
IV. ENVIRONMENTAL IMPACT ANALYSIS

I. HYDROLOGY AND WATER QUALITY

REGULATORY SETTING

Regulatory Framework

Federal Regulations

National Flood Insurance Program

The National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973 mandate the Federal Emergency Management Agency (FEMA) to evaluate flood hazards. FEMA provides flood insurance rate maps (FIRMs) for local and regional planners to promote sound land use and floodplain development, identifying potential flood areas based on the current conditions. To delineate a FIRM, FEMA conducts engineering studies referred to as flood insurance studies (FIS). Using information gathered in these studies, FEMA engineers and cartographers delineate special flood hazard areas (SFHA) on FIRMs. The Flood Disaster Protection Act requires owners of all structures in identified SFHAs to purchase and maintain flood insurance as a condition of receiving federal or federally-related financial assistance, such as mortgage loans from federally-insured lending institutions. Community members within designated areas are able to participate in the National Flood Insurance Program (NFIP) afforded by FEMA. The NFIP is required to offer federally-subsidized flood insurance to property owners in those communities that adopt and enforce floodplain management ordinances that meet minimum criteria established by FEMA. The National Flood Insurance Reform Act of 1994 further strengthened the NFIP by providing a grant program for state and community flood mitigation projects. The act also established the Community Rating System, a system for crediting communities that implement measures to protect the natural and beneficial functions of their floodplains, as well as manage erosion hazards.

Clean Water Act

The United States Environmental Protection Agency (the “USEPA”) regulates water quality under the Clean Water Act (also known as the Federal Water Pollution Control Act). Enacted in 1972, and significantly amended in subsequent years, the Clean Water Act is designed to restore and maintain the chemical, physical, and biological integrity of waters in the United States. The Clean Water Act provides the legal framework for several water quality regulations, including National Pollutant Discharge Elimination System (NPDES) Permits, effluent limitations, water quality standards, pretreatment standards, anti-degradation policy, non-point source discharge regulation, and wetlands protection. The Clean Water Act requires NPDES permits for the discharge of pollutants to waters of the United States. In 1987, the Clean Water Act was amended to require that the USEPA establish regulations for permitting of municipal and industrial storm water discharges under the NPDES permit program. The USEPA published final regulations regarding storm water discharges on November 16, 1990. The regulations require that municipal separate storm sewer system (MS4) discharges to surface waters be regulated by a

NPDES permit. The USEPA has delegated the responsibility for portions of the Clean Water Act to state and regional agencies. The Clean Water Act requires states to adopt water quality standards for receiving water bodies and to have those standards approved by the USEPA. Water quality standards consist of designated beneficial uses for a particular receiving water body (e.g., wildlife habitat, agricultural supply, fishing, etc.), along with water quality criteria necessary to support those uses. Water quality criteria are prescribed concentrations or levels of constituents, such as lead, suspended sediment, and fecal coliform bacteria, or narrative statements that represent the water quality that support a particular use.

National and State Safe Drinking Water Acts

The Federal Safe Drinking Water Act, established in 1974, sets drinking water standards throughout the country and is administered by USEPA. The drinking water standards established in the Act, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR, Part 141) and the National Secondary Drinking Water Regulations (Secondary Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (the "DHS") to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the California Code of Regulations (CCR), Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal Safe Drinking Water Act.

Federal Antidegradation Policy

The Federal Antidegradation Policy requires states to develop statewide anti-degradation policies and identify methods for implementing them. Pursuant to this policy, state anti-degradation policies and implementation methods shall, at a minimum, protect and maintain: (1) existing in-stream water uses; (2) existing water quality where the quality of the waters exceeds levels necessary to support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource. State permitting actions must be consistent with the Federal Antidegradation Policy.

State and Local Regulations

California Porter-Cologne Act

The Porter-Cologne Water Quality Control Act (embodied in the California Water Code) established the principal California legal and regulatory framework for water quality control. The California Water Code authorizes the State Water Resources Control Board (the "SWRCB") to implement the provisions of the Federal Clean Water Act including the authority to regulate waste disposal sites and to require cleanup of discharges of hazardous materials and other pollutants. The California Water Code also establishes reporting requirements for unintended discharges of hazardous substance, sewage, or oil or petroleum products. Under the California Water Code, the State of California is divided into nine regions governed by regional water quality control boards (the "RWQCB") that, under the guidance and review of the

SWRCB, implement and enforce provisions of the California Water Code and the Clean Water Act. Each RWQCB must formulate and adopt a water quality control plan (the “Basin Plan”) for its region. The Basin Plan must conform to the policies set forth in the California Water Code and established by the SWRCB in its state water policy. The California Water Code also provides RWQCBs the authority to include within its regional plan water discharge prohibitions applicable to particular conditions, areas, or types of waste.

Los Angeles Regional Board Basin Plan

The Los Angeles Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (i) designates beneficial uses for surface and ground waters; (ii) 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; and (iii) describes implementation programs to protect all waters in the Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

California Toxics Rule

The USEPA has established water quality criteria for certain toxic substances via the California Toxics Rule. The California Toxics Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the Los Angeles Regional Water Quality Control Board (the “LARWQCB”) as having beneficial uses protective of aquatic life or human health. Due to the intermittent nature of storm water runoff, especially in southern California, the acute criteria are considered to be more relevant to storm water than are the chronic criteria. California Toxics Rule criteria for certain metals are expressed as a function of hardness because hardness and/or water quality characteristics that are usually correlated with hardness can reduce or increase the toxicities of some metals. Hardness is used as a surrogate for a number of water quality characteristics that affect the toxicity of metals: increasing hardness has the effect of decreasing the toxicity of metals. At higher hardness values for the receiving water, copper, lead, and zinc are more likely to be complexed (bound with) components in the water column; this in turn reduces the bioavailability and resulting potential toxicity of these metals. Therefore, the California Toxics Rule criteria increase with increasing levels of hardness.

Construction Permits

Pursuant to the Clean Water Act Section 402(p), requiring regulations for permitting of certain storm water discharges, the SWRCB has issued a statewide General Permit for Stormwater Discharges Associated with Construction Activity and Land Disturbance Activities (Order No. 2012-006DEQ effective July 17, 2012). Under this Construction General Permit, discharges of storm water from

construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or be covered by the Construction General Permit. Coverage under the Construction General Permit is accomplished by completing and filing permit registration documents, which include a Notice of Intent (NOI), Storm Water Pollution Prevention Plan (SWPPP), and other documents required by this General Permit, and mailing the appropriate permit fee to the State Water Board, prior to the commencement of construction activity. SWPPPs incorporate erosion control, sediment removal, and construction waste management control measures during construction, site stabilization measures in the short-term post-construction period, and may identify best management practices (BMPs) for post-construction land use. The SWPPP must do the following:

1. Be developed and implemented by Qualified SWPPP Developers and Practitioners who have taken the appropriate state certified training;
2. Address control of all pollutants and their sources, including sources of sediment, associated with construction activities;
3. Ensure all non-storm water discharges are identified and either eliminated, controlled, or treated;
4. Include a Monitoring and Reporting Plan (M&RP) to be immediately implemented at the start of construction;
5. Include a description of all post-construction best management practices on a site and a maintenance schedule; and
6. Be available at the construction site during working hours while construction is occurring and shall be made available upon request by a State or Municipal inspector.

Dischargers must file a Notice of Termination (NOT) with the Regional Water Board when construction is complete and final stabilization has been reached or ownership has been transferred. The discharger must certify that all State and local requirements have been met in accordance with this General Permit. In order for construction to be found complete, the discharger must install post-construction storm water management measures and establish a long-term maintenance plan.

Los Angeles County MS4 Permit

The State's Municipal Storm Water Permitting Program regulates storm water discharges from Municipal Separate Storm Sewer Systems (MS4s). Under Phase I of the Program, which started in 1990, the RWQCBs have adopted NPDES storm water permits for medium (serving between 100,000 and 250,000 people) and large (serving 250,000 people) municipalities. Most of these permits were issued to a group of co-permittees encompassing an entire metropolitan area. In 2001, the LARWQCB issued an NPDES Permit and Waste Discharge Requirements (Order No. 01-182) under the Clean Water Act and the Porter-Cologne Act for discharges of urban runoff in public storm drains in Los Angeles County. The Permit

was most recently amended on June 16, 2015 (Order No. R4-2012-0175 as amended by State Water Board Order WQ 2015-0175 NPDES Permit No. CAS004001). The Permittees are the Los Angeles County incorporated cities (including the City of Los Angeles but excluding the City of Long Beach) and the County (collectively, the Co-permittees). An important element incorporated into the NPDES MS4 Permit is the requirements associated with development or redevelopment of a site. The NPDES MS4 Permit requires development/redevelopment projects to incorporate permanent (post-construction) storm water mitigation measures, if the project is one of the following:

- Parking lots that are greater than 5,000 square feet or 25 or more parking spaces
- More than 10 houses, condos, or apartment units
- Restaurant
- Auto Service Facility
- Retail Gas Outlet
- Commercial area that is more than 1.0 acre
- Adjacent to an Environmentally Sensitive Area (e.g., a river)
- Redevelopment of any of the above disturbing more than 5,000 square feet

These measures are addressed by developers through the preparation of a Standard Urban Stormwater Mitigation Plan (SUSMP) or a Site-Specific Mitigation Plan. The primary purpose of these plans is to reduce the quantity and improve the quality of storm water runoff that leaves a site. To implement the requirements of the NPDES permit, the Co-permittees have created development planning guidance and control measures that control and mitigate storm water quality and quantity impacts to receiving waters as a result of new development and redevelopment. The Co-permittees are also required to implement other municipal source detection and elimination programs, as well as maintenance measures.

Stormwater Quality Management Program

The Los Angeles County MS4 Permit requires the Co-permittees to implement a Stormwater Quality Management Program (SQMP). The SQMP summarizes the program components the Co-permittees will implement to comply with the MS4 Permit. The Los Angeles County MS4 Permit contains the following provisions for implementation of the SQMP by the Co-permittees:

- General Requirements – Each Permittee is required to implement the SQMP to comply with applicable storm water program requirements and implement additional controls where necessary to reduce the discharge of pollutants in storm water to the maximum extent practicable.

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- BMP Implementation – Permittees are required to implement the most effective combination of BMPs for stormwater/urban runoff pollution control.
 - SQMP Revision – Permittees are required to revise the SQMP to comply with regional, watershed specific requirements, and/or waste load allocations for implementation of TMDLs for impaired water bodies.
 - Responsibilities of the Principal Permittee – The responsibilities of the Los Angeles County Department of Public Works (as the Principal Permittee) include, but are not limited to, coordinating activities necessary to comply with the NPDES permit, providing personnel and fiscal resources to prepare SQMP updates and annual reports and summaries of reports required under the SQMP, and implementing a County-wide Monitoring Program and evaluating results of the monitoring program.
 - Responsibilities of Co-permittees – Each Co-permittee is required to comply with the requirements of the SQMP applicable to the discharges within its boundaries.
 - Watershed Management Committees (WMCs) – WMCs are comprised of a voting representative from each Permittee within the Watershed Management Areas (WMAs). WMCs are required to facilitate efforts and exchange of information between Co-permittees, establish additional goals for WMAs, prioritize pollution control efforts, monitor implementation of tasks designated for the WMA, and assess the effectiveness of and recommend revisions to the SQMP.
 - Legal Authority – Co-permittees are granted the necessary legal authority to prohibit non-storm water discharges to the storm drain system.

The objective of the SQMP is to reduce pollutants in urban storm water discharges to the maximum extent practicable in order to attain water quality objectives and to protect the beneficial uses of receiving waters in Los Angeles County. Special provisions are provided in the Los Angeles County MS4 Permit to facilitate implementation of the SQMP. These provisions include the following:

- BMP substitution;
- Public Information and Participation Program (PIPP);
- Industrial/Commercial Facilities Control Program;
- Development Planning Program;
- Development Construction Program;
- Public Agency Activities Program; and

- Illicit Connections and Illicit Discharges Elimination Program.

Standard Urban Stormwater Mitigation Plan

The NPDES program establishes a comprehensive stormwater quality program to manage urban stormwater and minimize pollution of the environment to the maximum extent practicable. (Pursuant to the NPDES, the Project is subject to the requirements set forth in the County's SUSMP.) The goals and objectives of the SUSMP are achieved through the use of BMPs to help manage runoff water quality. BMPs typically include controlling roadway and parking lot contaminants by installing oil and grease separators at storm drain inlets; cleaning parking lots on a regular basis; incorporating peak-flow reduction and infiltration features (such as grass swales, infiltration trenches, and grass filter strips) into landscaping; and implementing education programs. The SUSMP identifies the types and sizes of private development projects that are subject to its requirements. Requirements of the SUSMP are enforced through LCF's plan approval and permit process.

On March 8, 2000, the development planning program requirements, including the SUSMP requirements (collectively, development planning program requirements, including SUSMP requirements, are referred to in this EIR as SUSMP requirements) were approved by the LARWQCB as part of the MS4 program to address storm water pollution from new construction and redevelopment. The SUSMP contains a list of minimum BMPs that must be employed to infiltrate or treat storm water runoff, control peak flow discharge, and reduce the post-project discharge of pollutants from storm water conveyance systems. The SUSMP defines, based upon land use type, the types of practices that must be included and issues that must be addressed as appropriate to the development type and size. The 2002 County of Los Angeles' Manual for the Standard Urban Stormwater Mitigation Plan (the "Manual") details the requirements for new development and significant redevelopment BMPs. The Manual is a model guidance document for use by the Co-permittees and certain individual project owners to select post-construction BMPs and otherwise comply with the SUSMP requirements. The Manual addresses water quality and drainage issues by specifying design standards for structural or treatment control BMPs that infiltrate or treat storm water runoff and control peak flow discharge. BMPs are defined in the Manual and SUSMP requirements as "any program, technology, process, sizing criteria, operational methods or measures, or engineered systems, which, when implemented, prevent, control, remove, or reduce pollution." Treatment BMP design criteria and guidance are also contained in the Los Angeles County MS4 Permit, the Manual, and in the 2004 Technical Manual for Stormwater Best Management Practices in the County of Los Angeles, issued by the Los Angeles County Department of Public Works.

Local

City of La Cañada Flintridge Municipal Code

Section 9.20.050 of the City of La Cañada Flintridge (LCF) Municipal Code outlines prohibited activities related to wastewater and runoff. Specifically, the municipal code prohibits any discharge in violation of

NPDES Permit Number CAS614001, which reiterates the federal regulations.¹ In addition, LCF's municipal code incorporates the Los Angeles County Building Code, which generally incorporates SUSMP requirements into its code at Appendix Chapter 33 (Excavation and Grading). Section 3319 (NPDES Compliance) requires all grading plans and permits to comply with the NPDES permit, which includes the SUSMP provisions, although the SUSMP is not explicitly mentioned in the county code.

Low Impact Development Ordinance

In May 2015, LCF adopted Ordinance No. 433 (Low Impact Development [LID] Standards) of Chapter 12.84 of the Los Angeles County Code and incorporated the standards into Chapter 9.20 of LCF's Municipal Code. The purposes of the LID Standards are as follows:

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

The LID Standards apply to following types of development:

- All new development projects involving one acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area;
- New industrial parks with 10,000 square feet or more of surface area;
- New commercial malls with 10,000 square feet or more of surface area;
- New retail gasoline outlets with 5,000 square feet or more of surface area;
- New restaurants (SIC 5812) with 5,000 square feet or more of surface area;
- New parking lots with 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces;
- New automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with 5,000 square feet or more of surface area;

¹ *The LARWQCB adopted as Order No 01-182 on December 13, 2001 that prescribes the new "Waste Discharge Requirements for Municipal Storm Water and Urban Runoff Discharges Within the County of Los Angeles, and The Incorporated Cities Therein, Except The City of Long Beach" (NPDES No. CAS004001), in Los Angeles County.*

- New development located in or directly adjacent to or discharging directly to a Significant Ecological Area (SEA), as defined in Section 22.08.190 of Title 22 of the County’s Code, which will discharge stormwater runoff that is likely to impact a sensitive biological species or habitat and create two 2,500 square feet or more of impervious surface area;
- Certain redevelopment projects;
- Street and Road Construction; and
- Single Family Hillside Homes.

LID Standards include controlling rates and volumes of stormwater runoff to those under pre-development conditions; preventing pollutants of concern from leaving a development site; and minimizing hydromodification impacts to natural drainage systems.

New Storm Water Management Regulations

In March 2016, LCF adopted Ordinance No. 447, amending Chapter 9.21 of LCF’s Municipal Code, establishing new storm water management regulations. The purpose of the ordinance is to protect and enhance the water quality of LCF’s watercourses, water bodies, and wetlands in a manner consistent with the CWA and RWQCB Order No. R4-2012-0175, and any amendment, revision, or reissuance thereof, and to ensure the health, safety, and general welfare of LCF’s citizens by controlling non-storm water discharges into the storm drain system; eliminating discharges to the storm drain from spills, dumping, or disposal of materials other than storm water; and reducing pollutants in storm water discharges.

ENVIRONMENTAL SETTING

The Flintridge Sacred Heart Academy (FSHA) campus (or the “Project site”) is situated on the crest of the San Rafael Hills in the southeastern part of LCF, at an elevation of approximately 1,650 feet above sea level. Average annual rainfall in the area is approximately 22 inches, as measured at the National Weather Service Cooperative Network station in Altadena, which is 2.6 miles east of the Project site (ID 040144, Western Regional Climate Center).² More than 90 percent of this rainfall occurs during the period from November to April.

The site for the Parking Facility slopes relatively steeply to the east. Stormwater currently flows into a V-gutter or catch basin before being discharged to the landscaped slope east of the existing parking lot site. The sites for expansion of the High School and Arts Center Buildings are relatively level planes above a southwest-facing downhill slope. Stormwater and runoff from the impermeable surfaces near the buildings flow downhill along the curbs to St. Katherine Drive. The Palmerstone Property is a mesa that sets above Palmerstone Drive and is an undeveloped plot of land with permeable surfaces. Given the

² Western Regional Climate Center, <http://www.wrcc.dri.edu/cgi-bin/cliMAIN.pl?ca0144>, hit on May 5, 2016.

permeability of this site, stormwater and runoff are either retained and absorbed on site or flows to lower elevations on all sides of the mesa. Stormwater and runoff currently are not treated at the Project site.

ENVIRONMENTAL IMPACTS

Thresholds of Significance

Appendix G of the CEQA Guidelines

In accordance with Appendix G to the CEQA Guidelines, a project could result in a significant impact if the project would result in the following:

- a) Violate any water quality standards or waste discharge requirements;
- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted);
- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or off-site;
- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
- e) 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;
- f) Otherwise substantially degrade water quality;
- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map;
- h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows;
- i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam; or

- j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

As discussed in Section IV.A (Impacts Found to be Less Than Significant), the Project would not result in any significant impacts related to issues “a” and “g” through “j.” No further analysis of these issues is required.

Project Impacts

Groundwater Recharge

Flintridge Sacred Heart Academy Campus

As stated previously, the Project site is situated on the crest of the San Rafael Hills in the southeastern part of LCF, at an elevation of approximately 1,650 feet above sea level. Historical groundwater well measurements taken in LCF at a surface elevation of 1,281 feet above sea level indicated a groundwater level of 48.6 feet below ground surface.³ Groundwater beneath the Project site is over 300 feet below ground surface. With the exception of the Palmerstone Property and the athletic field, during storm events, most of the storm water that encounters the Project site flows to either a natural drainage or is directed to the on-site storm drain system and/or local municipal storm drain system. Due to the relatively flat surface area at the Palmerstone Property and the existing athletic field, some storm water is absorbed into these areas, while some of the stormwater is directed to natural and/or municipal drainage systems. Given the depth to groundwater beneath the Project site and the steep hillside terrain of the Project and surrounding area, the Project site is not a source of groundwater recharge.

Implementation of the Project would increase the amount of impervious surface at the Project site by approximately 0.2 percent (refer to Table IV.I-1), which would result in an associated increase in storm water runoff from the Project site. However, because the Project site is not a source of groundwater recharge, this change in impervious surface at the Project site would have no effect on groundwater levels in the region. Therefore, no significant impacts related to groundwater recharge would occur as a result of the Project.

³ Los Angeles County Department of Public Works, <http://dpw.lacounty.gov/general/wells/>, hit on May 5, 2016.

**Table IV.I-1
FSHA Campus Footprint Composition**

Area	Existing (% of campus acreage)	Proposed (% of campus acreage)	Change in Permeability (% of campus acreage)
Overall Campus Area	42.007 acres	42.007 acres	—
Landscape Area	83.8%	80.9%	-2.9%
Hardscape Area	5.6%	7.8%	2.2%
Parking Lot Area	3.9%	3.7%	-0.2%
Building Footprint	6.5%	7.4%	1.1%
Total	99.8%*	100.0%	-0.2%
* Does not add up to 100% because of rounding. Source: Flintridge Sacred Heart Academy Specific Plan, 2015.			

Erosion/Siltation

Construction

Ground-disturbing construction activities (e.g., vegetation removal, grading, excavation, etc.) could contribute to erosion/siltation at the Project site, if these activities occur during the rainy season. However, to ensure that no significant erosion/siltation impacts would occur as a result of construction activities, the Project Applicant would be required to prepare and implement a SWPPP, in accordance with the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented during Project construction. The SWPPP would include BMPs and erosion control measures to prevent pollution in storm water discharge. Typical BMPs that could be used during construction include good-housekeeping practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by LCF. Additionally, all Project construction activities would comply with LCF's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Therefore, through compliance with NPDES requirements and City grading regulations, Project construction impacts related to water quality would be less than significant.

Operation

For the Project's operational phase, in accordance with LCF's LID Standards, the Project Applicant would be required to prepare and submit for review and approval an LID plan along with grading and drainage plans, which would be required to incorporate appropriate stormwater pollution control

measures into the design of the Project. To meet LCF's LID Standards the Project Applicant would be required to do the following:

- Conduct site assessment and identify design considerations, including determining the feasibility of on-site infiltration;
- Apply site-specific source control measures;
- Calculate the Stormwater Quality Design Volume;
- Implement stormwater quality control measures, including retaining controlling discharge rates and volumes on the Project site to not exceed pre-Project conditions;
- Implement alternative compliance measures, if necessary;
- Implement hydromodification requirements, if necessary; and
- Develop a Maintenance Plan, if necessary.

Through compliance with LCF's LID Standards, the Project would minimize the potential for erosion/siltation to occur as a result of Specific Plan buildout. Therefore, Project impacts related to erosion siltation would be less than significant.

Onsite/Offsite Flooding/Storm Drain Capacity

As discussed previously, implementation of the Project would increase the amount of impervious surface at the Project site by approximately 0.2 percent (refer to Table IV.I-1), which would result in an associated increase in storm water runoff from the Project site. However, to meet LCF LID Standards, the Project Applicant would be required to: 1) Conduct site assessment and identify design considerations, including determining the feasibility of on-site infiltration; 2) Apply site-specific source control measures; 3) Calculate the Stormwater Quality Design Volume; and 4) Implement stormwater quality control measures, including controlling stormwater discharge rates and volumes on the Project site to not exceed pre-Project conditions. Compliance with these measures would ensure that the stormwater discharge associated with Specific Plan buildout would not cause flooding off or on the Project site and would not require increased storm drain capacity. Therefore, Project impacts related to flooding and storm drain capacity would be less than significant.

Water Quality

Construction

To address water quality during the Project's construction phase, the Project Applicant would be required to prepare and implement a SWPPP, in accordance with the NPDES General Permit for Discharges of Storm Water Associated with Construction Activity and Land Disturbance Activities. The site-specific SWPPP would be prepared prior to earthwork activities and would be implemented during Project construction. The SWPPP would include BMPs and erosion control measures to prevent pollution in storm water discharge. Typical BMPs that could be used during construction include good-housekeeping

practices (e.g., street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.) and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). The SWPPP would be subject to review and approval by LCF. Additionally, all Project construction activities would comply with LCF's grading permit regulations, which require the implementation of grading and dust control measures, including a wet weather erosion control plan if construction occurs during rainy season, as well as inspections to ensure that sedimentation and erosion is minimized. Therefore, through compliance with NPDES requirements and City grading regulations, Project construction impacts related to water quality would be less than significant.

Operation

As discussed previously, during the Project's operation phase, in accordance with LCF's LID Standards, the Project Applicant would be required to prepare and submit for review and approval an LID plan along with grading and drainage plans, which would be required to incorporate appropriate stormwater pollution control measures into the design of the Project. To meet LCF's LID Standards the Project Applicant would be required to do the following:

- Conduct site assessment and identify design considerations, including determining the feasibility of on-site infiltration;
- Apply site-specific source control measures;
- Calculate the Stormwater Quality Design Volume;
- Implement stormwater quality control measures, including retaining controlling discharge rates and volumes on the Project site to not exceed pre-Project conditions;
- Implement alternative compliance measures, if necessary;
- Implement hydromodification requirements, if necessary; and
- Develop a Maintenance Plan, if necessary.

Through compliance with LCF's LID Standards, the Project would minimize the potential for water quality impacts to occur as a result of Specific Plan buildout. Therefore, Project impacts related to water quality would be less than significant.

Southern California Edison Sub-Transmission Pole/Line Replacement

Removal and installation of the electricity poles would require vegetation removal, excavation of or around existing pole foundations, development of new pole foundations, and grading. These ground disturbances could cause erosion/siltation and/or water quality issues, if these activities occur during the rainy season. However, SCE would be required to implement BMPs and erosion control measures to prevent pollution in storm water discharge during the construction process at each pole location to ensure that. Typical BMPs that could be used during construction include good-housekeeping practices (e.g.,

street sweeping, proper waste disposal, vehicle and equipment maintenance, concrete washout area, materials storage, minimization of hazardous materials, proper handling and storage of hazardous materials, etc.), and erosion/sediment control measures (e.g., silt fences, fiber rolls, gravel bags, storm water inlet protection, and soil stabilization measures, etc.). Removal and replacement of the poles would not result in increased stormwater flows and would not cause flooding or create the need for increased storm drain capacity. For these reasons, impacts under the pole removal/replacement related to hydrology water quality would be less than significant.

CUMULATIVE IMPACTS

When new construction occurs, it generally does not lead to substantial additional runoff, since all new development is required to control the amount and quality of stormwater runoff coming from their respective sites. Additionally, all new development in LCF is required to comply with LCF's LID Ordinance and to incorporate appropriate stormwater pollution control measures into the design plans to ensure that water quality impacts are minimized. Therefore, cumulative impacts related to hydrology and water quality would be less than significant.

MITIGATION MEASURES

No significant impacts related to hydrology and water quality have been identified, and no mitigation measures are required.

LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts related to hydrology and water quality would be less than significant.