting.
- **Section 3, Basin Setting** – A detailed overview of the Basin, including its physical setting; climate; the hydrogeologic conceptual model (which includes the factors that describe and effect its hydrology, such as geologic features, aquifer, and aquitards); current and historical groundwater conditions; the current and projected water budget; and management areas.
- **Section 4, Sustainable Management Criteria** – This section describes proposed management criteria for each of SGMA’s six sustainability indicators: groundwater levels, groundwater storage, water quality, land subsidence, seawater intrusion, and surface water depletion.
- **Section 5, Proposed Monitoring Plan** – The Sustainable Management Criteria described in **Section 4** are quantifiable and are measured over time. This section describes the current

monitoring network and proposed enhancements needed to accurately monitor data into the future.

- **Section 6, Projects and Management Actions** – This section describes and ranks projects and actions that could be used to achieve or maintain sustainability by 2042.
- **Section 7, Implementation Plan** – This section describes how the GSP will be implemented over time, including a draft high-level budget and potential funding sources.
- **Section 8, References** – This section provides a list of all documents cited in this GSP.
- **Appendices** – The appendices to this report provide a wealth of additional information.

Tables 1-1 and **1-2** provide a detailed list of the DWR-required GSP components from the GSP Regulations and SGMA statutes, respectively.

Table 1-1. Cross-reference of GSP Regulations and GSP Section Numbers

Sub-article	Section	Paragraph	Requirement	GSP Section
1. Administrative Information	354.4. General Information	(a)	Executive summary	00
		(b)	List of references and links to technical studies	Appendices
	354.6. Agency Information	-	Agency information pursuant to CWC Section 10723.8 (notification of GSA formation to DWR), along with:	1.2 and Appendices
		(a)	Agency name and mailing address	1.2
		(b)	Agency organization and management structure, persons with management authority for GSP implementation	1.2
		(c)	GSP manager name and contact information	1.2
		(d)	Legal authority of agency	1.2
		(c)	Estimate of GSP implementation costs and description of how agency plans to meet costs	7
	354.8. Description of Plan Area	(a)	Maps of GSP area	Figure 2-1
		(b)	Written description of GSP area	2.1
		(c)-(d)	Identification of existing water-resource monitoring and management programs, and description of any such planned programs	2.4 and 2.5
		(c)	Description of conjunctive use programs	2.5
		(f)	Description of the land use elements or topic categories	2.6
	(g)	Description of additional GSP elements (CWC Section 10727.4)	2.7 and 2.8	

Sub-article	Section	Paragraph	Requirement	GSP Section
	354.10. Notice and Communication	(a)	Description of the beneficial uses and users of groundwater in the subbasin	1.3
		(b)	List of public meetings	1.3
		(c)	Comments and responses regarding the GSP	Appendices
		(d)	Description of communication procedures	1.3
2. Basin Setting	354.12. Introduction to Basin Setting	-	Information about the basin setting (physical setting, characteristics, current conditions, data gaps, uncertainty)	3
	354.14. Hydrogeologic Conceptual Model	(a)	Description of the subbasin hydrogeologic conceptual model	3.1
		(b)	Summary of regional geologic and structural setting, subbasin boundaries, geologic features, principal aquifers, and aquitards	3.1
		(c)	Cross-sections depicting major stratigraphic and structural features	Figures 3-6
		(d)	Maps of subbasin physical characteristics	Figures 3-1 through 3-10
	354.16. Groundwater Conditions	(a)-(g)	Description of current and historical groundwater conditions, including: <ul style="list-style-type: none"> 1. Groundwater elevation 2. Change in storage 3. Seawater intrusion 4. Groundwater quality issues 5. Land subsidence 6. Interconnected surface water systems 7. Groundwater-dependent ecosystems 	3.2
	354.17. Water Budget	(a)	Water budget providing total annual volume of groundwater and surface water entering and leaving the subbasin, including historical, current, and projected water budget conditions, and change in storage	3.3
		(b)-(f)	Development of a numerical groundwater and surface water model to quantify current, historical, and projected: <ul style="list-style-type: none"> 1. Total surface water entering and leaving by water source type 2. Inflow to the groundwater system by water source type 3. Outflows from the groundwater system by water use sector 4. Change in groundwater storage 5. Overdraft over base period 6. Annual supply, demand, and change in storage by water year type 	3.3 and Appendix

Sub-article	Section	Paragraph	Requirement	GSP Section
			7. Estimated sustainable yield	
	354.20. Management Areas	(a)	Description of management areas	3.4
		(b)	Describe purpose, minimum thresholds, measurable objectives, monitoring, analysis	NA
		(c)	Maps and supplemental information	NA
3. Sustainable Management Criteria	354.22. Introduction to Sustainable Management Criteria	-	Criteria by which an agency defines conditions that constitute sustainable groundwater management for the subbasin	4
	354.24. Sustainability Goal	-	Description of subbasin sustainability goal, including basin setting information used to establish the goal, sustainability indicators, discussion of measures to ensure the subbasin will be operated within its sustainable yield, and an explanation of how the sustainability goal is likely to be achieved and maintained	4
	354.26. Undesirable Results	(a)	Processes and criteria used to define undesirable results applicable to the subbasin	4
		(b)-(c)	Description of undesirable results, including cause of groundwater conditions and potential effects on beneficial uses and users of groundwater	4
	354.28. Minimum Thresholds	(a)	Establish minimum thresholds to quantify groundwater conditions for each applicable sustainability indicator	4
		(b)-(d)	Describe information and criteria to select, establish, justify, and quantitatively measure minimum thresholds	4
	354.30. Measurable Objectives	(a)-(g)	Establish measurable objectives, including interim milestones in increments of 5 years, to achieve and maintain the subbasin sustainability goal	4
4. Monitoring Networks	354.32. Introduction to Monitoring Networks	-	Description of monitoring network, monitoring objectives, monitoring protocols, and data reporting	5
	354.34. Monitoring Network	(a), (e)-(g)	Development of monitoring network to yield representative information about groundwater conditions	5
		(b)-(d)	Monitoring network objectives	5
		(h)	Maps and tables of monitoring sites	5
		(i)	Monitoring protocols	Appendices

Sub-article	Section	Paragraph	Requirement	GSP Section
	354.36. Representative Monitoring	(a)-(c)	Designation of representative monitoring sites	5
	354.38. Assessment and Improvement of Monitoring Network	(a)-(d)	Evaluation of monitoring network, including uncertainty, data gaps, and efforts to fill data gaps	5
		(e)	Adjustment of monitoring frequency and density to assess management action effectiveness	5
	354.40. Reporting Monitoring Data to the Department	(f)	Copy of monitoring data from data management system	Digital Submittal
5. Projects and Management Actions	354.44. Projects and Management Actions	(a)-(c)	Description of projects and management actions to achieve and maintain the subbasin sustainability goal.	6

Note:

NA = not applicable

Table 1-2. Cross-reference of SGMA Statute Related to GSP Requirements and GSP Section Numbers

Requirement	GSP Section
Chapter 5 Powers and Authorities	
10726.9 REQUIREMENT OF PLAN TO TAKE ACCOUNT OF GENERAL PLAN ASSUMPTIONS	
A groundwater sustainability plan shall take into account the most recent planning assumptions stated in local general plans of jurisdictions overlying the basin.	2.6
Chapter 6 Groundwater Sustainability Plans	
10727. REQUIREMENT TO DEVELOP GROUNDWATER SUSTAINABILITY PLAN FOR MEDIUM- AND HIGH-PRIORITY BASINS; FORM OF PLAN	
(a) A groundwater sustainability plan shall be developed and implemented for each medium- or high-priority basin by a groundwater sustainability agency to meet the sustainability goal established pursuant to this part. The groundwater sustainability plan may incorporate, extend, or be based on a plan adopted pursuant to Part 2.75 (commencing with Section 10750).	1.0
10727.2. REQUIRED PLAN ELEMENTS	
A groundwater sustainability plan shall include all of the following:	
(a) A description of the physical setting and characteristics of the aquifer system underlying the basin that includes the following:	3.0
(1) Historical data, to the extent available.	3.2, 3.3
(2) Groundwater levels, groundwater quality, subsidence, and groundwater-surface water interaction.	3.2
(3) A general discussion of historical and projected water demands and supplies.	3.2, 3.3
(4) A map that details the area of the basin and the boundaries of the GSAs that overlie the basin that have or are developing GSPs.	Figure 3-1

Requirement	GSP Section
(5) A map identifying existing and potential recharge areas for the basin. The map or maps shall identify the existing recharge areas that substantially contribute to the replenishment of the groundwater basin. The map or maps shall be provided to the appropriate local planning agencies after adoption of the groundwater sustainability plan.	Figures 3-8a and 3-8b
(b) (1) Measurable objectives, as well as interim milestones in increments of 5 years, to achieve the sustainability goal in the basin within 20 years of the implementation of the plan.	4.0
(2) A description of how the plan helps meet each objective and how each objective is intended to achieve the sustainability goal for the basin for long-term beneficial uses of groundwater.	4.0
(3) (A) Notwithstanding paragraph (1), at the request of the groundwater sustainability agency, the department may grant an extension of up to 5 years beyond the 20-year sustainability timeframe upon a showing of good cause. The department may grant a second extension of up to 5 years upon a showing of good cause if the groundwater sustainability agency has begun implementation of the work plan described in clause (iii) of subparagraph (B). (B) The department may grant an extension pursuant to this paragraph if the groundwater sustainability agency does all of the following: (i) Demonstrates a need for an extension. (ii) Has made progress toward meeting the sustainability goal as demonstrated by its progress at achieving the milestones identified in its groundwater sustainability plan. (iii) Adopts a feasible work plan for meeting the sustainability goal during the extension period.	NA
(4) The plan may, but is not required to, address undesirable results that occurred before, and have not been corrected by, January 1, 2015. Notwithstanding paragraphs (1) to (3), inclusive, a groundwater sustainability agency has discretion as to whether to set measurable objectives and the timeframes for achieving any objectives for undesirable results that occurred before, and have not been corrected by, January 1, 2015.	4
(c) A planning and implementation horizon.	3.4.1.2
(d) Components relating to the following, as applicable to the basin: (1) The monitoring and management of groundwater levels within the basin.	4.0, 5.0, 6.0
(2) The monitoring and management of groundwater quality, groundwater quality degradation, inelastic land surface subsidence, and changes in surface flow and surface water quality that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin.	4.0, 5.0, 6.0
(3) Mitigation of overdraft.	4.0, 5.0, 6.0
(4) How recharge areas identified in the plan substantially contribute to the replenishment of the basin.	3.1.7
(5) A description of surface water supply used or available for use for groundwater recharge or in-lieu use.	2.3.2
(e) A summary of the type of monitoring sites, type of measurements, and the frequency of monitoring for each location monitoring groundwater levels, groundwater quality, subsidence, streamflow, precipitation, evaporation, and tidal influence. The plan shall include a summary of monitoring information such as well depth, screened intervals, and aquifer zones monitored, and a summary of the type of well relied on for the information, including public, irrigation, domestic, industrial, and monitoring wells.	5.0

Requirement	GSP Section
(f) Monitoring protocols that are designed to detect changes in groundwater levels, groundwater quality, inelastic surface subsidence for basins for which subsidence has been identified as a potential problem, and flow and quality of surface water that directly affect groundwater levels or quality or are caused by groundwater extraction in the basin. The monitoring protocols shall be designed to generate information that promotes efficient and effective groundwater management.	Appendix
(g) A description of the consideration given to the applicable county and city general plans and a description of the various adopted water resources-related plans and programs within the basin and an assessment of how the groundwater sustainability plan may affect those plans.	2.4, 2.5
<p>10727.4. ADDITIONAL PLAN ELEMENTS</p> <p>In addition to the requirements of Section 10727.2, a groundwater sustainability plan shall include, where appropriate and in collaboration with the appropriate local agencies, all of the following:</p>	
(a) Control of saline water intrusion.	
(b) Wellhead protection areas and recharge areas.	3.1.7
(c) Migration of contaminated groundwater.	2.1
(d) A well abandonment and well destruction program.	2.7
(e) Replenishment of groundwater extractions.	6.0
(f) Activities implementing, opportunities for, and removing impediments to, conjunctive use or underground storage.	2.1
(h) Measures addressing groundwater contamination cleanup, groundwater recharge, in-lieu use, diversions to storage, conservation, water recycling, conveyance, and extraction projects.	2.5, 6.0
(i) Efficient water management practices, as defined in Section 10902, for the delivery of water and water conservation methods to improve the efficiency of water use.	2.5.4
(j) Efforts to develop relationships with state and federal regulatory agencies.	7
(k) Processes to review land use plans and efforts to coordinate with land use planning agencies to assess activities that potentially create risks to groundwater quality or quantity.	7
(l) Impacts on groundwater-dependent ecosystems.	4
<p>10727.8. PUBLIC NOTIFICATION AND PARTICIPATION; ADVISORY COMMITTEE</p>	
(a) Prior to initiating the development of a groundwater sustainability plan, the groundwater sustainability agency shall make available to the public and the department a written statement describing the manner in which interested parties may participate in the development and implementation of the groundwater sustainability plan. The groundwater sustainability agency shall provide the written statement to the legislative body of any city, county, or city and county located within the geographic area to be covered by the plan. The groundwater sustainability agency may appoint and consult with an advisory committee consisting of interested parties for the purposes of developing and implementing a groundwater sustainability plan. The groundwater sustainability agency shall encourage the active involvement of diverse social, cultural, and economic elements of the population within the groundwater basin prior to and during the development and implementation of the groundwater sustainability plan.	1.2, 1.3, Appendix
(b) For purposes of this section, interested parties include entities listed in Section 10927 that are monitoring and reporting groundwater elevations in all or a part of a groundwater basin managed by the groundwater sustainability agency.	NA

Requirement	GSP Section
<p>10728. ANNUAL REPORTING BY GROUNDWATER SUSTAINABILITY AGENCY TO DEPARTMENT</p> <p>On the April 1 following the adoption of a groundwater sustainability plan and annually thereafter, a groundwater sustainability agency shall submit a report to the department containing the following information about the basin managed in the groundwater sustainability plan:</p> <p>(a) Groundwater elevation data.</p> <p>(b) Annual aggregated data identifying groundwater extraction for the preceding water year.</p> <p>(c) Surface water supply used for or available for use for groundwater recharge or in-lieu use.</p> <p>(d) Total water use.</p> <p>(e) Change in groundwater storage.</p>	7.0
<p>10728.2. PERIODIC REVIEW AND ASSESSMENT</p> <p>A groundwater sustainability agency shall periodically evaluate its groundwater sustainability plan, assess changing conditions in the basin that may warrant modification of the plan or management objectives, and may adjust components in the plan. An evaluation of the plan shall focus on determining whether the actions under the plan are meeting the plan’s management objectives and whether those objectives are meeting the sustainability goal in the basin.</p>	7.0
<p>10728.4. ADOPTION OR AMENDMENT OF PLAN FOLLOWING PUBLIC HEARING</p> <p>A groundwater sustainability agency may adopt or amend a groundwater sustainability plan after a public hearing, held at least 90 days after providing notice to a city or county within the area of the proposed plan or amendment. The groundwater sustainability agency shall review and consider comments from any city or county that receives notice pursuant to this section and shall consult with a city or county that requests consultation within 30 days of receipt of the notice. Nothing in this section is intended to preclude an agency and a city or county from otherwise consulting or commenting regarding the adoption or amendment of a plan.</p>	1.3, 7.0
<p>10728.6. CEQA NOT APPLICABLE TO PLAN PREPARATION AND ADOPTION</p> <p>Division 13 (commencing with Section 21000) of the Public Resources Code does not apply to the preparation and adoption of plans pursuant to this chapter. Nothing in this part shall be interpreted as exempting from Division 13 (commencing with Section 21000) of the Public Resources Code a project that would implement actions taken pursuant to a plan adopted pursuant to this chapter.</p>	5

Note:

CEQA = California Environmental Quality Act

1.3 Groundwater Sustainability Agency Authorities and Administrative Information

The Petaluma Valley GSA was formed to meet SGMA requirements in June 2017 and is one of three GSAs established in Sonoma County (the other two are Sonoma Valley and Santa Rosa Plain). The jurisdictional area of the Petaluma Valley GSA is the entire Basin, and no other GSAs have jurisdiction within the Basin. The Petaluma Valley GSA was formed through a Joint Exercise of Powers Agreement (JPA) entered into by the North Bay Water District, Sonoma County, Sonoma Water, Sonoma Resource Conservation District (RCD), and the City of Petaluma, in accordance with requirements of CWC Section 10723 for establishing GSAs under SGMA. A copy of the resolution forming the JPA is included in **Appendix 1-B**.

In August 2019, the Basin boundaries were amended to include additional areas of Petaluma. The boundary change was a result of DWR’s proposed 2018 reprioritization of the neighboring

Wilson Grove Formation Highlands Basin (Wilson Grove) from very-low priority to medium-priority. Entities within Wilson Grove were concerned about their ability to comply with SGMA, and the cities of Sebastopol and Petaluma, three mutual water districts (Fircrest, Belmont Terrace, and Kelly), and the County of Marin made jurisdictional requests to DWR to change the basin boundaries. DWR authorized the boundary changes. As a result, portions of the City of Petaluma formerly within Wilson Grove are now within the Petaluma Valley Basin. Sebastopol and the water companies are now solely within the Santa Rosa Plain Basin.

Contact information for the Petaluma Valley GSA is:

Petaluma Valley Groundwater Sustainability Agency
404 Aviation Boulevard
Santa Rosa, California 95403
www.petalumavalleygroundwater.org
(707) 524-8378

GSA Administrator: Ann DuBay, Community & Government Affairs Manager, Sonoma County Water Agency

GSA Plan Manager: Jay Jasperse, Chief Engineer and Director of Groundwater Management, Sonoma County Water Agency

1.3.1 Petaluma Valley Groundwater Sustainability Agency

SGMA requires GSAs to be formed to cover high- and medium-priority basins/subbasins. Any local agency that has water supply, water management, or land use responsibility for a groundwater basin is eligible to form a GSA. The legislative intent of SGMA is to encourage GSA-eligible agencies to form one GSA that covers an entire SGMA basin/subbasin and prepare one GSP; however, SGMA offers local agencies the flexibility of forming multiple GSAs and preparing multiple GSPs in a basin/subbasin. SGMA empowers GSAs with new management tools and authorities to, among other things:

- Register groundwater wells
- Collect data/conduct studies
- Measure extractions (with the exception of de minimis wells [that pump fewer than 2 acre-feet per year])
- Require reporting
- Manage extractions
- Assess fees

1.3.2 Petaluma Valley Groundwater Sustainability Agency Board and Advisory Committee

The Petaluma Valley GSA is governed by five board members and alternates from the five member organizations, which each appoint one member and one alternate member. Petaluma Valley GSA Board (GSA Board) members are elected or appointed members of their governing bodies who serve at the pleasure of the member organization appointing them. GSA Board members annually elect the officers of the GSA Board for one-year terms, which may be extended to multiple consecutive terms. The GSA Board's role in the GSP development process is to provide guidance and direction on key components of the GSP and consider recommendations from the Petaluma Valley GSA Advisory Committee (Advisory Committee) and input from the public. The GSA Board is responsible for approving the GSP and authorizing its submission to DWR for evaluation, assessment, and approval.

The Petaluma Valley GSA has an agreement with Sonoma Water for technical support, public outreach and community engagement, grant writing, and GSA administrative support, and with the Sonoma RCD for monitoring services. The GSA also has service agreements with outside firms for legal, financial decision making, and facilitation services for Advisory Committee meetings.

The Petaluma Valley GSA formed an advisory committee of 10 members with 5 at-large members appointed from the five member agencies, and 5 interest-based members appointed by the Petaluma Valley GSA Board, as follows:

- Environmental representative
- Rural residential well owner
- Business community
- Agricultural interest
- At-large community representative

As described in **Section 2.1**, the DACs in the Basin are generally located in areas that receive water from municipal water suppliers, which rely primarily on surface water (not groundwater). For this reason, the Advisory Committee does not include a seat designated for a DAC representative. As described in **Section 1.4.2.1**, government-to-government outreach was conducted from the County to Tribes when the Petaluma Valley GSA was formed. Tribal participation is welcomed by the GSA; however, no Tribe expressed interest in participation on the Board or Advisory Committee. For the implementation phase of the GSP, federally and non-federally recognized Tribal governments will be contacted to reassess their interest in participating in GSA activities.

The role of the Advisory Committee in the GSP development process is to work toward consensus and incorporate community and stakeholder interests into recommendations to the GSA Board on GSP development and SGMA implementation. Advisory Committee members also report to, and seek input, from their larger constituency groups on key components and proposals related to GSP development. The Advisory Committee meets 6 to 10 times annually,

and the meetings are open to the public in compliance with California’s Ralph M. Brown Act (Government Code Section 54950).

The Advisory Committee makes recommendations to the GSA Board that reflect the outcome of Advisory Committee discussions. To ensure that all viewpoints are heard and considered by the GSA Board, the Advisory Committee identifies areas of agreement and disagreement among the Advisory Committee. The names of GSA Board and Advisory Committee members can be found in **Appendix 1-C**, and the Advisory Committee Charter is shown in **Appendix 1-D**.

1.3.3 Groundwater Sustainability Agency Coordination

Implementation of SGMA in the Petaluma Valley Basin is closely coordinated with neighboring GSAs in Sonoma Valley and the Santa Rosa Plain, as well as local agencies with land use responsibilities, including the City of Petaluma and the County of Sonoma. In addition to closely coordinating on managing and monitoring along shared Basin boundaries, resources are leveraged and shared by the three existing GSAs in Sonoma County to maximize efficiencies, including shared templates and methodologies for certain GSP components, outreach resources, grant opportunities, and the development of data management system tools and technologies.

The Petaluma Valley GSA has an agreement with Sonoma Water for technical support, public outreach and community engagement, grant writing, and GSA administrative support. The GSA also has service agreements with outside firms for legal counsel, financial decision making, monitoring, and facilitation services for Advisory Committee meetings and other public meetings.

1.4 Stakeholder Engagement and Communication

SGMA requires that GSAs consider the beneficial uses and users of groundwater. As a result, GSP development included robust outreach and stakeholder engagement through a variety of methods and tools, which are described in detail in **Sections 1.4.2.1** through **1.4.2.3**.

As described in **Section 1.3**, the Petaluma Valley GSA is governed by a board, which receives and considers recommendations from an advisory committee representing multiple stakeholder interests. Both the GSA Board and Advisory Committee hold regular public meetings in compliance with California’s laws governing public meetings (commonly known as the Brown Act). A list of meetings can be found in **Appendix 1-E**.

All phases of SGMA compliance in the Basin have been, and will continue to be, characterized by an open collaborative process with strong stakeholder engagement allowing stakeholders and the public opportunities to provide input and to influence the process. Information is available on the website, www.sonomavalleygroundwater.org, where all meeting materials and notifications are posted.

1.4.1 Beneficial Uses and Users of Groundwater

SGMA requires GSAs to identify and consult with people and agencies who represent the “beneficial uses and users of groundwater in the basin, including the land uses and property interest potentially affected by the use of groundwater in the basin” (California Code of Regulations [CCR] Section 354.10). The *Community Engagement Plan for Development and Adoption of a Groundwater Sustainability Plan* (Petaluma Valley GSA 2018), provided in **Appendix 1-F**, identifies beneficial users and uses as “interested parties” that include water suppliers, agricultural users, business and commercial uses, rural residential well owners, DACs, state and local landowners, and environmental users.

As described in **Section 1.3**, many of these beneficial users and those engaged in beneficial uses are included on the GSA Board or the Advisory Committee. Specific information regarding consultation with representatives of beneficial users and uses is described in **Section 1.4.3**.

1.4.2 Sustainable Groundwater Management Act Phases of Work

Outreach for SGMA is associated with the following four work phases:

Phase 1: GSA formation and Coordination – The formation of the Petaluma Valley GSA began in 2015, with an initial stakeholder assessment conducted by the Consensus Building Institute (CBI), followed by negotiations between GSA-eligible entities in the Basin. This phase was completed in June 2017, when the GSA was created by a JPA (described in **Section 1.2**).

Phase 2: GSP Preparation and Submission – This phase of work began in 2018, and will be completed in January 2022. During this phase, outreach was largely guided by the Community Engagement Plan (**Appendix 1-F**). Pre-submission, the final draft GSP was released for public comments and review.

Phase 3: GSP Review and Evaluation – This phase began in 2019, with the majority of the review taking place in 2021. This phase will continue through 2022, when the GSP is submitted and DWR provides additional opportunity for additional public review and comments.

Phase 4: Implementation and Reporting – Following the submission of the GSP to DWR, the Petaluma Valley GSA will begin implementing projects and programs to reach sustainability in the Basin. This will be an ongoing phase, with 5-year updates that will include public input and feedback, as the GSA strives for sustainability by 2042.

1.4.2.1 Phase 1: GSA Formation and Coordination

From 2015 through 2017, local agencies worked with CBI to facilitate the formation of the Petaluma Valley GSA. CBI began by conducting a stakeholder assessment in the three Sonoma County basins and subbasins (Petaluma Valley, Santa Rosa Plain, and Sonoma Valley) that were immediately subject to SGMA. Assessment results were described in *Findings and Recommendations on Implementing the Sustainable Groundwater Management Act in Sonoma County* (**Appendix 1-G**).

The assessment included interviews with and surveys of representatives of key stakeholder groups. During the assessment phase, the County of Sonoma sent government-to-government letters to federally recognized Tribes within the three basins and subbasins. While the Federated Indians of Graton Rancheria chose to participate on the Santa Rosa Plain Advisory Committee, no Tribe expressed interest in participation on the Petaluma Valley GSA Board or Advisory Committee. For the implementation phase of the GSP, Tribal governments will be contacted again to reassess their interest in participating in GSA activities.

The stakeholder assessment resulted in recommendations for a transparent and inclusive process for local implementation of SGMA, and also recommended that separate GSAs be created for each of the three basins/subbasins in order to reflect the local basin characteristics and stakeholder concerns. Other findings include the following:

- There is an overall commitment to long-term sustainable groundwater management and awareness of the importance of groundwater-surface water interaction, conjunctive use, and integrated water resources management.
- Respondents respect local knowledge and control for water management and expressed concern about (1) needing to participate in management decisions for other basins and (2) having agencies or stakeholders from external jurisdictions making decisions about local groundwater. At the same time, some recognized a need for a regional perspective on water resources and land use; those with this perspective feel confident that regional considerations can blend with local decisions.
- Agencies expressed concerns about costs and funding SGMA implementation.
- Stakeholders demonstrated a high level of expectation for public outreach and stakeholder involvement. Respondents urged expansive outreach to rural residential well owners and those seeking guidance and input from Basin advisory panels and the public on forming the GSA.

The assessment prescribed a process for input and decision making, which involved representatives of the GSA-eligible entities in the Basin. The process was implemented, and included community forums that were held in 2016 to receive and consider input from the public on GSA formation.

Some areas of the Basin are classified as DACs by the DWR (DWR 2021a), the Sonoma County Transportation Authority (SCTA 2017), and Sonoma County Department of Health Services (2014). Representatives of DAC stakeholders were included in the assessment survey, or were separately interviewed by staff during the GSA formation process.

The beneficial users and users, as defined by SGMA (CWC Section 10723.2), in the Basin are represented in the structure of the GSA Board and the Advisory Committee. GSP beneficiaries include private domestic well owners, agriculture, businesses, municipal public water systems, DACs, and environmental users.

Stakeholders on the GSA Board and Advisory Committee include representatives from municipal water suppliers, agriculture, environmental organizations, businesses, rural well owners, and at-large community members. Refer to **Section 1.2** for additional information about GSA Board and Advisory Committee composition.

1.4.2.2 Phase 2: Preparation and Submission

The GSA Board and Advisory Committee were actively engaged in the development of the GSP, including:

- Reviewing and commenting on GSP sections as they were prepared
- Providing feedback and suggestions for Sustainable Management Criteria (SMC) (discussed in **Section 4** of this GSP)
- Actively engaging and soliciting feedback from the stakeholders they represent

All meetings were publicly advertised and conducted in accordance with California’s Ralph M. Brown Act (Government Code Section 54950). Meetings held during the pandemic were advertised and conducted in accordance with Governor Newsom’s Executive Order N-25-20 issued on March 3, 2020. Public comment was included on every item, and meeting minutes were taken and are available via the website (<https://petalumavalleygroundwater.org/>).

Broader public input was determined to be a critical component of GSP development, and was guided by the *Community Engagement Plan for Development and Adoption of a Groundwater Sustainability Plan Petaluma Valley Groundwater Sustainability Agency* (Petaluma Valley GSA 2018) (**Appendix 1-F**), which was adopted by the Board in January 2018. To encourage stakeholder engagement, key outreach tools included:

- Development of an Interested Parties List through both meeting attendance and by soliciting the public to sign up via the website (<https://petalumavalleygroundwater.org/>)
- Monthly informational emails to the Interested Parties list that provided information regarding SGMA, GSP planning, and groundwater management
- Development of a website (<https://petalumavalleygroundwater.org/>) with meeting information and GSP materials, including a location for public comments as draft GSP sections were released
- Public forums on the SGMA process, Basin conditions, SMC development, draft SMC, and the draft GSP
- Forums coordinated with the other Sonoma County GSAs on cross-cutting issues, including climate change modeling and groundwater recharge
- Presentations to and discussions with key stakeholder groups in the Basin, including the Sonoma Water Coalition (a countywide coalition of environmental groups), environmental

stakeholders, the Sonoma County Farm Bureau’s water committee, cannabis growers, and the Board of Petaluma People and Family Services Center (which serves DACs in the basin)

- A survey mailed to all domestic well owners in the Basin, in both English and Spanish, assessing their priorities regarding groundwater sustainability and identifying key issues related to groundwater resources
- Focus groups, including a Basin-wide group, a DAC group that included representatives from the other Sonoma County basins, and an agricultural focus group
- A campaign to inform domestic well owners, including a website revision, social media messaging, newspaper ads, and lawn signs
- Participation in 2021 Drought Drop By, where groundwater users were provided information about the GSP along with a water-saving toolkit

1.4.2.3 Phase 3: Groundwater Sustainability Plan Review and Evaluation

Phase 3 began in 2019, with the majority of the review occurring in 2021. During this phase, sections of the draft GSP were released sequentially to the GSA Board, Advisory Committee, and public for comments. In addition, the draft GSP was posted on the website and made available at regional libraries and at Petaluma City Hall. During the 30-day review period, 15 comments were received from 9 individuals and organizations. All comments submitted through the various Advisory Committee, Board, and public reviews are available in **Appendix 1-A**. During the public comment period, a community workshop attended by approximately 30 people provided an overview of GSP content. In addition, a Board meeting held during the comment period allowed the public the opportunity to provide verbal comments and feedback.

Public comments were incorporated into the GSP as appropriate, and the final GSP will be considered by the Board in early December.

Following submittal to DWR, there will be a 75-day comment period through DWR’s SGMA portal at <http://sgma.water.ca.gov/portal/>. Comments will be posted to the DWR website prior to the state agency’s evaluation, assessment, and approval.

1.4.2.4 Phase 4: Implementation and Reporting

Phase 4 will continue through the duration of the 50-year planning window to ensure that sustainability is achieved and maintained, and that the activities, programs, and policies of the GSA are transparent and inclusive.

Both the Board and Advisory Committee will continue to meet, and the Advisory Committee’s scope and purpose will be refined to focus on GSP implementation. Tribal governments will be contacted to reassess their interest in participation in the GSA and in the implementation process.