

## 5.0 ENVIRONMENTAL IMPACT ANALYSIS

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### 6. HYDROLOGY AND WATER QUALITY—WATER QUALITY

#### 1. INTRODUCTION

This section of the Supplemental Environmental Impact Report (SEIR) analyzes the Modified Entrada South and Valencia Commerce Center (VCC) Project's (herein referred to as the Modified Project) impacts on surface and groundwater water quality, and hydromodification, as compared to the State-certified EIR (SCH No. 2000011025) and the 2017 Project.<sup>1</sup> The analysis is based on information from the *Entrada South and Valencia Commerce Center Supplemental Water Quality Analysis* (Water Quality Report) prepared by Geosyntec in November 2023, which is included in **Appendix 5.6** of this SEIR. Additional information considered in this analysis includes the State-certified EIR and other specified data and information, as discussed further below.

#### 2. ENVIRONMENTAL SETTING

An overview of the regulatory setting is provided in **Table 5.6-2**, Hydrology and Water Quality—Water Quality Regulatory Overview, beginning on page 5.6-2, and a detailed discussion is provided below.

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<sup>1</sup> *Hydromodification refers to changes to the runoff regime caused by land use modifications. Unless managed, hydromodification can cause channel erosion, migration, or sedimentation, as well as biologic impacts to streams.*

**Table 5.6-1  
Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
<b>Federal Regulations</b>	
<p><b>Clean Water Act</b></p> <p>In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act [CWA]) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants into “waters of the United States” from any point source. As defined in the CWA, “waters of the United States” are surface waters, including rivers, lakes, estuaries, coastal waters, and wetlands, that are interstate waters used in interstate and/or foreign commerce, their tributaries, territorial seas at the cyclical high-tide mark, and adjacent wetlands. In 1987, section 402 of the CWA was amended to require that the United States Environmental Protection Agency (USEPA) establish regulations for permitting of municipal and industrial stormwater discharges under the NPDES permit program. The USEPA published final regulations regarding stormwater discharges on November 16, 1990. (See 55 Fed. Reg. 47990 (Nov. 16, 1990)). The regulations require that the Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by a NPDES permit. In addition, CWA section 304(a) requires states to adopt water quality standards for receiving water bodies, and to have those standards approved by the USEPA.</p>	USEPA
<p><b>Section 303(d) of the CWA</b></p> <p>When designated beneficial uses of a particular receiving water body are compromised by impaired water quality, CWA section 303(d) requires that water body be identified and listed as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (with a factor of safety included).</p>	SWRCB, LARWQCB
<p><b>Upper Santa Clara River Chloride TMDL</b></p> <p>Specific to chloride, the LARWQCB has determined that high levels of chloride (salt) harm salt-sensitive avocado and strawberry crops along State Route 126 (SR-126) downstream of the Modified Project. As noted, the LARWQCB has developed and adopted a chloride TMDL, which is part of the Basin Plan.</p>	LARWQCB
<p><b>Section 401 of the CWA</b></p> <p>Under section 401 of the CWA, every applicant for a federal permit or license for any activity which may result in a discharge of dredge or fill material to a water body, must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards (i.e., beneficial uses, objectives, and anti-degradation policy). The United States Army Corps of Engineers (Corps) will finalize a section 404 permit in connection with the applicant’s receipt of a section 401 Certification from the LARWQCB.</p>	Corps, LARWQCB

**Table 5.6-1 (Continued)**  
**Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
<p><b>Section 402 of the CWA</b></p> <p>Section 402 of the CWA regulates point-source discharges to surface waters, among other provisions, and requires that all construction sites on an acre or greater of land, sites that are smaller than one acre but part of a larger development plan, and all municipal, industrial, and commercial facilities discharging wastewater or stormwater directly from a point source (e.g., pipe, ditch, or channel) into a water of the United States (WOTUS) must obtain an NPDES permit. All NPDES permits are written to ensure that the surface water receiving discharges will achieve specified water quality standards.</p>	LARWQCB
<p><b>Section 404 of the CWA</b></p> <p>Under Section 404 of the Clean Water Act, proposed discharges of dredged or fill material into WOTUS require Corps authorization. The Corps identifies wetlands using a multi-parameter approach, which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. According to the <i>Corps of Engineers Wetlands Delineation Manual</i> (1987), except in certain situations, all three parameters must be satisfied for an area to be considered a jurisdictional wetland.</p>	Corps
<p><b>California Toxics Rule</b></p> <p>The California Toxics Rule (CTR; codified in 40 CFR Section 131.38) is a federal regulation issued by the USEPA and implemented by the California Environmental Protection Agency that provides water quality criteria for toxic pollutants in waters with human health or aquatic life designated uses in California. Not all waters receiving flows from the Modified Project, such as the tributaries to the Santa Clara River, are specifically designated with human health or aquatic life uses. However, the Santa Clara River does have such designated uses. Further explanation of designated uses is provided in the Basin Plan subsection below. The CTR also contains human health criteria which are derived only for drinking water sources and for fish consumption.</p>	USEPA, CalEPA
<b>State Regulations</b>	
<p><b>Fish and Game Code, Sections 1600 through 1605</b></p> <p>CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, sections 1600-1605 require the proponent of a project that may impact a river, stream, or lake to notify the CDFW before beginning the project. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks, and that support fish or other aquatic life. It also includes watercourses having a surface or subsurface flow that supports, or has supported, riparian vegetation.</p>	CDFW
<p><b>Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.)</b></p> <p>The federal CWA places the primary responsibility for the control of surface water pollution, and for planning the development and use of water resources, with the states. However, the CWA establishes certain guidelines for the states to follow in developing their programs, and allows the USEPA</p>	SWRCB, LARWQCB

**Table 5.6-1 (Continued)**  
**Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
<p>to withdraw control from states with inadequate implementation mechanisms.</p> <p>California’s primary statute governing water quality and water pollution issues, with respect to both surface waters and groundwater, is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and the Regional Water Quality Control Boards (RWQCBs) power to protect water quality. It is the primary vehicle for implementing California’s responsibilities under the federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs the authority and responsibility to adopt plans and policies, to regulate discharges of waste to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.</p>	
<p><b>NPDES General Permit and Waste Discharge Requirements for Discharges of Stormwater Associated with Construction Activity</b></p> <p>Pursuant to CWA Section 402(p), the SWRCB issued a statewide general permit (Construction General Permit) for stormwater discharges from construction sites [Water Quality Order 2009-0009-DWQ, as well as its subsequent amendments 2010-0014-DWQ, 2012-0006-DWQ and 2022-0057-DWQ, State Water Board NPDES General Permit for Stormwater Discharges Associated with Construction Activity (NPDES No. CAR000002; adopted by the State Water Board on September 2, 2009, and became effective on July 1, 2010)].<sup>a</sup> Under the Construction General Permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or be covered by the Construction General Permit.</p>	SWRCB
<p><b>Sustainable Groundwater Management Act</b></p> <p>The Sustainable Groundwater Management Act (SGMA), signed into law in September 2015, requires medium- and high-priority basins to halt overdraft of groundwater resources, and balance groundwater pumping and recharge rates to achieve sustainability. The Santa Clarita Valley Groundwater Sustainability Agency (SCV-GSA) developed the Santa Clara River Valley East Groundwater Sub-basin Groundwater Sustainability Plan (GSP), intended to reach sustainability in the sub-basin within 20 years of its implementation under the SGMA.</p>	SCV Water
<p><b>Antidegradation Policy</b></p> <p>California’s antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California (State Board Resolution No. 68-16), restricts degradation of surface and ground waters. It protects waters where existing water quality is higher than necessary for the protection of beneficial uses. Any actions that may adversely affect water quality must be consistent with the maximum benefit to the people of the State; not unreasonably affect present and anticipated beneficial use of the water; and not result in water quality less than prescribed in water quality plans and policies.</p>	SWRCB

**Table 5.6-1 (Continued)**  
**Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
<b>Regional Regulations</b>	
<p><b>Regional MS4 Permit</b></p> <p>In 2021, the LARWQCB issued a revised NPDES Permit and waste discharge requirements (WDRs) (Order No. R4-2021-0105; NPDES Permit No. CAS004004 (the Regional MS4 Permit))<sup>b</sup> under the CWA and the Porter Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County (County) and Ventura County. The Regional MS4 Permit regulates stormwater discharges from MS4s in the Modified Project Site, and details specific requirements for new development and significant redevelopment projects, including selection, sizing, and design criteria for Low Impact Development (LID), treatment control, and hydromodification control BMPs. The Regional MS4 Permit also allows development of a regional stormwater mitigation program for new development and redevelopment projects, subject to approval by the LARWQCB Executive Officer.</p>	LARWQCB
<p><b>Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan Water Quality Certification</b></p> <p>The LARWQCB adopted a CWA Section 401 Water Quality Certification and WDR (Order No. R4-2012-0139) for the Newhall Ranch Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan on September 14, 2012 (LARWQCB, 2012b).</p>	LARWQCB
<p><b>General Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering (Order No. R4-2018-0125, NPDES No. CAG994004)</b></p> <p>The LARWQCB has issued a General NPDES Permit and WDRs (Order No. R4-2018-0125, NPDES No. CAG994004) that governs construction-related dewatering discharges within the Modified Project development areas (known as the General Dewatering Permit). This permit addresses discharges from temporary dewatering operations associated with construction, and permanent dewatering operations associated with operations. The discharge requirements include provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges.</p>	LARWQCB
<p><b>Municipal Recycled Water Landscape Irrigation Use Permit</b></p> <p>The General WDR for Landscape Irrigation Uses of Municipal Recycled Water (Water Quality Order No. 2009-0006-DWQ; Landscape Irrigation General Permit) regulates landscape irrigation with recycled water. Specified uses of recycled water considered to be “landscape irrigation” include any of the following: (i) parks, greenbelts, and playgrounds; (ii) school yards; (iii) athletic fields; (iv) golf courses; (v) cemeteries; (vi) residential landscaping and common areas (not including individually owned residential areas); (vii) commercial landscaping, except eating areas; (viii) industrial landscaping, except eating areas; and (ix) freeway, highway, and street landscaping. Producers or distributors of recycled water must submit a Notice of Intent for coverage under the Landscape Irrigation General Permit. This permit is not required for individual recycled water users and does not cover use of</p>	LARWQCB

**Table 5.6-1 (Continued)**  
**Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
harvested stormwater for irrigation.	
<p><b>Water Quality Control Plan for the Los Angeles Region</b></p> <p>The Basin Plan<sup>c</sup> provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the Los Angeles region. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and groundwater. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that will adversely impact the designated beneficial uses of a water body.</p>	LARWQCB
<p><b>Fire Code</b></p> <p>The California Fire Code, Section 2704, includes specific requirements for the safe storage and handling of hazardous materials. These requirements reduce the risk of a release of hazardous materials and for mixing of incompatible chemicals, and specify specific design features to reduce the risk of a release of hazardous materials that could affect public health or the environment.</p>	County Fire
<p><b>California Occupational Safety and Health Administration</b></p> <p>Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337-340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings.</p>	Cal/OSHA
<p><b>State Water Resources Control Board Recycled Water Policy</b></p> <p>The State Water Resources Control Board (SWRCB) recognizes the importance of recycled water as a critical water supply for California and is implementing the Recycled Water Policy adopted in 2009, streamlining permitting for recycled water projects and identifying and funding the highest priority research needs to ensure the state's recycled water goals are achieved. The SWRCB adopted an amendment to the Recycled Water Policy in 2018 (effective on April 8, 2019), which includes numeric goals for the use of recycled water, two narrative goals to encourage recycled water use in areas with overdrafted groundwater and coastal areas, and annual reporting requirements statewide for the volume of recycled water produced and used as well as the volume of wastewater treated and discharged.</p>	SWRCB
<b>County Regulations</b>	
<p><b>Low Impact Development Ordinance and Manual</b></p> <p>Los Angeles County Code (County Code), chapter 12.80 governs stormwater and pollution runoff in the unincorporated areas of the County. Its stated purpose "is to protect the health and safety of the residents of the county by protecting the beneficial uses, marine habitats, and ecosystems of receiving</p>	LACDPW

**Table 5.6-1 (Continued)**  
**Hydrology and Water Quality—Water Quality Regulatory Overview**

Issue Area and Relevant Legislation	Applicable Agency
<p>waters within the county from pollutants carried by stormwater and non-stormwater discharges. The intent of this chapter is to enhance and protect the water quality of the receiving waters of the county and the United States, consistent with the [CWA].”</p> <p>County Code section 12.84 requires the use of LID standards in development projects. The County Department of Public Works (LACDPW) prepared the <i>Low Impact Development Standards Manual</i> (LID Manual) that outlines stormwater runoff quantity and quality control development principles, technologies, and design standards for achieving the LID standards of County Code Section 12.84.<sup>d</sup> The LID Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County, with the intention of improving water quality and reducing potential water quality impacts from stormwater and non-stormwater discharges.</p>	
<p><b>Los Angeles County Drought-Tolerant Landscaping Ordinance</b></p> <p>Title 31 of the 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 (23 Cal. Code Regs. § 490 et seq.; AB 1881 [2006]). One intention of this ordinance is to reduce excessive landscape irrigation practices, which reduces dry weather runoff from urban areas. The ordinance provides regulations, including but not limited to automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems, rain sensors, sensors to address system damage/leaks, and irrigation efficiency criteria.</p>	County of Los Angeles
<hr/> <p><sup>a</sup> <i>The Construction General Permit and its subsequent amendments are available online at <a href="http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html">www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html</a>, accessed August 20, 2024.</i></p> <p><sup>b</sup> <i>LARWQCB ORDER NO. R4-2021-0105, <a href="http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/regional_permit.html">www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/regional_permit.html</a>, accessed August 20, 2024.</i></p> <p><sup>c</sup> <i>LARWQCB, Water Quality Control Plan, Los Angeles Region, 2014.</i></p> <p><sup>d</sup> <i>County of Los Angeles, Department of Public Works, Low Impact Development Standards Manual, February 2014.</i></p> <p><i>Source: Eyestone Environmental, 2024.</i></p>	

## **a. Regulatory Setting**

### **(1) Federal Regulations**

#### **(a) Clean Water Act**

In 1972, the Federal Water Pollution Control Act (later referred to as the Clean Water Act [CWA]) was amended to require National Pollutant Discharge Elimination System (NPDES) permits for the discharge of pollutants into “waters of the United States” from any point source. As defined in the CWA, “waters of the United States” are surface waters, including rivers, lakes, estuaries, coastal waters, and wetlands, that are interstate waters used in interstate and/or foreign commerce, their tributaries, territorial seas at the cyclical high-tide mark, and adjacent wetlands. In 1987, section 402 of the CWA was amended to require that the United States Environmental Protection Agency (USEPA) establish regulations for permitting of municipal and industrial stormwater discharges under the NPDES permit program. The USEPA published final regulations regarding stormwater discharges on November 16, 1990. (See 55 Fed. Reg. 47990 [Nov. 16, 1990]). The regulations require that the Municipal Separate Storm Sewer System (MS4) discharges to surface waters be regulated by a NPDES permit. An MS4 is a publicly owned conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains) that are designed or used for collecting or conveying stormwater separately from wastewater.

In addition, CWA section 304(a) requires states to adopt water quality standards for receiving water bodies, and to have those standards approved by the USEPA. These water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing, etc.), along with water quality criteria necessary to support those uses. Water quality criteria consist of either prescribed concentrations or levels of constituents, such as lead, suspended sediment, fecal coliform bacteria, or narrative statements describing the quality of water that supports a particular beneficial use. Because California had not established a complete list of acceptable water quality criteria, USEPA established numeric water quality criteria for certain toxic constituents in surface waters with human health or aquatic life designated uses in the form of the California Toxics Rule (CTR).<sup>2</sup> The final rule establishes ambient water quality criteria for priority toxic pollutants in the State of California.

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<sup>2</sup> 40 Code of Federal Regulations (CFR) Section 131.38.



**(i) WA Section 303(d) of the CWA**

When designated beneficial uses of a particular receiving water body are compromised by impaired water quality, CWA section 303(d) requires that water body be identified and listed as impaired. Once a water body has been deemed impaired, a Total Maximum Daily Load (TMDL) must be developed for the impairing pollutant(s). A TMDL is an estimate of the total load of pollutants from point, nonpoint, and natural sources that a water body may receive without exceeding applicable water quality standards (with a factor of safety included). Once established, the TMDL allocates the loads among current and future pollutant sources for the impaired water body. The California 303(d) Listing Policy sets the rules for identifying the waters that do not meet water quality standards. The Policy distinguishes between three categories of waters that do not meet water quality standards: (1) requiring TMDLs; (2) water quality limited segments being addressed by a TMDL that has been developed and approved by USEPA, and the approved implementation plan is expected to result in full attainment of the standard within a specified time frame; and (3) water quality limited segments being addressed by an existing regulatory program that is reasonably expected to result in the attainment of the water quality standard within a reasonable, specified time frame.

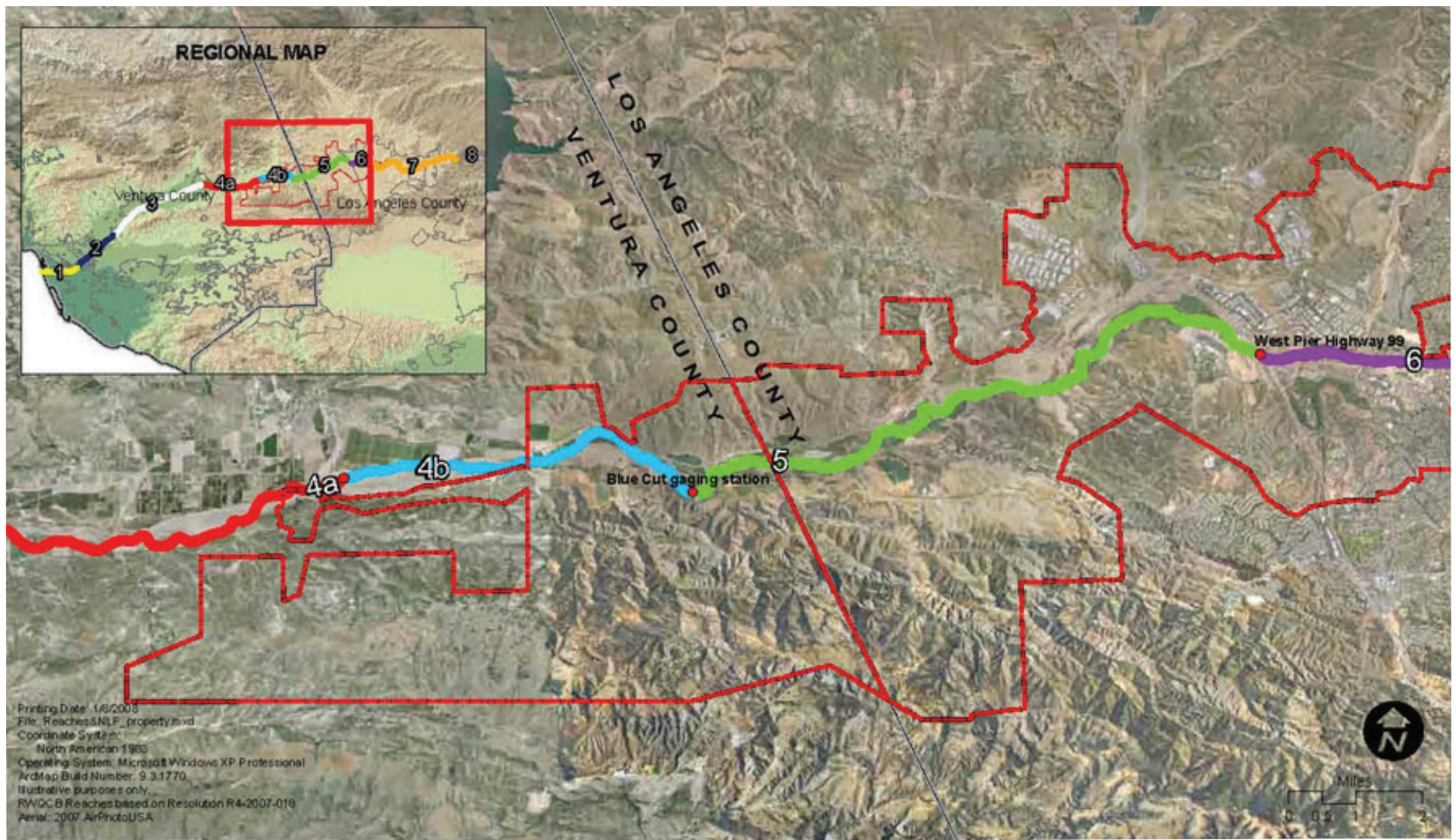
As shown in **Figure 5.6-1**, Santa Clara River Reaches, on page 5.6-10, the Modified Project Site is located near Reach 5 of the Santa Clara River. Runoff from the Modified Project Site discharges to Reach 5 of the Santa Clara River.<sup>3</sup> Water quality impairments within Reach 5 at approximately the Modified Project Site and downstream from that location were considered when selecting the pollutants of concern for this analysis.

As shown in **Table 5.6-2**, CWA Section 303(d) Listings for the Santa Clara River Mainstem (2020/2022), on page 5.6-11, impairments for Reach 5 include chloride, indicator bacteria, iron, and trash. Impairments for downstream reaches include trash, chloride, total dissolved solids, toxicity, selenium, indicator bacteria, dissolved oxygen, pH, ammonia, Chema, and Toxaphene.

Once established, the TMDL allocates the loads among current and future pollutant sources to the water body. The Los Angeles Regional Water Quality Control Board (LARWQCB) has adopted TMDLs for nitrogen compounds (nitrate plus nitrite-nitrogen and

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<sup>3</sup> *The Santa Clara River is divided into reaches for purposes of establishing beneficial uses and water quality objectives. However, there are two reach classifications, one established by the LARWQCB and one established by the USEPA. Both of these reach classifications are used by the LARWQCB and the USEPA in various documents, which, at times, is a source of confusion. This analysis uses the LARWQCB reach numbers because the Section 303(d) list and TMDLs use this numbering. See also Figure 5.6-1.*



**Figure 5.6-1**  
 Santa Clara River Reaches

**Table 5.6-2  
CWA Section 303(d) Listings for the Santa Clara River Mainstem (2020/2022)**

<b>Santa Clara River Reach or Tributary</b>	<b>Geographic Description and Distance from Project to Upstream End of Reach</b>	<b>Pollutants</b>	<b>TMDL Completion</b>	<b>Potential Sources</b>
7	Bouquet Canyon Road to above Lang Gaging Station (5 miles upstream)	Coliform Bacteria	TMDL Adopted 2012	Source Unknown
6	West Pier Highway 99 to Bouquet Canyon Road (Directly upstream of Modified Project site)	Chloride Chlorpyrifos Toxicity Temperature	TMDL Adopted 2005 Requires TMDL/2029 Requires TMDL/2029 Requires TMDL/2027	Nonpoint and Point Sources Source Unknown Source Unknown Source Unknown
5	Blue Cut Gaging Station to West Pier Highway 99 (Modified Project location)	Chloride Indicator Bacteria Iron Trash	TMDL Adopted 2005 TMDL Adopted 2012 Requires TMDL/2029 Requires TMDL/2027	Nonpoint and Point Sources Source Unknown Source Unknown Source Unknown and Point Sources Source Unknown Source Unknown Source Unknown
4a	"A" Street, Fillmore to Piru Creek (6 miles)	Trash	Requires TMDL/2027	Source Unknown
3	Freeman Diversion Dam to "A" Street (25 miles)	Chloride Total Dissolved Solids Toxicity Selenium Indicator Bacteria Trash	TMDL Adopted 2002 Requires TMDL/2015 Requires TMDL/2021 Requires TMDL/2027 TMDL Adopted 2012 Requires TMDL/2027	Nonpoint and Point Sources Source Unknown Source Unknown Source Unknown Source Unknown Source Unknown
1	Estuary to Highway 101 Bridge (30 miles)	Toxicity Dissolved Oxygen Ph Trash	Requires TMDL/2019 Requires TMDL/2027 Requires TMDL/2027 Requires TMDL/2027	Source Unknown Source Unknown Source Unknown Source Unknown
—	Estuary (40 miles)	Indicator Bacteria ChemA Toxaphene Toxicity Ammonia	TMDL Adopted 2012 TMDL Adopted 2011 TMDL Adopted 2011 Requires TMDL/2019 Requires TMDL/2027	Source Unknown Source Unknown Source Unknown Source Unknown Source Unknown
<p>Source: Geosyntec, 2023 (see Table 3-1 in the Water Quality Report, included as <b>Appendix 5.6</b> of this SEIR).</p>				

ammonia), chloride, and indicator bacteria in the Water Quality Control Plan for the Los Angeles Region (Basin Plan), as discussed below. The wasteload allocations for municipal

stormwater discharges into Reach 5 of the River are summarized in **Table 5.6-3**, TMDL Effluent Limitations for MS4 and Stormwater Sources to Santa Clara River Reach 5, on page 5.6-13. Pollutant reductions are regulated through effluent limits prescribed in Publicly Owned Treatment Works (POTW) and minor point source NPDES Permits, Best Management Practices (BMPs) required in NPDES MS4 permits, and State Water Resources Control Board (SWRCB) Management Measures for nonpoint source discharges.

In addition, interim conditions apply based on the Regional MS4 Permit for Reaches 3 and above of the Santa Clara River for exceedances that may take place in the Santa Clara River as of the effective date of the permit in September 2021. Wasteload allocations are given in terms of allowable exceedance days. The numeric targets may not be exceeded more than the number of allowable exceedance days allotted in **Table 5.6-4**, TMDL Interim Annual Allowable Exceedances for Santa Clara River, Reaches 3 and above (as of September 2021), Indicator Bacteria, on page 5.6-13.

The Regional MS4 Permit also provides a final compliance condition for the Santa Clara River Reaches 1, 2, 3, and above during dry weather to comply with **Table 5.6-5**, TMDL Final Annual Allowable Exceedances for Santa Clara River, Reaches 1, 2, 3, and above, Indicator Bacteria, on page 5.6-14, no later than March 21, 2023, and during wet weather, no later than March 21, 2029.

The Single Sample Objectives in **Table 5.6-4**, TMDL Interim Annual Allowable Exceedances for Santa Clara River, Reaches 3 and above (as of September 2021), Indicator Bacteria, and **Table 5.6-5**, TMDL Final Annual Allowable Exceedances for Santa Clara River, Reaches 1, 2, 3, and above, Indicator Bacteria, are equivalent to the daily maximum values listed in **Table 5.6-3**, TMDL Effluent Limitations for MS4 and Stormwater Sources to Santa Clara River Reach 5.

Lastly, the Regional MS4 Permit conditions the Santa Clara River—Reach 5, no later than March 21, 2029, to meet the water quality objective in **Table 5.6-5**, TMDL Final Annual Allowable Exceedances for Santa Clara River, Reaches 1, 2, 3, and above, Indicator Bacteria.

Per the Regional MS4 Permit, geometric mean values shall be calculated on each sample day based on a statistically sufficient number of samples (generally not less than five samples equally spaced over a 30-day period), consistent with the REC-1 Basin Plan bacteria objectives.

**Table 5.6-3  
TMDL Effluent Limitations for MS4 and Stormwater Sources to Santa Clara River Reach 5**

Impairing Pollutant	Effluent Limitation	
Chloride	100 mg/L	
Indicator Bacteria (Resolution R10-006)	<b>Constituent</b>	<b>SCR Reaches 3 and Above Requirement</b>
	E. Coli (Single Sample, MPN or cfu)	235/100 mL
Total Ammonia as Nitrogen (NH <sub>3</sub> -N)	1.75 mg/L (30-day average) 5.2 mg/L (1-hour average)	
Nitrate plus Nitrate as Nitrogen (NO <sub>2</sub> -N + NO <sub>3</sub> -N)	6.8 mg/L (30-day average)	
<hr/> <i>mg/L = milligrams per liter</i> <i>mL = milliliter</i> <sup>a</sup> <i>The numeric targets are 10 percent smaller to incorporate a margin of safety.</i> <i>Source: Geosyntec, 2023 (See Table 3-2 in the Water Quality Report, included as <b>Appendix 5.6</b> of this SEIR); Regional MS4 Permit.</i>		

**Table 5.6-4  
TMDL Interim Annual Allowable Exceedances for Santa Clara River, Reaches 3 and above (as of September 2021), Indicator Bacteria**

Constituent	Time Period	Interim Annual Allowable Exceedance Days of the Single Sample Objectives		
		Daily Sampling	Weekly Sampling	3 Wet and 2 Dry Weather Events
Santa Clara River Reaches 3 and above	Dry Weather (November 1 to October 31)	17	3	1
	Wet Weather (November 1 to October 31)	61	9	1
<hr/> <i>Source: Regional MS4 Permit.</i>				

**Table 5.6-5  
TMDL Final Annual Allowable Exceedances for Santa Clara River, Reaches 1, 2, 3, and above,  
Indicator Bacteria**

Constituent	Time Period	Final Annual Allowable Exceedance Days of the Single Sample Objectives	
		Daily Sampling	Weekly Sampling
Santa Clara River Reaches 3 and above	Dry Weather (November 1 to October 31)	5	1
	Wet Weather (November 1 to October 31)	16	3
Source: Regional MS4 Permit.			

**(ii) Upper Santa Clara River Chloride TMDL**

Specific to chloride, the LARWQCB has determined that high levels of chloride (salt) harm salt-sensitive avocado and strawberry crops along State Route 126 (SR-126) downstream of the Modified Project. As noted, the LARWQCB has developed and adopted a chloride TMDL, which is part of the Basin Plan. Wastewater generated by the Modified Project would be treated by the Santa Clarita Valley Sanitation District's (Valley Sanitation District) Valencia Water Reclamation Plant (Valencia WRP). The Valencia WRP currently provides primary, secondary, and tertiary treatment for 21.6 mgd of wastewater, and is discharging wastewater to the Santa Clara River pursuant to its NPDES Permit. In order to comply with the Upper Santa Clara River Chloride TMDL, the Valley Sanitation District will need to add facilities, because the existing treatment processes do not provide chloride removal. The Valencia WRP's NPDES Permit includes requirements and deadlines for several implementation actions related to adding chloride removal facilities to comply with the permit effluent limit of 100 mg/L. Under time schedule Order No R4-2019-0055-A01, discussions with the LARWQCB are currently ongoing to reduce Chloride discharges from the WRP into the Santa Clara River.

**(iii) Section 401 of the CWA**

Under section 401 of the CWA, every applicant for a federal permit or license for any activity which may result in a discharge of dredge or fill material to a water body, must obtain State Water Quality Certification (Certification) that the proposed activity will comply with state water quality standards (i.e., beneficial uses, objectives, and anti-degradation policy). The United States Army Corps of Engineers (Corps) will finalize a section 404 permit in connection with the applicant's receipt of a section 401 Certification from the LARWQCB.

**(iv) Section 402 of the CWA**

Section 402 of the CWA regulates point-source discharges to surface waters, among other provisions, and requires that all construction sites on an acre or greater of land, sites that are smaller than one acre but part of a larger development plan, and all municipal, industrial, and commercial facilities discharging wastewater or stormwater directly from a point source (e.g., pipe, ditch, or channel) into a water of the United States (WOTUS) must obtain an NPDES permit. All NPDES permits are written to ensure that the surface water receiving discharges will achieve specified water quality standards.

**(v) Section 404 of the CWA**

Under Section 404 of the Clean Water Act, proposed discharges of dredged or fill material into WOTUS require Corps authorization. The Corps identifies wetlands using a multi-parameter approach, which requires positive wetland indicators in three distinct environmental categories: hydrology, soils, and vegetation. According to the *Corps of Engineers Wetlands Delineation Manual* (1987), except in certain situations, all three parameters must be satisfied for an area to be considered a jurisdictional wetland.

**(b) California Toxics Rule**

The California Toxics Rule (CTR; codified in 40 CFR Section 131.38) is a federal regulation issued by the USEPA and implemented by the California Environmental Protection Agency that provides water quality criteria for toxic pollutants in waters with human health or aquatic life designated uses in California. Not all waters receiving flows from the Modified Project, such as the tributaries to the Santa Clara River, are specifically designated with human health or aquatic life uses. However, the Santa Clara River does have such designated uses. Further explanation of designated uses is provided in the Basin Plan subsection below. The CTR also contains human health criteria which are derived only for drinking water sources and for fish consumption. Since the human health criteria are less stringent than the aquatic life criteria for the pollutants of concern for the Modified Project, the aquatic life criteria are used.

Freshwater aquatic life criteria for certain metals in the CTR are expressed as a function of hardness, because hardness, and/or water quality characteristics that are usually correlated with hardness, can reduce the toxicities of some metals. A hardness value of 250 mg/L calcium carbonate (CaCO<sub>3</sub>), the minimum value measured in the Santa Clara River at a monitoring station located near the Ventura/Los Angeles County Boundary, is used to approximate the CTR criteria for metals.

The CTR also establishes two types of aquatic life criteria: acute and chronic. Acute criteria represent the highest concentration of a pollutant to which aquatic life can be

exposed for a short period of time without deleterious effects; chronic criteria equal the highest concentration to which aquatic life can be exposed for an extended period of time (four days) without deleterious effects. Due to the intermittent nature of stormwater runoff (especially in southern California), the acute criteria are considered to be more applicable to stormwater conditions than chronic criteria, and are used as benchmarks in assessing Modified Project runoff.

## **(2) State Regulations**

### ***(a) Fish and Game Code, Sections 1600 through 1605***

CDFW is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the Fish and Game Code, sections 1600-1605 require the proponent of a project that may impact a river, stream, or lake to notify the CDFW before beginning the project. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks, and that support fish or other aquatic life. It also includes watercourses having a surface or subsurface flow that supports, or has supported, riparian vegetation.

In addition, Fish and Game Code section 1602 requires that any entity notify the CDFW of a project, prior to beginning construction, that will: (1) divert, obstruct, or change the natural flow or the bed, channel, or bank of any river, stream, or lake; (2) use materials from a streambed; or (3) result in the disposal or deposition of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into any river, stream, or lake. If the CDFW determines that a project may adversely affect existing fish and wildlife resources, a Lake and Streambed Alteration Agreement potentially is required.

### ***(b) Porter-Cologne Water Quality Control Act (Water Code Section 13000 et seq.)***

The federal CWA places the primary responsibility for the control of surface water pollution, and for planning the development and use of water resources, with the states. However, the CWA establishes certain guidelines for the states to follow in developing their programs, and allows the USEPA to withdraw control from states with inadequate implementation mechanisms.

California's primary statute governing water quality and water pollution issues, with respect to both surface waters and groundwater, is the Porter-Cologne Water Quality Control Act of 1970 (Porter-Cologne Act). The Porter-Cologne Act grants the SWRCB and the Regional Water Quality Control Boards (RWQCBs) power to protect water quality. It is the primary vehicle for implementing California's responsibilities under the federal CWA. The Porter-Cologne Act grants the SWRCB and the RWQCBs the authority and



responsibility to adopt plans and policies, to regulate discharges of waste to surface and groundwater, to regulate waste disposal sites, and to require cleanup of discharges of hazardous materials and other pollutants. The Porter-Cologne Act also establishes reporting requirements for unintended discharges of any hazardous substance, sewage, or oil or petroleum product.

Each RWQCB must formulate and adopt a water quality control plan (regional plan) for its region. The regional plan must conform to the policies set forth in the Porter-Cologne Act and established by the SWRCB in its state water policy. To implement state and federal law, the regional plan establishes beneficial uses for surface and groundwater in the region, and sets forth narrative and numeric water quality standards to protect those beneficial uses. The Porter-Cologne Act also provides that a RWQCB may include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

***(c) NPDES General Permit and Waste Discharge Requirements for  
Discharges of Stormwater Associated with Construction Activity***

Pursuant to CWA Section 402(p), the SWRCB issued a statewide general permit (Construction General Permit) for stormwater discharges from construction sites [Water Quality Order 2009-0009-DWQ, as well as its subsequent amendments 2010-0014-DWQ, 2012-0006-DWQ and 2022-0057-DWQ, State Water Board NPDES General Permit for Stormwater Discharges Associated with Construction Activity (NPDES No. CAR000002; adopted by the State Water Board on September 2, 2009, and became effective on July 1, 2010)].<sup>4</sup> Under the Construction General Permit, discharges of stormwater from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for stormwater discharges or be covered by the Construction General Permit.

Coverage under the general permit is accomplished by completing and filing a Notice of Intent with the SWRCB. Each applicant under the Construction General Permit must ensure that a Stormwater Pollution Prevention Plan (SWPPP) is prepared prior to grading and implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain BMPs to reduce or eliminate pollutants in stormwater discharges and authorized non-stormwater discharges from the construction site during construction.

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<sup>4</sup> *The Construction General Permit and its subsequent amendments are available online at [www.waterboards.ca.gov/water\\_issues/programs/stormwater/construction.html](http://www.waterboards.ca.gov/water_issues/programs/stormwater/construction.html), accessed October 10, 2023.*

The SWPPP is required to include a menu of BMPs to be selected and implemented based on the phase of construction and the weather conditions to effectively control erosion, sediment, and other construction related pollutants to meet the Best Available Technology Economically Achievable and Best Conventional Pollutant Control Technology standards. Erosion control BMPs are designed to prevent erosion, whereas sediment controls are designed to trap sediment once it has been mobilized. A list of BMPs that would be implemented during construction is provided in **Table 5.6-7**, LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices, on page 5.6-32 in the analysis further below.

***(d) Sustainable Groundwater Management Act***

The Sustainable Groundwater Management Act (SGMA), signed into law in September 2015, requires medium- and high-priority basins to halt overdraft of groundwater resources, and balance groundwater pumping and recharge rates to achieve sustainability. The Santa Clarita Valley Groundwater Sustainability Agency (SCV-GSA) developed the Santa Clara River Valley East Groundwater Sub-basin Groundwater Sustainability Plan (GSP), intended to reach sustainability in the sub-basin within 20 years of its implementation under the SGMA. The GSP was sent to the California Department of Water Resources (DWR) for review in January 2022. The 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 Entrada South and VCC Planning Areas are within the sub-basin boundaries; thus, the Modified Project is managed by SCV-GSA under the GSP.

***(e) Antidegradation Policy***

California's antidegradation policy, formally known as the Statement of Policy with Respect to Maintaining High Quality Waters in California (State Board Resolution No. 68-16), restricts degradation of surface and ground waters. It protects waters where existing water quality is higher than necessary for the protection of beneficial uses. Any actions that may adversely affect water quality must be consistent with the maximum benefit to the people of the State; not unreasonably affect present and anticipated beneficial use of the water; and not result in water quality less than prescribed in water quality plans and policies.

### **(3) Regional Regulations**

#### **(a) Los Angeles Regional Water Quality Control Board**

##### **(i) Regional MS4 Permit**

In 2021, the LARWQCB issued a revised NPDES Permit and waste discharge requirements (WDRs) (Order No. R4-2021-0105; NPDES Permit No. CAS004004 [the Regional MS4 Permit])<sup>5</sup> under the CWA and the Porter Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County (County) and Ventura County. The Regional MS4 Permit regulates stormwater discharges from MS4s in the Modified Project Site, and details specific requirements for new development and significant redevelopment projects, including selection, sizing, and design criteria for Low Impact Development (LID), treatment control, and hydromodification control BMPs. The Regional MS4 Permit also allows development of a regional stormwater mitigation program for new development and redevelopment projects, subject to approval by the LARWQCB Executive Officer. These requirements and the Modified Project's actions to comply with these requirements are outlined in Section 3 and Section 5 of the Water Quality Report, provided in **Appendix 5.6**. The Regional MS4 Permit also incorporates the Modified Project Site into the Upper Santa Clara River Enhanced Watershed Management Program (USCR EWMP).

The USCR EWMP allows collaboration among agencies on multi-benefit regional projects to retain both non-stormwater and stormwater runoff, as well as to facilitate flood control and increase water supply.

##### **(ii) Newhall Ranch Resource Management and Development Plan and Spineflower Conservation Plan Water Quality Certification**

The LARWQCB adopted a CWA Section 401 Water Quality Certification and WDR (Order No. R4-2012-0139) for the Newhall Ranch Resource Management and Development Plan (RMDP) and Spineflower Conservation Plan on September 14, 2012 (LARWQCB, 2012b).

##### **(iii) General Waste Discharge Requirements for Discharges of Groundwater from Construction and Project Dewatering (Order No. R4-2018-0125, NPDES No. CAG994004)**

The LARWQCB has issued a General NPDES Permit and WDRs (Order No. R4-2018-0125, NPDES No. CAG994004) that governs construction-related dewatering

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<sup>5</sup> LARWQCB ORDER NO. R4-2021-0105, [www.waterboards.ca.gov/losangeles/water\\_issues/programs/stormwater/municipal/regional\\_permit.html](http://www.waterboards.ca.gov/losangeles/water_issues/programs/stormwater/municipal/regional_permit.html), accessed August 20, 2024.

discharges within the Modified Project development areas (known as the General Dewatering Permit). This permit addresses discharges from temporary dewatering operations associated with construction, and permanent dewatering operations associated with operations. The discharge requirements include provisions mandating notification, sampling and analysis, and reporting of dewatering and testing-related discharges.

***(iv) Municipal Recycled Water Landscape Irrigation Use Permit***

The General WDR for Landscape Irrigation Uses of Municipal Recycled Water (Water Quality Order No. 2009-0006-DWQ; Landscape Irrigation General Permit) regulates landscape irrigation with recycled water. Specified uses of recycled water considered to be “landscape irrigation” include any of the following: (i) parks, greenbelts, and playgrounds; (ii) school yards; (iii) athletic fields; (iv) golf courses; (v) cemeteries; (vi) residential landscaping and common areas (not including individually owned residential areas); (vii) commercial landscaping, except eating areas; (viii) industrial landscaping, except eating areas; and (ix) freeway, highway, and street landscaping. Producers or distributors of recycled water must submit a Notice of Intent for coverage under the Landscape Irrigation General Permit. This permit is not required for individual recycled water users and does not cover use of harvested stormwater for irrigation.

***(b) Water Quality Control Plan for the Los Angeles Region***

The Basin Plan<sup>6</sup> provides quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies and groundwater basins within the Los Angeles region. Specific criteria are provided for the larger, designated water bodies within the region, as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and groundwater. In general, the narrative criteria require that degradation of water quality does not occur due to increases in pollutant loads that will adversely impact the designated beneficial uses of a water body. For example, the Basin Plan requires that “[i]nland surface waters shall not contain suspended or settleable solids in amounts which cause a nuisance or adversely affect beneficial uses as a result of controllable water quality factors.” Water quality criteria apply within receiving waters, as opposed to applying directly to runoff; therefore, water quality criteria from the Basin Plan are utilized as benchmarks to evaluate the potential ecological impacts of project runoff on the receiving waters of the proposed project.

The Basin Plan lists beneficial uses of major water bodies within this region. The tributaries to the Santa Clara River within the Modified Project are not specifically

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<sup>6</sup> LARWQCB, *Water Quality Control Plan, Los Angeles Region, 2014*.

designated with beneficial uses in the Basin Plan, but Santa Clara River Reach 5 is listed and has specific beneficial uses assigned to it. The beneficial uses of Santa Clara River Reach 5 include the following:

- MUN: Conditional potential municipal and domestic water supply.
- IND: Industrial activities that do not depend primarily on water quality.
- PROC: Industrial activities that depend primarily on water quality.
- AGR: Agricultural supply waters used for farming, horticulture, or ranching.
- GWR: Groundwater recharge for natural or artificial recharge of groundwater.
- FRSH: Natural or artificial maintenance of surface water quantity or quality.
- REC1: Water contact recreation involving body contact with water and ingestion is reasonably possible.
- REC2: Non-contact water recreation for activities in proximity to water, but not involving body contact.
- WARM: Warm freshwater habitat to support warm water ecosystems.
- WILD: Wildlife habitat waters that support wildlife habitats.
- RARE: Waters that support rare, threatened, or endangered species and associated habitats.
- WET: Wetland ecosystem.

**(c) Fire Code**

The California Fire Code, Section 2704, includes specific requirements for the safe storage and handling of hazardous materials. These requirements reduce the risk of a release of hazardous materials and for mixing of incompatible chemicals, and specify the following specific design features to reduce the risk of a release of hazardous materials that could affect public health or the environment:

- Separation of incompatible materials with a noncombustible partition.
- Spill control in all storage, handling, and dispensing areas.
- Separate secondary containment for each chemical storage system. The secondary containment must hold the entire contents of the tank, plus the

volume of water needed to supply the fire suppression system for a period of 20 minutes in the event of a catastrophic spill.

***(d) California Occupational Safety and Health Administration***

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are generally more stringent than federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR Sections 337–340). The regulations specify requirements for employee training, availability of safety equipment, accident-prevention programs, and hazardous substance exposure warnings

***(e) State Water Resources Control Board Recycled Water Policy***

The State Water Board recognizes the importance of recycled water as a critical water supply for California and is implementing the Recycled Water Policy adopted in 2009, streamlining permitting for recycled water projects and identifying and funding the highest priority research needs to ensure the state’s recycled water goals are achieved. The State Water Board adopted an amendment to the Recycled Water Policy in 2018 (effective on April 8, 2019), which includes numeric goals for the use of recycled water, two narrative goals to encourage recycled water use in areas with overdrafted groundwater and coastal areas, and annual reporting requirements statewide for the volume of recycled water produced and used as well as the volume of wastewater treated and discharged.

The Recycled Water Policy provides direction to the RWQCBs regarding appropriate criteria in issuing permits for recycled water projects intended to streamline permitting of the vast majority of recycled water projects; while reserving sufficient authority and flexibility to address site-specific conditions.

**(4) County Regulations**

Additional local requirements have also emerged since the State-certified EIR was prepared that provide water quality benefits. These additional requirements include updated low-impact development requirements, groundwater management, and landscaping standards, as described below.

***(a) County of Los Angeles General Plan***

The County General Plan directs future growth and development in certain locations within the County’s unincorporated areas, and establishes goals, policies, and objectives that pertain to the entire County. The Los Angeles County 2035 General Plan, adopted by the Los Angeles County Board of Supervisors on October 6, 2015, provides the policy

framework for how and where the unincorporated County will grow through the year 2035, while recognizing and celebrating the County’s wide diversity of cultures, abundant natural resources, and status as an international economic center. The General Plan contains a Conservation and Natural Resources Element that addresses water quality, among other water-related issues, with relevant goals regarding compliance with applicable MS4, General Construction, and NPDES permit requirements, as well as TMDL standards.

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

The Santa Clarita Valley Area Plan: One Valley One Vision 2012 (Area Plan) serves as a long-term guide for development in the Valley Planning Area over a 20-year planning period. The Area Plan ensures consistency between the General Plans of the County and the City of Santa Clarita (City) in order to achieve common goals, and encourages the coordination of land use plans with public services and other departments or agencies. The Area Plan’s Conservation and Open Space Element addresses open space and conservation issues pertaining to hydrology and water quality, among others. Specifically, Goal CO-4.3 aims to limit disruption of natural hydrology by reducing impervious cover, increasing on-site infiltration, and managing stormwater runoff at the source. Policies identified to achieve this goal include achieving TMDL standards for chlorides in the Santa Clara River, eliminating perchlorate contamination from the Whittaker-Bermite property, and reducing water pollution from chemical fertilizers, herbicides, and pesticides in landscaping. In addition, the use of vegetated drainage courses and soft-bottom channels are encouraged to achieve water quality and habitat objectives, as set forth in the Safety Element.

***(c) Low Impact Development Ordinance and Manual***

Los Angeles County Code (County Code), chapter 12.80 governs stormwater and pollution runoff in the unincorporated areas of the County. Its stated purpose “is to protect the health and safety of the residents of the county by protecting the beneficial uses, marine habitats, and ecosystems of receiving waters within the county from pollutants carried by stormwater and non-stormwater discharges. The intent of this chapter is to enhance and protect the water quality of the receiving waters of the county and the United States, consistent with the [CWA].”

County Code chapter 12.84 requires the use of LID standards in development projects. The County Department of Public Works (LACDPW) prepared the *Low Impact Development Standards Manual* (LID Manual) that outlines stormwater runoff quantity and quality control development principles, technologies, and design standards for achieving

the LID standards of County Code Chapter 12.84.<sup>7</sup> The LID Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects in unincorporated areas of the County, with the intention of improving water quality and reducing potential water quality impacts from stormwater and non-stormwater discharges.

Page 1-2 of the LID Manual addresses the following objectives and goals:

- Lessen the adverse impacts of stormwater runoff from development and urban runoff on natural drainage systems, receiving waters, and other water bodies;
- Minimize pollutant loadings from impervious surfaces by requiring development projects to incorporate properly designed, technically appropriate BMPs and other LID strategies; and
- Minimize erosion and other hydrologic impacts on natural drainage systems by requiring development projects to incorporate properly designed, technically appropriate hydromodification control development and technologies.

Page 2-2 of the LID Manual requires that projects prioritize the selection of BMPs to retain 100 percent of the design storm on-site through infiltration, evapotranspiration, stormwater runoff harvest and use, or a combination thereof, unless it is demonstrated that it is technically infeasible to do so. Projects that are unable to fully retain the design storm on-site through retention-based stormwater quality-control measures must implement alternative compliance measures, such as on-site biofiltration, off-site groundwater replenishment, off-site infiltration and/or bioretention, and off-site retrofit. Prior to off-site mitigation, the portion of the design storm that cannot be reliably retained on-site must be treated to meet effluent quality standards.

#### **(d) Los Angeles County Drought-Tolerant Landscaping Ordinance**

Title 31 of the 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 (23 Cal. Code

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<sup>7</sup> LACDPW, *Low Impact Development Standards Manual, February 2014*, [https://pw.lacounty.gov/idd/iddservices/docs/Los%20Angeles%20County%20Low%20Impact%20Development%20\(LID\)%20Manual.pdf](https://pw.lacounty.gov/idd/iddservices/docs/Los%20Angeles%20County%20Low%20Impact%20Development%20(LID)%20Manual.pdf), accessed August 20, 2024.



Regs. § 490 et seq.; AB 1881 [2006]). One intention of this ordinance is to reduce excessive landscape irrigation practices, which reduces dry weather runoff from urban areas. The ordinance provides regulations, including but not limited to automatic irrigation controllers utilizing either evapotranspiration or soil moisture sensor data shall be required for irrigation scheduling in all irrigation systems, rain sensors, sensors to address system damage/leaks, and irrigation efficiency criteria.

## **b. Existing Conditions**

### **(1) Climate**

The climate in the Santa Clarita Valley is characterized as semi-arid and warm. Summer months are dry with temperatures that can reach as high as 110° F, and winter months are cool with temperatures that can drop as low as 20° F. Much of the watershed upstream of the proposed project area receives rainfall averaging about 7.8 to 33.5 inches per year. The long-term average precipitation is 18.3 inches (1969–2008). As throughout southern California, rainfall in the Santa Clara watershed alternates between wet and dry periods, a variation that is central to understanding the cultural and geomorphic histories of the upper watershed. Wet cycles tend to persist for several years, sometimes for periods of six or eight years, during which, rainfall, although variable, may average about 140 to 150 percent of the long-term average.

### **(2) Santa Clara River**

The Modified Project Site is located within the Santa Clara River basin. The Santa Clara River watershed comprises a total of 1,634 square miles and drains portions of Los Padres National Forest, Angeles National Forest, and the Santa Susana Mountains. The Upper Santa Clara River watershed, which comprises approximately 410 square miles, is the portion of the watershed within Los Angeles County, of which the 699.2-acre (total combined Entrada South and VCC Planning Areas) Modified Project Site represents approximately 0.27 percent.

The reach of the Santa Clara River within and adjacent to the Project Site has multiple channels (morphologically termed *braided* channels). This kind of system is characterized by high sediment loads, high bank erodibility, and intense and intermittent runoff conditions. Combined with the relatively flat gradient of the Santa Clara River at this point (less than one percent), it has a high potential to aggrade (deposit sediment) at low flow velocities.

The Santa Clara River flows through a complex, tectonically active trough. Some of the most rapid rates of geologically current uplift in the world are reported from the Ventura anticline and San Gabriel Mountains, just to the northwest and southeast, respectively, of

the River. Slopes are very steep, with local relief of 3,000 to 4,000 feet being common. These faults bring harder, more resistant sedimentary rocks over softer and younger sedimentary formations, but all formations are fundamentally soft and erodible. On either side of the faults, sandstone and mudstones prevail. The northeastern and southeastern corners of the watershed are underlain by deeply weathered granitic and schistose rocks, which produce sands that are coarser than those of other rock units when they weather and erode. The San Gabriel fault crosses the valley, bringing slightly more resistant rock to the surface, and creating a local base level reflected as a slight rise or “bump” on the river’s longitudinal profile.

**(a) *Flows in the Santa Clara River***

Perennial streamflow in Santa Clara River Reach 5 is derived from discharges of treated effluent from two wastewater treatment plants, and runoff from agricultural fields and existing urban areas. Discharges from agricultural land use are decreasing as some of these areas convert to urban use. There are two regional wastewater reclamation plants in the area, operated by the County Sanitation Districts of Los Angeles County, that discharge tertiary-treated wastewater to the Santa Clara River. The Saugus Water Reclamation Plant (WRP), located near Bouquet Canyon Road bridge, has a permitted dry weather average design capacity of 6.5 million gallons per day (mgd), creating surface flows from the outfall to near Interstate 5. The Valencia WRP outfall is located immediately downstream of the Interstate 5 bridge, and has a permitted dry weather average design capacity of 21.6 mgd, creating surface flows extending through the Modified Project area and into the far eastern portion of Ventura County. Together, the Valencia and Saugus WRPs have a design capacity of 28.1 mgd (31,470 acre feet per year [AFY]) and produce 21,450 AFY of treated effluent on average according to the 2020 Urban Water Management Plan prepared by the Santa Clarita Valley Water Agency.

Downstream of the Valencia WRP, the Santa Clara River is perennial past the Los Angeles County/Ventura County line to approximately Rancho Camulos. Flows in the river also can be affected by groundwater dewatering operations or by diversions for agriculture or groundwater recharge. Throughout the Santa Clara River channel, there are complex surface water/groundwater interactions where both gaining (surface flows are fed by groundwater) and losing (surface flows recharge groundwater) river segments are found. Downstream of the County line, however, the Santa Clara River flows through the Piru groundwater basin, which represents a “Dry Gap,” where dry-season streamflow is lost to groundwater.

The Santa Clara River is underlain by several distinct alluvial groundwater basins, including the Piru, Fillmore, and Santa Paula Basins. These basins are divided longitudinally by sills or ridges of bedrock that support areas of locally high groundwater, including the area upstream from the County line (above the Piru Basin), and upstream

from the mouth Sespe Creek (the transition between the Piru and Fillmore Basins). This locally high groundwater sustains summer base flow and riparian vegetation within the Santa Clara River corridor, even through relatively dry climatic cycles.

Flows in the Santa Clara River, as in most southern California streams, are highly episodic. Annual flow at the Los Angeles County/Ventura County line between 1953 and 1996 (this United States Geologic Survey [USGS] gage was not monitored after 1996) ranged between 253,000 acre-feet (1969) and 561 acre-feet (1961).

Concepts of “normal” or “average” sediment-supply and flow conditions have limited value in this “flashy” environment, where episodic storm and wildfire events have enormous influence on sediment and storm flow conditions. In these streams, a large portion of the sediment movement events can occur in a matter of hours or days. Other perturbations which can potentially affect channel geometry, appear to have transitory or minor manifestations. For example, effects on Santa Clara River channel width of 1980s’ levee construction was barely discernible by 2005, probably mostly due to morphologic compensation associated with the storm events in the mid- to late-1990s. As a result, the channel morphology, stability, and character of the Santa Clara River is almost entirely determined by the “reset” events that occur within the watershed.

### ***(b) Santa Clara River Tributaries***

Three unnamed drainage courses are located to the south of the Santa Clara River within the Entrada South Planning Area. Also, Castaic Creek and Hasley Creek lie within the VCC planning area. Some of the tributaries have been mapped as blue-line streams by the USGS. While it is the intent of the USGS to indicate that blue-line streams are flowing perennial streams, in arid states such as California, and particularly in southern California, this is not always the case. For example, the blue-line stream in upper Potrero Canyon is an ephemeral drainage. Aside from the lower portions of Salt and Potrero Canyons, each of the tributaries within the Specific Plan area is classified as an intermittent or ephemeral drainage.

### **c. Existing Surface Water Quality**

Due to the size of the project area and the highly variable nature of surface water quality in the Santa Clara River throughout the project area, it was not appropriate to summarize water quality data for a single timeframe or location in order to establish baseline water quality conditions. As discussed above, flows in the Santa Clara River are highly episodic in nature, and this characteristic can affect surface water quality considerably. The analysis in this SEIR uses water quality information from the County of Los Angeles which conducts in-stream water quality monitoring on the mainstem of the Santa Clara River at a mass emission station located at The Old Road, at the upstream

boundary of the Project area. Wet weather monitoring data used in the analysis in this SEIR includes information from January 2017 through June 2019 from this station. This analysis also considers wet weather monitoring data from Newhall RMDP WDR Monitoring stations from November 2017 through March 2023. This data is presented in Section 2.3.4.1 of the Water Quality Report prepared by Geosyntec (see **Appendix 5.6**) to compare estimated runoff pollutant concentrations in the post-development condition with runoff treatment BMPs to assess potential impacts of the proposed Modified Project to surface water quality in the Santa Clara River Corridor in comparison to the State-certified EIR.

#### **d. Existing Groundwater Quality**

The Entrada South and VCC Planning Areas lie at the western end of the upper Santa Clara River hydrologic area, as defined by the California Department of Water Resources (DWR). The Santa Clara River Valley East Groundwater Sub-basin lies within this hydrologic area and is the source of essentially all local groundwater used for water supply in the Santa Clarita Valley. The local groundwater supplies are obtained from relatively young surficial alluvial deposits, and from an older geologic unit (the Saugus Formation) that underlies the alluvium and adjoining areas. The alluvium and the Saugus Formation are underlain by bedrock units consisting of the Pico Formation in the project area, and other geologic units in the eastern and northern portions of the Santa Clarita Valley. These deep bedrock units yield little water and are not considered viable for groundwater development.

The alluvial sediments lie within the portion of the Valley occupied by the Santa Clara River, and also are present in side canyons that contain tributaries to the river. The alluvium consists of extensively interlayered and interfingered mixtures of gravel and sand, with variable amounts of cobbles and boulders, and minor amounts of silt and clay. Due to the unconsolidated to poorly consolidated condition of the alluvium, and its lack of cementation, the alluvium has relatively high permeability and porosity. The groundwater flow direction in the Alluvial aquifer follows the topography of the Valley and its tributaries. Groundwater recharge occurs in the eastern, northern, and southern portions of the Valley. Natural mechanisms for groundwater discharge occur at the west end of the Valley, and consist of discharge to the Santa Clara River, subsurface outflow beneath the river, and evapotranspiration by deep-rooted vegetation.

The Saugus Formation is present beneath the eastern portion of the Project Site and most of the Santa Clarita Valley area to the east of the Project Site. The upper subunits of the Saugus Formation consist of terrestrial sediments deposited in stream channels, floodplains, and alluvial fans by ancestral drainage systems. The upper subunits are a source of groundwater supply in the Santa Clarita Valley due to their productive nature and good water quality. Deeper subunits of the Saugus Formation were deposited in a marine

environment, and subsequently are not used for water supplies because of their brackish water quality and fine-grained, low-permeability nature.

Faulting and folding of the Saugus Formation and the underlying bedrock units have created a bowl-shaped structure beneath the Santa Clarita Valley. The Saugus Formation and underlying bedrock generally dip downwards from the periphery of the Valley towards the deepest portion of the “bowl” beneath the central portion of the Valley. The thickness of the Saugus Formation also is controlled by the San Gabriel fault, which is present in the eastern and northern portions of the Valley. Because of its structure and its connection with the overlying Alluvial aquifer, groundwater flow in the Saugus Formation is generally towards the center of the bowl and also towards the western portion of the Santa Clara River. Like the Alluvial aquifer, the Saugus Formation is recharged in the eastern and other peripheral portions of the Santa Clarita Valley. Groundwater discharge from the Saugus Formation occurs at the west end of the Valley in the form of groundwater discharge into the overlying Alluvial aquifer, which, in turn, discharges to the River in the western end of the Valley.

**Table 5.6-6**, Alluvial Aquifer Groundwater Monitoring Data Summary Statistics, on page 5.6-30 summarizes average metals, general chemistry, and organic compounds data for Alluvial and Saugus aquifer wells located in and near the Project Site.

#### ***(a) Saugus Formation***

Based on available data over the last 50 years, groundwater quality in the Saugus Formation has not historically exhibited the recharge-related fluctuations seen in the Alluvium (SCV Water, 2023). Groundwater quality in the Saugus Formation has exhibited stable to slightly increasing trends in TDS concentrations over the 50-year period. Recent TDS concentrations in the Saugus Formation remain within the range of historic concentrations and below the Secondary MCL upper level (SCV Water, 2023).

**Table 5.6-6  
Alluvial Aquifer Groundwater Monitoring Data Summary Statistics**

Parameter	Units	Basin Plan Objective/ MCL	Maximum	Minimum	Average <sup>a</sup>	No. of Samples	No. of Detects
Aluminum	mg/l	1.0	34	<0.005	1.8	24	20
Arsenic	µg/l	10	23	0.42	2.0	33	33
Barium	µg/l	1,000	270	12	41	33	33
Cadmium	µg/l	5.0	0.90	<0.1	0.16	33	17
Chromium	µg/l	50	75	0.14	5.4	33	32
Copper	µg/l	1,300	72	<0.5	7.7	33	30
Iron	µg/l	300	85,000	<20	5,503	33	30
Nickel	µg/l	100	76	1	9.5	33	33
Selenium	µg/l	50	140	1	39	33	33
Silver	µg/l	100	<0.4	<0.2	<0.3	33	0
Zinc	µg/l	5,000	200	<5	22	33	21
Boron	µg/l	1,000	7,800	490	2,833	33	33
Chloride	mg/l	150	1,000	72	284	33	33
Cyanide, total	µg/l	150	100	<5	5.5	33	1
Fluoride	mg/l	2.0	3.2	0.33	1.0	33	33
Perchlorate	µg/l	6.0	18	<2	7.9	33	4
Nitrate as N	mg/l	10	260	3	30	33	33
Nitrite as N	mg/l	1.0	0.14	<0.1	0.22	33	2
Nitrate + Nitrite as N	mg/l	10	120	3	27	33	33
Specific Conductance	µS/cm	—	16,000	1,200	6,468	12	12
Sulfate	mg/l	350	10,000	200	2,371	33	33
TDS	mg/l	1,000	9,895	768	3,774	21	21
Turbidity	NTU	1.0	8.4	0	1.1	12	12

**Bold = Value exceeds Basin Plan objective or MCL**  
**-- = No applicable Basin Plan objective or MCL**  
<sup>a</sup> For parameters with only non-detect (ND) results, the average shown is the average of the detection limits. For parameters with ND and detected results, the average was calculated using one-half the detection limit for the ND results.

Source: Geosyntec, 2023.

### 3. SUMMARY OF IMPACTS FOR THE 2017 PROJECT

Section 4.4, Water Quality, of the State-certified EIR analyzed impacts related to hydrology and hydromodification resulting from the development of the Entrada South and VCC Planning Areas. The analysis identified potentially significant impacts relating to surface and groundwater quality, and the California Department of Fish and Wildlife (CDFW) adopted mitigation measures in the State-certified EIR to reduce the potential

impacts resulting from implementation of the 2017 Project to less-than-significant levels. The State-certified EIR concluded that compliance with all regulatory requirements, as well as implementation of the identified project design features and mitigation measures (including Mitigation Measures RMDP/SCP-WQ-1 and RMDP/SCP-WQ-2), would reduce project-level and cumulative impacts to less-than-significant levels with respect to water quality. As discussed in this Section, the environmental setting, regulatory requirements, and mitigation conditions have not changed substantially from those described in the State-certified EIR. Based on these conditions and because the Modified Project's design further reduces impacts, Modified Project-level and cumulative impacts with respect to water quality would remain less than significant after mitigation.

#### **4. REGULATORY REQUIREMENTS AND MODIFIED PROJECT DESIGN**

##### **a. Regulatory Compliance Measures**

Based on the applicable regulations and requirements previously discussed, the following compliance measures are incorporated into the Modified Project:

- The Modified Project shall comply with the Regional MS4 Permit (Order No. R4-2021-0105; NPDES Permit No. CAS004004), the County of Los Angeles LID Ordinance, and the County of Los Angeles LID Standards Manual, as may be updated from time to time. This will include adherence to the LID Standards Manual's source control measures through implementation of the Modified Project BMPs set forth in **Table 5.6-7**, LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices, on page 5.6-32.
- The Modified Project shall comply with the SWRCB NPDES General Permit for Stormwater Discharges Associated with Construction Activity (Water Quality Order 2009-0009-DWQ, as well as its subsequent amendments 2010-0014-DWQ, 2012-0006-DWQ, and 2022-0057-DWQ, and NPDES No. CAR000002), (Construction General Permit) or any subsequent version of this permit at the time of commencement of construction. In accordance with the Construction General Permit, the Applicant will prepare and implement a SWPPP based on the Project Risk Level that includes the following types of BMPs, which shall meet the BAT/BCT performance standard: (1) erosion control; (2) sediment control; (3) waste and materials management; (4) non-stormwater management; (5) training and education; and (6) inspections, maintenance, monitoring, and sampling.

**Table 5.6-7  
LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices**

Source Control Requirement <sup>a</sup>	Criteria/Description <sup>a</sup>	Corresponding Entrada and VCC Planning Area BMPs <sup>b</sup>
S-1: Storm Drain Message and Signage	<ul style="list-style-type: none"> <li>• All storm drain inlets and catch basins within the Modified Project area must be marked with prohibitive language and/or graphical icons to discourage illegal dumping.</li> <li>• Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the Modified Project area.</li> <li>• Legibility of stencils and signs must be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>• All storm drain inlets and water quality inlets will be stenciled or labeled.</li> <li>• Signs will be posted in areas where dumping could occur.</li> <li>• LACDPW and/or Home Owners Associations will maintain stencils and signs.</li> </ul>
S-2: Outdoor Material Storage Areas	<ul style="list-style-type: none"> <li>• Where proposed Modified Project plans include outdoor areas for storage of materials that may contribute pollutants to the storm water conveyance system measures to mitigate impacts must be included.</li> </ul>	<ul style="list-style-type: none"> <li>• Pesticides, fertilizers, paints, and other high-risk materials used for maintenance of common areas, parks, commercial areas, and multi-family residential common areas, will be kept in enclosed storage areas.</li> </ul>
S-3: Outdoor Trash Storage and Waste Handling Areas	<p>All trash containers must meet the following structural or treatment control BMP requirements:</p> <ul style="list-style-type: none"> <li>• Trash container areas must have drainage from adjoining roofs and pavement diverter around the areas.</li> <li>• Trash container areas must be screened or walled to prevent off-site transport of trash.</li> </ul>	<ul style="list-style-type: none"> <li>• All outdoor trash storage areas will be covered and isolated from stormwater runoff.</li> </ul>
S-4: Outdoor Loading/Unloading Dock Areas	<ul style="list-style-type: none"> <li>• Cover loading dock areas or design drainage to minimize run-on and runoff of stormwater</li> <li>• Direct connections to storm drains from depressed loading docks (truck wells) are prohibited</li> </ul>	<ul style="list-style-type: none"> <li>• Loading dock areas will be covered or designed to preclude run-on and runoff.</li> <li>• Direct connections to storm drains from depressed loading docks (truck wells) will be prohibited.</li> <li>• Drains or direct drainage from hydraulically isolated loading dock areas will be connected to an approved sediment/oil/water separator system connected a discharge location as determined by LACDPW. A manual emergency spill diversion valve upstream of will be provided upstream of the separator.</li> </ul>



**Table 5.6-7 (Continued)**  
**LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices**

Source Control Requirement <sup>a</sup>	Criteria/Description <sup>a</sup>	Corresponding Entrada and VCC Planning Area BMPs <sup>b</sup>
S-5: Outdoor Vehicle/Equipment Repair/Maintenance Areas	<ul style="list-style-type: none"> <li>• Repair/maintenance bays must be indoors or designed in such a way that does not allow stormwater run-on or contact with stormwater runoff.</li> <li>• Design a repair/maintenance bay drainage system to capture all wash water, leaks, and spills. Connect drains to a sump for collection and disposal. Direct connection of the repair/maintenance bays to the storm drain system is prohibited. If required by local jurisdiction, obtain an Industrial Waste Discharge Permit.</li> </ul>	<ul style="list-style-type: none"> <li>• Repair/maintenance bays will comply with the design requirements.</li> </ul>
S-6: Outdoor Vehicle/Equipment/Accessory Wash Areas	<ul style="list-style-type: none"> <li>• Self-contained and/or covered, equipped with a clarifier, or other pretreatment facility, and properly connected to a sanitary sewer.</li> </ul>	<ul style="list-style-type: none"> <li>• Areas for washing/steam cleaning of vehicles will be self-contained or covered with a roof or overhang; will be equipped with a wash racks and with the prior approval of the sewer agency; will be equipped with a clarifier or other pretreatment facility; and will be properly connected to a sanitary sewer.</li> </ul>
S-7: Fuel and Maintenance Area	<ul style="list-style-type: none"> <li>• The fuel dispensing area must be covered with an overhanging roof structure or canopy. The cover's minimum dimensions must be greater than the area within the grade break. The cover must not drain onto the fuel dispensing area, and the downspouts must be routed to prevent drainage across the fueling area.</li> <li>• The fuel dispensing area must be paved with Portland cement concrete (or equivalent smooth impervious surface). The use of asphalt concrete shall be prohibited.</li> <li>• The fuel dispensing areas must have a two percent to four percent slope to prevent ponding, and must be separated from the rest of the site by a grade break that prevents run-on of urban runoff.</li> <li>• At a minimum, the concrete fuel dispensing area must extend 6.5 feet from the corner of each fuel dispenser, or the length at which the hose and nozzle assembly may be operated plus one foot</li> </ul>	<ul style="list-style-type: none"> <li>• Fueling areas will comply with design requirements.</li> </ul>

**Table 5.6-7 (Continued)**  
**LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices**

Source Control Requirement <sup>a</sup>	Criteria/Description <sup>a</sup>	Corresponding Entrada and VCC Planning Area BMPs <sup>b</sup>
	(0.3 meter), whichever is less.	
S-8: Landscape Irrigation Practices	<ul style="list-style-type: none"> <li>• Do not allow irrigation runoff from the landscaped area to drain directly to storm drain system.</li> <li>• Minimize use of fertilizer, pesticides, and herbicides on landscaped areas.</li> <li>• Plan sites with sufficient landscaped area and dispersal capacity (e.g., ability to receive irrigation water without generating runoff).</li> <li>• Consult a landscape professional regarding appropriate plants, fertilizer, mulching applications, and irrigation requirements (if any) to ensure healthy vegetation growth.</li> </ul>	<ul style="list-style-type: none"> <li>• Native and/or non-native/non-invasive, climate appropriate vegetation will be utilized within the development.</li> <li>• Landscape watering in common areas, commercial areas, multiple family residential areas, and in parks will use efficient irrigation technology utilizing evapotranspiration sensors to minimize excess watering.</li> <li>• The use of the parcel-based LID BMPs and regional infiltration/biofiltration facilities will prevent the discharge of dry weather urban runoff from the Modified Project.</li> <li>• Landscape and irrigation system design will comply with the design requirements or approved alternatives.</li> <li>• An Integrated Pest Management (IPM) Program will be implemented for common area landscaping in commercial areas and multi-family residential areas,</li> </ul>
S-9: Building Materials Selection	<ul style="list-style-type: none"> <li>• Wood that is pressure treated with arsenate, copper, and chromium compounds may be replaced with alternative building materials.</li> <li>• Minimize or avoid the use of copper and galvanized metals on buildings and in fencing.</li> <li>• Reduce the use of pesticides around foundations through the use of alternative barriers, where feasible.</li> </ul>	<ul style="list-style-type: none"> <li>• Pressure treated wood that is treated with arsenate, copper, or chromium compounds may be replaced with alternative building materials.</li> <li>• The use of copper and galvanized metals on buildings and in fencing will be minimized or avoided.</li> <li>• The use of alternative barriers for termites will be considered.</li> </ul>
S-10: Animal Care and Handling Facilities	<ul style="list-style-type: none"> <li>• Site animal care and handling facilities away from the storm drain system and receiving waters.</li> <li>• Manage grazing to prevent impacts to receiving waters.</li> <li>• Manage horse access and horse waste to prevent pollutants from entering the storm drain system or receiving waters.</li> </ul>	<ul style="list-style-type: none"> <li>• The Modified Project does not include animal care facilities, grazing, or horse access.</li> </ul>

**Table 5.6-7 (Continued)**  
**LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices**

Source Control Requirement <sup>a</sup>	Criteria/Description <sup>a</sup>	Corresponding Entrada and VCC Planning Area BMPs <sup>b</sup>
S-11: Outdoor Horticultural Areas	<ul style="list-style-type: none"> <li>Do not allow wash water from horticulture areas to drain directly to the storm drain system or receiving waters.</li> </ul>	<ul style="list-style-type: none"> <li>Wash water from horticultural areas will not drain directly to the storm drain system or to receiving waters.</li> </ul>
<p><sup>a</sup> See LID Standards Manual, Appendix D (Source Control Measure Fact Sheets).</p> <p><sup>b</sup> These corresponding BMPs or equivalent measures will be implemented consistent with the LID Standards Manual, or a subsequent version of such Manual if adopted by the County at the time of commencement of construction.</p> <p>Source: Geosyntec, 2023.</p>		

- The Modified Project shall comply with the LARWQCB General NPDES Permit and General Waste Discharge Requirements (WDRs) (Order No. R4-2018-0125, NPDES No. CAG994004) that governs construction-related dewatering discharges within the Modified Project development areas (known as the General Dewatering Permit) or any subsequent version of this permit at the time of commencement of construction.
- Additional hydrology-related regulatory compliance measures are listed in Section 5.5, Hydrology and Water Quality—Hydrology, of this Draft SEIR.

**b. Construction Phase Controls (Best Management Practices) Implemented by the Modified Project**

As with 2017 Project, during the Modified Project's construction phase, BMPs will be implemented in compliance with the Construction General Permit and the General Dewatering Permit, as summarized in this section. In accordance with the Construction General Permit, the Modified Project would reduce or prevent erosion and sediment transport and the transport of other potential pollutants from the site through implementation of BMPs meeting Best Available Technology/Best Control Technology (BAT/BCT).<sup>8</sup> The BMPs to be implemented would be documented in the SWPPP. The

<sup>8</sup> BAT/BCT are CWA technology-based standards that are applicable to construction site stormwater discharges. Federal law specifies factors relating to the assessment of BAT, including: the age of the equipment and facilities involved; the process employed; the engineering aspects of the application of various types of control techniques; process changes; the cost of achieving effluent reduction; non-water quality environmental impacts (including energy requirements); and other factors as the Administrator deems appropriate. Source: CWA Sections 304(b)(2)(B) and 304(b)(4)(B).

following types of BMPs would generally be included in the SWPPP, and implemented as needed during construction:

- **Erosion control.** Vegetation and other materials (such as straw, fiber, stabilizing emulsion, etc.) placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.
- **Sediment control.** Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. They include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (e.g., silt fence, sediment basin, fiber rolls, etc.).
- **Waste and Materials Management.** Measures include covered storage and secondary containment for material storage areas, secondary containment for portable toilets, covered dumpsters, dedicated and lined concrete washout/waste areas, proper application of chemicals, and proper disposal of all manner of waste products, including: solid, liquid, sanitary, concrete, hazardous, and equipment-related wastes.
- **Non-Stormwater Management.** Practices designed to reduce or eliminate the addition of pollutants to construction site runoff through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, water conservation practices, vehicle and equipment cleaning and fueling practices, street sweeping, and other actions.
- **Training and Education.** Training of individuals responsible for SWPPP implementation and permit compliance, including contractors and subcontractors, would include certification through the SWRCB for Qualified SWPPP Developers and Qualified SWPPP Practitioners.
- **Inspection, Maintenance, Monitoring, and Sampling.** Includes site inspections before, during, and after storm events, implementing a Rain Event Action Plan prior to qualifying storm events, construction site monitoring plans to address leaks and spills of non-visible pollutants, and water quality sampling for turbidity and pH.

BMPs would also be implemented to protect the Modified Project Site's receiving waters from dewatering and construction-related non-stormwater discharges. Such discharges would be implemented in compliance with the General Dewatering Permit. Typical BMPs for construction dewatering include infiltration of clean groundwater; on-site treatment using suitable treatment technologies; on-site or transport off-site for sanitary sewer discharge with local sewer district approval; or use of a sedimentation bag for small volumes of localized dewatering. Please refer to Section 5.1 of the Water Quality Report for additional information, located in **Appendix 5.6**.

### **c. Post-Construction (Operational) Phase Controls (Best Management Practices) Implemented by the Modified Project**

Consistent with the State-certified EIR's analysis of the 2017 Project, the Modified Project would implement post-construction (operational) controls and BMPs to reduce impacts to water quality during operations through the project design. The Modified Project's operational controls and BMPs are summarized in this section.

#### **(1) Source Control BMPs**

The Source Control BMPs that have been incorporated into the Modified Project are consistent with the County's LID Manual and the BMPs set forth in the Newhall Ranch RMDP/SCP EIS/EIR. The Modified Project BMPs are listed in **Table 5.6-7**, LID Standards Manual Source Control Requirements and Corresponding Modified Project Best Management Practices.

#### **(2) LID Stormwater Management**

An assessment of feasibility was conducted to estimate, for the Modified Project area, which one of three BMP strategies could be applied onsite and whether the proposed sub-regional/regional infiltration/ biofiltration facilities would allow for infiltration based on analysis by RTF&A (2020). The Modified Project area was analyzed using spatial data processing for infiltration feasibility for the criteria listed below:

- Locations where seasonal high groundwater is 10 feet or more from the surface.
- Locations with no potential geotechnical hazards.
- Locations with soil infiltration rates at least 0.3 inches per hour.
- Locations with fill depths less than 10 feet.

Figure 5-2 in the Water Quality Report illustrates the proposed LID treatment control BMP drainage areas based on the feasibility screening. Collectively, the LID treatment control BMPs would treat the pollutants of concern in runoff from the Modified Project's developed area. The LID treatment control BMPs would be designed to receive dry weather flows, small storm flows, and the initial portion of large storm flows.

**Table 5.6-8**, Drainage Areas and LID Treatment Control BMPs for the Entrada South Planning Area, on page 5.6-38, summarizes the regional stormwater facilities for the Entrada South Planning Area. See also Figure 5-2 in the Water Quality Report.

**Table 5.6-8  
Drainage Areas and LID Treatment Control BMPs for the Entrada South Planning Area**

<b>Drainage Area</b>	<b>Area (acres)</b>	<b>LID BMP(s)</b>
Drainage Area B	70.8	Sub-Regional Infiltration Basin B
Drainage Area C	11.8	Sub-Regional Infiltration Basin C
Drainage Area D	118.9	Regional Biofiltration Basin D
Drainage Area PB	49.1	Parcel-based Biofiltration BMPs
Drainage Area ROW 1	0.8	Right-of-Way LID BMPs
Drainage Area ROW 2	1.7	Right-of-Way LID BMPs
<hr/> <i>ac-ft = acre-feet</i> <i>ft = feet</i> <i>Source: Geosyntec, 2023 (see Table 5-3 in the Water Quality Report, included as <b>Appendix 5.6</b> of this SEIR).</i>		

The proposed LID treatment control BMPs for Entrada South are described below:

- **Parcel-Based Infiltration BMPs:** Parcel-based infiltration BMPs include bioretention (without an underdrain), permeable pavement, infiltration galleries (Figure 5-5), infiltration basins or trenches, or an equivalent infiltration BMP.
- **Parcel-Based Bioinfiltration BMPs:** Parcel-based bioinfiltration BMPs include bioretention (with an elevated underdrain), vegetated swales (with combined retention and treatment mechanisms), and other BMPs that are designed to retain a portion of the runoff from the LID design storm, then biofilter the remaining runoff from the design storm.
- **Parcel-Based Biofiltration BMPs:** Parcel-based biofiltration BMPs provide for pollutant removal (e.g., filtration, adsorption, nutrient uptake) by filtering stormwater through the vegetation and soils. These BMPs include bioretention with underdrains and planter boxes. In these BMPs, pore spaces and organic material in the soils help to retain water in the form of soil moisture, promoting the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants utilize soil moisture and promote the drying of the soil through evapotranspiration.
- **Right-of-Way LID BMPs:** Right-of-way (ROW) LID, also considered Green Streets BMPs, are retention or biofiltration BMPs sized to capture the design storm volume or flow, per the guidance in USEPA's Managing Wet Weather with

Green Infrastructure: Green Streets. They may include bioretention, bioretention with underdrains, vegetated swales, or filter strips.

- **Sub-Regional/Regional Infiltration/Biofiltration Facilities:** Sub-regional (treats drainage from multiple parcels within the tract map) and regional (treats drainage from more than one tract map) infiltration/biofiltration facilities would be designed to incorporate a biofilter in the bottom of a regional basin, allowing for infiltration if feasible, with detention storage above the biofilter. The regional facilities would infiltrate the SWQDv and provide 80 percent capture of the average annual runoff volume per the LID performance standard. The sub-regional facilities located within the Modified Project tract map are proposed as follows:

The Sub-Regional/Regional Infiltration/Biofiltration facilities would provide a combination of volume reduction for the SWQDv and treatment of 80 percent of the average annual runoff volume. Volume reduction would be provided via infiltration below the lowest surface discharge of the facility and via water retained in soil pores. In biofiltration media, sediment and sediment-bound pollutants are removed by filtration. Pore spaces and organic material in the soils help to retain water in the form of soil moisture and to promote the adsorption of pollutants (e.g., dissolved metals and petroleum hydrocarbons) into the soil matrix. Plants utilize soil moisture and promote the drying of the soil. Extended detention would provide pollutant removal through settling and biological uptake of nutrients and dissolved pollutants within the vegetation that would grow within the facilities.

The VCC Planning Area proposes parcel-based and ROW biofiltration facilities. During the design of the final improvement plan, testing will be conducted at the location of the proposed facilities to determine reliable infiltration rates and confirm the selection of BMP type. Use of infiltration and bioinfiltration facilities may be possible if the in-situ infiltration rate supports the selection and there is no other geotechnical or groundwater mounding concern at the proposed locations. Final sizing calculations will be prepared as part of final parcel improvement plans. For Franklin Parkway and Hancock Parkway, LID BMPs within the public right-of-way (ROW) will be implemented. ROW LID BMPs will consist of infiltration, bioinfiltration, or biofiltration BMPs based on site-specific feasibility screening conducted as part of final street improvement plans. The final parcel improvement plans will ensure that no matter which BMP type is used, the SWQDy will be infiltrated and the requirements of County Code Chapter 12.84 will be met. These biofiltration areas are shown in Figure 5-12 in the Water Quality Report.

### (3) Hydromodification Control BMPs

#### (a) *Entrada South Planning Area*

Post-development flows will be directed to the Santa Clara River after treatment, no flows will be directed to natural onsite tributaries. A series of progressive hydromodification control measures will be used in the Modified Project to prevent and control hydromodification impacts to the Santa Clara River including:

- Preserve natural hydrologic conditions and protecting sensitive hydrologic features, sediment sources, and sensitive habitats to the extent possible.
- Minimize the effects of development through site design practices (e.g., reducing connected impervious surfaces) and implementation of stormwater volume-reducing LID BMPs (Modified Project-based hydrologic source control).

In addition, energy dissipation at storm drain outfalls would provide erosion protection in areas where discharges have the potential to cause localized stream erosion. Energy dissipation will be provided at all storm drain outlets to the Santa Clara River.

The proposed BMPs, as described in the *Drainage Concept Report for Entrada South (Tract 53295)*, included in **Appendix 5.5a** of this SEIR, are designed to decrease the potential of slopes and/or channels from eroding and impacting stormwater runoff. Further, the selected BMPs include retention and biofiltration BMPS that would minimize increases in runoff volume from the development area.

#### (b) *VCC Planning Area*

Castaic Creek and Hasley Creek are not susceptible to hydromodification impacts (see Section 6.b.(2) below). A series of progressive hydromodification control measures will be used in the Modified Project to prevent and control hydromodification impacts to the Castaic Creek and to Hasley Creek:

- Preserve natural hydrologic conditions and protecting sensitive hydrologic features, sediment sources, and sensitive habitats to the extent possible.
- Minimize the effects of development through site design practices (e.g., reducing connected impervious surfaces) and implementation of stormwater volume-reducing LID BMPs (Modified Project-based hydrologic source control).

In addition, energy dissipation at storm drain outfalls would provide erosion protection in areas where discharges may cause localized stream erosion. Energy dissipation will be provided at all storm drain outlets to Castaic Creek and Hasley Creek.



#### **(4) BMP Operation and Maintenance**

Depending on the type and location of each LID or treatment BMP control measure, either the County, a Landscape or Local Maintenance District, Geologic Hazard Abatement District, Homeowners Association (HOA), or other similar government or quasi-government agency will be responsible for operation and maintenance of regional BMPs. The HOA or commercial/business owners would be responsible for operation and maintenance of parcel-based BMPs, such as bioretention placed in common area landscaping or parking lot islands, including those on HOA property within multi-family housing areas. Operation and maintenance activities would be conducted in compliance with maintenance requirements established in the County of Los Angeles, Department of Public Works, Stormwater Best Management Practice Design and Maintenance Manual.<sup>9</sup> Homeowners would be responsible for maintenance of hydrologic source controls on single-family residential properties.

#### **5. THRESHOLDS OF SIGNIFICANCE**

Based on Appendix G of the CEQA Guidelines and other relevant criteria, the Los Angeles County Department of Regional Planning has determined that a project would have a potentially significant impact related to water quality based on the following criteria:

***Threshold 5.6-1: Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality?***

***Threshold 5.6-2: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site?***

***Threshold 5.6-3: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

***Threshold 5.6-4: Would the project conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?***

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<sup>9</sup> County of Los Angeles, Department of Public Works, Stormwater Best Management Practice Design and Maintenance Manual, May 2009.

***Threshold 5.6-5: Would the project use onsite wastewater treatment systems in areas with known geological limitations (e.g., high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course)?***

***Threshold 5.6-6: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?***

As evaluated in the Initial Study (see **Appendix 1** of this SEIR), the Modified Project would not result in new or substantially more severe significant impacts than the 2017 Project with respect to on-site wastewater treatment systems in areas with known geological limitations (e.g., high groundwater) or in close proximity to surface water (including, but not limited to, streams, lakes, and drainage course) per Threshold 5.6-5, nor would it result in new or more severe significant impacts than the 2017 Project with respect to the release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones per Threshold 5.6-6. Accordingly, the Initial Study analysis concluded no further analysis of these issues is required. Please refer to the Initial Study for this discussion related to Thresholds 5.6-5 and 5.6-6. As such, Thresholds 5.6-5 and 5.6-6 are not analyzed any further in this SEIR section.

## **6. ENVIRONMENTAL IMPACTS OF THE MODIFIED PROJECT**

### **a. Methodology**

Project impacts with respect to Thresholds 5.6-1 through 5.6-4 all relate to surface and groundwater quality, and, therefore, are addressed in the following combined analysis. Impacts associated with construction-related activities are addressed first, followed by analysis of post-construction, or operational, impacts.

Since the State-certified EIR was approved, the land planning for the Entrada South and VCC Planning Areas has been completed. A summary of the Modified Project refinements to the 2017 Project is shown in **Table 3.0-1**, Summary of 2017 Project and Modified Project Development.

Two Low-Impact Development reports have been developed and submitted for review by Los Angeles County, based on the Modified Project plans. These reports describe stormwater BMPs.<sup>10</sup> In addition, as set forth in the Water Quality Report,<sup>11</sup> water

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<sup>10</sup> Refer to Volume II of the Drainage Concept Report for Entrada South (Tract 53295) and Volume II of the Drainage Concept Report for Valencia Commerce Center (VTPM 18108), both of which are included as part of **Appendix 5.5** of this SEIR.

quality computer modeling for both the Entrada South and VCC Planning Areas was performed to estimate increases or decreases of concentrations of pollutants of concern discharging into the Santa Clara River as a result of implementation of the Modified Project. These results were then compared with existing concentrations found in the Santa Clara River through on-going sampling efforts, and were compared with federal and state standards as applicable. This modeling is based on the current land plans prepared for the Modified Project. Modeling software was employed in order to assess and predict the environmental impact of the post-construction conditions of the Projects. The modeling program used to perform the analysis is the USEPA Storm Water Management Model (SWMM). SWMM is a dynamic rainfall-runoff simulation model used for single event or long-term (continuous) simulation of runoff quantity and quality from primarily urban areas. The runoff component of SWMM operates on a collection of sub-catchment areas that receive precipitation and generate runoff and pollutant loads.

#### **b. Project Impacts**

***Threshold 5.6-1: Would the project violate any water quality standards or waste discharge requirements, or otherwise substantially degrade surface or groundwater quality?***

***Threshold 5.6-2: Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or through the addition of impervious surfaces, in a manner which would result in a substantial erosion or siltation on- or off-site?***

***Threshold 5.6-3: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?***

***Threshold 5.6-4: Would the project conflict with the Los Angeles County Low Impact Development Ordinance (L.A. County Code, Title 12, Ch. 12.84 and Title 22, Ch. 22.52)?***

As discussed above, potential Modified Project impacts with respect to Thresholds 5.6-1 through 5.6-4 all relate to surface and groundwater quality, and, therefore, are addressed in the following combined analysis.

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<sup>11</sup> Please refer to **Appendix 5.6, Water Quality Report**, of this SEIR for additional information methodology and water quality impact analysis.

## (1) Construction

The Modified Project would result in a net reduction of approximately 3,187 square feet of total development in comparison to the State-certified EIR. The Modified Project's construction activities, like the 2017 Project, would result in the temporary disturbance of surface soils and removal of vegetative cover, potentially causing temporary sediment mobilization in a manner that would result in substantial erosion or siltation. In addition, during construction, other temporary potential pollutants, such as paint, asphalt, or other compounds could become mobilized by wind or rain events. As with the 2017 Project, the Modified Project may also require grading activities below the groundwater table that would require temporary construction dewatering activities to dispose of excess groundwater.

Consistent with the State-certified EIR's analysis of the 2017 Project, during the Modified Project's construction phase, BMPs would be implemented in compliance with the Construction General Permit and the General Dewatering Permit. In accordance with the Construction General Permit, the Modified Project would reduce or prevent erosion and sediment transport, and the transport of other potential pollutants from the site through implementation of BMPs meeting BAT/BCT. The BMPs to be implemented would be documented in a SWPPP, which will be filed with the SWRCB, and would receive a Notice of Intent (NOI) before commencement of construction activities. As discussed above, the following types of BMPs generally would be included in the SWPPP and implemented as-needed during construction:

- **Erosion control.** Vegetation and other materials (such as straw, fiber, stabilizing emulsion, etc.) placed to stabilize areas of disturbed soils, reduce loss of soil due to the action of water or wind, and prevent water pollution.
- **Sediment control.** Practices that trap soil particles after they have been eroded by rain, flowing water, or wind. They include those practices that intercept and slow or detain the flow of storm water to allow sediment to settle and be trapped (e.g., silt fence, sediment basin, fiber rolls, etc.).
- **Waste and Materials Management.** Measures include covered storage and secondary containment for material storage areas, secondary containment for portable toilets, covered dumpsters, dedicated and lined concrete washout/waste areas, proper application of chemicals, and proper disposal of all manner of waste products, including: solid, liquid, sanitary, concrete, hazardous, and equipment-related wastes.
- **Non-Stormwater Management.** Practices designed to reduce or eliminate the addition of pollutants to construction site runoff through analysis of pollutant sources, implementation of proper handling/disposal practices, employee education, water conservation practices, vehicle and equipment cleaning and fueling practices, street sweeping, and other actions.

- **Training and Education.** Training of individuals responsible for SWPPP implementation and permit compliance, including contractors and subcontractors, would include certification through the SWRCB for Qualified SWPPP Developers and Qualified SWPPP Practitioners.
- **Inspection, Maintenance, Monitoring, and Sampling.** Includes site inspections before, during, and after storm events, implementing a Rain Event Action Plan prior to qualifying storm events, construction site monitoring plans to address leaks and spills of non-visible pollutants, and water quality sampling for turbidity and pH.

Consistent with the State-certified EIR's analysis of the 2017 Project, BMPs would also be implemented to protect the Modified Project Site's receiving waters from dewatering and construction-related non-stormwater discharges. Such BMPs and non-stormwater discharges would be implemented in compliance with the General Dewatering Permit. Typical BMPs for construction dewatering include infiltration of clean groundwater; on-site treatment using suitable treatment technologies; on-site or transport off-site for sanitary sewer discharge with local sewer district approval; or use of a sedimentation bag for small volumes of localized dewatering. Construction activities would involve the use of hazardous materials, including fuel (both gasoline and diesel), oils, solvents, and transmission fluids. All storage, handling, and disposal of these materials must comply with the regulations for handling, storage, spill control, and disposal described in Section 5.4, *Hazards and Hazardous Materials*.

Like the 2017 Project, Construction General Permit and Dewatering General Permit-compliant BMPs would be incorporated into the Modified Project to address pollutants of concern in the construction phase.

Accordingly, the Modified Project would not result in any changes to the State-certified EIR's significance determinations for surface water quality impacts during construction, and the Modified Project's would not result in any new or substantially more severe significant impacts related to construction runoff under Thresholds 5.6-1, 5.6-2, 5.6-3, and 5.6-4.

## **(2) Post-Construction (Operation)**

### **(a) Surface Water Quality**

The Modified Project would reduce the total number of residential units constructed in Entrada South by 151 units (1,725 units to 1,574 units; i.e., 3,235,100 square feet of residential to 2,951,913 square feet of residential). The Modified Project would also increase the non-residential square footage by 280,000 square feet (450,000 square feet to 730,000 square feet). This equates to a net reduction of approximately 3,187 square feet

of total development in comparison to the State-certified EIR. In order to demonstrate that the Modified Project would not have an adverse effect on downstream receiving waters compared to the 2017 Project, water quality computer modeling was performed for both the Entrada South and VCC Planning Areas to estimate increases or decreases of concentrations of pollutants of concern discharging into the Santa Clara River as a result of implementation of the Modified Project. These results were then compared with existing concentrations found in the Santa Clara River through on-going sampling efforts, federal and state standards, and the State-certified EIR's analysis, as applicable. This modeling is based on the current land plans prepared for the Modified Project, and can be found in Section 7 of the Water Quality Report.

Like the 2017 Project, MS4 Permit-compliant site design, source control, and hydromodification control BMPs would be implemented to address pollutants of concern in the developed condition. These proposed Regional MS4 Permit-compliant BMPs, which would be more effective than the BMPs previously analyzed in the State-certified EIR, would be incorporated into the Modified Project to address all the pollutants of concern, and to provide hydromodification source control, as required by the Regional MS4 Permit. A summary of the surface water quality pollutants of concern is provided below.

***(i) Entrada South Planning Area Impact Assessment for Modeled  
Pollutants of Concern and Comparison with Water Quality Criteria***

**Comparison of Pre- and Post-Project Conditions**

As with the analysis conducted for the State-certified EIR, a water quality model was used to estimate pollutant loads and concentrations in Modified Project stormwater runoff for certain pollutants of concern for pre- and post-development conditions. The water quality model is one of the few models that takes into account the observed variability in stormwater hydrology and water quality. This is accomplished by characterizing the probability distribution of observed rainfall event depths, the probability distribution of event mean concentrations, and the probability distribution of the number of storm events per year. These distributions are then sampled randomly using a Monte Carlo approach to develop estimates of mean annual loads and concentrations.

The State-certified EIR determined that all concentrations of modeled pollutants in predicted runoff would be below benchmark criteria, thereby resulting in less than significant impacts with regulatory compliance and implementation of BMPs and mitigation. For this analysis, the results of the water quality modeling are compared with the existing water quality sampling results in the Santa Clara River, the Los Angeles Basin Plan Water Quality objectives, and the CTR. As shown in **Table 5.6-9**, Entrada South Planning Area Non-Metals Modeling Results and Water Quality Benchmarks, on page 5.6-47, the estimated average annual total suspended solids (TSS), nutrients, and chloride

**Table 5.6-9  
Entrada South Planning Area Non-Metals Modeling Results and Water Quality Benchmarks**

<b>Pollutant</b>	<b>Modified Project Estimated Developed Conditions with BMPs (mg/L)</b>	<b>State-certified EIR: 2017 Project Estimated Developed Conditions with BMPs (mg/L)</b>	<b>Basin Plan Water Quality Objectives (mg/L)<sup>a</sup></b>	<b>Range of Observed<sup>b</sup> Concentrations in Santa Clara River Reach 5 (mg/L)</b>	<b>Average Wet Weather<sup>b</sup> Concentration in Santa Clara River Reach 5 (µg/L)</b>	<b>New or Substantially More Severe Significant Impact?</b>
TSS	35	42	Water shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses.	<0.5-43,400	1,660	No. Consistent with the 2017 Project, concentration of TSS is predicted to remain below all benchmark criteria.
Total Phosphorus	0.2	0.23	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent such growth causes nuisance or adversely affects beneficial uses.	0.43 – 28	3.1	No. Consistent with the 2017 Project, concentration of Total Phosphorus is predicted to remain below all benchmark criteria.
Nitrate-N + Nitrite-N	0.7	0.6	5	<0.004–4.8 <sup>c</sup>	1.4 <sup>c</sup>	No. Consistent with the 2017 Project, concentration of Nitrate-N + Nitrite-N is predicted to remain below all benchmark criteria.
Ammonia-N	0.2	0.41	2.24 <sup>d</sup>	<0.005–4.9	0.3	No. Consistent with the 2017 Project, concentration of Ammonia-N is predicted to remain below all benchmark criteria.

**Table 5.6-9 (Continued)**  
**Entrada South Planning Area Non-Metals Modeling Results and Water Quality Benchmarks**

<b>Pollutant</b>	<b>Modified Project Estimated Developed Conditions with BMPs (mg/L)</b>	<b>State-certified EIR: 2017 Project Estimated Developed Conditions with BMPs (mg/L)</b>	<b>Basin Plan Water Quality Objectives (mg/L)<sup>a</sup></b>	<b>Range of Observed Concentrations in Santa Clara River Reach 5 (mg/L)</b>	<b>Average Wet Weather Concentration in Santa Clara River Reach 5 (µg/L)</b>	<b>New or Substantially More Severe Significant Impact?</b>
Total Nitrogen	2.1	2.1	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent such growth causes nuisance or adversely affects beneficial uses.	<0.04–86 <sup>e</sup>	=3.8 <sup>e</sup>	No. Consistent with the 2017 Project, concentration of Ammonia-N is predicted to remain below all benchmark criteria.
Chloride	29	17	100	2.6–150	54	No. Consistent with the 2017 Project, concentration of Ammonia-N is predicted to remain below all benchmark criteria.
<p><sup>a</sup> There are no CTR criteria for TSS, total phosphorus, nitrogen compounds, or chloride.</p> <p><sup>b</sup> Range and average of concentration historically observed in the Santa Clara River Reach 5 during wet weather from 2002 to 2019.</p> <p><sup>c</sup> Observed value for nitrate-N,</p> <p><sup>d</sup> Four-day average, ELS present, 90<sup>th</sup> percentile pH and temperature pairing.</p> <p><sup>e</sup> Observed values for TKN (ammonia plus organic nitrogen).</p> <p>Source: Geosyntec 2023.</p>						

concentrations in stormwater runoff from the modeled Entrada South Planning Area are compared with water quality criteria and the 2017 Project. As shown in **Table 5.6-10**, Entrada South Planning Area Metals Modeling Results and Water Quality Benchmarks, on page 5.6-49, consistent with the State-certified EIR analysis, all concentrations for the Modified Project are predicted to be below all benchmark criteria and within the range of concentrations observed in Santa Clara River Reach 5.



**Table 5.6-10  
Entrada South Planning Area Metals Modeling Results and Water Quality Benchmarks**

<b>Metal</b>	<b>Modified Project Predicted Average Annual Concentration (µg/L)</b>	<b>State-certified EIR: 2017 Project Predicted Average Annual Concentration (µg/L)</b>	<b>CTR Criteria<sup>a</sup> (µg/L)</b>	<b>Range of Observed<sup>b</sup> Concentrations in Santa Clara River Reach 5 (µg/L)</b>	<b>Average Wet Weather<sup>b</sup> Concentration in Santa Clara River Reach 5 (µg/L)</b>	<b>New or Substantially Severe Significant Impact?</b>
Dissolved Copper	7	8	34	<0.036–85.4	7.8	No. Consistent with the 2017 Project, concentration of Dissolved Copper is predicted to remain below all benchmark criteria.
Total Lead	2.7	5.2	280	<0.01 – 370	27.6	No. Consistent with the 2017 Project, concentration of Total Lead is predicted to remain below all benchmark criteria.
Dissolved Zinc	36	39	270	<0.1–437	32.1	No. Consistent with the 2017 Project, concentration of Dissolved Zinc is predicted to remain below all benchmark criteria.

<sup>a</sup> CTR criteria are for hardness = 264mg/L, based on the historical average observed value at in Santa Clara River Reach 5 in wet weather. Lead criteria is for total recoverable lead.

<sup>b</sup> Range and average concentrations historically observed in the Santa Clara during wet weather from 2002 to 2019.

Source: Geosyntec, 2023 (see Table 7-4 in the Water Quality Report).

A comparison of the estimated runoff metal concentrations for the Entrada South Planning Area and the acute CTR criteria for dissolved copper, total lead, and dissolved zinc, is shown in **Table 5.6-10**, Entrada South Planning Area Metals Modeling Results and Water Quality Benchmarks. Consistent with the State-certified EIR, the comparison of the post-developed Modified Project with BMPs condition to the benchmark CTR values shows that all the trace metal concentrations are predicted to be below the benchmark CTR criteria and within the range of observed concentrations in Santa Clara River Reach 5.

The BMPs selected are consistent with the terms and content of both the Specific Plan Sub-Regional SWMP and the Regional MS4 Permit, and would not conflict with the County's LID ordinance nor with a water quality control plan or sustainable groundwater management plan. In addition, RMDP/SCP WQ-1 would be implemented, requiring the preparation of a LID Plan that specifically identifies the BMPs to be used on site. The LID Plan will be submitted to the County for review and approval. The LID Plan will identify, at a minimum: (1) site design BMPs (as appropriate); (2) the source control BMPs; (3) treatment control BMPs; (4) hydromodification control BMPs; and (5) the mechanism(s) by which the long-term operation and maintenance of all structural BMPs would be provided.

Therefore, with regulatory compliance and implementation of treatment via BMPs and in accordance with RMDP/SCP-WQ-1 there will be no new or substantially more severe significant impacts compared to the 2017 Project associated with TSS, nutrients, chloride, and trace metals from the development of the Entrada South Planning Area for the Modified Project.

***(ii) VCC Planning Area Impact Assessment for Modeled Pollutants of Concern and Comparison with Water Quality Benchmarks***

**Comparison of Pre- and Post-Project Conditions**

The State-certified EIR determined that prior to the implementation of BMPs and mitigation, the 2017 Project resulted in potentially significant impacts related to concentration of modeled pollutants in predicted runoff. However, the State-certified EIR determined that with regulatory compliance and implementation of BMPs and mitigation, all concentrations of modeled pollutants in predicted runoff would be below benchmark criteria, thereby resulting in less than significant impacts. For this analysis, the results of the water quality modeling for the VCC Planning Area of the Modified Project are compared with the 2017 Project water quality sampling results in the Santa Clara River, the Los Angeles Basin Plan Water Quality objectives, and the CTR. As shown in **Table 5.6-11, VCC Non-Metals Modelling Results and Water Quality Benchmarks**, on page 5.6-51, the estimated average annual TSS, nutrient, and chloride concentrations in stormwater runoff from the total modeled VCC Planning Area are compared with water quality criteria and the 2017 Project. As with the State-certified EIR analysis, concentrations of TSS, nutrients, and chloride for the VCC Planning Area of the Modified Project are predicted to be below all benchmark criteria and within the range of concentrations observed in Santa Clara River Reach 5.

**Table 5.6-11  
VCC Non-Metals Modelling Results and Water Quality Benchmarks**

<b>Pollutant</b>	<b>Modified Project Estimated Developed Conditions w/BMPs (mg/L)</b>	<b>State-certified EIR: 2017 Project Estimated Developed Conditions with BMPs (mg/L)</b>	<b>Basin Plan Water Quality Objectives<sup>a</sup> (mg/L)</b>	<b>Range of Observed<sup>b</sup> Concentrations in Santa Clara River Reach 5 (mg/L)</b>	<b>Average Wet Weather<sup>b</sup> Concentration in Santa Clara River Reach 5 (µg/L)</b>	<b>New or Substantially More Severe Significant Impact?</b>
TSS	38	37	Water shall not contain suspended or settleable material in concentrations that cause nuisance or adversely affect beneficial uses.	<0.5–43,400	1,660	No. Consistent with the 2017 Project, concentration of TSS is predicted to remain below all benchmark criteria.
Total Phosphorus	0.3	0.36	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent such growth causes nuisance or adversely affects beneficial uses.	0.43–28	3.1	No. Consistent with the 2017 Project, concentration of Total Phosphorus is predicted to remain below all benchmark criteria.
Nitrate-N + Nitrite-N	0.6	0.4	5	<0.004–4.8 <sup>c</sup>	1.4 <sup>c</sup>	No. Consistent with the 2017 Project, concentration of Nitrate-N + Nitrite-N is predicted to remain below all benchmark criteria.
Ammonia-N	0.3	0.89	2.24 <sup>d</sup>	<0.005–4.9	0.3	No. Consistent with the 2017 Project, concentration of Ammonia-N is predicted to remain below all benchmark criteria.

**Table 5.6-11 (Continued)**  
**VCC Non-Metals Modelling Results and Water Quality Benchmarks**

Pollutant	Modified Project Estimated Developed Conditions w/BMPs (mg/L)	State-certified EIR: 2017 Project Estimated Developed Conditions with BMPs (mg/L)	Basin Plan Water Quality Objectives <sup>a</sup> (mg/L)	Range of Observed <sup>b</sup> Concentrations in Santa Clara River Reach 5 (mg/L)	Average Wet Weather <sup>b</sup> Concentration in Santa Clara River Reach 5 (µg/L)	New or Substantially More Severe Significant Impact?
Total Nitrogen	2.1	2	Waters shall not contain biostimulatory substances in concentrations that promote aquatic growth to the extent such growth causes nuisance or adversely affects beneficial uses.	<0.04–86 <sup>e</sup>	3.8 <sup>e</sup>	No. Consistent with the 2017 Project, concentration of Total Nitrogen is predicted to remain below all benchmark criteria.
Chloride	44	43	100	2.6–150	54	No. Consistent with the 2017 Project, concentration of Chloride is predicted to remain below all benchmark criteria.

<sup>a</sup> There are no CTR criteria for TSS, total phosphorus, nitrogen compounds, or chloride.

<sup>b</sup> Range and average of concentration historically observed in the Santa Clara River Reach 5 during wet weather from 2002 to 2019.

<sup>c</sup> Observed value for nitrate-N,

<sup>d</sup> Four-day average, ELS present, 90th percentile pH and temperature pairing.

<sup>e</sup> Observed values for TKN (ammonia plus organic nitrogen).

Source: Geosyntec, 2023 (see Table 7-7 in the Water Quality Report, included as **Appendix 5.6** of this SEIR).

Comparison of the estimated runoff metal concentrations for the VCC Planning Area for the Modified Project and the 2017 Project and the acute CTR criteria for dissolved copper, total lead, and dissolved zinc is shown in **Table 5.6-12**, VCC Metals Modeling Results and Water Quality Benchmarks, on page 5.6-53. The comparison of the post-developed Modified Project with BMPs condition to the benchmark CTR values shows that all the trace metal concentrations are predicted to be below the benchmark CTR

**Table 5.6-12  
VCC Metals Modeling Results and Water Quality Benchmarks**

<b>Metal</b>	<b>Predicted Average Annual Concentration (µg/L)</b>	<b>State-certified EIR: 2017 Project Predicted Average Annual Concentration (µg/L)</b>	<b>CTR Criteria<sup>a</sup> (µg/L)</b>	<b>Range of Observed<sup>b</sup> Concentrations in Santa Clara River Reach 5 (µg/L)</b>	<b>Average Wet Weather<sup>b</sup> Concentration in Santa Clara River Reach 5 (µg/L)</b>	<b>New or Substantially More Severe Significant Impact?</b>
Dissolved Copper	9	7	34	<0.036–85.4	7.8	No. Consistent with the 2017 Project, concentration of Dissolved Copper is predicted to remain below all benchmark criteria.
Total Lead	4	4.9	280	<0.01–370	27.6	No. Consistent with the 2017 Project, concentration of Total Lead is predicted to remain below all benchmark criteria.
Dissolved Zinc	44	57	270	<0.1–437	32.1	No. Consistent with the 2017 Project, concentration of Dissolved Zinc is predicted to remain below all benchmark criteria.

<sup>a</sup> CTR criteria are for hardness = 264mg/L, based on the historical average observed value at in Santa Clara River Rech 5 in wet weather. Lead criteria is for total recoverable lead.

<sup>b</sup> Range and average concentrations historically observed in the Santa Clara River during wet weather from 2002 to 2019.

Source: Geosyntec, 2023.

criteria, consistent with the 2017 Project. Estimated concentrations of trace metals are within the range of observed concentrations in Santa Clara River Reach 5.

The Water Quality Report concluded that BMPs selected are consistent with the terms and content of both the Specific Plan Sub-Regional SWMP and the Regional MS4 Permit, and would not conflict with the County's LID ordinance nor with a water quality control plan or sustainable groundwater management plan. In addition, RMDP/SCP-WQ-1

would be implemented, requiring the preparation of a LID Plan that specifically identifies the BMPs to be used on site. The LID Plan will be submitted to the County for review. The LID Plan will identify, at a minimum: (1) site design BMPs (as appropriate); (2) the source control BMPs; (3) treatment control BMPs; (4) hydromodification control BMPs; and (5) the mechanism(s) by which the long-term operation and maintenance of all structural BMPs would be provided. After treatment via BMPs in accordance with RMDP/SCP-WQ-1, there will be no new or substantially more severe significant impacts associated with TSS, nutrients, chloride, and trace metals from the development of VCC for the Modified Project.

***(iii) Impact Assessment for Pollutants and Basin Plan Criteria  
Addressed Without Modeling***

***Herbicides and Pesticides***

The State-certified EIR concluded that impacts associated with downstream water quality could be mitigated to less-than-significant levels, by implementation of a Landscape and Integrated Pest Management Plan prior to issuance of a building permit, and as a part of the design level hydrology study and facilities plan. In accordance with RMDP/SCP-WQ-2, a Landscape and Integrated Pest Management Plan will be developed and implemented for common area landscaping within the Entrada South and VCC Planning Areas that addresses integrated pest management (IPM) and pesticide and fertilizer application guidelines. IPM is a strategy that focuses on long-term prevention or suppression of pest problems (i.e., insects, diseases and weeds) through a combination of techniques including: using pest-resistant plants; biological controls; cultural practices; habitat modification (Techniques 1–6 below); and the limited use of pesticides according to treatment thresholds, when monitoring indicates pesticides are needed because pest populations exceed established thresholds (Technique 7). The Landscape and Integrated Pest Management Plan will address the following components.

1. Pest identification;
2. Practices to prevent pest incidence and reduce pest buildup;
3. Monitoring to examine vegetation and surrounding areas for pests, to evaluate trends, and to identify when controls are needed;
4. Establishment of action thresholds that trigger control actions;
5. Pest control methods—cultural, mechanical, environmental, biological, and appropriate pesticides;
6. Fertilizer management—soil assessment, fertilizer types, application methods, and storage and handling; and

7. Pesticide management—safety (e.g., Material Safety Data Sheets, precautionary statements, protective equipment); regulatory requirements; spill mitigation; groundwater and surface water protection measures associated with pesticide use; and pesticide applicator certifications, licenses, and training (i.e., all pesticide applicators must be certified by the California Department of Pesticide Regulation).

As the Entrada South and VCC Planning Areas fall within the same disturbance footprints analyzed in the State-certified EIR and reflect the same general scope and intensity of development, including land use types, similar floor area,<sup>12</sup> and associated impervious areas, with implementation of RMDP/SCP-WQ-2, the Modified Project would not result in new or substantially more severe significant impacts related to pesticides and herbicides as compared to those identified in the State-certified EIR for the 2017 Project.

### **(b) Groundwater Quality**

Discharge from the Modified Project's developed areas to groundwater could occur in three ways: (1) general infiltration of irrigation water; (2) infiltration of urban runoff in the proposed LID BMPs after treatment; and (3) infiltration of urban runoff, after treatment in the project BMPs, in the Santa Clara River, which is the primary recharge zone for groundwater in the Modified Project area. However, groundwater quality would be fully protected through implementation of WQ-1 and the Modified Project's site design, source control, LID, and treatment control BMPs discussed above prior to discharge of runoff to groundwater.

As discussed in the State-certified EIR on pages 4.4-138, the quality of stormwater runoff discharges from the Modified Project's developed areas and irrigation to groundwater will not contribute loads or concentrations of pollutants of concern that would be expected to cause or contribute to a violation of the groundwater quality standards.

Consistent with the State-certified EIR's analysis, the Modified Project groundwater recharge was calculated as a combination of three sources: (1) precipitation on pervious areas; (2) LID treatment control BMP infiltration; and (3) irrigation. Precipitation-based recharge from pervious Modified Project areas was estimated as 25 percent of the pervious area infiltration estimated in the water quality model results. LID treatment control BMP recharge was estimated as the difference between the model results for the developed condition with BMPs and the developed condition without BMPs. This difference is the

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<sup>12</sup> As stated above, the reduced number of the total residential units constructed in Entrada South results in a net reduction of 3,187 square feet of total development in comparison to the State-certified EIR.

average annual amount assumed to be captured and retained by the BMP. All retained volume in the BMPs is assumed to be recharged. For the Entrada South portion of the Modified Project, this value is 56 AFY. Since Valencia Commerce Center was modeled with lined parcel-based BMPs, the average annual recharge volume is 0 AFY. Irrigation recharge was estimated based on the total area in each land use category, multiplied by the estimated recharge in inches per acre of irrigated land use type.

The results of the recharge analysis for existing and developed conditions, calculated as the sum of the three recharge sub-totals is provided in **Table 5.6-13**, Entrada South Average Annual Groundwater Recharge, on page 5.6-57 for the Entrada South and VCC planning areas.

The recharge of precipitation is predicted to decrease in the developed condition by 100 AFY due to the increase in impervious area as a result of Modified Project development. The predicted increase in recharge due to infiltration of stormwater runoff in the LID BMPs (56 AFY) partially offsets the predicted decrease in precipitation recharge. Recharge associated with irrigation of landscaped areas is predicted to increase by 47 AFY. Overall, based on this analysis, the Modified Project would increase groundwater recharge by 3 AFY.

Therefore, the Modified Project would not result in any new or substantially more severe significant impacts as compared to the State-certified EIR for the 2017 Project.

### ***(c) Hydromodification***

Consistent with the analysis in the State-certified EIR, the Entrada South Planning Area would discharge into the Santa Clara River through a series of non-erodible concrete channels and storm drain systems. Because flows in the Santa Clara River exceed 25,000 cfs, the majority of the Planning Area is exempt from hydromodification requirements, based on the criteria presented in Section 8.2 of the County's 2014 LID Standards Manual. Any portions of the Modified Project which cannot drain directly into the Santa Clara River in a non-erodible conveyance system, would be subject to hydromodification requirements set forth in the LID Ordinance. Lastly, the Unnamed Canyon 2 drainage would also be enhanced as a natural, open, vegetated drainage channel with grade control structures which would mitigate existing hydromodification issues associated with the channel. Therefore, Impacts associated with hydromodification are considered to be negligible for the Entrada South component of the Modified Project and the Modified Project would not result in any new or substantially more severe significant impacts as compared to the State-certified EIR for the 2017 Project.



**Table 5.6-13  
Entrada South Average Annual Groundwater Recharge**

Average Annual Recharge Estimate	Entrada South		VCC	
	Existing (AFY)	Developed (AFY)	Existing (AFY)	Developed (AFY)
	130	73	120	77
LID BMP Recharge	0	56	0	0
Irrigation Recharge	0	37	0	10
<b>Total Recharge</b>	130	166	120	87

*Source: Geosyntec, 2023.*

As discussed above, the following hydromodification requirements would apply to the VCC Planning Area:

Castaic Creek and Hasley Creek are not susceptible to hydromodification impacts (see Section 6.b.(2) below). A series of progressive hydromodification control measures will be used in the Modified Project to prevent and control hydromodification impacts to the Castaic Creek and to Hasley Creek:

- Avoid, to the extent possible, the need to mitigate for hydromodification impacts by preserving natural hydrologic conditions and protecting sensitive hydrologic features, sediment sources, and sensitive habitats.
- Minimize the effects of development through site design practices (e.g., reducing connected impervious surfaces) and implementation of stormwater volume-reducing LID BMPs (Modified Project-based hydrologic source control).

As under the 2017 Project, development of the VCC portion of the Modified Project would not result in substantial erosion on- or off-site. The Modified Project would not result in any new or substantially more severe significant impacts related to hydraulic conditions on Hasley Creek. Further, the changes to the hydraulic conditions on Castaic Creek associated with the Modified Project are anticipated to reduce erosion and reduce disruption of established vegetation during all storm events, as compared with the 2017 Project; therefore, the Modified Project would not result in any new or substantially more severe significant impacts related to hydromodification as compared to the State-certified EIR for the 2017 Project.

Hydromodification-related impacts are also addressed in **Section 5.2, Biological Resources**.

## 7. CUMULATIVE IMPACTS

CEQA requires the analysis of cumulative impacts of a project when a project's incremental effects may be significant when assessed along with the effects of past projects and the effects of other current projects, and the reasonably foreseeable effects of probable future projects. The discussion of cumulative impacts must reflect the potential severity of the impacts and their likelihood of occurrence, but the discussion and analysis need not provide as great a detail as is provided for the direct effects attributable to the project alone.

The geographic context for the cumulative impact analysis of water quality is Reach 5 of the Santa Clara River, which extends from roughly I-5 (east of the Modified Project Site) to just west of the Los Angeles/Ventura County line. This area includes the approximately 1,500-acre tributary watershed in which the Modified Project Site is located, the Newhall Ranch Specific Plan area to the west, and southerly draining areas located north of the Santa Clara River. Section 4.2, Cumulative Impacts Methodology of this SEIR provides a detailed discussion of cumulative growth projections used in the analysis. The identified cumulative growth through 2030 (i.e., the Modified Project buildout year) within the Project vicinity would cumulatively affect water quality conditions within the Reach 5 drainage area through increases in pollutant loads.

### a. Surface Water Quality

As with the 2017 Project, the Modified Project's impacts to surface water quality are less than significant because of the Modified Project's site design, BMPs, and overall compliance with all relevant permit and statutory requirements. Any other projects in the cumulative impact study area would also be subject to state, regional, and county requirements, such as MS4 Permit and LID Ordinance, LID Manual requirements; Construction General Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan water quality objectives, CTR criteria, and CWA 303(d) listings, which are designed to assure that regional development does not adversely affect water quality. Any future urban development occurring in the cumulative impact study area also must comply with these requirements. Future projects would be evaluated individually to determine appropriate BMPs and treatment measures to avoid or mitigate impacts to water quality. In addition, the County would review all construction projects on a case-by-case basis to ensure local and regional drainage surface water quality is protected.

The Modified Project would not result in any project changes during either the construction phase or the post-construction operational conditional that would result in new significant impacts to surface water quality compared to the 2017 Project. Based on compliance with the above-described requirements designed to protect beneficial uses, the Modified Project would not result in any new or substantially more severe cumulative

significant impacts related to surface water quality as compared to the State-certified EIR for the 2017 Project.

### **b. Groundwater Quality**

The Modified Project would not result in any modifications compared to the 2017 Project that would change the State-certified EIR's significance determinations for cumulative groundwater quality impacts. As with the 2017 Project, the anticipated quality of stormwater runoff discharges from the Modified Project's developed areas and irrigation to groundwater will not contribute loads or concentrations of pollutants of concern that would be expected to cause or contribute to a violation of the groundwater quality standards.

As with the 2017 Project, the Modified Project and any future urban development must comply with adopted regulatory requirements that are designed by the LARWQCB to assure that regional development does not adversely affect water quality, including Regional MS4 Permit and LID Manual requirements; Construction General Permit requirements; General Dewatering Permit requirements; and benchmark Basin Plan groundwater quality objectives. Therefore, as with the 2017 Project, cumulative impacts on groundwater quality from the proposed Modified Project and future urban development in the Santa Clara River Watershed are addressed through compliance with the Regional MS4 Permit and LID Manual requirements, Construction General Permit requirements, General Dewatering Permit requirements, and benchmark Basin Plan groundwater quality objectives, which are intended to be protective of beneficial uses of the groundwater. Based on compliance with these requirements designed to protect beneficial uses, the Modified Project would not result in any new or substantially more severe cumulative significant impacts related to groundwater quality as compared to the State-certified EIR for the 2017 Project.

#### **(1) Groundwater Recharge Cumulative Impacts**

As described above, groundwater in the Santa Clara River watershed is primarily available in two aquifers known as the Alluvial aquifer and Saugus Formation aquifer. The Alluvial aquifer is shallow, unconfined, very permeable, and generally restricted to beneath and locally adjacent to the Santa Clara River. The Saugus Formation is a permeable geologic unit at depth that is generally confined and up to several thousand feet thick. Unlike the Alluvial aquifer, the Saugus Formation is not primarily recharged directly through infiltration of precipitation over its extent because it occurs at depth. It is recharged locally by direct infiltration where it is exposed at the surface, which is generally in elevated locations around the edges of the watershed and is largely recharged through leakage from the overlying Alluvial aquifer.

A number of studies, including those by the USCR watershed water purveyors, have documented long term stability of groundwater levels in both the Alluvial aquifer and the Saugus Formation aquifer.

This long term (several decades) stability of the USCR aquifers has occurred simultaneously with urban growth, as well as two extended periods of successive dry years. A calibrated model of surface water and groundwater interactions for the period 1975 to 2005 confirms that even with growth and increased water use, groundwater levels in the USCR aquifers have been relatively stable, indicating that recharge of the aquifers has kept pace with groundwater extraction. Future GSWI model scenarios incorporating planned development, including the Modified Project, like the 2017 Project, and cumulative impact analysis area projects, through 2030 indicate continued long-term stability of aquifer water levels.

Further, the changes associated with the Modified Project compared to the 2017 Project would not contribute to a cumulatively considerable change in groundwater recharge impacts. For these reasons, the Modified Project would not result in any new or substantially more severe significant cumulative groundwater recharge impacts compared to the 2017 Project analyzed in the State-certified EIR.

## **(2) Cumulative Hydromodification Impacts**

As discussed above and consistent with the State-certified EIR analysis, the Modified Project, like the 2017 Project, would include a number of hydrologic source control BMPs that will lessen any potential contribution to cumulative hydromodification impacts to the Santa Clara River. Further, other future projects within the watershed reflected in adopted plans and projections will implement hydromodification controls to meet the Regional MS4 Permit requirements. These measures are designed to mitigate and prevent direct and cumulative hydromodification impacts. Further, the changes associated with the Modified Project compared to the 2017 Project would not contribute to a cumulatively considerable change in hydromodification impacts. For these reasons, the Modified Project will not result in any new or substantially more severe significant cumulative hydromodification impacts compared to the 2017 Project analyzed in the State-certified EIR.

## **8. MITIGATION MEASURES**

A complete list of mitigation measures to be implemented under the Modified Project is provided in the Mitigation Monitoring and Reporting Program, in **Appendix 2** of this SEIR. Previously adopted mitigation measures that are not applicable to the Modified Project or that require no further action as part of the Modified Project (generally because

the measure has already been completed or would be achieved or exceeded through compliance with current regulatory requirements) are detailed in **Appendix 3** of this SEIR.

#### a. Previously Approved Mitigation from the State-Certified EIR

The State-certified EIR incorporates mitigation measures RMDP/SCP-WQ-1 and RMDP/SCP-WQ-2, as set forth below. The mitigation measures incorporated by reference and/or adopted in the 2017 State-certified EIR are considered for each of the thresholds of significance discussed in this section, as applicable. Where appropriate, italicized parentheticals are used to provide additional information and clarification regarding the implementation of a particular measure's requirements. For a complete list of all measures applicable to the Modified Project, refer to the Mitigation, Monitoring and Reporting Program in **Appendix 2** of this SEIR.

**RMDP/SCP-WQ-1:** Prior to the recordation of any final subdivision map (except those maps for financing or conveyance purposes only) or the issuance of any grading or building permit (whichever comes first), a final SUSMP shall be prepared consistent with the terms and content of both the Newhall Ranch Specific Plan Sub-Regional Stormwater Mitigation Plan and Project Water Quality Technical Report that specifically identifies the BMPs to be used on site. The SUSMP shall be submitted to the DPW for review. The SUSMP shall identify, at a minimum: (1) site design BMPs (as appropriate); (2) the source control BMPs; (3) treatment control BMPs; (4) hydromodification control BMPs; and (5) the mechanism(s) by which long-term operation and maintenance of all structural BMPs would be provided. The BMPs identified in the SUSMP shall include, as applicable, but not be limited to, the PDFs set forth in Table 4.4-12 this EIS/SEIR.

*(SUSMP requirements have been superseded by the requirements of the LID Ordinance and County LID Manual. The final SUSMP is now referred to as the LID Plan per the County LID Manual. Prior to the issuance of any rough grading or building permit (whichever comes first) and as part of the design level hydrology study and facilities plan, a final LID Plan will be prepared consistent with the terms and contents of this Water Quality Report (including the applicable requirements in the MS4 Permit and LID Ordinance). The BMPs identified in the LID Plan will include, as applicable, but not be limited to, the BMPs set forth in Table 7.4.1-1 of the Water Quality Technical Report. The BMPs set forth in Table 7.4.1-1 supersede the PDFs set forth in Table 4.4-12 of the State-certified EIR.)*

**RMDP/SCP-WQ-2:** Prior to issuance of a building permit, and as a part of the design-level hydrology study and facilities plan, the project applicant shall submit to the Department of Regional Planning a Landscape and Integrated Pest Management Plan, identified in this Section 4.4, which

shall be designed to meet the standards set forth below. A Landscape and Integrated Pest Management Plan shall be developed and implemented for common area landscaping within the Specific Plan, Entrada, and VCC Project that addresses integrated pest management (IPM) and pesticide and fertilizer application guidelines. IPM is a strategy that focuses on long-term prevention or suppression of pest problems (i.e., insects, diseases, and weeds) through a combination of techniques, including: using pest-resistant plants; biological controls; cultural practices; habitat modification (Techniques a–f below); and the limited use of pesticides according to treatment thresholds, when monitoring indicates pesticides are needed because pest populations exceed established thresholds (Technique g). The Landscape and Integrated Pest Management Plan will address the following components:

- a. pest identification;
- b. practices to prevent pest incidence and reduce pest buildup;
- c. monitoring to examine vegetation and surrounding areas for pests to evaluate trends and to identify when controls are needed;
- d. establishment of action thresholds that trigger control actions;
- e. pest control methods—cultural, mechanical, environmental, biological, and appropriate pesticides;
- f. fertilizer management—soil assessment, fertilizer types, application methods, and storage and handling; and
- g. Pesticide management—safety (e.g., Material Safety Data Sheets, precautionary statements, protective equipment); regulatory requirements; spill mitigation; groundwater and surface water protection measures associated with pesticide use; and pesticide applicator certifications, licenses, and training (i.e., all pesticide applicators must be certified by the California Department of Pesticide Regulation).

*(Reference to Section 4.4 refers to the Water Quality Section of the State-certified EIR.)*

#### **b. Previously Approved Mitigation from the VCC EIR**

No mitigation related to water quality was previously adopted by the County for the VCC Planning Area as part of the County-certified VCC EIR.

### **9. LEVEL OF SIGNIFICANCE AFTER MITIGATION**

The State-certified EIR determined that the 2017 Project would result in less-than-significant impacts related to water quality. With implementation of Mitigation

Measures RMDP/SCP-WQ-1 and RMDP/SCP-WQ-2, and adherence to applicable regulatory requirements, including implementation of appropriate BMPs, the Modified Project would not result in any new or substantially more severe significant impacts with regard to water quality as compared to the State-certified EIR for the 2017 Project.