4.9 WATER RESOURCES/FLOODPLAIN ENCROACHMENT

This section of the EA/EIR describes existing drainage and water resources for the project site and the region, and evaluates potential impacts of the project with respect to flooding, surface water and groundwater resources.

4.9.1 AFFECTED ENVIRONMENT

Regulatory Framework

Federal Pollution Control Act

The Federal Clean Water Act (CWA) established the national strategy for controlling water quality. The primary purposes of the Act are "to restore and maintain the chemical, physical, and biological integrity of the Nation's waters" and to attain a level of water quality "which provides for the protection of and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water." 33 USC §1251(a).

The Federal Clean Water Act contains two strategies for managing water quality. One is a technology-based approach that sets requirements to maintain a minimum level of pollutant management using the Best Available Control Technology (BACT). The second relies on evaluating the condition of surface waters and setting limits on the amount of pollution that the water can be exposed to without adversely affecting the beneficial uses of those waters. Section 303(d) of the Federal Clean Water Act specifies that, once a water body is listed as "impaired," the states must establish total maximum daily loads (TMDLs) for the pollutants causing the impairment (33 USC §1313(d)(c)). The states must then develop a "pollution budget" or pollutant load allocation for point and non-point sources that are contributing to the water quality impairment.[1] Once these allocations have been set, waste load allocations for point sources are implemented through National Pollutant Discharge Elimination System (NPDES) Permits for individual dischargers, while non-point source discharges are subject to load allocations that can be specified in an individual NPDES Permit or may be regulated or addressed in other ways.

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1 Point sources are those that generate discharge from a discrete conveyance facility. Non-point sources represent all other sources.

California Porter-Cologne Act

The California Porter-Cologne Act of 1970 is largely responsible for creating the state's extensive regulatory program for water pollution control. Pursuant to the Porter-Cologne Act, the responsibility for protection of water quality in California rests with the State Water Resources Control Board (WRCB), which has been divided into nine Regional Water Quality Control Boards (RWQCBs) to regulate the nine hydrologic basins in the state. The Porter-Cologne Act gives the WRCB and RWQCBs broad powers to protect water quality by regulating waste discharges to water and land, and requiring cleanup of hazardous conditions.

As required by the Federal CWA and the California Porter-Cologne Act, water quality control plans have been prepared for each of the state's hydrologic basins. These water quality control plans have been prepared in order to regulate discharges that could affect the quality of state waters. Policies for water quality control adopted by the WRCB serve as guidelines for the regional boards in the preparation of regional water quality control plans. Together, the policies of the WRCB and the nine regional water quality control plans form the California Water Plan. The Los Angeles Civic Center is within the Los Angeles River Basin and the jurisdiction of the Los Angeles Regional Water Quality Control Board (LARWQCB), which oversees the area between Rincon Point, in Ventura County, to the eastern Los Angeles County Line.

In addition to the responsibilities assigned to the WRCB and the RWQCBs with respect to discharges into state waters, the Porter-Cologne Act gives the regional boards specific authority to regulate discharges of waste to land, including the management of waste disposal sites. Each regional board is required to adopt classification and waste discharge requirements for each waste management facility under its jurisdiction. Persons operating hazardous waste disposal facilities are also subject to detailed regulations governing water quality monitoring and closure. Further, the WRCB and the regional boards have authority to take a variety of steps to investigate, halt, or order the clean up of waste discharges. These agencies may also obtain court relief or take actions themselves to clean up discharges.

RWQCB Water Quality Control Plan, Los Angeles Region

The Water Quality Control Plan, Los Angeles Region (4), prepared by the LARWQCB was approved in June of 1994. The objective of the Water Quality Control Plan, or Basin Plan, is to preserve and enhance water quality, protect the beneficial uses of all regional waters, and implement the CWA. Specifically, the plan designates beneficial uses for surface and groundwaters, sets narrative and numerical objectives that must be attained or maintained to protect the designated beneficial uses and to conform to the state's

anti-degradation policy, and describes implementation programs to protect all waters in the Region. In order to be considered consistent with the Basin Plan, the proposed project must be in compliance with water quality objectives and may not cause a deterioration of beneficial uses.

Discharges to both surface and groundwaters are regulated by the NPDES, which is administered by the LARWQCB as part of its discharge permit program. Any proposed action that would result in a discharge into the waters of the Los Angeles region must describe the quantity and nature of the proposed discharge in a Report of Waste Discharge (ROWD) or an NPDES application. As part of the NPDES ROWD Permit, the RWQCB will incorporate appropriate measures and limitations to protect public health and water quality.

NPDES Permits are required for all construction projects impacting five acres or more, or smaller areas that are part of a larger common plan, including excavation, demolition, grading and clearing. Also, the NPDES Permit requirement applies to all discharges of pollutants to "navigable waters" from a "point source".[2] A point source is defined broadly in the Clean Water Act as "any discernible, confined and discreet conveyance" such as a well, pipe, ditch, discreet fissure, container, or vessel.[3] Navigable waters are defined broadly as "waters of the United States," and the U.S. EPA has effectively asserted that these comprise most surface waters, including waters that are tributary to navigable waters, interstate waters, and interstate waters having some impact or involvement in interstate commerce.[4]

County of Los Angeles and City of Los Angeles

On July 5, 1996, the LARWQCB adopted Order No. 96-054. This Order is the Municipal Storm Water NPDES Permit (No. CAS614001) issued to County of Los Angeles and 85 permittee cities, to reduce pollutants from municipal storm sewer system to the Maximum Extent Practicable (MEP) statutory standard.

The NPDES Permit is issued every five years. On December 13, 2001, the LARWCB adopted a new NPDES Permit (Order No. 01-182, NPDES Permit CAS004001). Under the NPDES Permit, the County of Los Angeles is designated as the Principal Permittee and 84 cities, including the City of Los Angeles, as Permittees. The NPDES Permit consists of various storm water management programs to reduce pollutants in storm water and urban runoff.

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2 McCutchen, Black, Verleger, and Shea, the Attorneys of:, *California Environmental Law Handbook*, Second Edition, Government Institutes, Inc. January 1988, p. 61.

3 Ibid.

4 Ibid., pp. 61-62.

Executive Order 11988 – Floodplain Encroachment

Executive Order (EO) 11988 requires federal agencies to take action to minimize occupancy and modification of the floodplain. Specifically, EO 11988 prohibits federal agencies from funding construction in the 100-year floodplain unless there are no practicable alternatives. FEMA's regulation for complying with EO 11988 is promulgated in 44 Code of Federal Regulations (CFR) Part 9.

Regional and Local Storm Drainage

The Los Angeles River Watershed, of which includes the Civic Center area, covers a land area of over 2,135 square kilometers (834 square miles) from the eastern portions of Santa Monica Mountains, and Simi Hills, and Santa Susana Mountains to the San Gabriel Mountains in the west. The primary purpose of the Los Angeles River is to provide flood conveyance for the Los Angeles Basin. 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. Water quality impairments include: pH, ammonia, a number of metals, coliform, trash, scum, algae, oil, chorpyrifos as well as other pesticides, and volatile organics.[5]

In the City of Los Angeles, stormwater and urban runoff from streets are funneled down gutters to approximately 1,000 catch basins. These are inlets to a 1,500-mile long maze of pipes, open channels, and outlets that make up the storm drain system. During storms, wet weather flows can amount to billions of gallons in a single day. Even during dry weather, urban runoff adds up to tens of millions of gallons daily.[6] Storm drains within the City of Los Angeles are constructed and maintained by both the City Department of Public Works and the Los Angeles County Flood Control District (LACFCD). In general, the City constructs interconnection drains that are tributary to the LACFCD's major storm drains and open flood control channels (e.g., the Los Angeles River).

The majority of the Hall of Justice site is currently paved or developed with existing structures. Of the site's 3.2 acres, approximately 95 percent is developed and covered with impermeable surfaces. Small landscaped areas exist within locations throughout the Hall of Justice site.

The Hall of Justice site is located within an urbanized area that is fully served by the City's existing storm drain system. Storm water flows in the project area occurs via street and gutter to inlet locations, and into

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5 Los Angeles County, Los Angeles River Master Plan, adopted 1996.

6 City of Los Angeles, *Stormwater Program*, undated.

drainage pipelines. Storm water drain inlets are located at the intersection of Aliso Street and Spring Street (two inlets), at the intersection of Spring Street and Temple Street (two inlets), and at the intersection of Aliso Street and North Broadway (one inlet).

Surface water flow volumes are generally discussed in terms of recurrence. A 100-year flood plain is an area that has a 1 percent chance of flooding in any given year, while a 500-year flood plain is an area that has a 0.2 percent chance of flooding any given year. The Federal Emergency Management Agency (FEMA) utilizes the 100-year and 500-year flood plain for development and planning purposes in accordance with EO 11988. As defined by FEMA, the project area is located within a Flood Hazard Zone C. This designation indicates an area that is subject to moderate or minimal flooding from the principal source in the area and is located outside the 100-year floodplain.[78]

4.9.2 THRESHOLDS OF SIGNIFICANCE

The County of Los Angeles Initial Study (**Appendix 1.0**) suggests that a project would result in a significant flood hazard impact if it would meet any of the following criteria:

(a) there is a major drainage course, as identified on U.S.G.S. quad sheets by a dashed line, located on the project site;

(b) the project site is located within or contains a floodway or floodplain;

(c) the project site is located in or subject to high mudflow conditions; and/or

(d) the project could contribute or be subject to high erosion and debris deposition from runoff.

According to the Initial Study, no major drainage course, as identified on the Los Angeles USGS quad sheet, exists onsite; the project site is not located within a floodway or floodplain (This issue, however, has been assessed below for the purposes of NEPA requirements); and the project would not contribute to a high erosion or deposition from runoff. As a result, the following impact analysis will only evaluate the project's potential impacts to flood hazard relative to criteria (b) above as it relates to floodways and floodplains.

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7 City of Los Angeles, General Plan Safety Element, Exhibit F, November 26, 1996.

8 Federal Emergency Management Agency, *Flood Insurance Rate Map, Community Panel No. 060137-0074C*, December 12, 1980.

In addition to thresholds of significance for flood-related impacts, the proposed project is evaluated in this section relative to its water quality impacts. The Initial Study suggests that a project could result in a significant water quality impact if:

(a) it is located in an area having known water quality problems and proposes the use of individual water wells;

(b) it requires the use of a private sewage disposal system; and/or

(c) it could significantly impact water quality through runoff into the storm drain system.

According to the Initial Study, the Hall of Justice building would utilize a public water system and would not utilize individual water wells. The project is connected to the existing sewer system and would not utilize a private sewage disposal system. As a result, the following impact analysis will only evaluate the project's potential impacts to flood hazard relative to criteria (c) above as it relates runoff.

4.9.3 POTENTIAL IMPACTS OF ALTERNATIVES

Alternative 1 – No Project Alternative

Under this alternative, the Hall of Justice building would remain vacant and would not impact water quality during construction or operational phases. Impacts under this alternative would be less than significant.

Alternative 2 – Repair and Reuse Alternative (Proposed Alternative)

Construction

Site Preparation

Construction and grading activities both onsite and offsite would involve the operation of heavy equipment and cutting of excavations. Although the project site and off-site infrastructure and improvement locations are relatively flat and the potential for soil erosion is considered to be low, peak storm water runoff could result in short-term sheet erosion within areas of exposed or stockpiled soils. If uncontrolled, these soil materials could result in engineering problems including the blockage of storm drainage channels and downstream sedimentation.

Projects that disturb between 2 to 5 acres of area during construction, are required to prepare a Storm Water Pollution Prevention Plan (SWPPP) in accordance with the County of Los Angeles NPDES Municipal Stormwater Permit No. CAS004001. This permit requires that a SWPPP be prepared specifying Best Management Practices (BMPs) to reduce erosion of disturbed soils. In addition, the SWPPP would require that if any spills of materials known to be water pollutants or hazardous materials do occur, the proper agencies would be contacted immediately (if necessary) and appropriate clean up of the spill would take place as soon as possible. Prior to issuance of any grading or building permits, the County must approve the SWPPP. Potential water quality impacts of the proposed project would be less than significant through the preparation and implementation of the SWPPP as specified in the NPDES Permit.

Depth to groundwater in the project area is estimated to fluctuate between 20 to 75 feet below the ground surface. Grading activities may require rough grading up to depths of 48 feet for placement of the subterranean portion of the new parking garage. As such, groundwater resources may be affected during construction activities. Temporary dewatering systems for the subterranean parking structures would require an NPDES Permit for ground water discharge from the LARWQCB. This permit would ensure that water discharged to the storm drains would meet all NPDES requirements for suspended solids, organic material, and other water quality parameters thereby reducing water quality impacts associated with this activity to less than significant.

Exterior Building Cleaning

The exterior surfaces of the Hall of Justice building would be cleaned with methods complying with recommendations of the Department of the Interior. Pre-washing would be utilized at areas of distinct staining. General cleaning would follow, using a restoration-type cleaner. The cleaning procedures for the exterior building cleaning would involve the placement of barricades around the building to prevent the public from entering areas being cleaned. Plastic sheeting would be fixed to the building and cover the ground with berms established to retain runoff from the cleaning process. All pre-cleaning, cleaning, and rinsing would be captured and effluent pumped into drums onsite. Collected effluent in the drums would be neutralized to a pH of between 6 to 8 and run through a 4 to 6 stage filter system, with the final filter being a 5-micron filter. The effluent would then be tested and upon acceptable test results would be released into the City storm drain system. Temporary discharge into the drainage system would require an NPDES Permit from the LARWQCB. This permit would ensure that water discharged to the storm drains would meet all NPDES requirements for suspended solids, organic material, and other water quality parameters thereby reducing water quality impacts associated with this activity to less than significant.

Operational

Flooding and Drainage

EO 11988 prohibits federal agencies from funding construction within a 100-year flood plain unless there are no practical alternatives. This project is not located within the 100-year flood plain as indicated on the Flood Insurance Rate Map (FIRM), Community Panel No. 060137-0074C for the City of Los Angeles. As such, potential flood plain encroachment issues are considered to be less than significant.

Once the project is completed, approximately 85 percent of the Hall of Justice site would be covered with impervious surface, which is approximately a 10 percent reduction over existing conditions. All runoff would continue to be conveyed via street and gutters to storm inlet locations around the Hall of Justice site. Due to the reduction in impervious surface under this alternative over existing conditions, the amount of storm runoff conveyed from the site would be less than existing conditions. Consequently, potential drainage impacts are considered to be less than significant.

Water Quality

Surface Water

Common concerns related to surface water quality include the potential deposition of pollutants generated by motor vehicles and the maintenance and operation of landscape areas. Urban runoff contains almost every type of water pollutant, including suspended solids, bacteria, heavy metals, oxygen-demanding substances, nutrients, and oil and grease. Primary sources of urban runoff pollutants include animal droppings, atmospheric fallout, land erosion, lawn runoff (pesticides, herbicides, fertilizers), and pavement runoff.[9] The pollutants of concern and their anticipated form in runoff, both stormwater and dry weather are presented below in **Table 4.9-1, Typical Constituents of Urban Runoff**.

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9 Robert A. Corbitt, *Standard Handbook of Environmental Engineering*, (New York City: McGraw-Hill Publishing Company, 1989), p. 753.

Table 4.9-1
Typical Constituents of Urban Runoff

Pollutants of Concern	Stormwater Runoff	Dry Weather Runoff
Oil and Grease	Manifested as an oil slick during the first storm event.	Less noticeable unless there has been a spill or release which comes in contact with dry weather runoff.
Brake Lining Dust	Manifested as TSS particularly during the first storm event. The copper is in its metallic form and most likely imbedded in the fibrous backing material.	Less evident because dry weather runoff is usually confined to the street curbs and gutters and does not wash the traveled way.
Fuel Components (BTEX)	Dissolved and in highest concentrations during the first storm event of each year.	Less evident because dry weather runoff is usually confined to the street curbs and gutters and does not wash the traveled way.
Polycyclic Aromatic Hydrocarbons (PAHs)	Carried with carbon particulates (diesel soot) or suspended solids concentration during the first storm event of each year.	Carried with carbon particulates (diesel soot) or suspended solids. Concentration dependent upon areas subject to dry weather runoff.
Coliform	Bacteria carried with the runoff. First storm event could potentially carry with it solid fecal matter.	Bacteria carried with runoff. Dry weather runoff could potentially have the highest bacteria concentrations owing to overwatering of grassed areas.
Lawn and Landscaping Pesticides and Herbicides	Dissolved with concentrations dependent upon the timing of the last application and the first storm event of each year.	Dissolved constituents, and expected at highest concentrations in dry weather discharge due to excess application and potential over watering.
Lawn and Landscaping Fertilizers (Nitrogen and Phosphorus Nutrients)	Dissolved and/or suspended solids with concentrations dependent upon the timing of the last application and the first storm even of each year.	Dissolved constituents at highest concentrations due to excess application and overwatering.
Suspended Solids	Carried with the runoff and in high concentration during the first storm event of each year.	Carried with the runoff in varying concentrations depending on the path of the runoff and its volume.
Debris and Trash	Litter, yard waste, etc., carried with the runoff.	Amount varies depending upon the path of the runoff and its volume.

The quality of runoff from the project site would be subject to Section 402(p) of the Clean Water Act under the NPDES program. Development projects have responsibilities under the NPDES Municipal Permits No. CAS004001 to ensure pollutant loads from the projects do not exceed total maximum daily loads for downstream receiving waters. Development projects are required to submit and then

implement a Standard Urban Storm Water Mitigation Plan (SUSMP)[10] containing design features and BMPs appropriate and applicable to the project. The purpose of the SUSMP is to reduce post-construction pollutants in storm water discharges. Prior to issuance of any grading or building permits, the County must approve the SUSMP. Potential water quality impacts of the proposed project would be less than significant through the preparation and implementation of the SUSMP as specified in the NPDES Permit.

Ground Water

Construction of the underground parking facility would require de-watering during excavation only. De-watering is required when groundwater is found at an elevation above the depth of grading. De-watering wells would be drilled and pumps would be placed in the wells as needed to draw down the water table as necessary. Excess groundwater would be treated as directed by the conditions associated with the NPDES Permit and discharged into the storm drain system. The subterranean parking structure would consist of structural slabs that would be designed as "water tight". Potential water quality impacts of the proposed project would be less than significant with conformance to existing water quality requirements through the preparation and implementation of the SUSMP as specified in the NPDES Permit,

Alternative 3 – Adaptive Reuse of the Existing Building to Secretary of Interior Standards

Construction

Implementation of this alternative would result in the same construction-related impacts as described under Alternative 2. During site preparation and exterior building cleaning activities, potential pollutants would be generated that would require the obtaining of NPDES Permits and implementations of BMPs to ensure that water quality standards are meet. In addition, during excavation for the parking garage dewatering may occur requiring the obtaining of an NPDES Permit to discharge into the storm drain. Adherence to the requirement of these permits would reduce impacts associated with this alternative to a less than significant level.

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10 The LARWQCB approved the SUSMP that requires new construction and development projects to implement BMPs on March 8, 2000. In May 2000, the County of Los Angeles finalized its "Manual for the Standard Urban Storm Water Mitigation Plan," which details the requirements of the SUSMP. Projects that are subject to the SUSMP requirements are required to incorporate measures into their development plans prior to issuance of grading and building permits.

Operational

Implementation of this alternative would result in the same operations-related impacts as described under Alternative 2. This alternative would provide impervious surfaces for the deposition of pollutants generated by motor vehicles and the maintenance and operation of landscape areas. In addition, this alternative would require the dewatering of the parking garage. This alternative would require the obtaining of NPDES Permits and implementation of BMPs to ensure that water quality standards are met. Adherence to the requirement of these permits would reduce impacts associated with this alternative to a less than significant level.

4.9.4 MITIGATION MEASURES (ALTERNATIVES 2 AND 3)

No mitigation measures are required for either Alternative 2 or 3.

4.9.5 ADVERSE IMPACTS AFTER MITIGATION (ALTERNATIVES 2 AND 3)

Impacts associated with Alternatives 2 and 3 would be less than significant by obtaining the required NPDES Permit and implementing required BMPs.