

5. Environmental Analysis

5.8 HYDROLOGY AND WATER QUALITY

This section of the Draft Environmental Impact Report (DEIR) evaluates the McKinley Elementary School (McKinley ES) Campus Master Plan Project's (Proposed Project) potential impacts to hydrology and water quality conditions in the City of Santa Monica. The analysis in this section is based, in part, upon the following technical reports:

- *Grading and Drainage Plan*, Johnson Favaro Architecture and Urban Design, November 18, 2022.
- *Geotechnical Exploration Report: New Classroom Building, McKinley Elementary School, 2401 Santa Monica Boulevard, Santa Monica, Los Angeles County, California*, Leighton Consulting, Inc., November 19, 2021.

A complete copy of these technical reports are provided in Appendix H of this DEIR.

The SMMUSD determined that an EIR would be required for this Proposed Project and issued an Initial Study/Notice of Preparation (IS/NOP) on January 13, 2023. A California Environmental Quality Act (CEQA) scoping meeting was conducted on January 31, 2023. No comment letters were received in response to the NOP related to hydrology and water quality. The IS/NOP and all scoping comment letters are included as Appendices B and C of this document.

5.8.1 Environmental Setting

5.8.1.1 REGULATORY BACKGROUND

Federal, state, and local laws, regulations, plans, or guidelines related to hydrology and water quality are summarized in this section.

Federal

Clean Water Act

The Clean Water Act (CWA) is a 1977 amendment to the Federal Water Pollution Control Act of 1972. The CWA is the principal statute governing water quality. It establishes the basic structure for regulating discharges of pollutants into the waters of the United States¹ and gives the federal Environmental Protection Agency (EPA) the authority to implement pollution-control programs, such as setting wastewater standards for industry. The statute's goal is to end all discharges entirely and to restore, maintain, and preserve the integrity of the nation's waters. The CWA regulates both the direct and indirect discharge of pollutants into the nation's waters. The CWA 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 for navigable bodies of water, and regulates other activities that affect water quality, such as dredging and the filling of wetlands. The CWA also funded

¹ Waters of the US generally include surface waters—lakes, rivers streams, bays, the ocean, dry streambeds, wetlands—and storm sewers that are tributary to any surface water body.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

the construction of sewage treatment plants and recognized the need for planning to address nonpoint sources of pollution. The following CWA Sections assist in ensuring water quality in surrounding water bodies.

- **Section 208** of the CWA requires the use of best management practices (BMPs) to control discharge of pollutants in stormwater during construction.
- **Section 303(d)** requires creation of a list of impaired water bodies by states, territories, and authorized tribes; evaluation of lawful activities that may impact impaired water bodies;² and preparation of plans to improve the quality of these water bodies. Water bodies on the list do not meet water quality standards, even after point sources of pollution have installed the minimum required levels of pollution-control technology.
- **Section 402(p)** establishes a framework to control water pollution by regulating point-source discharges under the National Pollutant Discharge Elimination System (NPDES) permit program. Point-source discharges are readily identifiable, discrete inputs where waste is discharged to the receiving waters from a pipe or drain. Nonpoint discharges occur over a wide area and are associated with particular land uses (such as urban runoff from streets and stormwater from construction sites).

National Pollution Discharge Elimination System

Under the NPDES program (under § 402 of the CWA), all facilities that discharge pollutants from any point source into waters of the U.S. must have a NPDES permit. The term “pollutant” broadly applies to any type of industrial, municipal, and agricultural waste discharged into water. Point sources can be publicly owned treatment works (POTWs), industrial facilities, and urban runoff. The NPDES program addresses certain agricultural activities, but the majority are considered nonpoint sources and are exempt from NPDES regulation. Direct sources discharge directly to receiving waters, and indirect sources discharge to POTWs, which in turn discharge to receiving waters. Under the national program, NPDES permits are issued only for direct, point-source discharges. The NPDES has a variety of measures designed to minimize and reduce pollutant discharges. All counties with storm drain systems that serve a population of 50,000 or more, as well as construction sites one acre or more in size, must file for and obtain an NPDES permit.

State

State Water Resources Control Board

Responsibility for the protection of water quality in California rests with the SWRCB and nine Regional Water Quality Control Boards (RWQCB). The SWRCB establishes statewide policies and regulations for the implementation of water quality control programs mandated by federal and state water quality statutes and regulations. The RWQCBs develop and implement Water Quality Control Plans (Basin Plans) that consider regional beneficial uses, water quality characteristics, and water quality problems. In cases where the Basin Plan does not contain a standard for a particular pollutant, other criteria are used to establish a standard. Other criteria may be applied from SWRCB documents (e.g., the Inland Surface Waters Plan and the Pollutant

² Impaired water bodies are water bodies that do not meet or are not expected to meet water quality standards.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

Policy Document, California Toxics Rule) or from EPA water quality criteria developed under § 304(a) of the CWA. Numeric criteria are required by the CWA for many priority toxic pollutants. To fill in the gap between the water quality control plans and CWA requirements, on May 18, 2000, the EPA promulgated the California Toxics Rule based on the Administrator's determination that numeric criteria are necessary in California to protect human health and the environment. These federal criteria are numeric water quality criteria for priority toxic pollutants and other provisions for water quality standards legally applicable in California for inland surface waters, enclosed bays, and estuaries for all purposes and programs under the CWA.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (Water Code §§ 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 state is divided into nine regions related to water quality and quantity characteristics. 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 recognizes and reflects the regional differences in existing water quality, the beneficial uses of the region's ground and surface water, and local water quality conditions and problems. The Proposed Project's site lies within the jurisdiction of the Los Angeles RWQCB (Region 4).

Waste Discharge Requirements

All dischargers of waste to waters of the state are subject to regulation under the Porter-Cologne Act and the requirement for waste discharge requirements (WDRs) is incorporated into the California Water Code. This includes both point and NPS dischargers. All current and proposed NPS discharges to land must be regulated under WDRs, waivers of WDRs, a basin plan prohibition, or some combination of these administrative tools. Discharges of waste directly to state waters would be subject to an individual or general NPDES permit, which also serves as WDRs. The Proposed Project is subject to the Municipal Stormwater NPDES Permit the Construction General Permit, which both also serve as WDRs.

The RWQCBs have primary responsibility for issuing WDRs. The RWQCBs may issue individual WDRs to cover individual discharges or general WDRs to cover a category of discharges. WDRs may include effluent limitations or other requirements that are designed to implement applicable water quality control plans, including designated beneficial uses and the water quality objectives established to protect those uses and prevent the creation of nuisance conditions. Violations of WDRs may be addressed by issuing Cleanup and Abatement Orders or Cease and Desist Orders, assessing administrative civil liability, or seeking imposition of judicial civil liability or judicial injunctive relief.

Statewide NPDES General Construction Activity Stormwater Permit

Pursuant to the CWA § 402(p) and as related to the goals of the Porter-Cologne Water Quality Control Act, the SWRCB has issued a statewide NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit – Order No. 2022-0057-DWQ, NPDES No. CAS000002) which was adopted September 8, 2022 and becomes effective on September 1,

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

2023. Every construction project that disturbs one acre or more of land requires coverage under the Construction General Permit (CGP). Construction activities subject to the CGP include clearing, grading, and excavation activities that could result in erosion or siltation impacts. Under the terms of the permit, applicants must file Permit Registration Documents (PRD) 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 (SMARTS) website. Because the Proposed Project would disturb more than one acre, construction of the Proposed Project would be subject to the CGP requirements.

The SWPPP must include applicable best management practices (BMPs) depending upon the project's sediment risk to receiving waters. BMPs are intended to reduce impacts from erosion and siltation to the maximum extent practicable. Additionally, the SWPPP must contain a weekly visual monitoring program and BMP inspections prior to, during, and after qualifying precipitation events. Water quality monitoring is also required with at a schedule that is based on the risk level of the site.

For all sites that are not covered by a Phase I or Phase II MS4 permit, the project must implement post-construction stormwater performance standards as stated in the CGP. This is applicable for all K-12 schools and community colleges, which includes the Proposed Project.

Statewide 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. Together, 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. The City has incorporated in their Municipal Code that any structural or treatment control BMP used for stormwater mitigation must include a full capture trash system.

Water Conservation in Landscaping Act of 2006

The Water Conservation in Landscaping Act includes the State of California's Model Water Efficient Landscape Ordinance (MWELo), which requires cities and counties to adopt landscape water conservation ordinances. The MWELo was revised in July 2015 via Executive Order B-29-15 to address the ongoing drought and build resiliency for future droughts. State law requires all land use agencies, which includes cities and counties, to adopt a water efficient landscape ordinance that is at least as efficient as the MWELo prepared by the California Department of Water Resources (DWR). The 2015 revisions to the MWELo improve water conservation in the landscaping sector by promoting efficient landscapes in new developments and retrofitted landscapes. The revisions increase water efficiency by requiring more efficient irrigation systems, incentives for grey water usage, improvements in on-site stormwater capture, and limiting the portion of landscapes that can be covered in high-water-use plants and turf. This applies to residential, commercial, industrial, and institutional projects that require a permit, plan check, or design review. The

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

previous landscape size threshold for new development projects ranged from 2,500 square feet to 5,000 square feet. The size threshold for rehabilitated landscapes has not changed and remains at 2,500 square feet.

The City of Santa Monica has enacted these provisions in the Santa Monica Municipal Code Article 8, Chapter 8.108, Green Building, Landscape Design, Resource Conservation and Construction and Demolition Waste Management Standards.

Regional

Municipal Stormwater NPDES Permit

Stormwater discharges from the County of Los Angeles are regulated under the Waste Discharge Requirements for Municipal Stormwater and Urban Runoff Discharges within the County of Los Angeles, and Incorporated Cities Therein, Except the City of Long Beach (Order No. R4-2012-0175 and NPDES No. CAS004001), including all subsequent amendments through 2016 issued by the LARWQCB, which also serves as a NPDES permit under the federal CWA. The Permittees are required to effectively prohibit non stormwater discharges into the municipal storm drain system. Additionally, the City of Santa Monica approved a local Low Impact Development Ordinance equivalency that provides equivalent or greater water quality benefits than those derived from the County's NPDES permit requirements (SWRCB 2015).

Although the Proposed Project is in Los Angeles County, all California K-12 school districts and community college districts are not currently subject to the requirements of the MS4 Permit. The SWRCB is in the process of expanding the Phase II Small MS4 permit to include school districts and community colleges. Once the amendment is adopted, school districts and community college districts will have five years to comply with the Phase II Small MS4 permit.

The new permit would require school districts and community college districts to develop a Stormwater Management Plan that includes: 1) a map of storm water drainage on school properties, 2) identifying areas throughout the district that could generate stormwater pollution, 3) training staff on stormwater BMPs, 4) continuing to implement the SWRCB's Construction General Permit, 5) designing and building new construction to meet the permit requirements for stormwater runoff quality and quantity, and 6) documenting activities and submitting an annual report to the SWRCB.

Prior to issuance of the new Phase II MS4 permit, the Proposed Project would be required to comply with the provisions of the SWRCB's post-construction stormwater performance standards. Once the new permit is issued, it is expected that the school districts and community college districts would have to comply with requirements similar to those specified in Section F.5.g—Post Construction Storm Water Management Program—of the existing Phase II MS4 permit. This provision specifies site design and low impact development design standards, source control measures, and sizing criteria for stormwater retention and treatment.

Basin Plan

The LARWQCB implements several federal and state laws, the most important of which are the state Porter-Cologne Act and the federal CWA. The Water Quality Control Plan Los Angeles Region Basin Plan (1995,

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

and as amended in 2022) was prepared by the LARWQCB to comply with the federal CWA and the state Porter-Cologne Act. The Basin Plan establishes water quality objectives for surface water and groundwater, and implementation programs to meet stated objectives and to protect the beneficial uses of water in the Los Angeles region.

Local

City of Santa Monica Municipal Code

Projects within the City of Santa Monica must also comply with the following requirements of the City's Municipal Code:

- **Santa Monica Municipal Code (SMMC) Chapter 7.10 Runoff Conservation and Sustainable Management.** Codifies requirements of the County MS4 permit to maximize on-site storage of runoff and use of rainwater and stormwater through a hierarchy of construction and post-construction BMP strategies.
- **Section 7.06.450 Water/stormwater runoff mitigation.** Requires permittees to prevent non-stormwater discharge construction sites from entering the storm drain system.
- **Section 7.10.090(x) Runoff reduction requirements for development.** Any structural or treatment control BMP used for rainwater or stormwater mitigation must include a full capture trash system.
- **Section 7.10.100 Runoff requirements for construction activity.** Requires BMPs for all construction activity in the City unless otherwise specified, including a Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan.
- **Section 7.16.020 Water conservation requirements.** Outlines outdoor watering restrictions to reduce spray and flow to any impermeable surface to limit surface runoff.
- **Section 7.56.030 Stormwater management user fees.** Fees applied to each parcel in the City for the operation, maintenance, improvement and replacement of the existing storm drainage system, future systems and improving stormwater quality.
- **Section 8.108.010 Green Building, Landscape Design, Resource Conservation and Construction and Demolition Waste Management Standards.** Outlines green building design, landscape maintenance, and construction and demolition waste management standards and requirements to minimize ecological impact and to protect, preserve and restore local air, water, flora and fauna.
- **Section 9.26.070 Water Efficient Landscaping and Irrigation.** Specifies landscaping regulations to protect water quality, prevent soil erosion, improve aesthetic appearances and aid in energy conservation. All landscaping shall comply with Chapter 8.108 of the SMMC.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

Santa Monica Groundwater Sustainability Plan

The Santa Monica Groundwater Sustainability Agency (GSA) prepared the Groundwater Sustainability Plan (GSP) for the Santa Monica Groundwater Subbasin. The subbasin, which encompasses the Proposed Project, is designated as a medium priority basin and is not in critical overdraft. The GSP, adopted in January 2022 and currently under DWR review for adequacy, describes groundwater sustainability goals for current and future uses in the subbasin to provide long-term, reliable and efficient groundwater supplies to agricultural, domestic and municipal and industrial uses. The groundwater basin is not adjudicated, and the City of Santa Monica is the only municipality that pumps groundwater from this basin. The GSP provides management criteria to ensure that the sustainable yield of the groundwater basin is not exceeded.

Santa Monica Water Neutrality Ordinance

The City of Santa Monica adopted the Water Neutrality Ordinance in May 2017. The ordinance does not allow new residential or commercial developments to exceed the previous water use for the site, based on a five-year historic average. The means to achieve water net neutrality is through two options: 1) the installation of water-efficient fixtures and landscaping at the proposed development site or 2) payment an in-lieu fee, which funds the City's Water Neutrality Direct Install Program. The City has prepared water neutrality calculators, based on the type of new development or redevelopment, which must be submitted to the City with the project application. The City will provide the baseline 5-year historic water demand for the project's parcel to assist in calculating the existing and proposed water demand.

Santa Monica Efficient Landscape and Irrigation Standards

The City has developed a document entitled *Water Efficient Landscape and Irrigation Standards* to assist project developers in meeting the City's Green Building Ordinance (SMMC 8.108). The document dated October 2016 details the design, installation, and maintenance requirements of landscape and irrigation systems in the City of Santa Monica. Prior to the issuance of a building permit, project applicants must submit landscape documentation, including a landscape planting plan with details and specifications, landscape water demand calculations, and a landscape plan submittal verification sheet. If a new irrigation system is part of the project, than an irrigation plan with details and specifications and an irrigation plan submittal verification sheet must also be submitted. The City provides landscape water demand calculators and guidelines for complying with the standards on their website through the Office of Sustainability and the Environment.

5.8.1.2 EXISTING CONDITIONS

Regional and Local Drainage

The Proposed Project's Site is in the Santa Monica Bay Watershed and more specifically in the Garapito Creek-Frontal Santa Monica Bay subwatershed. The Santa Monica Bay Watershed Management Area (WMA) encompasses an area of 414 square miles. It extends from the crest of the Santa Monica Mountains on the north, and from the Ventura-Los Angeles County line to the west, downtown Los Angeles to the east, and the Pacific Ocean to the south. The smaller Garapito Creek-Frontal Santa Monica Bay subwatershed extends

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

from the Santa Monica Mountains to the north, Malibu Beach to the west, Westwood and Marina del Rey to the east, and the Pacific Ocean to the south.

The Project Project's Site is currently developed with hardscape and impervious surfaces encompassing the school buildings and parking lots; the pervious areas include landscaping and play fields. The topography in the Proposed Project's area is relatively flat with gentle slopes to the south. Currently, runoff is collected via swales and storm drain inlets and conveyed by an internal storm drain system that connects to the City's existing storm drains beneath Chelsea Avenue and Santa Monica Boulevard.

Surface Water Quality

Though relatively small in size compared with watersheds in other parts of California, the Santa Monica Bay Watershed is composed of highly variable geologic and hydrologic characteristics, habitat features, and human activities. According to the Los Angeles RWQCB, the existing beneficial uses at Santa Monica Bay include water contact and noncontact water recreation; commercial and sport fishing; wildlife habitat; marine habitat; and shellfish harvesting. Fish spawning is also a potential beneficial use (SWRCB 2020).

In addition to the establishment of beneficial uses and water quality objectives, another approach to improving water quality is a watershed-based methodology that focuses on all potential pollution sources and not just those associated with point sources. If a body of water does not meet established water quality standards under traditional point source controls, then it is listed as an impaired water body under Section 303(d) of the CWA. For 303(d) listed water bodies, a limit is established, which defines the maximum amount of pollutants (or total maximum daily load [TMDL]) that can be received by that water body.

The major sources of pollutants in Santa Monica Bay are the three publicly owned treatment works (POTWs). Pollutants from other NPDES discharges have been estimated to contribute less than 2 percent of the total pollutants being discharged to the Bay (SWRCB 2018a). A considerable number of monitoring programs have been implemented in the Santa Monica Bay Watershed. Four statewide monitoring programs—State Mussel Watch, Bay Protection and Toxic Cleanup, Coastal Fish Contamination Program, and Toxic Substances Monitoring—have focused on biological measurements as well. More recently, the state's Surface Water Ambient Monitoring Program has also collected chemical and biological data.

Santa Monica Bay Offshore/Nearshore is listed as a listed impaired water body and the pollutants of concern include dichlorodiphenyltrichloroethane (DDT), polychlorinated biphenyls (PCBs), mercury, arsenic, and trash (SWRCB 2018b).

Groundwater and Groundwater Quality

The Proposed Project's Site is within the Santa Monica Groundwater Subbasin. The City of Santa Monica supplies potable water through a combination of local groundwater (approximately 60-70 percent of the total water supply) and imported water from the Metropolitan Water District (MWD), which accounts for approximately 30-40 percent of the total water supply (City of Santa Monica 2021).

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

The Geotechnical Exploration report found that groundwater was not encountered to the maximum drilled depth of approximately 51.5 feet below ground surface (bgs) (Leighton 2021). The historic depth of groundwater is documented at depths ranging from 110 to 132 feet bgs (Leighton 2021).

The listed beneficial uses of local groundwater are for municipal and domestic supplies, industrial process supply and service supply, and agricultural supply (SWRCB 2020). Although the groundwater subbasin has been affected by releases of chlorinated solvents and other chemicals, such as trichloroethylene (TCE), tetrachloroethylene (PCE), methyl tertiary butyl ether (MTBE), the City treats pumped groundwater at the Charnock Water Treatment Facility and blends the treated water with non-contaminated groundwater to achieve the water quality objectives set in the Basin Plan (City of Santa Monica 2021).

Flooding

As discussed in the Initial Study (see Appendix B of this DEIR), the campus is not within a flood zone identified by Federal Emergency Management Act (FEMA), is not within a dam inundation area and there are no nearby aboveground water storage tanks that could cause flooding in the unlikely event of a tank failure (FEMA 2021; DSOD 2022).

5.8.2 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:
 - iv) 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.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

HYD-5 Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

The Initial Study, included as Appendix B, substantiates that impacts associated with the following thresholds would be less than significant:

- Threshold HYD-3(i) through 3(iv)
- Threshold HYD-4
- Threshold HYD-5

These impacts will not be further addressed in this DEIR.

5.8.3 Environmental Impacts

5.8.3.1 IMPACT ANALYSIS

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

Impact 5.8-1: The Proposed Project would not violate water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality. [Threshold HYD-1]

Urban runoff from storms or nuisance flows (runoff during dry periods) from development projects can carry pollutants to receiving waters. Runoff can contain pollutants such as oil, fertilizers, pesticides, trash, and sediment. This runoff can flow directly into local streams or into storm drains and continue through pipes until it is released untreated into a local waterway and eventually the ocean. Untreated stormwater runoff degrades water quality in surface waters and groundwater and can affect drinking water, human health, and plant and animal habitats.

The construction and operational phases of the Proposed Project could have the potential to impact water quality. Construction activities may impact water quality due to the erosion of exposed soils. During the operational phase of the Proposed Project, erosion potential would decrease but impacts from urban runoff would increase. The following is a discussion of the potential impacts that the construction and operational phases of the Proposed Project could have on water resources and quality.

Project Construction

Clearing, grading, excavation, and construction activities associated with the Proposed Project may impact water quality through soil erosion and 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.

5. Environmental Analysis

HYDROLOGY AND 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, the Proposed Project would be required to comply with the Construction General NPDES Permit as well as prepare a Stormwater Pollution Prevention Plan (SWPPP) that requires the incorporation of BMPs to control sedimentation, erosion, and hazardous materials contamination of runoff during construction. The SWRCB mandates that projects that disturb one or more acres of land must obtain coverage under the Construction General NPDES Permit. The Construction General NPDES Permit also requires that prior to the start of construction activities, the project applicant must file PRDs with the SWRCB, which includes a Notice of Intent, risk assessment, site map, annual fee, signed certification statement, SWPPP, and post-construction water balance calculations. The construction contractor is required to always maintain a copy of the SWPPP on-site and implement all construction BMPs identified in the SWPPP during construction activities. Prior to the issuance of a grading permit, the project applicant is required to provide proof of filing of the PRDs with the SWRCB.

The SWPPP must describe construction BMPs that address pollutant source reduction and provide measures/controls to mitigate potential pollutant sources. These include, but are not limited to:

- Erosion controls (e.g., earth dikes and swales, mulching, slope drains, compost blankets)
- Sediment controls (e.g., silt fence, sediment trap, sandbag or straw bale barriers)
- Tracking controls (e.g., stabilized construction entrance/exit, tire wash)
- Non-storm water management (e.g., dewatering practices, vehicle and equipment cleaning)
- Materials and waste management (e.g., material storage, hazardous waste management, soil management)
- Good housekeeping practices.

Submittal of the PRDs and implementation of the SWPPP and its associated BMPs throughout the construction phase of the Proposed Project will address anticipated and expected pollutants of concern due to construction activities. The Proposed Project would comply with all applicable water quality standards and waste discharge requirements. Therefore, the construction of the Proposed Project would not violate water quality standards or waste discharge requirements and would not otherwise substantially degrade water quality, resulting in a **less than significant impact**.

Project Operation

Once the Proposed Project has been constructed, urban runoff could include a variety of contaminants that could impact water quality. Runoff from buildings and parking lots 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.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

The District is not regulated under the Los Angeles County MS4 permit and the Phase II Small MS4 permit for K-12 school districts and community colleges has not yet been issued by the SWRCB. In the interim, the District is required to comply with the post-construction performance standards under the Construction General NPDES Permit. The performance standards specify runoff reduction requirements for all sites not covered by Phase I or Phase II MS4 permits to minimize and mitigate stormwater runoff impacts. The following is a discussion of site-design, source-control, and treatment-control BMPs that would be incorporated into the Proposed Project.

Site Design BMPs

Site design BMPs would be incorporated into the Proposed Project's design to reduce the potential impacts on surface and groundwater quality. These include:

- Incorporate earthen swales, planters, and landscaping to mitigate urban heat island impacts.
- Include mostly native plants and drought-tolerant plants in landscaping plans.
- Use effective irrigation systems to minimize outdoor water usage, such as the proposed stormwater capture and reuse system which would collect and store runoff for site irrigation purposes.

Source Control BMPs

Source control BMPs effectively minimize the potential for typical urban pollutants to contact stormwater, thereby limiting water quality impacts downstream. A variety of source control BMPs would be incorporated into the Proposed Project and implemented throughout the operation of the campus, including the following:

- Educational materials related to urban runoff provided to all employees, students, and staff.
- Inspection and maintenance of site BMPs—catch basins, grate inlets, etc.
- Compliance with the City of Santa Monica Municipal Code and Uniform Fire Code.
- Providing storm drain stenciling or signage on all storm drain inlets and catch basins.
- Properly designing and inspecting on a regular basis all trash storage areas, loading docks, outdoor storage areas, and outdoor work areas.

Treatment Control BMPs

Treatment control BMPs (single or in combination) remove anticipated pollutants of concern from on-site runoff. Additionally, low impact design (LID) features are proposed for the Proposed Project to avoid and/or minimize impacts to hydrology and water quality. The proposed LID features for the Proposed Project includes earthen swales, flow-through planters, and landscaped areas which would collect and treat runoff. The LID features would connect to the existing storm drain system at the school and are designed to detain peak flows for the 85th percentile storm event prior to discharge into the City's storm drain system. The

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

maintenance requirements, inspection schedule, and staff responsibilities for maintaining the stormwater treatment systems would be provided by the District.

Furthermore, as part of the statewide mandate to reduce trash in receiving waters, the District would adhere to the requirements of the City of Santa Monica Municipal Code, which include the installation and maintenance of full-capture trash screening devices at curb inlets, grate inlets, and catch basin inlets. The trash screening devices must be certified by the SWRCB. With the implementation of the BMP features described above, as well as compliance with State, County, and local regulations and code requirements, the Proposed Project would have a **less than significant impact** on surface or groundwater quality during the operational phase.

Impact 5.8-2: The Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Proposed Project may impede sustainable groundwater management of the basin. [Threshold HYD-2]

The City of Santa Monica supplies potable water through a combination of local groundwater (approximately 60-70 percent of the total water supply) and imported water from the Metropolitan Water District (MWD), which accounts for approximately 30-40 percent of total water supply (City of Santa Monica 2021). As described in Chapter 3, *Project Description*, the Proposed Project would not change current enrollment or staffing. Therefore, overall water demand is not expected to increase (and could in fact decrease with new fixtures and irrigation). there would be no impact on groundwater supplies.

The Proposed Project's Site is already built out with hardscape and impervious surfaces, and implementation of the Proposed Project would not substantially increase the amount of impervious surfaces on the Proposed Project's Site. Runoff at the existing school is currently collected via swales and storm drain inlets and conveyed by an internal storm drain system that connects to the City's existing storm drains beneath Chelsea Avenue and Santa Monica Boulevard. The Proposed Project's LID features include earthen swales, flow-through planters, and landscaped areas which would collect the stormwater runoff before discharge to the existing City storm drain system. Therefore, the Proposed Project would not interfere with groundwater recharge.

Additionally, it is unlikely that groundwater would be encountered during construction that would require dewatering, since groundwater was not encountered in borings or cone penetrometer tests (CPTs) drilled to a maximum depth of approximately 51.5 feet bgs (Leighton Consulting 2021). The historic depth of groundwater is documented at depths ranging from 110 to 132 feet bgs (Leighton, 2021). Therefore, construction dewatering would not be necessary and would not impact groundwater recharge.

The Proposed Project would not substantially decrease groundwater supplies or interfere substantially with groundwater recharge during operation or construction, and impacts would be **less-than-significant**.

5.8.4 Mitigation Measures

No mitigation measures are required.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

5.8.5 Level of Significance After Mitigation

All impacts are **less than significant**.

5.8.6 Cumulative Impacts

The area considered for cumulative hydrology, drainage, and flood hazard impacts is the Santa Monica Bay Watershed. New projects in the area, both individually and cumulatively, could increase the impervious surface areas, increase the volume of stormwater runoff, and contribute to pollutant loading in the storm drain system with discharge to creeks and ultimately to the Pacific Ocean. However, as with the Proposed Project, future projects within the City of Santa Monica and Los Angeles County would be required to comply with drainage and grading regulations and ordinances that control runoff and regulate water quality at each development site. New development and redevelopment projects would be required to demonstrate that stormwater volumes could be managed by on-site and downstream conveyance facilities and would not induce flooding. New projects also would be required to comply with local, state, and federal regulating stormwater discharge during construction (such as a Construction SWPPP) and operation (such as a WQMP) and water quality.

The projects would be subject to review and approval by the appropriate City or the County to ensure that appropriate BMPs and treatment measures are implemented to reduce pollutants in stormwater and avoid adverse impacts to surface water quality. New development and certain redevelopment projects are required to retain and treat a specified volume of stormwater runoff on-site through incorporation of BMPs so that stormwater volumes. As described above, with the implementation of the BMPs, the Proposed Project would not substantially increase the amount of stormwater runoff and pollutants currently entering the storm drain system from this Proposed Project's Site under existing baseline conditions with the implementation of required BMPs and stormwater treatment measures.

The implementation of related cumulative projects would result in an increase in water use that could result in an increase in groundwater extraction to serve the cumulative projects. In addition, impervious surfaces associated with the cumulative projects could alter the existing infiltration of stormwater to recharge groundwater supplies. There is a possibility that the implementation of the cumulative development could significantly increase the use of groundwater supplies and could affect the existing stormwater infiltration to recharge groundwater supplies. Therefore, cumulative development could result in significant cumulative impacts to groundwater supplies.

As described above, the proposed project would not increase groundwater basin water demand to supply the campus; therefore, the Proposed Project would not contribute to substantial decrease in groundwater levels, and the proposed project would not substantially deplete groundwater supplies. The Proposed Project would not significantly increase impermeable surfaces. As a result, the proposed project would result in a less than cumulatively considerable impact on the use of groundwater supplies and stormwater infiltration to recharge groundwater supplies.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

5.8.7 References

- Division of Safety of Dams (DSOD). 2022. California Dam Breach Inundation Maps. Accessed on July 8, 2022 at <https://fmds.water.ca.gov/maps/damim/>.
- Federal Emergency Management Act (FEMA). 2021. Flood Insurance Rate Map (FIRM) No. 06037C1590G, dated April 21, 2021.
- Leighton Consulting Inc., 2021. Geotechnical Exploration Report, New Classroom Building for McKinley Elementary School, 2401 Santa Monica Boulevard, Santa Monica, Los Angeles County, California. Dated November 19, 2021.
- Santa Monica, City of. 2021. 2020 Urban Water Management Plan. Dated June 2021.
- State Water Resources Control Board (SWRCB). 2022. Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties. Access on January 30, 2023 at https://www.waterboards.ca.gov/losangeles/water_issues/programs/basin_plan/basin_plan_documentation.html.
- State Water Resources Control Board (SWRCB). 2018a. Water Quality and Watersheds: Santa Monica Bay Watershed Management Area. Accessed January 30, 2023 at https://www.waterboards.ca.gov/losangeles/water_issues/programs/regional_program/Water_Quality_and_Watersheds/ws_santamonica.shtml.
- State Water Resources Control Board (SWRCB). 2018b. Integrated Report Map. Accessed January 30, 2023 at https://www.waterboards.ca.gov/water_issues/programs/water_quality_assessment/2018_integrated_report/2018IR_map.html.
- State Water Resources Control Board (SWRCB). 2015. Tentative Approval of the City of Santa Monica's Request for LID Ordinance Equivalency, accessed on March 1, 2023 at https://www.waterboards.ca.gov/rwqcb4/water_issues/programs/stormwater/municipal/la_ms4/2015/Tentative_LID_Approval.pdf
- US Environmental Protection Agency (USEPA). 2012, September 26. Water Permitting 101. <http://www.epa.gov/npdes/pubs/101pape.pdf>.

5. Environmental Analysis

HYDROLOGY AND WATER QUALITY

This page intentionally left blank.