IV. ENVIRONMENTAL IMPACT ANALYSIS
G. HYDROLOGY AND WATER QUALITY

INTRODUCTION

The Groundwater section of the Hydrology and Water Quality Section includes a summary of the Preliminary Water Sampling for NPDES Permit, conducted by GEOCN, Geotechnical Consultants, dated December 1, 2005. A copy of this report can be found as Appendix G to this Draft EIR.

ENVIRONMENTAL SETTING

The approximately 5.5-acre Proposed Project Sites and surrounding areas are located in a fully developed urban area. Very little vegetation exists on the Project Site, which is almost entirely covered with impermeable surfaces (e.g., structures, concrete, and asphalt). The elevation of the Project Site is approximately 325 feet above mean sea level (msl). The topography of the Project Site and surrounding area is generally flat.

Regulatory Setting

Federal Water Pollution Control Act

The Federal Water Pollution Control Act ("Clean Water Act") was designed to restore and maintain the chemical, physical and biological integrity of the Nation’s waters. The 1987 amendments to Clean Water Act added Sections 401 and 402, which establish a framework for regulating municipal and industrial storm water discharges under the National Pollution Discharge Elimination System (NPDES) program. Section 401 prohibits the discharge of any pollutant without a permit, and Section 402 establishes the permit program administered by the Environmental Protection Agency (EPA). The EPA has delegated responsibility for implementation of portions of the Clean Water Act to the California State Water Resources Control Board (SWRCB) and the California Regional Water Quality Control Board (RWQCB); therefore the RWQCB is the agency that issues Section 402 (NPDES) permits. The Proposed Project must comply with Section 401 and 402 provisions during and following project construction.

State Water Resources

Responsibility for the protection of water quality in California rests with the SWRCB and nine local RWQCBs. In 1992, the SWRCB adopted the General Construction Activity Storm Water Permit (GCASWP) which is “...required for all storm water discharges associated with construction activity where clearing, grading, and excavation results in a land disturbance of 5 or more acres.” The Project Site is 5.5 acres and therefore the Project is required to obtain an SWCRB permit. In addition, the Project would be subject to water discharge requirements under the Los Angeles County NPDES Permit (No. CA0061654).
ENVIROMENTAL IMPACTS

In accordance with Appendix G to the State CEQA Guidelines, a significant impact would occur if a Project would:

(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.

Furthermore, as set forth in the Draft L.A. CEQA Thresholds Guide, a Project would normally have a significant impact on hydrology if it would:

(a) Cause flooding during the projected 50-year developed storm event which would have the potential to harm people or damage property or sensitive biological resources;

(b) Substantially reduce or increase the amount of surface water in a water body;

(c) Result in a permanent, adverse change to the movement of surface water sufficient to produce a substantial change in the current or direction of water flow; or
(d) Discharge associated with the Project would create pollution, contamination or nuisance as defined in Section 13050 of the California Water Code or cause regulatory standards to be violated, as defined in the applicable National Pollution Discharge Elimination System storm water permit or Water Quality Control Plan for the receiving water body.

**Project Impacts**

**Surface Water Quality**

Construction of the Proposed Project has the potential to affect the quality of storm water runoff. Typically, runoff picks up pollutants as it flows over the ground or paved areas and carries these pollutants into the storm drain system or directly into natural drainages. There are three general sources of short-term construction-related stormwater pollution associated with the Proposed Project: 1) the handling, storage, and disposal of construction materials containing pollutants; 2) the maintenance and operation of construction equipment; and 3) earth moving activities which, when not controlled, may generate soil erosion.

The Project construction Site would contain a variety of construction materials that are potential sources of stormwater pollution, such as adhesives, cleaning agents, landscaping, plumbing, painting, heat/cooling, masonry materials, floor and wall coverings, and demolition debris. Construction material spills can also be a source of stormwater pollution and/or soil contamination.

According to the Los Angeles City Bureau of Engineering, routine safety precautions for handling and storing toxic and hazardous materials, and maintaining construction equipment in proper working condition, may effectively control the potential pollution of stormwater by these materials. These same types of common sense, “good housekeeping” procedures can also be extended to non-hazardous stormwater pollutants such as sawdust and other solid wastes.

Soil erosion is the process by which soil particles are removed from the land surface, by wind, water and/or gravity. Soil particles removed by stormwater runoff are pollutants, which, when deposited in local watercourses, can have negative impacts on downstream conditions. Grading and brush clearing activities can greatly increase erosion processes. Two general strategies are typically required to prevent construction silt from entering drainage courses. First, the amount of exposed soil is typically limited and erosion control procedures are implemented for those areas that must be exposed. Appropriate dust suppression techniques, such as watering or tarping, are used in areas that must be exposed. The Bureau of Engineering indicates that many of the common mitigation measures for controlling fugitive dust emissions, such as covering truck loads and street sweeping, are also effective in controlling stormwater quality. Second, the construction area would be secured to control off-site migration of pollutants. Erosion control devices, including temporary diversion dikes/berms, drainage swales and siltation basins, are typically required around construction areas to insure that sediment is trapped and properly removed. Also construction activities must adhere to the relevant stormwater management regulations under Los Angeles County’s**
NPDES Permit No. CA0061654. When properly designed and implemented, these Best Management Practices (BMPs) would ensure that short-term construction related water quality impacts are not significant.

**Water Quality – Long Term Operational Impacts**

If not properly designed and constructed, the Proposed Project could increase the rate of urban pollutant introduction into stormwater runoff, and increase erosion, transport of sediment load and downstream siltation, all of which constitute avoidable impacts to surface water quality. In order to prevent these potential impacts, the Project would be designed in compliance with Order No. 90-079 of the Regional Water Quality Control Board, Los Angeles Region, which regulates the issuance of water discharge requirements to Los Angeles County (including Cities that are tributaries to the County for stormwater discharge) under NPDES Permit No. CA0061654.

Under existing conditions, runoff from the Project Site may contain urban pollutants such as automotive fluids, heavy metals and chemical constituents, fertilizers, pesticides and herbicides that could be discharged into the storm drainage system. Because there would be no substantial increase in runoff as a result of the Project, urban contaminants that may be present in urban runoff from the site would not differ substantially in type or quantity than that which currently exists. The Proposed Project would be required to submit site drainage plans to the City Engineer and other responsible agencies for review and approval prior to development of any drainage improvements. Impacts to stormwater quality as a result of Project implementation would be less than significant.

**Groundwater**

**Construction**

A sample of the groundwater was investigated for contamination as construction dewatering activities during excavation for construction of the proposed subterranean parking structure. A permit to discharge the groundwater to a storm drain is required by the Los Angeles Regional Water Quality Control Board. One soil boring was advanced on the Site on November 14, 2005. The boring was located north of Santa Monica Boulevard and west of the existing 3-story (above grade) retail department store building (currently occupied by Sears). The soil boring was excavated to a total depth of 40 feet below ground surface. A temporary well was set within the boring. One groundwater sample was collected from the temporary well. After collection of the groundwater sample, the temporary well casing was removed from the boring and the boring was backfilled with cement grout and capped at the surface with asphalt.

Reported concentrations of metals cadmium, chromium, copper, nickel and zinc were detected. These concentrations were compared to the Screening Levels for General NPDES Permits. The Los Angeles River, the receiving water, via a storm drain, for the discharge form the Project Site, is designated as a groundwater recharge area by the California Regional Water Quality Control Board, Los Angeles Region.
(LARWQCB). The results were compared to the municipal and domestic supply and/or groundwater recharge beneficial use screening levels. The reported concentrations of metals cadmium, chromium, copper, nickel and zinc exceeded the screening levels concentrations. Therefore, it is likely that the LARWQCB will require treatment of the water, to remove the concentrations of metals exceeding the screening levels prior to discharge to a storm drain.

**Operation**

The Project would not contribute to groundwater depletion or interfere with groundwater recharge to an environmentally significant degree. The Los Angeles Department of Water and Power (DWP) provides water throughout the City. Groundwater which may be consumed by the Project, and the City of Los Angeles as a whole, is recharged pursuant to DWP policies and programs. Direct additions or withdrawals of groundwater are not proposed by the Project. Further, the Proposed Project would not increase the amount of impervious surface area on the site, as currently the site is almost entirely covered with impermeable surfaces (e.g., structures, concrete, and asphalt). The Proposed Project would replace retail uses with like uses; however the construction of 437 residential units would result in an increase in water demand. However it is not anticipated that the added water demands of the Project would exceed current supply (see Section IV.K Utilities, 2., Water). Therefore potential impacts to groundwater supplies or recharge would be less than significant.

**Surface Water Hydrology**

The Proposed Project development would consist of an approximately 661,650 square foot mixed-use project consisting of neighborhood retail and residential components. The proposed development would not result in a change in the Project Site coverage from existing setting conditions and would include approximately the same impervious and permeable surface ratios. Thus, there would be no increase in the total run-off from the Project Site. Due to the urban setting of the site and surrounding area, the Project would not significantly change drainage patterns. Roof drains from the building as well as area drains from the landscaped areas around the building would be connected to an on-site underground drainage system. This system would deliver the run-off to the existing stormwater conveyance systems adjacent to the site. Though specific layout of the drainage devices on site is not known at this time, the proposed on-site storm drain system would deliver the peak run-off values not exceeding existing conditions. Therefore, the Project would not result in any significant impacts related to the amount or rate of stormwater runoff or drainage system effects. Furthermore, the Proposed Project would not substantially reduce or increase the amount of surface water in a water body as the site conditions pre- and post-Project would not result in additional storm-water runoff. Since the Project Site is located in a built-out urban environment with impervious surfaces, surface water run-off would not increase to produce substantial change in the current or direction of water flow. Project-specific impacts associated with drainage and surface runoff and the potential for increased flooding would be less than significant.
A Project-related significant adverse effect would also occur if a Project would substantially increase the probability that polluted runoff would reach the storm drain system. Runoff from the Project Site currently is and would continue to be collected on the site and directed towards existing storm drains in the Project vicinity. All contaminants gathered during such routine drainage would be disposed of in compliance with applicable stormwater pollution prevention permits. Therefore, the Proposed Project would not provide substantial additional sources of polluted runoff to the storm drain system or increase storm water runoff from the Project Site above existing levels. Therefore, impacts related to Project surface storm water runoff would be less than significant.

Flooding

According to the Safety Element of the City General Plan, the Project Site lies within the area of potential inundation in the event of seismically induced or other failure of the Hollywood Reservoir, located to the northwest of the Project Site and operated by the Los Angeles Department of Water and Power (LADWP). However as the LADWP conducts daily surveillance and periodic safety inspections of all LADWP reservoirs and dam structures to ensure the safety of the structures and the water they contain, the sudden and catastrophic failure of the structure is considered remote. The City of Los Angeles Bureau of Engineering designates the Proposed Project Site as within the Flood Zone C. According to Federal Emergency Management Agency (FEMA), Flood Zone C describes flood insurance rate zones that are located outside of the 500-year floodplain, with minimal chance of flooding. Furthermore, the Project Site is located in a dense urban area that is completely surrounded by existing urban uses. Also, development of the Proposed Project would not introduce persons or structures into an area where they might be subject to flood hazards not previously experienced. In addition, implementation of the Proposed Project would not place structures, which would impede or redirect flood flows. Therefore, flooding impacts as a result of Project implementation would be less than significant.

A seiche is an oscillation of a body of water in an enclosed or semi-enclosed basin, such as a reservoir, lake or storage tank. Although the Proposed Project Site is located near the Hollywood Reservoir water

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1 City of Los Angeles, Safety Element of the Los Angeles City General Plan, Exhibit G, Inundation & Tsunami Hazard Areas, March 1994.


storage facility, according to the LADWP no seiche at a LADWP facility has ever been recorded, even during the 1994 Northridge earthquake and the LADWP does not consider seiches to be a potentially significant hazard. The Proposed Project Site is not located proximate to coastal waters, and as such is not susceptible to tsunami (seismically induced tidal wave) hazards. The topography of the Proposed Project Site and surrounding area is fully developed and generally flat, therefore there would be no risk of mudflows affecting the Proposed Project Site and impacts would be less than significant.

MITIGATION MEASURES

As construction of the Project would be required to comply with all applicable requirements associated with NPDES Permit No. CA 0061654 and all relevant storm water quality management regulations, no significant impacts would occur and no mitigation measures are required.

Groundwater discharge may have significant impacts and thus, the following mitigation measure is recommended:

G-1 During Project construction, the Project developer shall remove the concentrations of metals exceeding the “municipal and domestic supply and/or groundwater recharge beneficial use” screening levels for dewatering activities prior to discharge to a storm drain. The treatment of the groundwater shall be conducted in accordance with the regulations and guidelines set forth by the California Regional Water Quality Control Board, Los Angeles Region (LARWQCB).

CUMULATIVE IMPACTS

Development of the Proposed Project in combination with the 45 related projects would result in further development or redevelopment in an already urbanized area. As discussed above, the Project Site and the surrounding area are served by existing storm drains. Runoff from the Project Site and the surrounding urban uses is typically directed into the adjacent streets, where it flows to the nearest drainage improvements. It is likely that most, if not all, of the related projects would also drain to the surrounding street system. However, little, if any additional cumulative runoff would be expected from the Project Site and the related project sites since this part of the City is already fully developed with impervious surfaces. Therefore, cumulative impacts to the existing or planned stormwater drainage systems would be less than significant. In addition, development on each site would be subject to uniform site development and construction standards that are designed to ensure water quality and hydrological conditions are not adversely affected. All of the related projects would be required to implement BMPs and to conform to the existing NPDES water quality program. Therefore, cumulative water quality impacts would not be cumulatively considerable and would be less than significant.
LEVEL OF SIGNIFICANCE AFTER MITIGATION

No significant hydrology-related impacts are anticipated. Compliance with the requirements of NPDES Permit No. CA0061654 and the recommended Mitigation Measure, G-1, would ensure that the Proposed Project does not create any significant water quality impacts.