

## 5. Environmental Analysis

### 5.9 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the potential impacts of implementation of the proposed La Puerta School Site Specific Plan (Specific Plan) to hydrology and water quality conditions in the City of Claremont. Hydrology deals with the distribution and circulation of water, both on land and underground. Water quality deals with the quality of surface- and groundwater. Surface water includes lakes, rivers, streams, and creeks; groundwater is under the earth's surface. The analysis in this section is based in part on the following technical reports:

- *Preliminary Hydrology Report*, Hunsaker and Associates Irvine, September 2021
- *Preliminary Low Impact Development Plan*, Hunsaker and Associates Irvine, October 13, 2021

Complete copies of these technical reports are included in Appendices G1 and G2, respectively, of this DEIR.

#### 5.9.1 Environmental Setting

##### 5.9.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to hydrology and water quality that are applicable to the Specific Plan are summarized below.

#### Federal Regulations

##### *Clean Water Act*

The federal Water Pollution Control Act (or Clean Water Act [CWA]) is the principal statute governing water quality. It establishes the basic structure for regulating discharges of pollutants into the waters of the United States and gives the US Environmental Protection Agency (EPA)—or in the case of California, the State Water Resources Control Board and Regional Water Quality Control Boards—authority to implement pollution control programs. The statute's goal is to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates direct and indirect discharge of pollutants; sets water quality standards for all contaminants in surface waters; and makes it unlawful for any person to discharge any pollutant from a point source into navigable waters unless a permit is obtained under its provisions. The CWA mandates permits for wastewater and stormwater discharges; requires states to establish site-specific water quality standards; and regulates other activities that affect water quality, such as dredging and the filling of wetlands.

##### *National Pollutant Discharge Elimination System*

The National Pollutant Discharge Elimination System (NPDES) permit program was established by the CWA to regulate municipal and industrial discharges to surface waters of the United States, including discharges from municipal separate storm sewer systems (MS4). Federal NPDES permit regulations have been established for broad categories of discharges, including point-source municipal waste discharges and nonpoint-source stormwater runoff. NPDES permits generally identify effluent and receiving water limits on allowable concentrations and/or mass emissions of pollutants in the discharge; prohibitions on discharges not specifically

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allowed under the permit; and provisions that describe required actions by the discharger, including industrial pretreatment, pollution prevention, self-monitoring, and other activities.

Under the NPDES program, all facilities that discharge pollutants into waters of the United States are required to obtain an NPDES permit. Requirements for stormwater discharges are also regulated under this program. In California, the NPDES permit program is administered by the State Water Resources Control Board (SWRCB) through the nine Regional Water Quality Control Boards (RWQCB). The Project Area lies within the jurisdiction of the Los Angeles RWQCB (Region 4).

#### *National Flood Insurance Program*

The Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program, which provides subsidized flood insurance to communities that comply with FEMA regulations limiting development in flood plains. FEMA also issues Flood Insurance Rate Maps (FIRMs) that identify which land areas are subject to flooding. These maps provide flood information and identify flood hazard zones in the community. The design standard for flood protection established by FEMA is the 100-year flood event, also described as a flood that has a 1-in-100 chance of occurring in any given year. FEMA mapping of flood hazards that includes the Project Area was updated in 2008.

#### **State Regulations**

##### *Porter-Cologne Water Quality Act*

The Porter-Cologne Water Quality Act (Water Code sections 13000 et seq.) is the basic water quality control law for California. Under this Act, the SWRCB has ultimate control over state water rights and water quality policy. In California, the EPA has delegated authority to issue NPDES permits to the SWRCB. The SWRCB, through its nine RWQCBs carries out the regulation, protection, and administration of water quality in each region. Each regional board is required to adopt a Water Quality Control Plan or Basin Plan that designates beneficial uses and water quality objectives for the region's surface water and groundwater basins.

##### *SWRCB Construction General Permit*

Construction activities that disturb one or more acres of land must comply with the requirements of the SWRCB Construction General Permit (CGP)—2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-0006-DWQ. Under the terms of the permit, applicants must file Permit Registration Documents (PRDs) with the SWRCB prior to the start of construction. The PRDs include a Notice of Intent, risk assessment, site map, Stormwater Pollution Prevention Plan (SWPPP), annual fee, and a signed certification statement. The PRDs are submitted electronically to the SWRCB via the Stormwater Multiple Application and Report Tracking System website. On July 22, 2022, the SWRCB issued a draft of the revised Statewide CGP that, when approved, will supersede Order 2009-0009-DWQ and its amendments.

Applicants must also demonstrate conformance with applicable best management practices (BMP) and prepare a SWPPP containing a site map that shows the construction site perimeter, existing and proposed buildings, lots, roadways, stormwater collection and discharge points, general topography both before and after construction, and drainage patterns across the Project Area. The SWPPP must list BMPs that would be

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implemented to prevent soil erosion and discharge of construction-related pollutants that could contaminate nearby water resources. Additionally, the SWPPP must contain a visual monitoring program for all risk levels and a stormwater sampling and analysis program for Risk Levels 2 and 3.

#### *SWRCB Trash Amendments*

On April 7, 2015, the SWRCB adopted an amendment to the Water Quality Control Plan for Ocean Waters of California to control trash and Part 1, Trash Provisions, of the Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California. They are collectively referred to as “the Trash Amendments.” The Trash Amendments apply to all surface waters of California and include a land-use-based compliance approach to focus trash controls on areas with high trash-generation rates. Areas such as high density residential, industrial, commercial, mixed urban, and public transportation stations are considered priority land uses. There are two compliance tracks:

- **Track 1.** Permittees install, operate, and maintain a network of certified full-capture systems in storm drains that capture runoff from priority land uses.
- **Track 2.** Permittees must implement a plan with a combination of full-capture systems, multibenefit projects, institutional controls, and/or other treatment methods that have the same effectiveness as Track 1 methods.

The Trash Amendments provide a framework for permittees to implement its provisions. Full compliance must occur within 10 years of the permit, and permittees must also meet interim milestones, such as average load reductions of 10 percent per year.

#### *The Sustainable Groundwater Management Act*

The Sustainable Groundwater Management Act (SGMA) of 2014 passed in September 2014 and is a comprehensive three-bill package that provides a framework for the sustainable management of groundwater supplies by local authorities. SGMA requires the formation of local groundwater sustainability agencies to assess local water basin conditions and adopt locally based management plans. SGMA provides 20 years for groundwater sustainability agencies to implement plans, achieve long-term groundwater sustainability, and protect existing surface water and groundwater rights. SGMA also provides local groundwater sustainability agencies with the authority to require registration of groundwater wells, measure and manage extractions, require reports and assess fees, and request revisions of basin boundaries, including establishing new subbasins. Under SGMA, groundwater sustainability agencies responsible for high- and medium-priority basins must adopt groundwater sustainability plans within five to seven years, depending on whether the basin is in critical overdraft.

### **Regional Regulations**

#### *Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*

The Los Angeles RWQCB’s Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan:

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- Designates beneficial uses for surface and ground waters.
- Sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and conform to the state's antidegradation policy.
- Describes implementation programs to protect all waters in the region.

In addition, the Basin Plan incorporates (by reference) all applicable SWRCB and RWQCB plans and policies and other pertinent water quality policies and regulations.

The Basin Plan is a resource for the RWQCB and others who use water and/or discharge wastewater in Region 4. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

#### *Los Angeles RWQCB (MS4) Permit for the Coastal Watershed of Los Angeles and Ventura Counties*

On July 23, 2021, the Los Angeles RWQCB adopted a Regional Phase I Municipal Separate Stormwater Sewer System (MS4) Permit for discharges within the coastal watersheds of Los Angeles and Ventura counties (Order No. R4-2021-0105, NPDES No. CAS004004). The municipal discharges of stormwater and nonstorm water by the City are subject to waste discharge requirements in this MS4 permit.

#### *Los Angeles County Low Impact Development Standards Manual*

The County of Los Angeles prepared the 2013 Low Impact Development (LID) Standards Manual to comply with the requirements of the NPDES MS4 Permit. The LID Standards Manual provides guidance for the implementation of stormwater quality control measures in new development and redevelopment projects with the intention of improving water quality and mitigating potential water quality impacts from stormwater and non-stormwater discharges.

### Local Regulations

#### *City of Claremont Municipal Code*

**Chapter 8.28, Stormwater and Runoff Pollution Control:** The provisions of this section contain requirements for construction activities and new development/redevelopment projects to ensure that they comply with the current NPDES permit and the provisions to lessen water quality impacts of development by using smart growth practices and integrate LID design principles.

### 5.9.1.2 EXISTING CONDITIONS

#### Regional Drainage

The Los Angeles RWQCB encompasses all coastal watersheds and drainages flowing to the Pacific Ocean between Rincon Point (on the coast of western Ventura County) and the eastern Los Angeles County line. In

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addition, the Los Angeles RWQCB includes all coastal waters within three miles of the continental and island coastlines.

#### Local Drainage

The Project Area lies within the Upper San Gabriel River Watershed. The watershed is in the mid-eastern portion of Los Angeles County. The watershed area drains to the San Gabriel River and ultimately into the Pacific Ocean. The watershed area includes Big Dalton Wash, San Dimas Wash, Walnut Creek, Live Oak Wash, and San Jose Creek. Municipalities that fall within the boundaries of the watershed area include Baldwin Park, Duarte, Glendora, Industry, Los Angeles County, West Covina, Diamond Bar, Claremont, Azusa, La Verne, Walnut, Irwindale, La Puente, El Monte, Duarte, South El Monte, Bradbury, Arcadia, Monrovia, Pomona, and San Dimas.

#### Site Hydrology

Runoff at the Project Area generally flows from northeasterly to southwesterly. Runoff is conveyed as overland flow southerly and southwesterly to a concrete V-ditch that runs across the southern border of the La Puerta Sports Park (see Figure 5.9-1, *Existing Hydrology Map*). The V-ditch discharges into Indian Hill Boulevard via a parkway culvert and is conveyed as gutter flow southerly approximately 0.34 miles prior to discharging to an existing catch basin. Runoff is then conveyed westerly in the existing storm drain in Baseline Road (Facility BI 9713) to Thompson Creek, which is tributary to San Jose Creek, the San Gabriel River and ultimately, the Pacific Ocean.

#### Surface Water Quality

Section 303(d) of the 1972 CWA requires states to identify water bodies that do not meet water quality objectives and do not support their beneficial uses. Every two years each state must submit to the EPA an updated list, called the 303(d) list. In addition to identifying the water bodies that are not supporting beneficial uses, the list identifies the pollutant or stressor causing impairment and establishes a priority for developing a control plan to address the impairment. The list identifies water bodies where 1) a total maximum daily load has been approved by the EPA and implementation is available, but water quality standards are not yet met, and 2) water bodies where the water quality problem is being addressed by an action other than a total maximum daily load and water quality standards are not yet met.

San Jose Creek is listed on the 303(d) list due to the presence of indicator bacteria, ammonia, pH, total dissolved solids, and toxicity. The San Gabriel River and estuary are listed due to indicator bacteria, copper, dioxin, nickel, dissolved oxygen, cyanide, lead, pH, and temperature (SWRCB 2022a, 2022b).

#### Groundwater

The City of Claremont is in the San Gabriel Valley Groundwater Basin which is an adjudicated basin (Basin).<sup>1</sup> The San Gabriel Valley Groundwater Basin is in eastern Los Angeles County and includes the water-bearing

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<sup>1</sup> When water users within a groundwater basin are in dispute over legal rights to the water, a court can issue a ruling known as an adjudication. The court decree will define the area of adjudication. The court typically appoints a watermaster to administer the

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sediments underlying most of the San Gabriel Valley and includes a portion of the upper Santa Ana Valley that lies in Los Angeles County. The Basin is bounded on the north by the Raymond fault and the contact between Quaternary sediments and consolidated basement rocks of the San Gabriel Mountains (Department of Water Resources 2004). The Basin has not been identified by the California Department of Water Resources (DWR) as a groundwater basin subject to critical conditions of overdraft and is categorized as a very low priority basin (DWR 2022a).

The Project Area is in the Golden State Water Company–Claremont (GSWC Claremont) water service area. GSWC Claremont's water supply sources include groundwater pumped from the Chino Basin and Six Basins. The Chino Basin has been identified by DWR as a very low-priority groundwater basin partially since it is adjudicated and is actively managed by the Chino Basin Watermaster. Six Basins is a subbasin of the San Gabriel Valley Basin and has been identified by DWR as a very low-priority groundwater basin partially due to the fact it is adjudicated. The Six Basins is actively managed by the Six Basins Watermaster (GSWC 2021).

Groundwater was not encountered during the geologic investigations conducted at the Project Area up to 46 feet below existing surface. Historic high groundwater is approximately 60 feet below current grade (Appendix G1).

### Flood Hazards

#### *Designated Flood Zones*

According to the most recent FIRM that covers the Project Area (FIRM No. 06037C1475F, September 26, 2008), the Project Area is not within a 100-year or 500-year floodplain (FEMA 2020).

#### *Seismically Induced Dam Inundation*

The Project Area is not within the inundation zone of any dams (DWR 2022b).

#### *Seiches*

A seiche is a surface wave created when an inland water body is shaken, usually by an earthquake. No surface water bodies pose a flood hazard to the Project Area due to a seiche.

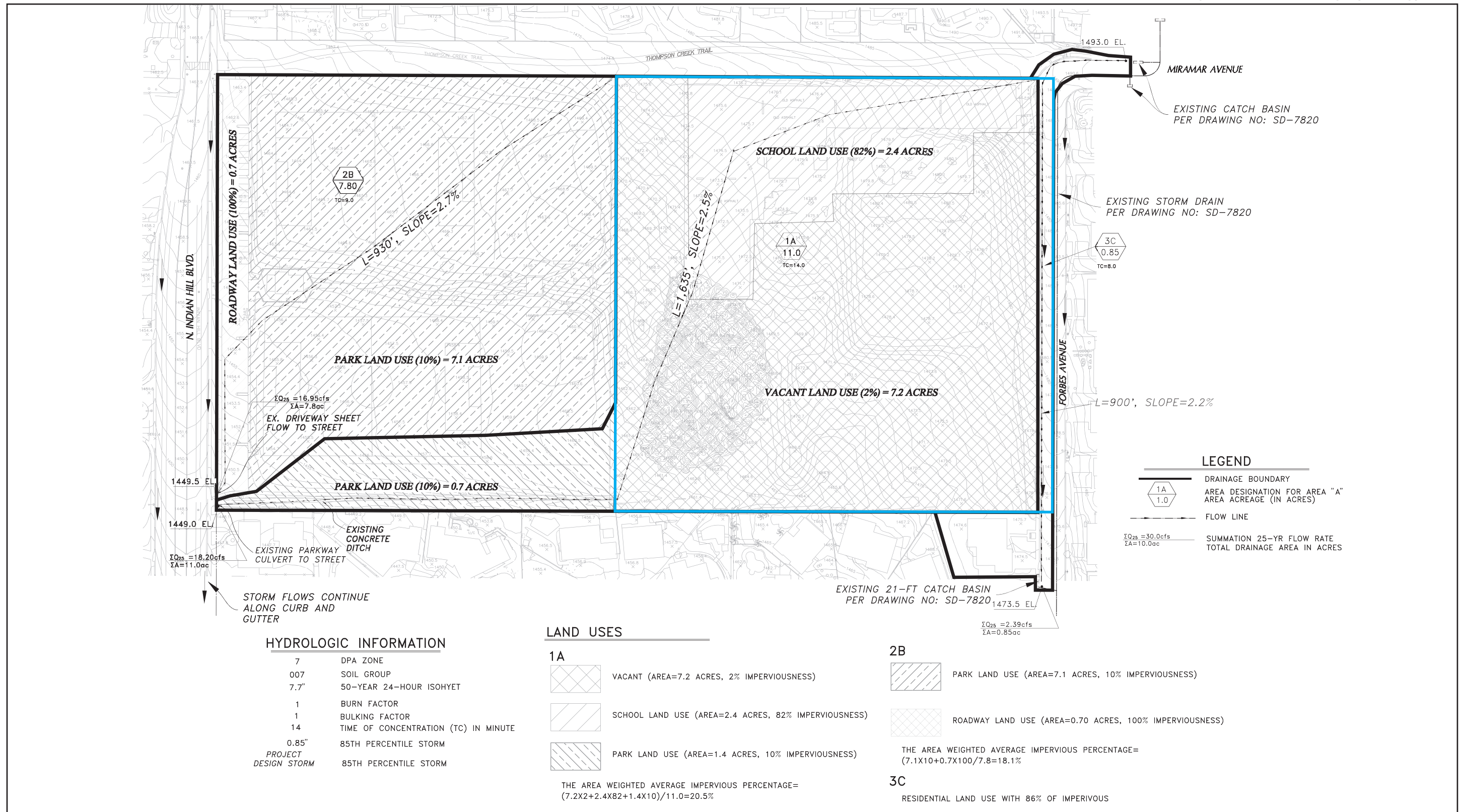
#### *Tsunamis*

A tsunami is an ocean wave caused by a sudden displacement of the ocean floor, most often due to earthquakes. The Project Area is not at risk of flooding from tsunami because it is about 34 miles from the ocean (DOC 2015).

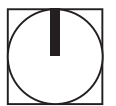
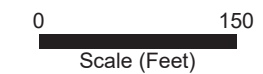
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court's decree. In basins or areas where a lawsuit is brought to adjudicate, the groundwater rights of all the overlies and appropriators are determined by the court.

Figure 5.9-1 - Existing Hydrology Map



Project Area Boundary



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### 5.9.2 Thresholds of Significance

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- HYD-1 Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality.
- HYD-2 Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin.
- HYD-3 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:
- i) Result in a substantial erosion or siltation on- or off-site.
  - ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite.
  - iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff.
  - iv) Impede or redirect flood flows.
- HYD-4 In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation.
- HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

### 5.9.3 Environmental Impacts

The following impact analysis addresses thresholds of significance for which the Notice of Preparation disclosed potentially significant impacts. The applicable thresholds are identified in brackets after the impact statement.

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**Impact 5.9-1: Construction and operation of development accommodated by the Specific Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]**

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*Impact Analysis:* Following is a discussion of the potential water quality impacts resulting from urban runoff that would be generated during the construction and operational phases of development accommodated by the Specific Plan.

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#### Construction

Clearing, grading, excavation, and construction activities associated with implementation of the Specific Plan have the potential to impact water quality through soil erosion, increasing the amount of silt and debris carried in runoff. Additionally, the use of construction materials, such as fuels, solvents, and paints, may present a risk to surface water quality. Finally, the refueling and parking of construction vehicles and other equipment on-site during construction may result in oil, grease, or related pollutant leaks and spills that may discharge into the storm drain system.

To minimize these potential impacts, development accommodated by the Specific Plan would require compliance with the CGP Water Quality Order 2009-0009-DWQ (as amended by Order No. 2010-0014-DWQ and 2012-006-DWQ), which requires the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment, erosion, and hazardous materials contamination of runoff during construction and prevent contaminants from reaching receiving water bodies. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Statewide CGP. The CGP also requires that prior to the start of construction activities, the project developer must file PRDs with the SWRCB, which include a Notice of Intent risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is always required to maintain a copy of the SWPPP at the site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project developer is required to provide proof of filing the PRDs with the SWRCB. Categories of potential BMPs that would be implemented for the Specific Plan are described in Table 5.9-1.

**Table 5.9-1 Construction Best Management Practices**

Category	Purpose	Examples
Erosion Controls	Protects the soil surface and prevents soil particles from being detached by rainfall, flowing water, or wind.	Scheduling, preserving existing conditions, mulch, soil binders, geotextiles, mats, hydroseeding, earth dikes, swales, velocity dissipating devices, slope drains, streambank stabilization, compost blankets, soil preparation/roughening, and non-vegetative stabilization.
Sediment Controls	Traps soil particles after they have been detached and moved by rain, flowing water, or wind.	Barriers such as silt fences, straw bales, sandbags, fiber rolls, and gravel bag berms; sediment basins; sediment traps; check dams; storm drain inlet protection; compost socks and berms; biofilter bags; manufactured linear sediment controls; and cleaning measures such as street sweeping and vacuuming
Wind Erosion Controls	Minimizes dust nuisances.	Applying water or other dust palliatives to prevent or minimize dust nuisance, reducing soil-moving activities during high winds, and installing erosion control BMPs for temporary wind control.
Tracking Controls	Prevents or reduces the tracking of soil offsite by vehicles	Stabilized construction roadways and construction entrances/exits and entrance/outlet tire wash.

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**Table 5.9-1 Construction Best Management Practices**

Category	Purpose	Examples
Non-Storm Water Management Controls	Prevents pollution by limiting or reducing potential pollutants at their source or eliminating off-site discharge. Prohibits illicit connections or discharges.	Water conservation practices, BMPs specifying methods for: dewatering operations; temporary stream crossings; clear water diversions; pile driving operations; temporary batch plants; demolition adjacent to water; materials over water; potable water and irrigation; paving and grinding operations; cleaning, fueling, and maintenance of vehicles and equipment; concrete curing; concrete finishing.
Waste Management and Controls (i.e., good housekeeping practices)	Management of materials and wastes to avoid contamination of stormwater.	Proper material delivery and storage and material use, spill prevention and control, stockpile management, contaminated soil management, and management of solid, concrete, sanitary/septic, liquid, and hazardous wastes.

Source: CASQA 2019.

In addition, erosion control plans would be prepared as a condition of approval and implemented during construction, and the project developer would be required to comply with City grading permit regulations and inspections to reduce sedimentation and erosion.

Submittal of the PRDs and implementation of the SWPPP, the erosion control plan, and grading requirements throughout the construction phase of the development accommodated by Specific Plan would address anticipated pollutants of concern from construction activities. Construction of the development accommodated by Specific Plan would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. As a result, water quality impacts associated with construction activities would be less than significant.

**Operations**

Once the Project Area has been developed pursuant to the Specific Plan, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings, streets, driveways, and parking areas typically contain oils, grease, fuel, antifreeze, byproducts of combustion (such as lead, cadmium, nickel, and other metals), as well as fertilizers, herbicides, pesticides, and other pollutants. Precipitation at the beginning of the rainy season may result in an initial stormwater runoff (first flush) with high pollutant concentrations.

The Project Area consists of the former La Puerta Elementary School. Onsite buildings and structures were demolished in 2018, and the Project Area currently consists of asphalt pavement and demolished structures in the northern portion and vacant land and piles of rubble, sand, and debris in the south. Under the Specific plan, the Project Area could accommodate up to 58 single-family residential units with common landscaping areas, private streets, curbs, gutters, sidewalks, storm drain improvements, and wet and dry utilities. Proposed landscaping would consist of private homeowner-maintained areas and private common open space areas located along project walkways and parkways. Total landscaping would consist of approximately 45 percent of

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the Project Area, or 4.31 acres. Total impervious surface (e.g., paved streets and driveways, sidewalks) is anticipated to consist of 55 percent of the total Project Area, or 5.27 acres. Development accommodated by the Specific Plan would increase impervious areas within the Project Area.

The Specific Plan is considered a “Designated Project” per the MS4 Permit since it disturbs more than one-acre and adds more than 10,000 square feet of impervious surface area. As such, development accommodated by the Specific Plan is required to treat the Stormwater Quality Design volume (SWQDv) onsite.<sup>2</sup> Based on preliminary soil infiltration testing onsite, soils are conducive for infiltration. Therefore, development accommodated by the Specific Plan would employ the use of infiltration BMPs sized to treat the SWQDv. The SWQDv for buildout of the Specific Plan is approximately 14,931 cubic feet and an underground vault and three dry wells with a total capacity of 15,020 cubic feet are proposed. The proposed open space landscaping areas will also provide added retention of runoff via absorption from vegetation and underlying soils.

Stormwater runoff from the Project Area would drain into the proposed onsite storm drain system and be conveyed southerly and westerly to the underground vault and drywells. Flow that surpassed the SWQDv (overflow) would be conveyed to the V-ditch that runs along the southern border of the La Puerta Sports Park and conveyed to Indian Hill Boulevard via the existing culvert. Overflow from the residential lots that front Forbes Avenue would drain onto Forbes Avenue into a 21-foot catch basin located 100 feet south of the Project Area (see Figure 5.9-2, *Water Quality Management Map*).

In addition, the preliminary LID Plan prepared for the Specific Plan includes the following site design BMPs<sup>3</sup>:

- **Protect and Restore Natural Areas:** Where feasible, existing landscaping areas consisting of tall trees and open grasses would be preserved.
- **Minimize Impervious Area:** The Project proposes to minimize impervious area via the use of multi-level units, minimum-width roadway and sidewalk sections wherever feasible and large open space areas within the park site.

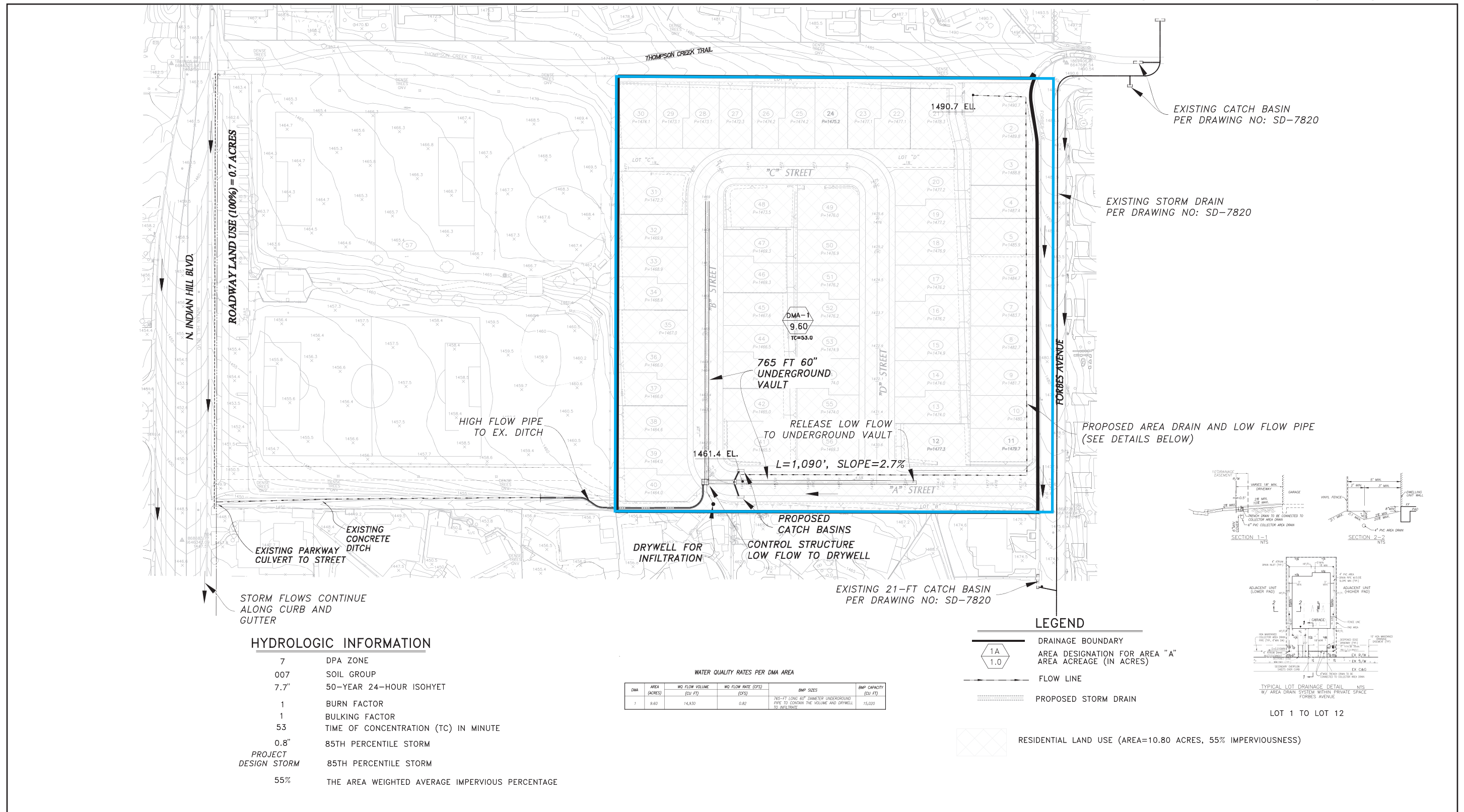
Section II of the preliminary LID Plan also includes a list of source control BMPs. Source control BMPs are designed to prevent pollutants from contacting storm water runoff or preventing discharge of contaminated storm water runoff to the storm drain system and/or receiving water. Moreover, the property owner/operator would maintain proof of on-going maintenance at the site, which would be recorded in a maintenance covenant. The implementation of maintenance covenants has been devised by the County of Los Angeles to legally assign the responsibilities for maintenance of proposed BMP facilities such that they run with the land. The covenant would be recorded at the County of Los Angeles.

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<sup>2</sup> The MS4 Permit requires designated projects to retain, on-site, the Stormwater Quality Design Volume from a design storm event. The design storm event is determined using the 0.75-inch 24-hour rain event or the 85th percentile 24-hour rain event, whichever is greater.

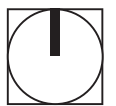
<sup>3</sup> The intention of site design BMPs is to reduce runoff peak flows and volumes resulting from land development.

Figure 5.9-2 - Water Quality Management Map



Project Area Boundary

0 150  
Scale (Feet)



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To meet the zero-trash discharge requirement per the SWRCB Trash Amendment, all proposed catch basins would be equipped with full capture catch basin inserts/inlet screens to remove trash/litter, debris and sediment from runoff entering the project's storm drain system.

Development accommodated by the Specific Plan is exempt from the hydromodification requirements of the MS4 Permit, as the Project Area discharges through a fully improved storm drain system that discharges to Thompson Creek, San Jose Creek and the San Gabriel River that are not susceptible to hydromodification impacts.

The Specific Plan would allow residential development at up to 6.0 dwelling units per acre (du/ac). With a permitted density of 6.0 du/ac, development on the 9.58-acre Project Area could result in a development potential of 58 single-family homes (6.0 multiplied by 9.58 equals 58). The project applicant proposes to develop 56 single-family detached homes, which is what is analyzed in the preliminary LID Plan. However, for purposes of CEQA and as a conservative approach, a maximum of up to 58 single-family homes is analyzed in this DEIR. The buildout footprint of a 58 single-family development on the Project Area would be within the footprint of the site plan for the Project Area; therefore, the implications to stormwater runoff and BMP design would be minimal. If the maximum development potential of 58 single-family units is implemented for the Project Area, an updated LID Plan would be required prior to commencement of grading activities for review and approval by the City.

Implementation of site specific BMPs would improve the water quality of runoff when compared to existing conditions since runoff currently flows untreated into the concrete V-ditch that runs across the southern border of the La Puerta Sports Park. Therefore, implementation of the Specific Plan would not violate any water quality standards or waste discharge requirements and impacts during the operational phase would be less than significant.

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**Impact 5.9-2: Construction and operation of the development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that accommodated development may impede sustainable groundwater management of the basin. [Threshold HYD-2]**

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**Impact Analysis:** Following is a discussion of the potential water quality impacts resulting from urban runoff that would be generated during the construction and operational phases of development accommodated by the Specific Plan.

### Construction

The Specific Plan would allow for the development of single-family detached homes within the boundary of the Project Area along with all associated access, circulation, infrastructure, and hardscape/landscape improvements. The historic high groundwater level in the vicinity of the Project Area is greater than 60-feet below existing ground surface. Therefore, groundwater would not be encountered during excavation, and dewatering is not required. Construction of development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the

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project may impede sustainable groundwater management of the basin. Impacts to groundwater supplies during construction would be less than significant.

#### Operation

The Project Area is in the GSWC Claremont water service area. GSWC Claremont's water supply sources include groundwater pumped from the Chino Basin; groundwater pumped from Six Basins; treated water purchased from the City of Upland; and treated, imported surface water purchased from Metropolitan Water District of Southern California through Three Valleys Municipal Water District. GSWC Claremont's main source of water supply is treated, imported surface water (GSWC 2021).

GSWC Claremont estimates that water demands in its service area for normal years would increase from approximately 10,175 acre-feet per year (afy) in 2020 to approximately 11,158 afy in 2045. The 2020 Urban Water Management Plan indicates that GSWC Claremont would have sufficient water supplies to meet demands in single-dry-years and multiple-dry-years (that is, five consecutive dry years) over the period of 2020 to 2045 (GSWC 2021).

As substantiated in Impact 5.19-4, buildout of the Specific Plan would result in a water demand of 26 afy, which amounts to less than 1 percent of GSWC's Claremont total water demand for 2020. Additionally, the population and housing contributions under buildout of the Specific Plan are within SCAG projections for the City (see Section 5.14, *Population and Housing*). Since the projected demands in the 2020 UWMP are based on SCAG projections, then the Specific Plan's water demand is within these projections. Therefore, Specific Plan's water demands would not substantially deplete groundwater supplies.

The Project Area is not on an active recharge site and therefore would not substantially interfere with groundwater recharge. Operation of the development accommodated by the Specific Plan would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin. Therefore, impacts on groundwater recharge would be less than significant.

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**Impact 5.9-3: Construction and/or operation of the development accommodated by the Specific Plan would not 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, flooding on- or offsite, or create or contribute runoff that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff. [Threshold HYD-3(i), (ii) and (iii)]**

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**Impact Analysis:** Development accommodated by the Specific Plan would not involve the alteration of any natural drainages or watercourses. As described for Impact 5.9-1, the SWQDv from the Project Area would be conveyed to the BMPs on-site, and overflow would be diverted to the V-ditch that runs along the southern border of the La Puerta Sports Park and into Indian Hill Boulevard via the existing culvert. Overflow from the residential lots that front Forbes Avenue would drain onto Forbes Avenue into a catch basin located 100 feet south of the Project Area



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The 25-year peak flow rate was calculated under existing and proposed conditions for the subareas on the Project Area that are tributary to Indian Hill Boulevard and the storm drain system along Forbes Avenue. As shown in Figures 5.9-1 and 5.9-2, the Project Area was subdivided into three drainage areas. Drainage areas 1A and 2B discharge onto Indian Hill Boulevard and are considered as one discharge location for comparison purposes. Drainage area 3C discharges into Forbes Avenue. As indicated in Table 5.9-2, the overall peak flow rates slightly increase due to implementation of the Specific Plan. The flows discharging onto Indian Hill Boulevard decrease by 2.19 cubic feet per second (cfs) and flows to the storm drain systems along Forbes Avenue increase by 3.16 cfs.

**Table 5.9-2 Existing and Proposed 25-Year Peak Flow Rates**

Subarea	Existing Condition (cfs)	Proposed Condition (cfs)	Difference (cfs)
1A	18.20	17.09	-1.11
2B	16.95	15.87	-1.08
<b>Subtotal</b>	<b>35.15</b>	<b>32.96</b>	<b>-2.19</b>
3C	2.39	5.55	3.16
<b>Total</b>	<b>37.54</b>	<b>38.51</b>	<b>0.97</b>

Source: Appendix G1.

Notes: cfs – cubic feet per second

Catch basin sizing calculations were performed for the existing catch basin, which is located along Forbes Avenue. Street capacity calculations for Forbes Avenue were also performed (see Appendix G1, sec. 5). The calculation results indicated that the street and catch basins have enough capacity to convey the proposed flows.

The Specific Plan would accommodate up to 56 single-family detached homes, which is what is analyzed in the preliminary Hydrology Report. However, for purposes of CEQA and as a conservative approach, a maximum of up to 58 single-family homes (along with up to 10 accessory dwelling units) is analyzed in this DEIR. The buildout footprint of a 58 single-family development on the Project Area would be within the footprint of the current site plan, therefore the implications to on- and off-site peak flows would be minimal. If the maximum development potential of 58 single-family units is implemented on the site, an updated Hydrology Report would be required prior to commencement of grading activities for review and approval by the City.

With the implementation of the LID BMPs, development accommodated by the Specific Plan would not substantially increase the rate or amount of surface runoff in a manner that would result in on- or off-site flooding or create stormwater runoff that would exceed the capacity of the storm drain system. The calculated stormwater runoff volume for the 25-year storm under post-development conditions can be accommodated by the public storm drain system. Additionally, construction activities would require compliance with the CGP Water Quality Order 2009-0009-DWQ (as amended by Order No. 2010-0014-DWQ and 2012-006-DWQ), which requires the preparation and implementation of a SWPPP. A SWPPP requires the incorporation of BMPs to control sediment and erosion. Therefore, impacts on existing drainage patterns that would cause increased siltation and flooding on- or off-site, create or contribute to the exceedance of the existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, or impede or redirect flood flows were determined to be less than significant.

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**Impact 5.9-4: Construction and/or operation of the development accommodated by the Specific Plan would not 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 impede or redirect flood flows. [Threshold HYD-3 (iv) and HYD-4]**

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*Impact Analysis:* As detailed in Impact 5.9-3, development pursuant to the Specific Plan would not cause flooding on- or off-site since development would employ the use of infiltration BMPs sized to treat the SWQDv on-site. Additionally, the Project Area is not within a 100-year or 500-year floodplain (FEMA 2022) nor a dam inundation zone (DWR 2022b) and is not at risk of inundation from tsunamis nor seiches (see Section 5.9.1.2). Therefore, development pursuant to the Specific Plan would not impede or redirect flood flow or risk release of pollutants due to project inundation, and impacts would be less than significant.

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**Impact 5.9-5: Construction and/or operation of development accommodated by the Specific Plan would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan. [Threshold HYD-5]**

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*Impact Analysis:* The Project Area would be connected to GSWC's public water supply. GSWC relies on groundwater from the Chino Basin and Six Basins. All basins have been identified by DWR as very low-priority groundwater basins partially since they are adjudicated. In that regard, the basins are actively managed by the Chino Basin Watermaster and the Six Basins Watermaster. Pursuant to the SGMA none of the basins require a Groundwater Sustainability Plan and the Watermasters submit annual reports to DWR. The Watermasters ensure that the basins do not exceed their safe yield (GSWC 2021). Additionally, the Project Area is in the San Gabriel Valley Groundwater Basin which is also adjudicated. The Basin has been categorized by the DWR as a very low priority basin and does not require a Groundwater Sustainability Plan (DWR 2022a).

Development accommodated by the Specific Plan will adhere to the State CGP, implement the SWPPP, and adhere to the City's stormwater management requirements, as described in detail in Impact 5.9-1, and would thereby ensure that groundwater quality is not adversely impacted during construction. No dewatering or groundwater wells are required to implement the Specific Plan and the Project Area is not within an active recharge area. In addition, development pursuant to the Specific Plan would implement LID BMP measures and would thereby ensure that water quality is not impacted during the operational phase. As a result, development of the Project Area would not obstruct or conflict with the implementation of the Los Angeles Region Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

Therefore, implementation of the Specific Plan would not obstruct or conflict with groundwater management, and impacts would be less than significant.

### 5.9.4 Cumulative Impacts

#### 5.9.4.1 HYDROLOGY AND DRAINAGE

Cumulative projects in the Upper San Gabriel River watershed could increase impervious areas and thus increase local runoff rates at those project sites. However, other projects in the region would be required to manage runoff on-site as applicable in accordance with the NPDES MS4 permit. Projects in the region would

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also be required to limit post-development runoff discharges per the requirements of the Los Angeles County Department of Public Works, as detailed in the Los Angeles County Hydrology Manual and the Los Angeles County Hydraulic Design Manual. Projects within the City would also need to comply with the requirements of Chapter 8.28 of the municipal code. Thus, no significant cumulative drainage impact would occur, and project drainage impacts would not be cumulatively considerable; impacts would be less than significant.

#### 5.9.4.2 WATER QUALITY

Cumulative projects have the potential to generate pollutants during project construction and operation. All construction projects that disturb one acre or more of land would be required to prepare and implement SWPPPs to obtain coverage under the Statewide CGP. All projects within the watershed would also be required to implement LID BMPs that would be applied during project design and project operation to minimize water pollution from project operation. Thus, no significant cumulative water quality impacts would occur, and the water quality impacts would not be cumulatively considerable as a result of development accommodated by the Specific Plan.

#### 5.9.5 Level of Significance Before Mitigation

Upon implementation of regulatory requirements, the following impacts would be less than significant: 5.9-1, 5.9-2, 5.9-3, 5.9-4, and 5.9-5.

#### 5.9.6 Mitigation Measures

No significant adverse impacts related to hydrology and water quality were identified and no mitigation measures are necessary.

#### 5.9.7 Level of Significance After Mitigation

No significant adverse impacts related to hydrology and water quality were identified.

#### 5.9.8 References

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