DRAFT REPORT

Upper Ventura River Valley Basin Groundwater Sustainability Plan

DRAFT First Periodic Evaluation

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SEPTEMBER 2026

Executive Summary

Upper Ventura River Groundwater Agency (UVRGA), formed in 2017, is the exclusive Groundwater Sustainability Agency (GSA) for the Upper Ventura River Valley Basin (DWR Basin No. 4-003.01). The Upper Ventura River Valley Basin, herein referred to as the UVRGB or Basin, is classified by the California Department of Water Resources (DWR) as a medium-priority basin and subject to the Sustainable Groundwater Management Act (SGMA). Under SGMA, medium- and high-priority basins are required to develop Groundwater Sustainability Plans (GSPs), which are intended to guide groundwater management activities over a 50-year implementation horizon.

In January 2022, the UVRGA Board of Directors adopted the Basin GSP (UVRGA, 2022a). The GSP summarizes historical and current groundwater conditions, includes management actions, and provides a comprehensive framework to *sustainably manage the groundwater resource of the Upper Ventura River Basin for the benefit of current and anticipated future beneficial users of groundwater, including the environment, and the welfare of the general public who rely directly or indirectly on groundwater.*[1] UVRGA submitted the GSP to DWR on January 14, 2022, and DWR approved the Plan on April 27, 2023 (DWR, 2023). DWR's approval indicates that the GSP substantially complies with SGMA and provides a path for achieving and maintaining groundwater sustainability through 2042.

Why is the Upper Ventura River Groundwater Agency Preparing this Periodic Evaluation of the GSP?

SGMA requires that GSAs evaluate their approved GSPs at least once every five years to assess whether GSP implementation, including the implementation of projects and management actions, is meeting the sustainability goal in the basin (23 CCR §356.4).[2] Through this evaluation process, DWR requires that each agency describe:

- The relationship between current groundwater conditions and the sustainable management criteria established in the GSP.
- The status of projects and management actions and their effects on groundwater conditions.
- Any significant new information collected in the basin that may impact the basin setting.
- Changes to the GSP monitoring network and any new, or resolved, data gaps.
- Any additional relevant actions taken by the agency, including legal actions or adoption of new regulations or ordinances related to the GSP.
- Any completed or proposed Plan Amendments.

In addition to these requirements, GSAs must address Recommended Corrective Actions (RCAs) included in the State's GSP approval.[3] RCAs aim to improve or clarify different components of the GSP. Four RCAs were included in the GSP approval letter.

[1] Italicized text is excerpted from Section 4.2 of the GSP (UVRGA, 2022a).
[2] The Final GSP Emergency Regulations can be found online at: https://govt.westlaw.com/calregs/Browse/Home/California/CaliforniaCodeofRegulations?guid=IB4B9AC005B6E11EC9451000D3A7C4BC3&originationContext=documenttoc&transitionType=Default&contextData=(sc.Default)
[3] Find RCAs for Upper Ventura River Valley Basin here: https://sgma.water.ca.gov/portal/gsp/assessments/77

How have groundwater conditions changed over the first evaluation period?

The GSP manages groundwater conditions related to four applicable sustainability indicators: chronic lowering of groundwater levels, reduction of groundwater in storage, degraded water quality, and depletion of interconnected surface water. Seawater intrusion and land subsidence are not applicable sustainability indicators for the Basin (UVRGA, 2022a). Pursuant to 23 CCR § 356.4, the GSA must evaluate its GSP at least every five years. This periodic evaluation provides data and information collected since the GSP was adopted, which includes water years 2020 through 2025 (i.e., six years). The relevant evaluation period includes the last nine months of water year 2022 and all of water years 2023 through 2025, for compliance with the GSP periodic evaluation requirements. Additional data and information are provided for water years 2020 and 2021 and first three months of water year 2022 for information, context, and completeness.

Groundwater levels and storage in the Basin vary in response to hydrologic conditions and Ventura River streamflow with minimal influence from groundwater pumping. During the past six water years, both groundwater levels and storage declined during the dry 2021 and 2022 water years and the Basin completely recovered during the wet 2023 and 2024 water years. In water years 2023 and 2024, groundwater levels at all but one representative monitoring well in each year met the measurable objectives established in the GSP, indicating that the Basin recovered to near full conditions. No undesirable results related to groundwater levels or storage have occurred in the past six years.

Interconnected surface water conditions follow similar hydrologic trends compared to groundwater levels. During dry conditions of the evaluation period, the updated UVRGA numerical model estimated depletion at the Foster Park Aquatic Habitat Area exceeded the minimum threshold of 2 cubic feet per second (cfs) in the late summer and fall of 2021 (before the GSP was adopted) and late fall of 2022. However, estimated depletion met the 2027 interim milestone throughout the evaluation period, indicating that conditions remained consistent with the expected trajectory toward achieving the sustainability goal. Aquatic habitat monitoring began in 2023; therefore, habitat conditions were not directly evaluated during the dry 2021 and 2022 water years, which would have been most relevant to assessing the sustainability criteria for the depletions of interconnected surface water sustainability indicator[4]. Additional data are needed to better understand the relationship between interconnected surface water depletion and aquatic habitat conditions to support evaluation of the interconnected surface water sustainable management criteria. Thus, UVRGA has funded continued aquatic habitat monitoring.

Groundwater quality conditions remained stable during the evaluation period, and nitrate concentrations met the measurable objectives established in the GSP (UVRGA, 2022a).

Is GSP Implementation Meeting the Sustainability Goal for the Basin?

The information collected over the first five years of GSP implementation indicates that management under the GSP continues to support achievement of the sustainability goal for the Basin:

- No undesirable results occurred for chronic lowering of groundwater levels, reduction of groundwater in storage, depletion of interconnected surface water, or degraded water quality.

[4] Depletions of interconnected surface water minimum thresholds apply to low flow conditions.

- Groundwater conditions are meeting or progressing toward the measurable objectives for all four applicable sustainability indicators.

Since adopting the GSP, UVRGA has implemented projects and management actions to address data gaps and support long-term groundwater sustainability. These efforts have included:

- Conducting a basin-wide well registration and Domestic Well Survey to improve understanding of groundwater users and identify wells that lack access to an alternative water supply.
- Adopting and implementing an Ordinance that requires quarterly reporting of groundwater extractions for wells extracting more than 2 acre-feet per year.
- Expanding the groundwater level monitoring network to address five data gaps identified in the GSP and adding additional monitoring locations above-and-beyond those called for in the GSP, which has improved monitoring near groundwater users without alternative water supplies.
- Implementing other monitoring programs called for in the GSP, including streamflow measurements, visual streamflow monitoring, and riparian and aquatic habitat monitoring programs.
- Updating and recalibrating the numerical groundwater flow model to improve its representation of surface water-groundwater interactions and associated depletions of interconnected surface water.
- Performing modeling to assess potential actions to address indirect depletion of interconnected surface water.
- Tracking and providing input on the development of a physical solution for the Ventura River Watershed Adjudication.

Additionally, UVRGA has continued to coordinate with groundwater users in the basin to update projections of future groundwater extractions and water supplies. The information collected from these efforts indicates that projected future groundwater extractions are lower than those assumed in the GSP, which were already projected to be below the Basin's estimated sustainable yield.

Are Changes Being Made to the GSP?

During the first five years of GSP implementation, UVRGA significantly improved its understanding of the Basin through expanded monitoring, additional technical studies, numerical model updates, and continued outreach and coordination with groundwater users and interested parties in the Basin. These efforts also support DWR's requests to clarify and refine components of the GSP related to chronic lowering of groundwater levels and depletion of interconnected surface water. However, UVRGA has not elected to amend the GSP at this time for two primary reasons. First, UVRGA envisions formally changing certain sustainable management criteria, but additional baseline data are needed from the expanded monitoring network for groundwater levels and biological data are needed under low-flow conditions to support any refinements to the sustainable management criteria. Second, the Ventura River Watershed Adjudication is progressing toward the adoption of a physical solution later this year, which is anticipated to significantly impact GSP implementation and trigger a GSP amendment by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including

projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks (**Appendix A**).

Although the GSP is not being amended at this time, this periodic evaluation presents information and potential approaches to guide data collection that will support a future GSP amendment, including:

- Reevaluating the definition of an undesirable result for chronic lowering of groundwater levels by using results from UVRGA's well registration and Domestic Well Survey after baseline groundwater level data are collected from the expanded monitoring network.
- Clarifying the relationship between hydrologic and pumping conditions under which groundwater level declines may constitute chronic lowering of groundwater levels rather than temporary drought-related declines.
- Refining the sustainable management criteria for depletion of interconnected surface water based on additional groundwater level, streamflow, and aquatic habitat data collected during dry and/or low-flow conditions.

Any future GSP updates will formalize changes that implement the DWR-recommended corrective actions once baseline data are available and a Court-adopted physical solution can be reconciled with the GSP. UVRGA concludes that this approach is consistent with the goals of SGMA and is the most cost-effective approach for this Basin (by combining multiple GSP amendments into one), which is impacted by a very small funding base for SGMA implementation.

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Acronyms and Abbreviations

AFY	acre-feet per year
amsl	above mean sea level
cfs	cubic feet per second
CMWD	Casitas Municipal Water District
DWR	Department of Water Resources
ft	foot/feet
GDE	groundwater dependent ecosystem
GSP	groundwater sustainability plan
InSAR	interferometric synthetic aperture radar
ISW	interconnected surface water
M&I	municipal and industrial
MCL	maximum contaminant level
mg/L	milligrams per liter
MOWD	Meiners Oaks Water District
RCA	Recommended Corrective Action
RMMWC	Rancho Matilija Mutual Water Company
RWQCB	Regional Water Quality Control Board
SGMA	Sustainable Groundwater Management Act
SMC	sustainable management criteria
TDS	total dissolved solids
TSS	Technical Support Services
USGS	United States Geological Survey
UVRGA	Upper Ventura River Groundwater Agency
UVRGB	Upper Ventura River Groundwater Basin (Upper Ventura River Valley Basin, Department of Water Resources Basin No. 4-003.01)
UWMP	Urban Water Management Plan
VRWD	Ventura River Water District

1.0 Introduction

The Upper Ventura River Groundwater Agency (UVRGA) has prepared this first periodic evaluation of the Upper Ventura River Valley Basin, herein referred to as UVRGB or Basin, Groundwater Sustainability Plan (GSP) in compliance with the 2014 Sustainable Groundwater Management Act (SGMA) (California Water Code, Section 10720 et seq.). This first periodic evaluation assesses new information collected since Plan adoption and its implications for groundwater conditions, sustainability indicators, and Plan implementation. This evaluation summarizes data from water years 2020 through 2025, which includes a period prior to GSP adoption (water year 2020 through the first 3 months of water year 2022). Water years 2022 through 2025 comprise the evaluation period, over which UVRGA is required to evaluate the basin setting, monitoring networks, projects and management actions, and sustainable management criteria (SMC).[5] The analysis integrates updated monitoring data, refined modeling results, and expanded understanding of groundwater–surface water interactions, providing an update to the Basin's hydrogeologic conceptual model and management framework.

Overall, the evaluation demonstrates that the Basin continues to progress toward the sustainability goal, with no undesirable results observed for any applicable sustainability indicator during the evaluation period. Groundwater levels and storage have generally remained stable or improved in response to hydrologic variability and management actions, while water quality conditions remain consistent with historical trends. In addition, the expanded monitoring network, updated pumping projections, and ongoing implementation of key management actions have strengthened the technical basis for decision-making and reduced critical data gaps. Collectively, these findings support continued implementation of the existing GSP and indicate that no immediate amendments are warranted at this time, while highlighting areas for targeted refinement after needed baseline data have been collected and a physical solution for the Ventura River Watershed Adjudication has been adopted by the Court, which is expected this year.

1.1 Background

The UVRGB is a California Department of Water Resources (DWR)-designated medium-priority groundwater basin in western Ventura County. The Basin is in the central portion of the Ventura River Watershed along the Ventura River near the communities of Casitas Springs, Mira Monte, and Meiners Oaks (**Figure 1.1**). The Basin is bordered by the Ojai and Lower Ventura River Groundwater basins to the east and south, respectively (DWR Basin Nos. 4-002 and 4-003.02).

The UVRGB contains a thin alluvial-fill principal aquifer that is intimately connected to the Ventura River. Groundwater outside of the banks of the Ventura River (i.e., Mira Monte/Meiners Oaks area) is generally stored in deeper, older, low-permeability alluvium that is considered bedrock and not connected to the Ventura River and therefore not a part of the principal aquifer system. The groundwater budget and flow conditions in the alluvial aquifer are dominated by interaction with the Ventura River, which provides most of the recharge (inflows) to the Basin as streamflow percolation in

[5] The regulatory requirements of a Periodic Evaluation are defined in 23 CCR §365.4.

the northern portion of the Basin and receives most of the discharge (outflows) from the Basin as down-valley groundwater flow that feeds springs in the riverbed (i.e., groundwater discharge) of the Ventura River in the southern portion of the Basin. Groundwater extractions are secondary to groundwater discharge to the Ventura River, except during dry periods when the spring flows decrease substantially due to low Ventura River streamflow entering the northern end of the Basin.

Groundwater has historically supplied approximately one-third of the water used in the Basin for municipal, agricultural, domestic, and environmental uses and is sourced from local extractions. Most of the extracted water is used for public supply and irrigation. There are also 61 domestic wells that supply water to homes and/or limited landscape irrigation. Other sources of water supply for the Basin include private agricultural spring and creek diversions located adjacent to the Basin and local surface water diverted from the Ventura River by an agricultural entity and by Casitas Municipal Water District (CMWD) for storage in Lake Casitas. The non-groundwater supplies provide approximately two-thirds of the water supply in the Basin.

2.0 New Information Collected [Article 5 § 356.4(f)]

§ 356.4 (f) *A description of significant new information that has been made available since Plan adoption or Amendment, or the last five-year assessment. The description shall also include whether new information warrants changes to any aspect of the Plan, including the evaluation of the basin setting, measurable objectives, minimum thresholds, or the criteria defining undesirable results.*

Since adoption of the GSP, significant new monitoring data, outreach activities, management actions, and numerical model updates have been completed in the Basin and there has been continued progress toward adoption of a physical solution for the Ventura River Watershed Adjudication. Key updates for the Basin include:

- Continued, successful coordination with partner agencies to monitor groundwater level, groundwater quality, streamflow, and biological conditions in the Basin.
- Registration of groundwater wells in the Basin, including a Domestic Well Survey to improve understanding of beneficial users and the availability of alternative water supplies.
- Expanded the groundwater level monitoring network, addressing data gaps identified in the GSP.
- Continued implementation of the Foster Park Protocols to address direct depletions of interconnected surface water.
- Expanded streamflow and biological habitat monitoring in the Foster Park and Confluence aquatic habitat areas to assess the sustainability criteria for depletions of interconnected surface water.
- Updated the calibration of the numerical groundwater model to improve evaluation of surface water-groundwater interactions and depletion of interconnected surface water.
- Updated groundwater pumping estimates that now project lower future groundwater extractions than were assumed for the GSP.
- Provided input on a physical solution for the Ventura River Watershed Adjudication, which is expected to be adopted by the Court this year.

Table 2.1 lists and describes the significant new information for the Basin since GSP adoption.

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Monitoring Network Information			
Expanded Groundwater Level Monitoring Network	Since adoption of the GSP, UVRGA has added nine wells to the groundwater level monitoring network. The expanded network improves spatial coverage in portions of the Basin where groundwater-level data were previously limited, including areas near domestic and agricultural wells without known alternative water supplies. Most of the added wells are equipped with pressure transducers to provide continuous groundwater-level data.	Groundwater level monitoring network; chronic lowering of groundwater levels; reduction of groundwater in storage; sustainable management criteria	Not at this time.
Implementation of Riparian and Aquatic GDE Monitoring Programs	Field monitoring programs called for in the GSP to collect data relevant to GDEs in the Basin as they relate to the sustainability indicators.	Chronic lowering of groundwater levels and depletion of interconnected surface water sustainability indicators.	Not at this time. Data is needed under drier conditions to further evaluate sustainability criteria.
Water Supply			
Updated Groundwater Pumping Projections	UVRGA coordinated with municipal water providers and collected data from other groundwater users via the well registration process and extraction reporting program to update future pumping projections for wet/normal, single-dry-year, and multi-year drought conditions. Overall, the updated projections indicate lower future groundwater demands than were assumed in the GSP.	Future groundwater demands; projected water budget; numerical model projections	Not at this time. The updated projections indicate that future groundwater demands are likely to be lower than those evaluated in the GSP and therefore do not identify a new concern to groundwater sustainability.

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Interconnected Surface Water and Groundwater Dependent Ecosystems			
Visual Streamflow Monitoring	UVRGA conducted visual streamflow monitoring throughout the evaluation period at locations along the Ventura River and its tributaries. The observations documented the spatial and seasonal distribution of flowing, ponded, and dry conditions and improved the understanding of where and when groundwater and surface water may be interconnected.	Depletion of interconnected surface water sustainability indicator; monitoring network; hydrogeologic conceptual model	Not at this time.
Foster Park Aquatic Habitat Monitoring	Monitoring at the Foster Park Aquatic Habitat Area has provided additional habitat information during the evaluation period. However, relatively wet hydrologic conditions have limited the availability of data representing prolonged low-flow conditions, which are relevant for assessing the sustainability criteria for the depletions of interconnected surface water sustainability indicator.	Depletion of interconnected surface water sustainability indicator; sustainable management criteria; monitoring network	Not at this time. Data is needed under low flow conditions to determine if changes to the sustainability criteria for the depletions of interconnected surface water sustainability indicator are warranted.

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Confluence Aquatic Habitat Monitoring	UVRGA initiated monitoring in the Confluence Aquatic Habitat Area to improve the understanding of aquatic habitat near the confluence of the Ventura River and San Antonio Creek. The program addresses a geographic and hydrologic data gap identified during GSP implementation.	Depletion of interconnected surface water sustainability indicator; monitoring network; sustainable management criteria	Not at this time. Data is needed under low flow conditions to determine if specific sustainability criteria for the Confluence Area are needed for the depletions of interconnected surface water sustainability indicator.
Projects and Management Actions			
Domestic Well Survey	UVRGA completed a Domestic Well Survey to identify active domestic users, characterize well construction, and determine whether users have access to alternative water supplies. The survey identified 17 active wells with no known or uncertain alternative water supply and provided new information regarding users who may be vulnerable to groundwater-level declines.	Beneficial uses and users; chronic lowering of groundwater levels; undesirable-result definition; representative monitoring sites	Not at this time.

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Amended Foster Park Protocols	In January 2025, the City of Ventura and Santa Barbara Channelkeeper amended their settlement agreement and replaced the original Foster Park Protocols with an updated operational framework for the City's Foster Park extraction facilities. The amended protocols require the City of Ventura to cease water extraction at Foster Park when flow measured at Foster Park in a "wet" month is less than 9 cubic feet per second (cfs), in a "moderate" month is less than 7 cfs, and in a "dry" month is less than 5 cfs. Previously, a single threshold of 4 cfs was utilized to trigger flow reductions.	Groundwater pumping; depletion of interconnected surface water; projects and management actions	Not at this time. The updated protocols are more protective of aquatic habitat.
Actions to Address Indirect Depletion of Interconnected Surface Water	This initial GSP lays out a path over time that will be followed by UVRGA to develop and implement a project and/or management action to address indirect depletions of ISW before the end of the 20-year GSP implementation period. In general, the path includes (1) addressing groundwater level data gaps that impact quantification of indirect depletions of ISW, (2) updating the numerical model to provide better quantification of indirect depletion, and (3) development of appropriately sized projects or management actions to address indirect depletions. Data and information collected via Action Nos. 1-1 through 1-7 have advanced UVRGA's understanding of indirect depletions of interconnected surface water.	Depletions of interconnected surface water sustainability indicator	Not at this time. Data is needed under low flow conditions to determine if changes to the sustainability criteria for the depletions of interconnected surface water sustainability indicator are warranted and to select projects or management actions to address indirect depletion.

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Groundwater Level Data Gaps	Five groundwater level data gaps identified in the GSP were addressed. An additional four monitoring locations were added to the groundwater level monitoring network, above-and-beyond, the data gaps identified in the GSP, making the total number of added monitoring locations nine.	Monitoring networks; data gaps; chronic lowering of groundwater levels; degraded water quality; depletion of interconnected surface water	Not at this time. Baseline data are needed from the new wells to support refinement of the chronic lowering of groundwater levels sustainability criteria.
Stream Gage Data Gaps Project	A project was included in this GSP to install three new surface water gages to augment the existing gage network to address data gaps, which exist at the northern point of Ventura River inflow into the Basin, the middle part of the Basin near Santa Ana Boulevard to address the 7-mile gap between gages, and a gage in the Confluence Aquatic Habitat Area to monitor streamflow in this area and to help quantify surface water flow entering the Foster Park Aquatic Habitat Area. These data gaps have been addressed.	Surface water flow monitoring network	No

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Confluence Aquatic Habitat Area Biological Monitoring Study	Consists of biological monitoring in the Confluence Aquatic Habitat Area to determine if indirect depletions of ISW in this area cause significant and unreasonable effects on aquatic species for which area-specific sustainability criteria are warranted.	Depletions of interconnected surface water sustainability indicator	Not at this time. Data is needed under low flow conditions to determine if specific sustainability criteria for the Confluence Area are needed for the depletions of interconnected surface water sustainability indicator.
Technical Studies and other Data Collection			
Well Registration Program	UVRGA implemented a Basin-wide well registration program beginning in 2022 to improve information regarding well locations, uses, operational status, and ownership. The program provided a more complete inventory of active, inactive, abandoned, and destroyed wells within the Basin.	Beneficial uses and users; groundwater demands; monitoring network design; chronic lowering of groundwater levels and groundwater storage sustainability indicators	Not at this time.
Groundwater Extraction Reporting	UVRGA adopted an ordinance that requires flowmeters and quarterly reporting of groundwater extractions for all wells extracting more than 2 acre-feet per year of groundwater.	Water budgets	No
Hydrogeologic Conceptual Model Update	UVRGA updated the hydrogeologic conceptual model using information developed since GSP adoption, with a focus on improving representation of the principal aquifer thickness based on new lithologic data.	Hydrogeologic conceptual model	No

Table 2.1. Summary of New Information Since GSP Adoption.

Significant New Information	Description	Primary Aspects of Plan Affected	Warrant Change to Any Aspects of the Plan (Yes/No)
Groundwater Model Sensitivity Analysis and Recalibration	UVRGA updated the model calibration using groundwater-level, streamflow, pumping, and other information collected since GSP adoption. The work improves simulation of surface water-groundwater interaction, particularly in the Foster Park Aquatic Habitat Area.	Chronic lowering of groundwater levels; groundwater storage, and depletion of interconnected surface water sustainable management criteria	No
Evaluation of Indirect Depletion of Interconnected Surface Waters	Uncertainty analysis, updates to the predictive streamflow depletion, and the evaluation of pumping effects on streamflow significantly improved the understanding and quantification of indirect depletion related to pumping within the Basin.	Depletion of interconnected surface water sustainable management criteria	No
Relevant Regional Legal Actions			
Santa Barbara Channelkeeper v. State Water Resources Control Board and City of San Buenaventura	The Ventura River Watershed Adjudication is progressing toward the adoption of a physical solution later this year, which is anticipated to significantly impact GSP implementation by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks.	Outreach and coordination, management of depletion of interconnected surface water, and monitoring networks	Not at this time. Appropriate time to amend GSP is after a physical solution has been adopted by the Court, which is expected later this year.

2.1 Ventura River Watershed Adjudication

A special mention of the Ventura River Watershed Adjudication is warranted because it will significantly impact GSP implementation.

In 2014, Santa Barbara Channelkeeper filed a lawsuit against the City of Ventura and the State of California related to the balance between human and non-human use of the Ventura River Watershed (Appendix D in the GSP; UVRGA, 2022a). Specifically, Channelkeeper asserted that the City's use of water from the Foster Park Area (located within the UVRGB) violated the Reasonable Use Doctrine because the City's municipal use was harming the Southern California Steelhead. Ultimately, the Court of Appeal held that the reasonableness of the City's use had to be measured against all other users of the Ventura River Watershed and therefore allowed the City to bring into the lawsuit everyone currently extracting or who could extract water from the system in the future (cross-complaint).

In 2019, the City of Ventura entered into a settlement agreement with Santa Barbara Channelkeeper that includes certain flow and no-flow measures. The settlement agreement was executed in September 2019 and amended in August 2020 and January 2025 (**Appendix B**). The flow measures are known as the "Foster Park Protocols" and involve monitoring river gages and shutting down the City's extraction facilities when certain surface water flow thresholds are reached. The Foster Park Protocols are relevant to the GSP because they contribute to addressing one of the four applicable sustainability indicators: depletions of interconnected surface water. The Foster Park Protocols address direct depletion of the Ventura River by the City of Ventura's Foster Park water extraction facilities.

In 2020, certain adjudication parties developed a proposed physical solution to settle the cross-complaint. The proposed physical solution seeks to address the habitat conditions for the Steelhead population in order to return the habitat to good condition and then maintain it. The Foster Park Protocols are a component of the proposed physical solution.

The Ventura River Watershed Adjudication is progressing toward the adoption of a physical solution later this year (Appendix A), which is anticipated to significantly impact GSP implementation by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks (Appendix B).

3.0 Groundwater Conditions Relative to Sustainable Management Criteria [Article 5, § 356.4(a)]

§ 356.4 (a) *A description of current groundwater conditions for each applicable sustainability indicator relative to measurable objectives, interim milestones and minimum thresholds.*

The following sections discuss groundwater conditions relative to each of the sustainability indicators applicable to the Basin. The GSP reported on groundwater conditions through water year 2019. This Periodic Evaluation provides an update on groundwater conditions for water years 2020 through 2025, which includes all data and information collected since GSP adoption (i.e., six water years). This time frame contains two complete water years prior to GSP adoption (water years 2020 and 2021), one water year during which the GSP was adopted (water year 2022), and three complete water years following GSP adoption (water years 2023, 2024, and 2025). Data for water years 2020 and 2021 and first three months of water year 2022 are provided for information, context, and completeness. Data for the last nine months of water year 2022 and all of water years 2023 through 2025 are provided for compliance with the GSP periodic evaluation requirements. Accordingly, the period following adoption of the GSP is considered the first evaluation period for the implementation of the GSP.

3.1 Chronic Lowering of Groundwater Levels Sustainability Indicator

This section summarizes groundwater elevations in the Basin during water years 2020 through 2025. Groundwater elevations measured during water years 2020 through 2025 are compared to the sustainable management criteria (SMC) established in the GSP. Although water years 2020 and 2021 are included for context, these groundwater levels represent conditions prior to the start of the evaluation period and adoption of the GSP (i.e., January 2022).

Trends in precipitation and groundwater extractions are helpful for interpreting groundwater elevation trends. Since water year 2019, the Basin has received an average of 19.86 inches of precipitation per year, which is 7% lower than the 1926–2025[6] average precipitation of 21.28 inches per year (**Figures 3.1** and **3.2**)[7]. While average rainfall over the past six years was similar to the long-term average, the Basin is strongly influenced by year-to-year conditions; thus, it is important to understand the variability of precipitation amounts in the context of the cumulative departure from mean and water year types. Following the near average water year 2020, the Basin experienced two dry water years in 2021 and 2022, extending the long-term declining limb of the cumulative departure curve (Figure 3.2). This long-term drying trend was interrupted by the wet 2023 and 2024 water years, in which the Basin received 43.8 and 29.4 inches of rainfall, respectively (Figure 3.2). Water year 2025 was characterized by dry hydrologic conditions.

[6] Note, the GSP reporting period (1926-2019) average precipitation was 21.4 inches.
[7] Long-term precipitation calculated using rainfall measurements from rain gage 20 (1926 through 1964) and 218 (1965 through 2025).

Over the 2022 through 2025 evaluation period, groundwater extractions from the Basin averaged approximately 4,300 acre-feet per year (AFY), which is approximately 16% lower than the historical average groundwater production rates in the Basin (UVRGA, 2022a).

3.1.1 Groundwater Elevation Trends

This section summarizes recent groundwater elevation trends and flow conditions based on available monitoring data. Spring high and fall low conditions for both aquifers are compared across water years 2020 and 2025 to characterize changes in groundwater levels and flow directions within the Basin. Groundwater elevation trend descriptions are based on analysis of the hydrographs of the representative monitoring wells.

During development of the GSP, the groundwater level monitoring network consisted of 15 wells, with 14 of these wells screened exclusively, or almost exclusively, in the alluvium that comprises the principal aquifer (UVRGA, 2022a). Because of the limited number of groundwater level monitoring wells, groundwater elevation contours were developed using a combination of numerical modeling results and available groundwater level measurements (UVRGA, 2022b, 2023, 2024, 2025, and 2026a). As part of GSP implementation, UVRGA has expanded its groundwater level monitoring network for the Basin, which currently consists of 24 wells (**Figure 3.3**). These wells are monitored by UVRGA or a partner agency using a combination of manual measurements and high-frequency pressure transducers (Rincon Consultants, Inc. [Rincon], 2021a, 2022a, 2022b, 2023a, 2023b, 2024a, 2025a). Since expanding the groundwater level monitoring network, contouring has been transitioned to using measured groundwater elevations, with modeled groundwater levels used only as a supporting guide (e.g., UVRGA, 2026a).

In water year 2020, spring high (March 2020) groundwater elevations ranged from approximately 213 to 801 feet above mean sea level (ft amsl) (**Figure 3.4**). Groundwater flow directions were generally from north to south, following the topographic relief of the Basin and the course of the Ventura River. Groundwater levels generally declined from spring to fall in water year 2020, with the largest changes occurring at wells 05N23W33B04S, 04N23W09B01S, and 05N23W33B03S (Figure 3.4 and **Figure 3.5**).

In water years 2021 and 2022, groundwater elevations across the Basin generally declined in response to lower-than-average rainfall (**Figure 3.6**). The largest declines were measured at 04N23W09B01S and VRWD MW-2, where the fall lows in water year 2022 were approximately 16 and 42 feet lower than the fall lows in water year 2020, respectively (Figure 3.6). In water years 2023 and 2024, groundwater elevations across the Basin increased in response to higher-than-average rainfall. The largest groundwater elevation increases between water years 2022 and 2024 were also measured at wells 04N23W09B01S and VRWD MW-2, where the fall lows were approximately 45 and 59 feet higher than the fall lows in water year 2022, respectively.

In water year 2025, the spring high groundwater elevations ranged from 215 to 807 ft amsl and were approximately 1 to 24 feet higher than the spring highs measured in 2020 (**Figure 3.7**). The higher spring groundwater elevations reflect the wet conditions which refilled the Basin in water years 2023 and 2024. Fall low groundwater elevations dropped significantly in comparison to spring highs in water year 2025, reflecting the dry conditions (**Figure 3.8**).

3.1.2 Sustainable Management Criteria

The chronic lowering of groundwater levels minimum thresholds are set equal to historical lows and are evaluated using fall low measurements (UVRGA, 2022a). Measurable objectives were established by determining the typical maximum seasonal groundwater level based on historical data for each well. These measurable objectives represent a full or approximately full basin condition and apply to the maximum groundwater levels in years with conditions under which these levels may have been attained in the past (i.e., when Ventura River annual flows are greater than 50% of the mean annual flow; UVRGA, 2022a). Interim milestones for 2027 were set to be equal to the minimum thresholds (UVRGA, 2022a).

Table 3.1 compares the maximum annual groundwater levels during the reporting period (i.e., water years 2020 through 2025) relative to the measurable objectives and 2027 interim milestones for the chronic lowering of groundwater levels and reduction of groundwater storage sustainability indicators. In addition, the table also indicates when the measurable objective comparison is applicable, based on the annual Ventura River flows. Table 3.2 summarizes the fall lows during the reporting period (i.e., water years 2020 through 2025) relative to the minimum thresholds for the chronic lowering of groundwater levels and reduction of groundwater storage sustainability indicators. Groundwater elevation hydrographs with respective SMC for these representative monitoring sites are shown in **Figures 3.9** and **3.10**. As noted above, while water years 2020 and 2021 are included for context, these groundwater levels represent conditions prior to the start of the evaluation period and adoption of the GSP.

Notably, well 05N23W33B03S, located near the upstream end of the Basin, was affected by flooding in January 2023, after which the pressure transducer was removed. Groundwater elevations continue to be measured manually at this well by two entities: Ventura County Watershed Protection District and Meiners Oaks Water District. While these manual measurements are compared with the corresponding minimum threshold and measurable objective, the suitability of this well as a representative monitoring site will continue to be evaluated over the next five years.

3.1.2.1 Measurable Objectives

During the evaluation period (water years 2022 through 2025), Ventura River flows exceeded 50% of the long-term average in water years 2023 and 2024. In water year 2023, the measurable objectives were achieved in all wells except 05N23W33B03S (Table 3.1). In water year 2024, the measurable objectives were achieved in all wells except 04N23W04J01S (Table 3.1). In both cases, the spring high groundwater elevations were approximately 1 foot lower than the measurable objectives and represent the anticipated near-full basin conditions (Figure 3.9).

In water years 2022 and 2025, flows in the Ventura River were lower than 50% of the long-term average. While groundwater elevations are not expected to achieve the measurable objectives during these conditions, spring groundwater elevations were higher than the measurable objectives at two wells in both water years (Table 3.1).

3.1.2.2 Interim Milestones

The 2027 interim milestones for the chronic lowering of groundwater level and reduction of groundwater storage sustainability indicators were set to be equal to the minimum thresholds. Throughout the evaluation period (i.e., water years 2022 through 2025), groundwater level seasonal highs for all seven representative monitoring sites met their respective 2027 interim milestones (Table 3.1; Figures 3.9 and 3.10).

3.1.2.3 Minimum Thresholds

During the evaluation period (i.e., water years 2022 through 2025), fall low groundwater elevations remained above the minimum thresholds at all wells except 05N23W33B03S (Table 3.2; Figures 3.9 and 3.10).

High-frequency data collected at 05N23W33B03S suggest that the seasonal low measurements in water years 2022 and 2023 are reflective of pumping, rather than static levels and, therefore, are not considered to be a minimum threshold exceedance for the purposes of evaluating the GSP implementation (Figure 3.9). After the wet conditions in water years 2023 and 2024, data collected by Meiners Oaks Water District indicate that groundwater elevations declined below the minimum threshold in August and September of 2025. Because this well has been impacted by flooding, groundwater levels will continue to be evaluated over the next five years to assess the appropriateness of this well as a representative monitoring site and associated sustainable management criteria.

At each representative monitoring site where groundwater levels were observed to seasonally decline below its minimum threshold, groundwater levels subsequently increased above the minimum threshold following the wet season regardless of water year type. This trend reflects the draining and filling conditions of the Basin, which is primarily a function of precipitation (see Section 3.1.1).

3.1.3 Undesirable Results

The GSP defines significant and unreasonable effects for chronic lowering of groundwater levels as groundwater elevations that result in users of groundwater being unable to meet basic water supply needs, increasing costs to supplemental water exceeding historically experienced amounts, and prolonged or permanent impacts to groundwater dependent ecosystems (UVRGA, 2022a). Avoiding these underlying effects which lead to undesirable results is intended to protect the beneficial uses and users of groundwater in the Basin. Quantitatively, the GSP defines an undesirable result as minimum threshold exceedances in all seven representative monitoring sites, when those exceedances are caused by groundwater extraction (UVRGA, 2022a).

As described in Section 3.1.2, fall low groundwater elevations dropped below the minimum threshold at well 05N23W33B03S during the evaluation period. Because these conditions were localized to one well, the Basin did not experience an undesirable result associated with chronic lowering of groundwater levels.

Table 3.1 Summary of Measurable Objectives and Interim Milestones for the Chronic Lowering of Groundwater Levels and Reduction of Groundwater Storage Sustainability Indicators.

State Well Identification Number	Well Name	Measurable Objective (ft amsl)	2027 Interim Milestone (ft amsl)	Maximum Groundwater Level (ft amsl)					
				2020[b]	2021[b]	2022	2023	2024	2025
Ventura River Flows									
Percentage of Long-term Average Annual Flow[c]				35%	5%	14%	264%	163%	15%
Is the Measurable Objective Applicable?				No	No	No	Yes	Yes	No
Groundwater Levels									
05N23W33B03S[d]	Kennedy 05N23W33B03S	806	792	802.4	794.7	804.4	804.5	809.7	806.9
05N23W33G01S[d]	Kennedy 05N23W33G01S	797	787	798.1	784.0	798.2	798.9	803.1	803.3
04N23W04J01S	North Robles 04N23W04J01S	679	625	658.1	649.3	671.0	686.3	677.9	657.8
04N23W09B01S	North Robles 04N23W09B01S	648	573	632.5	621.9	643.7	654.4	650.2	633.3
04N23W16C-VRWD MW-2[a]	South Robles VRWD-MW-2	546	467	533.7	526.9	531.1	548	550.7	542.5
04N23W29F02S	Santa Ana 04N23W29F02S	385	334	381.2	369.4	377.8	389.8	391.2	383.6
03N23W08B07S[d]	Casitas Springs 03N23W08B07S	225	215	226.7	227.9	227.7	226.5	230.7	229.5

Notes:
ft amsl = feet above mean sea level; ND = No Data
[a] IMs have been updated since what was presented in the GSP (UVRGA, 2022a).
[b] Water years 2020 and 2021 are outside of the evaluation period. Groundwater levels are provided for context (see Section 3.1).
[c] Calculated using Ventura River inflows for each water year, compared to the long-term average annual inflow for the period from 2005 through 2069 (UVRGA, 2022a).
[d] These wells are no longer, or have not been, equipped with pressure transducers and, therefore, manual measurements may not be representative of true seasonal high conditions at this location.

Color Key:
MO met
2027 IM met

Table 3.2 Summary of Minimum Thresholds[a] for the Chronic Lowering of Groundwater Levels and Reduction of Groundwater Storage Sustainability Indicators.

State Well Identification Number	Well Name	Minimum Threshold (ft amsl)	Fall Low[c] Groundwater Level (ft amsl)					
			2020[d]	2021[d]	2022	2023	2024	2025
05N23W33B03S[e]	Kennedy 05N23W33B03S	792	781.1	778.7	787.2	783.1	797.0	791.3
05N23W33G01S[e]	Kennedy 05N23W33G01S	787	792.1	784.0	796.1	797.5	795.8	792.7
04N23W04J01S	North Robles 04N23W04J01S	625	645.2	639.7	636.9	636.3	647.6	649.6
04N23W09B01S	North Robles 04N23W09B01S	573	602.6	587.7	587.5	590.8	628.8	603.3
04N23W16C-VRWD MW-2[b]	South Robles VRWD-MW-2	467	510.3	488.2	479.5	486.9	526.5	518.1
04N23W29F02S	Santa Ana 04N23W29F02S	334	364.5	340.2	340.3	339.6	375.9	361.1
03N23W08B07S[e]	Casitas Springs 03N23W08B07S	215	225.5	226.8	226.1	224.2	223.4	228.8

Notes:
ft amsl = feet above mean sea level
[a] The combination of minimum threshold exceedances that is deemed to cause significant and unreasonable effects in the basin for chronic lowering of groundwater levels is minimum threshold exceedances at the seven representative monitoring sites.
[b] Values for MT have been updated since what was presented in the GSP (UVRGA, 2022a).
[c] Fall low measurements are typically in September of the water year; however, some wells are measured in early October of the subsequent water year and are retained for seasonal consistency.
[d] Note, water years 2020 and 2021 are outside of the evaluation period (see Section 3.1)
[e] These wells are no longer, or have not been, equipped with pressure transducers and, therefore, manual measurements may not be representative of true seasonal low conditions at this location.

Color Key:
MT exceeded

3.1.4 Impacts to Beneficial Uses and Users

The GSP acknowledges that chronic lowering of groundwater levels has the potential to adversely affect groundwater beneficial users and land uses in the Basin. The following subsections describe the beneficial uses and users of groundwater in the Basin and any relevant information obtained during the evaluation period.

3.1.4.1 Groundwater Beneficial Users (All Users)

Groundwater beneficial users in the Basin include municipal, agricultural, and domestic users of groundwater and riparian GDEs. Minimum threshold exceedances could adversely affect these users by causing groundwater levels to decline to the point that groundwater wells are no longer capable of producing water absent an alternative water supply or by adversely affecting GDEs (UVRGA, 2022a).

During the evaluation period, UVRGA received no reports of groundwater wells becoming inoperable because of groundwater level declines. Consistent with the absence of reporting, the representative monitoring network did not indicate groundwater conditions indicative of undesirable results. Based on this information, no significant adverse impacts to groundwater beneficial users associated with chronic lowering of groundwater levels were identified during the evaluation period. Riparian vegetation monitoring data collected by UVRGA were also evaluated and did not reveal any significant impacts.

3.1.4.2 Land Use and Property Interests (All Types)

Minimum threshold exceedances could affect land uses and property interests by limiting groundwater availability for beneficial uses and increasing the need to purchase supplemental water supplies in amounts that are significantly greater than has occurred historically (UVRGA, 2022a). During the evaluation period, groundwater level conditions did not meet the criteria for an undesirable result, and no adverse impacts to land uses or property interests associated with chronic lowering of groundwater levels were identified.

3.1.5 Progress Towards Achieving Sustainability

For all of the representative monitoring wells, groundwater elevations were higher than the minimum thresholds during the wet season, regardless of water year type. In the wet 2023 and 2024 water years when the measurable objectives were applicable, groundwater levels met the measurable objectives at six of the seven representative monitoring sites, indicating that the Basin recovered to near full conditions in periods where Ventura River flows exceeded 50% of the long-term average (Table 3.2). Additionally, no undesirable results occurred during the evaluation period (Section 3.1.3).

These conditions indicate that GSP implementation is on track toward achieving and maintaining the sustainability goal by 2042.

3.1.6 Relevant Recommended Corrective Actions

DWR issued two Recommended Corrective Actions (RCAs) related to chronic lowering of groundwater levels (DWR, 2023). These two RCAs, and UVRGA's responses, are described in the following subsections.

3.1.6.1 Recommended Corrective Action 1

DWR's first recommended corrective action on the GSP stated:

> A. *Amend the quantitative definition of undesirable results to account for localized threshold exceedances or provide additional information to the GSP to support why undesirable results will not occur until minimum thresholds are exceeded in 100 percent of representative monitoring sites and clarify the time component in the definition.*
>
> B. *Revise the definition of undesirable results to remove the groundwater extraction condition or clearly explain how the basin can be managed in a way where groundwater extractions would not contribute at all to a combination of threshold exceedances that lead to undesirable results.*

UVRGA Response to RCA 1A

The quantitative definition of an undesirable result for chronic lowering of groundwater levels was developed with consideration of (1) historical groundwater level response throughout the Basin, (2) the available groundwater level monitoring network and identified uncertainties, and (3) the limited understanding of groundwater users relying solely on groundwater, which constrained evaluation of potential localized impacts. The following subsections summarize the technical justification for the GSP definition of undesirable results and describe management actions implemented since adoption of the GSP to reduce uncertainty.

Historical Groundwater Level Response

Historical groundwater level data indicate that groundwater level fluctuations have occurred as a basin-wide response to watershed-scale hydrologic conditions, rather than localized declines associated with concentrated pumping. Figure 3.6 shows groundwater level hydrographs for nine key wells across the Basin, which show similar timing of groundwater level declines and recovery and are generally consistent with streamflow fluctuations. The most pronounced example is the 2012 to 2016 drought, during which groundwater levels declined throughout the Basin in response to reduced recharge from the Ventura River (UVRGA, 2022a). The notable exception to this similarity is well 04N23W15A02S: this well is completed in the Ojai conglomerate, which is not considered a principal aquifer and is not interconnected with the surface water in the Basin.

Figure 3.11 further demonstrates that historical groundwater level fluctuations correspond more closely with streamflow entering the Basin than with annual groundwater production. During the 2012 to 2016 drought, groundwater levels declined despite below-average groundwater production. Following the drought, groundwater levels recovered to a basin-full condition in response to elevated Ventura River flows, despite groundwater production increasing back to historical rates. These observations indicate that groundwater changes are primarily controlled by watershed-scale hydrologic conditions, with groundwater extraction representing a secondary influence.

Together, these observations demonstrate:

- Groundwater level declines have historically occurred on a basin-wide scale, and

- Groundwater level fluctuations have primarily been controlled by hydrologic conditions rather than localized pumping.

While these observations continue to support the quantitative definition of undesirable results established in the GSP, UVRGA recognized during GSP development that uncertainties regarding the monitoring network and the locations of groundwater users without an alternative water supply limited its ability to evaluate the potential for localized impacts and, hence, provide a more refined undesirable results definition. To address these uncertainties, UVRGA has implemented a basin-wide well registry and Domestic Well Survey and has significantly expanded the groundwater level monitoring network.

UVRGA Well Registration and Domestic Well Survey

In 2022, UVRGA adopted an ordinance requiring registration of all active groundwater wells in the Basin. Implementation of the ordinance improved UVRGA's understanding of groundwater users throughout the Basin, including the location and status of active groundwater wells and whether groundwater users have access to an alternative water supply. Through this program, all but two wells in the Basin have been registered or determined to no longer be in use. The registration process included a survey for domestic wells[8]. In all, 61 active domestic wells were identified, of which only 23 are used for drinking water. Of these, only nine lack a backup source of drinking water and two did not indicate backup status on the survey. In addition, six other privately owned wells were identified that lack a backup source of water.

Figures 3.12 and **3.13** show the location of active groundwater wells in the Basin, symbolized by their access to backup water supplies. The figures also show the location of the representative monitoring network established in the GSP for the chronic lowering of groundwater levels sustainability indicator.

Results from the well registry indicate that out of the 91 active private wells in the Basin, 17 either do not have a backup water supply or access to a backup water supply is unknown (**Table 3.3**). Of these without known backup supply (or unknown status of backup supply), 11 are used for domestic purposes, five are agricultural wells, and one well is used for restoration purposes. These users are distributed across four Hydrogeologic Areas within the Basin and are not concentrated within a single localized area (Table 3.3). Each Hydrogeologic Area containing one or more wells without an alternative water supply also contains at least one existing or potential future representative monitoring site.

Table 3.3. Groundwater Wells with Unknown or No Backup Water Supply in the Basin and Potential New RMS Wells.

Hydro-geologic Area	RMS	Potential Future RMS	Maximum Total Future RMS	Number of Wells With Unknown or No Backup Water Supplies				
				Domestic Well (< 2 AFY)	Domestic Well (> 2 AFY)	AG Well	Other Private Well	Total
Kennedy	2	1	3	1	1	1	0	3
Robles	3	1	4	0	0	0	0	0

[8] Two well owners are non-compliant with the well registration requirement. UVRGA is accruing penalties and may take appropriate legal action.

Table 3.3. Groundwater Wells with Unknown or No Backup Water Supply in the Basin and Potential New RMS Wells.

Hydro-geologic Area	RMS	Potential Future RMS	Maximum Total Future RMS	Number of Wells With Unknown or No Backup Water Supplies				
				Domestic Well (< 2 AFY)	Domestic Well (> 2 AFY)	AG Well	Other Private Well	Total
Mira Monte/ Meiners Oaks	0	4	4	3	2	1	1	7
Terraces	0	0	0	0	0	0	0	0
Santa Ana	1	3	4	2	0	1	0	3
Casitas Springs	1	8	9	2	0	2	0	4
Total	**7**	**17**	**24**	**8**	**3**	**5**	**1**	**17**

Notes: AFY = acre-feet per year; AG = Agricultural; RMS = Representative Monitoring Site. "Other Private Well" represents a well that is used for restoration purposes.

Monitoring Network Expansion, Baseline Data Collection, and Future SMC Revision

The GSP established a groundwater level monitoring network consisting of 15 groundwater wells, seven of which are designated as Representative Monitoring Sites for chronic lowering of groundwater levels. The monitoring network presented in the GSP was established to characterize groundwater level conditions throughout the Basin; however, this was prior to the well registry and Domestic Well Survey, and thus UVRGA did not have a complete understanding of which groundwater users were without an alternative water supply. Additionally, the GSP identified 5 data gaps for the groundwater level monitoring network, which have been addressed with the addition of 9 wells to the groundwater levels monitoring network. Because of the limited record, these new monitoring wells do not have sufficient data to establish SMC or evaluate whether they should be used to supplement the existing representative monitoring sites. Baseline data is now being collected from the new wells added to address the data gaps and the eight wells included in the monitoring network that were not designated as representative monitoring sites. In total, there are 17 wells that could potentially have sustainable management criteria assigned in the future. Table 3.3 details the 17 wells for which sustainable management criteria could be assigned once sufficient baseline data have been collected and evaluated. These wells are shown in relation to active pumping wells that lack a backup source of water in Figures 3.12 and 3.13. With time, UVRGA will be able to increase the number of locations with assigned sustainable management criteria and revise the undesirable results definition. Consistent with DWR RCA No. 1A, UVRGA envisions revising the undesirable results definition to address localized threshold exceedances within hydrogeologic areas that include active pumping wells that lack a backup source of water (Table 3.3). This will be memorialized in a GSP amendment following collection of sufficient baseline data and adoption of a physical solution for the Ventura River Watershed Adjudication. The

envisioned GSP amendment will take place no later than concurrent with the next required periodic evaluation.

UVRGA Response to RCA 1B

As discussed in UVRGA's response to RCA 1A, historical groundwater level data demonstrate that groundwater level fluctuations in the Basin have historically occurred as a basin-wide response to watershed-scale hydrologic conditions associated with drought, rather than localized groundwater level declines related to concentrated groundwater pumping. During development of the GSP, UVRGA evaluated additional lines of evidence to assess the relative influence of groundwater production on groundwater level conditions and develop the framework for including a groundwater extraction condition in the definition of an undesirable result. These lines of evidence are summarized as follows.

Groundwater Budget Evaluation

Groundwater budgets developed during preparation of the GSP demonstrate that surface water-groundwater interactions dominate the Basin's water budget. During the 2006 to 2019 period, the Basin received an average of approximately 25,300 AFY of recharge from the Ventura River during normal and wet water years, primarily in the northern portion of the Basin (UVRGA, 2022a). Approximately 60% of this subsequently discharges back to the Ventura River farther downgradient, averaging approximately 14,700 AFY (UVRGA, 2022a). These surface water-groundwater exchanges are significantly larger than groundwater production during the same years, which averaged approximately 5,200 AFY (UVRGA, 2022a). During drought periods, recharge from the Ventura River to the groundwater and downgradient groundwater discharge to the river both decreased by more than 65%, reflecting reduced streamflow entering and leaving the Basin.

These groundwater budgets demonstrate that groundwater storage and levels are primarily controlled by watershed-scale hydrologic conditions, supporting the use of a groundwater extraction condition in the definition of an undesirable result.

Historical Groundwater Production Trends

Historical groundwater production data indicate that groundwater extraction does not increase during periods of groundwater level decline and drought. Instead, groundwater production generally decreases during drought as groundwater users transition to available alternative water supplies (Figure 3.11). Like the groundwater budget and groundwater level data, these groundwater production trends indicate that groundwater level fluctuations are primarily controlled by hydrologic conditions.

Groundwater Model Evaluation

Groundwater model simulations developed during the GSP development provide an independent evaluation of the influence of groundwater production on groundwater level conditions. **Figures 3.14a** and **3.14b** compare simulated groundwater levels under historical pumping and no-pumping conditions at three representative monitoring sites. At each location, the model results show that groundwater levels decline to the minimum thresholds without any groundwater extractions during the 2012 to 2016 drought. While groundwater production results in slightly greater and more rapid groundwater level declines, the no-pumping simulations demonstrate that groundwater levels can exceed the minimum thresholds naturally. These simulations indicate that prolonged drought alone is sufficient to produce

groundwater levels that exceed the minimum thresholds. Accordingly, the groundwater extraction condition provides an appropriate method for distinguishing groundwater level declines resulting from natural hydrologic conditions from those influenced by groundwater production.

Refinement of the Groundwater Extraction Condition

During discussions regarding this RCA, DWR staff clarified the intent of RCA 1B and explained that it is seeking better definition of the hydrologic conditions under which the groundwater extraction condition would apply. As demonstrated by the analyses presented previously, groundwater levels in the Basin are primarily controlled by watershed-scale hydrologic conditions, and drought alone, absent groundwater extraction, is capable of producing groundwater levels that decline to the minimum thresholds.

Based on the foregoing, UVRGA proposes that the groundwater extraction condition be applied when groundwater levels would naturally approach the minimum thresholds in the absence of groundwater pumping. UVRGA will quantify the occurrence of these conditions using groundwater level data and the numerical groundwater flow model. Based on existing model results, these conditions may develop following two or more consecutive dry years, as defined by the water year type classification established in the GSP.

This concept will be further evaluated, potentially refined, and ultimately memorialized in a GSP amendment following adoption of a physical solution for the Ventura River Watershed Adjudication. The envisioned GSP amendment will take place no later than concurrent with the next required periodic evaluation.

3.1.6.2 Recommended Corrective Action 2

DWR's second recommended corrective action on the GSP stated:

> *Implement the management action entitled, "Domestic Well Survey" to obtain additional information about the domestic wells in the Subbasin.*
>
> *After the project is implemented, the GSA should identify the degree/extent of potential impacts including the percentage, number, and location of potentially impacted wells at the proposed minimum thresholds for chronic lowering of groundwater levels.*

UVRGA Response to RCA 2

As described in the response to RCA 1A, UVRGA registered wells in the Basin and completed the Domestic Well Survey to improve its understanding of groundwater users relying on groundwater as their sole source of water supply. The survey identified the number, percentage, and location of groundwater users without alternative water supplies, which were subsequently used to evaluate the potential for localized impacts associated with the established minimum thresholds. These results are summarized in Section 3.1.6.1 and Appendix D.

In addition, UVRGA's expanded groundwater level monitoring network includes new wells located near groundwater users identified through the survey (Figures 3.12 and 3.13). As discussed in response to RCA 1A, groundwater level data are currently being collected from these wells to evaluate whether additional representative monitoring sites and SMC should be established to better characterize

potential impacts to groundwater users without alternative water supplies. As described in Section 3.1.6.1, UVRGA will update the quantitative definition of an undesirable result for chronic lowering of groundwater levels using the expanded representative monitoring network that better characterizes groundwater conditions in the vicinity of groundwater users without a known alternative water supply. This will be memorialized in a GSP amendment following collection of sufficient baseline data and adoption of a physical solution for the Ventura River Watershed Adjudication. The envisioned GSP amendment will take place no later than concurrent with the next required periodic evaluation.

3.1.7 Anticipated Future Revisions to the Sustainability Management Criteria

Groundwater level data collected during the first period evaluating GSP implementation do not indicate a need to revise the existing SMC for chronic lowering of groundwater levels at this time. However, UVRGA will continue to review monitoring network data to evaluate the sustainable management criteria. Also, as discussed in Sections 3.1.6.1 and 3.1.6.2, UVRGA will continue to evaluate whether additional representative monitoring sites and associated SMC should be established for the monitoring wells added since GSP adoption.

An additional potential update being evaluated by UVRGA is aligning the measurable objective groundwater elevations with the Ventura River channel-bottom elevation. This approach would more appropriately represent groundwater levels associated with full Basin conditions, recognizing that groundwater mounding that occurs during wet water years subsequently drains toward downgradient reaches of the Ventura River. Aligning measurable objectives with the channel-bottom elevation would therefore better reflect the groundwater level that can reasonably be maintained following this natural drainage process.

Once sufficient baseline data have been collected and evaluated for the nine new wells added to the monitoring network, UVRGA will make changes to the sustainable management criteria through a future GSP amendment.

3.1.7.1 Anticipated Future Revisions to the Definition of an Undesirable Result

UVRGA anticipates refining the definition of an undesirable result for chronic lowering of groundwater levels to better protect wells lacking a backup source of water that may be impacted by localized minimum threshold exceedances, as described in Section 3.1.6.1, and to incorporate the drought criterion described in Section 3.1.6.2, which will provide a clear framework for applying the groundwater extraction condition, consistent with CWC 10721(X).

3.2 Reduction of Groundwater in Storage Sustainability Indicator

3.2.1 Groundwater Storage Trends

UVRGA estimates groundwater storage changes annually using the numerical groundwater model (UVRGA, 2022a, 2022b, 2023, 2024, and 2026a). Since 2019, groundwater storage has fluctuated in response to hydrologic conditions. In water years 2020 through 2022, the Basin experienced drier-than-average conditions, during which groundwater storage declined by a total of approximately 10,500 AF (**Table 3.4**). Groundwater storage recovered to a full Basin condition in the wet water year 2023, with an

increase of approximately 11,900 AF (Table 3.3). The Basin reached a full condition again during the subsequent wet water year 2024 and then storage declined during the dry 2025 water year.

Over the 2022 through 2025 evaluation period, groundwater in storage increased by a total of approximately 8,160 AF (Table 3.3).

Table 3.4. Change in Groundwater Storage in the Basin.

Water Year	Water Year Type	Storage Change (Acre-Feet)	
		Annual	Cumulative
2020	Normal	-2,538	-2,538
2021	Dry	-8,771	-11,309
2022	Dry	847	-10,462
2023	Wet	11,898	1,436
2024	Wet	1,592	3,028
2025	Dry	-6,175	-3,147
Total (2020 – 2025)		**-3,147**	
Total (2022-2025)		**8,162**	

Note: Water Year Type is based on percentage of long-term average annual precipitation (UVRGA, 2022a).

3.2.2 Sustainable Management Criteria and Undesirable Results

The reduction of groundwater in storage sustainability indicator uses the same SMC as the chronic lowering of groundwater levels sustainability indicator because groundwater levels are used as a proxy for evaluating groundwater storage (UVRGA, 2022a). Accordingly, the evaluation of measurable objectives, interim milestones, minimum thresholds, and undesirable results presented in Sections 3.1.2 and 3.1.3 also applies to the reduction of groundwater storage sustainability indicator.

3.2.3 Impacts to Beneficial Uses and Users

The evaluation of impacts to beneficial uses and users of groundwater in the Basin associated with the reduction of groundwater storage sustainability indicator is described in Section 3.1.4.

3.2.4 Progress Towards Achieving Sustainability

As described in Section 3.1.5, groundwater conditions during the evaluation period indicate continued progress toward achieving the Basin's sustainability goal by 2042.

3.2.5 Relevant Recommended Corrective Actions

DWR did not issue any RCAs for this sustainability indicator.

3.2.6 Anticipated Future Revisions to the Sustainable Management Criteria

Groundwater levels are used as a proxy for groundwater in storage. There are no proposed revisions to the minimum threshold, measurable objective, or interim milestones for groundwater levels at this time (Section 3.1.7). However, UVRGA plans to add additional representative monitoring points for

chronic lowering of groundwater levels with associated sustainable management criteria in a GSP amendment following collection of sufficient baseline data and adoption of a physical solution for the Ventura River Watershed Adjudication. The envisioned GSP amendment will take place no later than concurrent with the next required periodic evaluation.

3.2.6.1 Anticipated Future Revisions to the Definition of an Undesirable Results

UVRGA's proposed refinements to the undesirable result definition are described in Section 3.1.7.1.

3.3 Degraded Water Quality Sustainability Indicator

The degraded water quality sustainability indicator is focused on impacts related to elevated concentrations of nitrate (UVRGA, 2022a). In addition, trends in concentrations of common ions (i.e., sulfate, chloride, and boron) and total dissolved solids (TDS) are provided for additional context (UVRGA, 2022a).

3.3.1 Groundwater Quality Trends

Groundwater quality data were collected by the County of Ventura and potable water suppliers reporting to the California Division of Drinking Water. Maps of median concentrations of the key indicator constituents from 2020 through 2025 in the UVRGB are shown in **Figures 3.15** through **3.18**. Note that, for the groundwater quality data, well 03N23W08B01S state well number has been updated to 03N23W05P02S, as it was previously misidentified by the well owner (UVRGA, 2026a).

Between 2020 and 2025, groundwater quality samples were collected from a network of 18 groundwater wells throughout the Basin (Figure 3.15). Long-term water quality samples were available for a subset of wells, shown in Figures 3.16 through 3.18. The following sections summarize the groundwater quality trends based on samples from these wells.

3.3.1.1 Nitrate

Nitrate concentrations observed during the evaluation period were generally consistent with historical groundwater quality conditions in the Basin (Figure 3.16; UVRGA, 2022a). The highest median nitrate concentrations occurred in the Mira Monte/Meiners Oaks Hydrogeologic Area. In this part of the Basin, well 04N23W16A01S continued to exhibit nitrate concentrations above the maximum contaminant level (MCL) of 10 milligrams per liter (mg/L). Median concentrations at all remaining wells in the Basin remained below the MCL.

The nitrate chemographs indicate that groundwater quality conditions have generally remained stable during the evaluation period (Figure 3.16). While individual wells show some year-to-year variability, the monitoring network does not exhibit consistent increasing or decreasing trends. The most notable long-term trends were observed at wells 04N23W16B07S and 03N23W08C02S. Nitrate concentrations at well 04N23W16B07S have generally declined since 2010, while concentrations at well 03N23W08C02S have generally increased since 2015 but remain well below the MCL of 10 mg/L.

3.3.1.2 Total Dissolved Solids, Sulfate, Chloride, and Boron

TDS, sulfate, chloride, and boron concentrations measured during the evaluation period are shown in Figures 3.17 through **3.20**. TDS concentrations exceeded the Regional Water Quality Control Board (RWQCB) Basin Plan (LA RWQCB, 2019) water quality objective of 800 mg/L at well 05N23W33B03S (Figure 3.17), and sulfate concentrations exceeded the water quality objective of 300 mg/L at wells 05N23W33B03S and 03N23W08B11S (Figure 3.18). Chloride concentrations exceeded the water quality objective of 100 mg/L at well 04N23W15B02S; however, there are an insufficient number of measurements at this well to evaluate any trends (Figure 3.19). Boron concentrations equaled or exceeded the water quality objective of 0.5 mg/L at wells 05N23W33B03S, 04N23W09B05S, 04N23W16C08S, and 03N23W08B11S (Figure 3.20).

While local groundwater quality concentrations exceed the Basin Plan water quality objectives, the TDS, sulfate, chloride, and boron chemographs demonstrate that groundwater quality conditions have generally remained stable over the evaluation period. The observed concentrations and temporal trends are consistent with the historical groundwater quality conditions and remain unrelated to groundwater extraction, as described in the GSP (UVRGA, 2022a).

3.3.2 Sustainable Management Criteria

The GSP established SMC for nitrate to protect beneficial uses and users of groundwater while maintaining consistency with applicable drinking water standards (UVRGA, 2022a). The minimum threshold is defined as the occurrence of a nitrate isocontour exceeding the drinking water MCL of 10 mg/L outside of the Mira Monte/Meiners Oaks Area that encompasses domestic wells completed in the alluvial aquifer without an alternative drinking water supply. If this condition occurs, UVRGA evaluates whether the exceedance is attributable to groundwater pumping or GSP projects or management actions (UVRGA, 2022a).

In the Percolating Groundwater Areas identified in the GSP (Kennedy, Robles, and Santa Ana Hydrogeologic Areas), the measurable objective was established using a 7.5 mg/L isocontour to preserve the existing groundwater quality to the extent practicable (UVRGA, 2022a). In the Rising Groundwater Areas identified in the GSP (Casitas Springs Hydrogeologic Area), the measurable objective was established using a 3 mg/L isocontour, recognizing that groundwater in these areas discharges to the Ventura River, which has a total nitrogen water quality objective of 5 mg/L. Interim milestones were set equal to the measurable objectives. The Mira Monte/Meiners Oaks Area is recognized as a source area for nitrate in groundwater and as such, minimum thresholds do not apply in this area.

3.3.2.1 Measurable Objectives

Nitrate concentrations at monitoring wells outside of the Mira Monte/Meiners Oaks Hydrogeologic Area remained below the measurable objective concentration of 7.5 mg/L throughout the evaluation period (Figure 3.17). Consistent with these data, the 2025 average nitrate concentrations for Well Groups 1 through 3 remained below the 7.5 mg/L measurable objective, indicating that the 7.5 mg/L nitrate isocontour remained within the Mira Monte/Meiners Oaks Hydrogeologic Area (**Figure 3.21**). Similarly, the 2025 average nitrate concentration for 03N23W05H01S and Well Group 4 in the Casitas Springs Hydrogeologic Area remained below the 3 mg/L measurable objective. At well 03N23W05H01S, which is

located north of Well Group 4, nitrate concentrations averaged 0.9 mg/L, which is below the 3 mg/L measurable objective.

In addition to these Well Group averages, UVRGA collected one-time samples in 2025 at four privately owned wells in the Mira Monte/Meiners Oaks, Robles, and Santa Ana Hydrogeologic Areas (Figure 3.21). These one-time samples are consistent with historical data and further demonstrate the pre-existing nitrate impacts in the Mira Monte/Meiners Oaks Hydrogeologic Area (Figure 3.21).

Based on these data, and the stability in nitrate concentrations measured over the evaluation period (Figure 3.16), the degraded water quality measurable objectives were achieved throughout the evaluation period (**Table 3.4;** UVRGA, 2023, 2024, 2025, 2026a).

3.3.2.2 Minimum Thresholds

The degraded water quality minimum threshold was not exceeded during the evaluation period (Table 3.4). Nitrate concentrations exceeding the drinking water MCL of 10 mg/L (for example at wells 04N23W16A01S and 04N23W16B07S; Figure 3.16) remained confined to the Mira Monte/Meiners Oaks Hydrogeologic Area and did not extend to domestic wells completed outside of this area without an alternative drinking water supply (Figure 3.21).

3.3.2.3 Interim Milestones

The interim milestones for degraded water quality are equal to the measurable objectives (UVRGA, 2022a). Because the measurable objectives were achieved throughout the evaluation period, the interim milestones were also achieved (Table 3.4).

Table 3.4. Summary of Degraded Water Quality Sustainable Management Criteria and Nitrate Concentrations.

Constituent	MCL (mg/L)	RWQCB Water Quality Objective (mg/L)	MT (mg/L)[1]	MO (mg/L)[2]	Concentration Range (2022-2025; mg/L)	Status of Sustainable Management Criteria					
						2020[3]	2021[3]	2022	2023	2024	2025
Percolating Groundwater Areas (Kennedy, Robles, Mira Monte/Meiners Oaks, Santa Ana Hydrogeologic Areas)											
Nitrate (as N)	10	10	10	7.5	0.6 – 11.8	MO met	MO met	MO met	MO met	MO met	MO met
Areas with Rising Groundwater (Casitas Springs Hydrogeologic Area)											
Nitrate (as N)	10	5	10	3	1.3 – 3.1	MO met	MO met	MO met	MO met	MO met	MO met

[1] SGMA Undesirable Results are considered to occur when any isocontour exceeds 10 mg/L outside of the Mira Monte/Meiners Oaks Area and encompasses an area with active domestic wells producing groundwater from the alluvial aquifer that lack an alternative drinking water source. If the minimum threshold is exceeded, UVRGA will investigate to determine if caused by pumping or a GSP project or management action.

[2] Degraded water quality sustainable management criteria do not apply to the Mira Monte/Meiners Oaks Area because this area is known to be a source area for nitrate and is an existing area of nitrate impacts. If the measurable objective is not met, UVRGA will investigate to determine if caused by pumping or a GSP project or management action.

[3] Note, water years 2020 and 2021 are outside of the evaluation period (see Section 3.1)

3.3.3 Undesirable Results

The GSP defines an undesirable result for degraded water quality as groundwater quality conditions in which MCL exceedances that could result in human health effects (UVRGA, 2022a). For nitrate, this is evaluated using the minimum threshold described in Section 3.3.2.2, which is intended to address potable groundwater supplies from degradation associated with groundwater pumping or GSP projects and management actions (UVRGA, 2022a).

As described in Section 3.3.2.2, the degraded water quality minimum threshold was not exceeded during the evaluation period. Accordingly, the Basin did not experience an undesirable result associated with degraded water quality during the evaluation period.

3.3.4 Impacts to Beneficial Uses and Users

Degraded water quality minimum threshold exceedances could adversely affect groundwater beneficial users by impacting human health (resulting from elevated nitrate concentrations) and increasing costs for alternative water supplies, treatment, or blending to meet drinking water standards (UVRGA, 2022a). During the evaluation period, groundwater quality conditions did not result in a minimum threshold exceedance or an undesirable result. Accordingly, no adverse impacts to groundwater beneficial uses and users or land uses and property interests associated with degraded water quality were identified during the evaluation period.

3.3.5 Progress Towards Achieving Sustainability

Groundwater quality conditions during the evaluation period indicate the sustainability goal relative to this sustainability indicator has been met.

3.3.6 Relevant Recommended Corrective Actions

DWR did not issue an RCA for degraded water quality.

3.3.7 Anticipated Future Revisions to the Sustainable Management Criteria

Based on the data reviewed for this periodic evaluation, UVRGA does not anticipate revisions to the degraded water quality SMC at this time.

3.3.7.1 Anticipated Future Revisions to the Definition of an Undesirable Results

Based on the data reviewed for this periodic evaluation, UVRGA does not anticipate revisions to the definition of an undesirable result for degraded water quality at this time.

3.4 Seawater Intrusion Sustainability Indicator

The GSP concluded that seawater intrusion is not applicable to the Basin (UVRGA, 2022a). The southern boundary of the Basin is located approximately 6 miles inland from the Pacific Ocean, and the lowest bedrock elevations along the southern Basin boundary are approximately 160 ft amsl. No new

information has become available during GSP implementation that would change this conclusion. Therefore, seawater intrusion remains an inapplicable sustainability indicator for the UVRGB.

3.5 Land Subsidence Sustainability Indicator

The GSP concluded that there is little to no potential for significant and unreasonable land subsidence caused by groundwater production in the Basin (UVRGA, 2022a). Because of this, the GSP identified land subsidence as a sustainability indicator that is not applicable to the Basin (UVRGA, 2022a).

Although subsidence was determined to be an inapplicable sustainability indicator, the GSP established annual review of available interferometric synthetic aperture radar (InSAR) data provided by DWR to confirm the continued absence of land subsidence. **Figure 3.22** shows cumulative land surface displacement measured by InSAR from October 2019 through October 2025. Reported cumulative vertical displacement remained below approximately 0.1 ft, which was considered within the uncertainty associated with the InSAR measurements. Therefore, no measurable subsidence has occurred in the Basin over the evaluation period.

The available InSAR monitoring data continue to support the GSP's conclusion that land subsidence is not occurring in the Basin. In addition, groundwater level observations continue to support the conceptual understanding of a responsive aquifer system without persistent long-term declines. Because of this, land subsidence remains an inapplicable sustainability indicator for the Basin. UVRGA will continue to review available DWR InSAR data as part of the annual reporting process to confirm that Basin conditions remain consistent with this conclusion.

3.6 Depletion of Interconnected Surface Water Sustainability Indicator

3.6.1 Surface Water Conditions

The Ventura River is interconnected with groundwater throughout portions of the Basin, but the magnitude and location of these interactions vary spatially and depend on hydrologic conditions. The GSP divides the river into the Kennedy, Robles, Santa Ana, and Casitas Springs Hydrogeologic Areas. The Kennedy area is generally losing with intermittent connection; Robles is generally losing and disconnected except during brief high-flow conditions; Santa Ana is predominantly dry/losing with brief high-flow connection; and Casitas Springs is gaining and interconnected because of shallow bedrock and reduced aquifer thickness, basin narrowing, and groundwater discharge to surface water (UVRGA, 2022a).

The GSP evaluated several aquatic GDE areas and concluded that the Foster Park Aquatic Habitat Area was the location where groundwater pumping had the greatest potential to result in significant and unreasonable effects from depletion of interconnected surface water (UVRGA, 2022a; **Figure 3.23**). In addition, the GSP identified Confluence Habitat Area as potentially sensitive; however, biological and hydrologic data gaps existed in this area at the time of the GSP, which have been partially addressed. As explained earlier in this report, more data are needed under low flow conditions to complete an evaluation of the potential need for depletions of interconnected surface water SMC for the Confluence Habitat Area.

3.6.1.1 Foster Park Aquatic Habitat Area

Figure 3.24 summarizes observed surface water conditions (i.e., wet versus dry) in the Ventura River from 2008 through 2024. Consistent with the conceptual model of the Basin, surface water conditions have varied spatially and in response to watershed-scale hydrologic conditions, with the greatest variability occurring south of the San Antonio Creek confluence, upstream of the Foster Park Aquatic Habitat Area. Within the Foster Park Aquatic Habitat Area, surface water has remained perennial since 2008, including during the extended drought from 2012 through 2016.

The updated numerical groundwater flow model was used to simulate streamflow at Foster Park Aquatic Habitat Area over the evaluation period (**Figure 3.25**). Simulated streamflow generally reproduced observed seasonal and low-flow conditions, including the continued recovery from low-flow conditions associated with the dry hydrologic conditions encountered at the start of the evaluation period. Simulated streamflow declined below 2 cfs in water years 2021 and 2022 and remained above 2 cfs throughout the remainder of the evaluation period.

In addition to simulating surface water flows, the numerical groundwater model was used to estimate groundwater-pumping-related streamflow depletion at the Foster Park Aquatic Habitat Area. These modeled depletions provide the framework for evaluating the interconnected surface water SMC described in Section 3.6.2.

3.6.1.2 Confluence Aquatic Habitat Area

As described in the GSP, insufficient information was available at the time of GSP development to establish SMC for the Confluence Aquatic Habitat Area. To address this, UVRGA has implemented a three-year monitoring program to improve understanding of streamflow conditions, aquatic habitat, and their relationship to groundwater conditions (Rincon, 2022c, 2024b, 2025c).

The monitoring program has helped to establish baseline habitat and hydrologic conditions at the Confluence Aquatic Habitat Area (Rincon, 2024c, 2025c, 2026a). However, because monitoring was conducted primarily during wet hydrologic conditions, the data do not capture the range of low-flow conditions needed to fully characterize the relationship between groundwater levels, streamflow, and aquatic habitat suitability. Because of this, the monitoring results do not yet materially change the conclusions of the GSP regarding the Confluence Aquatic Habitat Area, and additional monitoring during low-flow conditions is required to complete the evaluation of this area.

3.6.2 Sustainable Management Criteria

The GSP established SMC for depletion of interconnected surface water at the Foster Park Aquatic Habitat Area, where groundwater pumping-related streamflow depletion was identified as having the potential to cause significant and unreasonable effects to aquatic habitat during low-flow conditions. Compliance with the SMC is evaluated at the Foster Park/Casitas Vista Road Bridge stream gage (U.S. Geological Survey [USGS] Stream Site 11118500), the representative monitoring location for the Foster Park Aquatic Habitat Area (UVRGA, 2022a, Section 4.9).

The SMC are evaluated using the numerical groundwater flow model to distinguish between undepleted streamflow (streamflow expected in the absence of pumping) and depleted streamflow (streamflow

under actual or projected pumping conditions). Groundwater-pumping-related depletion is calculated as the difference between pumping and no-pumping conditions in the Basin.

3.6.2.1 Minimum Thresholds

The GSP established a minimum threshold of 2 cfs at the Foster Park/Casitas Vista Road Bridge representative monitoring site (UVRGA, 2022a). The minimum threshold is exceeded when groundwater pumping causes streamflow to decline below 2 cfs when undepleted streamflow would otherwise remain above 2 cfs, or when groundwater pumping further reduces streamflow when undepleted streamflow is already below 2 cfs. Thus, evaluation of the SMC requires consideration of both observed streamflow conditions and modeled estimates of the streamflow depletion attributable to groundwater pumping.

Updated model results indicate that the minimum threshold was exceeded at the end of water year 2021 into the start of water year 2022 (Figure 3.25). This period falls outside of the evaluation period and occurred prior to GSP adoption. Since adoption of the GSP, model results indicate that the minimum threshold was exceeded at the start of water year 2023 (Figure 3.25). Since the winter of 2023, simulated depleted streamflow remained above the 2 cfs threshold, including during the dry conditions experienced in water year 2025.

3.6.2.2 Measurable Objectives

The measurable objective for depletion of interconnected surface water is equal to the minimum threshold established in the GSP. As described in the GSP, a more protective measurable objective was not established because it would reduce water availability for other beneficial uses without providing corresponding benefit to aquatic habitat (UVRGA, 2022a).

3.6.2.3 Interim Milestones

The 2027 interim milestone for the Foster Park Aquatic Habitat Area is 10.7 cfs, which represents the maximum simulated depletion in excess of the measurable objective during the GSP historical modeling period (2006 through 2019). During the evaluation period, modeled depletion events have remained below the 10.7-cfs interim milestone, with the maximum minimum threshold exceedance equaling 4.8 cfs. Accordingly, the Basin has achieved the interim milestone for the depletion of interconnected surface water.

3.6.3 Undesirable Results

The GSP defines undesirable results for depletion of interconnected surface water as groundwater-pumping-related reductions in streamflow that result in significant and unreasonable impacts to aquatic habitat within the Foster Park Aquatic Habitat Area. While the 2026 modeled depletion events exceeding the minimum threshold criterion occurred during portions of water years 2021 and 2022, biological monitoring was not yet in place to collect information to assess whether the significant and unreasonable impacts occurred as a result of the minimum threshold exceedances. Biological monitoring within the Foster Park Aquatic Habitat Area commenced in water year 2023 and has so far taken place under generally wet conditions. The monitoring documented generally good aquatic habitat

conditions and monitored water quality variables remained within ranges considered protective of native aquatic species (Rincon, 2026a). Additionally, Southern California Steelhead were not observed during routine habitat or snorkel surveys, and no indirect evidence of their presence was documented during routine monitoring. Monitoring covered a transition from high-flow conditions in water year 2023 to lower-flow conditions in water year 2025, during which no adverse ecological effects were observed. However, because only one period of low-flow conditions occurred during the three-year monitoring period that did not approach 2 cfs, additional monitoring is needed to fully understand surface water depletion and habitat conditions within the Foster Park Aquatic Habitat Area.

Based on the available hydrologic, numerical modeling, and biological monitoring data, UVRGA concludes that no significant and unreasonable impacts to aquatic habitat likely occurred during the evaluation period. Accordingly, no undesirable result related to the depletion of interconnected surface water is believed to have occurred.

3.6.4 Impacts to Beneficial Uses and Users

Potential impacts to beneficial uses associated with depletion of interconnected surface water are primarily related to reductions in streamflow within the Foster Park Aquatic Habitat Area that could adversely affect aquatic habitat and, under sufficiently severe conditions, contribute to fish mortality. As described above, biological and habitat monitoring conducted during the evaluation period documented generally good aquatic habitat conditions, and no significant adverse impacts associated with groundwater-pumping-related streamflow depletion were identified.

3.6.5 Progress Towards Achieving Sustainability

As described in Sections 3.6.1 and 3.6.2, available streamflow, modeling, and habitat monitoring data indicate that interconnected surface water conditions during the evaluation period demonstrate continued progress toward achieving the Basin's sustainability goal by 2042.

3.6.6 Relevant Recommended Corrective Actions

DWR issued two RCAs related to the depletion of interconnected surface water sustainability indicator. These two recommendations and UVRGA's responses are summarized below.

3.6.6.1 Recommended Corrective Action 3

DWR's third recommended corrective action on the GSP stated:

> A. *Investigate and define what is considered significant and unreasonable conditions in the Confluence Aquatic Habitat Area. Establish sustainable management criteria consisting of the rate or volume of surface water depletions caused by groundwater use that will avoid those conditions in this portion of the Plan Area.*
>
> B. *Consider utilizing the interconnected surface water guidance, as appropriate, when issued by the Department to establish quantifiable minimum thresholds, measurable objectives, and management actions.*

C. *Continue to fill data gaps, collect additional monitoring data, and implement the current strategy to manage depletions of interconnected surface water and define segments of interconnectivity and timing.*

D. *Prioritize collaborating and coordinating with local, state, and federal regulatory agencies as well as interested parties to better understand the full suite of beneficial uses and users that may be impacted by pumping induces surface water depletion within the GSA's jurisdictional area.*

UVRGA Response to RCA 3A

The GSP identified the Confluence Aquatic Habitat Area as an area where additional information is needed to characterize the relationship between groundwater conditions, streamflow, and aquatic habitat. Accordingly, the GSP developed a management action titled *Confluence Aquatic Habitat Area Biological Monitoring Study* to address this data gap.

As described above, UVRGA has implemented a three-year biological and hydrologic monitoring program within the Confluence Aquatic Habitat Area to collect data to evaluate whether sustainable management criteria are needed for this area. The monitoring program has improved understanding of baseline streamflow and aquatic habitat conditions. However, because the monitoring period was largely characterized by relatively wet hydrologic conditions and included only one period of lower-flow conditions, the data collected through the program do not yet fully characterize aquatic habitat under low flow conditions relevant for evaluating whether sustainable management criteria are needed for this area

UVRGA will continue implementing the Confluence Aquatic Habitat Area monitoring program to collect additional data over a broader range of hydrologic conditions. As additional data are collected, UVRGA will evaluate whether sufficient information exists to determine whether SMC for the Confluence Aquatic Habitat Area are needed, and, if so, developed and added through a future GSP amendment.

UVRGA Response to RCA 3B

At the time of this periodic evaluation, DWR has not yet published the recommended guidance for evaluating the depletion of interconnected surface water. Accordingly, there is no new guidance available for UVRGA to consider when evaluating the SMC established in the GSP. UVRGA will consider the guidance when published by DWR.

UVRGA Response to RCA 3C

The GSP identified uncertainties regarding the extent, timing, and ecological effects of groundwater-pumping-related streamflow depletion and identified specific projects and management actions to address these data gaps through GSP implementation. Since adoption of the GSP, UVRGA has made significant progress in implementing these actions, including:

- Continued or started groundwater level, streamflow, and riparian habitat monitoring.

- Implementation of comprehensive aquatic habitat monitoring programs within both the Foster Park Aquatic Habitat Area and Confluence Aquatic Habitat Area.
- Implementation of the Stream Gage Data Gaps Project through installation and operation of new streamflow monitoring locations.
- Implementation of the Groundwater Level Monitoring Well Data Gaps Project, resulting in enhanced characterization of groundwater level conditions in the vicinity of critical habitat.
- Update and recalibration of the numerical groundwater model to improve representation of low-flow conditions in the Ventura River and estimates of direct and indirect stream depletion.

These efforts have improved UVRGA's understanding of groundwater-surface water interactions, interconnected surface water depletion, and aquatic conditions throughout the Basin. However, as discussed previously, monitoring during low-flow conditions is needed to further characterize the timing and magnitude of depletions and their impacts on aquatic habitat. UVRGA will continue implementing these monitoring programs to address these remaining data gaps and incorporate new information into future GSP evaluations and amendments, as appropriate.

UVRGA Response to RCA 3D

UVRGA updated its Stakeholder Engagement Plan to address this recommendation. Additionally, targeted outreach was performed on December 3, 2025 (**Appendix C**).

3.6.6.2 Recommended Corrective Action 4

DWR's fourth recommended corrective action stated:

> *Provide further discussion surrounding how the Foster Park Protocols and the settlement agreement may impact or limit the GSA's ability to manage groundwater in the Subbasin. Specifically, the GSA should describe how these existing agreements may temporarily modify operations within the Subbasin and discuss any possible mitigation measures or actions that may be taken by the GSA in response.*

UVRGA Response to RCA 4

The Foster Park Protocols are a management action identified in the GSP to avoid significant and unreasonable impacts associated with the direct depletion of interconnected surface water at the Foster Park Aquatic Habitat Area. The protocols establish operational criteria for groundwater production from the City of Ventura's Foster Park well field based on measured streamflow conditions.

The Foster Park Protocols were replaced with new protocols known as the "Interim Order Protocols" approved by the Court in January 2025 (Appendix A). The Interim Order Protocols require the City of Ventura to cease water extraction at Foster Park when flow measured at Foster Park in a "wet" month is less than 9 cfs, in a "moderate" month is less than 7 cfs, and in a "dry" month is less than 5 cfs. The Interim Order Protocols also establish a framework for classifying each month as wet, moderate, or dry based on both antecedent and current water year precipitation conditions, allowing the operational criteria to adapt to changing hydrologic conditions. For comparison, the original protocols called for

reduced extractions beginning at 4 cfs. Thus, the Interim Order Protocols are more protective of the aquatic GDEs in the Foster Park Aquatic Habitat Area.

The settlement agreement included a provision allowing temporary modification or suspension of the Foster Park Protocols under defined emergency circumstances, which is the subject of RCA No. 4. The Interim Order Protocols include the same allowances. This emergency provision does not apply to drought conditions or reduced water availability resulting from hydrologic conditions. Rather, it applies to emergency circumstances, such as infrastructure failure, that temporarily prevent the City of Ventura from delivering water to portions of the City that are dependent on supplies coming from either its Foster Park Wells or Casitas Municipal Water District (i.e., Lake Casitas). In other words, the conditions for temporary modification would only occur if Casitas Municipal Water District is unable to supply water to the City of Ventura during a period when the Interim Order Protocols call for cessation of City of Ventura pumping. These circumstances are rare and would be temporary in nature. Importantly, temporary cessation of the Interim Order Protocols would be necessary to provide water to meet basic human needs, consistent with Water Code Section 106.3 (Human Right to Water).

As clarified above, the emergency provision addresses infrequent and temporary emergency circumstances. Because of the low likelihood of these conditions occurring, UVRGA does not anticipate that additional mitigation measures specific to this provision are warranted at this time. Further, because the forthcoming physical solution envisions augmentation of streamflow, augmentation water may avoid any undesirable results that might otherwise occur if the City of Ventura were to extract groundwater during a period when the Interim Order Protocols call for pumping cessation. This will be explored further after the physical solution is adopted by the Court.

3.6.7 Anticipated Future Revisions to the Sustainable Management Criteria

Monitoring and modeling completed during these first five years of GSP implementation do not indicate a need to revise the existing SMC for the Foster Park Aquatic Habitat Area. However, UVRGA will continue collecting hydrologic and biological data, specifically under low flow conditions, to evaluate whether the SMC should be modified and whether SMC for the Confluence Aquatic Habitat Area are needed.

3.6.7.1 Anticipated Future Revisions to the Definition of an Undesirable Result

Monitoring and modeling completed during this first five years of GSP implementation do not indicate a need to revise the existing definition of an undesirable result at this time.

4.0 Status of Projects and Management Actions [Article 5, § 356.4(b),(f)]

§ 356.4 (b) *A description of the implementation of any projects or management actions, and the effect on groundwater conditions resulting from those projects or management actions.*

(f) A description of significant new information that has been made available since Plan adoption or Amendment, or the last five-year assessment. The description shall also include whether new information warrants changes to any aspect of the Plan, including the evaluation of the basin setting, measurable objectives, minimum thresholds, or the criteria defining undesirable results.

The GSP identified six projects and management actions for implementation during the first five years of the Plan:

- Domestic Well Survey
- Foster Park Protocols to Address Direct Depletion of Interconnected Surface Water
- Actions to Address Indirect Depletion of Interconnected Surface Water
- Groundwater Level Monitoring Well Data Gaps Project
- Stream Gage Data Gaps Project
- Confluence Aquatic Habitat Area Biological Monitoring Study

The implementation status of these projects and management actions is summarized in **Table 4.1** and described in the following subsections.

Table 4.1. Summary of Projects and Management Actions and Activities Accomplished Over The Evaluation Period.

Project or Management Action Name	Project or Management Action Description	Targeted Sustainability Indicator	Project Status	Expected Schedule	Benefits Observed to Date or Anticipated Benefits	Estimated Accrued Benefits at Completion
Domestic Well Survey	Inventory and characterization of active wells, groundwater users, well construction, and availability of alternative water supplies.	Chronic lowering of groundwater levels, reduction of groundwater storage.	Complete.	Complete.	UVRGA completed a Domestic Well Survey to identify active domestic users, characterize well construction, and determine whether users have access to alternative water supplies. The survey identified 17 active wells with no known or uncertain alternative water supply and provided new information regarding users who may be vulnerable to groundwater-level declines.	Current well inventory supporting evaluation of potential impacts to groundwater users, particularly those without alternative water supplies.

Foster Park Protocols to Address Direct Depletion of Interconnected Surface Water	Operational protocols requiring streamflow monitoring and modification of groundwater production from the City of Ventura's Foster Park extraction facilities.	Depletion of interconnected surface water	Ongoing. Protocols remained in effect and were amended in January 2025.	Ongoing in accordance with the settlement agreement.	In January 2025, the City of Ventura and Santa Barbara Channelkeeper amended their settlement agreement and replaced the original Foster Park Protocols with an updated operational framework for the City's Foster Park extraction facilities. The amended protocols require the City of Ventura to cease water extraction at Foster Park when flow measured at Foster Park in a "wet" month is less than 9 cubic feet per second (cfs), in a "moderate" month is less than 7 cfs, and in a "dry" month is less than 5 cfs. Previously, a single threshold of 4 cfs was utilized to trigger flow reductions.	Continued management of surface water depletions.

Actions to Address Indirect Depletion of Interconnected Surface Water.	Monitoring, data collection, model updates, and technical evaluation to support development of future projects or management actions addressing indirect depletion.	Depletion of interconnected surface water	Ongoing.	Initial activities implemented, with technical evaluation and project planning continuing during the next evaluation period.	The GSP lays out a path over time to that will be followed by UVRGA to develop and implement a project and/or management action to address indirect depletions of ISW before the end of the 20-year GSP implementation period. In general, the path includes (1) addressing groundwater level data gaps that impact quantification of indirect depletions of ISW, (2) updating the numerical model to provide better quantification of indirect depletion, and (3) development of appropriately sized projects or management actions to address indirect depletions. Data and information collected via Action Nos. 1-1 through 1-7 have advanced UVRGA's	Improved framework for evaluating indirect depletions and developing future projects, management actions, and sustainable management criteria.

Table 4.1. Summary of Projects and Management Actions and Activities Accomplished Over The Evaluation Period.

Project or Management Action Name	Project or Management Action Description	Targeted Sustainability Indicator	Project Status	Expected Schedule	Benefits Observed to Date or Anticipated Benefits	Estimated Accrued Benefits at Completion
					understanding of indirect depletions of interconnected surface water.	
Groundwater Level Monitoring Well Data Gaps Project	Addition of monitoring wells in the Foster Park, Confluence, and South Santa Ana Riparian GDE areas to address data gaps.	Chronic lowering of groundwater levels; reduction of groundwater storage; depletion of interconnected surface water	Complete/Ongoing Monitoring.	Complete/Ongoing monitoring.	Five groundwater level data gaps identified in the GSP were addressed. An additional four monitoring locations were added to the groundwater level monitoring network, above-and-beyond, the data gaps identified in the GSP, making the total number of added monitoring locations nine.	Baseline groundwater level data in the five data gap areas identified in the GSP.

Table 4.1. Summary of Projects and Management Actions and Activities Accomplished Over The Evaluation Period.

Project or Management Action Name	Project or Management Action Description	Targeted Sustainability Indicator	Project Status	Expected Schedule	Benefits Observed to Date or Anticipated Benefits	Estimated Accrued Benefits at Completion
Stream Gage Data Gaps Project	Additional streamflow monitoring at locations needed to characterize flows entering the Basin and within the Foster Park and Confluence Aquatic Habitat Areas.	Depletion of interconnected surface water	Ongoing.	To be completed over the next five years.	A project was included in this GSP to install three new surface water gages to augment the existing gage network to address data gaps, which exist at northern point of Ventura River inflow into the Basin, the middle part of the Basin near Santa Ana Boulevard to address the 7-mile gap between gages, and a gage in the Confluence Aquatic Habitat Area to monitor streamflow in this area and to help quantify surface water flow entering the Foster Park Aquatic Habitat Area. These data gaps have been addressed.	Improved characterization of interconnected surface water and depletions.

Table 4.1. Summary of Projects and Management Actions and Activities Accomplished Over The Evaluation Period.

Project or Management Action Name	Project or Management Action Description	Targeted Sustainability Indicator	Project Status	Expected Schedule	Benefits Observed to Date or Anticipated Benefits	Estimated Accrued Benefits at Completion
Confluence Aquatic Habitat Area Biological Monitoring Study	Biological, habitat, streamflow, and water-quality monitoring to evaluate potential effects of interconnected surface water depletion on aquatic habitat.	Depletion of interconnected surface water	Ongoing.	Ongoing.	Consists of biological monitoring in the Confluence Aquatic Habitat Area to determine if indirect depletions of ISW in this area cause significant and unreasonable effects on aquatic species for which area-specific sustainability criteria are warranted.	Baseline biological and habitat survey information supporting future evaluation of the sustainable management criteria, as appropriate.

4.1 Domestic Well Survey

4.1.1 Management Action Overview

During development of the GSP, UVRGA identified the need to better characterize domestic groundwater users in the Basin. The GSP identified the Domestic Well Survey as a management action to address this data gap and better characterize the locations of active domestic wells, groundwater use, and availability of alternative water supplies.

The UVRGA Board of Directors adopted an Ordinance Establishing Well Registration, Metering, and Reporting Requirements in July 2022. The ordinance requires the well owners to register existing and new wells with UVRGA, install flowmeters on all non-de minimis wells, periodically verify flowmeter calibration, and report groundwater extractions quarterly. The well registration form developed for ordinance implementation served as the primary tool for performing the domestic well survey (UVRGA, 2026d). The registration form collected information about domestic wells, including whether the well is used for drinking water supply and whether a backup potable water supply is available (Figures 3.12 and 3.13). The form also offered one-time nitrate testing (to be paid for by UVRGA) for interested domestic well owners. Implementation of this management action was initiated during water year 2023 by reaching out to well owners to register their wells. All but two wells in the basin were registered or determined to no longer be in use. Two wells remained unregistered as these owners have not complied with the ordinance to date.

4.1.1.1 Targeted Sustainability Indicators

Well use type, status, and availability of alternative water supply information collected through this program is primarily relevant to the chronic lowering of groundwater levels and reduction of groundwater storage sustainability indicators. This information is used to identify groundwater users that may be susceptible to groundwater level declines and support, as appropriate, refinements to the groundwater level monitoring network and SMC. This information is also useful for evaluating depletion of interconnected surface water to determine the impacts of pumping on streamflow and the degradation of groundwater quality sustainability indicator to monitor nitrate concentrations.

4.1.1.2 Implementation Triggers

UVRGA anticipated implementing this management action following GSP adoption regardless of groundwater conditions encountered in the Basin.

4.1.2 Management Action Status

Implementation of the Domestic Well Survey began following adoption of the well registration ordinance in 2022 (UVRGA Ordinance No. 5; UVRGA, 2026b; **Appendix D**). UVRGA conducted outreach to groundwater well owners to obtain completed registration forms, which included the Domestic Well Survey questions.

Through the well registration process, UVRGA contacted 188 well owners. As of September 30, 2025, 186 of the 188 wells in the Basin have either been registered or confirmed abandoned/destroyed.

Nitrate testing was also scheduled during water year 2025 and completed in November 2025 for four wells that opted in. This information has been incorporated into subsequent GSP implementation activities and is being used to evaluate the groundwater level and quality SMC (Sections 3.1 through 3.3).

4.1.3 Management Action Benefits

4.1.3.1 Benefits Observed to Date

Implementation of the Domestic Well Survey has addressed a data gap identified in the GSP by developing a comprehensive inventory of domestic groundwater users throughout the Basin. Information collected through the survey has improved understanding of active groundwater users, groundwater uses, and the availability of alternative water supplies. Pumping information derived from the well survey also informed the numerical model update to improve the representation of groundwater extraction throughout the Basin. Please see Sections 3.1, 3.3, and 5.2 for more information about how these data are being used.

UVRGA has also collected samples from four domestic wells in the Basin to evaluate groundwater quality conditions encountered by these users and evaluate the existing groundwater quality monitoring network and its ability to characterize nitrate distributions across the Basin. These results are discussed in Section 3.3.2.

4.1.3.2 Expected Benefits at Action Completion

Please see section 4.1.3.1.

4.2 Foster Park Protocols to Address Direct Depletion of Interconnected Surface Water

4.2.1 Management Action Overview

The GSP identifies the Foster Park Protocols as a management action to address direct depletion of interconnected surface water in the Foster Park Aquatic Habitat Area. The Foster Park Protocols consist of operational protocols for the City of Ventura's Foster Park extraction facilities that involve monitoring streamflow in the Ventura River and modifying groundwater production when specific streamflow thresholds are reached. The Foster Park Protocols are implemented pursuant to a settlement agreement between the City of Ventura and Santa Barbara Channelkeeper executed in 2019 and most recently amended in 2025 (Appendix B).

4.2.1.1 Targeted Sustainability Indicators

By establishing operational criteria for groundwater production based on streamflow measurements, the Foster Park Protocols support management of the direct depletion of interconnected surface water sustainability indicator.

4.2.1.2 Implementation Triggers

The Foster Park Protocols are implemented in compliance with the settlement agreement between the City of Ventura and Santa Barbara Channelkeeper regarding the action titled *Santa Barbara Channelkeeper v. State Water Resources Control Board and the City of San Buenaventura* (Los Angeles County Superior Court, Case No. 19STCP01176). The Foster Park Protocols are expected to be operative in perpetuity (UVRGA, 2022a).

4.2.2 Management Action Status

The Foster Park Protocols have remained in effect throughout GSP implementation. Since GSP adoption, the City of Ventura has implemented the Foster Park Protocols by monitoring streamflow conditions and modifying groundwater production from its Foster Park well field, including reducing groundwater production when required under the protocol framework.

In January 2025, the City of Ventura and Santa Barbara Channelkeeper amended their settlement agreement and replaced the original Foster Park Protocols with an updated operational framework for the City's Foster Park extraction facilities (Section 3.6.5). The amended protocols require the City of Ventura to cease water extraction at Foster Park when flow measured at Foster Park in a "wet" month is less than 9 cubic feet per second (cfs), in a "moderate" month is less than 7 cfs, and in a "dry" month is less than 5 cfs. Previously, a single threshold of 4 cfs was utilized to trigger flow reductions. The amended protocols remain in effect and continue to be implemented by the City of Ventura.

4.2.3 Management Action Benefits

4.2.3.1 Benefits Observed to Date

Implementation of the Foster Park Protocols has established an operational framework for managing direct depletions of interconnected surface water in the Foster Park Aquatic Habitat Area. During GSP implementation, the City of Ventura has implemented the protocols. Figure 3.26 shows that implementation of this management action has been effective at preventing direct depletions from causing minimum threshold exceedances.

4.2.3.2 Expected Benefits at Action Completion

There is no completion date for this management action, it is expected to continue in perpetuity. Ongoing implementation of the Foster Park Protocols is expected to continue to prevent direct depletion of interconnected surface water in the Foster Park Aquatic Habitat Area from causing minimum threshold exceedances, which is a significant step toward achieving the depletion of interconnected surface water measurable objectives.

4.3 Actions to Address Indirect Depletion of Interconnected Surface Water

4.3.1 Management Action Overview

The GSP recognized that a management action and/or project will be needed to address indirect ISW depletions in the Foster Park Aquatic Habitat Area and potentially in the Confluence Aquatic Habitat

Area. However, due to significant data gaps concerning indirect depletion in these areas, UVRGA was unable to design an appropriate project or management action for including in the initial GSP. The initial GSP laid out a path over time to develop and implement a project and/or management action to address indirect depletions of ISW before the end of the 20-year GSP implementation period. In general, the path includes (1) addressing groundwater level data gaps that impact quantification of indirect depletions of ISW, (2) updating the numerical model to provide better quantification of indirect depletion, and (3) development of appropriately sized projects or management actions to address indirect depletions. These actions will be implemented over the next 20 years. The actions called for during the first five years of GSP implementation and the status of each are presented in Table 4.2.

4.3.1.1 Targeted Sustainability Indicators

This management action supports management of the depletion of interconnected surface water sustainability indicator by reducing data gaps and improving understanding of indirect depletion of interconnected surface water.

4.3.1.2 Implementation Triggers

UVRGA anticipated implementing this management action following GSP adoption to address recognized data gaps associated with indirect depletion of interconnected surface water, regardless of groundwater or surface water conditions encountered in the Basin.

4.3.2 Management Action Status

UVRGA has actively implemented this management action over the past five years, including the initiation of habitat monitoring programs, addition of monitoring wells to the groundwater level monitoring network, and the numerical model calibration update to improve the quantification of indirect depletion of streamflow. **Table 4.2** summarizes the activities completed over the evaluation period.

Table 4.2 Summary of Activities Completed for Developing and Implementing Projects and Management Actions to Address Indirect Depletion of Interconnected Surface Water in the Foster Park Aquatic Habitat Area.

Action No.	Action Description	Milestone	Target Date	Status
IM #1 Period: Water Years (2022 – 2025)				
1-1	Develop Foster Park Aquatic Habitat Area Monitoring Plan	Foster Park Aquatic Habitat Area Monitoring Plan approved by the UVRGA Board of Directors	6/30/2023	**Complete**. The monitoring plan was approved in August 2022 and has been subsequently amended.
1-2	Initiate Foster Park Aquatic Habitat Area Monitoring Program	Initiate monitoring activities; annual monitoring data published in GSP annual reports	10/1/2023	**Complete**. Monitoring program initiated in water year 2023 and has continued throughout the evaluation period.
1-3	Coordinate w/ Ojai Basin Groundwater Management Agency & others to assess San Antonio Creek flow depletion	Agreements for coordinated assessment and monitoring of San Antonio Creek flow depletion	9/30/2023	UVRGA determined that San Antonio Creek streamflow is already monitored at two locations by VCWPD. Changes in streamflow between the Ojai Basin outlet and the San Antonio Creek confluence with the Ventura River can be calculated directly from the gauge data and accounted for in the management of UVR Basin. Additionally, more information and coordination will be forthcoming from implementation of the physical solution. For these reasons, this action was deemed to be no longer necessary.
1-4	Add monitoring wells and stream gage to monitoring networks	Access agreements, constructed monitoring wells, and stream gage installation	9/30/2025	**Complete**. Nine groundwater wells were added to the monitoring network. The planned stream gage was installed in water year 2023.
1-5	Add new monitoring wells to groundwater level and quality monitoring networks	Initiate monitoring of new wells	10/1/2025	**Complete / Ongoing**. Monitoring was initiated at the new wells and will continue during GSP implementation. Groundwater quality monitoring will be performed, as needed to

				address the degraded water quality sustainability indicator.
1-6	Update numerical model calibration and ISW depletion estimates	Model update tech memo and updated depletion simulation results	6/30/2026	**Complete.** The numerical model was recalibrated in 2025 and indirect ISW depletion estimates were updated (INTERA, 2025; 2026).
1-7	Begin planning for project(s) and/or management action(s) to achieve measurable objective.	Memo: preliminary feasibility analysis of project(s) and/or management action(s) to achieve measurable objective	6/30/2026	**Complete**. A modeling analysis was performed to assess the feasibility of turning off wells to prevent minimum threshold exceedances from being caused by indirect depletions (INTERA, 2026). This modeling analysis concluded the pumping reductions during and immediately prior to minimum threshold exceedances is not an effective approach to preventing minimum threshold exceedances. Further work on feasibility analysis is pending Court adoption of a physical solution because the physical solution contemplates flow enhancement projects that will overlap with addressing indirect depletions. The Court is anticipated to adopt a physical solution this year. As explained in Section 2.1 it is anticipated that UVRGA will be appointed to serve as the Court's Management Entity for the Basin, making coordination of these overlapping goals possible.
1-8	5-year GSP assessment. Update SMC, if appropriate.	GSP assessment document and GSP update	1/31/2027	**In Progress.** This periodic evaluation fulfills the five-year GSP assessment requirement. Evaluation of potential SMC updates is pending data collection under low flow conditions. See Section 3.6.7 for more information.

Notes: IM = Interim Milestone; ISW = Interconnected Surface Water.

4.3.3 Management Action Benefits

4.3.3.1 Benefits Observed to Date

Implementation of this management action has reduced data gaps identified in the GSP by:

- Expanding the groundwater and surface water monitoring networks adjacent to the Foster Park Aquatic Habitat Area.
- Collecting groundwater, surface water, and biological monitoring data to improve understanding of interconnected surface water conditions.
- Updating the numerical groundwater model to improve simulation of low-flow conditions and evaluation of depletion of interconnected surface water.
- Improving understanding of indirect depletion of interconnected surface water under a range of hydrologic conditions.

4.3.3.2 Expected Benefits at Action Completion

Continued implementation of this management action over the next five years is expected to:

- Support development and implementation of future projects and/or management actions, as appropriate, to address indirect depletion of interconnected surface water.
- Provide a framework for evaluating future refinements to the SMC, as appropriate.

4.4 Groundwater Level Monitoring Well Data Gaps Project

4.4.1 Project Overview

The GSP identified data gaps in the groundwater level monitoring network and recommended the addition of five monitoring wells.

4.4.1.1 Targeted Sustainability Indicators

Groundwater level data collected through the additional monitoring wells support management of groundwater conditions related to the chronic lowering of groundwater levels, reduction of groundwater storage, and depletion of interconnected surface water sustainability indicators.

4.4.1.2 Implementation Triggers

UVRGA anticipated implementing this project following adoption of the GSP, regardless of groundwater or surface water conditions encountered in the first five years of GSP implementation.

4.4.2 Project Status

UVRGA began implementing this project in water year 2023 through outreach to groundwater well owners to obtain access for monitoring. In water years 2024 and 2025, UVRGA added nine groundwater

level monitoring wells to the monitoring network, which went above-and beyond that which was necessary to address the groundwater level data gaps identified in the GSP. Groundwater level monitoring has been initiated at each location and will continue through GSP implementation.

4.4.3 Project Benefits

4.4.3.1 Benefits Observed to Date

Implementation of this project has:

- Expanded groundwater level monitoring in areas identified as data gaps in the GSP.
- Provided additional groundwater level monitoring locations above-and-beyond the data gap locations identified in the GSP, which provides for more robust monitoring of the Basin and redundancy in the monitoring network in the event that monitoring locations are lost[9].
- Provided new groundwater level data to improve characterization of groundwater conditions in the vicinity of GDEs and interconnected surface water.

4.4.3.2 Expected Benefits at Project Completion

Continued monitoring of the new wells is expected to develop baseline groundwater level data over a range of hydrologic conditions and support refinement of the chronic lowering of groundwater levels SMC as described in Section 3.1.7.

4.5 Stream Gage Data Gaps Project

4.5.1 Project Overview

The Stream Gage Data Gaps project included installation of three new surface water gages to address surface water flow monitoring data gaps identified in the GSP (UVRGA, 2022a):

- **Camino Cielo Road at Ventura River:** The project envisioned this gage being installed and maintained by UVRGA to provide more precise quantification of baseflows entering the Basin via the Ventura River.
- **Santa Ana Boulevard at Ventura River**: The project envisioned this gage being installed and maintained by DWR to monitor surface water flow upstream of GDE areas.
- **Casitas Springs Area, south of San Antonio Creek confluence**: The project envisioned this gage would be installed and maintained by UVRGA to monitor streamflow in the Confluence Aquatic Habitat Area.

4.5.1.1 Targeted Sustainability Indicators

Data collected through this project helps characterize and manage the depletion of interconnected surface water sustainability indicator.

[9] Monitoring locations can be lost through access revocation, flooding, or other events out of UVRGA's control.

4.5.1.2 Implementation Triggers

UVRGA anticipated implementing this project following adoption of the GSP, regardless of groundwater or surface water conditions encountered in the first five years of GSP implementation.

4.5.2 Project Status

The status of new surface water gages is summarized below (Figure 4.1):

Camino Cielo Road at Ventura River:

UVRGA has measured flows at this location when flows are low enough for safe river access during spring through fall since Water Year 2023. DWR has relocated the Santa Ana Boulevard gage (now named "OLA") to the Camino Cielo Road location (Figure 3.24). DWR is currently establishing a rating curve for this gage. UVRGA plans to cease monitoring streamflow at this location once the OLA gage is fully operational.

Santa Ana Boulevard at Ventura River:

DWR constructed this gage through its Technical Support Services (TSS) program in water year 2021. However, flooding in January 2023 moved the active channel away from the gage location. DWR determined that this site is not favorable for maintenance of a stream gage and agreed to relocate the gage to a more stable location (i.e., gage "OLA" located at Camino Cielo Road location [Figure 3.24]). UVRGA does not plan to install a gage at the Santa Ana Boulevard location for the same reasons that DWR decided not to reinstall a gage; therefore, this gage was removed from Stream Gage Data Gaps Project. UVRGA will instead rely on visual streamflow monitoring coupled with groundwater level data collected from nearby monitoring wells TT- 2 and TT-8 to assess stream-aquifer interactions in this area.

Casitas Springs Area, south of San Antonio Creek confluence:

Streamflow measurement has been performed in this area by the City of Ventura (i.e., gage "VR-1") and by UVRGA (i.e., "Lower Confluence Gage") when flows are low enough for safe river access during spring through fall since Water Year 2023. Gage VR-1 was relocated north of the location identified in the GSP following the January 2023 flood, which washed out the original gage location. Gaging by UVRGA at the Lower Confluence Gage is conducted as part of the Confluence Aquatic Habitat Area Biological Monitoring Study.

Gage "VR-2" operated by the City of Ventura, was included in the GSP, but was lost during the flooding of January 2023 and will not be replaced. This gage has been replaced by gaging by UVRGA at location "Upper Foster Park" as part of the Aquatic GDE monitoring program.

Additional Gauging Above-and-Beyond the Stream Gage Data Gaps Project:

UVRGA also performs gaging at the Upper Confluence and Upper Foster Park locations as part of the Confluence Aquatic Habitat Area Biological Monitoring Study and Foster Park Aquatic Habitat Area Monitoring Program, respectively (Figure 4.1)

4.5.3 Project Benefits

4.5.3.1 Benefits Observed to Date

Implementation of this project has:

- Expanded streamflow monitoring in areas identified as data gaps in the GSP.

- Provided additional streamflow data to support evaluation of interconnected surface water and aquatic GDEs.

4.5.3.2 Expected Benefits at Project Completion

Continued streamflow monitoring through gaging conducted under this project is expected to improve characterization of:

- Streamflow entering the Basin.
- Surface water flow upstream and within the Confluence Aquatic Habitat Area and Foster Park Aquatic Habitat Areas.

Additionally, this project is expected to help provide better estimates of indirect depletion and help evaluate the relationship between the depletion of interconnected surface water sustainability indicator and the chronic lowering of groundwater levels and reduction of groundwater storage sustainability indicators (UVRGA, 2022a).

4.6 Confluence Aquatic Habitat Area Biological Monitoring Study

4.6.1 Project Overview

This project consists of a biological monitoring study to determine if depletion of interconnected surface water could cause significant and unreasonable effects on aquatic species in the Confluence Aquatic Habitat Area.

4.6.1.1 Targeted Sustainability Indicators

The project supports evaluation of the need for SMC in the Confluence Aquatic Habitat Area for the depletion of interconnected surface water sustainability indicator.

4.6.1.2 Implementation Triggers

UVRGA anticipated implementing this project following adoption of the GSP, regardless of the groundwater or surface water conditions encountered during GSP implementation.

4.6.2 Project Status

Following adoption of the GSP, UVRGA developed and adopted the Confluence Aquatic Habitat Area Aquatic GDE Monitoring Workplan. Biological monitoring was initiated in 2023 and has been conducted in accordance with the workplan. Monitoring activities include:

- Habitat mapping.
- Habitat suitability and snorkel surveys.
- Fish stranding and mortality surveys.
- Water quality and flow monitoring.
- Aerial photography.

Based on the information collected annually, UVRGA approved amendments to the monitoring workplan in 2024 and 2025 to refine monitoring methods and focus data collection during low-flow conditions most relevant to evaluation and development of SMC.

4.6.3 Project Benefits

4.6.3.1 Benefits Observed to Date

Implementation of this project has:

- Established a biological monitoring program within the Confluence Aquatic Habitat Area.
- Developed biological, streamflow, water quality, and habitat datasets for future evaluation and comparison to low-flow conditions.
- Improved understanding of aquatic habitat conditions and informed refinements to the monitoring program.

4.6.3.2 Expected Benefits at Project Completion

Continued implementation of this project is expected to:

- Develop baseline biological and hydrologic datasets over a broader range of hydrologic conditions, including sustained low-flow periods.
- Improve understanding of ecological responses to low-flow conditions in the Confluence Aquatic Habitat Area.
- Support future evaluation of interconnected surface water SMC, as appropriate.

5.0 Basin Setting Based on New Information or Changes in Water Use [Article 5, § 356.4(d)]

§ 356.4 (d) *An evaluation of the basin setting in light of significant new information or changes in water use, and an explanation of any significant changes. If the Agency's evaluation shows that the basin is experiencing overdraft conditions, the Agency shall include an assessment of measures to mitigate that overdraft.*

This section provides an evaluation of the basin setting based on new information or changes in basin water use.

5.1 Hydrogeologic Conceptual Model [§354.14(d)]

5.1.1 Hydrogeologic Conceptual Model Updates

The UVRGB is a narrow, shallow alluvial groundwater basin formed within the tectonically active Transverse Ranges geomorphic province (UVRGA, 2022a). The principal aquifer of the UVRGB consists of Holocene and Pleistocene alluvial deposits and is underlain by older alluvium and consolidated bedrock (such as the Sespe Formation, Rincon Shale, and Monterey Formation) that are lower-permeability and have limited storage capacity (UVRGA, 2022a).

As part of this periodic evaluation, the thickness of the alluvial deposits that comprise the principal aquifer was updated using lithologic information from previously unavailable logs for 12 wells in the Santa Ana and Casitas Springs Hydrogeologic Areas (INTERA, 2025). The depth to bedrock in these areas was identified as a source of uncertainty in the numerical model (UVRGA, 2022a).

The updated bedrock interpretation resulted in localized changes to the estimated bedrock surface. In general, the revised bedrock surface is approximately 40 feet lower in the northern Santa Ana Hydrogeologic Area and approximately 40 feet higher in the southern Casitas Springs Hydrogeologic Area (INTERA, 2025). Although these updates improve the local representation of aquifer geometry, they did not significantly affect the estimated total groundwater storage capacity, estimated pumping capacity, or the overall conceptual understanding of basin conditions. Additional details regarding this analysis are provided in INTERA (2025).

5.2 Groundwater Model Updates

The numerical groundwater flow model is a key tool used to support GSP implementation, including quantification of water budgets, evaluation of surface water-groundwater interaction, estimates of interconnected surface water depletion, and assessment of projects and management actions. During the first five years of GSP implementation, the model was extended annually with updated hydrologic data and groundwater production data (except for Water Year 2024, when the model was out of service for calibration updates).

During 2024, the model was evaluated for effects of changes in streamflow channel morphology due to the January 2023 flood, which indicated no significant impact to the model results; however, post-2018 model results were also verified and showed a need to assess sources of error in streamflow

measurement data (INTERA, 2024). Following a critical review of streamflow data error, several general model updates were implemented, and the model calibration was updated to improve the model accuracy of low streamflow at the Foster Park gage. The modeling tasks and insights gained, along with the calibration update results, are detailed in INTERA (2025) and are summarized in the subsequent subsections.

5.2.1 Review of Model Calibration Dataset

Before the model calibration update, available streamflow data were critically reviewed to determine which observations were most appropriate for the quantitative calibration dataset (INTERA, 2025). The review identified several important sources of uncertainty in the streamflow measurement data, including:

- Uncertainty associated with rating-curve estimated streamflow,
- The distance between manual streamflow measurement locations and the Foster Park gage, and
- Periods of estimated tributary inflow data

Based on this review, the streamflow calibration dataset was refined to prioritize manual streamflow measurements that best represent conditions at or upstream of the Foster Park gage, with particular focus on low-flow observations. Rating-curve estimated streamflow data were retained for qualitative comparison but were not used as the primary quantitative calibration dataset.

The groundwater level calibration dataset was also expanded to include post-2018 measurements, including data from new monitoring wells near Foster Park. This expanded dataset ensured that improvements to simulated streamflow during the calibration update did not adversely affect the model's broader representation of groundwater conditions (INTERA, 2025).

5.2.2 General Model Updates

Several general updates were incorporated into the numerical model prior to the 2025 model calibration update (INTERA, 2025), including:

- Revisions to the principal aquifer thickness in the Santa Ana and Casitas Springs Hydrogeologic Areas.
- Updated pumping rates and locations based on information collected through UVRGA's well registration and extraction reporting programs.
- Revisions to the model's representation of Coyote Creek confluence and Ventura River channel geometry near Foster Park.
- Refinement of the modeled evapotranspiration based on riparian habitat surveys conducted along the Ventura River (UVRGA, 2026a).
- Refinement of the model stress periods to utilize a consistent daily temporal discretization to better represent low-flow conditions and surface water-groundwater interactions throughout the Basin.

5.2.3 Model Calibration Update

The numerical flow model calibration update utilized PEST++IES, an automated calibration tool that incorporates parametric and measurement uncertainty into the model update process (INTERA, 2025). The model fit to the streamflow calibration dataset improved relative to the GSP model, particularly for the low-flow range most relevant to the interconnected surface water minimum threshold at Foster Park. The model calibration update also preserved, and slightly improved, the overall fit to measured groundwater levels across the Basin (INTERA, 2025).

5.2.3.1 Implications for GSP Implementation

While the model calibration update did not fundamentally change the model's overall representation of the Basin, it represents a significant improvement in the model's performance and ability to characterize surface water-groundwater interactions and the calculated depletion of interconnected surface water, particularly as they relate to the Foster Park Aquatic Habitat Area (INTERA, 2025).

5.2.4 Model Estimates of Indirect Depletion of Interconnected Surface Water

The updated model was used to reevaluate depletion of interconnected surface water over the historical and projected water budget periods (Section 3.6). The indirect depletion was quantified with the range of uncertainty, and several pumping scenarios evaluated the impacts of pumping on indirect depletion (INTERA, 2026). The 2026 model results show that pumping reductions can increase streamflow at Foster Park, but the magnitude and timing of benefits are highly sensitive to when reductions occur relative to the depletion event, with pre-emptive (especially wet-season) curtailments producing the greatest response, and shutoffs during depletion events yielding minimal gains. While cumulative benefits show recovered streamflow of up to 70–80% of curtailed pumping over the full simulation period, recovery during the minimum threshold exceedance period is typically small (generally <11% median, with maxima near 50%) and insufficient to prevent exceedances, indicating that spatial proximity to the river and basin hydrologic conditions strongly control the lag time, attenuation, and effectiveness of pumping reductions.

This work was undertaken as part of the GSP project titled "Actions to Address Indirect Depletion of Interconnected Surface Water" (Section 4.3) and supports the overall process for developing projects and management actions to ultimately achieve the depletions of interconnected surface water measurable objective.

5.3 Water and Land Use Trends

The GSP characterized historical land uses and water supplies in the Basin through water year 2019. This section summarizes the water supplies to the Basin from Water Year 2020 through Water Year 2025. Land use changes over the evaluation period are provided for context.

5.3.1 Land Use Changes

5.3.1.1 Land Use Changes over the Evaluation Period

Land use change in the Basin over the evaluation period was assessed using DWR's statewide land use data for 2020 and 2024.[10] Land use data were grouped into four categories: agricultural, urban, unclassified, and idle (**Table 5.1**). The Basin encompasses approximately 2,600 acres in total, with urban land comprising the largest share at roughly 2,100 acres on average. Approximately 330 acres of the Basin support agricultural operations on average, with the largest cropping associated with citrus and subtropical types (Table 5.1).

The total mapped area in DWR's datasets varies by approximately 36 acres between 2020 and 2024, which is negligible (~1%). The most notable change over the evaluation period is attributed to lands classified as "unclassified group" in 2020 (131 acres) that were largely reclassified as "idle" by 2024 (135 acres), while the unclassified area decreased to just 3 acres. UVRGA notes that there is significant uncertainty in the unclassified and idle land use classifications.

Agricultural and urban land areas remained relatively stable over this period (Table 5.1, **Figures 5.1**, **5.2**).

Table 5.1. Land Use Changes in the Basin, 2020 to 2024

Year	2020	2024	Difference (Acres)
Agricultural	298	367	69
Urban	2,192	2,078	-114
Unclassified	131	3	-128
Idle	0	135	135
Total	**2,620**	**2,584**	**-36**

Notes:
[a]Land cover data was obtained from the DWR SGMA Data Viewer, crop mapping dataset.
[b]Mapped acreage does not fully cover the basin and varies by year.

5.3.1.2 Future Land Use Changes

The general plans applicable to the UVRGB include the Ventura County 2040 General Plan and, to a lesser extent, the City of Ojai General Plan and the City of Ventura General Plan (UVRGA, 2022a). These plans collectively provide the long-range vision, goals, and policies that guide land use and development within the Basin, with a shared emphasis on preserving open space, protecting agricultural resources, and directing growth toward existing urban communities.

The Ventura County 2040 General Plan and Ojai Valley Area Plan govern most of the unincorporated land within the Basin. The Ventura County 2040 General Plan and Ojai Valley Area Plan remain in effect, and no relevant changes were identified during the evaluation period that would materially affect groundwater demand, recharge, or the Basin water budget.

During the evaluation period, the City of Ventura adopted its 2050 General Plan (City of Ventura, 2025). No adopted general plan changes were identified that are expected to affect groundwater demand, recharge, or the Basin water budget.

[10] Land use data for water year 2025 had not been published at the time of reporting.

In addition, the agricultural land and open space in the Basin is subject to the County of Ventura Save Open Space and Agricultural Resources (SOAR) voter initiative, currently approved through 2050, which makes it very unlikely that a material amount of open space or agricultural land will be developed during the foreseeable future (UVRGA, 2022a). Because of this, there is limited potential for land use-driven water demand changes in the Basin.

5.3.2 Water Supplies

Water supplies in the Basin consist of local groundwater and surface water, which includes wholesale deliveries to Ventura River Water District (VRWD), Meiners Oaks Water District (MOWD), and direct retail deliveries by Casitas Municipal Water District (CMWD; UVRGA, 2022a). This section summarizes total water supplies in the Basin and provides a comparison to historical and future anticipated availability, as described in the GSP. Because the GSP provides data on water supplies through 2019, water supply data are summarized here for water years 2020 through 2025.

As part of this Periodic Evaluation, UVRGA evaluated the future groundwater extraction estimates presented in the GSP (UVRGA, 2022a). Updated municipal and industrial (M&I) groundwater extractions were developed in coordination with VRWD, MOWD, and CMWD. Additionally, the City of Ventura provided UVRGA with updated pumping projections based on the amended Foster Park Protocols (INTERA, 2026). Agricultural and domestic groundwater extractions were updated using results from the Domestic Well Survey and well registry program (Section 3.1.6 and Section 4.1), in addition to updated projections from Rancho Matilija Mutual Water Company (RMMWC; INTERA, 2026). Updates to both agricultural and M&I groundwater usage are lower than were projected in the GSP. These reductions are attributable to:

- Improved characterization of agricultural and domestic well uses.
- Updated operational constraints under the Foster Park Protocols.
- Updated projections developed by other M&I operators in the Basin.

This new information is further discussed in the following subsections.

5.3.2.1 Groundwater Extraction

During the evaluation period, groundwater extraction data were provided to the UVRGA by VRWD, MOWD, CMWD, and the City of Ventura. These entities report monthly volumes supplying municipal and industrial water uses for the Basin. Private well owners with registered wells that extract more than 2 AFY also report groundwater extraction quarterly. Agricultural groundwater extraction was estimated based on the evaluation of water use recordation in the State Water Resources Control Board's Electronic Water Rights Information Management System (eWRIMS), meter data, or information provided as part of the well registration program. These extraction estimates were combined to calculate total groundwater extraction for each reported water year (Table 5.2).

Table 5.2. Groundwater Extraction by Water Use Sector for Water Years 2020 to 2025[a].

Water Year (AFY)	Water Use Sector							Total
	Agricultural	Municipal and Industrial					Domestic	
		VRWD	MOWD	CMWD	City of Ventura	Subtotal		
2020[b]	450	810	650	154	2,484	4,098	201	4,749
2021[b]	483	964	404	219	1,863	3,450	205	4,138
2022	405	868	458	179	1,137	2,642	204	3,251
2023	359	714	280	109	2,182	3,285	184	3,828
2024	195	773	571	112	3,043	4,499	91	4,785
2025	246	829	323	161	3,342	4,655	106	5,007
2020 – 2025 Average	**356**	**826**	**448**	**156**	**2,342**	**3,772**	**165**	**4,293**
2022 – 2025 Average	**301**	**796**	**408**	**140**	**2,426**	**3,770**	**146**	**4,128**

Notes:
Totals may not match sum of values due to rounding.
[a] Significant volumes of extracted groundwater are exported from the Basin. Values in this table reflect total extracted groundwater from the UVRGB.
[b] Note, water years 2020 and 2021 are outside of the evaluation period (see Section 3.1)

Groundwater Extractions over the Evaluation Period

Over the evaluation period (i.e., water years 2022 through 2025), groundwater extractions have varied from a low of approximately 3,250 AFY in water year 2022 to a high of approximately 5,000 AFY in water year 2025 (Table 5.2). This variation in total groundwater production is predominantly attributable to fluctuations in M&I pumping, specifically by the City of Ventura, which ranged from approximately 1,100 to 3,300 AFY over the evaluation period. On average, agricultural, M&I groundwater and domestic use accounted for 8%, 88% and 4%, respectively, of total extractions from the Basin.

Comparison to Historical Pumping Trends

Between 2006 and 2019, groundwater extractions from the Basin averaged approximately 5,000 AFY, (UVRGA, 2022a).[11] These historical groundwater demands are approximately 16% higher than the average groundwater extractions during the evaluation period. The largest difference between historical and current groundwater extraction trends was in the M&I sector; in this sector, the 2006 to 2019 extractions were approximately 21% higher than the evaluation period.

Comparison to Pumping Projections in the GSP

The GSP evaluated future groundwater conditions using information provided by the UVRGA member agencies (CMWD, MOWD, VRWD, and the City of Ventura) and the UVRGA Ad Hoc Stakeholder Engagement Committee to constrain future groundwater demands. Climate change effects were incorporated by scaling agricultural pumping based on future precipitation projections and by applying

[11] See table 3.3-06 of the GSP (UVRGA, 2022a).

modified M&I pumping rates under drought conditions (UVRGA, 2022a). Accounting for different future climatic conditions, the GSP evaluated future basin conditions assuming that groundwater extractions ranged from approximately 5,700 AFY (Future Baseline conditions) to approximately 5,850 AFY (2070 Climate Change).

The average annual extractions over the evaluation period are approximately 27% lower than the average GSP-projected future groundwater demands. This net reduction in groundwater production from the Basin is a result of a combined reduction in M&I and agricultural extractions.

Updated Future Pumping Projections

As described in the introduction to this section, UVRGA coordinated with groundwater users in the Basin to develop updated groundwater pumping projections. Future groundwater pumping projections were updated using new information provided by each municipal water provider and mutual water company for wet/normal, single dry, and multi-year drought conditions (INTERA, 2026). Compared to the GSP, the updated projections reduce total M&I groundwater pumping by an average of approximately 874 AFY (**Table 5.3**). The largest reduction is associated with modified extraction operations by the City of Ventura under the updated Foster Park Protocols.

Table 5.3 Comparison of GSP and Current Future Pumping Projections for M&I Operators and Mutual Water Companies.

Municipal District	GSP Projections (AFY)	Updated Projections (AFY)	Change in Pumping (AFY)
MOWD	765	534	-231
VRWD	917	809	-108
CMWD	137	137	0
City of Ventura	2,440	1,905	-535
Total			**-874**

Notes: MOWD = Meiners Oaks Water District; VRWD = Ventura River Water District; CMWD = Casitas Municipal Water District; AFY = acre-feet per year

Agricultural and domestic groundwater pumping projections were updated using information collected through the Domestic Well Survey, well registry program, focused outreach, and quarterly extraction reporting program (INTERA, 2026). Updated agricultural pumping remains generally consistent with the GSP assumptions, while domestic pumping is projected to be approximately 50% of the GSP projections because many wells presumed to be active were found to be abandoned or destroyed during the well registration process (**Table 5.4**).

Table 5.4. Agricultural and Domestic Pumping in the GSP and Updated Projection Models.

Water User	GSP Projections (AFY)	Updated Projections (AFY)	Change in Pumping (AFY)
Agricultural	379	388	+9
Domestic	172	89	-83
Total			**-74**

Notes: AFY = Acre-Feet Per Year

Together, the updated pumping projections indicate lower groundwater extractions than used in the GSP future scenarios.

5.3.2.2 Surface Water Supplies Used in the Basin

Surface water is delivered to the Basin by CMWD through direct retail deliveries and wholesale deliveries to VRWD and MOWD (**Table 5.5**). VRWD and MOWD provided UVRGA with monthly CMWD purchase records, while direct retail deliveries by CMWD within the Basin were estimated using the methods described in the GSP (UVRGA, 2022a).

Table 5.5. Surface Water Deliveries (Direct and Retail Deliveries from CMWD) by Water Use Sector for Water Years 2020 to 2025.

Water Year	Water Use Sector				Total
	Agricultural	Municipal and Industrial	Domestic	Native Vegetation	
2020	395	491	0	Unknown	886
2021	371	630	0	Unknown	1,001
2022	392	633	0	Unknown	1,025
2023	388	643	0	Unknown	1,031
2024	437	401	0	Unknown	838
2025	400	431	0	Unknown	831
2020-2025 Average	**397**	**538**	**0**	**-**	**935**
2022-2025 Average	**404**	**527**	**0**	**-**	**931**

Note: All values reported in units of acre-feet

Surface Water Uses over the Evaluation Period

Over the evaluation period, estimated surface water deliveries varied from a low of 831 AFY in water year 2025 to a high of 1,031 AFY in water year 2023 (Table 5.5). Agricultural users accounted for approximately 43% of the total deliveries, while M&I accounted for the remaining 57% of deliveries in the Basin (Table 5.5).

Comparison to Historical Surface Water Uses

The GSP estimated that total surface water supplies between 2006 and 2019 averaged approximately 1,700 AFY (UVRGA, 2022a).[12] Surface water supplied to the Basin over the evaluation period was approximately 55% of this historical average (Table 5.5).

Comparison to Surface Water Supply Projections in the GSP

Under the three future scenarios presented in the GSP for the 50-year implementation period (2020-2070), the average annual surface water supply used in the Basin was estimated to be approximately 1,760 AFY (UVRGA, 2022a).[13] These projections are consistent with the historical surface water use estimates and approximately 88% higher than the surface water supplies used over the evaluation period.

Updated Surface Water Supply Projections

In June 2026, CMWD adopted its 2025 Urban Water Management Plan (UWMP), which provides their projected surface water supply availability and reliability through 2050 (CMWD, 2026). Although Lake Casitas storage recovered substantially during the evaluation period, the updated 2025 UWMP presents Lake Casitas supply projections that are unchanged from the 2020 UWMP. Long-term surface water supplies and deliveries to UVRGA are anticipated to be reliable and sufficient to meet the surface water demand in the Basin (UVRGA, 2022a). Accordingly, no revisions to the GSP based on CMWD's projected surface-water supplies are warranted at this time.

5.3.3 Evaluation of Water Use Trends

The total estimated water use within the Basin for water years 2020 through 2025 is summarized by water source type in **Table 5.6**. Unlike the groundwater extraction totals presented in Section 5.3.2.1, Table 5.6 summarizes the volume of groundwater used within the Basin and excludes groundwater exported for use outside of the Basin.

During the evaluation period, total water use averaged approximately 3,100 AFY (Table 5.6). M&I uses accounted for approximately 46% of the total water use, followed by evapotranspiration of shallow groundwater by riparian communities (33%), agricultural uses (16%), and domestic uses (5%). Approximately 70% of the total water used in the Basin was supplied by groundwater, while surface water supplied the remaining 30%.

Consistent with the information presented in Sections 5.3.1 and 5.3.2, total water use during the evaluation period remained below both historical conditions and the future water uses projected in the GSP (UVRGA, 2022a). The reduction reflects lower than average groundwater extractions and surface water uses, indicating that overall water demands since GSP adoption have been lower than projected.

[12] See Table 3.3-03 of the GSP.
[13] See Tables 3.3-08, 3.3-09, and 3.3-10 of the GSP.

Table 5.6. Total Water Use for Water Years 2020 to 2025.

Water Year (AFY)	Water Source Type										Total Water Supplies
	Groundwater [b]					Surface Water					
	Agricultural[a]	Municipal and Industrial [e]	Domestic[a]	Native Vegetation[c]	*Subtotal*	Agricultural[a]	Municipal and Industrial	Domestic[a]	Native Vegetation	Subtotal	
2020	110	1,102	201	1,200	2,613	395	491	0	Unknown[d]	886	3,499
2021	134	1,012	205	844	2,195	371	630	0	Unknown[d]	1,001	3,196
2022	113	982	204	888	2,187	392	633	0	Unknown[d]	1,025	3,212
2023	117	678	184	1,079	2,058	388	643	0	Unknown[d]	1,031	3,089
2024	68	971	91	1,309[e]	2,439	437	401	0	Unknown[d]	838	3,277
2025	108	927	106	910	2,051	400	431	0	Unknown[d]	831	2,771
2020-2025 Average	**108**	**927**	**165**	**1,038**	**2,239**	**397**	**538**	**0**	**Unknown[d]**	**935**	**3,174**
2022-2025 Average	**101**	**863**	**146**	**1,047**	**2,176**	**404**	**527**	**0**	**Unknown[d]**	**944**	**3,120**

Notes:
- Totals may not match the sum of values due to rounding.
[a] Estimated based on metered data or registration estimates if metered data were unavailable (UVRGA, 2026).
[b] Significant volumes of agricultural and municipal and industrial extracted groundwater are exported from the Basin. Values in this table reflect extracted groundwater that is used within the UVRGB.
[c] Estimates from numerical model inputs, procedures detailed in GSP (see Appendix H; UVRGA, 2022).
[d] The modeled streamflow does not account for the surface water evapotranspiration losses, see GSP Appendix H.
[e] For water year 2024, used average of wet years from model output for GSP and previous annual reports (2006, 2010, 2011, 2017, 2019, 2023).

6.0 Monitoring Networks [Article 5, § 356.4(e)]

§ 356.4 (e) *A description of the monitoring network within the basin, including whether data gaps exist, or any areas within the basin are represented by data that does not satisfy the requirements of Sections 352.4 and 354.34(c). The description shall include the following:*

1) *An assessment of monitoring network function with an analysis of data collected to date, identification of data gaps, and the actions necessary to improve the monitoring network, consistent with the requirements of Section 354.38.*

2) *If the Agency identifies data gaps, the Plan shall describe a program for the acquisition of additional data sources, including an estimate of the timing of that acquisition, and for incorporation of newly obtained information into the Plan.*

3) *The Plan shall prioritize the installation of new data collection facilities and analysis of new data based on the needs of the basin.*

The GSP established groundwater elevation, groundwater quality, land surface elevation, and depletion of interconnected surface water monitoring networks to monitor conditions relative to the four sustainability indicators applicable to the Basin and for the inapplicable seawater intrusion and land subsidence indicators (UVRGA, 2022a).[14] These monitoring networks consist of groundwater wells, surface water gages, biological monitoring, and remotely sensed land surface elevation measurements. This section of the Periodic Evaluation summarizes changes to these monitoring networks and provides an evaluation of whether the monitoring networks are sufficient to monitor and manage groundwater conditions in the Basin over the next five years.

6.1 Groundwater Level Monitoring Network

At the time of GSP development, the groundwater level monitoring network was comprised of 15 wells (UVRGA, 2022a). Groundwater levels were measured with a combination of manual measurements and continuous pressure transducers, with manual measurements collected on a monthly to quarterly basis (UVRGA, 2022a).

6.1.1 Changes to the Groundwater Level Monitoring Network

In 2023, UVRGA initiated outreach to well owners to expand groundwater level monitoring throughout the Basin for the Groundwater Level Monitoring Well Data Gaps Project (Section 4.4). During the 2023 to 2025 water years, UVRGA added nine new wells to the monitoring network (**Table 6.1**). All nine wells provide continuous groundwater level data through high-frequency pressure transducers. Of the nine wells, three are dedicated monitoring wells, while the remaining serve dual purposes by supporting both groundwater monitoring and active water supply operations. The updated groundwater level monitoring network is shown in Figure 3.3.

[14] While land subsidence is not a sustainability indicator that is applicable to the Basin, the GSP notes that UVRGA will monitor publicly available InSAR data annually.

Table 6.1. Wells Added to the Groundwater Level Monitoring Network since Adoption of the GSP.

State Well Number	Well Use	Well Owner	Monitoring Entity	Pressure Transducer Installed
03N23W05B01S	Domestic	Private	UVRGA	Yes
04N23W20A01S	Domestic	Private	UVRGA	Yes
04N23W32C03S	Agricultural	Private	UVRGA	Yes
04N23W32Q01S	Domestic	Private	UVRGA	Yes
03N23W05H01S	Domestic	CMWC	CMWC	Yes
Hand Dug Well	Domestic	Private	UVRGA	Yes
OW-2	Monitoring	City of Ventura	UVRGA	Yes
TT-2	Monitoring	County of Ventura	UVRGA	Yes
TT-8	Monitoring	County of Ventura	UVRGA	Yes

Notes: UVRGA = Upper Ventura River Groundwater Agency; CMWC = Casitas Mutual Water Company

6.1.2 Assessment of Groundwater Level Monitoring Network Function

The GSP identified five groundwater level monitoring data gaps within the Basin (UVRGA, 2022a). The wells added to the monitoring network during the evaluation period address these data gaps and improve the spatial distribution of groundwater level monitoring throughout the Basin. Accordingly, the expanded groundwater level monitoring network remains suitable for GSP implementation (UVRGA, 2022a; DWR, 2010; 2016).

6.2 Groundwater Storage Monitoring Network

The GSP uses groundwater levels as a proxy for the reduction of groundwater storage sustainability indicator. Accordingly, the groundwater level monitoring network serves as the monitoring network for this sustainability indicator. As described in Section 6.1, the groundwater level monitoring network data gaps have been addressed and the monitoring network is more than suitable for GSP implementation (UVRGA, 2022a; DWR, 2010, 2016).

6.3 Degraded Water Quality Monitoring Network

The GSP established a groundwater quality monitoring network consisting of 18 wells, 15 of which were completed in the alluvium and three of which were completed in the Ojai Conglomerate. Groundwater quality samples were historically collected by the local well operators, with the exception of well 04N23W09G03S, located in Mira Monte/Meiners Oaks Hydrogeologic Area, which was sampled by Ventura County Watershed Protection District.

6.3.1 Changes to the Degraded Water Quality Monitoring Network

The groundwater level monitoring wells added during GSP implementation have been identified as potential groundwater quality monitoring locations (Figure 3.16), consistent with the GSP's recommendation to expand groundwater quality monitoring in areas with limited data (UVRGA, 2022a).

These wells will be sampled on an as-needed basis, if feasible, to implement the SMC for the degraded water quality sustainability indicator.

In addition, as part of the Domestic Well Survey project (Section 4.1), UVRGA collected one-time groundwater quality samples from four domestic wells in November 2025 (water year 2026). These samples were analyzed for nitrate and general mineral composition and were used to further evaluate the current distribution of nitrate concentrations and their relation to the SMC for degraded water quality (Section 3.3).

No additional changes have been made to the groundwater quality monitoring network during the evaluation period.

6.3.2 Assessment of Degraded Water Quality Monitoring Network Function

The GSP identified groundwater quality monitoring data gaps in the Santa Ana and Casitas Springs Hydrogeologic Areas (UVRGA, 2022a). The potential groundwater quality locations described above provide improved spatial coverage in these areas. UVRGA will evaluate opportunities to obtain groundwater quality samples from these wells, including well access, sampling feasibility, and the usefulness of the resulting data.

In the interim, available nitrate concentration data indicate the existing groundwater quality monitoring network remains sufficient to characterize the distribution of elevated nitrate concentrations and evaluate groundwater quality concentrations relative to the SMC established in the GSP (UVRGA, 2022a).

6.4 Seawater Intrusion Monitoring Network

The GSP did not establish a seawater intrusion monitoring network because this sustainability indicator is not applicable to the Basin (UVRGA, 2022a).

6.5 Land Subsidence Monitoring Network

The GSP concluded that the land subsidence sustainability indicator is inapplicable to UVRGB because of the Basin's small aquifer, coarse-grained nature, lack of significant clay units, and extremely rapid recovery of groundwater levels during recharge events. Nonetheless, the GSP included annual review of InSAR data (subject to continued availability from DWR) to confirm the absence of land subsidence related to groundwater conditions. UVRGA will continue to utilize InSAR data to evaluate land surface elevation changes across the Basin.

6.6 Depletion of Interconnected Surface Water Monitoring Network

The GSP established a monitoring network for depletion of interconnected surface water that integrates multiple monitoring components to monitor conditions relevant to groundwater/surface water interconnectedness, provide data for model calibration refinements to improve depletion calculations, provide data to evaluate the Foster Park Aquatic Habitat sustainable management criteria, and assess whether Sustainable Management Criteria are needed for the Confluence Aquatic Habitat Area (UVRGA, 2022a):

- **Surface Water Gages:** Seven active gages and three proposed surface water gages to monitor surface water flows across the Basin.
- **Ephemeral/Intermittent Flow Monitoring:** Visual monitoring to document the timing and locations where surface flows become intermittent or cease.
- **Groundwater Monitoring:** Groundwater level and quality data used to evaluate groundwater-surface water interactions.
- **Aquatic GDE Monitoring**: Biological monitoring in the Foster Park Aquatic Habitat Area and Confluence Aquatic Habitat Area.

6.6.1 Changes to the Depletion of Interconnected Surface Water Monitoring Network

6.6.1.1 Surface Water Gages

The seven active gages identified by UVRGA for the surface water monitoring network included gages 602B, 604, 605A, 607, 608 (also USGS 11118500), VR-1, and VR-2 (Figure 3.24). Other than changes to VR-1 and VR-2 following flooding in January 2023, these gages remain part of the surface water monitoring network.

The original VR-1 monitoring location was washed out during the January 2023 flood. The City of Ventura subsequently relocated the gage farther north, and the relocated VR-1 remains part of the monitoring network. VR-2 was lost during the January 2023 flooding and was not replaced because the City has decided to rely on USGS 11118500 instead for the Interim Order Protocols. UVRGA is currently monitoring streamflow at the Upper Foster Park location, near the former VR-2 location, as part of its implementation of the Foster Park Aquatic Habitat Area Monitoring Plan (UVRGA, 2026a). **Table 6.2** summarizes updates to the surface water gaging network in the Basin.

Table 6.2. Status of Surface Water Gaging Locations Proposed in the GSP.

Location	Purpose	Status/Activities Completed
Camino Cielo Road at Ventura River	Improve quantification of baseflow entering the Basin.	UVRGA has gaged flows when flows are low enough for safe river access since water year 2023 (Rincon 2024e, 2025a, 2026b). DWR has relocated its Santa Ana Boulevard gage to the Camino Cielo Road location (now named OLA). DWR is currently establishing a rating curve for this gage, and UVRGA plans to cease monitoring streamflow at this location once the OLA gage is fully operational.

Table 6.2. Status of Surface Water Gaging Locations Proposed in the GSP.

Location	Purpose	Status/Activities Completed
Santa Ana Boulevard at Ventura River	Monitor surface water flow upstream of the GDE areas. Gage installation was planned under DWR's TSS program.	This gage was constructed in 2021, but flooding in January 2023 shifted the active channel away from the gage. DWR subsequently determined this location is not favorable for maintenance and is relocating this gage to the "OLA" location. UVRGA does not plan to install a gage at the Santa Ana Boulevard location for the same reason DWR deemed the site unfavorable for maintenance, thus, this gage was removed from Stream Gage Data Gaps Project. UVRGA will instead rely on visual streamflow monitoring coupled with groundwater level data collected from nearby monitoring wells TT- 2 and TT-8 to assess stream-aquifer interactions in this area.
Confluence Area south of San Antonio Creek	Monitor streamflow in the Confluence Aquatic Habitat Area.	UVRGA conducts manual streamflow monitoring when flows are low enough for safe river access. Gaging has been performed by the City of Ventura as well; however, their active gage in this location (VR-1) was washed away during the January 2023 flooding events and subsequently relocated north.

Notes: UVRGA = Upper Ventura River Groundwater Agency; DWR = California Department of Water Resources; TSS = Technical Support Services.

6.6.1.2 Ephemeral/Intermittent Flow Monitoring

The GSP established visual monitoring to document the timing and locations where flow becomes intermittent or ceases along the Ventura River. Monitoring focuses on the southern extent of perennial flow entering the Basin and the northern extent of perennial flow in the Casitas Springs Area, with observations recorded using GSP coordinates (Rincon, 2024f, 2025a, 2026c).

UVRGA has continued visual streamflow monitoring throughout the evaluation period. Annual monitoring memoranda document observed surface water conditions and changes in the locations of upstream and downstream flow termini (Rincon, 2024b, 2025a, 2026b). No substantive changes were made to the visual flow component of this monitoring program.

6.6.1.3 Groundwater Monitoring

Changes to the groundwater level and quality monitoring networks are described in Section 6.1 and 6.3.

6.6.1.4 Aquatic GDE Monitoring

UVRGA developed aquatic GDE monitoring workplans in 2022, and monitoring began in water year 2023 (Rincon, 2022c, 2022d, 2024c, 2024d). The monitoring programs were established to evaluate aquatic habitat conditions. For the Foster Park Aquatic Habitat Area, the monitoring program was designed to evaluate potential impacts of interconnected surface water depletion, evaluate the sustainable management criteria in this area, and establish a long-term monitoring plan (Rincon, 2022d). For the Confluence Aquatic Habitat Area, the monitoring program was designed to evaluate potential impacts of

interconnected surface water depletion, assess whether sustainable management criteria are needed, and to establish a long-term monitoring plan if sustainable management criteria are needed (Rincon, 2022c).

Monitoring components implemented during the evaluation period included:

- Aquatic mesohabitat mapping.
- Routine habitat suitability and snorkel surveys.
- Continuous surface water level and water quality monitoring.
- Instantaneous streamflow measurements.
- Aerial photography.

Additionally, fish stranding and mortality surveys were also conducted in the Confluence Aquatic Habitat Area (Rincon, 2026a).

The monitoring workplans were amended twice during the evaluation period to better focus data collection on low-flow conditions:

- **2024 amendments:** Revised the monitoring schedule so habitat suitability and snorkel surveys are conducted during winter when conditions permit safe access, with additional summer and fall surveys triggered as streamflow recedes. Continuous monitoring equipment (data loggers) is deployed when flows are confined to the primary channel and conditions allow safe installation and discharge measurements.
- **2025 amendments:** Established target streamflow ranges for habitat suitability and snorkel surveys, added remapping following habitat-resetting flood events, and proposed targeted water quality monitoring of potential refuge pools using paired shallow and deep loggers to measure temperature, dissolved oxygen, and pH.

6.6.2 Assessment of Depletion of Interconnected Surface Water Monitoring Network Function

The GSP identified groundwater level, streamflow, and biological monitoring data gaps affecting evaluation of interconnected surface water depletion. During the evaluation period, UVRGA expanded the groundwater level network, implemented additional streamflow monitoring, and initiated aquatic GDE monitoring in the Foster Park Aquatic Habitat Area and Confluence Aquatic Habitat Area. These improvements help to address the data gaps identified in the GSP and provide a suitable network for continued evaluation of interconnected surface water conditions.

Continued monitoring is needed to further characterize low-flow conditions and develop a representative biological and hydrologic baseline.

7.0 GSA Authorities and Enforcement Actions [Article 5, § 356.4(g), (h)]

§ 356.4

(g) *A description of relevant actions taken by the Agency, including a summary of regulations or ordinances related to the Plan.*

(h) *Information describing any enforcement or legal actions taken by the Agency in furtherance of the sustainability goal for the basin.*

7.1 Actions Taken by the UVRGA

This section summarizes regulations, ordinances, and other actions taken by the UVRGA following adoption of the GSP related to GSP implementation (**Table 7.1**).

Table 7.1 Resolutions Adopted by UVRGA Board of Directors since Adoption of the GSP Relevant to GSP Implementation.

Date Adopted	Regulatory Action	Description
June 2022	Resolution 2022-05	Established a groundwater extraction fee of $148/AF for FY 2022/2023
July 2022	Ordinance No. 1	Established requirements for registration of groundwater wells, metering of groundwater extractions, and reporting of groundwater use
November 2022	Resolution 2022-08	Authorized UVRGA to apply for DWR SGMA Round 2 Implementation Grant and execute a funding agreement if awarded.
March 2023	Ordinance No. 2	Amended the well-registration requirements to support implementation of EO N-7-22 and coordination with the County well-permitting process.
June 2023	Resolution 2023-02	Established a groundwater extraction fee of $140/AF for FY 2023/2024
July 2023	Ordinance No. 3	Revised the metering requirements to exempt non-domestic wells extracting less than 2 AFY from installation of a flowmeter.
June 2024	Resolution 2024-04	Established a groundwater extraction fee of $166/AF for FY 2024/2025
November 2024	Ordinance No. 4	Repealed and replaced Ordinance No. 1, incorporated the prior amendments, and clarified remedies available for violations of the well-registration, metering, and reporting requirements.
December 2024	Resolution 2024-06	Imposed penalties for the late registration of groundwater wells.
June 2025	Resolution 2025-01	Established a groundwater extraction fee of $168/AF for FY 2025/2026
March 2026	Ordinance No. 5	Replaced Ordinance No. 4 and revised requirements related to flowmeter testing, reporting, and exemptions.
June 2026	Resolution 2026-01	Established a groundwater extraction fee of $168/AF for FY 2026/2027

Notes: UVRGA = Upper Ventura River Groundwater Agency; DWR = California Department of Water Resources; AF = acre-feet; FY = Fiscal Year.

7.2 Enforcement and Legal Actions Taken by the UVRGA

UVRGA enforced civil penalties on a number of well owners who failed to comply with provisions in UVRGA's Ordinance that require registration of wells. UVRGA is currently accruing civil penalties on two recalcitrant well owners who have failed to register their wells.

UVRGA has not taken or been subject to any legal actions related to GSP implementation. However, UVRGA is now engaged in discussions concerning development of a physical solution for the Ventura River Watershed Adjudication as a non-party. The process is progressing toward the adoption of a physical solution later this year, which is anticipated to significantly impact GSP implementation by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks.

8.0 Outreach, Engagement, and Coordination With Other Agencies [Article 5, § 356.4(j)]

> ***§ 356.4 (j)*** *Where appropriate, a summary of coordination that occurred between multiple Agencies in a single basin, Agencies in hydrologically connected basins, and land use agencies.*

8.1 Outreach and Engagement

UVRGA maintains a stakeholder engagement plan for the Basin (UVRGA, 2026c). The plan:

- Describes UVRGA's organizational and governance structure.
- Identifies beneficial uses and users of groundwater and other interested parties in the Basin.
- Describes how stakeholder and interested party input is integrated into UVRGA's decision-making process.
- Discusses the different avenues that UVRGA takes to engage stakeholders and interested parties throughout GSP implementation.
- Emphasizes collaboration with regulatory agencies and interested parties concerning depletions of interconnected surface water (in response to DWR's RCA 3).

Since adopting the GSP, the UVRGA Board of Directors has continued to prioritize outreach and engagement. This is demonstrated through public outreach for regular and special board meetings, engagement with interested parties during project implementation, and outreach to regulatory agencies and interested parties for development of this periodic evaluation. Specific outreach activities are summarized in the following subsections.

8.1.1 Periodic Evaluation Outreach

UVRGA initiated development of this periodic evaluation through a newsletter describing the purpose and anticipated schedule of the evaluation. The newsletter invited interested parties to participate in the evaluation process, join UVRGA's interested parties list, attend public workshops, and submit comments through the online comment form available on UVRGA's website.

UVRGA held an initial periodic evaluation workshop during its March 12, 2026 Board meeting. The workshop provided:

- An overview of SGMA and the requirements for periodic evaluation of a GSP.
- A summary of the purpose, required contents, and anticipated schedule of the periodic evaluation.
- An overview of the Basin's GSP, sustainability indicators, projects, and management actions.
- A summary of DWR's recommended corrective actions.
- An opportunity for Board members, stakeholders, and members of the public to ask questions and provide comments.

UVRGA held a second periodic evaluation workshop during its September 10, 2026 Board meeting. The workshop provided:

- A recap of the SGMA and the requirements for periodic evaluation of a GSP.
- A summary of the periodic evaluation.
- An opportunity to ask questions and provide feedback on the draft periodic evaluation document.
- Instructions for submitting comments on the draft periodic evaluation document.

[PLACEHOLDER TO DISCUSS FEEDBACK RECEIVED DURING WORKSHOPS AND PUBLIC COMMENT PERIOD]

8.1.2 GSP Implementation Engagement and Coordination

As discussed in Section 4, UVRGA implemented several projects and management actions during the evaluation period. These activities required coordination with groundwater users, well owners, landowners, member agencies, and other interested parties. This included:

- Contacting well owners to implement the well registration, metering, and extraction reporting ordinance and obtain information about well status, groundwater use, and availability of alternative water supply.
- Coordinating with domestic well owners concerning the Domestic Well Survey.
- Coordinating with domestic well owners concerning the voluntary nitrate sampling program.
- Coordinating with well owners to obtain permission to monitor privately owned wells.
- Coordinating with the City of Ventura regarding implementation of the Foster Park Protocols.
- Coordinating with landowners and participating agencies to obtain access to streamflow, riparian, vegetation, and aquatic habitat monitoring locations.
- Participating in the Ventura River Watershed Council, including providing input on the Ventura River Watershed Resiliency Plan. UVRGA was elevated to a member of the Ventura River Watershed Council's Leadership Committee in 2026.

In addition to these management action-specific efforts, UVRGA has continued to successfully coordinate with the member agencies of its joint powers agreement agency to monitor groundwater levels and quality in the Basin.

8.1.3 Public Meetings

The UVRGA Board of Directors holds regular meetings to discuss ongoing projects, upcoming activities, and groundwater conditions in the Basin. Stakeholders are notified of the Board meetings via email. Additionally, the Board meeting schedule and announcements are posted to UVRGA's website.[15]

[15] https://uvrgroundwater.org/

Technical updates and feedback from stakeholders provided in these meetings are integrated into the Board's decision-making process.

Since adoption of the GSP, the UVRGA Board of Directors has held 42 regular meetings and 2 special meetings.[16] These meetings were used to discuss:

- GSP annual reports and corresponding groundwater conditions.
- Implementation of the Foster Park Protocols.
- Implementation of the well registration, metering, and extraction reporting ordinance.
- Information collected through implementation of GSP projects and management actions.

8.2 Coordination with Other Agencies

UVRGA was formed in December 2017, pursuant to a joint exercise of powers agreement between five local public agencies overlying the Basin: CMWD, the City of San Buenaventura, the County of Ventura, MOWD, and VRWD.

The City of San Buenaventura operates groundwater production facilities in the southern portion of the Basin at Foster Park. CMWD, MOWD, and VRWD provide water service within the Basin and operate groundwater production and monitoring facilities. The County of Ventura has land-use and well-permitting authority over much of the land overlying the Basin. Coordination between these agencies and interests, and their representatives, occurs organically through the GSA operations and decision-making process.

[16] https://uvrgroundwater.org/agendas/

9.0 Other Information [§356.4(k)]

§ 356.4 (k) *Other information the Agency deems appropriate, along with any information required by the Department to conduct a periodic review as required by Water Code Section 10733.*

9.1 Consideration of Adjacent Basins

The Basin is bordered by the Ojai Valley Groundwater Basin (DWR Basin No. 4-002) to the east and the Lower Ventura River Valley Basin (DWR Basin No. 4-003.02) to the south (UVRGA, 2022a). The Ojai Valley Groundwater Basin is a medium-priority basin managed by the Ojai Basin Groundwater Management Agency, while the Lower Ventura River Valley Basin is designated as a very-low-priority basin and is not subject to SGMA.

Groundwater underflows between the UVRGB and these adjacent basins are considered negligible because the basin boundaries coincide with exposed or shallow bedrock. Groundwater level and storage management within the Basin are not expected to cause undesirable results in the adjacent basins (UVRGA, 2022a).

However, the basins are hydraulically connected through surface water flows. San Antonio Creek conveys flow through the Ojai Valley Groundwater Basin to the Ventura River, near Casitas Springs, and surface water leaving the Basin may subsequently recharge the Lower Ventura River Valley Basin. These connections were considered in UVRGA's monitoring, modeling, and SMC development (UVRGA, 2022a). Monitoring and modeling activities completed during the evaluation period continue to support consideration of potential impacts to adjacent basins through management of surface water-groundwater interactions along the Ventura River.

9.2 Challenges Not Previously Discussed

The primary challenge facing UVRGA's GSP implementation is funding-related. UVRGA funds its activities through groundwater extraction fees and has also pursued grant funding to reduce the financial burden on groundwater users. UVRGA extraction fees are significantly higher than most neighboring basins in Ventura County that are subject to SGMA, with fees ranging from $140 to $168 per acre-foot, which is a significant burden on the groundwater users, especially small rural well owners and the small farming operations in the Basin (Table 7.1). UVRGA participates in the Small GSA Coalition, an advocacy group focused on developing solutions to address the financial challenges associated with GSP implementation for small agencies. UVRGA continues to coordinate with this group to address long-term financial considerations, including routine reporting and administrative costs.

9.3 Relevant Legal Actions

As discussed in Section 2.1, the Ventura River watershed is the subject of the action titled *Santa Barbara Channelkeeper v. State Water Resources Control Board and the City of San Buenaventura* (Los Angeles County Superior Court, Case No. 19STCP01176). The lawsuit was filed by Santa Barbara Channelkeeper against the City of Ventura and the State of California and subsequently brought against everyone

currently extracting or who could extract water from the system in the future (cross-complaint). The City of Ventura and Santa Barbara Channelkeeper entered into a settlement agreement in September 2019. The settlement agreement was subsequently amended in August 2020 and January 2025 (Appendix B).

In 2020, certain adjudication parties developed a proposed physical solution to settle the cross-complaint. The proposed physical solution seeks to address the habitat conditions for the Steelhead population in order to return the habitat to good condition and then maintain it. The Foster Park Protocols (Section 4.2) are a component of the proposed physical solution and are relevant to the GSP because they contribute to addressing one of the four applicable sustainability indicators: depletion of interconnected surface water.

The Ventura River Watershed Adjudication is progressing toward the adoption of a physical solution later this year (Appendix A), which is anticipated to significantly impact GSP implementation by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks (Appendix B).

10.0 Summary of Proposed or Completed Revisions to Plan Elements [§356.4(c),(i)]

> **§ 356.4**
> ***(c)*** *Elements of the Plan, including the basin setting, management areas, or the identification of undesirable results and the setting of minimum thresholds and measurable objectives, shall be reconsidered and revisions proposed, if necessary.*
> ***(i)*** *A description of completed or proposed Plan Amendments.*

The information presented in this first periodic evaluation demonstrates that management under the GSP continues to support groundwater sustainability in the Basin. Importantly, groundwater conditions and surface water conditions are either meeting, or progressing towards, the measurable objectives for all four applicable sustainability indicators identified in the GSP.

UVRGA anticipates amending the GSP in the next five years to incorporate the approaches described in this periodic evaluation to address DWR RCAs 1, 2, and 3A

UVRGA is not amending the GSP at this time because baseline groundwater level data are needed from the expanded monitoring network to establish additional locations with groundwater level minimum thresholds and data are needed under low-flow conditions in the Foster Park and Confluence Aquatic Habitat Areas to validate the Foster Park Aquatic Habitat Area depletion of interconnected surface water sustainable management criteria and to determine if depletion of interconnected surface water sustainable management criteria are needed for the Confluence Park Aquatic Habitat Area. Data collected over the next two to four years are expected to provide these baseline data; however, the sufficiency of those data for establishing or refining SMC will depend on hydrologic conditions encountered during that period. UVRGA also hopes to receive clarity during the next evaluation period regarding implementation of a physical solution in the Ventura River Watershed Adjudication and the potential implications for long-term watershed and groundwater management.

The decision to defer a plan update at this time is supported by the fact that:

- Groundwater and surface water conditions are either meeting, or progressing towards, the measurable objectives and sustainability goal for the Basin.
- Groundwater extraction volumes since GSP adoption have been approximately 16% lower than historical conditions and approximately 26% lower than the estimated sustainable yield.
- Updated projections estimate that future groundwater demands are up to 35% lower than originally projected in the GSP and approximately 20% lower than the estimated sustainable yield.
- The baseline data necessary to make changes to sustainable management criteria are not yet available to no fault of UVRGA. UVRGA addressed the groundwater level data gaps identified in the GSP (plus additional locations above-and-beyond the GSP data gaps), but time is needed for baseline data to be collected from these wells. Similarly, UVRGA has implemented monitoring actions for the depletions of interconnected surface water sustainability indicator, but data

under low flow conditions that are relevant to the sustainable management criteria determinations have not been obtained due to hydrologic conditions, which are out of UVRGA's control.

- The forthcoming Court adoption of a physical solution this year for the Ventura River Watershed Adjudication is expected to significantly impact UVRGA and GSP implementation by (1) expanding UVRGA's role to include serving as the Court's Management Entity for the Basin, (2) including projects to augment flow in the Ventura River during low conditions (which overlaps with GSP actions to address depletions of interconnected surface water), (3) including development of a comprehensive Fish Habitat Enhancement Plan for the watershed (which also overlaps with GSP actions to address depletions of interconnected surface water), and (4) including new coordination for implementation of monitoring networks.

UVRGA's extraction fees are already very high making it necessary to avoid multiple GSP amendments. Combining amendments to address the RCAs and integration and overlap of the forthcoming Court adoption of a physical solution for the Ventura River Watershed Adjudication is highly desirable as opposed to multiple GSP amendments to address these issues separately. UVRGA expects that the Basin will continue to progress towards the sustainability goal over the next five years. Ongoing groundwater, streamflow, biological, and modeling efforts are expected to improve understanding of the relationship between groundwater conditions, surface water flows, and associated depletion of interconnected surface water and provide additional information for a future GSP amendment which can integrate the physical solution. This amendment is expected no later than concurrent with the next required GSP periodic evaluation due in January 2032.

11.0 References and Technical Studies [§ 354.4(b)]

California Department of Water Resources (DWR). 2010. *California Statewide Groundwater Elevation Monitoring (CASGEM) Program Procedures for Monitoring Entity Reporting*. December 2010.

_____. 2016. *BMP 2, Best Management Practices for Sustainable Management of Groundwater – Monitoring Networks and Identification of Data Gaps*. December 2016.

_____. 2023. *Re: Approved Determination of the 2022 Groundwater Sustainability Plan Submitted for the Ventura River Basin – Upper Ventura River Subbasin*. April 27, 2023.

Casitas Municipal Water District (CMWD). 2026. *2025 Urban Water Management Plan.* Adopted June 24, 2026.

City of Ventura. 2025. City of Ventura 2050 General Plan. Adopted October 21, 2025.

INTERA Incorporated. 2024. *Post-Flooding Numerical Model Update and Review.* Technical Memorandum Prepared for Upper Ventura River Groundwater Agency. July 2024.

_____. 2025. *UVRGA Groundwater Model Sensitivity Analysis and Calibration Update.* Prepared for Upper Ventura River Groundwater Agency. October 2, 2025.

_____. 2026. *Updated Indirect Depletion Estimates and Preliminary Evaluation of Pumping Management to Increase Streamflow.* Prepared for Upper Ventura River Groundwater Agency. August 27, 2026.

Los Angeles Regional Water Quality Control Board (LA RWQCB). 2019. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

Rincon Consultants, Inc. 2021. *Annual Data Deliverable Memorandum, Water Year 2020, Groundwater Level Monitoring*. Prepared for Upper Ventura River Groundwater Agency. January 31, 2021.

_____. 2022a. *Annual Data Deliverable Memorandum, Water Year 2021, Groundwater Level Monitoring.* Prepared for Upper Ventura River Groundwater Agency. January 20, 2022.

_____. 2022b. A*nnual Data Deliverable Memorandum, Water Year 2022, Groundwater Level Monitoring.* Prepared for Upper Ventura River Groundwater Agency. December 19, 2022.

_____. 2022c. *Confluence Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan*. Prepared for Upper Ventura River Groundwater Agency. July 2022.

_____. 2022d. *Foster Park Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan.* Prepared for Upper Ventura River Groundwater Agency. July 2022.

_____. 2023a. *Semi-Annual Data Deliverable Memorandum, Water Year 2023, Groundwater Level Monitoring.* Prepared for Upper Ventura River Groundwater Agency. June 13, 2023.

_____. 2023b. *Annual Data Deliverable Memorandum, Water Year 2023, Groundwater Level Monitoring.* Prepared for Upper Ventura River Groundwater Agency. December 11, 2023.

_____. 2024a. *Annual Data Deliverable Memorandum, Water Year 2024, Groundwater Level Monitoring.* Prepared for Upper Ventura River Groundwater Agency. December 23, 2024 (updated February 5, 2025).

_____. 2024b. *Proposed Amendments to the Confluence Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan*. Prepared for Upper Ventura River Groundwater Agency. March 31, 2024.

_____. 2024c. *Aquatic Groundwater Dependent Ecosystems Monitoring for Water Year 2023.* Prepared for Upper Ventura River Groundwater Agency. January 2, 2024.

_____. 2024d. *Proposed Amendments to the Foster Park Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan.* Prepared for Upper Ventura River Groundwater Agency. March 31, 2024.

_____. 2024e. *Camino Cielo Stream Flow Monitoring Annual Data Transmittal for Water Year 2023.* Prepared for Upper Ventura River Groundwater Agency. January 2, 2024.

_____. 2024f. *Visual Streamflow Monitoring for Water Year 2023.* Prepared for Upper Ventura River Groundwater Agency. January 2, 2024.

_____. 2025a. Annual Data Deliverable Memorandum, Water Year 2025, Groundwater Level Monitoring. Prepared for Upper Ventura River Groundwater Agency. December 15, 2025.

_____. 2025b. *Proposed Amendments to the Confluence Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan*. Prepared for Upper Ventura River Groundwater Agency. September 4, 2025.

_____. 2025c. *Aquatic Groundwater Dependent Ecosystems Monitoring for Water Year 2024.* Prepared for Upper Ventura River Groundwater Agency. September 4, 2025.

_____. 2025d. *Proposed Amendments to the Foster Park Aquatic Habitat Area Aquatic Groundwater Dependent Ecosystem Monitoring Workplan.* Prepared for Upper Ventura River Groundwater Agency. September 4, 2025.

_____. 2026a. *Aquatic Groundwater Dependent Ecosystems Annual Data Deliverable and Three-Year Monitoring Report for Water Years 2022 – 2025.* Prepared for Upper Ventura River Groundwater Agency. February 2, 2026.

_____. 2026b. *Camino Cielo Stream Flow Monitoring Annual Data Transmittal for Water Year 2025.* Prepared for Upper Ventura River Groundwater Agency. January 23, 2026.

_____. 2026c. *Visual Stream Flow Monitoring for Water Year 2023.* Prepared for Upper Ventura River Groundwater Agency. January 23, 2026.

Upper Ventura River Groundwater Agency (UVRGA). 2022a. *Upper Ventura River Valley Basin Groundwater Sustainability Plan.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. January 2022.

_____. 2022b. *Upper Ventura River Valley Basin Annual Report Water Years 2020 and 2021.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. April 2022.

_____. 2023. *Upper Ventura River Valley Basin Annual Report Water Years 2022.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. April 2023.

_____. 2024. *Upper Ventura River Valley Basin Annual Report Water Years 2023.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. April 2024.

_____. 2025. *Upper Ventura River Valley Basin Annual Report Water Years 2024.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. April 2025.

_____. 2026a. *Upper Ventura River Valley Basin Annual Report Water Years 2025.* Prepared by Bondy Groundwater Consulting, Inc. and INTERA Incorporated. April 2026.

_____. 2026b. *Domestic Well Survey Technical Memorandum.* Prepared by Upper Ventura Groundwater Management Agency Executive Director, Bryan Bondy, PG, CHG. July 2026.

_____. 2026c. *Stakeholder Engagement Plan, Upper Ventura River Groundwater Basin.* Prepared and Adopted by the Upper Ventura Groundwater Management Agency, May 10, 2018, Updated January 2026.

_____. 2026d. *Domestic Well Survey Technical Memorandum.* Prepared by UVRGA Executive Director Bryan Bondy, PG, CHG. July 2026.

Ventura Water. 2026. *2025 Urban Water Management Plan.* Prepared by Kennedy/Jenks Consultants. May 2026.