Revised Draft SEIR Sections

5.11 Utilities and Service Systems—Water Supply and Service

5.0 ENVIRONMENTAL IMPACT ANALYSIS

11. UTILITIES AND SERVICE SYSTEMS—WATER SUPPLY AND SERVICE

1. INTRODUCTION

This section of the Draft Supplemental Environmental Impact Report (SEIR) analyzes the Modified Project's impacts associated with water supply as compared to the 2017 Project's impacts analyzed in the State-certified EIR. Much of the data presented herein is from the Santa Clarita Valley Water Agency's (SCV Water) 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency (2020 UWMP), and the Water Supply Assessment (WSA) prepared for the Modified Project by SCV Water, dated June 7, 2022, a technical memorandum entitled *Updated Water Demand Projections for the Entrada South and Valencia Commerce Center Developments* (Water Demand Report) by GSI Water Solutions, Inc., dated April 2022, and a confirmatory memorandum entitled Consistency of WSA Water Demand Projections for Entrada South and Valencia Commerce Center (Confirmatory Water Demand Memo) by GSI Water Solutions, Inc., dated October 18, 2023, which are provided as **Appendices 5.11a, 5.11b, and 5.11c**, respectively, of this SEIR. For hydrology and water quality-related impact analyses, please refer to sections 5.5 Hydrology and Water Quality—Hydrology and 5.6 Hydrology and Water Quality—Water Quality, respectively.

2. ENVIRONMENTAL SETTING

a. Regulatory Setting

Federal, state, regional, and local adopted plans and regulations governing water supply are pertinent to the proposed Modified Project. An overview is provided in **Table 5.11-1**, Utilities and Service Systems---Water Supply Regulatory Overview, beginning on page 5.11-2 and a detailed discussion of these plans and regulations is provided below.

(1) Federal Regulations

(a) Safe Water Drinking Act

The Safe Drinking Water Act (42 United States Code [USC] Section 300F *et seq*.) grants the United States Environmental Protection Agency (USEPA) the authority to set

Table 5.11-1
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
Federal Regulations	
Safe Water Drinking Act The Safe Drinking Water Act (42 USC Section 300F *et seq*.) grants the U.S. Environmental Protection Agency (USEPA) the authority to set drinking water standards. Drinking water standards apply to public water systems, which includes the SCV Water system. There are two categories of drinking water standards: (a) the National Primary Drinking Water Regulations; and (b) the National Secondary Drinking Water Regulations. The National Primary Drinking Water Regulations are legally enforceable standards that apply to public water systems and protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water. The National Secondary Drinking Water Regulations are non-mandatory guidelines for certain substances that do not present a risk to public health.	USEPA
State Regulations	
Safe Water Drinking Act The California State Safe Drinking Water Act (Health & Safety Code Sections 116270 *et seq*.) was passed to build on and strengthen the federal Act. The State Act authorizes the State's Department of Public Health (DPH) to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by the USEPA under the federal Act.	DPH
California Water Code The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) must consider and act upon all applications for permits to appropriate waters. Division 6 of the Water Code controls conservation, development, and utilization of the State's water resources, and Division 7 addresses water quality protection and management. California is divided into nine regions governed by Regional Water Quality Control Boards (RWQCBs), which implement and enforce provisions of the California Water Code and the federal Clean Water Act (CWA) under the oversight of the SWRCB, and their chief regulatory focus is the protection of surface and groundwater quality. The Los Angeles Regional Water Quality Control Board (Region 4) (LARWQCB) is the Board with regulatory jurisdiction over the Modified Project Site.	SWRCB, LARWQCB
Porter-Cologne Water Quality Control Act The Porter–Cologne Water Quality Control Act (Water Code Sections 13000 et seq.) establishes the principal California legal and regulatory framework for water quality control and is embodied in the Water Code. The Water Code authorizes the SWRCB to implement the provisions of the federal CWA.	SWRCB
Water Conservation Act of 2009 The Water Conservation Act (Water Code Section 10608) (Senate Bill [SB]	SCV Water

Table 5.11-1 (Continued)
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
X7-7) requires all water suppliers to increase water use efficiency. This legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State was required to incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Each urban retail water supplier was also required to develop urban water use targets and an interim urban water use target by July 1, 2011.	
Water Supply Assessments and Written Verifications of Water Supply SB 610 (Water Code Sections 10910 *et seq*.; SB 610) requires the preparation of a WSA for projects within cities and counties that propose projects meeting certain criteria. The WSA evaluates water supplies that are or will be available in normal, single-dry, and multiple-dry years during a 20-year planning horizon, and determines whether such supplies can meet existing and planned future demands, including the demand associated with a proposed project.	SCV Water
California Urban Water Management Planning Act The California Urban Water Management Planning Act (Water Code Sections 10610–10656) requires certain urban water suppliers, including SCV Water, that provides water to 3,000 or more customers, or provides over 3,000 acre-feet (af) of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The Act requires reliability information be reported in the UWMP, which must be updated every five years, and describes the required contents of a UWMP, as well as how urban water suppliers should adopt and implement UWMPs.	~~SVC~~ SCV Water
Delta Plan Water supplies in California are based largely around the Sacramento-San Joaquin Delta (Delta). Water from northern California surface waters and snowmelt travels to and through the Delta to Central Valley urban and agricultural users and to southern California through aqueducts, dams, and other infrastructure. The Sacramento-San Joaquin Delta Reform Act (Water Code Sections 85000, *et seq*.) established the Delta Stewardship Council (Delta Council) with the primary goal of developing and implementing an enforceable, long-term management plan for the Delta (Delta Plan). The Delta Plan's coequal goals of providing a more reliable water supply for California while restoring the Delta ecosystem are the foundation of all state water management policies.	Delta Council
Assembly Bill 1668 and Senate Bill 606 Assembly Bill (AB) 1668 and SB 606 were signed into law on May 31, 2018, and together set permanent overall targets for water consumption, with particular focus on indoor uses of water. AB 1668 requires the establishment of specific long-term standards for per-capita daily indoor residential water use, plus performance measures for commercial, industrial, and institutional water use. The bill requires the California Department of Water Resources (DWR) and the SWRCB to study urban indoor water-use standards and	DWR, SWRCB

Table 5.11-1 (Continued)
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
make recommendations for those standards to the state legislature by January 1, 2021. Final standards for urban indoor water-use will be adopted by the state legislature for incorporation into Section 10609.4 of the California Water Code. AB 1668 contains provisional standards for indoor residential water use rates and defines performance measures for commercial, industrial, and institutional (CII) water use as consisting of actions taken by urban retail water suppliers that result in increased water use efficiency for water uses other than process water (defined in Section 10608.12(p) of the Water Code).	
California's Model Water Efficient Landscape Ordinance AB 1881, which is known as the Water Conservation in Landscaping Act of 2006, requires cities and counties to develop and implement: (1) guidelines for local landscape ordinances and water-efficient landscape design; and (2) regulations and performance standards for energy-efficient landscape materials (including controllers and soil moisture sensors). This legislation also requires that water purveyors, after January 1, 2005, install separate water meters to measure the volume of water used exclusively for landscape purposes. On September 10, 2009, DWR adopted its Model Water Efficient Landscape Ordinance (MWELO) in response to the passage of AB 1881 (23 Cal. Code Regs. § 490 et seq.). This ordinance specified calculation methods and key input parameters (such as reference evapotranspiration rates (ETo) values) for determining the Maximum Applied Water Allowance (MAWA), which is the maximum amount of water that can be applied to an irrigated landscape. Local agencies had until December 1, 2015, to adopt the 2015 MWELO ordinance or to adopt a Local Ordinance at least as effective in conserving water as the 2015 MWELO ordinance. Title 31 of the Los Angeles County Code requires that turf areas in post-construction landscape designs not exceed 25 percent of the total landscaped area; non-invasive, drought-tolerant plant and tree species appropriate for the climate zone region be utilized in at least 75 percent of the total landscaped area; and hydrozoning irrigation techniques be incorporated. In addition, a water budget must be developed for landscape irrigation use that conforms to the DWR Model Water Efficient Landscape Ordinance.	County of Los Angeles
Groundwater Management Act AB 3030 (Water Code Sections 10750–10756) provides a systematic procedure for an existing local agency to develop a groundwater management plan. The law provides such an agency with the powers of a water replenishment district, including the power to raise revenue for the payment of facilities to manage the groundwater basin (extraction, recharge, conveyance, quality).	SCV Water
California Water Plan DWR's California Water Plan sets forth California's strategic plan for sustainable water resource development and management. Updated every five years, the California Water Plan Update 2018 "provides recommended	DWR

Table 5.11-1 (Continued)
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome California's most pressing water resource challenges."[a] The plan identifies the exacerbating impacts of climate change on reduced water supply throughout the state.	
California Drinking Water Standards State drinking water standards are based on federal standards and are listed in Title 22 of the California Code of Regulations. The California DPH administers the state drinking water standards.	DPH
California Water Recycling Standards The California Legislature has developed state requirements for the production, discharge, distribution, and use of recycled water. These requirements are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3, Reclamation Criteria, Sections 60301 through 60475, and Title 17. The California DPH administers the state recycling water standards.	DPH
California Building Standards Code The California Green Building Standards Code, commonly referred to as the CALGreen Code, is set forth in CCR Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4 contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures. (SB 407, 2009 [Civil Code §§ 1101.1 et seq.].)	County of Los Angeles
Sustainable Groundwater Management Act In September 2015, Governor Jerry Brown signed into law a package of three bills that, together, constitute the Sustainable Groundwater Management Act (SGMA), codified in Section 10720 et seq. of the California Water Code. The SGMA requires Groundwater Sustainability Agencies (GSAs) in medium and high-priority basins to analyze and address overdraft of groundwater resources and balance groundwater pumping and recharge rates to achieve sustainability. This legislation created the statutory framework for planning and implementing sustainable groundwater management without causing undesirable results as defined by the SGMA. Under the SGMA, medium and high-priority basins should reach sustainability within 20 years of implementing their Groundwater Sustainability Plans (GSPs), which would be by the year 2042 for the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin).	SCV Water

Table 5.11-1 (Continued)
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
Regional Regulations	
SCV Water Agency's Adopted Groundwater Management Plan SCV Water's Groundwater Management Plan is intended to complement and formalize a number of existing water supply and water resource planning and management activities in SCV Water's service area, which effectively encompass the East Subbasin of the Santa Clara River Valley Groundwater Basin. The GWMP also includes a basin-wide monitoring program, the results of which provide input to annual reporting on water supplies and water resources in the Basin, as well as input to assessment of Basin yield for water supply as described herein. Groundwater level data from the existing groundwater monitoring program is reported to DWR as part of SBX7-6 implementation (California Statewide Groundwater Elevation Monitoring [CASGEM]).	SCV Water
Santa Clarita Valley Groundwater Sustainability Agency and the Groundwater Sustainability Plan In accordance with the SGMA, discussed above, SCV Water, the City of Santa Clarita, the County of Los Angeles, and the Los Angeles County Waterworks District No. 36, Val Verde entered into a Joint Exercise of Powers Agreement to form the Santa Clarita Valley Groundwater Sustainability Agency (SCVGSA). The SCVGSA began preparing the basin's GSP in accordance with the SGMA. The SCVGSA's GSP provides information about the area affected by this plan, the basin setting, the sustainable management criteria, the monitoring networks, projects and management actions to achieve sustainability, plan implementation, the list of references and technical studies used in the development of this plan, and the supporting appendices. The SCVGSA adopted the GSP in January 2022.	SCV Water
County Regulations	
OurCounty Sustainability Plan In August 2019, the County of Los Angeles released the OurCounty Sustainability Plan, which "outlines what local governments and stakeholders can do to enhance the well-being of every community in the County while reducing damage to the natural environment and adapting to the changing climate …."[b] The plan encourages increasing sustainable yield from groundwater basins, reducing barriers to alternative water sources, creating a resilient and integrated water system, and promoting collaboration among the County's various groundwater managers. As part of the recent General Plan and Safety Element Update on July 12, 2023, the County identified the Sustainability Plan Program as a method for implementing and addressing overall policy objectives of the General Plan.	County of Los Angeles
SCV Water's 2020 Urban Water Management Plan This 2020 UWMP integrates local and regional land use planning, regional water supply, infrastructure, and demand management projects, as well as statewide issues of concern like climate change and regulatory revisions. The 2020 UWMP provides information on cumulative water usage/demand,	SCV Water

Table 5.11-1 (Continued)
Utilities and Service Systems---Water Supply Regulatory Overview

Issue Area and Relevant Legislation	Applicable Agency
water supply sources, and water reliability planning within the SCV Water's service area. The 2020 UWMP also provides guidance related to the following: plan preparation, water system descriptions, water use and supply characterizations, drought risk assessments, water shortage contingency plans, demand management measures and plan adoption, submittal, and implementation. Furthermore, the 2020 UWMP includes reference material and resources, including applicable California laws and recent changes, an annual water supply and demand assessment, water loss auditing information, recycled water use information, reporting requirements, UWMP tables and an SB X7-7 Verification Form.	
SCV Water's Sustainability Plan In July 2023, SCV Water adopted its inaugural Sustainability Plan, which is a long-range planning document intended to guide the agency's operational sustainability actions through 2045 and align with the State's GHG reduction targets for 2030 and 2045 (100% carbon-neutrality).[c]	SCV Water

[a] *DWR, California Water Plan Update 2018, June 2019, p. ES-1.*
[b] *County of Los Angeles, OurCounty Los Angeles Countywide Sustainability Plan, August 2019, p. 7.*
[c] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023.*
Source: Eyestone Environmental, 2024.

drinking water standards. Drinking water standards apply to public water systems, which includes the SCV Water system. There are two categories of drinking water standards: (a) the National Primary Drinking Water Regulations; and (b) the National Secondary Drinking Water Regulations. The National Primary Drinking Water Regulations are legally enforceable standards that apply to public water systems and protect drinking water quality by limiting the levels of specific contaminants that can adversely affect public health and are known or anticipated to occur in water. The National Secondary Drinking Water Regulations are non-mandatory guidelines for certain substances that do not present a risk to public health.

(2) State Regulations

(a) Safe Water Drinking Act

The California State Safe Drinking Water Act (Health & Safety Code Sections 116270 *et seq*.) was passed to build on and strengthen the federal Act. The State Act authorizes the State's Department of Public Health (DPH) to protect the public from contaminants in drinking water by establishing maximum contaminant levels (MCLs) that are at least as stringent as those developed by the USEPA under the federal Act.

(b) California Water Code

The California Water Code contains provisions that control almost every consideration of water and its use. Division 2 of the California Water Code provides that the State Water Resources Control Board (SWRCB) must consider and act upon all applications for permits to appropriate waters. Division 6 of the Water Code controls conservation, development, and utilization of the State's water resources, and Division 7 addresses water quality protection and management.

California is divided into nine regions governed by Regional Water Quality Control Boards (RWQCBs), which implement and enforce provisions of the California Water Code and the federal Clean Water Act (CWA) under the oversight of the SWRCB, and their chief regulatory focus is the protection of surface and groundwater quality. The Los Angeles Regional Water Quality Control Board (Region 4) (LARWQCB) is the Board with regulatory jurisdiction over the Modified Project Site.

(c) Porter-Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Water Code Sections 13000 *et seq*.) establishes the principal California legal and regulatory framework for water quality control and is embodied in the Water Code. The Water Code authorizes the SWRCB to implement the provisions of the federal CWA.[‡]

(d) Water Conservation Act of 2009

The Water Conservation Act (Water Code Section 10608) (Senate Bill [SB] X7-7) requires all water suppliers to increase water use efficiency. This legislation sets an overall goal of reducing per capita urban water use, compared to 2009 use, by 20 percent by December 31, 2020. The State was required to incremental progress towards this goal by reducing per capita water use by at least 10 percent on or before December 31, 2015. Each urban retail water supplier was also required to develop urban water use targets and an interim urban water use target by July 1, 2011.

[‡] *In accordance with the federal Clean Water Act and Porter-Cologne Water Quality Control Act, SWRCB is currently conducting its 2024 Review of State Water Quality Control Plans and State Policies for Water Quality Control, through which SWRCB reviews and considers updating key State policies, including but not limited to the Recycled Water Policy, Sources of Drinking Water Policy, and State Implementation Policy. It is anticipated that the Draft Staff Report will be released in Spring or Summer 2025 and that SWRCW will consider the adoption of the Final Report in Fall 2025. SWRCB, Notice of Commencement of 2024 Review of State Water Quality Control Plans and State Policies for Water Quality Control, August 15, 2024.*

(e) *Water Supply Assessments and Written Verifications of Water Supply*

SB 610 (Water Code Sections 10910 *et seq*.; SB 610) requires the preparation of a WSA for projects within cities and counties that propose any of the following:

- Residential developments of more than 500 dwelling units;
- Shopping centers or business establishments employing more than 1,000 persons or having more than 500,000 square feet of floor space;
- Commercial office buildings employing more than 1,000 persons or having more than 250,000 square feet of floor space;
- Hotels, motels, or both, having more than 500 rooms;
- Industrial, manufacturing, or processing plants, or industrial parks planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area;
- Mixed-use projects that include one or more of the projects specified in Water Code Section 10912, subdivision (a); or
- Projects that would demand an amount of water equivalent to or greater than the amount of water required by a 500-dwelling-unit project.

Once a city or county determines that a project, as defined by California Water Code section 10912, is subject to the California Environmental Quality Act (CEQA) meets qualifying criteria, SB 610 requires the city or county to identify a public water system that may supply water for the project and request that the water supplier prepare a WSA to be included in an environmental document prepared for the project.[1]

SB 610 provides that when environmental review of certain development projects is required, the public water system that is to serve the development must complete a WSA. The WSA evaluates water supplies that are or will be available in normal, single-dry, and multiple-dry years during a 20-year planning horizon, and determines whether such supplies can meet existing and planned future demands, including the demand associated with a proposed project. A WSA has been prepared for the Modified Project, as discussed below.

[1] *California Water Code Sections 10910(b) and 10910(c)(2).*

SB 221 (Government Code Sections 66455.3 and 66473.7; SB 221) requires a city, county, or local agency to include a condition to any tentative subdivision map that a sufficient water supply must be available to serve the subdivision. The term "sufficient water supply" is defined as the total water supplies available during normal, single-dry, and multiple-dry years within a 20-year planning horizon that would meet the subdivision project's estimated water demand, and the demand from existing and planned future water uses (including agricultural and industrial uses) within the specified service area (Water Verification). SB 221 also requires verification of projected water supplies to be based on entitlement contracts, capital outlay programs, and regulatory permits and approvals.

Urban water suppliers can use their most recent Urban Water Management Plan (UWMP) as a foundational document in completing SB 610 WSAs and SB 221 Water Verifications.[2]

SB 7, enacted on November 10, 2009, mandates new water conservation goals for UWMPs, requiring Urban Water Suppliers to achieve a 20-percent-per-capita water consumption reduction by the year 2020 statewide, as described in the “20 x 2020” State Water Conservation Plan.[3] As such, each updated UWMP must now incorporate a description of how each respective urban water supplier will quantitatively implement this water conservation mandate, which requirements in turn must be taken into consideration in preparing and adopting WSAs under SB 610. As discussed in the WSA for the Modified Project, “the Project’s water demand has already been incorporated into the existing UWMP demand projections.”

(f) California Urban Water Management Planning Act

The California Urban Water Management Planning Act (Water Code Sections 10610–10656) requires certain urban water suppliers, including SCV Water, that provides water to 3,000 or more customers, or provides over 3,000 acre-feet (af) of water annually, to make every effort to ensure the appropriate level of reliability in its water service to meet the needs of its customers during normal, dry, and multiple-dry years. The Act requires reliability information be reported in the UWMP, which must be updated every five years, and describes the required contents of a UWMP, as well as how urban water suppliers should adopt and implement UWMPs.

State and local agencies and the public frequently use UWMPs to determine if agencies are planning adequately to reliably meet water demands in various service areas.

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[2] *DWR, Urban Water Management Plan Guidebook 2020, March 2021.*

[3] *SWRCB, 20 x 2020 Water Conservation Plan, February 2010.*

As such, UWMPs serve as an important element in documenting water supply availability and reliability for purposes of complying with state laws, SB 610 and SB 221, which link water supply sufficiency to certain land use development project approvals.

(g) Delta Plan

Water supplies in California are based largely around the Sacramento-San Joaquin Delta (Delta). Water from northern California surface waters and snowmelt travels to and through the Delta to Central Valley urban and agricultural users and to southern California through aqueducts, dams, and other infrastructure. The Sacramento-San Joaquin Delta Reform Act (Water Code Sections 85000, *et seq*.) established the Delta Stewardship Council (Delta Council) with the primary goal of developing and implementing an enforceable, long-term management plan for the Delta (Delta Plan). The Delta Plan's coequal goals of providing a more reliable water supply for California while restoring the Delta ecosystem are the foundation of all state water management policies.

As required by statute, the Delta Plan adopts a science-based adaptive management strategy to manage decision making in the face of uncertainty.[4] The law requires that the Delta Plan be updated every five years, and each update is intended to build on an evolving base of knowledge, direct near- and midterm actions, and preserve and protect longer-term opportunities.

(h) Assembly Bill 1668 and Senate Bill 606

Assembly Bill (AB) 1668 and SB 606 were signed into law on May 31, 2018, and together set permanent overall targets for water consumption, with particular focus on indoor uses of water. AB 1668 requires the establishment of specific long-term standards for per-capita daily indoor residential water use, plus performance measures for commercial, industrial, and institutional water use. The bill requires the California Department of Water Resources (DWR) and the SWRCB to study urban indoor water-use standards and make recommendations for those standards to the state legislature by January 1, 2021. Final standards for urban indoor water-use will be adopted by the state legislature for incorporation into Section 10609.4 of the California Water Code. AB 1668 contains provisional standards for indoor residential water use rates as follows:

- Until January 1, 2025: 55 gallons per capita per day

[4] *California Water Code Section 85308(f).*

- Beginning January 1, 2025: The greater of 52.5 gallons per capita per day or a standard recommended by DWR and the SWRCB

- Beginning January 1, 2030: The greater of 50 gallons per capita per day or a standard recommended by DWR and the SWRCB

AB 1668 defines performance measures for commercial, industrial, and institutional (CII) water use as consisting of actions taken by urban retail water suppliers that result in increased water use efficiency for water uses other than process water (defined in Section 10608.12(p) of the Water Code). The bill amends Section 10608.12(n) of the Water Code to state that performance measures may include educating CII water users on Best Management Practices (BMPs), conducting water use audits, and preparing water management plans. AB 1668 requires SWRCB to adopt long-term performance measures for CII water uses by June 30, 2022. While AB 1668 is focused primarily on indoor water uses of urban water, it also revises Water Code Section 10608.20(b)(2)(B) to require that landscapes irrigated through dedicated or residential meters or connections must meet the state's standards for irrigated landscape design.

SB 606 requires an urban retail water supplier to calculate an urban water use objective no later than November 1, 2023, and by November 1 of each year thereafter. This bill also revises certain provisions in the Urban Water Management Planning Act, including requiring that urban water suppliers include in their UWMP a drought risk assessment that examines water shortage risks for a 5-year-long drought. In a case where an urban water supplier has not submitted its UWMP to DWR, SB 606 deems the supplier to be ineligible for any water grant or loan, whereas prior law had limited this ineligibility to just certain types of water grants and loans. SB 606 also requires urban water suppliers to prepare, adopt, and periodically review a water shortage contingency plan, conduct an annual supply and demand assessment, and submit an annual water shortage assessment report to DWR.

In August 2018, DWR issued a public-review draft version of a detailed primer discussing these two bills and their implementation. As noted on page 7 of the primer, the SWRCB's actions for adopting and implementing water use efficiency standards have been deemed by the legislature to be Class 8 actions for protecting the environment and hence are exempt from the requirements of CEQA. The primer goes on to note that the new authorities and requirements for urban water use objectives: (1) are enforceable after 2022; (2) do not modify the current statewide goal of a 20-percent reduction in urban per-capita water use by 2020; and (3) should result in urban water conservation that exceeds the 2020 targets.

(i) California's Model Water Efficient Landscape Ordinance

AB 1881, which is known as the Water Conservation in Landscaping Act of 2006, requires cities and counties to develop and implement: (1) guidelines for local landscape ordinances and water-efficient landscape design; and (2) regulations and performance standards for energy-efficient landscape materials (including controllers and soil moisture sensors). This legislation also requires that water purveyors, after January 1, 2005, install separate water meters to measure the volume of water used exclusively for landscape purposes.

On September 10, 2009, DWR adopted its Model Water Efficient Landscape Ordinance (MWELO) in response to the passage of AB 1881 (23 Cal. Code Regs. § 490 et seq.). This ordinance specified calculation methods and key input parameters (such as reference evapotranspiration rates (ETo) values) for determining the Maximum Applied Water Allowance (MAWA), which is the maximum amount of water that can be applied to an irrigated landscape. Local agencies were required to adopt the MWELO or an alternative local ordinance by January 2010. At that time, the City of Santa Clarita notified DWR that it would adopt the state's MWELO ordinance rather than develop its own ordinance.

DWR enacted new rules that updated the MWELO, effective September 2015. This update of the MWELO is contained in Sections 490 through 495, Chapter 2.7, Division 2, Title 23 in the California Code of Regulations. The 2015 MWELO applies to landscaping and irrigation systems at most new construction sites and in landscapes of 500 square feet or larger that are being renovated. DWR enacted the 2015 MWELO in response to the Governor's Executive Order B-29-15 of April 1, 2015, which ordered further cuts in water use and included a directive for DWR to update the MWELO to increase water efficiency standards for new and existing landscapes. Noteworthy aspects of the 2015 MWELO update include the following:

- Appendix A of the 2015 MWELO specifies the ETo that is to be used for evaluating compliance with the MWELO. These rates were updated in some locations from values published in the prior version of the MWELO. In Santa Clarita, Appendix A of the 2015 MWELO specifies an annual water demand for cool season turf grass to be 61.5 inches per year, which is equivalent to approximately 5.1 feet per year.

- For landscapes using potable water, the 2015 MWELO update limits the maximum allowable water application rate to 55 percent of ETo for residential landscapes and 45 percent of ETo for non-residential landscapes. In Santa Clarita, this equates to 33.8 inches per year (approximately 2.8 feet per year) on residential landscapes and 27.7 inches per year (approximately 2.3 feet per year) on non-residential landscapes.

- For landscapes that meet the 2015 MWELO's definition of a Special Landscape Area (SLA), water application is allowed at rates up to 100 percent of ETo. SLAs include landscapes solely dedicated to edible plants; recreational areas outside of residential land parcels that are designated for active play, recreation, or public assembly; areas irrigated with recycled water; and water features that use recycled water.

Local agencies had until December 1, 2015, to adopt the 2015 MWELO ordinance or to adopt a Local Ordinance at least as effective in conserving water as the 2015 MWELO ordinance. Local agencies working together to develop a Regional Ordinance had until February 1, 2016, to adopt such an ordinance, but they were still subject to the December 2015 reporting requirements described in the 2015 MWELO ordinance.

Title 31 of the Los Angeles County Code requires that turf areas in post-construction landscape designs not exceed 25 percent of the total landscaped area; non-invasive, drought-tolerant plant and tree species appropriate for the climate zone region be utilized in at least 75 percent of the total landscaped area; and hydrozoning irrigation techniques be incorporated. In addition, a water budget must be developed for landscape irrigation use that conforms to the DWR Model Water Efficient Landscape Ordinance.

(j) Groundwater Management Act

AB 3030 (Water Code Sections 10750–10756) provides a systematic procedure for an existing local agency to develop a groundwater management plan. The law provides such an agency with the powers of a water replenishment district, including the power to raise revenue for the payment of facilities to manage the groundwater basin (extraction, recharge, conveyance, quality).

(k) Groundwater Monitoring

Water Code Section 10920 requires that local agencies monitor the elevation of their groundwater basins to help better manage the resource during both normal water years and drought conditions.

(l) California Water Plan

DWR's California Water Plan sets forth California's strategic plan for sustainable water resource development and management. Updated every five years, the California Water Plan Update 2018 "provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and

decision-makers to overcome California's most pressing water resource challenges."[5] The plan identifies the exacerbating impacts of climate change on reduced water supply throughout the state.

The California Water Plan Update 2018 anticipates that climate change may result in more-extreme hydrological events in California. For example, the state-wide drought that occurred from 2012 to 2016, which was then followed by California's second wettest year on record, provides an example of the extreme hydrological events that could result from climate change.[6] The California Water Plan Update 2018 also discusses how the prior drought and future extreme hydrological events may result in declining groundwater levels and reduced access to clean, safe, reliable, and affordable water supplies.

(m) California Drinking Water Standards

State drinking water standards are based on federal standards and are listed in Title 22 of the California Code of Regulations. The California DPH administers the state drinking water standards.

(n) California Water Recycling Standards

The California Legislature has developed state requirements for the production, discharge, distribution, and use of recycled water. These requirements are contained in the California Code of Regulations, Title 22, Division 4, Chapter 3, Reclamation Criteria, Sections 60301 through 60475, and Title 17. The California DPH administers the state recycling water standards.

(o) California Building Standards Code

The California Green Building Standards Code, commonly referred to as the CALGreen Code, is set forth in CCR Title 24, Part 11, and establishes voluntary and mandatory standards pertaining to the planning and design of sustainable site development and water conservation, among other issues. CALGreen, part of the California Building Standards Code, became effective on January 2, 2017, and mandates green building requirements throughout the state of California.

The California Plumbing Code is codified in Title 24, California Code of Regulations, Part 5. The Plumbing Code contains regulations including, but not limited to, plumbing

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[5] *DWR, California Water Plan Update 2018, June 2019, p. ES-1.*

[6] *DWR, California Water Plan Update 2018, June 2019, p. 2-1.*

materials, fixtures, water heaters, water supply and distribution, ventilation, and drainage. More specifically, Part 5, Chapter 4 contains provisions requiring the installation of low flow fixtures and toilets. Existing development will also be required to reduce its wastewater generation by retrofitting existing structures with water efficient fixtures. (SB 407, 2009 [Civil Code §§ 1101.1 et seq.].)

(p) Sustainable Groundwater Management Act

In September 2015, Governor Jerry Brown signed into law a package of three bills that, together, constitute the Sustainable Groundwater Management Act (SGMA), codified in Section 10720 et seq. of the California Water Code. The SGMA requires Groundwater Sustainability Agencies (GSAs) in medium and high-priority basins to analyze and address overdraft of groundwater resources and balance groundwater pumping and recharge rates to achieve sustainability. This legislation created the statutory framework for planning and implementing sustainable groundwater management without causing undesirable results as defined by the SGMA.

Under the SGMA, medium and high-priority basins should reach sustainability within 20 years of implementing their Groundwater Sustainability Plans (GSPs), which would be by the year 2042 for the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin). The SGMA set deadlines for reaching sustainability and empowered local agencies to form GSAs to manage groundwater basins and develop GSPs. The focus of the Santa Clara River Valley Groundwater Basin is on maintaining sustainability. As discussed in greater detail below, the Santa Clarita Valley Groundwater Sustainability Agency adopted the State-required GSP for the East Subbasin of the Santa Clara River Valley Groundwater Basin. The plan represents a significant multi-year undertaking concluding with its adoption and submittal to DWR in January 2022. On January 18, 2024, DWR notified SCV Water that the GSP for the East Subbasin of the Santa Clara River Valley Groundwater has been approved.

(3) Regional Planning

(a) SCV Water Agency's Adopted Groundwater Management Plan

SCV Water's Groundwater Management Plan is intended to complement and formalize a number of existing water supply and water resource planning and management activities in SCV Water's service area, which effectively encompass the East Subbasin of the Santa Clara River Valley Groundwater Basin. The GWMP also includes a basin-wide monitoring program, the results of which provide input to annual reporting on water supplies and water resources in the Basin, as well as input to assessment of Basin yield for water supply as described herein. Groundwater level data from the existing groundwater

monitoring program is reported to DWR as part of SBX7-6 implementation (California Statewide Groundwater Elevation Monitoring [CASGEM]).

The GWMP contains four management objectives or goals for the Basin, including: (1) development of an integrated surface water, groundwater and recycled water supply to meet existing and projected demands for municipal, agricultural and other water uses; (2) assessment of groundwater basin conditions to determine a range of operational yield values that use local groundwater conjunctively with supplemental State Water Project (SWP) supplies and recycled water to avoid groundwater overdraft; (3) preservation of groundwater quality, including active characterization and resolution of any groundwater contamination problems; and (4) preservation of interrelated surface water resources, which includes managing groundwater to not adversely impact surface and groundwater discharges or quality to downstream basin(s).

On July 17, 2019, DWR approved the 2016 GWMP. The 2021 GWMP updates and expands on technical information in the 2016 GWMP and addresses related recommendations from DWR and basin stakeholders. Basin management goals, strategies, programs, and outcome measures in the 2021 GWMP are very similar to the 2016 plan, as they have been effective in ensuring sustainable conditions.

(b) Santa Clarita Valley Groundwater Sustainability Agency and the Groundwater Sustainability Plan

In accordance with the SGMA, discussed above, SCV Water, the City of Santa Clarita, the County of Los Angeles, and the Los Angeles County Waterworks District No. 36, Val Verde entered into a Joint Exercise of Powers Agreement to form the Santa Clarita Valley Groundwater Sustainability Agency (SCVGSA). The SCVGSA began preparing the basin's GSP in accordance with the SGMA.

The SCVGSA's GSP provides information about the area affected by this plan, the basin setting, the sustainable management criteria, the monitoring networks, projects and management actions to achieve sustainability, plan implementation, the list of references and technical studies used in the development of this plan, and the supporting appendices. The SCVGSA adopted the GSP in January 2022.

(4) Local Regulations

(a) County of Los Angeles General Plan

As discussed in greater detail in **Section 5.7**, Land Use and Planning, of this SEIR, the County's General Plan directs future growth and development to locations in the County's unincorporated areas and establishes goals, policies, and objectives that pertain

to the entire County. The current General Plan, adopted in 2015, includes a Conservation and Open Space Element that sets policy regarding water resources and water supply. Relevant policies focus on the establishment of water conservation, recycling, and water replenishment programs, and encouragement of water conservation features such as use of reclaimed wastewater. The General Plan also includes a Water and Waste Management Element that sets policy regarding water supply and distribution, flood protection, water conservation, sewerage, water reclamation, and solid waste disposal. The General Plan also contains a Public Services and Facilities Element that includes a section on drinking water, with stated goals of increased water conservation efforts and increased local water supplies through the use of new technologies.

(b) Santa Clarita Valley Area Plan: One Valley One Vision 2012

The Santa Clarita Valley Area Plan: One Valley One Vision 2012 (Area Plan), sometimes referred to as OVOV, is a component of the Los Angeles County General Plan and the City of Santa Clarita General Plan. The Area Plan is a joint effort between the County and the City that serves to guide the future growth of the Valley. The Area Plan includes several policies related to water supply within its Conservation and Open Space and Land Use Elements. These policies address water conservation and promote measures to increase water supplies. Several of the policies were included as mitigation measures in the Area Plan Program EIR (SCH No. 2008071119) to be implemented by the City and County, as appropriate.

(c) OurCounty Sustainability Plan

In August 2019, the County of Los Angeles released the OurCounty Sustainability Plan, which "outlines what local governments and stakeholders can do to enhance the well-being of every community in the County while reducing damage to the natural environment and adapting to the changing climate…."[7] The plan encourages increasing sustainable yield from groundwater basins, reducing barriers to alternative water sources, creating a resilient and integrated water system, and promoting collaboration among the County's various groundwater managers. As part of the recent General Plan and Safety Element Update on July 12, 2022, the County identified the Sustainability Plan Program as a method for implementing and addressing overall policy objectives of the General Plan.

[7] *County of Los Angeles, OurCounty Los Angeles Countywide Sustainability Plan, August 2019, p. 7.*

(d) SCV Water's 2020 Urban Water Management Plan

The 2020 UWMP is incorporated by reference and approved by SCV Water in 2021.[8] This 2020 UWMP integrates local and regional land use planning, regional water supply, infrastructure, and demand management projects, as well as statewide issues of concern like climate change and regulatory revisions. The 2020 UWMP provides information on cumulative water usage/demand, water supply sources, and water reliability planning within the SCV Water's service area. The 2020 UWMP also provides guidance related to the following: plan preparation, water system descriptions, water use and supply characterizations, drought risk assessments, water shortage contingency plans, demand management measures and plan adoption, submittal, and implementation. Furthermore, the 2020 UWMP includes reference material and resources, including applicable California laws and recent changes, an annual water supply and demand assessment, water loss auditing information, recycled water use information, reporting requirements, UWMP tables and an SB X7-7 Verification Form.

Under the California Water Code, if the projected water demand associated with a project was accounted for in the most recently adopted UWMP, the water supplier may use the demand projections from the UWMP in preparing the WSA.[9] The 2020 UWMP is based on the Santa Clarita Valley Area Plan, One Valley One Vision joint planning effort between the City of Santa Clarita and the Los Angeles County, which plans for the build out of the Santa Clarita Valley.[10] The Modified Project is consistent with the development anticipated within the Project area in the Santa Clarita Valley Area Plan. Following the methodology used to calculate the water demands in the 2020 UWMP, the total estimated water demand for the Project at build-out is approximately 1,411 acre feet per year (AFY) in an average/normal year. These demands reflect updated residential unit counts in Entrada South as well as modification to commercial/industrial land use in the Valencia Commerce Center as compared to the assumptions included in the 2020 UWMP. These changes in land use assumptions led to a relative decrease in Project water demand of 511 AFY compared to the 2020 UWMP. Additional aspects of the 2020 UWMP are addressed below.

(e) SCV Water's Sustainability Plan

In July 2023, SCV Water adopted its inaugural Sustainability Plan, which is a long-range planning document intended to guide the agency's operational sustainability actions

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[8] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021*

[9] *California Water Code Section 10910(c)(2).*

[10] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 2-3.*

through 2045 and align with the State's GHG reduction targets for 2030 and 2045 (100% carbon-neutrality).[11] The Sustainability Plan explains that the majority of SCV Water's existing and future GHG emissions are attributable to electricity usage and electric transmission and distribution losses.[12] The Sustainability Plan notes that State legislation and initiatives are expected to substantially reduce SCV Water's GHG emissions through 2030 and 2045 as electricity becomes increasingly decarbonized, however, the Sustainability Plan still identifies a "gap" between its projected GHG emissions and its reduction targets.[13] To close this gap, SCV Water has proposed several measures, including phasing out natural gas combustion at SCV Water facilities, reducing fossil fuel use and replacing equipment with all-electric or alternative fuels when feasible, and decarbonizing the SCV Water vehicle fleet through procurement of zero-emission vehicles. SCV Water also plans to implement additional water conservation and recycling efforts to reduce water demand 15% by 2030.[14] SCV Water notes that this measure provides co-benefits of increased reliability, resilience, and sustainability of water resources because water conservation efforts increase supplies for future periods of drought or other shortages.[15]

b. Effects of Climate Change on Water Supplies

Climate change and potential groundwater and water quality issues may affect water reliability and demand. SCV Water has accounted for climate change impacts and various climate change scenarios in the 2020 UWMP, the Upper Santa Clara River Integrated Regional Water Management Plan, and the Reliability Plans as described below. In addition, SCV Water's recent 2024-28 Strategic Plan discusses the impact of climate change on water supply portfolios. Recent data about the impacts of climate change can also be found in DWR's *Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment*, SCVGSA's *Groundwater Sustainability Plan*, DWR's *California Water Plan Update 2018*, and California's *Fourth Climate Change Assessment: Statewide Summary Report*.[15a] Each of these reports and studies is summarized herein.

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[11] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023.*

[12] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023, p. 23.*

[13] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023, p. 26.*

[14] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023, p. 41.*

[15] *Santa Clarita Valley Water Agency, Sustainability Plan, July 2023, p. 41.*

[15a] *SWRCB is currently developing a new climate change resolution to provide guidance and detail actions for the SWRCB and RWQCBs to respond to climate change, and it is anticipated that SWRCB will consider its adoption in 2025.*

SCV Water's 2020 UWMP. As reported in the 2020 UWMP, Section 1.7, Potential Effects of Climate Change, California faces significant challenges from climate change. Primary climate change impacts projected by global climate models to impact California and Santa Clarita Valley region include warming air temperatures and changes in precipitation patterns, with more frequent and intense heavy precipitation events on the one hand and more frequent and more severe droughts on the other hand, among other impacts. Climate change is of interest because of the range of possibilities and their potential impacts on essential operations, including SWP operations, which could potentially decrease the delivery of imported water supplies to the Santa Clarita Valley region.

While studies related to the region are conclusive regarding the anticipated increase in extreme events, there is disagreement whether average precipitation changes will be towards wetter or drier conditions.[16] The most likely scenarios involve increased temperatures, which will reduce the Sierra Nevada snowpack and shift more runoff to winter months, and accelerated sea level rise.[17] These changes can cause major challenges for the maintenance of the present water export system since water supplies are conveyed through the fragile levee system of the Sacramento-San Joaquin Delta.[18]

Other climate change scenarios include an increase in precipitation variability, with more extreme drought and flood events posing potential challenges to water agencies, managers, planners, and decision makers. For example, recent findings indicate that higher temperatures will lead to drier conditions, and an increased occurrence of dry years resulting in more frequent and more intense droughts. Drought risks are anticipated to be some of the greatest vulnerabilities to water supplies and demands, resulting in reductions in groundwater recharge, reduced runoff and surface water flows, and reduced local and imported water supply reliability. Additionally, warmer temperatures and changes in precipitation patterns are anticipated to result in increasing water needs.[19]

The 2020 UWMP incorporates climate change assumptions into its demand projections and the projected availability and reliability of water supplies. Thus, the 2020

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[16] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 1-14.*

[17] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 1-14.*

[18] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 1-14.*

[19] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 1-14.*

UWMP modeling, analysis, and results account for estimated impacts from climate change consistent with guidance from the DWR. Specifically, the 2020 UWMP land use demand forecast factors in the effects of climate change by estimating how the 2050 climate is likely to differ compared to the baseline normal climate. The cumulative demand modeling for the 2020 UWMP, which is found in the Population and Demand Technical Memorandum in Appendix F of the 2020 UWMP, incorporates climate change scenarios and supporting data that DWR has made available for assessing groundwater basin sustainability. In addition, GSI completed a groundwater sustainability study for SCV Water using DWR's climate change data resources. To ensure consistency with evaluating supply impacts, the same set of climate change assumptions are incorporated by reference in Appendix of the 2020 UWMP and were used for evaluating the impacts of climate change on future demand.[20,21]

The climate change scenarios and supporting data for the Santa Clarita Valley used in the 2020 UWMP demand modeling show how fluctuations in reference evapotranspiration and precipitation due to climate change will affect demand through the land use demand analysis' end-point of 2050. Based on projected fluctuations in reference evapotranspiration and precipitation, the analysis found that there will be a projected increase of 3.77 percent on average demand between 2020 and 2050.[22] The increase in demand is expected to arrive gradually over time, starting with a 0-percent change in 2020 and rising to 3.77 percent in 2050.[23] The climate change model included in the analysis suggests that the reference evapotranspiration in the Santa Clarita Valley is expected to be higher by approximately 5 percent in 2030, and 10 percent in 2070.[24] However, with respect to precipitation, the model found that climate change is not expected to have much effect on the primary rainy months in the Santa Clarita Valley (December–March) and

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[20] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix F.*

[21] *The climate change scenarios and supporting data from the DWR are found in Guidance for Climate Change Data Use During Groundwater Sustainability Plan Development, DWR, July 2018. The GSI groundwater sustainability study, which incorporates DWR's climate change data and is incorporated by reference in Appendix F of the 2020 UWMP, is found in Development of a Numerical Groundwater Flow Model for the Santa Clara River Valley East Groundwater Subbasin, Draft Report prepared for SCV Water, GSI Water Solutions, Inc., 2020.*

[22] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 41.*

[23] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 41.*

[24] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 40.*

summer months may actually see a mild increase in precipitation.[25] Overall, the model found that climate change is expected to have a more material impact on reference evapotranspiration than precipitation.

The 2020 UWMP also takes into account the potential effects of increased wildfire throughout the state and region, which may have the potential to impact recharge conditions and also impact water quality. Refer to Sections 1.7, 2, 4, and 7 of the 2020 UWMP for further information. Additionally, the 2020 UWMP incorporated the draft Water Budget Analysis prepared by the SCV Groundwater Sustainability Agency reflecting climate change assumptions provided by DWR to account for potential reduced water supplies in the future due to climate change. SCV Water is also currently developing a long-term Sustainability and Climate Action Plan.

The Upper Santa Clara River Integrated Regional Water Management Plan (IRWMP) also recognizes the impact climate change has on long-term water supply planning.[26] The IRWMP states that climate change will lead to variability in water supply, especially from SWP supplies, which will result in an increased need to evaluate and respond to potential decreases in SWP deliveries.[27] SWP delivery to the region comprises about 54 percent of total existing water supplies projected through 2050 in the region in normal/average years.[28] The remaining 46 percent of water supplies comes from groundwater pumping from local aquifers and groundwater banking activities.[29] Because the region relies on SWP water for a significant portion of its water supply, any reduction or change in the timing or availability of those supplies due to climate change could have negative impacts on the region.[30] For example, even though reductions in imported SWP water could be replaced by increased reliance on local groundwater or other sources, climate change effects on local groundwater could occur at the same time.[31] The

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[25] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 41 and 42.*

[26] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-17.*

[27] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-17.*

[28] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-17.*

[29] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-17.*

[30] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-17.*

[31] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-18.*

combined and concurrent effects of climate change on SWP imported water and local groundwater resources could magnify the stress on the region's water supply planning.[32]

The effects of climate change on the SWP supply in the IRWMP are consistent with the other reports and studies discussed in this SEIR. DWR's climate change modeling, which was used in the IRWMP analysis, indicates increased temperature, reduced Sierra Nevada snowpack, early snow melt, and rising sea levels as the major effects on the SWP supplies.[33] Based on the identified effects, the IRWMP found that the estimated average SWP Table A delivery based on future conditions without climate change would be 2,574 total acre-feet (TAF) compared to 2,363 TAF if climate change is factored into the analysis.[34] This is a reduction of 211 TAF annually at the system-wide level. This decreasing trend in the average SWP delivery projections with climate change is consistent with the expected reduction in the reliability of the SWP water supply due to climate change.[35]

The IRWMP also discusses how climate change could affect groundwater resources in the region.[36] Changes in local hydrology and natural recharge are anticipated to have a direct impact on available groundwater storage. For example, warmer winters would increase the amount of runoff available for groundwater recharge while reductions of inflow from runoff and increased evaporative losses could reduce the amount of natural recharge.[37] However, the extent to which climate change will change the amount of natural recharge processes and the impact of that change are unverified and are difficult to quantify.[38] That being said, the IRWMP includes groundwater modeling analyses for both the Alluvium and Saugus groundwater basins (discussed below) and applied those analyses to scenarios where the region receives decreased SWP supplies to determine whether the Alluvium and Saugus basins would be able to accommodate the decrease in

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[32] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-18.*

[33] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-18.*

[34] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-20.*

[35] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, pp. 5-19 and 5-20.*

[36] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-27.*

[37] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-27.*

[38] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, p. 5-27.*

imported water supply.[39] This analysis found that pumping from the Saugus to accommodate the reduced SWP deliveries is feasible and would be within the range of pumping identified by the DWR as supporting long-term groundwater sustainability. When a 10-percent reduction in precipitation is also factored in, the Saugus Formation still has the potential to make up for a portion of the additional pumping when SWP deliveries are reduced due to climate change, but a combination of other sources would need to be considered to make up the difference to meet the region's water demand.

SCV Water's 2024-28 Strategic Plan—In February 2024, SCV Water adopted the 2024-28 Strategic Plan, a plan to guide SCV Water' water management and stewardship over a five-year period.[39a] In part, the 2024-28 Strategic Plan describes how SCV Water will address challenges related to climate change, including impacts on water quality and reliability and the need for improved water infrastructure. The 2024-28 Strategic Plan discusses how climate change is impacting the availability of water supplies, and how SCV Water is taking and will take actions to diversify its water supply portfolio and limit overreliance on any single source of water to address the risks of climate change.

DWR's *Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment*—DWR prepared the Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment (DWR Climate Change Vulnerability Assessment) to prepare for an uncertain future as a result of climate change. The analysis in the DWR Climate Change Vulnerability Assessment evaluates, describes, and quantifies DWR's vulnerabilities to expected changes caused by climate change that will impact DWR's facilities and operations. The DWR Climate Change Vulnerability Assessment uses a mid-century time horizon to assess climate change driven changes within six categories: wildfire, extreme heat, sea-level rise, long-term persistent hydrologic changes, short-term extreme hydrologic events, and habitat and ecosystem services degradation. Based on these expected changes, the Assessment examines how DWR's assets, operations, and water supplies will likely be affected in the future. The following discussions summarize how climate change-driven changes within the six categories mentioned above will affect DWR water resources.

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[39] *County of Los Angeles, Upper Santa Clara River Integrated Regional Water Management Plan, February 2014, pp. 5-29 through 5-31.*

[39a] *SCV Water, 2024–28 Strategic Plan, February 2024.*

(1) Wildfires

The DWR Climate Change Vulnerability Assessment relies on multiple studies to conclude that climate change will lead to longer wildfire seasons that burn more acreage.[40] In the early 1970s, the average length of the wildfire season was five months, but today it is seven months or longer.[41] Wildfires can impact DWR water supplies by increasing sediment loading into streams and reservoirs, which can impact water quality and decrease water supply capacity.[42] This is especially concerning in the Upper Feather River Watershed because it is the primary source of water for the SWP.[43]

(2) Extreme Heat

The DWR Climate Change Vulnerability Assessment states that, based on a recent study, future temperatures across California are projected to rise by 3.4 to 4.9 degrees Fahrenheit by 2060–2069 as compared to the 1985–1994 period.[44] Apart from posing health and safety risks to DWR staff working outdoors, and Californians in general, increasing temperatures could increase water demand (warmer temperatures extend growing seasons, increase evapotranspiration, and reduce soil moisture, all of which increase the amount of water needed for irrigation, urban landscaping, and environmental needs) and cause long-term persistent hydrologic changes, which are discussed further below.

(3) Sea-Level Rise

The DWR Climate Change Vulnerability Assessment finds that rising sea and tide levels could stress the large network of levees in the Sacramento-San Joaquin Delta, increase saltwater intrusion in the Delta, and change hydrology of the rivers and sloughs that flow through the Delta.[45] All of these changes could affect SWP water supplies. For example, saline intrusion in the Delta could result in DWR releasing additional water from reservoirs or reducing exports from the Delta to offset the saltwater intrusion to maintain required regulatory conditions.[46]

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[40] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 23.*

[41] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 23.*

[42] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 28.*

[43] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 32.*

[44] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 40.*

[45] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 51.*

[46] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 72.*

(4) Long-Term Persistent Hydrologic Changes

The DWR Climate Change Vulnerability Assessment states that hydrologic changes caused by climate change pose risks to DWR assets, especially the SWP.[47] Higher temperatures, which increase evapotranspiration, sublimation, and snowmelt rates, and decrease soil moisture and snow accumulation, all combine to reduce snowpack and water storage and change runoff patterns.[48] Also, changes in precipitation may affect average annual precipitation rates and the frequency, magnitude, and duration of extreme events, including drought events.[49] All of these changes can affect water quantity and quality in the SWP.[50] The assessment finds that projections indicate that, by the end of the century, the Sierra snowpack may diminish by 48–65 percent from 1961–1990 levels.[51] This is potentially problematic because a significant reduction in the Sierra snowpack would affect the reliability of SWP deliveries in the future. Furthermore, warmer temperatures will increase the amount of precipitation falling as rain instead of snow, which will result in more runoff entering reservoirs during the winter and early spring and less runoff arriving in late spring and early summer.[52] This is potentially problematic because the change in runoff patterns could challenge the flood storage capacity of reservoirs during winter, which would lead to more downstream flow during flood events and reduced late summer storage levels.[53] The DWR Climate Change Vulnerability Assessment does acknowledge that changes in California's hydrology caused by climate change are difficult to predict because of "the large degree of uncertainty in climate change projections of precipitation."[54] For example, global climate models have projected precipitation changes of minus 18 percent to plus 28 percent.[55] Nonetheless, changes in climate and inter-annual variability of precipitation in California could have impacts on water supplies that range from beneficial to disastrous.[56]

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47 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

48 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

49 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

50 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

51 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

52 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

53 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 65.*

54 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 66.*

55 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 66.*

56 *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 66.*

(5) Short-Term Extreme Hydrologic Events

The DWR Climate Change Vulnerability Assessment indicates that precipitation patterns may become more extreme and more variable, resulting in more frequent, longer, or more severe droughts punctuated by extreme high-precipitation or flooding events.[57] For example, one study referenced in the Assessment found that larger floods will occur in both the Northern and Southern Sierra Nevada watersheds regardless of the change in mean precipitation.[58] All of these changes could also impact DWR's ability to deliver water and could result in increased variability in availability of water supplies.

(6) Habitat and Ecosystem Services Degradation

The DWR Climate Change Vulnerability Assessment states that ecosystem-based services are "intricately connected to the water cycle and DWR's operations."[59] (For example, functioning ecosystems sustain aquatic fisheries, reduce flood risk, and protect water quality, all of which are necessary to sustain a reliable water supply throughout the state. Studies indicate that climate change is already negatively affecting and will continue to negatively affect habitat and ecosystem services in California, exacerbating the other climate change-driven impacts on the state's water supplies and causing DWR to adjust its planning activities to be able to provide reliable water supplies in the future.[60]

SCVGSA *Groundwater Sustainability Plan*—The SCVGSA GSP considers the sources and uses of water from the Santa Clara River Valley Groundwater Basin, East Subbasin (Basin) and the changes that might occur due to population growth, changes in rainfall and streamflows, and climate change. The projected water budget in the GSP, which is used to assess future conditions and to develop sustainable management criteria, factors climate change into its analysis to determine future precipitation and evapotranspiration trends in the Basin. The GSP states that one of the major uncertainties in water resource planning in California is climate change.[61]

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[57] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 23.*

[58] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 99.*

[59] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 110.*

[60] *DWR, Climate Action Plan, Phase 3: Climate Change Vulnerability Assessment, February 2019, p. 110.*

[61] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022, p. 3-17.*

The GSP states that the effects of climate change will likely create greater variability in California's already variable hydrology.[62] For example, the GSP takes into account that climate change will likely impact both water demand and water supplies because drought periods and a lower snowpack may trigger a drop in groundwater levels and a decrease in the amount of imported water available to the region.[63] The GSP acknowledges the importance of considering these potential impacts on groundwater levels when planning and preparing for the future management of water supplies and concludes that sustainable groundwater management can provide a buffer against drought and climate change and contribute to reliable water supplies regardless of weather patterns. The GSP states that "the groundwater model of the Basin indicates that undesirable results from chronic lowering of groundwater levels and reduction of groundwater in storage are not expected to occur in the future."[64]

DWR's *California Water Plan Update ~~2018~~* —As previously discussed, DWR's California Water Plan sets forth California's strategic plan for sustainable water resource development and management. Updated every five years, the California Water Plan Update 2018 "provides recommended actions, funding scenarios, and an investment strategy to bolster efforts by water and resource managers, planners, and decision-makers to overcome California's most pressing water resource challenges."[65] The plan identifies the exacerbating impacts of climate change on reduced water supply throughout the state.

The California Water Plan Update 2018 anticipates that climate change may result in more-extreme hydrological events in California. For example, the state-wide drought that occurred from 2012 to 2016, which was then followed by California's second wettest year on record, provides an example of the extreme hydrological events that could result from climate change.[66]

The California Water Plan Update 2018 also discusses how the prior drought and future extreme hydrological events may result in declining groundwater levels and reduced access to clean, safe, reliable, and affordable water supplies. Although groundwater and surface water traditionally have been managed as separate water resources, the California

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[62] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022, p. 3-17.*

[63] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022, p. 3-17.*

[64] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022, p. 8-45.*

[65] *DWR, California Water Plan Update 2018, June 2019, p. ES-1.*

[66] *DWR, California Water Plan Update 2018, June 2019, p. 2-1.*

Water Plan Update 2018 states the "interdependent system of watersheds and groundwater basins" should be considered as one in order to promote sustainability.[67]

The California Water Plan Update 2018 offers multiple recommended actions to address the changing climate's impact on California's water supply. In an effort to improve integrated watershed management, the California Water Plan Update 2018 calls on the DWR to provide technical, planning, and facilitation assistance to local entities for developing projects that use "flood flows and alternative water supplies for managed aquifer recharge."[68] Additionally, the California Water Plan Update 2018 recommends that the State maintain and improve upon existing State-owned water supply infrastructure, while assisting local agencies to implement "long-term solutions for infrastructure management," in order to strengthen the state-wide water supply infrastructure's resiliency and operational flexibility.[69] The California Water Plan Update 2018 also encourages coordination between State and local agencies to proceed with water management projects that consider ecological principles and foster healthy ecosystems.[70]

~~The California Water Plan Update 2023 (2023 Update) is currently in progress.~~ In December 2023, DWR released the final version of the California Water Plan Update 2023.[71] A public review draft was released on September 20, 2023 for a 30 day public comment period. The ~~draft~~ 2023 Update promotes climate resilience across regions and water sectors with a statewide vision, clear goals, watershed planning framework and toolkit, and progress-tracking dashboard of indicators. It also includes updated resource management strategies, regional planning and performance tracking tools, water balances, future scenarios, and other technical and policy-related activities related to water resilience and sustainability.

California's Fourth Climate Change Assessment Statewide Summary Report— In 2019, California issued its *Fourth Climate Change Assessment: Statewide Summary Report* (2019 Statewide Summary Report), which provides an overview of the key findings from the California's Fourth Climate Change Assessment. The 2019 Statewide Summary Report anticipates changing climactic conditions and concludes that "[c]urrent management

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[67] *DWR, California Water Plan Update 2018, June 2019, p. 2-3.*

[68] *DWR, California Water Plan Update 2018, June 2019, p. 3-2.*

[69] *DWR, California Water Plan Update 2018, June 2019, pp. 3-2 and 3-3.*

[70] *DWR, California Water Plan Update 2018, June 2019, p. 3-3.*

[71] *DWR, California Water Plan Update 2023, ~~https://water.ca.gov/Programs/California-Water-Plan/Update-2023?gad_source=1&gclid=CjwKCAiA_tuuBhAUEiwAvxkgTgPJEyCdFyQ_YeRl3WXyTwHBhVizdx6d-irFCAqYoUQ_H-JRVlUWtBoCeOkQAvD_BwE, accessed February 22, 2024~~ December 2023.*

practices for water supply and flood management in California may need to be revised for a changing climate."[72]

The 2019 Statewide Summary Report specifically addresses statewide changes in precipitation. The report states that recent droughts (2001–2004, 2007–2010, and 2012–2016), as well as unusually wet years (2005, 2007, and 2017), "exemplify the highly variable climate in California."[73] This variability is heavily determined by extreme precipitation events, which typically occur during the winter, that have significant impacts on California's water resources based on their contribution to snowpack.[74] Runoff from the snowpack formed in California and Nevada's mountains provides 70 percent of the water in the Colorado River Basin, which, in turn, supplies approximately 55 percent of Southern California's water.[75] Models indicate that climate change has already reduced the amount of precipitation that falls as snow, and since the 1950s, snow water storage across the western United States has declined by approximately 10 percent.[76] By 2050, the mean snow water equivalents aggregated over the Sierra Nevada and other mountain catchments in California is modelled to decline to less than two-thirds of its historical average, and by 2100, could decline to less than one-third of the historical median.[77] Finally, even if precipitation events increase in northern California, general increases in air temperature could still reduce "the likelihood of attaining spring snowpack that reaches or exceeds historical average…."[78]

The 2019 Statewide Summary Report states that climate model projections accounting for climate change "do not present a strong consensus towards the whole of California 'getting wetter' or 'getting drier;'" however, models show that northern California may become wetter while the southern part of the state becomes drier.[79] The 2019 Statewide Summary Report claims that the extreme warmth in 2014 and 2015, which intensified the 2012–2016 drought, could be "analogous for future drought events."[80]

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[72] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 11.*

[73] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 24.*

[74] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 24.*

[75] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 26.*

[76] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 26.*

[77] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 27.*

[78] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 27.*

[79] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 25.*

[80] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 25.*

The 2019 Statewide Summary Report states that the combination of increased volatility in precipitation, reductions in snowpack, decreased soil moisture, and unsustainable use of groundwater results in a "significant potential for frequent and severe water availability and water quality problems…."[81]

The 2019 Statewide Summary Report provides recommendations to improve California's water supply infrastructure and management in the face of climate change. The report states that "collaboration is critical" between the state's "patchwork of local, state, and federal agencies, alongside public and private water utilities," and recommends "multilevel collaborative governance structures" to meet the SGMA's groundwater management requirements.[82] The report also notes that approaches to water system management may vary between larger and smaller systems and between different regions.[83] At the same time, the report recommends that the SWRCB and other water agencies should develop "contingency-based framework[s]" to respond to water supply shortages in drought years.[84] To assist with this planning, water managers should improve flood and water supply forecasting, which will support reservoir operation, flood control, hydropower, and water infiltration strategies.[85] The report also states that groundwater recharge has the potential to offset some of the reduction in snowpack levels.[86]

2020 Water Resilience Portfolio—In April 2019, Governor Newsom called on the California Natural Resources Agency, the California Environmental Protection Agency, and the Department of Food and Agriculture to create a Water Resilience Portfolio to inventory and assess key components of California's water system and to analyze the work already being done to improve those systems. The final version was completed in July 2020. The Water Resilience Portfolio recognizes that "California's climate is warming and becoming more variable, which reduces mountain snowpack, intensifies drought and wildfire, raises sea level, and drives shorter, more intense wet seasons that worsen flooding."[87] Like the reports discussed above, the Water Resilience Portfolio warns that increasing temperatures will compound the severity of California's natural drought cycle, and will impact communities that depend heavily on surface flows for their water supply. Because the impact of climate change will vary significantly across the state, "climate change

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[81] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 56.*

[82] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 73.*

[83] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 84.*

[84] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 78.*

[85] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 78.*

[86] *State of California, Fourth Climate Change Assessment: Statewide Summary Report, January 2019, p. 78.*

[87] *State of California, 2020 Water Resilience Portfolio, July 2020, p. 14.*

resistance must be customized by each region."[88] The Water Resilience Portfolio also indicates that water infrastructure and management must adapt to capture water when it becomes available in order to provide water during extended dry periods. In order to promote water resiliency, the Water Resilience Portfolio calls on the State to support regional and local agencies and water managers in their effort to efficiently use water across all sectors, secure groundwater supplies while transitioning to sustainable use, engage in stormwater capture, and expand smart surface water storage.[89]

The Water Resilience Portfolio also discusses the importance of building both physical (i.e., new pipelines, storage, aqueducts) and managerial connections among California's varied water systems.[90] The State is instructed to assist in modernizing inter-regional water conveyance, as well as support leaders across the state in their execution of integrated water resilience strategies.[91] This will also involve coordinating new research on water management strategies and innovating water service technology.[92]

Two progress reports, released in 2021 and 2023, document the agencies' strategies and actions to implement the Water Resilience Portfolio.[92a]

c. Groundwater Quality

The local groundwater basin has two sources of groundwater, the Alluvial Aquifer, the quality of which is primarily influenced by rainfall and stream flow, and the Saugus Formation, which is a much deeper aquifer and recharged primarily by rainfall and deep percolation from the partially overlying Alluvial Aquifer.

(1) Perchlorate

Perchlorate is a chemical used in making rocket and ammunitions propellants, as well as flares and fireworks. Perchlorate has been a water quality concern in the Santa Clarita Valley since 1997, when it was originally detected in four wells in the eastern part of the Saugus Formation. Since then, perchlorate has been detected in a total of nine wells,

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88 *State of California, 2020 Water Resilience Portfolio, July 2020, p. 15.*

89 *State of California, 2020 Water Resilience Portfolio, July 2020, pp. 19 and 20.*

90 *State of California, 2020 Water Resilience Portfolio, July 2020, p. 23.*

91 *State of California, 2020 Water Resilience Portfolio, July 2020, p. 23.*

92 *State of California, 2020 Water Resilience Portfolio, July 2020, p. 24.*

92a *State of California, 2021 Water Resilience Portfolio Progress Report, January 2022; State of California, 2023 Water Resilience Portfolio Progress Report, October 2023.*

including seven located in the Saugus Formation and two in the Alluvial Aquifer.[93] Of these nine wells, eight have been: (a) abandoned and replaced; (b) returned to service with the addition of treatment facilities that allow the wells to be used for municipal water supply as part of the overall water supply systems permitted by the SWRCB's Division of Drinking Water (DDW); or (c) will be replaced under an existing perchlorate litigation settlement agreement. For the ninth well, perchlorate concentrations remain below the Detection Level of Reporting, and the well undergoes regular DDW monitoring.

The restored wells and the replacement wells, which collectively restore much of the temporarily lost well capacity, are now included as parts of the active municipal groundwater source capacities. Per the 2020 UWMP, one Alluvial well (Well Q2) is in the process of being brought back into service, with an additional Saugus well estimated to come back online by the end of 2024 (Well 205).[94] An additional two wells will be drilled to restore impacted well capacity, thus restoring the operational flexibility that existed prior to the perchlorate being discovered. Up to four new Saugus wells are planned for the future to provide additional dry-year supply. Refer to Appendix M of the 2020 UWMP for more information.

SCV Water is engaged in long-term efforts to remediate perchlorate contamination. SCV Water's objective is to stop the migration of the contaminant plume and restore lost well capacity through pump and treat methods and replacement wells. For example, SCV Water's Saugus Perchlorate Treatment Facility has been online since 2011, treating Wells Saugus 1 and Saugus 2, and a second Perchlorate Treatment Facility came online in 2017 at Well 201. Per the 2020 UWMP, Well 201 is expected to be back online for domestic use.[95] Planning for treatment at Well 205 is also in progress and it is estimated that the well will be restored by 2024, as shown in Table 6-1 of the 2020 UWMP. Additional details on DDW permitting and associated operational timelines for Wells 201 and 205 are provided in Section 6.7 of the 2020 UWMP.

(2) Per- and Polyfluoroalkyl Substances

The 2020 UWMP discusses water quality constituents, both naturally occurring and man-made, in source waters. The Santa Clara River Valley East Groundwater Subbasin

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[93] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, Table 6-1, June 2021.*

[94] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 6-2 and 6-4, Table 6-1.*

[95] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 6-4, Table 6-11. As of July 2024, this well is not yet back online.*

Groundwater Sustainability Plan also provides an overview of groundwater quality.[96] The following section summarizes this information for per- and polyfluoroalkyl substances (PFAS), constituents of concern in groundwater. PFAS refers to a group of per- and polyfluoroalkyl substances formerly extensively used in firefighting foams, non-stick coatings, cookware, carpets, and furniture.

In May 2016, USEPA established drinking water health advisory levels for two types of PFAS—perfluorooctane sulffonic acid (PFOS) and perfluorooctanoic acid (PFOA)—of 0.07 µg/L based on lifetime exposure concerns for sensitive subpopulations.[97] USEPA health advisories are non-enforceable and are intended only to provide information to state agencies and other public health officials, but they also include recommendations for water systems, and states may choose to adopt associated regulations. These recommendations suggest that when individual or combined concentrations of PFOS and PFOA exceed 0.07 µg/L, water utilities undertake additional sampling, notify their state agency, and inform their customers regarding concentrations found, risks of PFAS, and actions planned.[98]

In late March 2018, Congress passed an omnibus spending bill, which included nearly 100 million dollars for activities related to PFAS, including 10 million dollars for a nationwide health study.

In February 2019, the USEPA released the PFAS Action Plan, which offers a path forward for communities that need help assessing and responding to their local PFAS concerns.[99] The PFAS Action Plan describes priority actions the USEPA has identified to manage PFAS, which include: (1) evaluating the need for a maximum contaminant level for PFOA and PFOS in drinking water, (2) taking steps to designate PFOA and PFOS as Comprehensive Environmental Response, Compensation and Liability Act (also known as Superfund) hazardous substances, (3) developing groundwater cleanup recommendations for PFOA and PFOS at contaminated sites, and (4) developing toxicity values or oral reference doses for replacement PFAS chemicals.

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[96] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022.*

[97] *UESPA, Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA), EPA Document Number: 822-R-16-005, May 2016, www.epa.gov/sites/default/files/2016-05/documents/pfoa_health_advisory_final_508.pdf, accessed August 20, 2024; USEPA, Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS), EPA Document Number: 822-R-16-004, May 2016, www.epa.gov/sites/default/files/2016-05/documents/pfos_health_advisory_final_508.pdf, accessed August 20, 2024.*

[98] *USEPA, FACT SHEET PFOA & PFOS Drinking Water Health Advisories, November 2016.*

[99] *USEPA, EPA's Per- and Polyfluoroalkyl Substances (PFAS) Action Plan, February 2019.*

In October 2021, the USEPA released the PFAS Strategic Roadmap: EPA's Commitments to Action 2021-2024 (Roadmap), which builds on and accelerates implementation of policy actions identified in the USEPA's 2019 action plan.[100] The Roadmap lays out the USEPA's whole-of-agency approach to addressing PFAS and sets timelines by which the USEPA plans to take specific actions in 2021 through 2024. The USEPA's integrated approach to PFAS is focused on three central directives:

- Research. Invest in research, development, and innovation to increase understanding of PFAS exposures and toxicities, human health and ecological effects, and effective interventions that incorporate the best available science.
- Restrict. Pursue a comprehensive approach to proactively prevent PFAS from entering air, land, and water at levels that can adversely impact human health and the environment.
- Remediate. Broaden and accelerate the cleanup of PFAS contamination to protect human health and ecological systems.

In December 2022, the USEPA issued the memorandum "Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs" designed to "align wastewater and stormwater NPDES permit and pretreatment program implementation activities with the goals in the [Roadmap]."[101] In January 2023, the USEPA released "Effluent Guidelines Program Plan 15", which describes analyses, studies, and rulemakings related to effluent limitation guidelines and pretreatment standards.[102]

In March, 2023, the USEPA announced the proposed National Primary Drinking Water Regulation (NPDWR) for six PFAS including PFOA, PFOS, perfluorononanoic acid (PFNA), hexafluoropropylene oxide dimer acid (HFPO-DA, commonly known as GenX Chemicals), perfluorohexane sulfonic acid (PFHxS), and perfluorobutane sulfonic acid (PFBS). The proposed MCL for PFOA and PFOS is 4.0 ng/L. The Final Rule was published April 26, 2024, and became effective on June 25, 2024.[102a] The ~~proposed~~ rule also ~~would~~ places limits on any mixture containing one or more of PFNA, PFHxS, PFBS, and/or GenX Chemicals. For these PFAS, water systems ~~would~~ will use an approach called a hazard index to determine if the combined levels of these PFAS pose a potential

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[100] *USEPA, PFAS Strategic Roadmap EPA's Commitments to Action 2021-2024, October 2021.*

[101] *USEPA, Memorandum, Addressing PFAS Discharges in NPDES Permits and Through the Pretreatment Program and Monitoring Programs, December 5, 2022.*

[102] *USEPA, Effluent Guidelines Program Plan 15, January 2023.*

[102a] *USEPA, PFAS National Primary Drinking Water Regulation Rulemaking, 89 FR 32532, April 26, 2024.*

risk.[103] ~~The proposed PFAS NPDWR does not require any actions until it is finalized. The USEPA originally anticipated finalizing the regulation by the end of 2023, but finalization remains pending in 2024.[104]~~ The USEPA ~~is also proposing~~ also finalized health-based, non-enforceable Maximum Contaminant Level Goals (MCLGs) for these six PFAS. The proposed goal for PFOA and PFOS is zero. The proposed goal for the other four PFAS compounds is a Hazard Index of 1.0. The ~~proposed~~ rule ~~would~~ also requires public water systems to:

- Monitor for these PFAS
- Notify the public of the levels of these PFAS
- Reduce the levels of these PFAS in drinking water if they exceed the proposed standards.

The DDW has also set guidelines and response levels for detecting and reporting the presence of PFAS in drinking water. In August 2019, the DDW set a notification level (NL) of 5.1 and 6.5 ng/L for PFOA and PFOS, respectively. Subsequently, in February 2020, the DDW set a response level (RL) of 10 ng/L for PFOA and 40 ng/L for PFOS, based on a running annual average (RAA). RL is the concentration at which DDW recommends that a well is taken out of service, pending treatment. If a chemical concentration is greater than its notification level in drinking water (but below the response level) that is provided to consumers, DDW recommends that the utility inform its customers and consumers about the presence of the chemical, and about health concerns associated with exposure to it.[105] On July 22, 2021, at DDW's request, the Office of Environmental Health and Hazard Assessment (OEHHA) released draft "Public Health Goals" (PHGs) for PFOA and PFOS, which represent concentrations of drinking water contaminants that pose no significant health risk, based on current risk assessment principles, practices, and methods. The draft PHG for PFOA is 0.007 ppt and the draft PHG for PFOS is 1 ppt.[106] Health & Safety Code section § 116365(a) requires a contaminant's MCL to be established

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[103] *USEPA, PFAS National Primary Drinking Water Regulation Rulemaking, ~~88 FR 18638, March 30, 2023~~ 89 FR 32532, April 26, 2024.*

[104] *~~USEPA, PFAS National Primary Drinking Water Regulation Rulemaking, 88 FR 18638, March 30, 2023.~~*

[105] *Notification Levels are a non-regulatory, precautionary reporting level for concentrations in drinking water that warrant notification and further monitoring and assessment. When water registers above a notification level, SCV Water reports it to DDW, the SCV Water governing board, the Santa Clarita City Council, and the Los Angeles County Board of Supervisors within 30 days of official results from the testing laboratory. Customers are notified through SCV Water's annual Consumer Confidence (Water Quality) Report as well as the agency's website and e-newsletter. Additionally, SCV Water's customers received a direct mail postcard in January 2020 with information about PFAS.*

[106] *OEHHA, Second Public Review Draft: Perfluorooctanoic Acid and Perfluorooctane Sulfonic Acid in Drinking Water, July 2023.*

at a level as close to its PHG as is technologically and economically feasible. In this way, PHGs serve as the basis for the development of MCLs. Additionally, on October 31, 2022, DDW issued General Order DW-2022-0001-DDW for public water systems to sample and report PFAS.[107]

Since beginning quarterly sampling in March 2019, SCV Water has identified the presence of PFOA and/or PFOSs, above their respective detection levels, in over 35 wells.[108] As of February 2020, over 60 percent of Alluvial wells exceeded the NL or RL for PFAS, resulting in 18 wells being taken out of service.[109] All told, the maximum measured PFAS levels exceed treatment thresholds in 26 of SCV Water's wells. According to the 2020 UWMP, treatment for three of these wells (N-Wells) has been installed and the wells are now operational. Construction is underway for treatment of two additional wells, the Honby and Santa Clara wells, which are scheduled to be back online in the near term. Preliminary design for an additional six wells is under way and they are anticipated to be back online between 2024 and 2025. The remaining wells are anticipated to have treatment installed by 2030.[110] In July 2023, SCV Water approved the S Wells Water Treatment Facility, which is designed to restore local water quality to three existing wells: S6, S7 and S8. Combined, these wells will produce up to 6,000 gallons per minute (9,678 acre-feet per year) of groundwater. The proposed facility will also be designed to accommodate a new groundwater well (S9) that may be constructed as a future project. The project is expected to be complete in 2025.[111] In August 2023, SCV Water prepared an addendum to the Groundwater Treatment Implementation Plan that revised the list of the wells which may require treatment due to the USEPA's lower proposed MCL, if finalized. The addendum identified ten additional groundwater wells that exceeded the newly proposed MCL's and there are several other wells that may need PFAS treatment if the lower MCL's are finalized, which treatment will be implemented in accordance with the framework established by the Groundwater Treatment Implementation Plan.[112]

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[107] *SWRCB, ORDER DW 2022-0001-DDW. On March 4, 2024, SWRCB issued General Order DW-2024-0002-DDW, which expanded the number of water systems required to sample and report PFAS.*

[108] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 2.*

[109] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-26.*

[110] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021,* p. 4-26:27.

[111] *Santa Clarita Valley Water Agency, S Wells Water Treatment Facility Fact Sheet.*

[112] *Kennedy/Jenks Consultants, 2023 Santa Clarita Valley Water Agency Addendum to the Groundwater Treatment Implementation Plan, http://yourscvwater.com/water-supply-assessments, accessed July 26, 2024.*

In addition, the proposed Well S9 and existing wells E-14 and E-16 are located in proximity of PFAS impacted wells. Accordingly, it is possible that other SCV Water groundwater wells may require future treatment if thresholds are exceeded in the future compliance action to reliably meet the future water supply demands as identified in the UWMP.

Recognizing the potential for water quality issues to require treatment of groundwater well, including related to perchlorate and PFAS, SCV Water prepared a Groundwater Treatment Implementation Plan (GTIP) to ensure the reliability of its local groundwater supplies and water quality for meeting its customer potable demands.[113] SCV Water's GTIP identified representative perchlorate and PFAS concentrations for SCV Water's wells, set treatment thresholds, identified impacted wells, identified compliance options, developed planning level treatment costs, identified prioritization of wells requiring compliance, and developed a phasing plan to treat the impacted wells. In addition, wells with PFAS or perchlorate levels that exceeded their respective threshold levels were identified for compliance cost estimation in the GTIP. For PFOA and PFOS, 80 percent of the DDW RL was set as the treatment threshold. This resulted in a treatment threshold of 8 and 32 ng/L for PFOA and PFOS, respectively. For perchlorate, the treatment threshold was set as 80 percent of the MCL. The MCL for perchlorate is 6 µg/L, and therefore the treatment threshold was set at 4.8 µg/L.[114]

The GTIP identified 28 SCV water wells for PFAS compliance and five wells for perchlorate compliance.[115] The cumulative flow rates of the PFAS and perchlorate impacted wells are approximately 34,825 gpm and 10,550 gpm, respectively. Approximately 25,150 gpm of PFAS impacted groundwater and 6,300 gpm of perchlorate impacted groundwater are prioritized for treatment and expected to return to production by 2025.[116] Another 1,500 and 1,050 gpm of PFAS impacted groundwater were identified for treatment and estimated to return to service by 2027 and 2028, respectively. Finally, the remaining 6,800 gpm of groundwater impacted by PFAS and 4,250 gpm of groundwater impacted by perchlorate are estimated to return to service by 2030.[117]

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[113] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M.*

[114] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 3.*

[115] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 31.*

[116] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 31.*

[117] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 31.*

The GTIP also prioritized well treatment, estimated well restoration dates, calculated the costs for a treatment program, and identified potential sources of funding that SCV Water may use for its decontamination efforts. The priority ranking for these wells is demonstrated in Table 7 of the Groundwater Treatment Implementation Plan.[118] Under the plan, of the 28 wells requiring treatment, five wells will be treated using a wellhead treatment system and groundwater from the remaining wells will be treated at eight centralized locations.

To account for the potential temporary curtailment of Alluvial Aquifer groundwater supply capacity, SCV Water will continue to monitor its groundwater supplies through proactive quarterly sampling and rely on its diverse water supply portfolio, including imported and banked water sources, in order to minimize any supply impacts to its customers. SCV Water also continues to encourage its customers to use water efficiently in their homes and on their landscapes. [119]

As noted above, one of the purposes of the GTIP was to ensure suitable water quality for meeting SCV Water's potable demands even as groundwater treatment strategies are applied over time for PFAS and other contaminants.[120] The UWMP determines that the GTIP, GSP, and GSP implementation plan, will "allow SCV Water to meet near term and long-term demand within the SCV Water service area."[121] The 2020 UWMP concludes that "[t]he loss of capacity of wells impacted by water quality issues and removed from service in the near term will be met by near-term excess capacity in non-impacted wells, other water sources including imported water supplies, and/or through the installation of replacement well(s), if necessary, until remediation alternatives, including wellhead treatment, and DDW approval is obtained for restoration of the impacted supply."[122] As a result, "no anticipated change in reliability or supply due to water quality is anticipated…."[123]

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[118] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Appendix M, p. 21.*

[119] *Santa Clarita Valley Water Agency, News Release: SCV Water Takes Additional Actions to Protect Public Health, March 13, 2020.*

[120] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 6-15.*

[121] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 6-15.*

[122] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 6-15.*

[123] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 6-15.*

Section 7 of the 2020 UWMP also shows that total existing and planned supplies exceed demands during an average/normal year, a single-dry year, and two multiple-dry years from 2020–2050 in five-year increments. This is particularly the case when water demands with Plumbing Code water savings and active water conservation requirements are incorporated. The identified excess supplies shown in Section 7 of the 2020 UWMP could be used if Alluvial Aquifer groundwater supply capacity is affected during the interim until such time as treatment is installed.

d. SCV Water's Water Supply Reliability Planning

SCV Water has implemented several programs to provide the facilities needed to increase the reliability of imported water supplies during dry years and to diversify supplies to account for uncertainties associated with climate change, groundwater contamination, and other factors. The programs involve water conservation, surface and groundwater storage, water transfers and exchanges, water recycling, additional short-term pumping from the Saugus Formation, and increasing SCV Water's imported supply. This overall strategy is designed to meet increasing water demands while assuring reasonable supply reliability and, in part, is described in the 2021 Update to the 2017 Water Supply Reliability Plan Report. A summary of these water reliability studies is provided below, followed by a discussion of drought response strategies.

(1) SCV Water's 2017 Water Supply Reliability Plan

SCV Water's first Water Supply Reliability Plan was prepared in 2003 to identify and evaluate supply opportunities and recommend a water supply reliability strategy.[124] At the time, the plan was based on DWR estimates of SWP delivery reliability and water demands provided by the retail purveyors.[125] The plan was subsequently updated in 2011, which identified current and future storage capacity and emergency storage needs. The Water Supply Reliability Plan was again updated in 2017. The 2017 Water Supply Reliability Plan analyzed a period from 2017 through 2050 under four different scenarios. The "Base Scenario" was based entirely on the 2015 UWMP's demand, supply, and storage assumptions. [126] Scenario A was nearly the same as the Base Scenario, but included

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[124] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. 1-2. Castaic Lake Water Agency is SCV Water's predecessor agency.*

[125] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. 1-2.*

[126] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. i.*

SWP supplies anticipated to be available with proposed California WaterFix facilities.[127] Scenario B anticipated moderate supply reductions, a reduction in SWP supply reliability, and less increase in Saugus pumping capacity and recycled water use than the Base Scenario.[128] Finally, Scenario C, the most conservative scenario, took into account larger supply reductions, a more significant reduction in SWP reliability, and additional limits on groundwater supplies and recycled water use.[129]

The 2017 Water Supply Reliability Report evaluated various water supply scenarios that assumed reductions in supply (including due to climate change) to determine the reliability of meeting projected demands in the SCV Water service area. As with any long-term planning analysis, numerous assumptions were made regarding projected demands and the availability of various supplies. For any scenario in which reliability is less than the 95-percent reliability goal, the 2017 Water Supply Reliability Report identified additional supply programs as needed to achieve that reliability goal. The 2017 Water Supply Reliability Report found that three of the four scenarios (including the baseline scenario) met the required 95-percent reliability goal, and that Scenario C, which was projected to become less than 95 percent reliable after 2035, improved to 100 percent reliability by increased take capacity within the Rosedale-Rio–Bravo Banking Program.

The 2017 Water Supply Reliability Plan determined that there was a supply surplus that greatly exceeded any projected shortfall throughout the study period under each scenario, including Scenario C.[130] As a result, the plan recommended that SCV Water prioritize efforts to store surplus amounts of existing and planned supplies rather than acquiring additional base or dry-year supply. Specifically, in the near-term (2017 through 2035), the plan indicates that SCV Water did not need to take additional supply actions, beyond the 2015 UWMP planned increases in local supplies, but that SCV Water should reserve the use of SWP flexible storage for emergency storage (rather than for dry-year supply). In the long term (2035 to 2050), the plan determined that if the future unfolded like the Base Scenario or Scenario A, no additional supply actions would be necessary. For Scenario B, SCV Water may need to establish additional dry-year supply by 2046 to replace the Semitropic Banking Program, which ends in 2045. For Scenario C, the plan

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[127] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. i.*

[128] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. ii.*

[129] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. ii.*

[130] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017, p. ii.*

concluded that SCV Water would need additional dry-year supply of 10,000 acre-feet per year (AFY) by 2035, and another 10,000 AFY increment of dry-year supply by 2046.[131] Overall, the 2017 Water Supply Reliability Plan identified multiple pathways for SCV Water to maintain reliability even under a range of potential demand scenarios.

(2) SCV Water's Water Supply Reliability Plan Update

In addition to the 2020 UWMP analysis, SCV Water undertook an update of the 2017 Water Supply Reliability Report. The 2021 Water Supply Reliability Plan Update (Reliability Plan Update) is referenced in the 2020 UWMP.[132] The Reliability Plan Update modeled and analyzed six scenarios (the Base Scenario and Scenarios 1–5) that represent six different views of what the potential future water supply picture might look like through 2050, all of which incorporate climate change assumptions. Specifically, the Reliability Plan Update incorporates the climate change data from the 2019 SWP Delivery Capability Report, which evaluates SWP supply availability under future climate change conditions. Effects from climate change are analyzed in the report, including uncertainty in estimating the future availability of SWP water due to more precipitation falling in the form of rain rather than snow and earlier snowmelt, which would result in more runoff occurring in the winter rather than over the course of both winter and spring. The Reliability Plan Update accounted for potential near-term supply capacity declines as certain groundwater wells are taken offline for PFAS remediation.[133] The scenarios also contemplate a variety of different water supply components. Overall, the Reliability Plan Update identified multiple pathways for SCV Water to maintain reliability even under the range of potential demand scenarios.

(3) SCV Water's Drought Response Strategies

Water supplies may be interrupted or reduced significantly in several ways, such as a drought which limits supplies, an earthquake which damages water delivery or storage facilities, a regional power outage, or a toxic spill that affects water quality. On May 10, 2021, Governor Gavin Newsom declared a state of emergency related to drought conditions in California. As outlined in the regulatory setting discussion, this initiates temporary drought contingency measures for water suppliers and public agencies.[134]

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[131] *Castaic Lake Water Agency, Final Report 2017 Water Supply Reliability Plan Update, November 1, 2017., p. iii.*

[132] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 7-23. Note that the Reliability Plan Update was still in draft form at the time the 2020 UWMP was finalized.*

[133] *Santa Clarita Valley Water Agency, 2021 Water Supply Reliability Plan Update, July 2021, p. 5.*

[134] *Governor of California, Proclamation of a State of Emergency, May 10, 2021.*

The 2020 UWMP, Section 9, describes how SCV Water plans to respond to such emergencies so that customer needs are met promptly and equitably. In conjunction with the 2020 UWMP, SCV Water also prepared a Water Shortage Contingency Plan in response to the challenges of climate change and other abnormal supply conditions.[135] The Water Shortage Contingency Plan outlines SCV Water's plan for a drought-related water supply shortage or a catastrophic shortage and specifies opportunities to reduce demand and augment supplies under such conditions. In addition, demand management measures such as conservation pricing are summarized in Section 8 of the 2020 UWMP. The reliability planning and demand management measures in 2020 UWMP, Sections 7 and 8, will also assist SCV Water in responding to drought conditions, such as the severe drought conditions that existed from 2012 through 2016.

The urban water shortage contingency strategies include:

- implementation of voluntary and mandatory water conservation measures;
- prohibitions and penalties for excessive use;
- consumption limits for customers, new demand (i.e., no new permits issued until mandatory rationing rescinded), and water features (e.g., fountains or swimming pools); and
- more severe reductions for major emergencies.

The Water Shortage Contingency Plan implements increased water efficiency in response to the challenges of climate change, which could lead to increasingly variable supply conditions. The Water Shortage Contingency Plan states that in the face of climate change, SCV Water has prioritized expansion of water conservation programs to emphasize water efficiency by supporting investments in storage and local supply development

e. SCV Water's Existing Water Supplies

A "public water system" is defined as "a system for the provision of piped water to the public for human consumption that has 3,000 or more service connections."[136] Through its retail divisions, SCV Water serves piped water to the public (i.e., residents of the Santa Clarita Valley) within its current service area. As of 2020, SCV Water's service area included approximately 73,542 municipal water service connections in both the City of

[135] *Santa Clarita Valley Water Agency, Final Water Shortage Contingency Plan, June 2021.*

[136] *California Water Code Section 10912(c).*

Santa Clarita and the unincorporated Los Angeles County communities of Castaic, Newhall, Saugus, Stevenson Ranch, and Valencia. SCV Water currently supplies water to the adjacent Newhall Ranch project, Mission Village. In 2020, SCV Water supplied 65,996 AF of water. Within the SCV Water service area, the existing water supply sources that could serve the Project are summarized in the following sections. Imported supplies are transported via the SWP and consist of both SWP contract water supply amounts and dry year supplies delivered from water banking and exchange programs. Local supplies include groundwater and recycled water.

(1) SCV Water's Existing Imported Supplies

(a) State Water Project Supply Contracts—SWP Water Supplies

(i) Table A Water

SCV Water obtains water supplies from the SWP, which is owned and operated by the DWR. SCV Water is one of 29 SWP contractors holding long-term water supply contracts with DWR. The SWP contractual Table A Amount, depending on annual allocation, currently meets approximately 40 to 50 percent of SCV Water demand in normal years.[137] "Table A Amount" refers to the maximum amount of water an SWP contractor may request each year from the SWP. Table A is used in determining each contractor's proportionate share, or allocation, of the total SWP water supply DWR determines to be available each year. The reliability of SWP supplies is subject to both annual hydrology and planned improvements to the system. The Table A Amount is not equivalent to actual deliveries of water in any given year. Drought, climatic conditions, and other factors can significantly alter and reduce the availability of SWP water in a given year. The amount of water DWR determines is available and allocates for delivery each year is based on that year's hydrologic conditions, the amount of water in storage in the SWP system, current regulatory and operational constraints, the SWP contractors' requests for SWP supplies, and other factors.

Each SWP contractor has a specified maximum water supply amount shown in Table A of its water supply contract with DWR, which currently totals approximately 4.17 million AF.[138] SCV Water's contractual annual Table A amount is 95,200 AF of water.[139,140] The term of SCV Water's SWP contract has been extended through 2085.

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[137] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021. Compare p. 7-6, Table 7-2 with p. 4-12, Table 4-2.*

[138] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-4 and 4-5.*

(2) SCV Water's Other Imported Supplies Available to SWP Contractors

Each long-term water supply contract describes various types of SWP water that are available to SWP contractors to supplement their Table A water: (a) Article 21 water; (b) flexible storage account; (c) carryover water; and (d) turnback pool water.

Article 21 water is water that SWP contractors may receive on a short-term basis in addition to their Table A water, if they request it. DWR makes Article 21 water available to SWP contractors during periods when the supply of SWP water exceeds the cumulative delivery requests scheduled by the SWP contractors. Article 21 water may become available during relatively dry years--not just during relatively wet years.

As part of its SWP Contract with DWR, SCV Water has access to a portion of the storage capacity of Castaic Lake. This Flexible Storage Account allows SCV Water to utilize up to 4,684 AF of the storage in Castaic Lake for SCV Water.[141] In addition, SCV Water has access to Ventura County's flexible storage account of 1,376 AF through 2025, pursuant to an extended agreement with the County, for a total of 6,060 AF in storage capacity at Castaic Lake.[142] Any of this amount that SCV Water withdraws must be returned to storage by SCV Water within five years of its withdrawal. SCV Water manages this storage by keeping the account full in normal and wet years and then delivering that stored amount (or a portion of it) during dry periods.

Carryover water is SWP water allocated to a SWP contractor and approved for delivery to that contractor in a given year, but not used by the end of the year. This water is exported from the Delta, but instead of being delivered to the SWP contractor, it is stored in the SWP's share of the San Luis Reservoir, when space is available, for the contractor to use in the following year.

SWP contractors may offer a portion of their Table A water that has been allocated in the current year and exceeds their needs to a "turnback pool," where another contractor

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[139] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-5.*

[140] *Santa Clarita Valley Water Agency, ~~2019~~ 2023 Santa Clarita Valley Water Report, ~~July, 2020~~ June 2024, p. ~~ES-3~~ 6.*

[141] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 7-3.*

[142] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 7-3.*

may purchase it. Contractors that sell their extra Table A water in a turnback pool receive payments from contractors that buy this water through the turnback pool.

The availability of Article 21 water, carryover water, and turnback pool water is uncertain. When available, these supplies provide additional water that SCV Water may be able to use, either directly to meet demands or for later use after storage in its own water banking programs. To the extent SCV Water can make use of these supplies when available, SCV Water may be able to improve the reliability of its SWP supplies beyond the amounts reflected in the 2020 UWMP for the Santa Clarita Valley.

Although not specifically provided for in the SWP water supply contracts, in single-dry years, DWR has created dry-year water purchase programs for contractors needing additional supplies. Through these programs, water is purchased by DWR from willing sellers in areas that have available supplies and is then sold by DWR to contractors willing to purchase those supplies. The availability of these supplies is uncertain. However, SCV Water's access to these supplies when they are available would enable it to improve the reliability of its dry-year supplies beyond the amounts reflected in the 2020 UWMP.

(a) Factors Affecting SWP Table A Supplies

While Table A identifies the maximum amount of Table A water an SWP contractor may request, the amount of SWP water available and allocated to SWP contractors each year is dependent on several factors and can vary and be reduced significantly from year to year. The primary factors affecting SWP water delivery reliability include, among other factors, rainfall and snowpack affecting the availability of Delta source waters in northern California, regulatory restrictions on SWP operations, and the effects of climate change. Uncertainty also exists because of the potential for interruptions in conveying SWP supplies through the Delta (e.g., earthquakes, Delta levee failure). DWR and other agencies are engaged in ongoing efforts to reduce risks to the Delta and enhance emergency response capabilities.

DWR accounts for the various factors affecting and reducing SWP water delivery reliability in its computer modeling, which simulates the expected SWP deliveries under existing and anticipated future conditions. DWR's most current published estimate of SWP delivery reliability is found in the 2019 Delivery Capability Report. As used by DWR, the term "water delivery reliability" refers to the annual amount of SWP water that can be expected to be delivered with a certain frequency, or in other words, the probability that a certain amount of water will be delivered by the SWP in a given year.

(b) SWP Table A Supply Assessment

In an effort to assess the impact of these varying conditions on SWP supply reliability, DWR issues reliability reports every two years. DWR's most current published estimate of SWP delivery reliability is found in the 2019 Delivery Capability Report.

(c) DWR Analysis Results

According to the 2020 UWMP, which relied on DWR's 2019 Delivery Capability Report dated August 2020, the SWP can deliver 58 percent of the total maximum Table A amounts on a long-term average basis under existing (2020) conditions and 52 percent of total maximum under future conditions. In the worst-case single critically-dry year, DWR estimated that the SWP can deliver a total Table A supply of 5 percent of the total maximum Table A amounts under 2014 conditions, and 7 percent under conditions based on the historic single-dry year of 1977. During multiple year dry periods, DWR estimated that under historic dry period conditions, the SWP can deliver a total Table A supply averaging 25 percent of the total maximum Table A amounts.[143]

(3) SCV Water's Water Storage and Exchange Sources

Due to supply variability, SCV Water has developed additional water supplies, as well as storage in groundwater banks. The following supplies are available to SCV Water through transfers that have been executed since 2005. These supplies are now part of the imported supplies available to the service area.

(a) Buena Vista/Rosedale–Rio Bravo Water Storage District Water Acquisition

SCV Water has a long-term transfer agreement for 11,000 AFY with the Buena Vista and Rosedale–Rio Bravo Water Storage Districts (BVWSD and RRBWSD, respectively).[144] This water supply is firm; that is, the total amount is available in all water year types. Refer to Section 4.2.3.1 of the 2020 UWMP for additional information.

(b) Flexible Storage Account

As discussed above, any of the 6,060 AF that SCV Water borrows from Castaic Lake must be returned to storage by SCV Water within five years of its withdrawal. SCV

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[143] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-12, Table 4-2.*

[144] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-18.*

Water manages this storage by keeping the account full in normal and wet years and then delivering that stored amount (or a portion of it) during dry periods. The account is refilled during the next year that adequate SWP supplies are available to SCV Water to do so.

(c) Semitropic Water Storage District Banking

The Semitropic Water Storage District (Semitropic) provides SWP water to farmers for irrigation via its banking program. Semitropic has expanded its banking program to incorporate its Stored Water Recovery Unit (SWRU). Altogether, the program offers approximately 2.3 million acre-feet (MAF) of storage with a pumpback recovery capacity of approximately 290,000 AFY.[145] SCV Water currently has a storage balance available of approximately 40,278 AF of recoverable water.[146] SCV Water may withdraw up to 5,000 AFY from its account.[147] This water is only anticipated to be necessary during dry years.

(d) Rosedale–Rio Bravo Banking Program

The Rosedale-Rio Bravo Water Storage District (RRBWSD) has developed a water banking and exchange program. SCV Water currently has approximately 100,000 AF banked in the program, which is the contractual limit. SCV Water's existing firm withdrawal capacity in this program is 10,000 AFY. This water is only anticipated to be necessary during dry years and is primarily to enhance reliability.

(e) Yuba Accord Water

In 2008, SCV Water's predecessor agency, CLWA, entered into the Yuba Accord Agreement, which allows for the purchase of water from the Yuba County Water Agency through DWR to 21 SWP contractors (including SCV Water) and the San Luis and Delta-Mendota Water Authority. Under the agreement, an estimated average of up to 1,000 AFY of non-SWP supply (after losses) is available to SCV Water in dry years, through 2025.[148] In 2021, with a current SWP allocation of 5 percent of Table A Amount, a minimum supply of 1,700 AF north of the Delta is available to SCV Water.[149] Under certain

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[145] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-53.*

[146] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-53 and 4-54.*

[147] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-54.*

[148] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-19.*

[149] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-19.*

hydrologic conditions, additional water may be available to SCV Water from this program. SCV Water received 284 AF from this source in 2020.[150]

(f) Antelope Valley East Kern Exchange Program

In 2019, SCV Water executed a Two-for-One Water Exchange Program with Antelope Valley-East Kern Water Agency (AVEK) whereby SCV Water could recover one acre-foot of water for every two acre-feet SCV Water delivered to AVEK. SCV Water delivered 7,500 AF to the program in 2019 and has 3,750 AF of recoverable water. In 2020, 1,406 AF of water was withdrawn from this exchange program leaving a balance of 2,344 AF. The term for this agreement is 10 years.[151]

(g) United Water Conservation District Exchange Program

In 2019, SCV Water also executed a Two-for-One Water Exchange Program with United Water Conservation District (UWCD) whereby SCV Water could recover one acre-foot of water for every two acre-feet SCV Water delivered to UWCD. SCV Water delivered 1,000 AF to the program in 2019 and has 500 AF of recoverable water. The term for this agreement is 10 years.[152]

(4) SCV Water's Existing Groundwater Supplies

(a) Santa Clara River Valley East Subbasin—Basin No. 4-4.07

Groundwater in the Santa Clarita Valley is pumped from a two-aquifer system, the Alluvial Aquifer and Saugus Formation, which together comprise the local groundwater basin defined in DWR's Bulletin 118 as the Santa Clara River Valley Groundwater Basin, East Subbasin, Basin No. 4-4.07. If the water supply for a proposed project will include groundwater supplies, Water Code Section 10910 subdivisions (f)(1)–(5) require a WSA to include certain information regarding existing groundwater use. While the required information is included in the WSA for the Modified Project, discussion is included below for informational purposes.

Table 5.11-2, Recent Historical Groundwater Production (AF), on page 5.11-51 summarizes recent groundwater production from the Santa Clara River Valley East

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[150] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-19.*

[151] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-52.*

[152] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-52.*

Table 5.11-2
Recent Historical Groundwater Production (AF)[a]

Santa Clara River Valley East Subbasin	2016	2017	2018	2019	2020
SCWD					
Alluvium	6,892	3,900	5,383	5,948	5,311
Saugus Formation[b]	3,485	907	2,465	2,762	2,517
LACWWD 36	1,047	1,093	1,204	972	1,257
Alluvium	0	0	0	0	0
Saugus Formation	1,047	1,093	1,204	972	1,257
NCWD/NWD	4,468	2,303	2,608	3,708	4,591
Alluvium	626	780	728	1,044	1,322
Saugus Formation	3,842	1,523	1,880	2,664	3,269
VWC/VWD	13,922	9,107	13,674	6,919	6,173
Alluvium	11,133	7,737	10,837	5,243	3,732
Saugus Formation	2,789	1,370	2,837	1,676	2,441
Total Purveyor	**26,329**	**16,403**	**22,869**	**17,547**	**17,332**
Alluvium	**15,244**	**9,424**	**14,030**	**9,049**	**7,571**
Saugus Formation	**11,085**	**6,979**	**8,839**	**8,498**	**9,761**
Agricultural and Other[c,d]	14,359	13,438	13,071	12,510	12,300
Alluvium	13,605	12,554	12,437	11,967	9,190
Saugus Formation	754	884	843	1067	1060
Total Basin	**40,688**	**29,841**	**36,149**	**30,581**	**27,582**
Alluvium	**28,849**	**21,978**	**26,467**	**21,016**	**16,761**
Saugus Formation	**11,839**	**7,863**	**9,682**	**9,565**	**10,821**
Groundwater Fraction of Total Municipal Water Supply	56%	39%	46%	42%	36%

AF = acre-feet

[a] *From 2019 Santa Clarita Valley Water Report (July 2020) and recorded amounts for 2020.*

[b] *Represents pumping from Saugus 1 and Saugus 2 wells.*

[c] *Includes agricultural and other small private well pumping.*

[d] *2020 Agricultural and Other alluvial production.*

Source: Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Table 4-5.

Subbasin. Covering the five-year period from 2016 through 2020 and using the data reported in the annual Santa Clarita Valley water reports, municipal groundwater production averaged approximately 23,014 AFY from the Alluvial Aquifer and 9,954 AFY

from the Saugus Formation (the average for the Saugus Formation includes production from the Saugus 1 and 2 perchlorate treatment plants).[153]

(i) Groundwater Basin

As previously indicated, the Santa Clara River Valley Groundwater Basin, East Subbasin is comprised of two aquifer systems—the Alluvial Aquifer and the Saugus Formation. The Sub-Basin is about 22 miles long east to west and 13 miles wide. The Alluvial Aquifer has an estimated storage capacity of about 161,000 to 201,000 AF of water.[154] DWR Bulletin 118 reports that in the Spring of 2000, 1.65 million AF of groundwater was stored in the Saugus Formation.[155] The Santa Clara River Valley Groundwater Basin, East Subbasin Basin is designated as a high-priority basin that is not critically overdrafted.

(ii) Groundwater Operating Plan

SCV Water and the retail purveyors developed the groundwater operating plan to meet water demands (municipal, agricultural, and small domestic), while maintaining the Basin in a sustainable condition (i.e., no long-term depletion of groundwater or interrelated surface water). As stated, the groundwater operating plan is based on the concept that pumping can vary from year to year to allow increased groundwater use in dry periods and increased recharge during wet periods. This assures that the Basin is adequately replenished through various wet/dry cycles. The operating yield concept has been quantified as ranges of annual pumping volumes to capture year to year pumping fluctuations in response to both hydrologic conditions and customer demand.

(iii) Recent Historical Groundwater Production

Total pumpage from the Alluvial Aquifer in 2020 was 16,761 AF. In 2020, groundwater made up 36 percent of total municipal water supply.[156] Since 1980, when imported water deliveries began from the SWP, annual pumpage from the Alluvial Aquifer has ranged from about 20,000 AFY to as high as about 43,000 AFY (in 2006).[157] As stated

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[153] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-27, Table 4-5.*

[154] *DWR, Bulletin 118, 4-004.07: Santa Clara River Valley—Santa Clara River Valley East.*

[155] *DWR, Bulletin 118, 4-004.07: Santa Clara River Valley—Santa Clara River Valley East.*

[156] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-27, Table 4-5.*

[157] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-34.*

in the UWMP, decreased well capacity is partially attributable to perchlorate and PFAS contamination; however, the current reductions in supply are being met by other sources of supply, including imported SWP water or banked water supplies.[158]

Total pumpage from the Saugus Formation in 2020 was 10,821 AF.[159] Of this total, 9,761 AF was for municipal water supply, and the balance 1,060 AF was for agricultural and other (minor) uses.[160] Groundwater pumpage from the Saugus peaked in the early 1990s and then declined steadily. On a long-term average basis since the importation of SWP water, annual pumpage from the Saugus Formation has ranged from a low of 3,716 AFY (in 1999) to a high of 14,917 AFY (in 1991).[161]

(iv) Update to Groundwater Basin Yield

The Basin is unadjudicated, meaning that no water agencies have adjudicated water rights that dictate their water supply. The total supply available to all purveyors in the Basin and the ability of SCV Water to access those supplies determine the amount of water available to SCV Water to meet its long-term supply needs. However, SCV Water accesses the available groundwater supplies in accordance with a groundwater operating plan developed by SCV Water and the retail water purveyors in the Santa Clarita Valley. As analyzed in the 2005 and 2009 basin yield studies, based on a numerical groundwater flow model of the Basin, as well as technical data supporting the GSP prepared by the SCVGSA, which is incorporated by reference, neither aquifer system is in overdraft and the groundwater operating plan is sustainable, as described in the 2003 Groundwater Management Plan. The GSP concludes "the groundwater model of the Basin indicates that undesirable results from chronic lowering of groundwater levels and reduction of groundwater in storage are not expected to occur in the future." [162]

In April 2009, the purveyors in Santa Clarita Valley determined that an updated analysis was needed to further assess groundwater development potential and possible augmentation of the CLWA/purveyor groundwater operating plan, partly in preparation for

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[158] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-44 to 4-49.*

[159] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-27, Table 4-5.*

[160] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-27, Table 4-5.*

[161] *Santa Clarita Valley Water Agency, ~~2019~~ 2023 Santa Clarita Valley Water Report, ~~July, 2020,~~ June 2024, Appendix A, Table 3.*

[162] *Santa Clarita Valley Groundwater Sustainability Agency, Santa Clara River Valley East Groundwater Subbasin Groundwater Sustainability Plan, January 2022, p. 8-45.*

the 2010 UWMP, and partly in response to uncertainties associated with future SWP delivery reliability. As a result, the 2009 Basin Yield Update was completed. To ensure sustainability, SCV Water has committed that the annual use of groundwater pumped collectively in any given year will not exceed the SCV Water/purveyor groundwater operating plan as described in the updated Basin Yield Study (August 2009), the 2020 UWMP, and as reported annually in the Santa Clarita Valley water reports. A portion of the Project's water demand is available to SCV Water in any given year from a mix of groundwater produced from the Alluvial Aquifer and Saugus Formation and imported SWP supplies.

(b) Alluvial Aquifer

SCV Water has a combined pumping capacity from active Alluvial wells of approximately 51,000 gallons per minute (gpm), which translates into a current full-time Alluvial source pumping capacity of approximately 83,000 AFY.[163] The UWMP confirms that this source capacity is more than sufficient to meet the 21,400 AFY projected groundwater production from the Alluvium in 2025, as well as the projected increase to 30,800 AFY in 2035. As identified in the 2020 UWMP SCV Water, "to achieve these levels of production SCV Water must complete treatment facilities to PFAS compliance."[164] In normal years, groundwater source capacity will gradually increase from 15,080 AFY (2021) to 28,050 AFY (2030) as future and recovered wells come online. In dry years, source capacity will increase from 12,980 AFY (2021) to 23,350 AFY (2030) as future and recovered wells come online. Furthermore, once all impacted wells are recovered, total production from the Alluvial Aquifer wells will be 30,790 AFY in normal years and 26,090 AFY in dry years.[165]

(c) Saugus Formation

For the Saugus Formation, SCV Water has a combined pumping capacity from active wells of nearly 16,200 gpm, which translates into a full-time Saugus Formation source capacity of about 26,120 AFY.[166]

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[163] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-30.*

[164] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-30.*

[165] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-32 and 4-33.*

[166] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-37.*

The 2020 UWMP determined that in order to supplement long-term dry-year supplies, additional Saugus Formation wells can be implemented. Two wells, Saugus 3 and 4, have been designed and are awaiting permitting from DDW. SCV Water estimates that these wells should be available in 2025.[167] SCV Water anticipates the next wells, Saugus 5 and 6, will be available in 2027, and that the final wells, Saugus 7 and Saugus 8, are anticipated to become available in 2030. The 2020 UWMP concluded that the combined active (existing) Saugus groundwater source capacity of municipal wells of about 29,340 AFY (including the LACWWD 36 well) is more than sufficient to meet the planned use of Saugus groundwater in normal years of 7,500 to 15,000 AFY.[168]

According to the 2020 UWMP, SCV Water's current and proposed groundwater supplies from the Alluvial Aquifer and the Saugus Formation are sustainable, and that current and future pumping levels, when combined with non-purveyor pumping, for average year, single-dry year, and multiple-dry years, remain within the basin.[169]

SCV Water has determined that the groundwater supply will be sufficient to meet existing and planned groundwater pumping within the SCV Water service area through the long-term planning horizon reflected in the 2020 UWMP (after accounting for perchlorate and PFAS effects).[170]

(5) SCV Water's Existing Local Supplies of Recycled Water

Sections 5 and 7 of the 2020 UWMP describe and quantify the potential uses of recycled water in the Santa Clarita Valley based on wastewater flows and recycled water generated by the two local, existing water reclamation plants (WRPs): (a) the Saugus WRP; and (b) the Valencia WRP. As of 2020, recycled water deliveries were approximately 450 AF. Currently, SCV Water delivers an average of approximately 475 AFY of recycled water to its Valencia Water Division (VWD) for use at 13 irrigation sites, including one golf course, a shopping center, and 11 street medians.

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[167] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-38.*

[168] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-37.*

[169] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 7-2.*

[170] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-36 to 4-38.*

As reported in the 2020 UWMP, if recycled water supplies from the existing WRPs and/or other local WRPs are not available in the amounts identified in Tables 5-2 and 5-3 of the 2020 UWMP because of contract, regulatory, or other, other potable sources of supply available to SCV Water as provided in the 2020 UWMP constraints would be utilized to meet non-potable demands until such time as recycled water supplies may become available. SCV Water's supply and demand tables for average/normal year, single-dry year, and two multiple-dry years show that total existing and planned supplies exceed demands. Accordingly, other diverse water supplies are available and can be used as water supply sources to meet non-potable demands while still meeting potable water demands until such time as recycled water becomes available.[171]

(6) Existing Newhall-Dedicated Water Supplies[172]

(a) Nickel Water

Newhall has acquired the right to 1,607 AFY of firm water supply from Kern County sources, known as "Nickel water."[173] Newhall may assign or transfer the Nickel water to SCV Water upon final buildout of the Newhall Ranch Specific Plan if local groundwater supplies are not sufficient to meet demands within the Newhall Ranch Specific Plan. Newhall currently stores its annual supply of Nickel water in the Semitropic Groundwater Bank, described below.[174]

(b) Banked Semitropic Water Supplies

Newhall has exclusive rights to withdraw water that it has stored in the Semitropic Groundwater Bank located in Kern County. The bulk of this stored water is derived from Newhall's purchases of Nickel water. At the end of 2021, Newhall had a storage balance of approximately 39,737 AF, with a contractual right to store up to 55,000 AF (or more if negotiated).[175] In 2009 and 2014, Newhall made its withdrawal capacity from the Semitropic Groundwater Bank available to SCV Water's predecessor to help address

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[171] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 5-10.*

[172] *As previously indicated, the Modified Project Applicant is The Newhall Land and Farming Company, a California Limited Partnership, an indirect subsidiary of Five Point Holdings, LLC.*

[173] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-18.*

[174] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-18.*

[175] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-54.*

temporary drought conditions.[176] Based on this past practice, it is anticipated that Newhall would collaborate with SCV Water to make its stored water available to SCV Water as a backstop supply in the event an unforeseen, temporary disruption were to arise related to the Modified Project's supply, although no such event is reasonably anticipated.

The State-certified EIR evaluated the potential use of Newhall's water stored in the Semitropic Groundwater Bank within the Newhall Ranch Specific Plan area. The State-certified EIR concluded that only 438 AF per year of such stored water would be needed for the Newhall Ranch Specific Plan but only in dry years and after the Newhall Ranch Specific Plan were nearly built out, equating to Newhall's stored water in the Semitropic Groundwater Bank lasting over 300 years even after buildout of the Specific Plan.[177]

f. SCV Water's Planned Water Supplies

(1) Planned Groundwater Supplies

Additional groundwater is projected to be recoverable from the Saugus Formation. VWD Well 201 is waiting DDW permitting and is expected to return to service in the near future, which will increase available production capacity from the Saugus Formation by approximately 3,230 AFY. Additional Saugus wells are planned for the near future.

(2) Planned Banking Supplies

Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking program is 10,000 AFY, and is planned to expand by an additional 10,000 AFY by 2030.[178]

(3) Planned Recycled Water

Recycled water planning efforts have been underway in the Santa Clara Valley for over two decades, and SCV Water has recognized that recycled water is an important and reliable source of additional water that should be pursued as a part of the SCV Water's

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[176] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 4-52, 4-54, and 4-55.*

[177] *State-certified EIR, Final EIR, p. 4.3-106. Similarly, as provided in the Specific Plan EIR, even without taking current water conservation measures into account, the Specific Plan EIR estimated that only 865 AFY of Semitropic water would be needed during dry years only after the 25th buildout year based on a 30-year assumed buildout. (Specific Plan EIR, p. 2.5-141.)*

[178] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 4-54.*

water supply portfolio.[179] In 1993 and 2002, CLWA prepared draft Recycled Water Master Plans (RWMP) for the current SCV Water service area to assist with developing a cost-effective recycled water system. In 2007, CLWA certified a Programmatic EIR for the 2002 RWMP. An update to the 2002 RWMP was initiated in 2016; however, the update has not been completed, in part due to ongoing litigation between the Affordable Clean Water Alliance and SCVSD, which is SCV Water's primary supplier of recycled water.[180] Still, the 2016 RWMP update continues to provide SCV Water with important guidance on feasible water recycling projects in the short term.

Under Phase 1 of the 2002 RWMP, 450 AFY of recycled water is delivered to landscape irrigation customers, including The Oaks Club golf course.[181] Although the original SCVSD contract and applicable permits anticipate the use of 1,600 AFY for this Phase 1, demands for recycled water have not developed at each of the locations identified in the SCVSD's SWRCB California Water Code Section 1211 petition, and use of the remaining volumes at new locations would require submission and approval of a revised petition. Phase 2 of the 2002 RWMP is planned to expand recycled water use within Santa Clarita Valley. Phase 2 consists of four projects that are in various stages of design and approval.[182] SCV Water anticipates that demands for these projects will be largely met by recycled water from SCV Water's New Drop Program, described below.[183]

SCV Water's source of supply for current and planned recycled water consists of flows from the Valencia Water Reclamation Plant, the future Newhall Ranch Water Reclamation plant, and the Vista Canyon Ranch Water Factory (Vista Canyon WRP). As shown in Tables 5-2 and 5-3 of the 2020 UWMP, planned recycled water supplies from the Valencia, Vista Canyon, and the Newhall Ranch WRPs are anticipated to be available to meet a substantial portion of the total projected long-term recycled water demands within the Santa Clarita Valley.[184] However, the use of recycled water from the WRPs is limited and can be affected by various state water laws, codes, and regulatory and court decisions.

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[179] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 5-1.*

[180] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 5-2.*

[181] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 5-3 and 5-10.*

[182] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 5-3, 5-9, and 5-10.*

[183] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 5-3.*

[184] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 5-1, 5-9, and 5-10.*

Recycled water supplies from the Valencia, Vista Canyon, and the planned Newhall Ranch WRP would come in part from SCV Water's New Drop Program, which, as described in the 2020 UWMP, would use wastewater flows from new customers/ development and would ensure that all new flows are recycled for use by customers.[185] One of the objectives of the New Drop Program is to develop additional recycled water supplies without increasing the amount of recycled water flows that are diverted from being discharged to the Santa Clara River. Instead, these new recycled water supplies will be derived from wastewater flows generated from new residential and commercial development. Importantly, because using recycled water under the New Drop Program will not result in a reduction in flow to the Santa Clara River, a California Water Code Section 1211 wastewater change petition will not be required.[186]

g. SCV Water's Water Supply and Demand Comparisons

As described above, SCV and the retail purveyors have existing water supplies that include wholesale (imported) supplies, local groundwater, recycled water, and water from existing groundwater banking programs. Planned supplies also include new groundwater production and additional banking programs. This diversity of supply allows SCV and the retail purveyors the option of drawing on multiple sources of supply in response to changing conditions, such as varying weather patterns (average/normal years, single-dry years, multiple-dry years), fluctuations in delivery amounts of SWP water, natural disasters, perchlorate-impacted wells, and other factors.

The following tables describe SCV Water's available water supplies in the Santa Clarita Valley in average, single-dry, and multiple-dry years over the cumulative 30-year planning horizon studied in the adopted 2020 UWMP. As discussed in the WSA and the UWMP, in order to estimate cumulative demand out to 2050, population and water use projections were made based upon existing land uses and planned land use development compiled for the service area, including the Area Plan.[187]

(1) Average Water Years

The available water supplies and demands for SCV Water's service area were analyzed in the 2020 UWMP to assess SCV Water's ability to satisfy demands in its service

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[185] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 5-1 to 5-21.*

[186] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, p. 5-6.*

[187] *One Valley One Vision plan: https://planning.lacounty.gov/long-range-planning/santa-clarita-valley-area-plan/, accessed February 22, 2024.*

territory during a single dry year. The 2020 UWMP demonstrates that existing and planned supplies are available and sufficient to meet existing and projected demand under such conditions for the projected planning period through 2050. **Table 5.11-3**, Projected SCV Service Area Average/Normal Year Supplies and Demands (AF), on page 5.11-61 summarizes this information.

(a) Single-Dry Year

The available water supplies and demands for SCV Water's service area were analyzed in the 2020 UWMP to assess SCV Water's ability to satisfy demands within its territory during a single dry year. The 2020 UWMP demonstrates that existing and planned supplies are available and sufficient to meet existing and projected demand under such conditions for the projected planning period through 2050. **Table 5.11-4**, Projected SCV Service Area Single-Dry Year Supplies and Demands (AF), on page 5.11-64 summarizes this information.

(b) Multiple-Dry Years

The available water supplies and demands for SCV Water's service area were analyzed in the 2020 UWMP to assess SCV Water's ability to satisfy demands in its service territory during multiple dry years. The 2020 UWMP demonstrates that existing and planned supplies are available and sufficient to meet existing and projected demand under such conditions for the projected planning period through 2050. **Table 5.11-5**, Projected SCV Service Area Five-Year Dry Year Supplies and Demands (AF), on page 5.11-67 summarizes this information.

Table 5.11-3
Projected SCV Service Area Average/Normal Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Existing Supplies						
Existing Groundwater[a]						
Alluvial Aquifer	8,900	8,180	7,300	7,300	7,300	7,300
Saugus Formation	14,440	7,110	7,110	7,110	7,110	7,110
Total Existing Groundwater	*23,340*	*15,290*	*14,410*	*14,410*	*14,410*	*14,410*
Recycled Water[b]	*450*	*450*	*450*	*450*	*450*	*450*
Imported Water						
State Water Project[c]	55,220	53,310	51,410	49,500	49,500	49,500
Flexible Storage Accounts[d]	—	—	—	—	—	—
Buena Vista–Rosedale	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water–Newhall Land[e]	—	—	1,607	1,607	1,607	1,607
Yuba Accord Water[f]	1,000	—	—	—	—	—
Total Imported Water	*67,220*	*64,310*	*64,017*	*62,107*	*62,107*	*62,107*
Existing Banking and Exchange Programs[g]						
Rosedale Rio–Bravo Bank[g]	—	—	—	—	—	—
Semitropic Bank[g]	—	—	—	—	—	—
Semitropic–Newhall Land Bank[g]	—	—	—	—	—	—
Antelope Valley East Kern Water Agency Exchange[g]	—	—	—	—	—	—
United Water Conservation District Exchange[g]	—	—	—	—	—	—
Total Banking and Exchange Programs	*0*	*0*	*0*	*0*	*0*	*0*
Total Existing Supplies	***91,010***	***80,050***	***78,877***	***76,967***	***76,967***	***76,967***
Planned Supplies						
Future and Recovered Groundwater[h]						
Alluvial Aquifer[i]	12,530	19,870	23,490	23,490	23,490	23,490
Saugus Formation[j]	3,010	2,790	2,790	2,790	2,790	2,790
Total Future and Recovered Groundwater	*15,540*	*22,660*	*26,280*	*26,280*	*26,280*	*26,280*

Table 5.11-3 (Continued)
Projected SCV Service Area Average/Normal Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Recycled Water[k]	*1,849*	*3,696*	*5,091*	*6,498*	*7,499*	*8,511*
Planned Banking Programs						
Rosedale Rio–Bravo Bank[h,l]	—	—	—	—	—	—
Total Planned Banking Programs	*0*	*0*	*0*	*0*	*0*	*0*
Total Planned Supplies	***17,389***	***26,356***	***31,371***	***32,778***	***33,779***	***34,791***
Total Supplies (Existing and Planned)[m]	**108,399**	**106,406**	**110,248**	**109,745**	**110,746**	**111,758**
Demands with Passive and Active Conservation[n,m,o]	76,400	81,700	88,700	93,600	97,500	101,000
Difference between Total Existing and Planned Supplies and Demand w/ passive and active conservation	31,999	24,706	21,548	16,145	13,246	10,758
Supplies Adequate to Meet Project Demand?	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply

AF = acre-feet

[a] *Existing groundwater supplies represent the quantity of groundwater available to be pumped with existing wells. Declines from 2025 pumping levels reflect transfer of normal year pumping from existing wells to future and recovered wells.*

[b] *Existing Recycled Water is based on current average annual use.*

[c] *SWP supplies are based on average deliveries from DWR's 2019 DCR (58–52 percent at buildout due to climate change).*

[d] *Supplies not needed in average years.*

[e] *Existing Newhall water supply committed that may be transferred to SCV Water once Newhall Ranch development is completed.*

[f] *Supply available for purchase every year, however, shown is amount available in dry periods, after delivery losses. This supply would typically be used only during dry years and is available through 2025.*

[g] *Supplies not needed in average years.*

[h] *Future and recovered groundwater supplies include recovered impacted wells and new groundwater well capacity that may be required by SCV Water's production objectives in the Alluvial Aquifer and the Saugus Formation. When combined with existing Agency and non-Agency groundwater supplies, total groundwater production remains within the sustainable ranges identified in Tables 4-10 and 4-11 of the 2020 UWMP and is within the groundwater basin yields per the 2020 SCVGSA Draft Water Budget Development Tech Memo and the updated Basin Yield Analysis from the 2020 UWMP.*

[i] *Future Category includes all wells restored from PFAS and Perchlorate water quality issues, and other future alluvial wells, which may vary in the near-term depending on PFAS treatment schedule. This future category also includes supplies associated with planned development*

Table 5.11-3 (Continued)
Projected SCV Service Area Average/Normal Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
under the Newhall Ranch Specific Plan. Schedule for recovered well capacity based on Groundwater Treatment Implementation Plan Technical Memorandum, Kennedy Jenks 2021, Appendix M of the 2020 UWMP.						
[j] *Future and Recovered Saugus wells include perchlorate-impacted Well 205, two replacement wells (Saugus 3 & 4), and up to four new wells (Saugus 5-8) planned to provide additional dry-year supply. New dry-year wells would not typically be operated during average/normal years.*						
[k] *Planned recycled water is the total projected recycled water use from Table 5-3 of the 2020 UWMP less existing use. Projections reflect demands that can be cost effectively served with projected supplies. Refer to Section 5 for additional details on recycled water demands and supplies.*						
[l] *Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 10,000 AFY by 2030 (for a combined total of 20,000 AFY).*						
[m] *For completeness, LACWWD 36 sales are included in demands and supplies. Breakdown of LACWWD 36 and SCV Water Demands are shown in Table 2-10 of the 2020 UWMP. Further, LACWWD 36's Saugus groundwater supplies shown in Table 4-9A of the 2020 UWMP.*						
[n] *Total demands with passive and active conservation from Table 2-10 of the 2020 UWMP.*						
[o] *Future demands include development planned for buildout under the Area Plan, which includes development proposed by the Modified Project.*						
Source: Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Table 7-2.						

Table 5.11-4
Projected SCV Service Area Single-Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Existing Supplies						
Existing Groundwater[a]						
Alluvial Aquifer	7,300	6,330	5,590	5,590	5,590	5,590
Saugus Formation	16,630	16,630	16,630	16,630	16,630	16,630
Total Existing Groundwater	*23,930*	*22,960*	*22,220*	*22,220*	*22,220*	*22,220*
Recycled Water[b]	*450*	*450*	*450*	*450*	*450*	*450*
Imported Water						
State Water Project[c]	4,760	4,760	4,760	4,760	4,760	4,760
Flexible Storage Accounts[d]	6,060	4,680	4,680	4,680	4,680	4,680
Buena Vista–Rosedale	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water–Newhall Land[e]	—	—	1,607	1,607	1,607	1,607
Yuba Accord Water[f]	1,000	—	—	—	—	—
Total Imported Water	*22,820*	*20,440*	*22,047*	*22,047*	*22,047*	*22,047*
Existing Banking and Exchange Programs						
Rosedale Rio–Bravo Bank[g]	10,000	10,000	10,000	10,000	10,000	10,000
Semitropic Bank[h]	5,000	5,000	5,000	5,000	5,000	5,000
Semitropic–Newhall Land Bank[h,i]	—	—	4,950	4,950	4,950	4,950
Antelope Valley East Kern Water Agency Exchange[i]	—	—	—	—	—	—
United Water Conservation District Exchange[i]	—	—	—	—	—	—
Total Existing Banking and Exchange Programs	*15,000*	*15,000*	*19,950*	*19,950*	*19,950*	*19,950*
Total Existing Supplies[o]	***62,200***	***58,850***	***64,667***	***64,667***	***64,667***	***64,667***
Planned Supplies						
Future and Recovered Groundwater[i]						
Alluvial Aquifer[k]	12,970	17,020	20,500	20,500	20,500	20,500
Saugus Formation[k]	9,090	15,920	15,920	15,920	15,920	15,920
Total Future and Recovered Groundwater	*22,060*	*32,940*	*36,420*	*36,420*	*36,420*	*36,420*

Table 5.11-4 (Continued)
Projected SCV Service Area Single-Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Recycled Water[l]	*1,849*	*3,696*	*5,091*	*6,498*	*7,499*	*8,511*
Planned Banking Programs						
Rosedale Rio–Bravo Bank[n]	—	10,000	10,000	10,000	10,000	10,000
Total Planned Banking Programs	*0*	*10,000*	*10,000*	*10,000*	*10,000*	*10,000*
Total Planned Supplies	***23,909***	***46,636***	***51,511***	***52,918***	***53,919***	***54,931***
Total Supplies (Existing and Planned)[p]	**86,109**	**105,486**	**116,178**	**117,585**	**118,586**	**119,598**
Demands with Passive and Active Conservation[,o,p,q]	81,000	86,600	94,000	99,200	103,400	107,100
Difference between Total Existing and Planned Supplies and Demand with Passive and Active Conservation	5,109	18,886	22,178	18,385	15,186	12,498
Supplies Adequate to Meet Project Demand?	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply

AF = acre-feet

[a] *Existing groundwater supplies represent the quantity of groundwater available to be pumped with existing wells. Dry-year production represents anticipated maximum dry-year production. Declines from 2025 pumping levels reflect transfer of normal year pumping from existing wells to future and recovered wells.*

[b] *Existing recycled water is based on current average annual use.*

[c] *SWP supplies are based on the driest SWP delivery on record, 5 percent in 2014. Deliveries from DWR's 2019 DCR state single-dry year are (7–11 percent).*

[d] *Includes both SCV Water and Ventura County entities flexible storage accounts. Extended term of agreement with Ventura County entities expires after 2025.*

[e] *Existing Newhall Land supply that may be transferred to SCV Water once Newhall Ranch development is completed.*

[f] *Supply shown is amount available in dry periods, after delivery losses. This supply would typically be used only during dry years and is available through 2025.*

[g] *Supplies shown are annual amounts that can be withdrawn using existing firm withdrawal capacity and would typically be used only during dry years.*

[h] *Existing Newhall supply. Newhall may make this stored water available to SCV Water consistent with past practice in 2009 and 2014 (2020 UWMP, p. 4-55).*

[i] *Supplies shown are totals recoverable under the exchange and would typically be recovered only during dry years with SWP allocation*

Table 5.11-4 (Continued)
Projected SCV Service Area Single-Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050

greater than 30%.

[j] *Future and Recovered groundwater supplies include recovered impacted wells and new groundwater well capacity that may be required by SCV Water's production objectives in the Alluvial Aquifer and the Saugus Formation. When combined with existing Agency and non-Agency groundwater supplies, total groundwater production remains within the sustainable ranges identified in Tables 4-10 and 4-11 of the 2020 UWMP and is within the groundwater basin yields per the 2020 SCVGSA Draft Water Budget Development Tech Memo and the updated Basin Yield Analysis from the 2020 UWMP.*

[k] *Future and recovered Alluvial groundwater includes PFAS and perchlorate impacted alluvial wells, one replacement well (S 9), and future wells, which may vary in the near-term depending on PFAS treatment schedule. This future category also includes supplies associated with planned Newhall Ranch Specific Plan development. Schedule for recovered well capacity based on Groundwater Treatment Implementation Plan Technical Memorandum, Kennedy Jenks 2021, Appendix M of the 2020 UWMP.*

[l] *Future and Recovered Saugus wells include perchlorate impacted Well 205, two replacement wells (Saugus 3 & 4), and up to four new wells (Saugus 5-8) planned to provide additional dry-year supply. New dry-year wells would not typically be operated during average/normal years.*

[m] *Planned recycled water is the total projected recycled water use from Table 5-3 of the 2020 UWMP less existing use. Projections reflect demands that can be cost- effectively served with projected supplies. Refer to Section 5 for additional details on recycled water demands and supplies.*

[n] *Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 10,000 AFY by 2030 (for a combined total of 20,000 AFY).*

[o] *Demands assume a 6-percent increase above normal demand during dry years.*

[p] *For completeness, LACWWD 36 sales are included in demands and supplies. Breakdown of LACWWD 36 and SCV Water Demands are shown in Table 2-10 of the 2020 UWMP. Further, LACWWD 36's Saugus groundwater supplies shown in Table 4-9A of the 2020 UWMP.*

[q] *Future demands include development planned for buildout under the Area Plan, which includes development proposed by the Modified Project.*

Source: Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Table 7-3.

Table 5.11-5
Projected SCV Service Area Five-Year Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Existing Supplies						
Existing Groundwater[a]						
Alluvial Aquifer	7,300	6,720	5,890	5,590	5,590	5,590
Saugus Formation	17,880	17,610	17,610	17,610	17,610	17,610
Total Existing Groundwater	*25,180*	*24,330*	*23,500*	*23,200*	*23,200*	*23,200*
Recycled Water[b]	450	450	450	450	450	450
Imported Water						
State Water Project[c]	24,040	24,090	24,130	24,180	24,180	24,180
Flexible Storage Accounts[d]	4,980	4,680	4,680	4,680	4,680	4,560
Buena Vista–Rosedale	11,000	11,000	11,000	11,000	11,000	11,000
Nickel Water—Newhall Land[e]	—	—	964	1,607	1,607	1,607
Yuba Accord Water[f]	600	—	—	—	—	—
Total Imported Water	*40,620*	*39,770*	*40,774*	*41,467*	*41,467*	*41,347*
Banking and Exchange Programs						
Rosedale Rio-Bravo Bank[g]	10,000	10,000	10,000	10,000	10,000	10,000
Semitropic Bank[h]	5,000	5,000	5,000	5,000	4,929	1,859
Semitropic–Newhall Land Bank[i]	—	—	2,970	4,950	4,950	4,950
AVEK Exchange[j]	450	450	—	—	—	—
UWCD Exchange[j]	100	100	—	—	—	—
Total Banking and Exchange Programs	*15,550*	*15,550*	*17,970*	*19,950*	*19,879*	*16,809*
Total Existing Supplies[q]	***81,800***	***80,100***	***82,694***	***85,067***	***84,996***	***81,806***
Planned Supplies						
Future and Recovered Groundwater[k]						
Alluvial Aquifer[l]	11,930	16,310	19,800	20,500	20,500	20,500
Saugus Formation[m]	5,750	8,020	8,020	8,020	8,020	8,020
Total Future and Recovered Groundwater	*17,680*	*24,330*	*27,820*	*28,520*	*28,520*	*28,520*

Table 5.11-5 (Continued)
Projected SCV Service Area Five-Year Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050
Recycled Water[n]	1,823	3,603	5,045	6,498	7,499	8,389
Planned Banking Programs						
Rosedale Rio–Bravo Bank[o]	—	6,000	10,000	10,000	10,000	10,000
Total Planned Banking Programs	*0*	*6,000*	*10,000*	*10,000*	*10,000*	*10,000*
Total Planned Supplies	***19,503***	***33,933***	***42,865***	***45,018***	***46,019***	***46,909***
Total Existing and Planned Supplies	**101,303**	**114,033**	**125,559**	**130,085**	**131,015**	**128,715**
Demands with Passive and Active Conservation[p,q,r]	77,830	83,620	90,570	95,780	99,670	102,870
Difference between Total Existing and Planned Supplies and Demand w/ passive and active conservation	23,473	30,413	34,989	34,305	31,345	25,845
Supplies Adequate to Meet Project Demand?	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply	Adequate Supply

AF = acre-feet

This table and the following footnotes are derived from Table 7-4X from the 2020 UWMP.

[a] *Existing groundwater supplies represent the quantity of groundwater available to be pumped with existing wells. Dry-year production represents anticipated maximum dry-year production. Declines from 2025 pumping levels reflect transfer of normal year pumping from existing wells to future and recovered wells.*

[b] *Existing recycled Water is based on current average annual use.*

[c] *SWP supplies based on 1988–1992 hydrology from 2019 DCR interpolated from 2020–2040 from current to proposed future SWP supplies.*

[d] *Includes both SCV Water and Ventura County entities flexible storage accounts through 2025 and only SCV Water portion beyond 2025. Reference details in Appendix E Table 7-4B of the 2020 UWMP.*

[e] *Existing Newhall supply that may be transferred to SCV Water once Newhall Ranch development is completed.*

[f] *1,000 AFY assumed to be available during dry and critically dry years. Lower quantity in table reflects averaging of supply over the five-year period. This supply is only available through 2025.*

[g] *SCV Water has an existing firm withdrawal capacity of 10,000 AFY and a storage capacity of 100,000 AF. There is currently 98,800 AF of recoverable water in storage.*

[h] *SCV Water has a maximum firm withdrawal capacity of 5,000 AFY and a storage capacity of 15,000 AF. Additionally, SCV Water has 40,270 AF of recoverable water stored, which may be recovered using this withdrawal capacity.*

[i] *Existing Newhall supply. Newhall may make this stored water available to SCV Water consistent with past practice in 2009 and 2014 (2020*

Table 5.11-5 (Continued)
Projected SCV Service Area Five-Year Dry Year Supplies and Demands (AF)

Supplies Available	2025	2030	2035	2040	2045	2050

UWMP, p. 4-55).

[j] *Exchange recovery was assumed to occur one year during the five-year dry period, for an average annual supply of one-fifth of the total recoverable water available (total recoverable is 2,250 AF from Antelope Valley East Kern Water Agency (AVEK) and 500 AF from United Water Conservation District exchange programs).*

[k] *Future and Recovered groundwater supplies include recovered impacted wells and new groundwater well capacity that may be required by SCV Water's production objectives in the Alluvial Aquifer and the Saugus Formation. When combined with existing Agency and non-Agency groundwater supplies, total groundwater production remains within the sustainable ranges identified in Tables 4-10 and 4-11 of the 2020 UWMP and is within the groundwater basin yields per the 2020 SCVGSA Draft Water Budget Development Tech Memo and the updated Basin Yield Analysis from the 2020 UWMP.*

[l] *Future Category includes all wells restored from PFAS and Perchlorate water quality issues, and other future alluvial wells, which may vary in the near-term depending on PFAS treatment schedule. This future category also includes supplies associated with planned development of the Newhall Ranch Specific Plan. Schedule for recovered well capacity based on Groundwater Treatment Implementation Plan Technical Memorandum, Kennedy Jenks 2021, Appendix M.*

[m] *This includes Saugus perchlorate impacted Well 205, two replacement wells (Saugus 3 & 4), and up to four new wells (Saugus 5-8) planned to provide additional dry-year supply. New dry-year wells would not typically be operated during average/normal years.*

[n] *Planned recycled water is the total projected recycled water use from Table 5-3 of the 2020 UWMP less existing use. Projections reflect demands that can be cost effectively served with projected supplies. Refer to Section 5 for additional details on recycled water demands and supplies.*

[o] *Firm withdrawal capacity under existing Rosedale Rio-Bravo Banking Program to be expanded by 10,000 AFY by 2030 (for a combined total of 20,000 AFY).*

[p] *Demands are weather adjusted for dry 1988–1992 hydrology.*

[q] *For completeness, LACWWD 36 sales are included in demands and supplies. Breakdown of LACWWD 36 and SCV Water Demands are shown in Table 2-10 of the 2020 UWMP. Further, LACWWD 36's Saugus groundwater supplies shown in Table 4-9A of the 2020 UWMP.*

[r] *Future demands include development planned for buildout under the Area Plan, which includes development proposed by the Modified Project.*

Source: Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, Table 7-4.

3. SUMMARY OF IMPACTS FOR THE 2017 PROJECT

Section 4.3, Water Resources, of the State-certified EIR identified and analyzed the existing conditions and impacts associated with supplying water to the Entrada South and VCC Planning Areas. Specifically, the State-certified EIR evaluated whether SCV Water's predecessors would have adequate water supplies available to meet the potable and non-potable water demands of the 2017 Project without resulting in environmental impacts to the Santa Clara River, the local groundwater basins, or downstream users in Ventura County.[188] Based on the information presented in the State-certified EIR, adequate water supplies were determined to be available to meet the potable and non-potable water demands of the 2017 Project without resulting in environmental impacts to the Santa Clara River, the local groundwater basins, or the downstream users in Ventura County.[189] The State-certified EIR determined that the water supply (3,509 AFY) for the VCC and Entrada South Planning areas were within the supplies and demands analyzed in the 2005 UWMP (the current UWMP at that time) and concluded that there were adequate supplies to meet the demand associated with developing the VCC and Entrada South Planning areas.[190] Accordingly, the State-certified EIR determined that 2017 Project would have a less than significant impact on water supplies.[191]

4. WATER SUPPLY ASSESSMENT FOR THE MODIFIED PROJECT

As noted above, SB 610 requires that a WSA be prepared for all development meeting certain criteria. The Modified Project meets several of the criteria and, as such, a WSA was required. The WSA was completed in June 2022 and includes information related to historic and projected water demand, existing and projected water supplies, supply reliability planning, and the water supply assessment itself.

The WSA includes a description of the historical and projected water use in the SCV Water service area and the methodology used to estimate future demands based on the 2020 UWMP. With respect to future demand, the 2020 UWMP accounts for savings from passive conservation, such as changes in the plumbing code, and active conservation, such as SCV Water's Water Smart Workshop credit, pool cover rebates, and education.[192] A complete list of active conservation measures contemplated by SCV Water is provide on

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[188] *State-certified EIR, page 4.3-1.*

[189] *State-certified EIR, page 4.3-1.*

[190] *State-certified EIR, page 4.3-116,*

[191] *State-certified EIR, page 4.3-151.*

[192] *Santa Clarita Valley Water Agency, Modified Project WSA, pp. 2-3 to 2-6, 2-11, and 2-12.*

page 2-5 of the WSA. The WSA estimates the total water demand for the Modified Project at build-out is approximately 1,411 AFY in an average/normal year.[193]

Section 3 of the WSA describes that SCV Water has existing water entitlements, rights, and contracts to meet demand as needed over a 25-year horizon and beyond and has committed sufficient capital resources and planned investments in various water programs and facilities to serve all its existing and planned customers. As summarized above, SCV Water's existing supplies include imported water, local groundwater, recycled water, and water from existing groundwater banking programs. Planned supplies include new groundwater production as well as additional banking programs.[194] The WSA concludes that the specific mix of supplies can vary significantly depending on local and statewide hydrology, access to groundwater, and other factors, like perchlorate and PFAS contamination in local groundwater.[195]

Section 4 of the WSA addresses potential risks and uncertainties related to water quality, including potential PFAS and perchlorate contamination, how climate change may impact various sources of supplies and demand for water, and how ongoing development of new water use efficiency may affect water supplies and demands. On water quality issues related to perchlorate, PFAS, and VOCs, the WSA concludes that SCV Water has developed a groundwater treatment and implementation plan to improve the reliability of its local groundwater supplies and ensure suitable water quality for meeting its customer's potable demands.[196] The WSA explains that SCV Water's plans for groundwater operation will allow SCV Water to meet near term and long-term demand within the SCV Water service area even if there are temporary losses from wells impacted by water quality issues. If impacted wells must be removed from service, SCV Water will meet demand with some combination of excess capacity in non-impacted wells, other water sources (including imported water supplies), and/or through the installation of replacement well(s), if necessary.[197]

The WSA accounts for the impact that climate change will have on future water supplies and demand. The WSA concludes that SCV Water accounted for climate change by estimating how the climate in 2050 is likely to differ compared to baseline normal climate based on estimates from the climate change scenarios and supporting data that DWR has

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[193] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 2-7.*

[194] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 3-1.*

[195] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 3-1.*

[196] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 4-15.*

[197] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 4-15.*

made available for assessing groundwater basin sustainability. Climate change conditions for SWP supplies were incorporated consistent with DWR's 2019 SWP Delivery Capability Report.[198]

As described in the WSA, SCV Water's strategy for achieving water supply reliability involves developing a diverse water supply portfolio that can accommodate the variability of wet and dry-periods endemic to California's climate.[199] The WSA cites SCV Water's 2019 Water Supply Reliability Plan Update, discussed above, which evaluates six supply scenarios driven by varying assumptions regarding projected local supply availability and reliability, with each supply scenario evaluated against two demand sets (projected demands with and without active conservation), which results in 12 different views of future supply situations. The WSA explains that each supply scenario was evaluated to determine the reliability of that scenario in meeting projected demands in SCV Water's service area and that the reliability for all future scenarios is greater than 95 percent.[200] The WSA concludes that SCV Water will reliably meet water demands in its service area through 2050 notwithstanding various reliability risks (e.g., climate change, potential water quality contamination, etc.) because of SCV Water's implementation of active water conservation measures, conjunctive use of imported water, groundwater, and water banking facilities, and investments in water supply facilities as identified in the 2020 UWMP.[201]

Based on the WSA's data, analysis, and estimates, the WSA concludes that that the total projected water supplies available to the SCV Water service area over the 30-year projection during normal, single-dry, and multiple-dry year (5-year drought) periods are sufficient to meet the estimated demands associated with the Modified Project, in addition to existing and other planned future uses, including agricultural and industrial uses.[202]

The WSA is further discussed in the impact analysis below. The WSA is included as **Appendix 5.11a** of this SEIR.

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[198] *Santa Clarita Valley Water Agency, Modified Project WSA, pp. 4-21 to 4-27.*

[199] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 4-29.*

[200] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 4-30.*

[201] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 4-32.*

[202] *Santa Clarita Valley Water Agency, Modified Project WSA, p. 5-10.*

5. REGULATORY REQUIREMENTS AND PROJECT DESIGN FEATURES

a. Regulatory Measures

The Modified Project shall comply with the following regulatory requirements, as applicable:

- The proposed water systems would be designed and constructed in accordance with the standards, criteria, and requirements set forth by SCV Water and/or the Los Angeles County Department of Public Works (LACDPW), as applicable, with ongoing maintenance by each public agency, as appropriate.

- Water conservation measures shall be implemented in accordance with Code requirements, including applicable provisions of the CALGreen Code, the 2015 MWELO ordinance, and the Los Angeles County Code, as implemented and enforced by ~~SVC~~ SCV Water.

b. Project Design Features

No project design features (PDFs) are proposed with respect to water supply and service. However, specific Modified Project elements that are relevant to the analysis herein are described below.

c. Relevant Modified Project Characteristics

As discussed in **Section 3.0**, Project Description, of this SEIR, as with the State-certified EIR, the Modified Project includes all necessary utility system improvements to support the proposed development, including on-site conveyance lines and connections to existing main lines in the surrounding area. As with the State-certified EIR, the Modified Project's potable water system has been designed to meet the demand for domestic usage and fire flow requirements based on the proposed land uses.

With regard to the Entrada South Planning Area, as illustrated in **Figure 5.11-1**, Entrada South Potable Water System, on page 5.11-74, as with the State-certified EIR, a series of 12-inch water lines would be installed in the on-site roadways and connect to existing supply lines in Magic Mountain Parkway, Westridge Parkway, and Commerce Center Drive, while the easternmost area (PA-14) would be served directly by an existing supply line in The Old Road. In addition, as with the State-certified EIR, recycled water is available in the vicinity from the Valencia Water Reclamation Plant (WRP), located along The Old Road north of the Entrada South Planning Area. As with the State-certified EIR, the Modified Project's recycled water system has been designed to meet the irrigation demand for the proposed landscape and open space areas. The recycled water system would consist of 12-inch lines in the on-site roadways, connecting to existing supply lines in

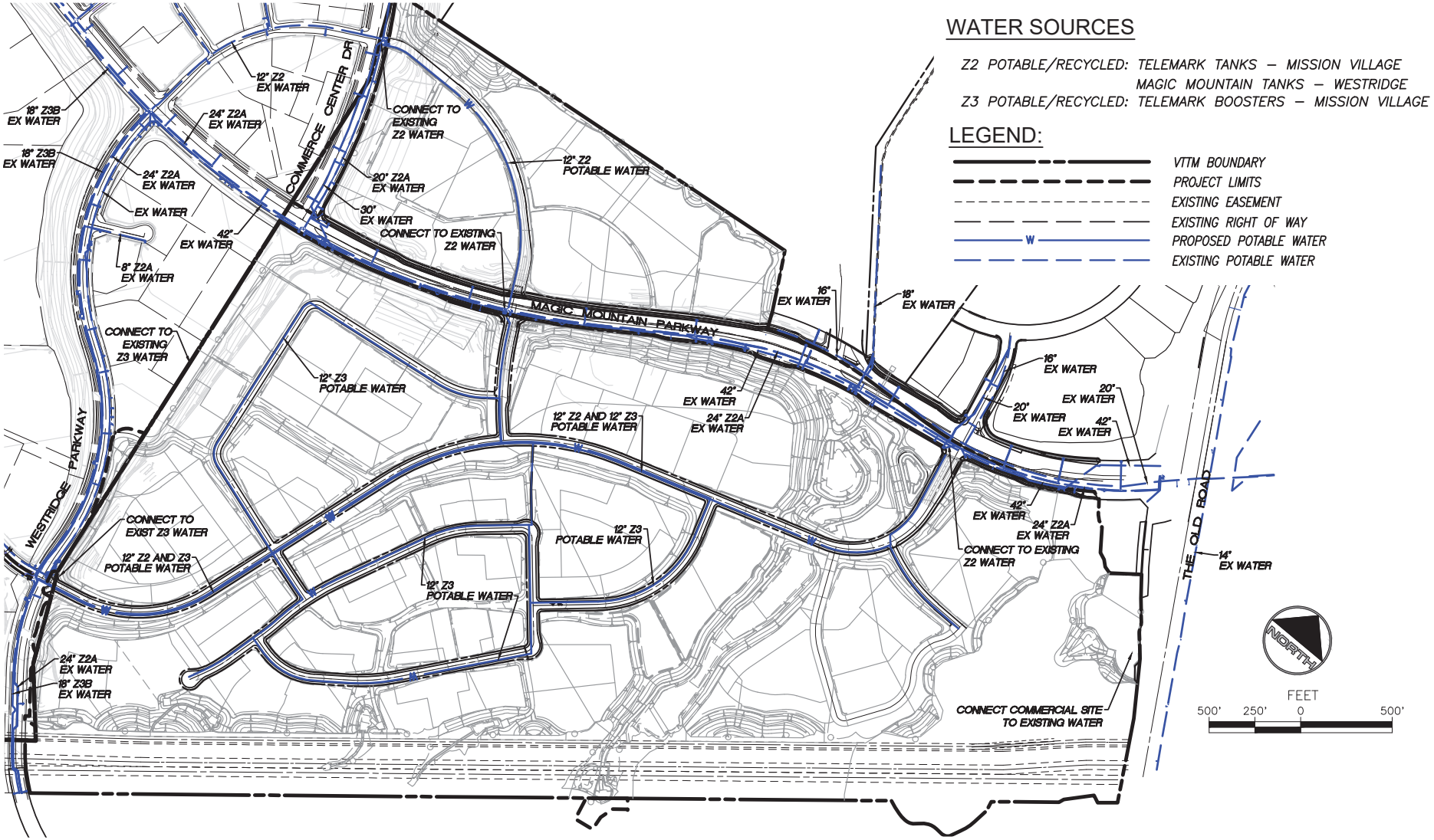

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Figure 5.11-1
Entrada Potable Water System

Source: Hunsaker & Associates, 2024.

the adjacent streets, as shown in **Figure 5.11-2**, Entrada South Recycled Water System, on page 5.11-76. Both potable and recycled water would be provided by SCV Water.

With regard to VCC, as illustrated in **Figure 5.11-3**, VCC Potable Water System, on page 5.11-77, as with the State-certified EIR, a 18-inch water line would be installed in Franklin Parkway and would extend off-site to the west to connect to a two million gallon water tank within the developed portion of VCC (planned and approved as part of VTTM 53108 [Landmark Village]). At the northern terminus of Franklin Parkway, the proposed water line would follow the emergency access route to the northeast and connect to an existing water line in the Live Oak community. A 12-inch water line would also be installed in Hancock Parkway and connect to existing supply lines in Commerce Center Drive to the west and near Turnberry Lane to the east. The northeastern-most portion of VCC (PA-1) would be served by an existing 12-inch water line connecting to The Old Road. In addition, as with the State-certified EIR, a recycled water system would be installed, consisting of 12-inch lines in Franklin Parkway, Hancock Parkway, and Commerce Center Drive, which would connect to an existing 24-inch recycled water line in Hancock Parkway west of Commerce Center Drive, as depicted in **Figure 5.11-4**, VCC Recycled Water System, on page 5.11-78. Both potable and recycled water would be provided by SCV Water.

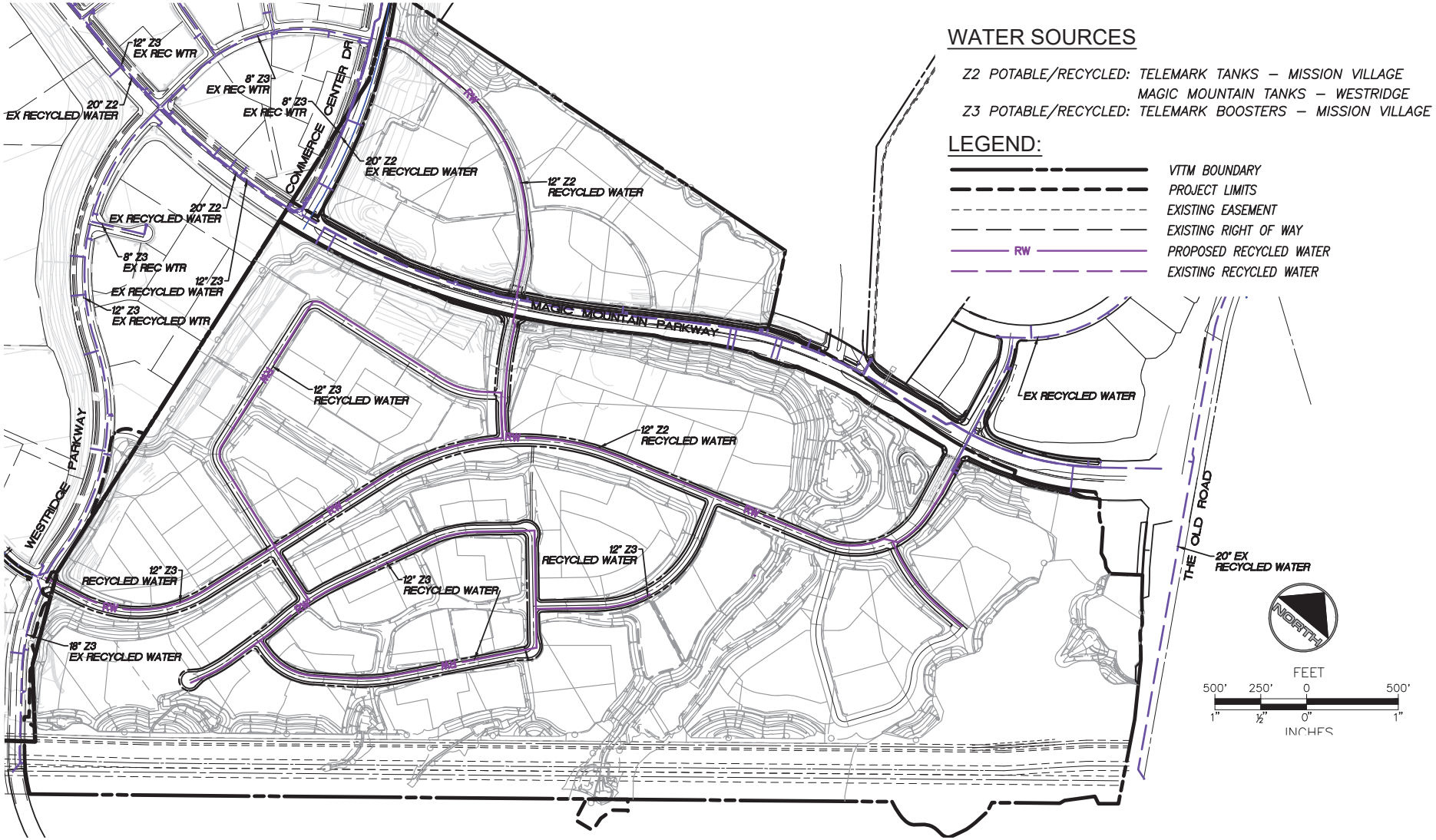

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Figure 5.11-2
Entrada Recycled Water System

Source: Hunsaker & Associates, 2024.

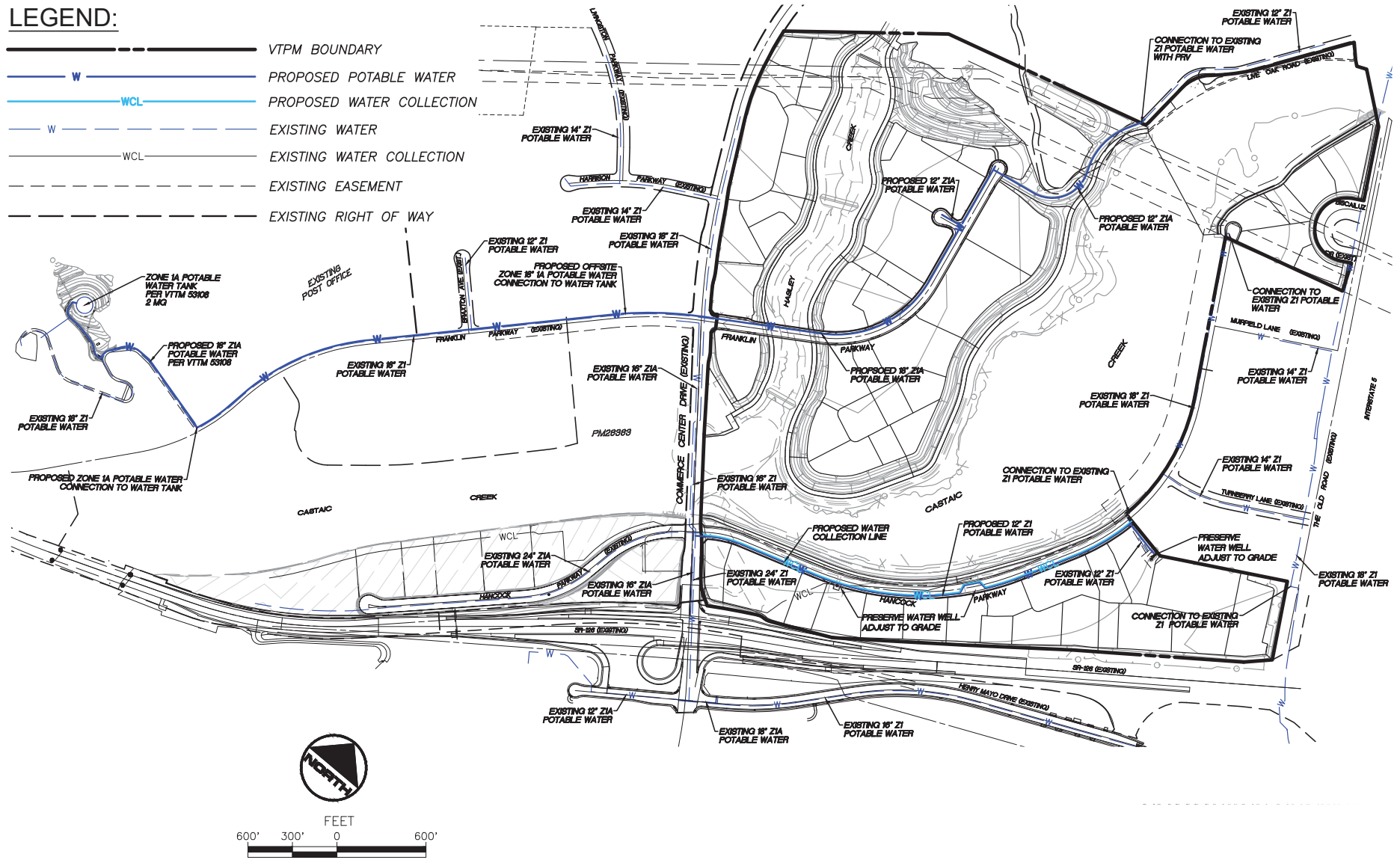

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Figure 5.11-3
VCC Potable Water System

Source: Hunsaker & Associates, 2024.

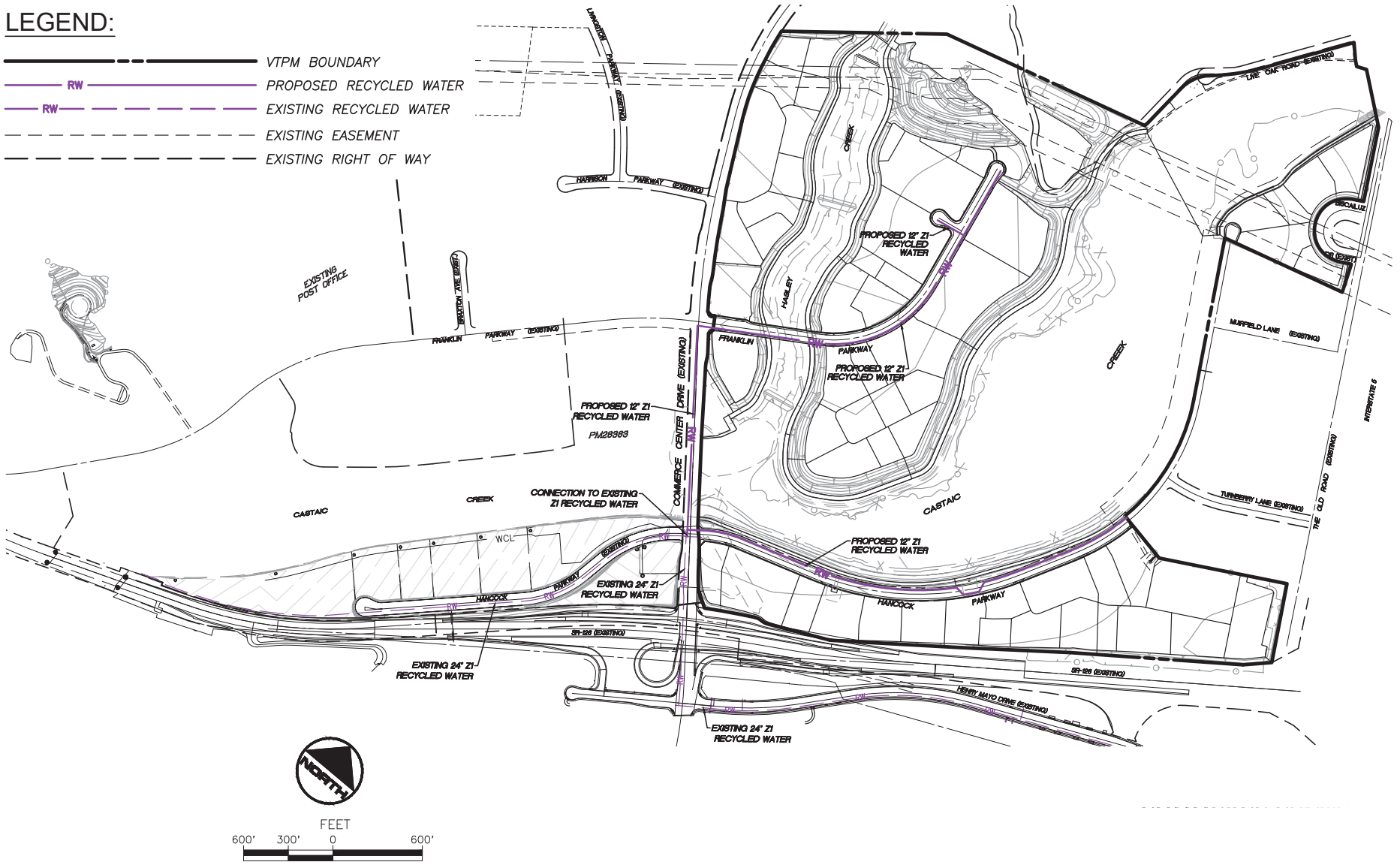

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Figure 5.11-4
VCC Recycled Water System

Source: Hunsaker & Associates, 2024.

6. THRESHOLDS OF SIGNIFICANCE

In accordance with Appendix G of the CEQA Guidelines, a project would have a significant impact related to water supply and service if the following significance are triggered:

Threshold 5.11-1: Would the Project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Threshold 5.11-2: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Threshold 5.11-3: Would the Project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

As discussed in the Initial Study prepared for the Modified Project, provided in **Appendix 1** of this SEIR, the Modified Project would result in less than significant impacts related to the relocation or construction of new or expanded water facilities, groundwater supplies, and groundwater recharge. Therefore, no further discussion of Thresholds 5.11-1 and 5.11-3 is provided herein.

7. ENVIRONMENTAL IMPACTS OF THE MODIFIED PROJECT

a. Methodology

The analysis of the Modified Project's impacts on water supply is based on a comparison to those impacts previously identified in the State-certified EIR. Additionally, this analysis incorporates information and findings from the 2020 UWMP, as well as the WSA prepared by SCV Water for the Modified Project, the Water Demand Report, and Confirmatory Water Demand Memo, included in **Appendices 5.11a, 5.11b,** and **5.11c** of this SEIR, respectively.

The Modified Project's water demand has been calculated utilizing current indoor and outdoor water conservation requirements, as reflected in the Water Demand Report and the Confirmatory Water Demand Memo. The water demand factors used therein reflect lower water demand than previously calculated in the State-certified EIR in light of more stringent water conservation standards now required under CALGreen for indoor water use and the MWELO for outdoor water use on irrigated landscapes. The County has

also enacted additional ordinances, compliance with which will result in enhanced water conservation for the Modified Project. The Modified Project's water demand estimates are consistent with the 2020 UWMP and take into account the potential for increased demand and reduced supplies over time because of the effects of climate change, consistent with climate change guidance from DWR.[203]. Consistent with the methodology in the State-certified EIR for estimating water supplies, the Water Demand Report for the Modified Project utilizes a water demand model that takes into account the estimated acreages of representative land use categories associated with the Modified Project based on the proposed tentative maps and applies applicable water demand factors to calculate total estimated water demand.

As discussed in the Confirmatory Water Demand Memo, the calculation methods used for the WSA are consistent with the methods used in Water Demand Report (GSI 2022). The Water Demand Report and WSA calculation methods both use information on acreages of representative land use types, the population density of residential units, the estimated square footage of developments, and water demand factors for each land use category. The Confirmatory Water Demand Memo reaches the same water demand conclusion as the WSA for the modified Project (1,411 AF/Y as shown in Table 5.11 5). The Confirmatory Water Demand Memo correlates the water demand factors in the WSA and Water Demand Report based on the WSA's conservative application of the following factors:

- Applying a 3.77 percent increase for climate change to all water demands on all land use types.

[203] *Section 8 of the 2020 UWMP describes the water demand management (conservation) measures implemented by SCV Water as part of its effort to reduce water demand in the Santa Clarita Valley. These demand management measures include water waste prevention ordinances, metering monitoring and replacement, conservation pricing, public education and outreach, programs to assess and manage distribution system real loss, and support for water conservation programs and staffing. For example, SCV Water's Customer Service Policies, Rules, and Regulations include a requirement that customers must use water delivered through the agency's system in a manner that promotes efficiency and avoids waste. To minimize water loss, SCV Water monitors its water loss on a monthly and annual basis. To support its monitoring efforts, SCV Water is also expanding its use of Advanced Metering Infrastructure systems and tentatively plans to install between 2,400 to 7,400 meters over the next two to three years. These meters will reduce distribution system losses and help inform the public on how much water they consume. Other demand management measures include, but are not limited to, lawn replacement incentives, irrigation smart controller and soil moisture rebates, irrigation efficiency upgrade rebates, drip irrigation rebates, pool cover rebates, residential water use efficiency benchmarking, residential/multi-family residential/commercial/landscape check-ups and retrofits, residential home water efficiency kit distribution, the WaterSMART workshop, high consumption courtesy notifications, and many others.*

- Applying an overirrigation factor of 26.5 percent to all outdoor water uses in residential developments; the WSA applies this factor to irrigation uses and all outdoor non-irrigation uses.

- Applying an overirrigation factor of 25.6 percent to all outdoor water uses in commercial developments and in other nonresidential areas (recreational lands, roadway medians, and other irrigated common areas); the WSA applies this factor to all outdoor non-irrigation uses.

The Modified Project's demand analysis addresses potential increases in demand caused by the effects of climate change. The 2020 UWMP evaluated the impacts of global climate change on SCV Water's supplies over time. As detailed in the 2020 UWMP, the effects of climate change were built into the modeling and analysis that formed the basis of the 2020 UWMP based on climate change guidance provided by DWR. Further, as described in the attached Water Demand Report, climate change is expected to increase evaporation and hence the evapotranspiration values, which were incorporated into the demand study and the Confirmatory Water Demand Memo. Therefore, to avoid underestimating water demands and to be consistent with demand estimation methods used in SCV Water's 2020 UWMP, the evapotranspiration values used in the demand calculations for the Modified Project account for climate-change influences on future water demands. DWR has published local-scale climate-change factors across the state that can be applied to historical measurements of evapotranspiration.

The 2020 UWMP also accounted for actual and potential for groundwater contamination to affect the availability SCV Water's supplies to meet projected demand, including demand from growth associated with the Modified Project. In addition, the GSI 2022 Report for the Modified Project incorporated an additional water loss factor to account for potential inefficiencies and deterioration of irrigation systems, consistent with the approach used to develop the 2020 UWMP's water demand forecasts for SCV Water's service area.

b. Project Impacts

Threshold 5.11-2: Would the Project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

The water demand estimates for the Modified Project from the WSA are summarized in **Table 5.11-6**, Modified Project Water Demand (AFY), on page 5.11-82. Consistent with the methodology applied in the State-certified EIR for estimating water demand, the estimated land use categories and acreages used to derive the water demand estimates are provided in detail in the Confirmatory Water Demand Memo. A comparison of the

Table 5.11-6
Modified Project Water Demand (AFY)

Project Planning Areas	Potable Water Demand[a]	Non-Potable Water Demand[a]	Total
Entrada South	485	430	915
VCC	262	234	496
Modified Project	**747**	**664**	**1,411[b]**

AFY = acre-feet per year

A detailed breakdown of water demand estimates and calculations is provided in the Water Demand Report and Confirmatory Water Demand Memo included as Appendix 5.11b and Appendix 5.11c, respectively, of this SEIR.

Source: a. GSI Water Solutions, Inc., Confirmatory Water Demand Memo, Table 4, October 2023; b. Santa Clarita Valley Water Agency, Modified Project WSA, pp. 2-8.

water demands between the Modified Project and the 2017 Project as presented in the State-certified EIR is provided in **Table 5.11-7**, Comparison of Project Water Demand (AFY), on page 5.11-83:[204]

As shown in **Table 5.11-6**, Modified Project Water Demand (AFY), and **Table 5.11-7**, Comparison of Project Water Demand (AFY), the Modified Project would result in a reduction in estimated water demand compared to the 2017 Project. The State-certified EIR determined that adequate water supplies would be available to serve the water demand for the 2017 Project. The water demand of the Modified Project would be 2,098 AF less than the 2017 Project taking into account the slight change in uses, and the application of additional water conservation factors. This reduction in water demand takes the effects of climate change into account, which were not expressly accounted for in the analysis of the 2017 Project. Additionally, the Modified Project includes water demand reduction measures that are compliant with current water conservation standards and measures. In particular, the indoor and outdoor water demand factors considered the requirements of CALGreen and the 2015 MWELO ordinance, as well as effects of recent state legislation from 2018 on water-use efficiency standards and performance measures, including AB 1668 and SB 606, as discussed above.

[204] *The State-certified EIR provided water demand estimates for the Entrada South and VCC Planning areas in Table 4.3-20, p. 4.3-116.*

Table 5.11-7
Comparison of Project Water Demand (AFY)

Water Demand	Potable Water Demand	Non-Potable Water Demand	Total
State-Certified EIR VCC Planning Area[a]	608	472	1,080
State-Certified EIR Entrada South Planning Area[b]	1,721	708	2,429
Modified Project	747	664	1,411
Total Reduction Associated with Modified Project Compared to 2017 Project	(1,582)	(516)	(2,098)

AFY = acre-feet per year

[a] *See State-certified EIR, Table 4.3-20 at p. 4.3-116.*

[b] *See State-certified EIR, Table 4.3-20 at p. 4.3-116.*

Source: GSI Water Solutions, Inc., Confirmatory Water Demand Memo, Table 4, October 2023.

As shown in **Table 5.11-3**, Projected SCV Service Area Average/Normal Year Supplies and Demands (AF), through **Table 5.11-5**, Projected SCV Service Area Five-Year Dry Year Supplies and Demands (AF), based on the analysis presented in the 2020 UWMP, the Modified Project's water demand is consistent with the 2020 UWMP's demand and supply calculations. The 2020 UWMP accounted for the water demand associated with anticipated development, including the Modified Project, by relying on the growth assumptions from the Valley Area Plan, approved by Los Angeles County, which plans for the build-out of the Santa Clarita Valley. The development associated with the Modified Project is consistent with the growth projections of the Area Plan.[205]

As described in the 2020 UWMP, SCV Water would meet the demand from growth associated with the Modified Project through a diversified portfolio of SCV Water's supplies, including SWP water delivered through SCV Water, other imported water from SCV Water's water banking and transfer programs, recycled water (e.g., from SCV Water's "New Drop" program), and local groundwater resources in the Alluvial Aquifer and the Saugus Formation. The amount delivered from each source would vary year to year due to statewide and local hydrologic conditions, and other factors as presented in the 2020 UWMP. Notwithstanding this variability, the 2020 UWMP determined that adequate water supplies are available to meet projected demands, including for the Modified Project as part

[205] *The Modified Project's proposed development is consistent with the land use designations imposed by the Area Plan, which regulates the type and density allowed on the Entrada South and VCC Planning Areas.*

of the planned ongoing buildout of the Santa Clarita Valley, for the planning period covered by the 2020 UWMP.

The 2020 UWMP accounted for substantial variability in supplies that may result from drought, climate change, groundwater contamination (e.g., PFAs and perchlorate), recycled water, and other factors, as previously discussed and summarized below:

- **Climate Change**—As reported in the 2020 UWMP, California faces myriad challenges from climate change. For California and the Santa Clarita Valley region, these challenges include warming air temperatures and changes in precipitation patterns, with alternating periods of heavy precipitation and drought, both of which are anticipated to increase in severity and frequency, among other impacts. In addition, climate change may potentially decrease the delivery of imported water supplies to the Santa Clarita Valley. Climate change scenarios involve increased temperatures, which will reduce the Sierra Nevada snowpack and shift more runoff to winter months, and accelerated sea level rise. These changes can also cause challenges for the maintenance of the present water export system since water supplies are conveyed through the levee system of the Sacramento San Joaquin Delta. The 2020 UWMP took into account projections from DWR on the impact of climate change on water supplies and deliveries.[206] The Water Demand Report for the Modified Project accounts for DWR's climate change projections.

- **Groundwater Contamination**—The 2020 UWMP accounted for potential supply disruptions from groundwater contamination, including perchlorate and PFAS. SCV Water has implemented the Groundwater Treatment Implementation Plan to prioritize well treatment.[207] The 2020 UWMP supply estimates accounted for certain wells being offline to complete PFAS treatment in accordance with the Groundwater Treatment Implementation Plan.

- **Drought**—Section 9 of the 2020 UWMP describes how SCV Water plans to respond to drought conditions while continuing to meet existing and planned water demand. In conjunction with the 2020 UWMP, SCV Water also prepared a Water Shortage Contingency Plan in response to the challenges of climate change and other abnormal supply conditions. The Water Shortage Contingency Plan outlines SCV Water's plan for a drought-related water supply shortage or a catastrophic shortage and specifies opportunities to reduce demand and augment supplies under such conditions. In addition, demand management

[206] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 1-14 to 1-15.*

[207] *Santa Clarita Valley Water Agency, 2020 Urban Water Management Plan for Santa Clarita Valley Water Agency, June 2021, pp. 6-12 to 6-14 to 6-20.*

measures such as conservation pricing are summarized in Section 8 of the 2020 UWMP. Furthermore, SCV Water updated the 2017 Water Supply Reliability Report, resulting in the Draft 2021 Water Supply Reliability Plan (Reliability Plan), which is referenced in the 2020 UWMP. The Reliability Plan modeled and analyzed six scenarios that represent a reasonably range of potential future water supplies through 2050, all of which incorporate climate change assumptions and account for increasingly severe drought conditions. For example, the Reliability Plan studied uncertainty in estimating the future availability of water from the SWP due to more precipitation falling in the form of rain rather than snow and earlier snowmelt, which would result in more runoff occurring in the winter rather than being spread out over the winter and spring. Overall, the Reliability Plan identified multiple pathways for SCV Water to maintain reliability even under a range of drought and demand scenarios, reinforcing the sufficiency and reliability of SCV Water's supplies to meet projected demands.

Accordingly, SCV Water has identified an operational strategy combined with a prudent and flexible management approach to ensure water reliability. SCV Water has existing water entitlements, rights, and contracts to meet demand as needed over the planning horizon of the 2020 UWMP and has committed capital resources and planned investments in various water programs and facilities to serve all its existing and planned customers, including for normal, single dry, and multiple dry year scenarios, as shown in the tables above. In addition, the availability of Newhall-owned water resources stored in the Semitropic Groundwater Storage Bank, described above, would further bolster water supply reliability. As such, the 2020 UWMP demonstrates that SCV Water has adequate supplies under normal, dry, and multiple dry scenarios to serve the Modified Project.

Further, SCV Water completed a WSA for the Modified Project (see **Appendix 5.11a** of this SEIR). Consistent with California Water Code Section 10910, the WSA relied upon and incorporated by reference the 2020 UWMP to support the determination that adequate water supplies are available to meet the Project's demand. In accordance with California Water Code Section 10910(c)(3), SCV Water found that the total water supplies projected to be available to SCV Water during average/normal, single dry, and multiple dry years within a 30-year projection would be sufficient to meet the projected demand associated with the Modified Project, in addition to existing and planned future uses, including agricultural and industrial uses, within the SCV Water service area. In reaching this conclusion, the WSA evaluated, among other factors, the impacts of climate change on the Modified Project's water demand and SCV Water's water supplies over time, as well as the potential for groundwater contamination to affect the availability of certain water supplies.

In summary, the State-certified EIR concluded that the 2017 Project would not result in a significant impact to water supplies. In addition, the water demand of the Modified

Project would represent a reduction relative to the 2017 Project. Furthermore, the water demand of the Modified Project is consistent with the 2020 UWMP, which took into account the planned development of the Modified Project in accordance with the Area Plan. The 2020 UWMP concluded that SCV Water has adequate supplies to meet anticipated demand within its service territory over the 2020 UWMP's planning period. Moreover, SCV Water prepared a WSA that concludes SCV Water will have sufficient supplies during average/normal, single dry, and multiple dry years within a 30-year projection to meet the projected demand associated with the Modified Project. Accordingly, the Modified Project would not result in any new or substantially more severe significant impacts related to water supplies as compared to the 2017 Project evaluated in the State-certified EIR.

8. CUMULATIVE IMPACTS

a. Impact Analysis

The geographic context for cumulative impacts analysis is SCV Water's service area. As previously discussed, the 2020 UWMP indicates that a reliable water supply will be available to serve Santa Clarita Valley water customers during the planning horizon set forth in the UWMP. The 2020 UWMP took into account the growth anticipated for the Modified Project. The State-certified EIR concluded that the 2017 Project would result in a less than significant impact to water supplies, and the water demand of the Modified Project would represent a reduction relative to the 2017 Project, as analyzed in the State-certified EIR.

Further, the 2020 UWMP took into account the cumulative planned growth and development of the Santa Clarita Valley westside area in accordance with the Area Plan (See Tables 5.11-2, 5.11-3, and 5.11-4). The 2020 UWMP concluded that SCV Water has adequate supplies to meet anticipated demand within its service territory over the 2020 UWMP's planning period, including the Modified Project and other future growth. Thus, Modified Project demand, in combination with the demand associated with other foreseeable development accounted for in the 2020 UWMP would not impair SCV Water's ability or capacity to provide existing and projected water service within its respective service areas.

The State-certified EIR determined that the 2017 Project would not result in a significant cumulative impact related to water supplies.[208] The water demand of the Modified Project would represent a reduction relative to the 2017 Project evaluated in the State-certified EIR. Further, the 2020 UWMP took into account the growth anticipated for

[208] *State-certified EIR, p. 6.0-75.*

the Modified Project. Therefore, the Modified Project would not contribute to any new or substantially more severe significant cumulative impacts related to water supply as compared to the 2017 Project.

9. MITIGATION MEASURES

a. Previously Approved Mitigation from the State-Certified EIR

The State-certified EIR determined that impacts related to water supply and service would be less than significant, and no mitigation measures were required or proposed for the 2017 Project.

b. Previously Approved Mitigation from the VCC EIR

Mitigation was previously adopted by the County for the VCC Planning Area as part of the County-certified VCC EIR. In general, those mitigation measures either have been superseded by other more stringent mitigation or would be achieved or exceeded through compliance with updated regulatory requirements. Please refer to **Appendix 3** of the SEIR for a list of VCC mitigation measures that are no longer applicable to the Modified Project or that require no further action as part of the Modified Project.

c. Proposed Mitigation for the Modified Project

No additional mitigation measures are required for the Modified Project.

10. LEVEL OF SIGNIFICANCE AFTER MITIGATION

With the implementation of the mitigation measures listed above, the Modified Project would not result in any new or substantially more severe significant impacts related to water supply as compared to those identified in the State-certified EIR for the 2017 Project.