IV.D WATER RESOURCES

1. INTRODUCTION

This section describes the existing drainage characteristics of the Broadway site and the surrounding portion of Downtown Los Angeles, the quality of surface and groundwater in the area and evaluates the potential impacts of the project with respect to storm water runoff, surface water quality and groundwater quality.

2. EXISTING CONDITIONS

The project sites are located in the Los Angeles River Watershed. **Figure IV.D-1, Los Angeles River Watershed**, identifies the location of this watershed. The proposed Herald Examiner project is located in the South Park area of Downtown Los Angeles, in the heart of the Los Angeles Basin. Surface water flows from the Los Angeles Basin, drains into the Los Angeles River and eventually flows to the Pacific Ocean. Storm water on site is collected and conveyed a short distance to the Los Angeles River, which is located approximately 1.75 miles to the east of the project sites. As discussed in **Section IV.C, Geology**, the site is flat and free of slopes on and adjacent to the site.

Given the highly urbanized character of Downtown Los Angeles, impervious surfaces constitute a greater percentage of terrain than do natural permeable surfaces, thereby, limiting the infiltration of precipitation and increasing the rate of storm water runoff. Most of the project sites currently consist of impervious surfaces, including buildings, streets, parking areas and sidewalks. The Broadway site is developed with the existing Broadway building; the Hill Street site is developed with the existing Press building; and the 12th Street site is entirely paved with an asphalt surface parking lot. Therefore, existing runoff from each of the three project sites is high.

a. Los Angeles River Watershed

Description

The Los Angeles River Watershed covers a land area of over 2,135 square kilometers (834 square miles) from the eastern portions of Santa Monica Mountains, Simi Hills and Santa Susana Mountains in the west to the San Gabriel Mountains in the east. The watershed encompasses, and is shaped by, the path of the Los Angeles River. The Los Angeles River flows from its headwaters in the mountains, eastward to the northern corner of Griffith Park, where the channel turns southward through the Glendale Narrows area before it flows across the coastal plain and into San Pedro Bay near Long Beach. The Los Angeles River Watershed includes diverse patterns of land use. The upper portion of the watershed, 920 square

kilometers (approximately 360 square miles), is covered by forest and/or open space, while the remaining watershed, 1,215 square kilometers (approximate 474 square miles), is highly developed with commercial, industrial and residential uses.

Eight major tributaries to the Los Angeles River flow from the river's headwaters to the Pacific Ocean. The major tributaries of the Los Angeles River include Burbank Western Channel, Pacoima Wash, Tujunga Wash and Verdugo Wash in the San Fernando Valley; and the Arroyo Seco, Compton Creek and Rio Hondo, south of the Glendale Narrows. The Los Angeles River Watershed has 22 lakes within its boundaries, including Devil Gates Dam, Hansen Basin, Lopez Dam, Pacoima Dam and Sepulveda Basin. In addition, there are a number of spreading grounds in the watershed including sites at Dominguez Gap, the Headworks, Hansen Dam, Lopez Dam and Pacoima Dam. The Los Angeles River is hydraulically connected to the San Gabriel River through the Whittier Narrows Reservoir, although this occurs primarily during large storm events.

The Los Angeles River, which once flowed freely over the coastal plain, was channelized between 1914 and 1970 to control the runoff and reduce the impacts of major flood events in the region. Today, the Los Angeles River is lined with concrete reinforcement on 77 kilometers (km) (47.9 miles) of its 82-km (51-mile) length. There are three stretches where the channel is not lined: (1) within the Sepulveda Flood Control Basin; (2) through the Glendale Narrows; and (3) south of Willow Street in Long Beach.

The Los Angeles River, along much of its course, had intermittent flow during much of the year prior to channelization. In addition, many of its tributaries did not reach the river except during storm events. The current flow in the river is effluent, with approximately 80 percent of its flow originating at dischargers and the remaining flow coming from storm drain runoff and groundwater reaching the surface.

Water Quality

The Los Angeles River Watershed has impaired water quality in the middle and lower portions of the basin due to runoff from dense clusters of commercial, industrial, residential and other urban activities. In the 1998 EPA Clean Water Act Section 303(d), a list of impaired waters details impairments in a majority of the Los Angeles River Watershed due to point and nonpoint sources. These impairments include the following: pH, ammonia, a number of metals, coliform, trash, scum, algae, oil and chorpyrifos, as well as other pesticides and volatile organics.

b. Drainage System

The project sites are located within the Textile Drainage System service area. The water flows from the project in a southeasterly direction to the Los Angeles River. As shown in **Figure IV.D-2, Textile**

Figure IV.D-1 Los Angeles River Watershed

Figure IV.D-2 Textile Drainage System

Drainage Systems, the storm water from the project sites flows from the Textile Drainage System to the east, down 11th Street, south along Main Street into the City of Los Angeles jurisdiction on Main Street, then southeast to the County of Los Angeles jurisdiction, to storm water drainage lines 58 and 482 and finally into the Los Angeles River.

The Textile Drainage System consists of several underground drainage pipes ranging in width from 3–6 inches along Hill Street between 11th Street and 12th Street to 4–5 inches along Main Street between Broadway and Olive Street. As shown in **Table IV.D-1**, below, all storm drains have adequate capacity to accommodate current peak flows.

Table IV.D-1
Textile Storm Drain System Characteristics

Reach	Length (ft)	Size (Diameter)	Area (Acres)	Peak Flow (cfs)	Peak Flow from Project (cfs)	Capacity (cfs/ acre)
1A–2A	892.5	3–6"	12	25	4.20	2.08
2A–3A	854	4–5"	7	20	8.93	2.86
3A–Line B	n/a	n/a	5	17	10.60	3.4
Line 4B–Line A	n/a	n/a	23	50	6.77	2.17

Source: Impact Sciences, Inc., September 2003. Data: George Aintablian, County of Los Angeles Public Works Department.

1 *Calculations by Impact Sciences, Inc.: Capacity (cfs/acre) x acres of site/s that will affect the reach = Peak flow from project (cfs)*

According to the City of Los Angeles Safety Element Exhibit F, the project is not located within a 100- or 500-year floodplain. There are 22 dams in the County of Los Angeles, seven of which are operated by the U.S. Army Corps of Engineers (ACOE) and 15 of which are operated by the Los Angeles Department of Public Works. The dam nearest to the project is Sepulveda Dam, which is approximately 15 miles northwest of the Herald Examiner project sites. The proposed project is not located within an inundation zone according to the Los Angeles General Plan Safety Element Exhibit G.

c. Surface Water Quality

The project sites lie within the Central Basin and are located less than 2 miles from the Los Angeles River. Natural drainage in the project area has been modified and is now controlled by engineered drainage and flood-control infrastructure. As mentioned above, the Textile Drain conveys storm water runoff from the project sites, to the east and eventually into the Los Angeles River. Surface water quality in the Los Angeles River is directly related to the quality of storm flows, reclaimed wastewater from water reclamation plants and industrial discharges. Surface runoff from storm water generally contains oils and greases from street runoff, salts, trash and debris, sodium-calcium and sulfate-bicarbonate, which are

dissolved from rocks in the tributary areas. Surface water discharges from industrial facilities are regulated under National Pollutant Discharge Elimination System (NPDES) regulations and permits.

d. Groundwater Quality

The City of Los Angeles overlies eight groundwater basins within the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB) and designated by the California Department of Water Resources (DWR). The Los Angeles Coastal Plain includes the West Coast Basin, the Central Basin, the Santa Monica Basin and the Hollywood Basin. The San Fernando Valley overlies the San Fernando Basin (or Upper Los Angeles River Area) and portions of the Eagle Rock, Verdugo and Sylmar Basins, as depicted below in **Figure IV.D-3, Los Angeles Groundwater Basins**. Approximately 80 percent of the City of Los Angeles' groundwater supply is extracted from the San Fernando Basin. The Central and Sylmar Basins provide approximately 15 and 5 percent of the City's groundwater supply, respectively. The City has not extracted water resources from the West Basin due to poor water quality. The City of Los Angeles Draft 2005 Urban Water Management Plan (UWMP) identifies a new source of groundwater: the Eagle Rock Basin. The Draft Plan states that the annual groundwater entitlements for the San Fernando, Sylmar, Central, West Coast and Eagle Rock Basins are 87,000, 3,255, 15,000, 1,500 and 500 acre-feet per year (AFY), respectively. Current groundwater entitlements allow the City a total of 107,255 AFY.

Groundwater is a major component of the water supply for many public water suppliers in the Los Angeles metropolitan area and is also used by private industries, as well as a limited number of private agricultural and domestic users. Local groundwater provides approximately 15 percent of the total water supply of the City of Los Angeles. The Los Angeles Department of Water and Power (LADWP) owns and operates these wells.

Each groundwater basin is replenished by percolation, precipitation and return water from irrigation. Individual basins may also be replenished by the following: surface water spreading of local runoff, imported water and reclaimed water; injection of imported water (for protection against saline intrusion); and subsurface inflow from other basins. The major spreading areas are generally on the higher portions of the valley floor near the mountains or along major streams or channels.

Figure IV.D-3 Los Angeles Groundwater Basins

Historically, the groundwater basins have become contaminated as a result of human activities and natural phenomena. Contamination can result from spills, leaks, leachate, discharges of contaminants, returns from agriculture or urban irrigation, saltwater intrusion, septic system and wastewater discharges and other sources. Areas of contaminated groundwater are relatively well documented in the Los Angeles area by several agencies that regulate use, or manage groundwater supplies, including the LARWQCB.

As detailed in **Section IV.G, Hazards and Hazardous Materials**, a regulatory database search was conducted for the Phase I Environmental Assessment reports prepared by Converse Consultants for the adjoining Broadway and Hill Street sites on October 11, 2001, and for the 12th Street site on February 9, 2005. The Phase I reports included a regulatory database search. Of all the databases searched, those sites listed in the Leaking Underground Storage Tank (LUST) and the State index of properties with hazardous waste (CORTESE) databases are sites where known leaks, spills or contaminations have occurred and, therefore, could represent contamination concerns to subsurface soils or ground water. LUST incident reports contain an inventory of reported leaking underground storage tank incidents, and the CORTESE database identifies public drinking water wells with detectable levels of contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with underground storage tanks having a reportable release and all solid waste disposal facilities from which there is known migration. The two Phase I ESA reports revealed that there are four LUST sites within approximately 0.5 mile of the Broadway and Hill Street sites.

In addition, the reports revealed that 24 sites, located within approximately 1 mile of the Broadway and Hill Street sites, are listed in the CORTESE database. All of these leaks, spills or contaminations are historical, and remedial actions were completed. There are also two active toxic site investigations within one-half mile radius of the Broadway and Hill Street site, listed in the Active Toxic Site Investigation (SLIC) database, maintained by the Regional Water Quality Control Board (RWQCB). The City of Los Angeles Staples Center is one site listed in SLIC, and the status of the investigation is remediation, meaning that this site is currently undergoing remediation to ensure that the contamination does not affect surrounding uses. The second site, at 1450 Grand Avenue, is lower elevation than the project sites and, hence, would not contaminate groundwater beneath the project sites.

Phase II ESA reports for each site were completed by Converse Consultants in 2005 to further investigate the initial Phase I findings. The resulting findings include: a concentration of lead exceeding the Soluble Threshold Limit Concentration (STLC) in the Broadway building basement; concentrations of Total Petroleum Hydrocarbons (TPH) for gasoline and VOCs, as well as odors, beneath the parking lot on the Hill Street site, suggesting potential contamination; and concentrations of TPH-diesel, VOCs, SVOCs,

Tetrachloroethylene (Perc) and lead, exceeding RWQCB and Preliminary Remediation Goal for residential areas (PRG-r) thresholds beneath the 12th Street site (see **Section IV.G, Hazards and Hazardous Materials**). No listed LUST, CORTESE or other hazardous sites in the vicinity of the project sites pose potential contamination concerns, based on the findings in the Phase II ESA reports.

3. REGULATORY FRAMEWORK

a. Hydrology and Drainage

Drainage and flood control structures and improvements in the County of Los Angeles are subject to review and approval by the Los Angeles County Department of Public Works (LACDPW). The methodology and assumptions used in evaluating surface hydrology in this EIR are consistent with LACDPW's *Hydrology Manual*. Runoff calculations are based on LACDPW policy for urban flood protection from a 250-year storm. The LACDPW will review and approve plans for any improvements to County-owned facilities.

Drainage and flood control structures and improvements in the City of Los Angeles are also subject to review and approval by the City of Los Angeles Public Works Division (LAPWD). The methodology and assumptions used in evaluating the surface hydrology in this Draft EIR are consistent with City standards. The LAPWD will review and approve project storm drain plans prior to construction. As required by the LAPWD, all public storm facilities are to be designed in conformity with the standards set forth by Los Angeles County.

b. Surface Water Quality

Federal Regulations

The Federal Clean Water Act (CWA) Section 401 regulates the discharges of pollutants into "waters of the U.S." from any point or non-point source. It is the responsibility of the State Water Resources Control Board (SWRCB) and RWQCB to regulate the activities and factors that affect, or have the potential to affect, water quality in the state. In the State of California, the NPDES program is administered by the local RWQCBs. Individual permits are issued for certain defined sources of discharge while non-point source runoff from construction sites and urban development are regulated under a series of general permits.

State Regulations

The Porter-Cologne Water Quality Control Act of 1969 established the principal state program for water quality control. The Porter-Cologne Water Quality Control Act also authorizes the SWRCB to implement

the provisions of the Federal CWA. The Act divided the state into nine RWQCB areas. Each RWQCB implements and enforces provisions of the Porter-Cologne Act and the CWA subject to policy guidance and review by the SWRCB. The Herald Examiner project sites are located in Region 4, the LARWQCB area.

Local Regulations

In accordance with the Porter-Cologne Water Quality Control Act and the CWA Amendments of 1972, the LARWQCB established a Water Quality Plan for the Los Angeles River Basin, known as the Basin Plan. This document designates beneficial uses of water bodies, sets water quality objectives to protect those uses, addresses localized water quality problems and sets forth a plan to protect water quality. General discharge permits issued by the LARWQCB under the Basin Plan are used to regulate polluted storm water runoff, treated groundwater, non-hazardous soil disposal and other discharges.

Under recent regulations adopted by the LARWQCB, projects are required to implement a Standard Urban Storm Water Mitigation Plan (SUSMP), during the operational life of the project to ensure that storm water pollution is addressed by incorporating Best Management Practice (BMP) features into the design of the project. This plan defines water quality design standards to ensure that storm water runoff is managed for water quality concerns and to ensure that pollutants carried by storm water are confined and not delivered to waterways. Project applicants are required to abide by source-control and treatment-control BMPs from the list approved by the LARWQCB and included in the SUSMP. In combination, these treatment-control BMPs must be sufficiently designed and constructed to treat or filter the first 0.75 inch of storm water runoff from a storm event.

c. Groundwater Quality

Federal

The United States Environmental Protection Agency (EPA) sets drinking water standards under the CWA and the Safe Drinking Water Act. These regulations apply to groundwater only if the groundwater is directly conveyed to the consumer for drinking water purposes. The U.S. EPA also sets Maximum Contaminant Levels (MCL) for substances in drinking water.

The CWA also regulates the discharge of pollutants to "waters of the U.S." as defined by the CWA from any point source under the auspices of the NPDES program. In the State of California, the federal NPDES program is administered by the local RWQCBs, as discussed above. The discharge of groundwater (such as from dewatering) into the storm drain or sewer system, for example, is regulated by a general NPDES permit issued by the LARWQCB.

State

The Porter-Cologne Water Quality Control Act of 1969 established the principal state program for water quality control. In accordance with this Act and the CWA Amendments of 1972, the LARWQCB established a Water Quality Plan for the Los Angeles River Basin, known as the Basin Plan. It is the responsibility of the SWRCB and the RWQCBs to regulate the activities and factors that affect, or have the potential to affect, groundwater quality in the state.

The California Domestic Water Quality and Monitoring Regulations are set forth in Title 22 of the California Code of Regulations (CCR). These regulations establish primary and secondary drinking water standards for public water systems and are based on the national standards. As with federal regulations, these regulations apply to groundwater only if the groundwater is directly conveyed to the consumer for drinking water purposes.

The Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65) has two basic provisions: (1) no discharge of a listed chemical shall be made in a significant amount to a potential source of drinking water or to soil, which may cause the chemical to enter groundwater; and (2) the posting of clear and reasonable warnings prior to the exposure of Proposition 65 listed chemicals is required.

Local

Because the project sites overlie the Central Basin, the watermaster vested with the responsibility to monitor and account for any groundwater extraction or interference within the project area is the South District Department of Water Resources. The watermaster essentially oversees the basin and manages water resources with sustainability as a goal.

4. ENVIRONMENTAL IMPACT ANALYSIS

a. Significance Criteria

Surface Water Quality

The Los Angeles *California Environmental Quality Act (CEQA) Thresholds Guide* states that a project would normally have a surface water quality impact if discharges associated with the project would:

- Create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code (CWC); or

- Cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body.[1]

Groundwater Quality

The *L.A. CEQA Thresholds Guide* states that a project would normally result in a significant impact on groundwater quality if it would:

- Affect the rate, or change the direction, of movement of existing contaminants;
- Expand the area affected by contaminants;
- Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion); or
- Cause regulatory water quality standards in an existing production well to be violated, as defined in the CCR, Title 22, Division 4, Chapter 15, and in the Safe Drinking Water Act.

b. Project Impacts

The proposed project is located in Downtown Los Angeles, which is an urban environment served by existing drainage infrastructure. However, potential surface and groundwater quality impacts associated with project construction and operation are discussed below. Potential impacts to surface water hydrology and groundwater level were discussed in the Initial Study prepared for the project, which is included as **Appendix A** to this EIR.

Surface Water Quality

Construction

A project would normally result in a significant impact to surface water quality if it would:

- *Create pollution, contamination or nuisance; or*
- *Cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body.*

During project construction of the Hill Street and 12th Street sites, grading activities associated with construction could potentially result in a temporary increase in the amount of suspended solids running off the site. In the event of rainfall, construction site runoff originating from the project sites could result in sheet erosion of exposed soil. Erosion of exposed soil caused by runoff could affect surface water quality in the vicinity of the project sites, as well as downstream from the project sites as water flows

1 *L.A. CEQA Thresholds Guide*: *Your Resource for Preparing CEQA Analyses in Los Angeles*, City of Los Angeles, Environmental Affairs Department, May 14, 1998, p. D.2-4.

through the Los Angeles River and into the Pacific Ocean. Therefore, construction-related erosion could result in a potentially significant impact to surface water quality; however, through the incorporation of recommended mitigation measures, this impact can be reduced to a less than significant level. Mitigation measures include satisfying the requirements of the NPDES and the Stormwater and Urban Runoff Pollution Control from the Los Angeles Municipal Code, which includes the preparation of an SUSMP. The SUSMP would incorporate BMPs by requiring controls of pollutant discharges that utilize best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT) to reduce pollutants.

Operation

A project would normally result in a significant impact to surface water quality if the project would:

- *Create pollution, contamination or nuisance; or*
- *Cause regulatory standards to be violated, as defined in the applicable NPDES storm water permit or Water Quality Control Plan for the receiving water body.*

The existing site is occupied by uses that could potentially contribute to decreased surface water quality (i.e., buildings containing lead-based paint and asbestos-containing material, and a surface parking lot potentially containing surface oil products). While the proposed project would increase the intensity of land uses on each of the three project sites, the amount of developed area on each site would remain similar to existing conditions. Thus, it is unlikely that the rehabilitation of the Broadway building and construction of the tower buildings on the Hill Street and 12th Street sites would result in an increase in site runoff.

Storm water quality is generally affected by the length of time since the last rainfall, rainfall intensity, urban uses of the area and quantity of transported sediment. Typical urban water quality pollutants usually result from motor vehicle operations, oil/grease residues, fertilizer/pesticide uses, human/animal littering, careless material storage/handling and poor property management. The majority of pollutant loads are usually washed away during the first flush of the storm occurring after the dry-season period.

Street and parking lot-/garage-generated pollutants typically contain atmospheric pollution, tire-wear residues, petroleum products, oil and grease, fertilizer and pesticide wash-offs, industrial chemical spills, as well as animal droppings and litter types of wastes. The pollutants are washed from street surfaces by a rainfall adequate enough to produce sufficient runoff. The amount of pollutants washed off the street surface is a function of the amount of pollutants on street surfaces and amount of surface water flow by storm and non-storm events such as hosing down of walkways and parking garage surfaces. These

pollutants have the potential to degrade water quality and may result in significant impacts. Operation of the proposed project would result in an increase in land use intensity and, thus, potentially an increase in the presence of site contaminants. The proposed project would only include the provision of an alleyway between the Broadway building and the new building constructed on the Hill Street site. All parking and building maintenance areas would be located in the subterranean parking structure. Therefore, the quantity of land devoted to uses that could result in the transport of on-site contaminants through site runoff is minimal and comparable to existing conditions. The increase in land use intensity relative to the current vacant land uses could result in a potentially significant impact to surface water quality; however, through the incorporation of a recommended mitigation measure (**MM-WR-10**), this impact could be reduced to a less than significant level.

Groundwater Quality

Construction

A project would normally result in a significant impact on groundwater quality if it would:

- *Affect the rate, or change the direction, of movement of existing contaminants.*

The construction of foundations for high-rise buildings and subterranean parking structures could have the potential to interfere with groundwater by intercepting the aquifer during excavation. The proposed project does involve the construction of high-rise buildings and subterranean parking structures on two of the three project sites. However, the depth to historical high groundwater is 120 feet below the ground surface, as reported in the Seismic Hazard Evaluation Report for the Hollywood Quadrangle,[2] and groundwater was not encountered during the geologic investigation for the proposed project. The subterranean parking structure on the Hill Street site would be approximately 42 feet below ground surface, and the parking structure on the 12th Street site would be approximately 34 feet below ground surface. Therefore, excavation for the proposed project would not exceed a depth of 120 feet below ground surface, and thus, the likelihood of encountering groundwater during project construction would be low. Therefore, project construction would not result in a significant impact to groundwater or groundwater quality.

A project would normally result in a significant impact on groundwater quality if it would:

- *Expand the area affected by contaminants.*

As discussed above, the groundwater beneath the project area is not currently contaminated, and project implementation would not affect groundwater. Construction activities would occur at depths higher

2 Converse Consultants, Revised Geotechnical Investigation Report, July 29, 2005.

than the historical high groundwater of 120 feet. Therefore, the project will not result in potentially significant impacts associated with groundwater contamination.

Operation

A project would normally result in a significant impact on groundwater quality if it would:

- *Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion).*

The existing project sites largely consist of impervious surfaces. Upon implementation of the proposed project, conditions at the Broadway, Hill Street and 12th Street sites would be comparable to existing conditions, as all three sites would continue to be developed predominantly with impervious surfaces. Therefore, the project sites do not currently allow for direct percolation within the Central Los Angeles Basin. As such, implementation of the proposed project is not expected to contribute to or result in groundwater contamination in the project vicinity, and thus there is no potential for significant impacts to groundwater resources.

A project would normally result in a significant impact on groundwater quality if it would:

- *Cause regulatory water quality standards in an existing production well to be violated, as defined in the CCR, Title 22, Division 4, Chapter 15, and in the Safe Drinking Water Act.*

As discussed above, since the project sites are currently and would remain, predominantly, covered by impervious surfaces, the project sites would not contribute to groundwater recharge. Therefore, the project would not affect groundwater quality of existing wells. No potential for significant groundwater quality impacts would result from project implementation.

c. Cumulative Impacts

Surface Water

Development of the proposed project in combination with the list of related projects identified in **Section III, General Description of Environmental Setting**, could result in the violation of water quality and/or waste discharge requirements during construction and operation. However, each of the related projects would be subject to the same requirements as the proposed project and, thus, would be required to prepare an SWPPP for construction activities. As with the project, the SWPPPs prepared for Citywide projects would incorporate BMPs by requiring controls of pollutant discharges that utilize BAT and BCT to reduce pollutants. In addition, the operation of all the related projects are required, by Chapter 13.29, Storm Water and Urban Runoff Pollution Prevention Control and SUSMP of the Los Angeles Municipal Code, to submit and then implement an SUSMP containing design features and BMPs appropriate and

applicable to the project to reduce post-construction pollutants in storm water discharges. Potential water quality impacts of the Citywide projects in combination with the proposed project would be less than significant in light of the preparation and implementation of the SWPPP and SUSMP and the enforcement of these requirements by the City. Therefore, the proposed project has no potential to contribute to significant cumulative surface water quality impacts.

The Los Angeles River watershed, within the limits of the City of Los Angeles, is composed mainly of urban uses, with remaining open spaces being devoted to uses not likely to be developed. As a result, most of the drainage system in the watershed consists of engineered storm channels and, therefore, is expected to experience little change. Additionally, as extensive development is not expected in the remaining open spaces, it is unlikely that there would be substantial alteration of drainage systems and watercourses in those areas. Because the proposed project, as well as surrounding projects, would be constructed on already urban-developed sites, the amount of runoff would not substantially increase, and therefore, substantial increases in erosion, siltation, flooding and exceedance of the storm water drainage system are not expected. Cumulatively, the project does not have the potential for significant impacts related to runoff and storm water drainage.

Existing storm water facilities are adequate to accommodate existing and anticipated flows. The proposed project, as well as the related projects identified in **Section III, General Description of Environmental Setting**, would be located in the urbanized environment of Downtown Los Angeles. While cumulative future development may require that there be some localized modifications or additions to the existing storm water drainage system, it is expected that these modifications or additions would not be extensive, as storm water drainage systems already exist in the primarily impervious and urbanized area of Downtown Los Angeles. Consequently, there is no potential for significant cumulative impacts from implementation of the proposed project in combination with the identified related projects.

From the cumulative analysis above, the proposed project is not anticipated to result in a cumulatively considerable contribution to the degradation of surface water quality in Downtown Los Angeles or the greater Los Angeles Basin.

Groundwater

Implementation of Citywide Projects would result in additional development that could indirectly require an increased use of groundwater through the provision of potable water provided by LADWP. However, the provision of water, including the increased use of groundwater supplies, as a result of the cumulative development of the proposed projects and identified related projects is within the established demand projections of the LADWP (refer to **Section IV.J.1, Water**, of this EIR for supplementary analysis

of water supplies). Groundwater to be consumed by cumulative development would be consumed according to current plans and projections by the LADWP and would not, therefore, be substantially depleted as a result of the implementation of cumulative development.

Recharge in the Los Angeles River Basin consists of percolation from rainfall, runoff from the surrounding mountainous areas, water spread in the Headwork's spreading grounds, recharge from the Los Angeles River and underflow from the Verdugo Basin. Neither the proposed projects nor any of the identified related projects would be developed within these recharge areas, and, as such, cumulative impacts to groundwater recharge would be less than significant.

From the cumulative analysis above, development of the proposed project and the related projects identified in **Section III** are not expected to substantially degrade groundwater quality or have any significant cumulative effects.

d. Mitigation Measures

The following mitigation measures are proposed to ensure that there are no potentially significant impacts to surface or ground water quality.

MM-WR-1. Prior to start of soil-disturbing activities at the site, a Notice of Intent (NOI) and SWPPP shall be prepared in accordance with, and in order to partially fulfill, the California SWRCB Order No. 99-08-DWQ, NPDES General Permit No. CAS000002 (General Construction Permit). The SWPPP shall meet the applicable provisions of Sections 301 and 402 of the CWA and Chapter 6 Article 4.4, Storm Water and Urban Runoff Pollution Control from the Los Angeles Municipal Code by requiring controls of pollutant discharges that utilize BAT and BCT to reduce pollutants. Examples of BAT/BCT that may be implemented during site grading and construction could include straw hay bales, straw bale inlet filters, filter barriers and silt fences.

MM-WR-2. The project applicant shall prepare and implement an SUSMP in accordance with the requirements of Chapter 6 Article 4.4, Storm Water and Urban Runoff Pollution Control, from the Los Angeles Municipal Code, to ensure that storm water runoff is managed for water quality concerns through implementation of appropriate and applicable BMPs. Prior to issuance of any grading or building permits, the County and/or Stormwater Division of Bureau of Sanitation must approve the SUSMP.

The following is a listing of applicable BMPs that may be implemented as part of the project through the preparation of the SUSMP:[3]

- Provide reduced-width sidewalks and incorporate landscaped buffer areas between sidewalks and streets;
- Use permeable materials for private sidewalks, driveways, parking lots, or interior roadway surfaces (examples: hybrid lots, parking groves, permeable overflow parking, etc.);
- Comply with all zoning and applicable ordinances to reduce overall lot imperviousness by promoting alternative driveway surfaces and shared driveways that connect two or more homes together;
- Direct rooftop runoff to pervious areas such as yards, open channels, or vegetated areas, and avoid routing rooftop runoff to the roadway or the storm water conveyance system;
- Infiltration trenches;
- Oil/water separators;
- Catch basin inserts;
- Continuous flow deflection/separation systems;
- Storm drains inserts;
- Media filtration;
- Bioretention facility;
- Dry-wells;
- Cisterns;
- Foundation planting;
- Catch basin screens;
- Normal flow storage/separation systems;
- Clarifiers;
- Filtration systems; and/or
- Primary wastewater treatment systems.

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3 Los Angeles County Department of Public Works, September 2002. *Development Planning for Storm Water Management: A Manual for the Standard Urban Storm Water Mitigation Plan (SUSMP).* Retrieved from http://ladpw.org/wmd/NPDES/SUSMP_MANUAL.pdf on November 18, 2005.

MM-WR-3. The project site contractor shall establish an erosion control plan prior to the initiation of construction activities. The erosion control plan shall include:

- Use of natural drainage, detention ponds, sediment ponds, or infiltration pits to allow runoff to collect and seep into the ground at a rate which would reduce or prevent downhill erosion;
- Use of barriers to direct and slow the rate of runoff and to filter out large-sized sediments;
- Use of downdrains or chutes to carry runoff from the top of a slope to the bottom; and
- Control the use of water for irrigation so as to avoid off-site runoff.

MM-WR-4. The project design shall include properly designed and maintained biological oil and grease removal systems in new storm drain systems to treat water before it leaves the project sites.

MM-WR-5. The project contractor, during construction, and the project owner, during operation, shall properly store hazardous materials to prevent contact with precipitation or runoff.

MM-WR-6. The project contractor, during construction, and the project owner, during operation, shall develop and maintain effective monitoring and a cleanup program for spills and leaks of hazardous materials.

MM-WR-7. The project contractor, during construction, and the project owner, during operation, shall place equipment to be repaired or maintained in covered areas on a pad of absorbent material to contain leaks, spills or small discharge.

MM-WR-8. The project contractor, during construction, and the project owner, during operation, shall provide periodic and consistent removal of landscape and construction debris.

MM-WR-9. The project contractor, during construction, and the project owner, during operation, shall sweep parking lots at regular, frequent intervals to remove debris. The project contractor, during construction, and the project owner, during operation, shall also remove any significant chemical residue on the project sites through appropriate methods.

MM-WR-10. The project owner, landscapers and maintenance team, during project operation, landscaping, and maintenance activities, shall use non-toxic alternatives for such applications as insecticides, herbicides, rodenticides and fertilizers. Furthermore,

chemical controls shall only be applied outdoors when precipitation is not forecast for the project area.

MM-WR-11. The project contractor, during construction, and the project owner, during operation, shall install detention basins to remove suspended solids by settlement. Trash racks must be installed in the fit basins at the inlets to catch floating solids.

MM-WR-12. The project contractor, during construction, and the project owner, during operation, shall periodically monitor the water quality of runoff before discharge from the site and into the storm drainage system.

MM-WR-13. All measures to mitigate hazardous substance impacts to surface water quality during construction to a less than significant level shall be followed as detailed in **Section IV.G, Hazards and Hazardous Materials**.

e. Adverse Effects

With the implementation of the mitigation measures listed above, the proposed project is not expected to result in any adverse effects on water resources or water quality.