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## V. ENVIRONMENTAL IMPACT ANALYSIS

### G. HYDROLOGY/WATER QUALITY

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#### ENVIRONMENTAL SETTING

##### Hydrology (Surface Water Runoff and Drainage)

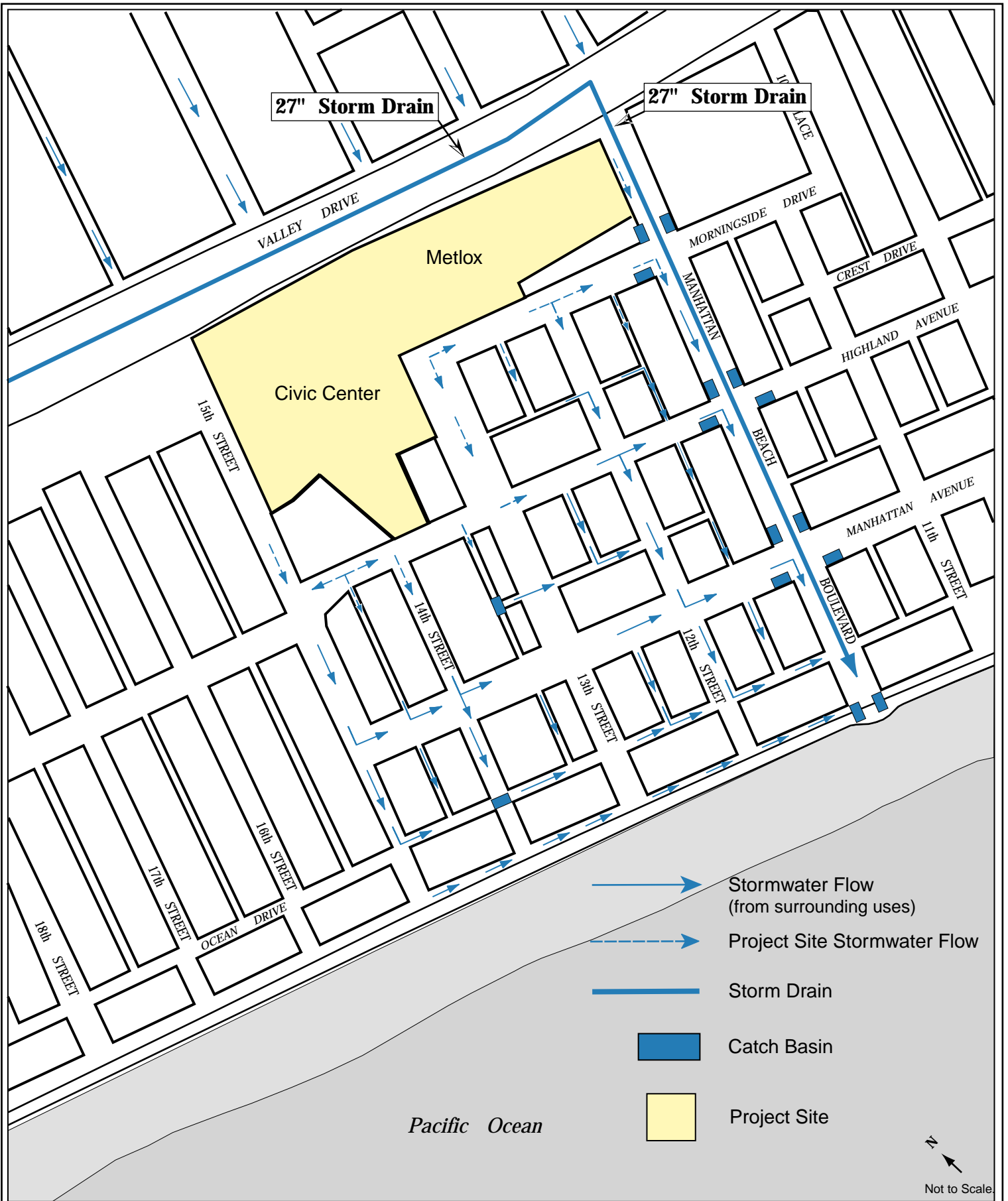
The City of Manhattan Beach's current storm drain system is operated in conjunction with the Los Angeles County Department of Public Works (LACDPW). The LACDPW operates and maintains the backbone of the storm drain system as well as two major pump plants (Polliwog Pond & Johnson Street) within the City. The City owns and operates the remaining storm drain facilities, which consists of approximately nine miles of storm drain facilities, varying from six-inch corrugated metal pipe (CMP) to 48-inch reinforced concrete pipe (RCP) and including two small pump plants (Radisson Golf Course and 23<sup>rd</sup> Street and Peck Street). Maintenance service and capital improvements to the City's storm drain infrastructure are provided by the City's Public Works Department.

The proposed project site is virtually fully developed with buildings, parking areas, and roadways. Paved areas and building footprints are considered impervious, while exposed earth, landscape or natural vegetated areas are considered pervious. Approximately 80 percent of the project site consists of impervious surfaces. Landscaped islands within the Civic Center parking lot and the vacant portion of the Metlox site totals approximately 20 percent of the total project site area.

Storm water runoff on the project site and vicinity is drained by surface flow in streets and parking areas. The existing stormwater drainage patterns in the immediate project vicinity is depicted in Figure 35 on page 162. As shown in Figure 35, stormwater patterns in the project vicinity generally flow to the south-southwest towards the Pacific Ocean. Stormwater is conveyed along curbs and gutters to surface drain inlets leading to storm drains beneath the streets. Surface water flows to the southwest along Morningside Drive west of the site and Manhattan Beach Boulevard to the south of the site. Drainage from Morningside Drive connects to the storm drain system in Manhattan Beach Boulevard and flows downhill to the Pacific Ocean. The current capacity of the storm drains serving the project site is considered adequate.<sup>22</sup> No natural drainage courses are located on the project site. Water flow across the exposed earth area on the site may contribute minor amounts of sediment to the storm drain system.

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<sup>22</sup> City of Manhattan Beach, Dana Greenwood, telephone conversation, March 31, 2000.



**Figure 35**  
**Existing Stormwater Drainage Patterns**

## **Water Quality**

No specific runoff water quality data are known to exist for the project site. Paved and developed areas such as the project site contribute substantially greater quantities of water to the storm drain system than landscaped areas. The principal cause of this effect are impervious surfaces, which include streets, parking lots, and buildings. Instead of soaking into the ground, rainfall is converted quickly to runoff and is then removed from the site via storm drains and artificial channels. The quality of storm water is generally affected by the length of time since the last rainfall, the rainfall intensity, the urban uses of the area, and the quantity of transported sediment. The Environmental Protection Agency (EPA) considers street and parking lot surfaces to be the primary source of storm water pollution in urban areas. Street-generated pollutants typically contain atmospheric pollution, tire-wear residues, petroleum products, heavy metals, oil and grease, fertilizer and pesticide wash-offs, and industrial chemical spills as well as bacteria from food, litter and animal droppings. Current land uses suggest the potential for industrial byproducts, oil, grease, heavy metals, and dust/sediment to enter the surface runoff from the site.

Historic land uses associated with the Metlox Potteries Manufacturing Plant have resulted in soil contamination on a portion of the project site. In 1988, the County of Los Angeles Department of Health Services (CLADHS) determined that soils on the Metlox site were contaminated with lead, cadmium, and zinc in excess of the levels allowed by the California Administrative Code. CLADHS required remediation of the site, which was performed in 1994. A closure report was issued for the site in 1996. Surface water infiltrating and or/flowing across the vacant portion of the Metlox property would therefore not contribute to the chemical degradation of water quality. However, since this portion of the project site is currently characterized by exposed soil, erosion and sedimentation may be transported off-site into the existing storm drain system during storm events.

An aboveground storage tank (AST) containing diesel fuel used to fuel fire trucks and other City vehicles, is located on the Manhattan Beach Fire Department (MBFD) site. The MBFD utilizes the AST in accordance with the Aboveground Petroleum Storage Tank Act and implements required measures to prevent fuel spills. No incidents of fuel leakage or spills with regards to the AST have occurred on the site.

## **Regulatory Overview**

**Federal Water Pollution Control Act.** The 1972 amendments to the Federal Water Pollution Control Act, later referred to as the Clean Water Act (CWA), prohibit the discharge of any pollutant to navigable waters of the United States from a point source unless the discharge is authorized by a National Pollution Discharge Elimination System (NPDES) permit. In 1990, the EPA promulgated final regulations that established Phase 1 requirements for the NPDES program to address among other discharges, non-point source discharges from large construction activities of five acres or more of land.

Under Phase 1 of the NPDES storm water program, storm water discharges have been primarily regulated for (1) specific industrial categories, (2) construction sites greater than five acres, and (3) municipal separate storm sewer systems (MS4s) serving populations greater than 100,000 persons. The recently enacted NPDES Phase II regulations expand the existing NPDES storm water program (Phase I) to address storm water discharges from small MS4s (those serving less than 100,000 persons) and construction sites that disturb one to five acres.<sup>23</sup>

**Porter Cologne Water Quality Control Act.** In California, the NPDES program is administered by the State Water Resources Control Board (SWRCB) through the nine Regional Water Quality Control Boards (RWQCBs). The SWRCB and the RWQCBs were established in 1969 by the Porter-Cologne Water Quality Control Act, the principal law governing California water quality regulation. General Construction Activity Storm Water Permits (GCASP) for Los Angeles County are administered through Region 4 - Los Angeles Regional Water Quality Control Board (LARWQCB). Under new regulations adopted by the LARWQCB, project applicants 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 Practices” (BMPs) in the design phase of development.<sup>24</sup> The SUSMP applies to the proposed project because (1) it will include parking lots with 25 or more spaces which are potentially exposed to storm water runoff, and (2) it will include restaurant uses. The SUSMP contains a list of the minimum required BMPs that must be used for a designated project.<sup>25</sup> Additional BMPs may be required by ordinance or code adopted by cities and applied generally or on a case-by-case basis. Developers must incorporate appropriate SUSMP requirements into their project plans. Each city is responsible for approving the project plan as part of the development plan approval process and prior to issuing building and grading permits for the projects covered by the SUSMP requirements.

All projects that include the development of restaurants and parking lots with 5,000 square feet or more or with 25 or more parking spaces and are potentially exposed to storm water runoff, and projects that are located within or directly adjacent to or discharging directly to an environmentally sensitive area, shall implement the following SUSMP requirements:

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<sup>23</sup> *Part II - Environmental Protection Agency 40 CFR Parts 9, 122, 123, and 124 National Pollutant Discharge Elimination System—Regulations for Revision of the Water Pollution Control Program Addressing Storm Water Discharges; Final Rule Report to Congress on the Phase II Storm Water Regulations, Federal Register Vol. 64, No. 235 / Wednesday, December 8, 1999 / Rules and Regulations.*

<sup>24</sup> *The Final SUSMP was approved by the Regional Board Executive Officer on March 8, 2000.*

<sup>25</sup> *The recently enacted SUSMP requirements take effect on October 8, 2000.*

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- Incorporate a BMP or a combination of BMPs best suited to maximize the reduction of pollutant loadings in runoff to the maximum extent practicable;
  - All storm drain inlets and catch basins within the project area must be stenciled with prohibitive language (such as: “NO DUMPING-DRAINS TO OCEAN”) and/or graphical icons to discourage illegal dumping;
  - Signs and prohibitive language and/or graphical icons, which prohibit illegal dumping, must be posted at public access points along channels and creeks within the project area;
  - Legibility of stencils and signs must be maintained;
  - Trash container areas must have drainage from adjoining roofs and pavement diverted around the area(s);
  - Trash container areas must be screened or walled to prevent off-site transport of trash;
  - As part of project review, if a project applicant has included or is required to include Structural or Treatment Control BMPs in project plans, the City shall require that the applicant provide verification of maintenance provisions through such means as may be appropriate, including but not limited to, legal agreements, covenants, CEQA mitigation requirements and/or Conditional Use Permits;
  - Include in the project plans an area for the washing/steam cleaning of restaurant equipment and accessories that is self-contained, equipped with a grease trap, and is properly connected to a sanitary sewer. If the wash area is to be located outdoors, it must be covered, paved, have secondary containment, and be connected to the sanitary sewer; and
  - To minimize the off-site transport of pollutants from parking areas, project plans shall, to the maximum extent practical, reduce impervious land coverage of parking areas, infiltrate runoff before it reaches the storm drain system, and treat runoff before it reaches the storm drain system;

Among other BMPs listed in the SUSMP, structural or treatment control BMPs selected for use at any project covered by the SUSMP are required to meet the following design standards:

A. Mitigate (infiltrate or treat) storm water runoff from either:

1. The 85<sup>th</sup> percentile 24-hour runoff event determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998),  
or

2. The volume of annual runoff based on unit basin storage water quality volume, to achieve 80 percent or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/ Commercial, (1993), or
3. The volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system, or
4. The volume of runoff produced from a historical-record based reference 24-hour rainfall criterion for “treatment” (0.75 inch average for the Los Angeles County area) that achieves approximately the same reduction in pollutant loads achieved by the 85<sup>th</sup> percentile 24-hour runoff event,

and

5. Control peak flow discharge to provide stream channel and over bank flood protection, based on flow design criteria selected by the local agency.

**Coastal Zone Act Reauthorization Amendments.** The 1990 Coastal Zone Act Reauthorization Amendments (CZARA) identified polluted runoff as a significant factor in coastal water degradation for shore-side municipalities. To better address polluted water in the coastal zone, Congress added CZARA Section 6217, which required, among other things, the preparation of a State coastal non-point source pollution control program. The purpose of the program is to implement polluted runoff management measures and enforceable policies to restore and protect coastal waters. California’s specific response to Section 6217 (the State’s Coastal Non-point Pollution Control Program or “CNPCP”) continues to be developed by the SWRCB and the Coastal Commission in consultation with the National Oceanographic and Atmospheric Administration (NOAA) and the EPA. It is clear that it increasingly will be incumbent upon local governments in coastal zone areas to implement more stringent water quality protection measures to address polluted runoff. The primary objectives of the CZARA program are reflected in the revised NPDES permitting requirements discussed above.

**City of Manhattan Beach Municipal Code.** As indicated above, each city is responsible for approving a project plan as part of the development plan approval process and prior to issuing building and grading permits for the projects covered by the SUSMP requirements. Compliance with NPDES (and recently enacted SUMP) requirements is administered at the local level through the City of Manhattan Beach Municipal Code Chapter 5.84: Stormwater and Urban Runoff Pollution Control. The City of Manhattan Beach Public Works Department is the local agency responsible for enforcing the NPDES requirements.

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## ENVIRONMENTAL IMPACTS

### Threshold of Significance.

A significant hydrology and water quality impact would normally occur if the project would cause any of the conditions listed below:

- 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) Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff; and/or
- d) Otherwise substantially degrade water quality.

### Project Impacts

#### *Water Quality*

During construction, the site would be graded and excavated, and soil would be exposed to natural processes such as precipitation (depending on the time of year) and runoff. Storm water discharges generated during construction activities could cause an array of physical, chemical, and biological water quality impacts. Specifically, the biological, chemical, and physical integrity of the waters could become severely compromised. Water quality impairment results, in part, because a number of pollutants could preferentially be absorbed by mineral or organic particles found in fine sediment. The interconnected process of erosion (detachment of the soil particles), sediment transport, and delivery is the primary pathway for introducing key pollutants, such as nutrients (particularly phosphorus), metals, and organic compounds into aquatic systems.<sup>26</sup> Grading activities would have the potential to result in soil erosion or discharge of sedimentation, which could, through the processes described above, degrade the quality of water in the Santa Monica Bay. However, construction activities for the proposed project would be required to implement effective BMPS to minimize water pollution to the maximum extent practicable. In addition, as required by the SUSMP, the final drainage plans would be

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<sup>26</sup> Novotny, V. and G. Chesters. 1989. "Delivery of Sediment and Pollutants from Non-point Sources: A Water Quality Perspective." *Journal of Soil and Water Conservation*, 44(6):568-76), abstract from Federal Register / Vol. 64, No. 235/Wednesday, December 8, 1999/Rules and Regulations.

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required to provide structural or treatment control BMPs to mitigate (infiltrate or treat) storm water runoff using the methods discussed previously in this Section. Mandatory compliance with SUSMP requirements would ensure BMPs would be implemented during the construction phase to effectively minimize excessive soil erosion and sedimentation and eliminate non-storm water discharge off-site. Though required by law, BMPs would be included as project mitigation measures to ensure potentially significant impacts would be reduced to less than significant levels. Therefore, project impacts on water quality resulting from erosion and siltation would be less than significant.

Activities associated with operation of the proposed project would generate substances that could degrade the quality of water runoff. The project includes approximately 6,400 square feet of restaurant uses. The washing and cleaning of restaurant equipment/accessories outdoors and the deposition of certain chemicals by cars on parking lot surfaces could have the potential to contribute metals, oil and grease, solvents, phosphates, hydrocarbons, and suspended solids to the storm drain system. However, impacts to water quality would be reduced since the project must comply with water quality standards and wastewater discharge BMPs set forth by the City of Manhattan Beach, the County of Los Angeles, and the State Water Resources Control Board. Further, required design criteria, as established in the *Standard Urban Storm Water Mitigation Plan for Los Angeles County and Cities in Los Angeles County*, would be incorporated into the project to minimize the off-site conveyance of pollutants. Compliance with existing regulations would reduce the potential for water quality impacts to a less than significant level.

Within the Civic Center portion of the site, the MBFD utilizes an above ground storage tank (AST), containing diesel used to fuel the department's vehicles. The AST would be removed during demolition of the existing on-site uses and replaced during project construction. During removal, replacement, and long-term usage activities, the AST could potentially result in fuel leakage, which could contaminate urban water runoff. Handling of the AST in compliance with Chapter 6.67, Aboveground Storage of Petroleum Health Safety Code §25270-25270.13 of the State Water Resources Control Board Aboveground Petroleum Storage Act, would ensure that no fuel leakage from the AST. Thus, water quality impacts with regards to the AST would be less than significant.

As indicated previously, the EPA considers street and parking lot surfaces to be the primary source of storm water pollution in urban areas. Currently there are a total of 345 surface parking spaces on the project site; 220 parking spaces on the Civic Center site and 125 temporary parking spaces on the Metlox site. All of these spaces exposed to surface water runoff and contribute to the degradation of our water quality. Although the project would increase the number of parking spaces serving the proposed land uses, a majority of the proposed parking spaces would be provided in subterranean parking garages. The Civic Center site proposes a total of 350 parking spaces with 203 subterranean spaces and 147 on-grade spaces. With the exception of 20 additional on-street parking spaces that would be created by the extension of 13<sup>th</sup> Street, all of the 212 parking spaces proposed for the Metlox



project would be provided in underground parking areas. Therefore, a total of 178 fewer parking spaces would be exposed to surface water runoff, which would substantially reduce the amount of urban water pollution entering the storm drain system and the Pacific Ocean. Therefore, a beneficial impact would occur with regard to urban water runoff from parking lots.

### ***Hydrology (Surface Water Runoff and Drainage)***

The proposed project site would be developed with buildings, parking areas, and walkways, increasing the amount of impervious surface on the site from 80 percent to virtually 100 percent (minus nominal landscaped areas). Surface water runoff from the site would generally be consistent with the existing drainage patterns that currently exist in the project vicinity. Since the Civic Center is entirely developed with impervious surfaces (with negligible areas of pervious surface area in landscaped parking lot medians), no change in surface water runoff is anticipated from that portion of the project site. However, the Metlox Site would experience an increase in the amount of impervious surface area of the site (estimated at roughly 20 percent of the Metlox site area or 0.60 acres) as the area that is currently vacant with pervious surface area would be developed with commercial structures and hardscaped plazas and walkways. The loss of groundwater infiltration would be considered less than significant because, due to the site's proximity to the ocean, water percolation from the project site does not feed into a freshwater aquifer or the regional groundwater basin.

Surface water runoff from the site would continue to drain in a south to southwest direction and would be directed to the existing 27" storm drain beneath Manhattan Beach Boulevard. The additional stormwater entering the drainage system is anticipated to result in an increase comparable to the increase in impervious surface (approximately 20 percent). However, this increase is not anticipated to significantly impact the capacity of the storm drain infrastructure serving the project locale. According to the City of Manhattan Beach Public Works Department, the storm drain system in Manhattan Beach Boulevard serving the site could accommodate this increase.<sup>27</sup> Thus, project impacts on storm drain system capacity would be less than significant.

## **CUMULATIVE IMPACTS**

No related projects have been identified within the immediate project vicinity that would, in combination with the proposed project, have a significant cumulative impact upon the stormwater infrastructure serving the project area. As indicated above, the existing stormwater infrastructure serving the project area would be capable of serving increased surface water runoff from the project site. Impacts attributable to water quality on a cumulative level would be addressed on a case-by-case

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<sup>27</sup> City of Manhattan Beach, Dana Greenwood, written correspondence, May 2000.

basis, as applicable to the specific land uses proposed. Individual projects would be required to develop and implement storm drain mitigation, including compliance with NPDES permitting guidelines, where appropriate. As such, cumulative water quality impacts would be less than significant.

## **MITIGATION MEASURES**

The following mitigation measures would ensure water quality impacts would be less than significant:

- The project shall comply with the requirements of the National Pollution Discharge Elimination System (NPDES) General Permit for stormwater discharge. Such compliance shall include submittal of a drainage plan to the City of Manhattan Beach Department of Public Works in accordance with the minimum applicable requirements set forth in the Los Angeles County Standard Urban Stormwater Mitigation Plan (SUSMP).
- Design criteria for the project should, to the extent feasible, minimize direct runoff to the adjacent streets and alleys by directing runoff from roofs and impervious surfaces to landscaped areas. In addition to reducing runoff volumes, due to infiltration into the soil, landscaped areas may also filter some pollutants from stormwater, such as particulate matter and sediment.

## **LEVEL OF SIGNIFICANCE AFTER MITIGATION**

With implementation of the mitigation measures listed above, project impacts on hydrology (surface water runoff and drainage) and water quality would be less than significant.