3G. Hydrology and Water Quality

3G.1 INTRODUCTION

This section assesses the potential impacts to surface water hydrology, surface water quality, groundwater hydrology, and groundwater quality from the implementation of the learning center project. This section also focuses on the proposed projectís consistency with state, regional, and local water quality policies/regulations.

3G.2 SETTING

Site Characteristics

The project site is located in an urban setting in the City of Los Angeles, just west of the downtown area. The project site is located in an area bounded by Wilshire Boulevard on the north, commercial properties and South Catalina Street on the east, West 8th Street on the south, and commercial/residential properties and a small portion of South Mariposa Avenue on the west. The majority of the project site is occupied by the now vacant Ambassador Hotel building and associated structures, parking lots and lawn areas. The Ambassador Hotel complex consists of the following:

- One 7-story main hotel building with a subterranean former laundry room and current boiler room (3400 Wilshire Boulevard);
- One swimming pool with accompanying 1-story cabana and 2-story health club;
- Six 2-story bungalows;
- Ten tennis courts; and,
- Two parking lots (Front and Rear).

The remainder of the Ambassador Hotel complex is landscaped with lawns and concrete walkways. In addition to the Ambassador Hotel complex, the project site is occupied by the following:

- Former (now vacant) Budget Rent-A-Car office (3380 Wilshire Boulevard);
- Two 2-story apartment buildings (696, 696 Ω, 698, 698 Ω and 700 South Mariposa Avenue);
- One empty lot, one parking lot, and one vacant lot along South Catalina Street;
- A portion of West 7th Street (east of South Catalina Street);
- One 2-story apartment building (739 South Catalina Street); and,
- One abandoned nightclub (3131West 8th Street).

More than half of the proposed project site is currently developed with impervious surfaces. Site elevation ranges from 220 feet to 250 feet AMSL. The project site lies on the crest of a low east-west hill, with significant changes in relief along the southern edge of the property. In this area, ground surface elevations are approximately 10 to 12 feet lower than surrounding ground surface. The central portion of the project site, which contains the main hotel building, is the topographic high of the site. Storm water runoff is channeled and diverted by gutters into storm drains that flow into Ballona Creek, approximately two miles to the southwest.

Flooding

A flood hazard may occur when land within a flood plain area is developed. The project site is not within a City-designated flood hazard zone.[1] In addition, the current Federal Emergency Management Agency Flood Insurance Rate Map for the area indicates that the project site is in Zone C, signifying an area of minimal flooding and outside of the 500-year flood zone.[2]

Earthquakes can cause flooding due to tsunamis, seiches, or by causing dam failure. Tsunamis are large ocean waves generated by underwater earthquakes or volcanic eruptions. Seiches are oscillating waves that can occur in enclosed bodies of water due to seismic disturbances. Review of the County of Los Angeles Flood and Inundation Hazard Map indicates that the project site does not lie within the boundary of mapped inundation areas due to tsunamis, seiches, or dam failure in the event of an earthquake.[3] Therefore, flooding impacts at the project site are not anticipated to occur.

Surface Water

Surface water resources include creeks and rivers, lakes and reservoirs. Reservoirs serving flood control and water storage functions exist throughout the region. Since the climate of Southern California is predominantly arid, many of the natural rivers and creeks are intermittent or ephemeral, drying up in the summer or flowing only after precipitation. Annual rainfall amounts vary depending on elevation and proximity to the coast. The City of Los Angeles averages less than 16 inches per year. However, due to urban landscape watering, water-ways such as the Los Angeles River maintain a perennial flow. Ballona Creek, located approximately two miles to the southwest, is the closest surface water body to the project site. The main source of water in the creek is urban runoff.[4] Ballona Creek drains a 130 square mile-area that is 64% residential, 8% commercial, 4% industrial, and 17% open space land uses.[5] The creek discharges into Santa Monica Bay.

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[1] City of Los Angeles, Department of Building and Safety, *Parcel Profile Report*, website: http://www.permitla.org/parcel/.

[2] Federal Emergency Management Agency, *Flood Insurance Rate Map, City of Los Angeles Community Panel No. 060137-0073D*, February 4, 1987.

[3] Geotechnologies, Inc., Geological Hazard Report, Proposed Central Los Angeles High School #8, April 18, 2001.

[4] California Regional Water Quality Control Board, Los Angeles Region, *Water Quality Control Plan: Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, June 1994.

[5] Los Angeles County Department of Public Works website, http://ladpw.org/wmd/watershed/bc/.

Water Quality

Due to the high urbanization in the area around Ballona Creek, urban runoff from industrial, commercial, and residential sources, as well as illegal dumping and sewage overflows, contribute to water quality problems.[6] Pollutants entering water bodies from urban runoff include oil and gasoline by-products from parking lots, streets, and freeways. Copper from brake linings and lead from tire counter-weights contribute increased loads of heavy metals to local waters. In addition, increased impervious surfaces increase runoff quantities, taxing flow capacities of local flood control systems and deteriorating natural habitats.

Ballona Creek is listed on the Los Angeles Regional Water Quality Control Board (LARWQCBís) 303(d) list of impaired water bodies. Table 3G-1 lists pollutants found in water, tissue, and sediment in the creek identified in the 303(d) list and their sources.

TABLE 3G-1: 303(d) LIST POLLUTANTS AND THEIR SOURCE FOR BALLONA CREEK[7]

Pollutant	Source
Arsenic	Non-point/point source
Cadmium	Non-point/point source
ChemA	Non-point/point source
Chlordane	Non-point/point source
Copper	Non-point/point source
DDT	Non-point/point source
Dieldrin	Non-point/point source
Enteric Viruses	Non-point/point source
High Coliform Count	Non-point/point source
Lead	Non-point/point source
PCBs	Non-point/point source
Sediment Toxicity	Non-point/point source
Silver	Non-point/point source
Toxicity	Non-point/point source
Trash	Non-point/point source
Tributyltin	Non-point/point source

Source: State Water Resources Control Board, 1999.

Several potential and existing beneficial uses for Ballona Creek are identified in the LARWQCB Basin Plan. Existing uses include non-contact water recreation and wildlife habitat. Potential

[6] California Regional Water Quality Control Board, Los Angeles Region, *Water Quality Control Plan: Los Angeles Region, Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties*, June 1994.
[7] *Ibid.*

beneficial uses include municipal and domestic supply, water contact recreation, and warm freshwater habitat.

Hydrogeology

The project site overlies the northern portion of the Central Groundwater Basin. The Central Groundwater Basin is a rectangular northwest-southeast-trending groundwater basin bounded to the west by the Baldwin, Rosecrans, and Dominguez Hills and the Newport-Inglewood Fault. This faulted and folded structural zone forms an effective barrier to lateral groundwater movement from the Central Basin to the West Coast Basin to the west.[8]

Groundwater beneath the project site is not found at consistent depths in a single continuous layer, but rather in multiple disconnected perched zones of thin sandy lenses overlying silt and clayey silt. It is also likely to be encountered in limited quantities in the weathered, upper boundary of siltstone bedrock.[9] Historically, groundwater has been encountered at approximately 18 to 45 feet bgs at the project site.[10]

In April 2001, Geotechnologies, Inc. prepared a geological hazard report for the project site. According to the report, data from the CGS indicates that the depth to the historic shallowest groundwater is 10 to 20 feet in the northeast portion of the site.[11] Geotechnologies, Inc. drilled twelve exploratory borings on May 30 and June 4, 2001 for a geotechnical engineering investigation. Ten of these borings were taken along the eastern and western portions of the project site, and one boring was north and one was south of the 7-story main hotel building. Groundwater seepage was found in three of the borings between 20 and 50 feet below grade.[12] A PEA Report was completed in December 2001.[13] According to the PEA, groundwater was encountered at various depths in different locations during soil sampling and also in previous sampling performed at the site.

Groundwater Quality

The general quality of groundwater in the Los Angeles region has degraded substantially from historic levels. Much of the degradation reflects land uses. Urban runoff has been proven to be a significant source of pollutants to groundwater. In addition, as impervious surfaces in urban areas increase, the rate of natural surface recharge declines.
The LARWQCB Basin Plan identifies several beneficial uses of the water in the Central Groundwater Basin. These beneficial uses include municipal and domestic supply, agricultural

[8] The Total Maximum Daily Load (TMDL) represents the assimilative capacity of receiving water to absorb a pollutant. The TMDL is the sum of the individual wasteload allocations for point sources, load allocations for nonpoint sources plus an allotment for natural background loading, and a margin of safety. To date, only a TMDL for trash has been established for the Ballona Creek; TMDLs for other pollutants are being in developed or will be developed in the future.
[9] Ninyo & Moore, *Preliminary Endangerment Assessment Report (Ambassador Hotel Site),* December 4, 2001.
[10] Ninyo & Moore, *Phase I Environmental Site Assessment*, June 18, 2001.
[11] Geotechnologies, Inc., *Geological Hazard Report, Proposed Central Los Angeles High School #8*, April 18, 2001.
[12] Geotechnologies, Inc., *Preliminary Geotechnical Engineering Investigation, Proposed Mixed Use Development, The Ambassador Hotel Site, 3400 Wilshire Boulevard, Los Angeles, California,* July 9, 2001.
[13] Ninyo & Moore, *Preliminary Endangerment Assessment Report (Ambassador Hotel Site),* December 4, 2001.

supply, industrial process supply, and industrial service supply. Municipal and domestic supply include water use for community, military, or individual water supply systems (i.e., drinking water supply). Agricultural supply includes water uses for farming, horticulture, or ranching (i.e., irrigation, stock watering, or support of vegetation for range grazing). Industrial process supply includes water use for industrial activities. Industrial service supply includes water use for mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-pressurization. There are numerous groundwater monitoring wells in the vicinity of the site, however, there are no wells used for domestic supply within a two-mile radius of the project site.[14]

There are between five and eight USTs at the project site.[15] These USTs were used for dispensing gasoline and storing oil. Sampling conducted during the PEA did not find TPH, VOCs, Semi-Volatile Organic Compounds (SVOCs), or metals above Maximum Contaminant Levels (MCLs) in the four groundwater samples that were analyzed. Elevated concentrations of TPH, VOCs, SVOCs, metals, and methane gas were found in soil and soil vapor samples in certain areas of the site. A more thorough discussion of soil contamination is provided in Chapter 3F. Hazards and Hazardous Materials of this Draft EIR.

3G.3 APPLICABLE REGULATIONS

The Environmental Protection Agency (EPA) is the federal agency responsible for water quality management and administration of the federal Clean Water Act (CWA). The EPA has delegated most of the administration of the CWA in California to the California State Water Resources Control Board (SWRCB). The SWRCB was established through the California Porter-Cologne Water Quality Act of 1969 and is the primary State agency responsible for water quality management issues in California. Much of the responsibility for implementation of the SWRCBís policies is delegated to the nine Regional Water Quality Control Boards (RWQCB). The project site is located in the Los Angeles Region #4.

Section 402 of the CWA established the National Pollutant Discharge Elimination System (NPDES) to regulate discharges into ìnavigable watersî of the United States. The U.S. EPA authorized the SWRCB to issue NPDES permits in the State of California in 1974. The NPDES permit establishes discharge pollutant thresholds and operational conditions for industrial facilities and wastewater treatment plants. Non-point source NPDES permits are also required for municipalities and unincorporated communities of populations greater than 100,000 to control urban stormwater runoff. These municipal permits require the preparation of Storm Water Management Plans (SWMPs) which reflect the environmental concerns of the local community.

A key part of the SWMP is the development of Best Management Practices (BMPs) to reduce pollutant loads. Certain businesses and projects within the jurisdictions of these municipalities

[14] Wong, Jennifer, Department of Water Resources, personal communication (e-mail), November 12, 2002.
[15] Ninyo & Moore, Preliminary Endangerment Assessment Report, Proposed Central Los Angeles High School No. 8, December 4, 2001.

are required to prepare Storm Water Pollution Prevention Plans (SWPPPs), which establish the appropriate BMPs to gain coverage under the municipal permit.

Individual storm water NPDES permits are required for specific industrial activities and for construction sites greater than five acres. State-wide general storm water NPDES permits have been developed to expedite discharge applications. They include the State-wide industrial permit and the State-wide construction permit. A prospective applicant may apply for coverage under one of these permits through the preparation of a SWPPP, which specifies BMPs to be implemented to protect water quality.

The Los Angeles Region RWQCB requires that certain new and redevelopment projects (including new schools) comply with the Standard Urban Storm Water Mitigation Plan (SUSMP). The SUSMP was designed as part of the municipal storm water program to ensure that storm water pollution is mitigated by incorporating BMPs during design, construction, and post construction activities. It also ensures that storm water runoff is managed for water quality concerns in addition to flood protection and that pollutants carried by storm water are retained and not delivered to waterways to the extent practicable.

3G.4 IMPACTS AND MITIGATION

Methodology

The environmental baseline for the proposed project is based on the Geological Hazard Report (April 18, 2001) and Preliminary Geotechnical Engineering Investigation (July 9, 2001) prepared by Geotechnologies, Inc., and the Phase I Environmental Site Assessment (June 18, 2001) and Preliminary Endangerment Assessment Report (December 4, 2001) prepared by Ninyo & Moore, the Basin Plan for Los Angeles County, and the City of Los Angeles General Plan.

Criteria for Determining Significance

The criteria used to determine the significance of an impact are based on the model initial study checklist in Appendix G of the State CEQA Guidelines. The proposed project may have a significant impact on surface hydrology, water quality, and/or groundwater if it meets or exceeds the following thresholds:

- Violate any water quality standards or waste discharge requirements;
- Substantially deplete groundwater supplies or interfere substantially with groundwater recharge;
- Substantially alter existing drainage patterns resulting in substantial erosion and/or flooding on or off-site;
- Create runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff;

- Substantially degrade overall water quality;
- Place structures within a 100-year flood hazard zone that would impede or redirect flood flows;
- Expose people or structures to significant risk of loss, injury or death involving flooding, including flooding from failure of a dam or levee; and,
- Expose people or structures to significant risk of loss, injury or death involving inundation by seiche, tsunami, or mudflow.

Project Impacts

TABLE 3G-2: HYDROLOGY IMPACTS SUMMARY

	Alternative 1	Alternative 2	Alternative 3	Alternative 4	Alternative 5
Impact 3G1	LTS/M	LTS/M	LTS/M	LTS/M	LTS/M
Impact 3G2	LTS	LTS	LTS	LTS	LTS
Impact 3G3	LTS/M	LTS/M	LTS/M	LTS/M	LTS/M
Impact 3G4	LTS	LTS	LTS	LTS	LTS
Impact 3G5	LTS	LTS	LTS	LTS	LTS

LTS = Less Than Significant Impact
LTS/M = Less Than Significant Impact with Mitigation Incorporation
S = Significant Impact

Impact 3G1: The proposed project could contribute pollutants to storm water runoff during construction as well as during the life of the project.

Pollutants commonly found in stormwater runoff include heavy metals, pesticides, herbicides, animal excrement, trash, food wastes, and organic compounds such as fuels, waste oils, solvents, lubricants, and grease. Stormwater and urban runoff is a significant source of water pollution that may result in declines in fisheries and other aquatic life, restrictions on recreational activities, losses to the annual tourism economy, and general impairment of the existing and potential beneficial uses of receiving waters.

The proposed project would be required to comply with all applicable federal, state and regional regulations to protect water quality during construction as well as during the life of the project. Prior to construction, a SWPPP would be prepared and submitted to the LARWQCB in compliance with the general statewide construction NPDES permits, as stated in Mitigation Measure **M-3E.4** in Chapter 3E. Geology and Soils of this Draft EIR. The SWPPP would describe specific BMPs to be implemented that would minimize impacts from storm water to local receiving water.

The proposed project would be required to comply with the SUSMP requirements for commercial redevelopment, which includes educational institutions, greater than 100,000 square feet. The regulations are applicable if improvements are made to 50 percent or more of the existing structure, which includes land disturbing activities. With the SUSMP in place, it is not anticipated that the amount of polluted surface runoff would increase as a result of the proposed project; therefore, not impacting the quality of local storm water runoff and receiving waters.

Mitigation Measures

Refer to Mitigation Measure **M-3E.4** in Chapter 3E. Geology and Soils.

M-3G.1 *LAUSD shall comply with the LARWQCBís SUSMP requirements for commercial redevelopment over 100,000 square feet that minimize the amount of pollutants entering the storm drain system. At a minimum, the applicant will:*

- *Implement BMPs best suited to minimize, to the maximum extent practicable, the introduction of pollutants of concern to the storm water conveyance system.*
- *Provide and maintain legibility of storm drain stenciling and signage for all storm drain inlets within the project area.*
- *Properly design outdoor material and trash storage areas and loading dock areas.*
- *Meet Structural or Treatment Control BMP Design Standards specified in the SUSMP.*

Residual Impacts

Impacts would be less than significant.

Impact 3G2: The proposed project would not substantially deplete groundwater supplies or interfere substantially with groundwater recharge.

Water would be supplied to the project site by the Los Angeles Department of Water and Power (LADWP), which uses three sources of water: the Los Angeles Aqueduct, local groundwater, and purchased water imported by the Metropolitan Water District of Southern California. Groundwater comprises approximately 15 percent of the LADWPís water supply.[16]

Although much of the storm water falling on urbanized Los Angeles quickly runs off to gutters and storm drains, some water does infiltrate pervious areas and contributes to groundwater recharge. Currently the project site is roughly 75 percent developed with impervious surfaces. Each proposed option would change the percentage of impervious surfaces as follows:
Alternatives 1, 2, 3, and 4 ñ All four of these alternatives would convert the developed portion of the site along Wilshire Boulevard and part of the developed area south of the main 7-story

[16] City of Los Angeles Department of Water and Power website: http://www.ladwp.com/water/supply/facts/index.htm, accessed November 15, 2002.

hotel building to playing fields. This would result in less impervious surfaces than currently exists (roughly 40 to 60 percent compared to approximately 75 percent).

Alternative 5 ñ This alternative includes allowing for the potential development of 5.6 acres of land on the northern portion of the property that currently is roughly 50 percent impervious (see Chapter 2, Section 2.4.5). This development would likely be commercial and would be nearly completely impervious. However, the development would be offset by the playing fields that would be constructed along the southern portion of the site on land that is currently developed with impervious surfaces. Therefore, the amount of impervious surfaces after completion of this alternative would be similar to existing conditions.

Since none of the alternatives would create more impervious surfaces than currently exists, impacts to groundwater recharge would not be significant and no mitigation is required.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact 3G3: The proposed project could substantially alter existing drainage patterns resulting in substantial erosion and/or flooding on or off site.

Due to the gently rolling terrain on the project site, development on the project site would require grading for any alternative that is selected. This would alter the existing drainage pattern of the project site. Storm water runoff would continue to be conveyed to the existing stormdrains. The site drainage plan would be approved by the City of Los Angeles Department of Public Works along with the site grading plan as specified in Mitigation Measure **M-3E.3** in Chapter 3E. Geology and Soils. Furthermore, Mitigation Measure **M-3E.4** requires the preparation of a SWPPP, which will minimize erosion impacts during grading and construction. Implementation of these mitigation measures, along with approval of the grading plan and drainage plan, would ensure potential erosion and flooding impacts at the project site are minimized.

Mitigation Measures

Refer to Mitigation Measures **M-3E.3** and **M-3E.4** in Chapter 3E. Geology and Soils.

M-3G.2 *LAUSD shall prepare a drainage plan to be submitted along with the site grading plan for approval by the City of Los Angeles Department of Public Works.*

Residual Impacts

Impacts would be less than significant.

Impact 3G4: The proposed project would not create runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial sources of polluted runoff.

None of the proposed alternatives for the project would create more impervious surfaces than currently exists on the project site. Furthermore, grading of the project site would not alter the drainage pattern in a manner that would increase runoff. Implementation of the SWPPP and compliance with the SUSMP requirements, as described in Mitigation Measures **M-3E.4** (Chapter 3E. Geology and Soils) and **M-3G.1** respectively, would minimize pollutants in storm water runoff. With the City of Los Angeles Department of Public Worksí approval of the site grading and drainage plan for the proposed development, as specified in Mitigation Measure **M-3G.2**, existing storm water drainage infrastructure would be able to accommodate storm water runoff from the proposed project. As a result, the proposed project is not anticipated to exceed the capacity of storm water drainage systems or be a source of substantial polluted runoff.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would be less than significant.

Impact 3G5: Together with other area projects, the proposed project could have cumulative impacts on hydrology and water quality in the project area.

This analysis is based on the Related Project List provided in Chapter 2, Table 2-3. Forty-two projects are located within two miles of the proposed project site, one of which is located within 600 feet of the project site.

Water quality impacts can be separated into construction-related and operational impacts. The other area projects, along with the proposed project, are located in the drainage area of the Ballona Creek, which is listed by the SWRCB as an impaired water body for the pollutants listed in Table 3G-1. Addition of these pollutants could contribute to cumulative impacts. Construction-related impacts would be temporary. Compliance with the State-wide NPDES general permit for construction activities and the SUSMP requirements would ensure that water quality impacts from construction and operation would be reduced to the maximum extent practicable, thereby minimizing cumulative water quality impacts of the proposed project. Other projects in the area may also have to meet these requirements depending on the size of the project and the type of development as determined by the LARWQCB.

The proposed project is located in an urban setting that is already developed with impervious surfaces and has existing drainage and water supply infrastructure in place. Therefore, the proposed project and other area projects are not expected to have cumulative impacts related to flooding or groundwater recharge.

Mitigation Measures

No mitigation is required.

Residual Impacts

Impacts would not be cumulatively considerable.