ARROYO SANTA ROSA VALLEY BASIN

GROUNDWATER SUSTAINABILITY AGENCY

SPECIAL BOARD MEETING AGENDA

WEDNESDAY, NOVEMBER 5, 2025

9:00 A.M.

Camrosa Water District - 7385 Santa Rosa Road - Camarillo, CA 93012

ALL AGENDA DOCUMENTS ARE AVAILABLE ONLINE AT WWW.ASRGSA.COM

CALL TO ORDER

PUBLIC COMMENTS

At this time, the public may address the Board on any item not appearing on the agenda that is subject to its jurisdiction. Persons wishing to address the Board must fill out a speaker card and are subject to a five-minute time limit.

PRIMARY AGENDA

1. **Development of Groundwater Sustainability Agency (GSA) Functions**

   Objective: Discuss further development of GSA functions.

   Action Required: No action is necessary; for information only.

COMMENTS BY THE INTERIM EXECUTIVE DIRECTOR; COMMENTS BY DIRECTORS

ADJOURNMENT

ARROYO SANTA ROSA VALLEY BASIN

GROUNDWATER SUSTAINABILITY AGENCY

Camrosa Water District, 7385 Santa Rosa Road, Camarillo, CA 93012

BOARD MEMORANDUM

DATE: November 5, 2025

TO: Board of Directors

FROM: Norman Huff, Interim Executive Director

OBJECTIVE: Discuss Further Development of Groundwater Sustainability Agency (GSA) Functions.

ACTION: No action is necessary: for discussion only.

DISCUSSION: Effective groundwater management is crucial to ensuring the long-term sustainability of the basin. Significant aspects of managing these efforts include management actions, projects, stakeholder engagement, cost allocation and recovery, and other essential GSA functions.

Discussion Outline

1. Overview of GSP Implementation Budget from GSP
2. Annual Monitoring
3. Projects and Management Actions
4. Improve Basin Characterization for Model Simulation Projections
5. Develop Groundwater Exchange Program
6. Prioritize Efforts
7. Wrap up

Attachments:

- Arroyo Santa Rosa Valley Groundwater Basin Groundwater Sustainability Plan (GSP) Executive Summary
- Full GSP can be found at: https://asrgsa.com/wp-content/uploads/2023/06/ASRVGB-GSP-FINAL.pdf
- The latest Annual Report can be found at: https://asrgsa.com/wp-content/uploads/2025/10/Annual-Report-4-2025.pdf

Arroyo Santa Rosa Valley Groundwater Basin

Groundwater Sustainability Plan

June 2023

Prepared for

Fox Canyon Groundwater Management Agency and
Arroyo Santa Rosa Basin Groundwater Sustainability Agency

Arroyo Santa Rosa Valley Groundwater Basin
Groundwater Sustainability Plan

Prepared for

ASRGSA Arroyo Santa Rosa Basin Groundwater Sustainability Agency

Fox Canyon Groundwater Management Agency and
Arroyo Santa Rosa Basin Groundwater Sustainability Agency

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Executive Summary [§354.4(a)]

§354.4 General Information. *Each Plan shall include the following general information:*
(a) *An executive summary written in plain language that provides an overview of the Plan and description of groundwater conditions in the basin.*

Introduction

This Groundwater Sustainability Plan (GSP) was prepared jointly by the Arroyo Santa Rosa Basin Groundwater Sustainability Agency (ASRGSA) and the Fox Canyon Groundwater Management Agency (FCGMA) (the GSAs) to sustainably manage the Arroyo Santa Rosa Valley Groundwater Basin (Department of Water Resources [DWR] Basin No. 4-007; ASRVGB or Basin) in accordance with the Sustainable Groundwater Management Act (SGMA).

The State of California enacted SGMA, effective January 1, 2015, to provide a statewide framework for groundwater management by locally formed Groundwater Sustainability Agencies (GSAs). Groundwater basins deemed to have medium or high priority by the DWR are required to comply with SGMA. The ASRVGB priority assigned by DWR was reduced from medium to very low in 2019, making SGMA compliance optional. The GSAs are developing this GSP voluntarily under SGMA to be good stewards of the Basin groundwater resources, ensure reliability of local water supplies, and create additional opportunities to enhance groundwater supply and improve groundwater quality.

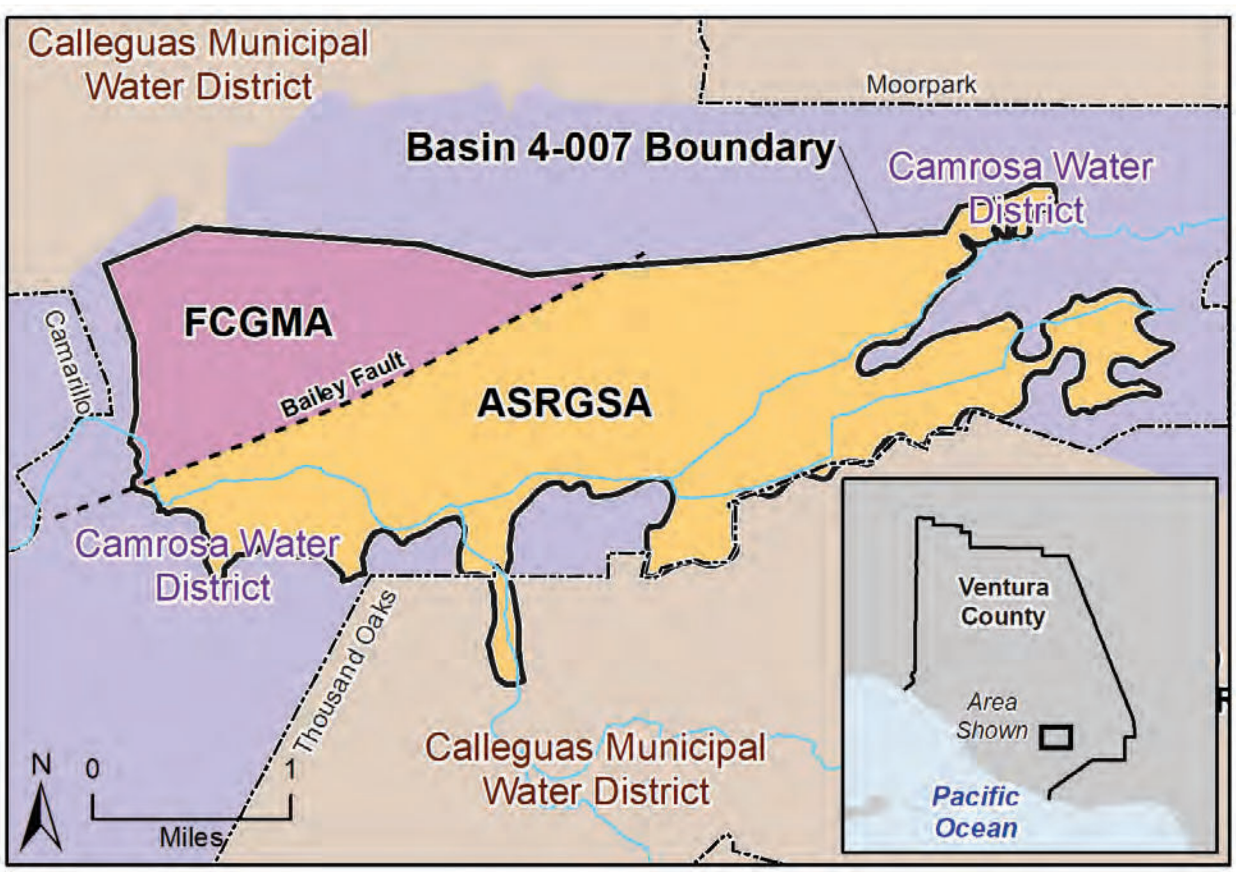

Figure ES-01 Arroyo Santa Rosa Valley Groundwater Basin and Adjacent Water Districts.

The ARSVGB is covered by two GSAs, the FCGMA and ASRGSA (Figure ES-01). The FCGMA is an independent special district formed by the California Legislature in 1982 to manage and protect the aquifers within its jurisdiction for the common benefit of the public and all agricultural, domestic, municipal, and industrial users. FCGMA overlies approximately one third of the northwestern of the Basin, west of the Bailey Fault (Figure ES-01). ASRGSA was formed in 2016 to manage the portion of the Basin located outside of the FCGMA jurisdictional boundary. ASRGSA was formed pursuant to a joint exercise of powers agreement (JPA) between Camrosa Water District (Camrosa WD or Camrosa) and the County of Ventura. Camrosa WD provides retail water services to residential, commercial, and agricultural customers in the Basin and surrounding region. The County of Ventura exercises water management and land use authority on land overlying most of ASRVGB and provides jurisdictional coverage for a small portion of the Basin that lies outside of Camrosa's service area. SGMA identified the FCGMA as the exclusive GSA for basins within its jurisdiction; however, this only included the western portion of the Santa Rosa Valley Basin, west of the Bailey Fault (see ES-3; Basin Setting). The FCGMA also manages the adjacent Pleasant Valley and Las Posas Valley basins pursuant to GSPs.

Following submittal of initial notifications on May 14, 2018, and February 24, 2017, from ASRGSA and FCGMA, respectively, the two GSAs developed this GSP to comply with SGMA's statutory and regulatory requirements and initiated planning by engaging with stakeholders and holding public meetings pursuant to an adopted Stakeholder Engagement Plan.

The goal of this GSP is to sustainably manage the groundwater resources and improve the water quality of the ASRVGB for the benefit of current and anticipated future beneficial users of groundwater, without causing undesirable results under future conditions (Section 4.2). This GSP outlines the approach to maintain a sustainable groundwater resource free of undesirable results pursuant to the SGMA, while establishing long-term reliability no later than 20 years from GSP adoption.

The content of this GSP includes administrative information, description of the Basin setting, development of quantitative sustainable management criteria (SMC) that consider the interests of all beneficial uses and users of groundwater, identification of projects and management actions and monitoring networks that will ensure the Basin is demonstrably managed in a sustainable manner no later than the 20-year sustainability timeframe and for the duration of the entire 50-year planning and implementation horizon.

This GSP is generally organized following DWR guidance documents (DWR, 2016d):

Section 1 - Introduction to Plan Contents

Section 2 - Administrative Information

Section 3 - Basin Setting

Section 4 - Sustainable Management Criteria

Section 5 - Monitoring Networks

Section 6 - Projects and Management Actions

Section 7 - GSP Implementation

Section 8 - References and Technical Studies

ES-1. Plan Area Description

The geographic area covered by this GSP and managed by ASRGSA and FCGMA includes the entire ASRVGB (DWR Basin No. 4-007), as defined by DWR Bulletin No. 118, "California's Groundwater," Update 2020 (DWR, 2020). The Basin is in the southeastern portion of Ventura County near the City of Thousand Oaks and the City of Camarillo (Figure ES-02). The ASRVGB is bordered by the following basins: Tierra Rejada (4-015) to the east, Conejo (4-101) to the south, Pleasant Valley Basin (4-006) to the west, and Las Posas Valley (4-008) to the north.

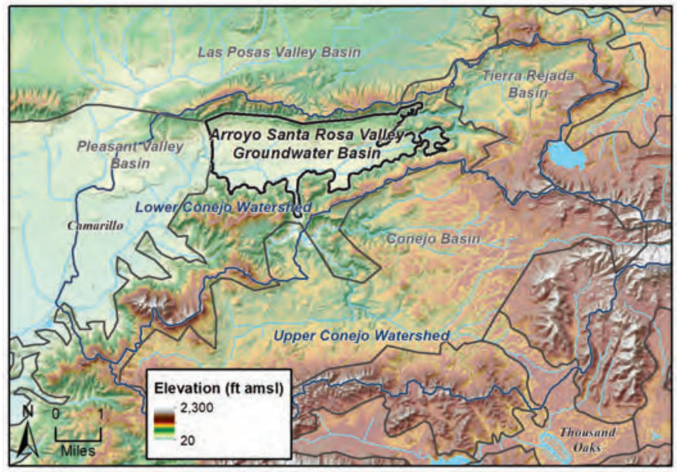

Figure ES-02 Regional Map of ASRVGB and Adjacent Basins.

Land use in the Basin is generally split between agricultural and low-density residential (53% and 35%, respectively), with agricultural land making up most of the western half of the Basin and residential land making up the eastern half of the Basin. Approximately 70% of the Basin is protected land under the Save Open Space & Agricultural Resources (SOAR) program, which includes agricultural, residential, open space, and undeveloped land. Thus, further intensive development is not expected to occur within the Basin for the foreseeable future. The principal land use planning agency in the Basin is the County of Ventura, which recently completed its 2040 General Plan (County of Ventura, 2020).

ES-2. Regional Water Management Framework

Groundwater management pursuant to this GSP complements or overlaps with existing and future potential water management programs in the region. Importantly, certain future monitoring activities may overlap with the GSP monitoring networks. The GSAs will coordinate with these programs to minimize duplication of efforts/costs.

Camrosa Water District

Camrosa WD was established in 1962 with construction of its initial water facilities between 1966 -1969. Its service area covers 31 square miles in southern Ventura County. Currently the District's potable distribution system services 32,100 residents and more than 3,000 acres of agricultural land, as well as businesses and light industry (Camrosa, 2021). In addition to potable water, Camrosa WD provides non-potable surface water and reclaimed water as well as wastewater collection services in certain portions of the service area.

City of Thousand Oaks

In Water Rights Decision No. 1638 (Ventura County, 1997), the SWRCB ordered that unappropriated water by the City of Thousand Oaks is to be provided to Camrosa via the Conejo Creek Project diversion site. SWRCB required a minimum flow of 6.0 cubic feet per second (cfs) at the Conejo Creek Project diversion point for the protection of public trust resources.

Camarillo Sanitary District

Camrosa WD stores and resells surplus recycled water through a purchase agreement with the Camarillo Sanitary District, which estimates an availability of 500-800 acre-feet per year (AFY) (Camrosa, 2021). Any recycled water not delivered to Camrosa is delivered to City of Camarillo customers or discharged by the City to Conejo Creek.

Calleguas Municipal Water District (Calleguas MWD)

Calleguas MWD is the wholesale imported water agency from which Camrosa purchases imported water to supplement local water supplies in the Basin. Calleguas MWD is a member agency of the Metropolitan Water District of Southern California. The Calleguas MWD Urban Water Management Plan (Calleguas MWD, 2021) is a planning tool that generally guides the actions related to water supply issues for the District service area.

Watersheds Coalition of Ventura County Integrated Regional Water Management Plan

The Integrated Regional Water Management Plan (IRWMP) prepared by the Watersheds Coalition of Ventura County (2019) includes several “resource management strategies” that have the potential to directly or indirectly affect water resources management in Ventura County, including the Calleguas Creek Watershed and ASRVGB.

Ventura County Watershed Protection District (VCWPD)

The ASRVGB is within the Calleguas Creek Watershed in Ventura County, which includes programs involving standards for water quality within the Basin. The Non-Coastal Zoning Ordinance by the Ventura County Planning Division (Ventura County, 2023) sets standards for dwellings within groundwater Impact Areas for the Basin to limit impacts from septic systems and animal husbandry/keeping and composting. In addition, the Ventura County Stormwater Quality Monitoring Program requires water quality sampling, watershed assessments, business inspections, and pollution prevention programs.

RWQCB Water Quality Management Programs

ASRVGB falls within the jurisdiction of the Los Angeles Regional Water Quality Control Board (RWQCB), which has established a regional Water Quality Control Plan (i.e., Basin Plan, RWQCB-LA, 2019). The Basin Plan contains the regional water quality regulations and programs to implement these regulations, including the National Pollutant Discharge Elimination System (NPDES) permits issued under federal delegation for discharges to surface water and total maximum daily loads (TMDLs). The Ventura County Stormwater Quality Management Program is implemented to meet the requirements of the Ventura County Stormwater Permits (i.e., Municipal Separate Storm Sewer System [MS4] permit), which includes water quality sampling, watershed assessments, business inspections, and pollution prevention programs. The Ventura County Agricultural Irrigated Lands Group Water Quality Management Plan (VCAILG, 2020) is implemented to comply with the agricultural conditional waiver of waste discharge requirements. The plan addresses measurement and control of discharges from irrigated farmland to protect surface water quality. TMDL monitoring of surface water within the Basin is currently coordinated by the Calleguas Creek Watershed TMDL Compliance Monitoring Program (CCWTMP). The RWQCB Basin Plan and water quality regulatory programs do not limit basin operational flexibility because actions undertaken by RWQCB contribute to maintenance of groundwater quality below the measurable objective concentrations.

Fox Canyon Groundwater Management Agency

FCGMA was formed by the California Legislature in 1982 as an independent special district to manage the aquifers within its jurisdiction (FCGMA, 1982). Beneficial users of groundwater within FCGMA jurisdiction are subject to the Agency's GSPs, ordinances, and policies.

ES-3. Basin Setting and Groundwater Conditions

Overview

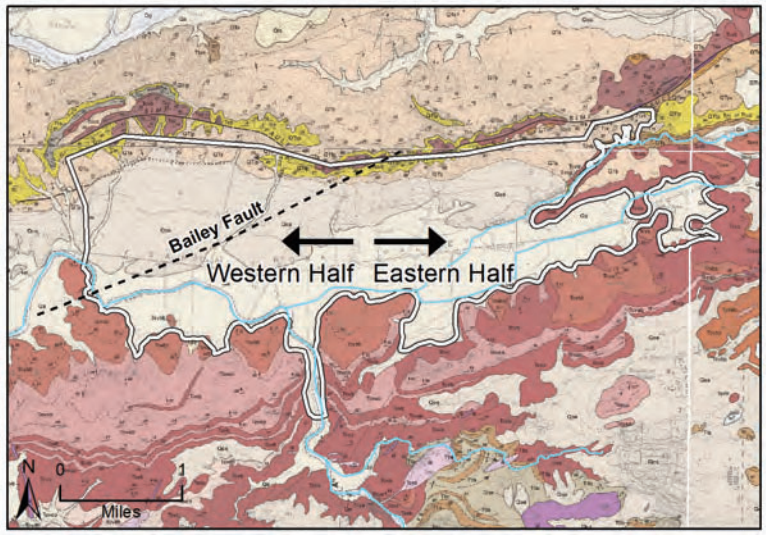

Figure ES-03 Surface Geology for the ASRVGB.

The ASRVGB is in an elongated east-trending valley and consists of multiple layers of alternating fine- and coarse-grained unconsolidated deposits, semi-consolidated deposits, and consolidated formations underlain by volcanic bedrock. The Basin is roughly centered on an east-west oriented structural syncline, and the sedimentary deposits are thickest in the center and westernmost areas, thinning out to the Basin margins. The aquifer system is semi-confined and is characterized by distinct upper and lower groundwater-producing zones in the west with the stratification absent or not apparent to the east; the upper and lower groundwater-producing zones are treated as a single principal aquifer for purposes of sustainable groundwater management in this initial GSP. To facilitate discussion within the GSP, the Basin has been subdivided into two areas, the western half and eastern half. In addition, a key hydraulic feature within the Basin is the Bailey Fault, which acts as a relative barrier to flow, separating the northwestern third of the Basin from the rest of the Basin (Figure ES-03).

Inflow into the Basin comes from mountain-block fracture flow from the Conejo volcanics from the south and east, infiltration of streamflow, recharge as infiltration of precipitation and agricultural and urban return flows, and mountain-front recharge from the north. There is a small component of underflow from the Pleasant Valley Basin to the west, but that component is not well constrained by data and is quantified within the range of uncertainty of the numerical model. The Arroyo Conejo and Conejo Creek are the major surface water features recharging the groundwater in the south-central and southwestern area of the Basin (Figure ES-04) – this surface water system is a perennial creek due to a constant source of effluent from the Hill Canyon Wastewater Treatment Plant (WWTP). The shallow groundwater in the vicinity of the Arroyo Conejo and Conejo Creek consists primarily of recirculated surface water discharges sourced from the Hill Canyon WWTP and urban runoff from Conejo Valley, both of which enter the Basin via Hill Canyon (Section 3.2.6). Groundwater extraction is the primary outflow component for the Basin, and shallow groundwater also discharges to Conejo Creek in the southwestern area.

Basin Setting Components

Topography and Surface Water Features. The ASRVGB is located within the Lower Conejo Watershed in southern Ventura County, which is part of the larger Calleguas Creek Watershed. The topography of the Basin is generally broad and flat in the west with ground surface elevations as low as ~200 feet (ft) above mean sea level (amsl) increasing to ~400 ft amsl to the east as the valley narrows along Santa Rosa Road, and elevations are as high as ~700 ft amsl along the east-trending ridge of the Las Posas Hills to the north.

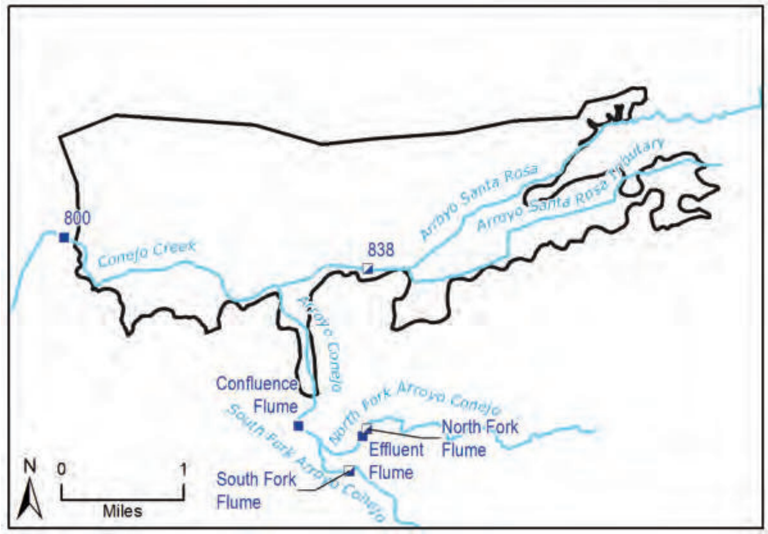

Figure ES-04 Surface Water Bodies and Gages for the ASRVGB.

The ASRVGB is within a Mediterranean-type climatic zone, characterized by a long summer-fall dry season and a cool winter-spring wet season. On average 94% of the precipitation in the ASRVGB usually occurs between November and April with an annual average precipitation of 13.2 inches with rainfall varying from less than 5 inches in the driest years to more than 30 inches in the wettest years. There are three primary surface water features in the ASRVGB with a combined drainage area of ~67 square miles: the Arroyo Santa Rosa, the Arroyo Conejo, and Conejo Creek (Figure ES-04). The Arroyo Santa Rosa is an ephemeral creek, bisecting the Santa Rosa Valley in the eastern half of the Basin, and much of the channel is composed of rectangular reinforced concrete trapezoidal rip rap. The Arroyo Santa Rosa and its tributary primarily flow during storm events. The Arroyo Conejo enters the Arroyo Santa Rosa Valley through the Conejo Hills and Hill Canyon in the southwest, joining the Arroyo Santa Rosa just downstream of the mouth of Hill Canyon. Conejo Creek starts at the confluence of the Arroyo Conejo and the Arroyo Santa Rosa and flows in a westerly direction into the Pleasant Valley Basin and eventually into Calleguas Creek downstream of the ASRVGB. The Arroyo Conejo-Conejo Creek is a perennial creek, primarily due to effluent discharges from the Hill Canyon WWTP.

Geologic Setting and Basin Hydrogeology. The ASRVGB is within the tectonically active Transverse Ranges geomorphic province of California, characterized by mountain ranges and valleys with an east-west orientation. Rocks in this region have been folded into a series of predominantly east-west-trending anticlines and synclines associated with thrust and reverse faults. The Basin is aligned with the east-trending Santa Rosa Syncline, which bisects the Santa Rosa Valley, extending westward into the adjacent Pleasant Valley Basin. The northern edge of the Basin is delineated by the Simi-Santa Rosa Fault Zone along the Las Posas Hills anticline, parallel to the Santa Rosa Syncline (Figure ES-03).

The bottom of the Basin is delineated by the Conejo volcanics, which is the primary bedrock unit underlying the sedimentary formations that comprise the Basin and has a maximum depth of over 1,000 ft in the western part of the Basin, based on the interpretation of lithologic logs. The Basin materials pinch out to the south and east where the Conejo volcanics outcrop along the Conejo Hills and the western margin of the Tierra Rejada Basin, respectively. The synclinal structure of the ASRVGB extends to the west into the Pleasant Valley Basin; however, the alluvial thickness and width of the valley becomes constricted at the western boundary of the ASRVGB by a north-trending ridge of the Conejo volcanics that form a saddle-like structure. Although flow across this western boundary may be limited to the groundwater-producing zones and is considered insignificant, it is interpreted to hydraulically connect the ASRVGB to the Pleasant Valley groundwater basin.

The major hydraulic feature within the Basin is the Bailey fault, which is a northeast-trending vertical fault that acts as a partial hydraulic barrier and political boundary for the Basin, separating the FCGMA from the rest of the Basin to the east. Differences in both groundwater levels (up to ~80 ft) and water quality data (Nitrate and total dissolved solids [TDS] concentrations) across the fault support the hydraulic separation.

Six distinct hydrostratigraphic units (HSUs) were developed for the hydrogeologic conceptual model and numerical model and consist of five layers of sedimentary units and the sixth bottom layer representing the bedrock basement (Figure ES-05). Review of previous studies along with the interpretation of lithologic logs, electrical-logs, and well screen information, supports the identification of upper and lower groundwater-producing zones (HSUs 3 and 5, respectively) separated by semi-confining low-permeability units, primarily in the western half of the Basin. The stratigraphy in the eastern half does not exhibit the same layering that is observed in the well logs and electrical logs of the western half of the Basin, where the alluvial thickness is generally greater than ~700 ft and there are alternating deposits of fine- and coarse-grained materials; the basin-fill sediments to the east are mostly fine grained.

<table>
<tr><th colspan="3">West of Bailey Fault</th><th rowspan="2"></th><th colspan="3">East of Bailey Fault</th></tr>
<tr><th>Aquifer Unit</th><th colspan="2">Hydrostratigraphic Unit (Model Layer)</th><th>Aquifer Unit</th><th colspan="2">Hydrostratigraphic Unit (Model Layer)</th></tr>
<tr><td>Shallow Alluvium</td><td>Shallow Alluvium</td><td>1</td><td rowspan="10">Bailey Fault: Barrier to flow, up to ~300 ft offset, upthrown side on east</td><td>Shallow Alluvium</td><td>Shallow Alluvium</td><td>1</td></tr>
<tr><td>Mugu (or age-equivalent)</td><td rowspan="2">Upper Groundwater Producing Zone (~100-240 ft thick; ~100-440 ft deep)</td><td>2</td><td rowspan="3">n/a</td><td rowspan="2">Upper Groundwater Producing Zone (~50-200 ft thick; ~100-400 ft deep)</td><td>2</td></tr>
<tr><td rowspan="2">Hueneme</td><td>3</td><td>3</td></tr>
<tr><td>Low permeability unit</td><td>4</td><td>Low permeability unit</td><td>4</td></tr>
<tr><td>Fox Canyon</td><td rowspan="4">Lower Groundwater Producing Zone (~200-550 ft thick; ~100-600 ft deep)</td><td rowspan="4">5</td><td rowspan="2">Fox Canyon</td><td rowspan="4">Lower Groundwater Producing Zone (~50-450 ft thick; ~50-400 ft deep)</td><td rowspan="4">5</td></tr>
<tr><td>Grimes Canyon/Santa Barbara</td></tr>
<tr><td>n/a</td><td>Unconformity</td></tr>
<tr><td>Miocene Undifferentiated (Santa Margarita)</td><td>Miocene Undifferentiated (Santa Margarita)</td></tr>
<tr><td>Conejo Volcanics</td><td rowspan="2">Base Layer (Conejo Volcanics) ~1200 ft max depth</td><td rowspan="2">6</td><td>Conejo Volcanics</td><td rowspan="2">Base Layer (Conejo Volcanics) ~900 ft max depth</td><td rowspan="2">6</td></tr>
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Figure ES-05 Hydrostratigraphic Units in the ASRVGB.

The principal aquifer in the Basin is considered to be semi-confined due to the discontinuity of the clay layers separating the upper and lower groundwater-producing zones. Transmissivity estimates from aquifer and specific capacity tests and previous studies were used to derive preliminary estimates of hydraulic conductivities for the calibration of the numerical groundwater model. The calibrated hydraulic conductivity for the HSUs within the Basin ranges from ~1-35 ft/day. The final calibrated storage parameters ranged from 0.1 to 0.2 for the specific yield in the unconfined areas of the numerical model (primarily layers 1 and 2), and for the confined areas of the model the specific storage ranged from 10^{-5} to 2 X 10^{-4} per foot.

The primary sources of groundwater for the ASRVGB are inflow from the Conejo volcanics from the south and east and streamflow percolation (Figure ES-06). The shallow groundwater is recharged by the streamflow, of which perennial flows are primarily sourced by discharges from the Hill Canyon WWTP and urban runoff from Conejo Valley, both of which enter the Basin via Hill Canyon. Gaining sections of the Arroyo Conejo and Conejo Creek receive shallow groundwater that is primarily recirculated recycled water and urban runoff (Section 3.2.6).

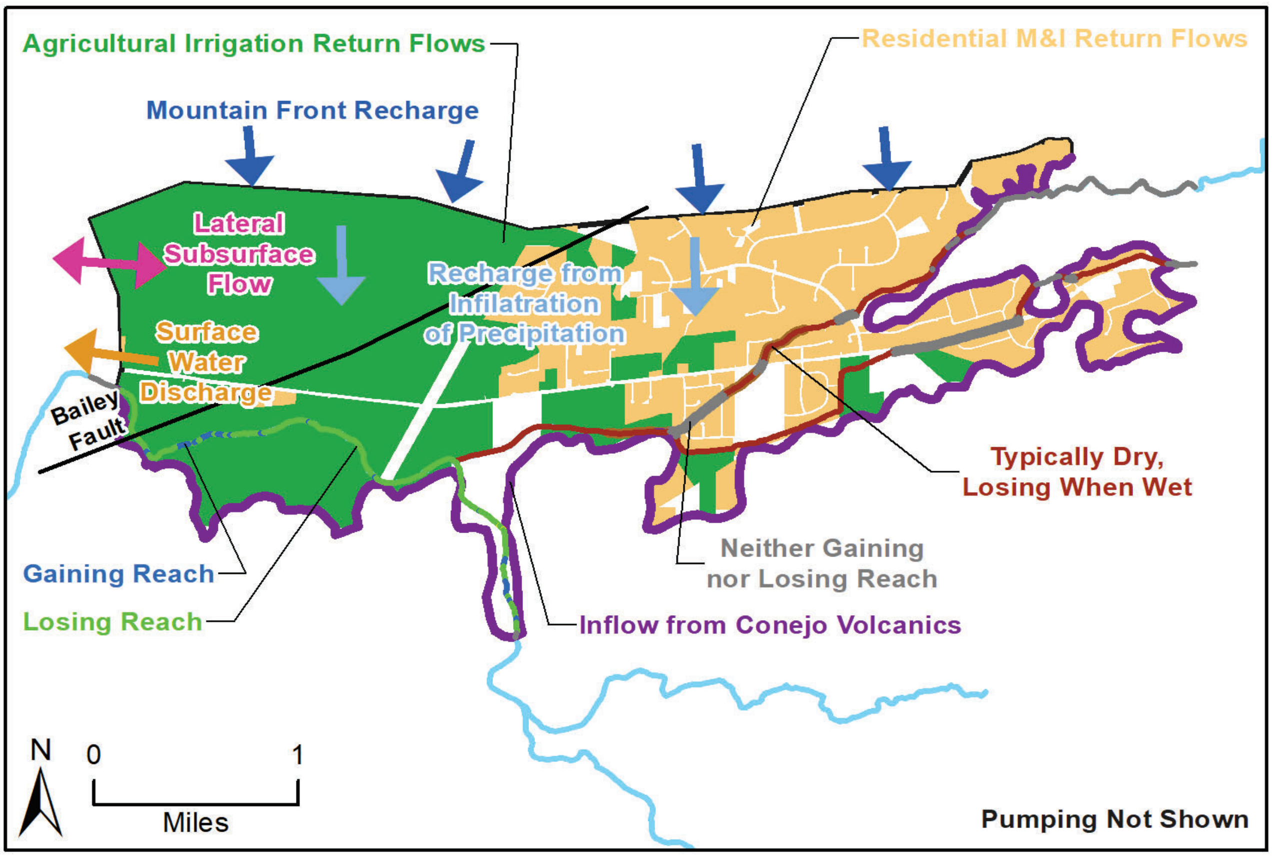

Figure ES-06 Primary Groundwater Recharge and Discharge Areas of the ASRVGB.

Secondary sources of groundwater for the Basin are from irrigation return flows, urban land use return flows (applied water, septic systems, and distribution losses), and infiltration from precipitation. Underflow from the Pleasant Valley Basin has been simulated in the numerical model, but rates are within the range of uncertainty of the model and there is limited data to support this inflow component.

The inflow from the Conejo Volcanic bedrock is conceptualized as a deep source of subsurface recharge to the Basin via fracture-flow, which is evidenced by higher groundwater levels observed in wells completed in the bedrock to the east in areas where the bedrock very shallow or at the land surface.

The Arroyo Conejo and Conejo Creek are a losing stream system and there are likely gaining and losing sections along the stream; however, the infiltration of surface water is an important component of inflow for the groundwater system. To the east, Arroyo Santa Rosa and the Arroyo Santa Rosa Tributary are ephemeral streams with rapid infiltration rates from stormflows and groundwater is not believed to discharge to these streambeds.

Recharge of return flows from irrigation occurs in the areas of the Basin with agricultural land use, and, where applicable, recharge to groundwater occurs through the return flows from applied waters in residential areas, septic system leachate, and water distribution system losses (Figure ES-06). Outcrops of the upper and lower groundwater-producing zones along the northern boundary of the Basin receive direct recharge from precipitation. In addition, direct recharge from precipitation likely occurs in the eastern area of the Basin, as evidenced by water levels responding to precipitation.

The primary groundwater discharge area for the Basin (other than via extraction wells) is in the southwest area before Conejo Creek exits at the western boundary; however, discharge rates are very small (<5%) compared to the overall inflow. Underflow to Pleasant Valley Basin is represented in the numerical model during high groundwater level conditions but is a very minor component (<1% of the total inflows) of the groundwater budget for the Basin, within the range of uncertainty of the model.

Groundwater generally flows from the east to west in the ASRVGB, following the surface drainage and the topographic gradient of the Basin, with localized depressions caused by extraction wells and localized highs in recharge areas (Figure ES-07). Southeast of the Bailey Fault, groundwater flow is

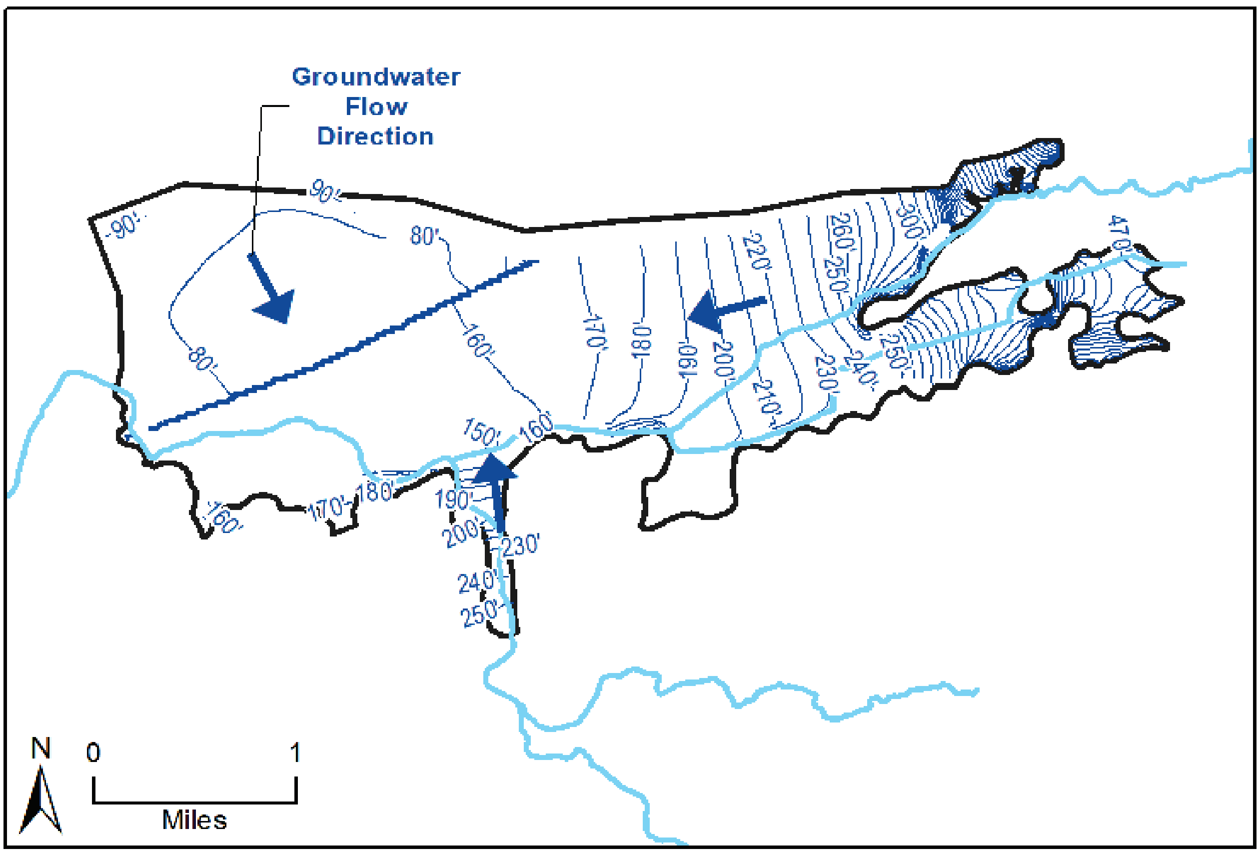

Figure ES-07 General Groundwater Elevation Contours and Flow Directions.

generally from an eastern to western direction, but flow from the Hill Canyon area is from the south to north.

To the northwest of the Bailey Fault within the FCGMA, groundwater flow is toward the center of the area. Groundwater levels in the ASRVGB generally fluctuate seasonally with the highest water levels occurring in the winter to early spring and the lowest levels occurring in fall or winter (Figure ES-08). Groundwater levels have generally been slowly declining since the 1990s northwest of the Bailey Fault and overall steady southeast of the Bailey Fault. Groundwater levels have been increasing locally southeast of the Bailey Fault since 2018 due to a significant reduction in Camrosa's pumping due to contamination issues (see well 02N20W25D01S on Figure ES-08). Changes in groundwater storage within the Basin are primarily a function of groundwater pumping. Declines in groundwater storage have been observed in the Basin during prolonged dry conditions; however, the Basin has also shown relatively rapid recovery (particularly southeast of the Bailey Fault) in response to changes in pumping and recharge during wet climate cycles.

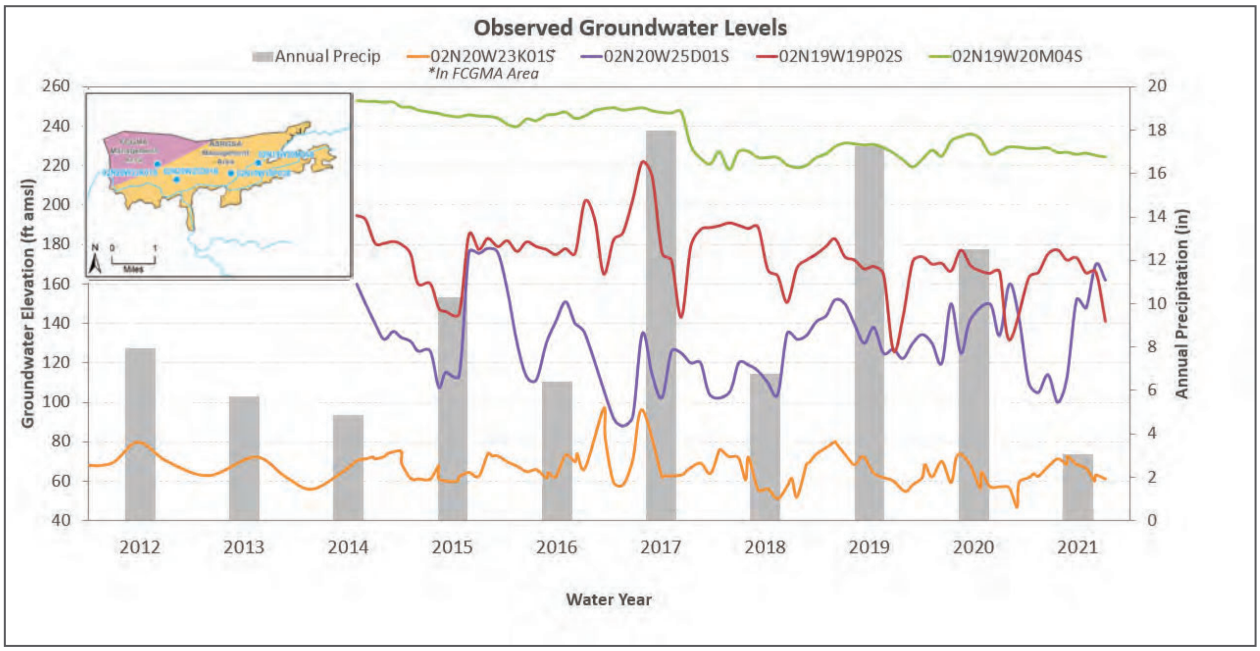

Figure ES-08 Groundwater Level Seasonal Fluctuations.

The water quality of the Basin is characterized by elevated nitrate and TDS concentrations, which have been observed in the Basin for several decades. In general, the quality of the groundwater in the ASRVGB is influenced by (a) the leaching of nutrients from fertilizers and manure, (b) percolation of return flows from applied waters and septic system leachate, (c) mineral dissolution, and (d) effluent from the Hill Canyon WWTP. The state-regulated contaminant 1,2,3-trichloropropane (TCP) has also been recently detected within the ASRVGB and has impacted Camrosa WD production wells at levels above the Maximum Contaminant Limit (MCL). There is no known relationship between degraded water quality and groundwater levels or pumping operations within the Basin.

ES-4. Water Budget

The groundwater flow model was used to quantify water budgets for the historical, current, and projected conditions, including the evaluation of uncertainty due to climate change (using climate-change hydrologic datasets provided by DWR), anticipated land use changes, and projected population increase, as required by SGMA (Appendix G). Based on the modeling analysis, the GSAs concluded that these factors are not anticipated to have a material impact on future water demand and the water budgets for the Basin because of land use policies and ordinances that greatly limit the potential for material growth in the Basin (Section 3.3.3). Table ES-01 shows the different demand and supply components for the historical and current water budget of the ASRVGB.

Table ES-01 Estimated Historical Demands and Supplies in the ASRVGB by Category and Source (in acre-feet).

Water Year	Year Type	M&I Demand	Ag Demand	Domestic Demand	Total Demand	M&I GW Supplies‡	Ag GW Supplies*	Domestic GW Supplies	Total GW Supplies	M&I Supplies from Outside ASRVGB**	AG Supplies from Outside ASRVGB†	Total Supplies from Outside ASRVGB	Total Supply
2012	Below Normal	1,964	4,737	2.5	6,703	648	3,160	2.5	3,810	1,316	1,578	2,893	6,703
2013	Critical	2,071	4,837	2.5	6,911	849	3,282	2.5	4,133	1,222	1,556	2,777	6,911
2014	Critical	2,218	5,136	2.5	7,357	865	3,489	2.5	4,357	1,353	1,647	3,000	7,357
2015	Critical	1,725	4,186	2.5	5,914	742	2,829	2.5	3,574	983	1,357	2,340	5,914
2016	Critical	1,724	4,517	2.5	6,243	672	2,886	2.5	3,561	1,051	1,631	2,682	6,243
2017	Above Normal	1,602	3,394	2.5	4,999	865	2,524	2.5	3,392	737	870	1,607	4,999
2018	Below Normal	1,892	3,884	2.5	5,778	984	2,864	2.5	3,850	908	1,020	1,928	5,778
2019	Below Normal	1,625	3,205	2.5	4,832	585	2,307	2.5	2,894	1,040	898	1,938	4,832
2020	Below Normal	1,772	3,557	2.5	5,332	301	2,368	2.5	2,671	1,471	1,190	2,661	5,332
2021	Critical	1,980	3,550	2.5	5,532	238	2,181	2.5	2,421	1,742	1,369	3,111	5,532
Average (2012-2021)		**1,885**	**4,385**	**2.5**	**6,272**	**804**	**3,005**	**2.5**	**3,811**	**1,081**	**1,380**	**2,461**	**6,272**

Notes:

Sums of values may not match averages or totals due to rounding.

* Includes groundwater extracted from all irrigation wells within the ASRVGB.
**Includes both potable and non-potable sources, see Section 3.3.1.1 for additional details.
† Includes non-potable sources, see Section 3.3.1.1 for additional details.
‡ Some groundwater produced for M&I is exported for use outside of the Basin.

The primary sources of groundwater inflow to the ASRVGB were quantified using the numerical model as streamflow percolation, bedrock groundwater inflow from the Conejo volcanics from the south and east, and recharge from infiltration of precipitation and return flows (Figure ES-09).

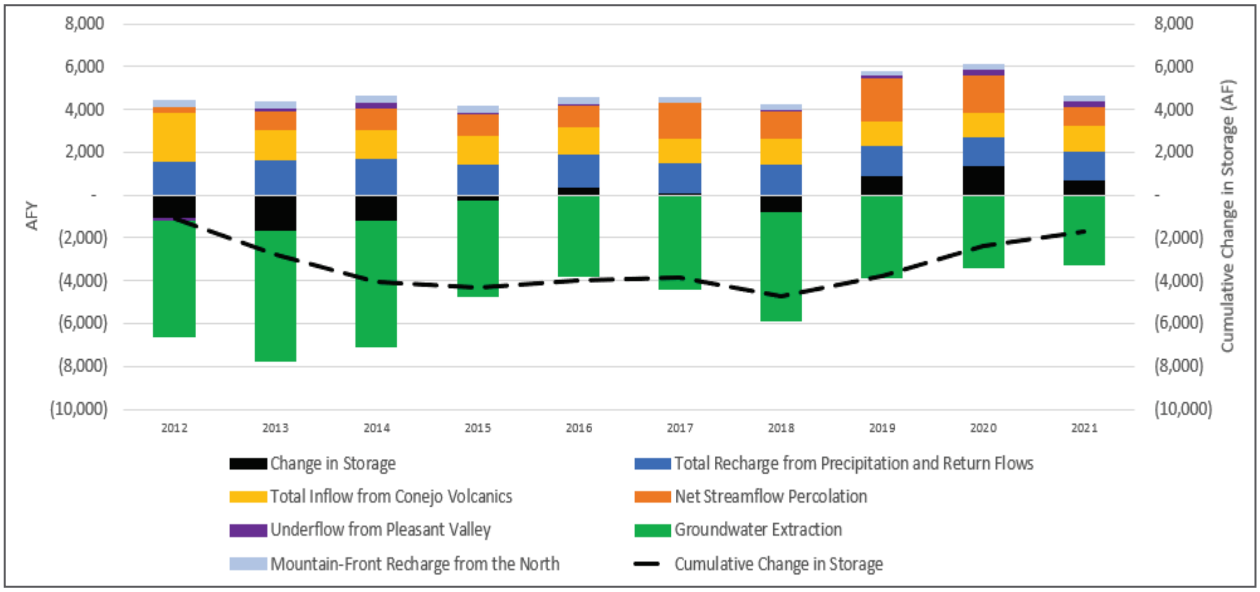

Figure ES-09 **Historical and Current Groundwater Inflows and Outflows to/from ASRVGB (acre-feet per year).**

Mountain-front recharge from the north was a small inflow component of the groundwater budget. An additional source of inflow includes a minor amount of subsurface inflow from the Pleasant Valley Basin at the western boundary of the ASRVGB; this was derived from the numerical model and there is limited data available to constrain this inflow component. Municipal and Industrial (M&I) pumping constitutes the largest component of groundwater extractions from ASRVGB, followed by agricultural extractions and one domestic well. Overall, groundwater extractions are the largest outflow component for the Basin. The primary source of surface water flows entering the ASRVGB are from the perennial Arroyo Conejo, of which most of the streamflow is sustained by effluent from the Hill Canyon WWTP (see Sections 3.1.1.2 and 3.2.6). Most of the surface water entering the ASRVGB leaves the Basin through Conejo Creek at the western boundary of the Basin, although a portion percolates to the groundwater in the losing reaches of the Arroyo Santa Rosa and the Tributary, Arroyo Conejo, and Conejo Creek.

Table ES-02 summarizes the average total inflows and outflows for the surface water and groundwater budgets for the Basin. Major differences noted in the table are between the historical and current or projected surface water totals; this is due to the historical water budget values average including a historically dry period where flows were consistently low (2012–2016).

Table ES-02 **Summary of Average Water Budget Components.**

	Surface Water	Groundwater
Historical (2012–2021)		
Total in	16,729	4,493
Total out	-16,729	-4,664
Change in Storage	N/A	-171
Current (2019–2021)		
Total in	21,636	4,565
Total out	-21,636	-3,564
Change in Storage	N/A	1,001

Table ES-02 Summary of Average Water Budget Components.

	Surface Water	Groundwater
Projected (2022–2072)		
Baseline Total in	23,119	5,076
Baseline Total out	-23,120	-5,235
Baseline Change in Storage	N/A	-159
2030 Climate Change Total in	22,592	5,071
2030 Climate Change Total out	-22,592	-5,233
2030 Climate Change in Storage	N/A	-163
2070 Climate Change Total in	22,960	5,072
2070 Climate Change Total out	-22,960	-5,234
2070 Climate Change in Storage	N/A	-162

Note: *All values are acre-feet per year.*

Overdraft Assessment

GSP Emergency Regulations §354.18(b)(5) require quantification of overdraft over a period of years during which water year and water supply conditions approximate average conditions if overdraft conditions exist.

Bulletin 118, Update 2003 describes groundwater overdraft as:

> "The condition of a groundwater basin or subbasin in which the amount of water withdrawn by pumping exceeds the amount of water that recharges the basin over a period of years, during which the water supply conditions approximate average conditions. Overdraft can be characterized by groundwater levels that decline over a period of years and never fully recover, even in wet years. If overdraft continues for a number of years, significant adverse impacts may occur, including increased extraction costs, costs of well deepening or replacement, land subsidence, water quality degradation, and environmental impacts."

The water budget results indicate a slight imbalance in the Basin currently and in the future. The annual change in storage is within 10% error in uncertainty of model results, and undesirable results from chronic lowering of groundwater levels have not occurred and are not projected to occur. Numerical model results for the projected water budget also indicate that groundwater levels cyclically recover following droughts. Nonetheless, the GSAs can manage future pumping appropriately through monitoring.

Sustainable Yield

GSP Emergency Regulations §354.18(b)(7) requires an estimate of the sustainable yield for the Basin. Water Code §10721(w) defines "Sustainable yield" as the maximum quantity of water, calculated over a base period representative of long-term conditions in the Basin and including any temporary surplus that can be withdrawn annually from a groundwater supply without causing an undesirable result.

Modeling results for the future projection period indicate that the projected inflows and outflows will be approximately balanced during the 50-year SGMA implementation period even with climate change considered. Therefore, an estimate of the sustainable yield is the modeled projected groundwater extractions minus the modeled surface water depletions that could potentially cause undesirable results for the depletions of interconnected surface water (ISW) sustainability indicator. This calculation results in an estimated sustainable yield of ~5,300 AFY, depending on climate change assumptions (DWR, 2018).

The projection period (based on historical climate data from 1972-2021) had an average precipitation nearly equal to the overall historical average (1929-2021), so the estimated sustainable yield is representative of the long-term sustainability of the Basin.

Management Areas

Sustainable management of the ASRVGB requires dividing the Basin into two management areas: the area within the FCGMA jurisdictional boundary, and the remaining areas within the Basin managed by ASRGSA (Figure ES-01). These management areas are separated by the Bailey Fault, which acts as a hydraulic barrier between the areas and results in differences in groundwater elevations and groundwater quality.

ES-5. Sustainable Management Criteria

SMC were developed using the best available science and information for the Basin. The GSAs characterized undesirable results and established minimum thresholds, measurable objectives, and interim milestones for each applicable sustainability indicator:

1. Chronic lowering of groundwater levels (Section 4.4).
2. Reduction of groundwater storage (Section 4.5).
3. Degraded water quality (Section 4.7).
4. Land Subsidence (Section 4.8).
5. Depletions of Interconnected Surface Water (Section 4.9).

The seawater intrusion sustainability indicator is not applicable in the Basin because of the significant vertical and horizontal separation between the Basin and the Pacific Ocean.

SMC were developed with input from stakeholders in the Basin. The ASRGSA Board of Directors, FCGMA, and stakeholders reviewed SMC proposals prepared by the GSP consulting team, and presentations were given at Board of Directors meetings and workshops, which included information on SGMA requirements, relevant information from the Basin Setting section, and results of additional analyses completed to support SMC development. Outreach was performed throughout the SMC development process to encourage input on the proposed SMC, including bill stuffers to all Camrosa WD customers, letters to well owners in the Basin, e-mails to the interested parties list, telephone communications with stakeholders, and public notices.

A key part of the SMC development process is defining undesirable results (GSP Emergency Regulations §354.26(a)). The process for defining undesirable results consisted of multiple steps:

1. First, potential effects on the beneficial uses and users of groundwater, on land uses and property interests, and other potential effects were evaluated and described qualitatively. This was called “qualitative statement of undesirable results.”
2. The qualitative undesirable results statement was then translated into quantitative minimum thresholds at specific monitoring network sites.
3. Lastly, a combination of minimum threshold exceedances representing undesirable results (per GSP Emergency Regulations §354.26(b)(2)) in the Basin was established.

Beneficial users and uses considered during SMC development included municipal and agricultural groundwater beneficial uses and riparian vegetation dependent on surface water. There is also one domestic well in the Basin that was considered. The GSAs concluded there are no groundwater dependent ecosystems (GDEs) in the Basin because the potential GDEs (riparian vegetation along the Arroyo Conejo and Conejo Creek) depend on surface water sourced from wastewater and urban runoff discharges and/or shallow groundwater fed by these discharges (see Sections 3.2.6 and 3.2.7.2), and groundwater production does not occur within the shallow groundwater system. The GSAs do not have jurisdictional authority on land-use, surface water flows, or wastewater discharges from Hill Canyon WWTP that sustain the riparian habitat; hence, the GSP does not address or manage any future changes to surface flows (or beneficial use of the same) from increased recycled water demands or other actions that could decrease the discharge rates. The GSP addresses potential pumping-induced depletions of interconnected surface water by establishing sustainable management criteria that would prevent undesirable results including significant and unreasonable effects on riparian vegetation habitat (Section 4.9). There are currently no active surface water diversions within the Basin. Diversions located downstream of the Basin were considered.

For this GSP and pursuant to GSP Emergency Regulations §354.28(d), a groundwater elevation minimum threshold serves as the metric for the chronic lowering of groundwater levels (Section 4.4), reduction of groundwater storage (Section 4.5), and land subsidence (Section 4.8) sustainability indicators. Adequate evidence demonstrating groundwater levels are a reasonable proxy is presented in Sections 4.4.2, 4.5.2, and 4.8.2.

The GSAs have considered public trust resources in development of this GSP by considering the impacts to ISW and by setting minimum thresholds designed to prevent undesirable results under SGMA.

Chronic Lowering of Groundwater Levels and Reduction of Groundwater Storage. Because groundwater levels and storage are correlated in the ASRVGB, groundwater storage SMC are identical to the chronic lowering of groundwater levels SMC. In addition, SGMA requires that the GSP address potential significant and unreasonable effects that could be caused by pumping during dry periods. The GSAs have developed SMC for the chronic lowering of groundwater levels sustainability indicator to ensure that potential undesirable results related to groundwater extraction are avoided during periods of low groundwater levels and storage. Pursuant to GSP Emergency Regulations §354.28(c)(1), depletion of supply effects on beneficial users and effects on other sustainability indicators were considered when developing the minimum thresholds.

The groundwater level and storage minimum thresholds were selected to prevent potential significant and unreasonable effects, including causing beneficial users to be unable to meet their basic water supply needs with either groundwater or delivered water supplies. It was concluded that potential significant and unreasonable effects may occur if pumping causes groundwater levels to decline below historical low levels because available historical information indicates that undesirable results were not encountered historically. Therefore, minimum thresholds were selected based on the historical low groundwater levels in the monitoring wells (Figure ES-10).

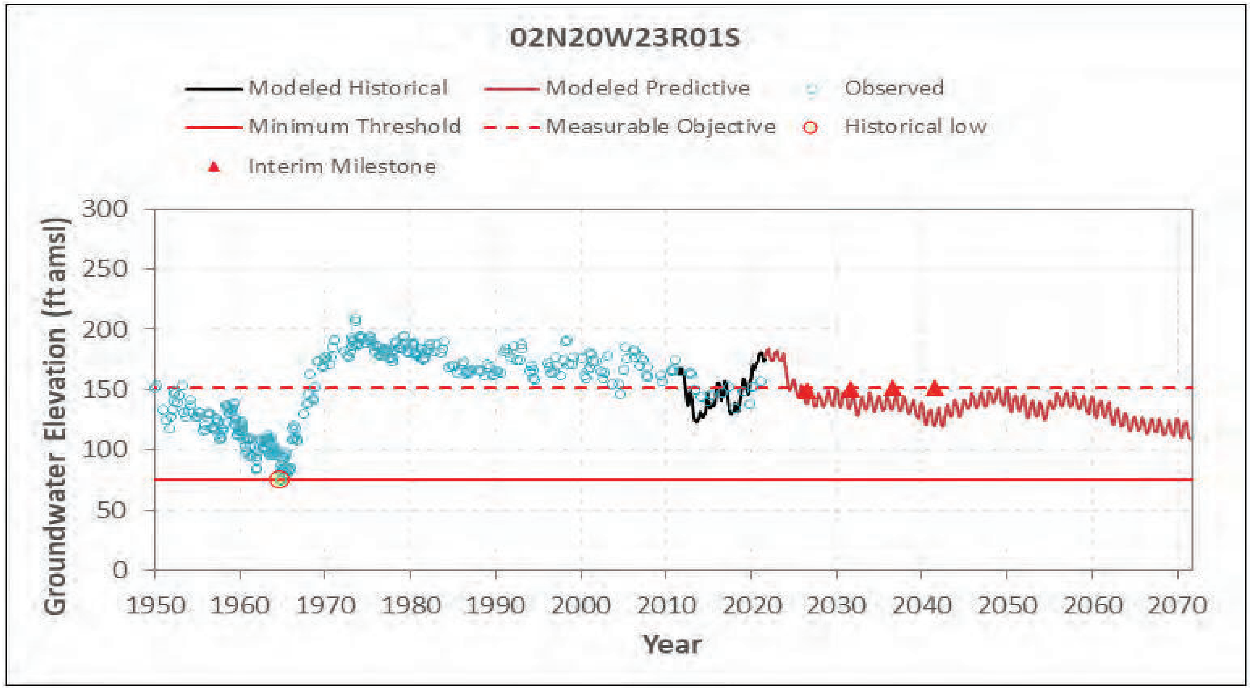

Figure ES-10 **Example Minimum Threshold and Measurable Objective for Groundwater Level and Storage Sustainability Indicator.**

The combination of minimum threshold exceedances that is deemed to cause significant and unreasonable effects in the Basin for chronic lowering of groundwater levels and depletion of groundwater storage in more than 50% of the groundwater level monitoring sites for either management area for two successive years (Figure ES-11). Two years is a reasonable duration to confirm that any minimum threshold exceedances are not due to seasonal variability or a short-term aberration. If this combination of minimum threshold exceedances occurs, the GSAs will assess whether the minimum threshold exceedances were caused by groundwater extraction.

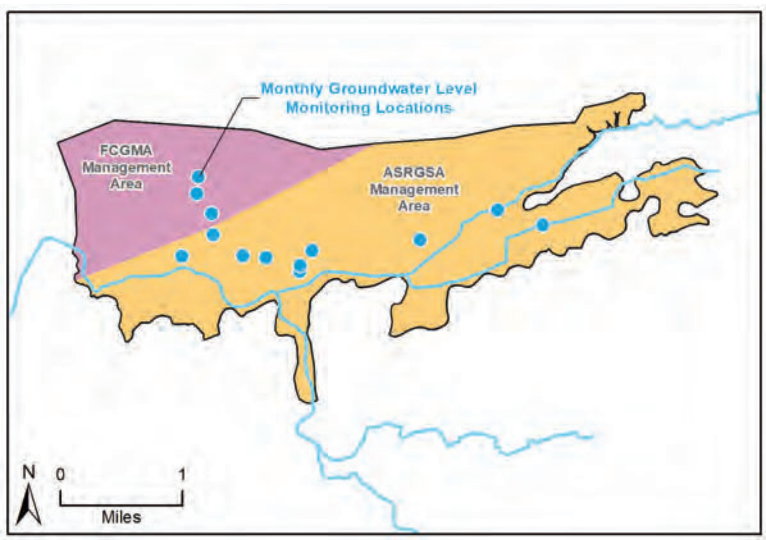

Figure ES-11 **Groundwater Level Monitoring Well Locations.**

The groundwater level and storage measurable objectives were developed by applying the concept of providing a reasonable margin of operational flexibility under adverse conditions (GSP Emergency Regulations §354.30(c)). Adverse conditions for the ASRVGB include drought-phases of the long-term climatic-driven groundwater level cycles. The reasonable margin of operational flexibility was determined to be groundwater levels from the 50-year modeled projection that are sufficiently high to prevent levels from dropping below the minimum thresholds. The measurable objectives were developed for each monitoring site by evaluating the modeled groundwater level data for the projected period and are intended to apply following wet periods. Failure to meet the measurable objectives during other times shall not be considered failure to sustainably manage the Basin.

Degraded Water Quality. GSP Emergency Regulations 354.28(c)(4) requires GSAs to address significant and unreasonable impacts on beneficial uses caused by groundwater pumping or projects or GSP projects/management actions that spread contaminant plumes or cause dissolved constituent concentrations to increase to levels that significantly and unreasonably impact beneficial uses. The key aspect of the regulation is causation – plume spreading or concentration increases are only significant and unreasonable under SGMA if caused by groundwater pumping or the GSA's implementation of project or management actions.

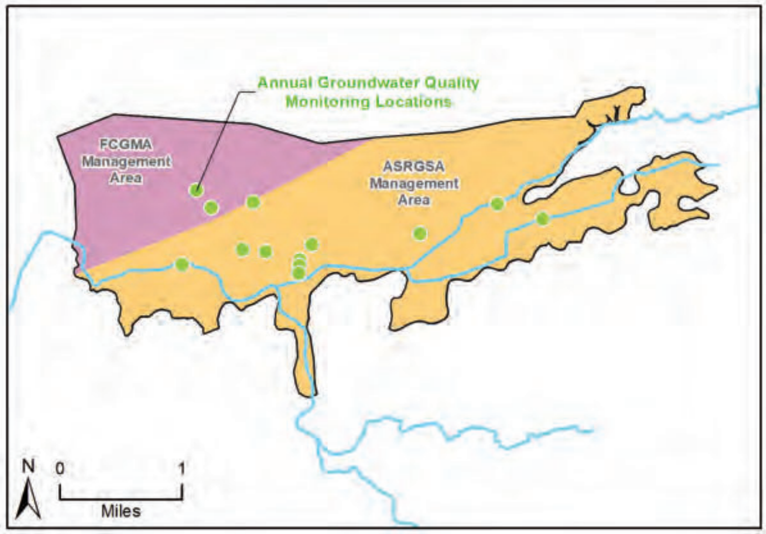

Figure ES-12 Groundwater Quality Monitoring Well Locations.

There are no identified contaminant plumes from point sources in the Basin, and available monitoring well data (Figure ES-12) indicate that concentrations of naturally occurring constituents (indicator constituents include TDS, sulfate, and boron) are controlled by the quality of surface water flowing into the Basin via the Arroyo Conejo, not groundwater pumping.

Nitrate and TCP – non-point source contaminants from above-ground sources and land use – have impacted Camrosa's public supply wells. Elevated concentrations have been mitigated by blending with purchased imported water; however, the low MCL for TCP (5 nanograms per liter [ng/L]) now requires treatment via a granular activated carbon (GAC) treatment plant that is currently under construction. Given the treatment methods in place for nitrate and TCP, SMC were developed specific to these constituents to address feasibility of treatment to drinking water quality standards.

SGMA undesirable results are considered to occur when the average concentration for all representative monitoring wells in either management areas exceed the minimum threshold concentration for a constituent for two consecutive years. Two years is a reasonable duration to confirm that any minimum threshold exceedances are not due to seasonal variability or a short-term aberration.

The degraded water quality measurable objectives are set equal to the minimum thresholds for all constituents to reflect the fact that the GSAs have no ability to improve water quality by managing groundwater pumping due to the lack of a causal relationship between pumping and groundwater quality. SGMA also provides for setting measurable objectives at levels for the purpose of improving conditions, but failure to achieve those measurable objectives is not grounds for a DWR inadequacy determination (§354.30(g)); therefore, a secondary measurable objective for each constituent was established to represent an aspirational goal to improve water quality within the Basin (Table ES-03). The secondary measurable objectives are set at the RWQCB Water Quality Objective (WQO) (TDS, and chloride), MCL (nitrate and TCP), or the upper bound of existing data if existing concentrations are already below the WQO (sulfate and boron) – the latter representing an aspirational goal to not degrade existing water quality for those constituents. Setting the secondary, “aspirational” measurable objectives contributes to achieving the second part of the sustainability goal: “*…The GSAs also desire to collaborate with other agencies and stakeholders within the basin to improve the groundwater quality of the ASRVGB.*” If the minimum threshold or measurable objective is exceeded, the GSAs will investigate to determine if the exceedance is caused by pumping, a GSP project, or a GSP management action.

Table ES-03 Sustainable Management Criteria for the Degradation of Water Quality.

Constituent	MT (mg/L)	MT Rationale	MO (mg/L)	MO Rationale	Secondary MO (mg/L)
Nitrate (as N)	23.4	Preserve ability to blend with imported water for potable uses. Reduce reliance on imported water for blending.	23.4	Preserve ability to blend with imported water for potable uses. Reduce reliance on imported water for blending.	10
TCP	250 (ng/L)	Practical limit of concentration for economical carbon change-out frequency of the GAC system.	250 (ng/L)	Practical limit of concentration for economical carbon change-out frequency of the GAC system.	5 (ng/L)
TDS	1,040	Prevent further degradation of water quality for all beneficial uses.	1,040	Prevent further degradation of water quality for all beneficial uses consistent with RWQCB WQO.	900
Sulfate	300	Preserve existing water quality consistent with RWQCB WQO.	300	Preserve existing water quality.	225
Chloride	180	Prevent further degradation of water quality for agricultural beneficial use.	180	Prevent further degradation of water quality for agricultural beneficial use consistent with RWQCB WQO.	150
Boron	1	Preserve existing water quality for agricultural beneficial use.	1	Preserve existing water quality for agricultural beneficial use.	0.4

Land Subsidence. No land subsidence has been documented historically in the Basin, and the Basin is considered to have a low estimated potential for inelastic land subsidence. Although numerical modeling for the water budget suggests that future groundwater levels will remain above historical low levels (which would prevent inelastic subsidence due to groundwater extraction), sustainable management is prudent because groundwater levels could decline below historical levels and trigger inelastic land subsidence if actual future conditions differ significantly from those assumed in the projected water budget analysis.

GSP Emergency Regulation §354.28(d) allows the use of groundwater levels as a proxy for other sustainability indicators if a significant correlation between groundwater elevations and the other sustainability indicators can be demonstrated. The preconsolidation stress, the effective stress threshold at which inelastic compaction begins, generally is exceeded when groundwater levels decline past historical low levels (California Water Foundation, 2014). Therefore, groundwater levels are an appropriate proxy for monitoring inelastic land subsidence due to groundwater extraction, and the SMC for the chronic lowering of groundwater levels and reduction of groundwater storage sustainability indicators are used for the land subsidence sustainability indicator. In addition to using groundwater levels as a proxy, InSAR data will be reviewed annually, and to determine whether InSAR-indicated land surface elevation changes were caused by groundwater conditions, InSAR data will only be considered when groundwater levels are below historical low levels.

Depletions of Interconnected Surface Water. The Arroyo Conejo and Conejo Creek stream system has primarily losing conditions; however, it is perennial due to the constant source of water from the Hill Canyon WWTP effluent and additional surface water flow from the North and South Fork Arroyo Conejo streams that drain Conejo Valley. The Arroyo Conejo and Conejo Creek are interconnected with the shallow groundwater in the Basin. SMC have been developed for the depletions of ISW sustainability indicator to ensure that potential undesirable results related to groundwater extraction are avoided.

There are two different types of ISW depletion that can potentially affect beneficial uses: direct and indirect depletion. Direct depletion occurs when the cone of depression in the water table from pumping wells near the stream system induces surface water flow directly into the well. Direct depletion is primarily associated with the pumping wells located adjacent to the Arroyo Conejo and Conejo Creek. Indirect depletion is caused by wells located away from the stream system that do not have cones of depression that intersect the streambed. Currently, there are few wells located close enough to interconnected stream reaches to cause significant direct depletion. Indirect depletion of surface water is related to groundwater levels and storage because indirect depletion occurs as a result of the regional groundwater gradient relative to the stream location. Depletion amounts were quantified based on numerical modeling results, and the minimum threshold for depletions of ISW includes both direct and indirect depletion.

Within the Basin there is riparian vegetation dependent on surface water, but no diversions for municipal or agricultural supply. ISW depletion effects on surface water diversions downstream of the Basin boundary were evaluated by reviewing projected depletion rates estimated using the numerical model. Beneficial users relying on surface water diversions from the Conejo Creek downstream have historically met their demands and streamflow bypass requirements (i.e., there have been no reported instances when a beneficial user was unable to meet their water supply needs) and no undesirable results have been documented. Additionally, through engagement with stakeholders and the GSAs, there has not been any evidence presenting impacts to interconnected streamflow; therefore, it was concluded that significant and unreasonable effects have not occurred historically with respect to the ISW sustainability indicator for agricultural, municipal, or domestic beneficial uses, but could potentially occur if groundwater levels decline below historically low levels in the future. Furthermore, any beneficial uses or users located upstream or downstream of the diversions have been protected historically based on the absence of documented impacts. The GSAs determined that the small rates of ISW depletion quantified using the numerical model are neither significant nor unreasonable with respect to the surface water diversions downstream of the Basin boundary.

As discussed above, adverse impacts have not been documented to occur historically; therefore, undesirable results are not expected to occur as long as future depletions do not exceed the maximum historical depletion rate. The maximum historical depletion rate (including both the direct and potential indirect depletion) within the Basin was evaluated using the numerical model results for groundwater level and storage historical lows and was calculated to be 1,150 AFY (~1.6 cfs). Only one ISW depletion minimum threshold is identified in the GSP; therefore, any minimum threshold exceedance is considered to constitute undesirable results for the Basin. The ISW depletion measurable objective is the same as the minimum threshold.

ES-6. Monitoring Networks

The GSP Emergency Regulations require monitoring networks be developed to collect data of sufficient quality, frequency, and spatial distribution to characterize groundwater and related surface water conditions in the Basin, evaluate changing conditions that occur during implementation of the GSP, and for implementation of the SMC for the Basin. Monitoring networks should accomplish the following (§354.34(b)):

- Demonstrate progress toward achieving measurable objectives described in the GSP.
- Monitor impacts to the beneficial uses and users of groundwater.
- Monitor changes in groundwater conditions relative to measurable objectives and minimum thresholds.
- Quantify annual changes in water budget components.

Groundwater Levels and Storage Monitoring Network. Groundwater levels are currently monitored in 14 wells across the Basin by Camrosa WD and Ventura County Watershed Protection District (VCWPD) (Figure ES-11).

Groundwater Quality Monitoring Network. Groundwater quality is currently regularly analyzed in 14 wells (Figure ES-12), 5 of which are public supply wells and are sampled in accordance with State of California Division of Drinking Water (DDW) requirements. All wells are sampled for parameters relevant to the degraded water quality SMC (TDS, sulfate, chloride, boron, nitrate, and TCP [Camrosa water supply wells only]) among other analytes useful for tracking water quality (i.e., common ions, etc.).

Land Subsidence Monitoring: Groundwater levels will be used as a proxy to detect and monitor the potential onset of inelastic land subsidence that may result from future groundwater extractions in the Basin (i.e., if groundwater elevations decline below historical low levels). To ensure the best available data is used for monitoring land subsidence, InSAR data will be utilized when groundwater levels are below historical lows.

Streamflow Monitoring. Two active surface water flow gages (gage 800 and Confluence Flume) are maintained by other entities (CCWTMP and Hill Canyon WWTP) (Figure ES-04): gage 800 provides continuous monitoring of streamflow for the Conejo Creek outflow from the Basin, and the Confluence Flume provides streamflow data for the Arroyo Conejo during the summer months. The Arroyo Conejo and Conejo Creek are part of the same surface water system and are a continuous source of streamflow infiltration into the Basin due to effluent from the Hill Canyon WWTP and surface water outflows from the Conejo Valley to the south.

Pursuant to §352.6, monitoring data will be stored in the GSAs' Data Management System. Data will be transmitted to DWR with the GSP, annual reports, and GSP updates electronically on the forms provided by DWR.

ES-7. Projects and Management Actions

The 50-year future modeling projections developed for the projected water budget suggest that the measurable objectives for the applicable sustainability indicators will be met without the need for projects or management actions. However, projects are included to respond to potential changing conditions in the Basin:

- **Groundwater Monitoring Network Enhancement Project**: This project will consist of a survey of the monitoring network wells within the Basin to address GSP Emergency Regulations §352.4 monitoring network data and reporting standards, and potential research of areas of limited coverage to assess the expansion of the monitoring network using existing wells.

- **Water Quality Management Coordination**: This project will consist of coordinating with and supporting the actions of other entities in their efforts to manage and improve groundwater quality in the Basin. These entities include the Camrosa WD, Ventura County (land use, well permitting, agricultural irrigators), the State Municipal Stormwater Program (MS4), the CCWTMP, and the City of Thousand Oaks.
- **Arroyo Santa Rosa Basin Desalter Project**: This project will consist of the construction and operation of a desalter plant for Camrosa WD groundwater production. Desalination of groundwater is a preferred water treatment that would allow Camrosa WD to discontinue their blending operations and significantly reduce their reliance on imported water, in addition to the GSP sustainability goal to "improve the groundwater quality of the ASRVGB." Camrosa WD is currently in the early planning stages for the desalter; therefore, the project yield and other key parameters have not yet been determined.
- **Arroyo Santa Rosa Basin Recharge Project**: This project will consist of numerical modeling and field-scale pilot testing to validate model results, followed by the construction of recharge ponds and a delivery system within the Basin. Camrosa WD is currently in the early planning stages for the recharge project; therefore, the project yield and other key parameters have not yet been determined.

ES-8. Plan Implementation

Implementation of the GSP requires robust administrative and financial structures, with adequate human resources to ensure compliance with SGMA. The activities associated with the GSP implementation are:

1. Agency administration.
2. Legal counsel.
3. Outreach and coordination.
4. Monitoring (groundwater levels, groundwater quality, and surface water).
5. Annual reporting.
6. Developing projects and management actions.
7. Updating the groundwater model.
8. Assessing/updating the GSP every 5 years.
9. Responding to DWR comments.

Estimated costs for the GSP implementation were developed based on the scope items listed above assuming 3% annual cost increases and a 5% contingency. Based on these factors, the estimated total cost of the GSP Implementation over the 20-year planning horizon is $6.21 million. The total estimated cost through the first 5-year assessment is $1.23 million. The estimated costs are based on the best available information at the time of Plan preparation and submittal. It represents the GSA's current understanding of Basin conditions and the current roles and responsibilities of the GSAs under SGMA. The GSAs will coordinate with other entities in the watershed to reduce or eliminate duplicative activities. If any GSP implementation activities are performed by others in the future, the costs for those activities will be removed from the GSP implementation budget at that time.

Funding for FCGMA GSP implementation will be obtained from a groundwater extraction fee implemented pursuant to FCGMA's non-SGMA and SMGA authorities. ASRGSA is currently funded by contributions from its member agencies (Camrosa WD and the County of Ventura). Other funding options may be evaluated over time as the GSP implementation progresses. ASRGSA obtained a $177,081 Proposition 1 Sustainable Groundwater Planning Grant from DWR to fund, in part, development of the GSP. The GSAs will seek additional grants for GSP implementation, although, to be conservative, the budget assumes no additional grant funding.

Key GSP implementation schedule items are as follows:

- GSP adoption by the GSAs in late May 2023 for submittal to DWR in June 2023.
- Most of the budget categories consist of ongoing tasks and efforts that will be conducted throughout GSP implementation (i.e., administration, coordination, outreach, monitoring, etc.).
- GSP reporting will occur on an annual basis following the submittal of the GSP, with reports for the preceding water year due to DWR by April 1.
- Periodic evaluations (every 5 years) and any associated GSP amendments will be submitted to DWR by April 1 at least every 5 years (no later than 2028, 2033, 2038, and 2043).
- The schedule the Groundwater Monitoring Network Enhancement and Water Quality Management Coordination Projects is expected to begin during the initial 5-year implementation period, and schedules for the Desalter and Basin Recharge Projects will be developed as part of preliminary project planning.