APPENDIX J

UTILITIES ANALYSIS

This appendix provides technical reports and a Storm Water Pollution Prevention Plan (SWPPP) prepared for the proposed Project by the Applicant's Fuscoe Engineering, Inc. These studies were used to inform the analysis provided in Section 3.14, *Utilities and Service Systems* within this Environmental Impact Report (EIR).

J1: Hermosa Beach Strand and Pier Hotel Project Infrastructure Technical Report for Sewer and Water Utilities (Fuscoe Engineering, Inc. 2016)

J2: Hermosa Beach Strand and Pier Hotel Project Technical Report for Hydrology, Groundwater, and Storm Water Quality (Fuscoe Engineering, Inc. 2016)

J3: Storm Water Pollution Prevention Plan (Fuscoe Engineering, Inc. 2016)

J4: California Water Service Will Serve Letter 11-81 Pier Avenue, 20-60 13th Street Hermosa Beach

Hermosa Beach
STRAND AND PIER HOTEL PROJECT

INFRASTRUCTURE TECHNICAL REPORT FOR SEWER AND WATER UTILITIES

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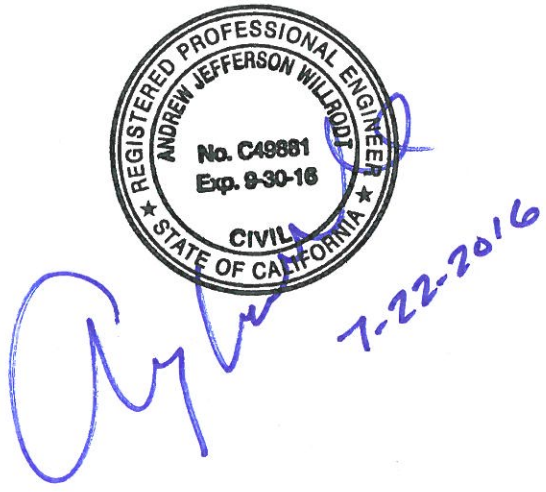

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1.0 INTRODUCTION

1.1 PROJECT DESCRIPTION

The Strand and Pier Hotel project site ("Project") is located in the City of Hermosa Beach in Los Angeles County. The Project site comprises some 0.9 acres; and is situated in an urbanized and coastal region of Los Angeles located at the intersection of Pier Avenue and Beach Drive. The Project site is bordered to the north by the Beach House Hotel and parking structure, to the west by The Strand and beach, to the east by numerous restaurants and retail areas, and to the south by Pier Avenue. See Figure 1 for a vicinity map of the Project site.

Figure 1 Vicinity Map

The Project site is currently occupied by several retail/restaurant buildings and surface parking lots. All of the existing land use on the site is retail/commercial. The retail buildings include Jeanes Fabric Cards, Pier Surf, Hermosa Cyclery, Good Stuff, The Mermaid, and various other restaurants and office uses.

The proposed Project consists of a 3-story boutique hotel which will provide approximately 100 hotel rooms and approximately 22,461 square feet of retail, restaurant and public uses. The gross floor area, including hotel, restaurant/retail, corridors, lobby, office, and back-of-house areas is approximately 155,030 square feet. The Project will be a maximum of 30-feet high, plus permitted rooftop projections. There are 178 on-site parking spaces within two levels of subterranean parking. The Project site improvements include the demolition of all existing structures and utilities at the property location, and would require the repaving of the existing parking lot immediately to the east of the Project site (referred to as City-owned Lot "B").

1.2 SCOPE OF WORK

As part of the environmental impact report (EIR) for the Project, this report will describe the current location of existing water and sewer infrastructure, analyze potential Project impacts to this infrastructure, and propose necessary mitigation measures, if any.

2.0 ENVIRONMENTAL SETTING

2.1 WATER

Potable water is provided to the City by the California Water Service Company (Cal Water). The Project site currently utilizes an 8-inch water main to service the Project. The 8-inch water main runs parallel to the existing 8-inch sewer main along Beach Drive, about 7.5 feet west of the 8-inch sewer main. The existing 8-inch water main is approximately three to four feet below existing grade on Beach Drive. The Project site also has an additional 6-inch water line running along 13th Court. The 6-inch water main runs parallel to the existing 8-inch sewer main along 13th Court, about 8.5 feet north of the 8-inch sewer main. The existing 6-inch water main is approximately three to four feet below existing grade on 13th Court.

The Project site also has an additional 12-inch water line running along 13th Street. The existing 12-inch water main is approximately 3 to 4 feet below existing grade on 13th Street. The 12-inch water main feeds at fire hydrant located at the southwest corner of the intersection of 13th Street and Beach Drive.

Table 1 shows estimated existing water consumption for the Project site. The existing water flow average daily demand at the Project site is approximately 20,258 GPD, with the peak flow at approximately 50,645 GPD. Water consumption estimates have been conservatively estimates based on 120 percent of the County of Los Angeles Sewer Generation Factors for residential and commercial categories.

Table 1 – Estimated Existing Water Demand

Project Sub-area[a]	Existing Use Description	Water Generation (gpd/unit) [(b)]	Quantity	Average Daily Water Flows (gpd)	Peak Daily Flow (gpd) [(c)]
3	Automobile Parking	30 gpd/1,000 SF.	7,222 SF.	217	542
4	Restaurants	60 gpd/seat	160 seats	9,600	24,000
5	Restaurants	60 gpd/seat	134 seats	8,040	20,100
10.1	Commercial Shops & Stores	120 gpd/1,000 SF.	6,010 SF	721	1,803
10.2	Residential Apartments	180 gpd/DU	4 DU	720	1,800
10.3	Residential Apartments	240 gpd/DU	4 DU	960	2,400
Total Existing Daily Sewer Flows (gpd)				**20,258**	**50,645**

Notes:
(a) See Appendix G - Figure 1: Sanitary Sewer Capacity Study Exhibit for location of Project subareas.
(b) Water Demands based on sewer flow estimates from the County of Los Angeles Sewer Generation Factors (+ 20% multiplier)
(c) Peak flow demand is based on a peak factor of 2.5

2.2 WASTEWATER

The City of Hermosa Beach provides wastewater collection and treatment services within city limits. The Project site currently utilizes two 8-inch sanitary sewer pipes to convey sewage from the property. The western half of the site is served by the sewer in Beach Drive and the eastern side of the site is served by the sewer in 13th Court. The 8-inch sewer in Beach Drive, has a low-point in the system at the intersection of Beach Drive and 13th Court. Sewage is then conveyed east along 13th Court via an 8-inch sewer, until confluence with an 8-inch main line running south along Hermosa Avenue.

The existing sewer flow average daily demand at the Project site is approximately 16,882 GPD, with the peak flow at approximately 42,204 GPD. Table 2 shows the existing sewer demand.

Table 2 Estimated Existing Wastewater Generation

Project Sub-area[a]	Existing Use Description	Sewage Generation (gpd/unit) [b]	Quantity	Average Daily Sewer Flows (gpd)	Peak Daily Flow (gal) [c]
3	Automobile Parking	25 gpd/1,000 SF.	7,222 SF.	181	451
4	Restaurants	50 gpd/seat	160 seats	8,000	20,000
5	Restaurants	50 gpd/seat	134 seats	6,700	16,750
10.1	Commercial Shops & Stores	100 gpd/1,000 SF.	6,010 SF	601	1,503
10.2	Residential Apartments	150 gpd/DU	4 DU	600	1,500
10.3	Residential Apartments	200 gpd/DU	4 DU	800	2,000
Total Existing Daily Sewer Flows (gpd)				**16,882**	**42,204**

Notes:
(a) See Appendix G - Figure 1: Sanitary Sewer Capacity Study Exhibit for location of Project subareas.
(b) Sewer flow estimates based on County of Los Angeles Sewer Generation Factors.
(c) Peak flow demand is based on a peak factor of 2.5

There are other 9 other sub-areas (1-2, 6-9, 11-13) of existing land uses that also contribute flows to 8-inch sewer in Beach Drive and the 8-inch in 13th Court. The detailed breakdown of land use and sewer estimates are provided in Appendix G, Table 1 and accounts for all sub-areas including the proposed Project existing condition contributions. When accounting for all sub-areas discharging into the 8-inch lines in Beach Drive and 13th Court, the existing average daily sewer flows (gpd) is 55,952 and the peak daily flow (gpd) is 139,881 GPD. The current design capacity of the 8-inch sewer in Beach Drive is approximately 212,626 GPD. The design capacity of the 8-inch sewer main in 13th Court is also approximately 216,626 GPD.

3.0 SIGNIFICANCE THRESHOLDS

3.1 WATER

Appendix G of the CEQA Guidelines provides a set of questions that address impacts with regard to water and wastewater infrastructure. These questions are as follows:

Would the project:

- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

3.2 WASTEWATER

Appendix G of the CEQA Guidelines provides a set of questions that address impacts with regard to wastewater. These questions are as follows:

Would the project:

- Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?
- Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?
- Result in a determination by the wastewater treatment provider, which serves or may serve the project, that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

4.0 METHODOLOGY

4.1 WATER

The methodology for determining the significance of a project as it relates to a project's impact on water supply and distribution infrastructure is based on CEQA Guidelines. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Description of major water infrastructure serving the Project Site, including the type of facilities, location and sizes, and any planned improvements;
- Description of the water conditions for the Project area and known improvement plans; and

Project Impacts

- Determine what improvements would be needed, if any, to adequately serve the Project.
- Consider water conditions for the Project area, known improvement plans, and the Project's water demand;

This report analyzes the potential impacts of the Project on the existing public water infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

4.2 WASTEWATER

The methodology for determining the significance of a project as it relates to a project's impact on wastewater collection and treatment infrastructure is based on CEQA Guidelines. This methodology involves a review of the project's environmental setting, project impacts, cumulative impacts, and mitigation measures as required. The following has been considered as part of the determination for this Project:

Environmental Setting

- Location of the Project and appropriate points of connection to the wastewater collection system as shown on the City of Hermosa GIS manhole map and in the Sanitary Sewer Master Plan (April, 2009);
- Description of the existing wastewater system which would serve the Project, including its capacity and current flows.
- Summary of adopted wastewater-related plans and policies that are relevant to the Project area.

Project Impacts

- Evaluate the Project wastewater needs (anticipated daily average wastewater flow), taking into account design or operational features that would reduce or offset service impacts;
- Compare the Project's wastewater needs to the appropriate sewer's capacity and/or the wastewater flows anticipated in the Wastewater Facilities Plan or General Plan.

This report analyzes the potential impacts of the Project on the existing public sewer infrastructure by comparing the estimated Project demand with the calculated available capacity of the existing facilities.

5.0 PROJECT IMPACTS

5.1 CONSTRUCTION

5.1.1 WATER

Water demand for the construction of the Project would be required for dust control, cleaning of equipment, excavation/export, removal and re-compaction, rough grading, etc. The approximate average water daily use during construction is anticipated to be 1,500 per day. The expected construction schedule is 20 months. Based in the approximate average daily use and construction time, the Project will utilize approximately 585,000 gallons of water. In addition, any increased water use during construction would be limited and would be within the availability of the City's water supply and well below the estimated daily operational demand. Therefore, the impact on water use due to construction activity will be less than significant.

The Project will require the construction of new on-site water distribution lines to serve the new facility. The construction impacts associated with the installation of water distribution lines would primarily involve trenching in order to place the lines below surface or hanging distribution lines from the parking garage walls. However, as part of the vacation of Beach Drive, the existing 8-inch line within the right of way of Beach Drive will be relocated. The water relocation options are shown in Appendix B.

The installation of new water infrastructure and minor off-site work associated with connections to the public main will be under the jurisdiction of Cal Water. No upgrades to public water mains are anticipated. Prior to ground disturbance, project contractors would coordinate with Cal Water to identify the locations and depth of all existing lines. Furthermore, Cal Water would be notified in advance of proposed ground disturbance activities so as to avoid existing water mains and disruption of water service. Therefore, the Project impacts on water associated with construction activities would be less than significant.

5.1.2 WASTEWATER

Construction activities for the Project would result in a temporary decrease in wastewater generation as a result of construction workers and equipment on-site. Wastewater generation would not increase until the Project's completion. In addition, construction workers would typically utilize portable restrooms, which would not contribute to wastewater flows to the City's wastewater system. In the event there is an increase in wastewater flow during construction, this increase would be limited and would be within the capacity of the wastewater facilities that currently serve the Project. Thus wastewater generation from Project construction activities is not anticipated to cause a measurable increase in wastewater flows. Therefore, the Project construction impacts to the wastewater system would be less than significant.

The Project will require the construction of new on-site infrastructure to plumb the new facility, and will relocate the existing 8-inch sewer main within the right-of-way of Beach Drive. The wastewater relocation options are shown in Appendix C. Construction impacts associated with wastewater infrastructure would primarily be confined to trenching for the installation of new sewer mains and for the connections to public infrastructure. Installation of wastewater infrastructure will include both on-site wastewater distribution, and off- site work associated with the vacation of Beach Drive. Based on the analysis shown in Appendix G –Sewer Capacity Study,

no upgrades to the public infrastructure are anticipated. However, minor off-site work will be required in order to connect to the public sewer mains. Therefore, a Construction Management Plan would be implemented to reduce any temporary pedestrian and traffic impacts. The contractor would implement the Construction Management Plan, which would ensure safe pedestrian access and vehicle travel in general, and emergency vehicle access, in particular, throughout the construction period. Overall, when considering impacts resulting from the installation of any required wastewater infrastructure, all impacts are of a relatively short-term duration (i.e., months) and would cease to occur once the installation is complete. Therefore, Project impacts on wastewater associated with construction activities would be less than significant.

5.2 OPERATION

5.2.1 WATER

5.2.1.1 Water Consumption

For the purpose of this technical report, the Project's water demand was estimated using the sewer flows generated by the Project multiplied by 120 percent of the corresponding sewer generation factors. Under the proposed condition, water demands will increase significantly (252%) due to the higher density (Hotel) and commercial uses. A total of 100 hotel rooms and over 5,500 square feet of commercial area are proposed. Table 3 shows the water demands based on the proposed land use for the Project site, using the same methodology as for the existing conditions. The average daily operational water flow for the proposed Project site is approximately 71,355 GPD, with the peak flow at approximately 178,387 GPD. Water calculations derived from detailed sewer calculations are shown in Appendix F.

Table 3 Estimated Proposed Water Consumption

Proposed Use Description	Water Consumption (gpd/unit) [a]	Quantity	Average Daily Water Demand (gpd)	Peak Flow Demand (gpd)[b]
Hotel	180/room	100 rooms	18,000	45,000
Commercial Shops & Stores	120 gpd/1,000 SF	5,522 SF	663	1,657
Restaurants	60/seat	500 seats	30,000	75,000
Bars, cocktail lounges, etc.	24/seat	879 seats	21,096	52,740
Parking	30/1,000 SF	53,209 SF	1,596	3,991
Total Proposed Daily Water Consumption (gpd)			**71,355**	**178,387**
Total Proposed Water Demand (af-yr)			**80**	**--**
Total Existing Water Demand (gpd)			**20,258**	**50,645**
Net Water Demand			**+51,097**	**+127,724**

Notes:
(a) Water Demands based on sewer flow estimates from the County of Los Angeles Sewer Generation Factors (+ 20% multiplier)
(b) Peak flow demand is based on a peak factor of 2.5

5.2.1.2 Infrastructure Capacity

When analyzing the Project for infrastructure capacity, the projected demands for both fire suppression and domestic water are considered. Although domestic water demand is the Project's main contributor to water consumption, fire flow demands have a much greater instantaneous impact on infrastructure, and therefore are the primary means for analyzing infrastructure capacity. Nevertheless, conservative analysis for both fire suppression and domestic water flows has been completed for the Project.

5.2.1.3 Fire Water Demand

The fire flow available at the hydrant was evaluated by running a fire flow test. The available flow at 20 PSI was found to be 3,317 GPM. It should be noted that the local fire department did not have a minimum regulatory fire flow. Consequently, the proposed Project will use the available fire flow to design the Project's fire suppression system. Any additional pressure needed for the proposed Project will be supplemented with mechanical pumps designed to supply water for both domestic and fire services. Refer to Appendix A – Existing Water and Sewer Utilities to see the existing water mains that service the Project's site.

5.2.1.4 Domestic Water Demand

In conjunction with the Project improvements and specifically the proposed street closure/vacation dictates that certain public utility segments in Beach Drive and 13th Court will be removed. The street vacation limits in Beach Drive extends from 13th Street to Pier Ave and in 13th Court from Beach Drive to 100 feet east along 13th Court. The proposed vacation would necessitate the removal of approximately 210 feet of the existing 8-inch water main in Beach Drive and approximately 120 feet of the existing 6-inch water main in 13th Court. The impacts to the City's water system will be mitigated by re-routing the existing water mains. Currently, there are two alternatives under consideration to re-route and reconnect the City's water system. Alterative 1 would install a new 8-inch water main in Pier Ave. The new water main for Alternative 1 would extend from Beach Drive to Hermosa Ave for approximately 380 feet. The second alternative would install a new 8-inch water main that would "loop" around the Project site by traversing west along Pier Ave, north along the strand and east along 13th Street. The approximate length of the new water main for Alternative 2 would be 440 feet. In addition a new 6-inch water main that would connect the water main in 13th Court to the existing 12-inch main in 13th Street would be required for both alternatives. This water main would be installed inside the City's "Lot B" parking lot. The approximate length of the 6-inch water main is 116 feet.

Alternative 1 and 2 will be presented to the City and to the local water purveyor (Cal Water) for their review and assessment. Refer to Appendix B for the water relocation alternatives.

5.2.2 WASTEWATER

5.2.2.1 Sewer Generation

Sewer flow analysis was conducted for the all City owned sewer lines tributary to the County owned line along Hermosa Avenue within the vicinity ("study area") of the Project site (see Appendix G). The proposed sewer flows of the study area were calculated using two methods. In the first method, the LA County Sewer Generation Factors, the land use areas and the anticipated building occupancies were used to calculate the sewer flow. The peak sewer

demand flow in the study are for all of the sub-areas for the existing condition was determined to be 139,881 GPD. The peak sewer demand flow in the total study area for the proposed condition was determined to be 246,333 GPD.

In the second method, the sewer flow of the existing sewer system was calculated using the City of Hermosa Beach zoning map and the LA County sewer "zoning coefficients". In this calculation, the study area in the Sewer Capacity Study was multiplied by the designated zoning coefficient. The peak flow produced in the study area for the existing condition was determined to be 131,518 GPD. Because the first methodology resulted in a higher flow demand for both the existing and the proposed condition, it was used to calculate the capacity of the existing sewer main that serves the Project's property.

Utilizing the LA County Sewer Generation Factor method stated above, the average daily operational sewer flow for the proposed Project site is approximately 59,462 GPD, with the peak flow at approximately 148,656 GPD. Table 4 below summarizes the proposed sewer flows based on the Project's land use. In addition, the Sewer Capacity Study in Appendix G shows the sewer demand calculations.

Table 4 Estimated Proposed Sewer Flow

Proposed Use Description	Sewage Generation (gpd/unit) [(a)]	Quantity	Average Daily Sewer Flow (gpd)	Peak Flow (gpd)[(b)]
Hotel	150/room	100 rooms	15,000	37,500
Commercial Shops & Stores	100 gpd/1,000 SF	5,522 SF	552	1,381
Restaurants	50/seat	500 seats	25,000	62,500
Bars, cocktail lounges, etc.	20/seat	879 seats	17,580	43,950
Parking	25/1,000 SF	53,209 SF	1,330	3,326
Total Proposed Daily Wastewater Generation			**59,462**	**148,656**
Total Existing Wastewater Generation			**16,882**	**42,204**
Net Wastewater Generation			**+42,580**	**+106,452**

Notes:
(a) Water consumption estimates based on County of Los Angeles Sewer Generation Factors.
(b) Peak flow demand is based on a peak factor of 2.5

5.2.1.2 Infrastructure Capacity

The proposed project will result in an increase in sewer generation. In addition to the proposed project, there are other 9 other sub-areas (1-2, 6-9, 11-13) of existing land uses that will continue to contribute sewer flows to the 8-inch sewer in Beach Drive and the 8-inch in 13th Court. The detailed breakdown of land use and sewer estimates are provided in Appendix G, Table 2 and accounts for all sub-areas including the proposed project contributions. When accounting for all sub-areas discharging into the 8-inch lines in Beach Drive and 13th Court, the proposed average daily sewer flows (gpd) is 98,553 and the proposed peak daily flow (gpd) is 246,333 GPD. The current design capacity of the 8-inch sewer in Beach Drive is

approximately 212,626 GPD. The design capacity of the 8-inch sewer main in 13th Court is also approximately 216,626 GPD. The analysis indicates that under the proposed condition, the peak flow will slightly exceed the design capacity of the existing 8-inch lines by 16%.

Regionally, these sewer flows are routed towards the Herondo Pumping station that outfalls into the County's trunk on Monterey Ave. The sewer effluent is then conveyed thru the LA County regional sanitary sewer system. The outfall of the system is the Joint Water Pollution Control Plant (JWPCP) located in the City of Carson. The JWPCP serves a population of 3.5 million and approximately 280 million gallons of wastewater per day. The plant has a capacity of 400 million gallons per day. Thus, the Project's increase in sewer demand will not affect the capacity of the existing local or regional sanitary sewer systems. Refer to Appendix G for the sewer capacity study calculations.

The construction of the project will require the removal of certain utilities in segments of Beach Drive and 13th Court. The utility removal limits in Beach Drive extend from 13th Street to Pier Ave and in 13th Court from Beach Drive to 100 feet east along 13th Court. The total sewer main removal is approximately 385 feet. The removal of the sewers in Beach Drive and 13th Court will require the installation of a new sewer main alignment to continue to serve the properties adjacent to the project. Currently there are two alternatives that will be presented to the City for their review. The first alternative would require the installation of a new 8-inch sewer main from the existing manhole at the intersection of 13th Street and Beach Drive to approximately 130 feet east along 13th Street; the main alignment would then turn 90 degrees across the City's "Lot B" parking lot and connect to the existing 8-inch sewer main in Beach Drive. The total length of Alternative 1 is approximately 245 feet. The second alternative would require the installation of a new 8-inch sewer main in 13th Street. The new sewer main would connect the existing manhole at the intersection of 13th Street and Beach Drive to a new manhole at the intersection of 13th Street and Hermosa Ave. The total length of Alternative 2 is approximately 445 feet. See Appendix C – Proposed Sewer Relocation Exhibit.

5.3 CUMULATIVE IMPACTS

5.3.1 WATER

The geographic context for the cumulative impact analysis on the water supply system is the Cal Water Hermosa Redondo District. Appendix J shows the service area map. Cal Water, as the water service provider, is required to prepare and periodically update an Urban Water Management Plan (UWMP). The UWMP allows for the proper regional water infrastructure planning for both existing and future facilities. The 2015 Urban Water Management Plan accounts for existing development within the City, as well as projected growth through the year 2040. The estimated service area population in 2015 was approximately 95,800.

The Hermosa–Redondo District uses a combination of groundwater, imported surface water and recycled water supplies (2015 Urban Water Management Plan, Cal Water 2015). Approximately 15 to 20 percent is extracted from the Silverado aquifer in the West Coast Basin and the remaining 80 to 85 percent is purchased from the West Basin Municipal Water District (WBMWD). The WBMWD is a member of the Metropolitan Water District of Southern California (MWDSC). The recycled water generally makes up approximately 1 percent of the district's use.

The region's projected water supply will meet the projected population growth through a combination of water conservation, water transfer, lease agreements, purchase agreements and water supply projects (i.e. increase water recycling). Cal Water is planning to achieve these goals by increasing its water conservation program and by expanding the recycled water distribution system to provide water for irrigation, industrial use, and groundwater recharge. In summary, through the 2015 MWD regional UWMP and Cal Water's local UWMP (Hermosa-Redondo District) the regions water supply will meet the projected water demand.

Additionally, under the provisions of Senate Bill 610, Cal Water is required to prepare a comprehensive water supply assessment (WSA) for every new development "project" (as defined by Section 10912 of the Water Code) within its service area that reaches certain thresholds. The types of projects that are subject to the requirements of Senate Bill 610 tend to be larger projects that may or may not have been included within the growth projections of the 2015 UWMP. The water supply assessment for projects would evaluate the quality and reliability of existing and projected water supplies, as well as alternative sources of water supply and measures to secure alternative sources if needed. The proposed Project does not fall within the requirements of SB 610; and therefore does not need to prepare a WSA for consideration.

Compliance of the Project and future development projects with regulatory requirements that promote water conservation such as the City of Hermosa Beach Municipal Code, including the City's Green Building Code, as well as AB 32, would also assist in assuring that adequate water supply is available on a cumulative basis.

Based on the above, it is anticipated that Cal Water would be able to supply the demands of the Project and future growth through 2040 and beyond. The City's potable water system has the infrastructure and the capacity to serve the proposed Project. A will-serve letter was requested and granted by Cal Water, Rancho Dominguez District in May 2016. No new or expanded entitlements are needed. Therefore, cumulative impacts on water supply would be less than significant.

5.3.2 WASTEWATER

The County of Los Angeles Sewer System Management Plan (SSMP) dated February 2014, describes the County's Regional Sanitary Sewer System pursuant to the State Water Resources Control Board's Statewide General Waste Discharge Requirements (WDRs). The SSMP report describes how specific sewer collection systems are operated, maintained repaired, and funded. Chapter 8 of the SSMP "Sewer System Evaluation and Capacity Assurance Plan (SSECAP)" is dedicated to evaluate the existing capacity of sewer systems and to plan and budget relief projects. The capacity of sanitary sewers is analyzed by studying data collected from dry and wet weather flow monitoring programs. Once the data is analyzed, sewers are then ranked based on the capacity rating system.

Sewers with a capacity rating of "A" ($D/d \geq 0.9$) are recommended for relief. Sewers with a capacity rating of "B" ($D/d = 0.8 – 0.9$) or "C" ($D/d = 0.7 – 0.8$) are monitored annually and biennially, respectively. Sewers that have been assigned an "A", "B", or "C" ranking are added to the capital improvement plan (CIP) and included in the annual Report of Recommended Facility Repairs. (Los Angeles County Sewer System Management Plan, February 2014). There are no sewer segments that have been assigned a rank within the vicinity of the proposed Project.

Furthermore, the City of Hermosa Beach issued their Sanitary Sewer Master Plan in April 2009. The Master plan was updated in 2011. The Project is located in drainage basin number 10. Appendix K shows a map of the City's drainage basin and the sewer network. The Project will be served by the sewer main in between manholes 1073 and 1091. The Project's effluent flows along Hermosa Ave towards the County's Herondo Pumping Station. The effluent is then pumped in a force main directly to the County's trunk on Monterey Ave at Manhole C1128.

The City's Master plan did not identified any repairs or upgrades needed in the vicinity of the Project. Figure 1.1 in Appendix L – Sewer Rehabilitation History shows that the 8-inch sewer main in Beach Drive from 14th Court to 3rd Street was replaced in 1988. In addition, the 8-inch sewer main in 13th Court from Beach Drive to Hermosa Ave was also replaced in 1988.

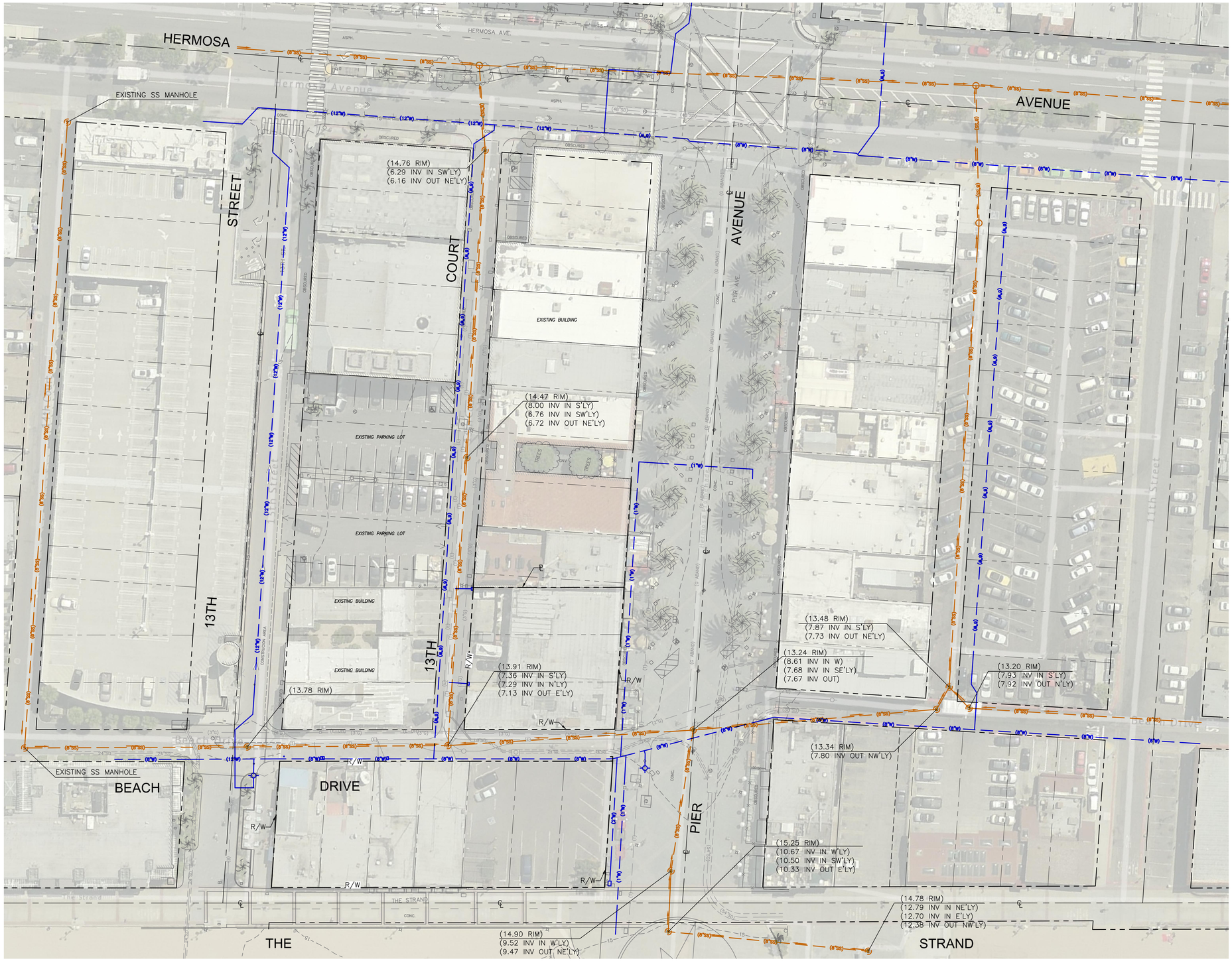
The proposed Project will result in the additional generation of sewer flow. A sewer capacity analysis was conducted by Fuscoe Engineering in June 2016 to determine the capacity of the existing sewer segments from the proposed development site and to assess the existing sewer facility capacity to adequately service the proposed development increased sewer demands. The analysis concluded that the proposed Project will put the adjacent sewer lines within 116% of their design capacity of d/D = 0.5 (50% of pipe capacity) as shown in Appendix G. However, the type of methodology utilized to preliminarily study sewer capacity tends to be conservative and may underestimate actual capacity of the sewer system. Thus, it is recommended that site specific flow tests be performed to quantify actual flows and sewer system capacity.

In addition, the Project will be required to obtain a sewer capacity availability request from the City. During this request the City will do its own independent assessment of the City's sewer capacity and will issue any required improvements including a flow test requirement if necessary. If system upgrades are required as a result of a given Project's additional flow, arrangements would be made between the related Project and the City to construct the necessary improvements. Therefore, until further site specific studies can be made to the sewer system, the cumulative impact of the Project and other similar projects is considered to be less than significant.

6.0 LEVEL OF SIGNIFICANCE

Based on the analysis contained in this report no significant impacts have been identified for water or wastewater for this Project.

Appendix A – Existing Water and Sewer Utilities Exhibit



LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- EXISTING SEWER
- EXISTING WATER
- EXISTING GAS
- EXISTING UNDERGROUND ELECTRIC
- EXISTING OVERHEAD ELECTRIC
- EXISTING TELEPHONE/TELECOMMUNICATIONS

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

APPENDIX - A
EXISTING DOMESTIC WATER & SANITARY SEWER EXHIBIT

06.08.2016

30' 0' 15' 30'
SCALE: 1" = 30'

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600 Wilshire Boulevard, Suite 1470
Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803
www.fuscoe.com

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 EXISTING DOMESTIC WATER AND SEWER - APPENDIX A.DWG (06-08-16 11:54:06AM) Plotted by: Miguel Cabonce

Appendix B – Proposed Water Relocation Exhibit

LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- EXISTING SEWER
- EXISTING WATER
- PROPOSED WATER ALTERNATIVE 1
- PROPOSED WATER ALTERNATIVE 2
- EXISTING UTILITY TO BE REMOVED AND RELOCATED

CONSTRUCTION NOTES

1. REMOVE EXISTING UTILITY LINE
2. CAP EXISTING UTILITY
3. CONNECT TO EXISTING UTILITY LINE
4. PROPOSED 8-INCH WATER MAIN

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

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BEVERLY HILLS, CA 90211

APPENDIX - B
STRAND AND PIER HOTEL WATER RELOCATION EXHIBIT

04.13.2016

30' 0' 15' 30'
SCALE: 1" = 30'

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Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803
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F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 PROPOSED WATER RELOCATION.DWG (06-08-16 12:28:40PM) Plotted by: Miguel Cabanas

Appendix C – Proposed Sewer Relocation Exhibit

LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- (SS) EXISTING SEWER
- (W) EXISTING WATER
- SS ALT-1 PROPOSED SEWER ALTERNATIVE 1
- SS ALT-2 PROPOSED SEWER ALTERNATIVE 1
- EXISTING UTILITY TO BE REMOVED AND RELOCATED
- SANITARY SEWER FLOW ARROW

CONSTRUCTION NOTES

1. REMOVE EXISTING UTILITY LINE
2. CAP EXISTING UTILITY
3. CONNECT TO EXISTING UTILITY LINE
4. NEW SEWER MANHOLE

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

APPENDIX - C
STRAND AND PIER HOTEL SEWER RELOCATION EXHIBIT

04.13.2016

30' 0' 15' 30'
SCALE: 1" = 30'

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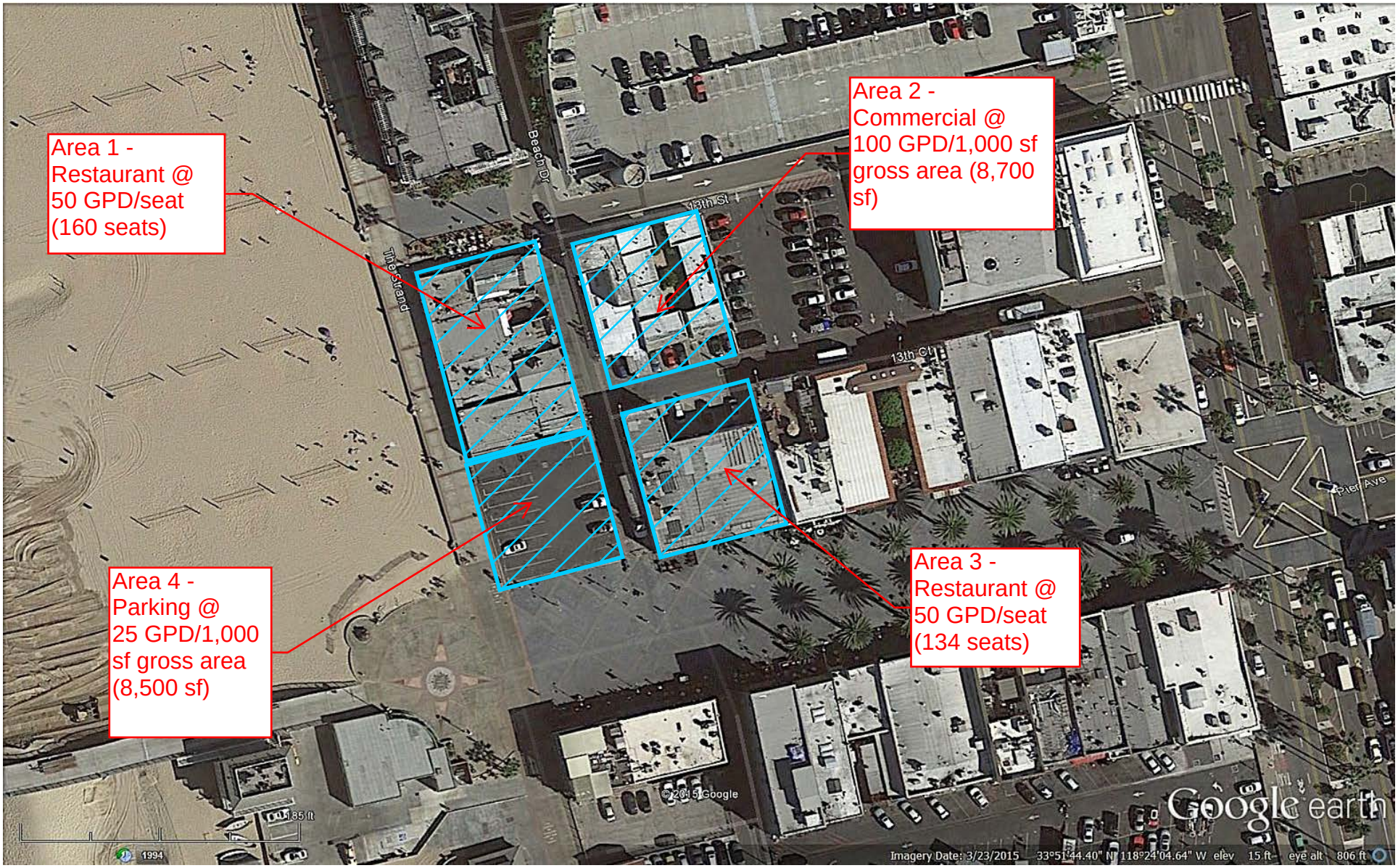
Appendix D – Existing Land Use Exhibit

APPENDIX E - Existing Land Use Exhibit



Appendix E – Existing Water Demand Calculations

Provenance Hotel
City of Hermosa Beach
Water Calculations

Table A - Water Demands Summary - Existing Condition

Area	Occupany	Average Daily Flow Factor (gpd)	Average Daily Flow Factor (gpd)120%*	Unit	Quantity	Unit	Average Daily Flow (gpd)	Peak Flow (gpd)**
1	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	2,933	sf	352	880
2	Restaurants	50	60	gal/seat	50	seats	3,000	7,500
3	Automobile Parking	25	30	gal/1,000 sf gross floor area	7,222	sf	217	542
4	Restaurants	50	60	gal/seat	160	seats	9,600	24,000
5	Restaurants	50	60	gal/seat	134	seats	8,040	20,100
6	Restaurants	50	60	gal/seat	335	seats	20,100	50,250
7	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	4,980	sf	598	1,494
8	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	14,200	sf	1,704	4,260
9	Automobile Parking	25	30	gal/1,000 sf gross floor area	12,671	sf	380	950
10.1	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	6,010	sf	721	1,803
10.2	Residential Apt.	150	180	gal/D.U.	4	Apt.	720	1,800
10.3	Residential Apt.	200	240	gal/D.U.	4	Apt.	960	2,400
11	Hotels	150	180	gal/room	96	rooms	17,280	43,200
12	Automobile Parking	25	30	gal/1,000 sf gross floor area	36,270	sf	1,088	2,720
13	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	19,860	sf	2,383	5,958
						Project site Subtotal (Areas 3,4,5 and 10)	20,258	50,645
						Totals	**67,143**	**167,857**

Indicates land use within the project site.

* For water demand estimates, sewer generation factors multiplied by 120% are used.

** Includes a "peak factor" of 2.5 (average daily flows x 2.5 = peak daily flows).

Appendix F – Proposed Water Demand Calculations

Provenance Hotel
City of Hermosa Beach
Water Calculations

Table B - Water Demands Summary - Proposed Condition

Area	Occupany	Average Daily Flow Factor (gpd)	Average Daily Flow Factor (gpd)120%*	Unit	Quantity	Unit	Average Daily Flow (gpd)	Peak Flow (gpd)**
1	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	2,933	sf	352	880
2	Restaurants	50	60	gal/seat	50	seats	3,000	7,500
3	Proposed Provenance Hotel - See Tabulation Below							
4								
5								
6	Restaurants	50	60	gal/seat	335	seats	20,100	50,250
7	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	4,980	sf	598	1,494
8	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	14,200	sf	1,704	4,260
9	Automobile Parking	25	30	gal/1,000 sf gross floor area	12,671	sf	380	950
10	Proposed Provenance Hotel - See Tabulation Below							
11	Hotels	150	180	gal/room	96	rooms	17,280	43,200
12	Automobile Parking	25	30	gal/1,000 sf gross floor area	36,270	sf	1,088	2,720
13	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	19,860	sf	2,383	5,958
Provenance Hotel Development								
	Hotels	150	180	gal/room	100	rooms	18,000	45,000
	Commercial Shops & Stores	100	120	gal/1,000 sf gross floor area	5,522	sf	663	1,657
	Restaurants	50	60	gal/seat	500	seats	30,000	75,000
	Bars, Cocktail lounges, etc.	20	24	20 gpd/seat	879	seats	21,096	52,740
	Automobile Parking	25	30	gal/1,000 sf gross floor area	53,209	sf	1,596	3,991
						Development Subtotal	71,355	178,387
Totals							**118,240**	**295,600**

* For water demand estimates, sewer generation factors multiplied by 120% are used.

** Includes a "peak factor" of 2.5 (average daily flows x 2.5 = peak daily flows).

Appendix G – Sewer Capacity Study

FUSCOE ENGINEERING

SEWER CAPACITY STUDY

STRAND AND PIER HOTEL

MULTI-STORY HOTEL DEVELOPMENT

City of Hermosa Beach, California
County of Los Angeles, California

Prepared For

Bolour Associates, Inc.
8383 Wilshire Boulevard
Beverly Hills, CA 90211

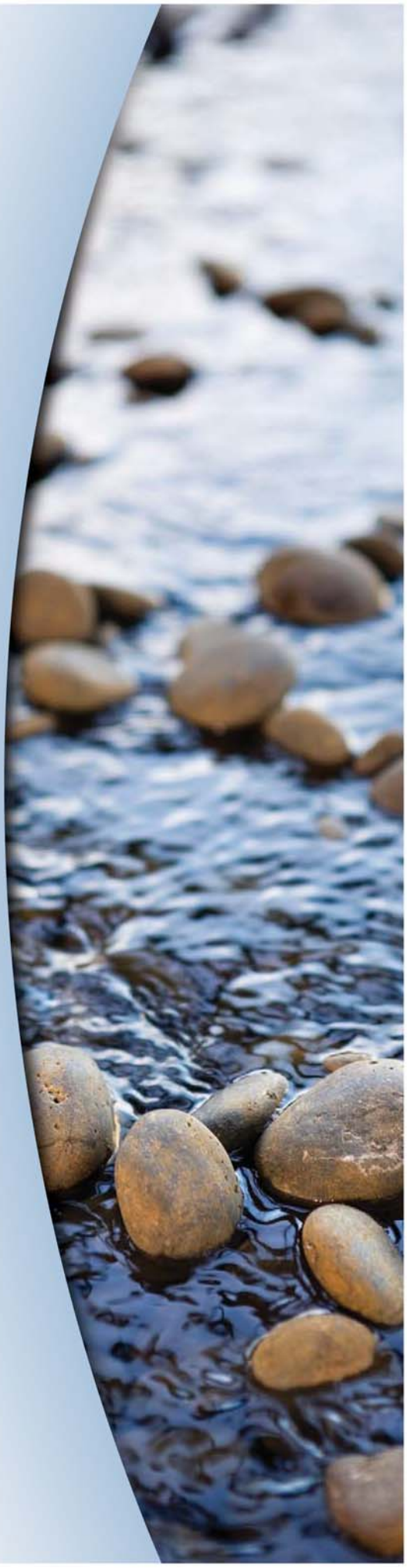
Prepared By

Fuscoe Engineering, Inc.
600 Wilshire Blvd., Ste. 1470
Los Angeles, California 90017
213.988.8802
www.fuscoe.com

Project Manager:
Andrew J. Willrodt, PE

Date Prepared: July 22, 2016

Job Number: 1321.001



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4.0 SEWAGE SYSTEM DESCRIPTION 2
4.1 EXISTING SEWER SYSTEM 2
4.2 PROPOSED SEWER SYSTEM 2
5.0 METHODOLOGIES 2
5.1 SEWER FLOW DETERMINATION 2
5.2 SEWER PIPE CAPACITY ANALYSIS 3
5.3 FIGURES AND MAPS 3
6.0 CONCLUSIONS 3

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APPENDICES

APPENDIX A..... LA County Estimated Average Daily Sewage Flows for Various Occupancies

1.0 INTRODUCTION

The following Sewer Capacity Study has been prepared by FUSCOE ENGINEERING INC. to:

a.) Determine and illustrate the capacity of the existing sewer segments from the proposed development site

b.) Determine and assess the existing sewer facilities' capacity to adequately service the proposed developments' demand.

This analysis will include any and all tributary flow to the sewer system from the proposed development to the sewer line running along Hermosa Avenue, just downstream of the proposed development. All tributary area within this area study has been developed.

The Sewer Capacity Study shall be invalidated, should the total number of dwelling units increase, the density increases, the occupancies change, or dwelling units occur on previously identified building restricted lots.

2.0 SITE DESCRIPTION

The limits of the area study considers all of the existing pertinent tributary areas within Hermosa Beach, a city within the South Bay region of Los Angeles County as well as the proposed site development area which are being served by the existing sewer main running along Hermosa Avenue, located to the east of the proposed development. The project site is currently occupied by several retail/restaurant buildings and surface parking lots. All of the existing land use on the site is retail/commercial. The retail buildings include Jeanes Fabric Cards, Pier Surf, Hermosa Cyclery, Good Stuff, The Mermaid, and various other restaurants and office uses. The site is relatively flat with grade sloping gently to the south and west.

3.0 PROJECT DESCRIPTION

The proposed Project consists of a 3-story boutique hotel which will provide approximately 100 hotel rooms and approximately 22,461square feet of retail, restaurant and public uses. The gross floor area, including hotel, restaurant/retail, corridors, lobby, office, and back-of-house areas is approximately 155,030 square feet. The Project is three stories, and a maximum of 30-feet high, plus permitted rooftop projections. There are 178 on-site parking spaces within two levels of subterranean parking. The Project site improvements include the demolition of all existing structures and utilities at the property location, and would require the repaving of the existing parking lot immediately to the east of the Project site (referred to as City-owned Lot "B").

4.0 SEWAGE SYSTEM DESCRIPTION

4.1 EXISTING SEWER SYSTEM

The project site currently utilizes an 8-inch sanitary sewer to convey sewage from the property. The 8-inch sewer runs along Beach Drive, with a low-point in the system at the intersection of Beach Drive and 13th Court. Sewage is then conveyed east along 13th Court via an 8-inch sewer, until confluence with an 8-inch main line running south along Hermosa Avenue.

The sewer flow average daily demand currently at the project site is approximately 16,882 GPD, with the peak flow at approximately 42,204 GPD.

4.2 PROPOSED SEWER SYSTEM

The sewer flow average daily demand for the proposed condition at the project site is approximately 59,462 GPD, with the peak flow at approximately 148,656 GPD.

The construction of the project will require to vacate the utilities in segments of Beach Drive and 13th Court. The utility vacation limits in Beach Drive extend from 13th Street to Pear Ave and in 13th Court from Beach Drive to 100 feet east along 13th Court. The total sewer removal is approximately 385 feet.

The vacation of the sewers in Beach Drive and 13th Court will require the installation of a new sewer alignment to continue to serve the properties adjacent to the project. Currently there are two alternatives that will be presented to the City for their review. The first alternative would require the installation of a new 8-inch sewer from the existing manhole at the intersection of 13th Street and Beach Drive to approximately 130 feet east along 13th Street; the alignment would then turn 90 degrees across the City's "Lot B" parking lot and connect to the existing 8-inch sewer in Beach Drive. The total length of alternative 1 is approximately 245 feet. The second alternative would require the installation of a new 8-inch sewer in 13th Street. The new sewer would connect the existing manhole at the intersection of 13th Street and Beach Drive to a new manhole at the intersection of 13th Street and Hermosa Ave. The total length of alternative 2 is approximately 445 feet.

5.0 METHODOLOGIES

5.1 SEWER FLOW DETERMINATION

The tributary sewer flow rates (Q) for the studied sewer lines are analyzed based on the Los Angeles County Estimated Average Daily Sewage Flows for Various Occupancies guidelines, as provided in Appendix A. The following describes the process utilized in calculating the sewage demands of each tributary area pertinent to the proposed development:

a. By Occupancy Type (for all tributary areas) – The estimated flows are determined by the product of the summation of occupancy type "square footages" x occupancy type "demand factor" x "peak factor". Note daily "PEAK" flows calculation was based on a PF of 2.5 x the average daily flows.

   Q Peak = Occupant Type Demand Factor x Occupants/Use Area x PF

   Occupant Type Demand Factor based # of Occupants or Building Area

   Peak Daily Flows = Average Daily Flows x 2.5

Refer to **Tables 1 and 2** for the analyses of the said above methods.

5.2 SEWER PIPE CAPACITY ANALYSIS

The existing sewer pipes were analyzed per County Standard S-C4 for a maximum design depth at half full ($d/D < 0.5$) for pipes lesser than 15 inches and three-quarters full ($d/D < 0.75$) for pipes equal to and greater than 15 inches (see appendix D).

The design capacity for the existing pipes were obtained by using Manning's formula with a roughness coefficient "n=0.013" and pipe slopes of 0.30%.

For the 8-inch sewer pipe running along Hermosa Beach at the point of confluence with the 8-inch line from the project site, the maximum capacity of the pipe flowing per the County Standard S-C4 (50% full) is 0.329 cfs or an average daily flow of 212,623 GPD.

Refer to **Tables 3 and 4** for the analyses of the generated flows from the proposed project site.

5.3 SEWER CAPACITY CALCULATIONS BASED ON THE CITY'S ZONING MAP

The sewer capacity of the existing sewer system was also calculated using the City of Hermosa Beach zoning/parcel map and the LA County sewer "occupancy type" coefficients (See Appendix A). In this calculation, specific occupancy types and sizes were identified within each of the parcels within the study area shown in Figures 1 and 2. These building areas (based on occupancy) type were then multiplied by the designated occupancy type coefficient.

The total flow summations produced by the study area was determined to be 98,533 GPD (average daily flows) for the proposed condition, an increase of 76% over the existing condition flow rate of 55,952 GPD (average daily flows).

5.4 FIGURES AND MAPS

Refer to **Figures 1 and 2** for the tributary areas and their corresponding occupancy type designations, including existing and proposed sewage flow directions and tributary flows within the sewer study areas.

Refer to **Tables 1 and 2** for summations of existing conditions and proposed conditions, respectively, for the sewer study area.

Refer to **Tables 3 and 4** for specific pipe "conveyance" capacity summations of existing conditions and proposed conditions, respectively, for the sewer study area.

6.0 CONCLUSIONS

The project area specifically, the results reflect existing vs. proposed sewer flow rates of 16,882 GPD and 59,462 GPD, for average daily flows. In terms of the sewer study in total, the results of the empirical analysis reflect a pre-project (existing) vs. post project (proposed) sewer effluent flow rates of 55,952 GPD vs. 98,533 GPD, for average daily flows. In summary, the project will generate 76% more sewer effluent as compared to existing conditions for the sewer study area.

In terms of the sewer infrastructure conveyance capacity assessments, the existing 8-inch sewer segment located along the eastern reach of 13th Court immediately west of Hermosa Blvd. goes from an existing condition of 66% of full (half pipe) capacity (139,881 GPD peak flows) to 116% of full (half pipe) capacity (246,333 GPD peak flows). This analysis is based on a full (half pipe) conveyance capacity of 212,624 GPD (RE: Tables 3 and 4.) This finding indicates based on this empirical analysis, this segment of the existing 8-inch sewer pipe in 13th Court is over the conventional sewer conveyance capacities; and as such could have a detrimental impact on the City's sewer infrastructure system. However because the stated sewer effluent flow rates are marginally over the pipe's stated conveyance capacity (i.e. 16%), the City could deem based on maintenance records of the area this marginally conveyance capacity exceedance is acceptable; or perform sewer flow test/monitoring to obtain more accurate measurements of existing sewer flow rates; and compare those real flow rates to these empirical existing flow rates; and assess if this study should be updated to better address this initial finding.

FIGURES & TABLES

LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- EXISTING SEWER

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

BOLOUR ASSOCIATES
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BEVERLY HILLS, CA 90211

STRAND AND PIER HOTEL

FIGURE 1: SANITARY SEWER CAPACITY STUDY EXHIBIT - EXISTING CONDITION

07.20.2016

40' 0' 20' 40'
SCALE: 1" = 40'

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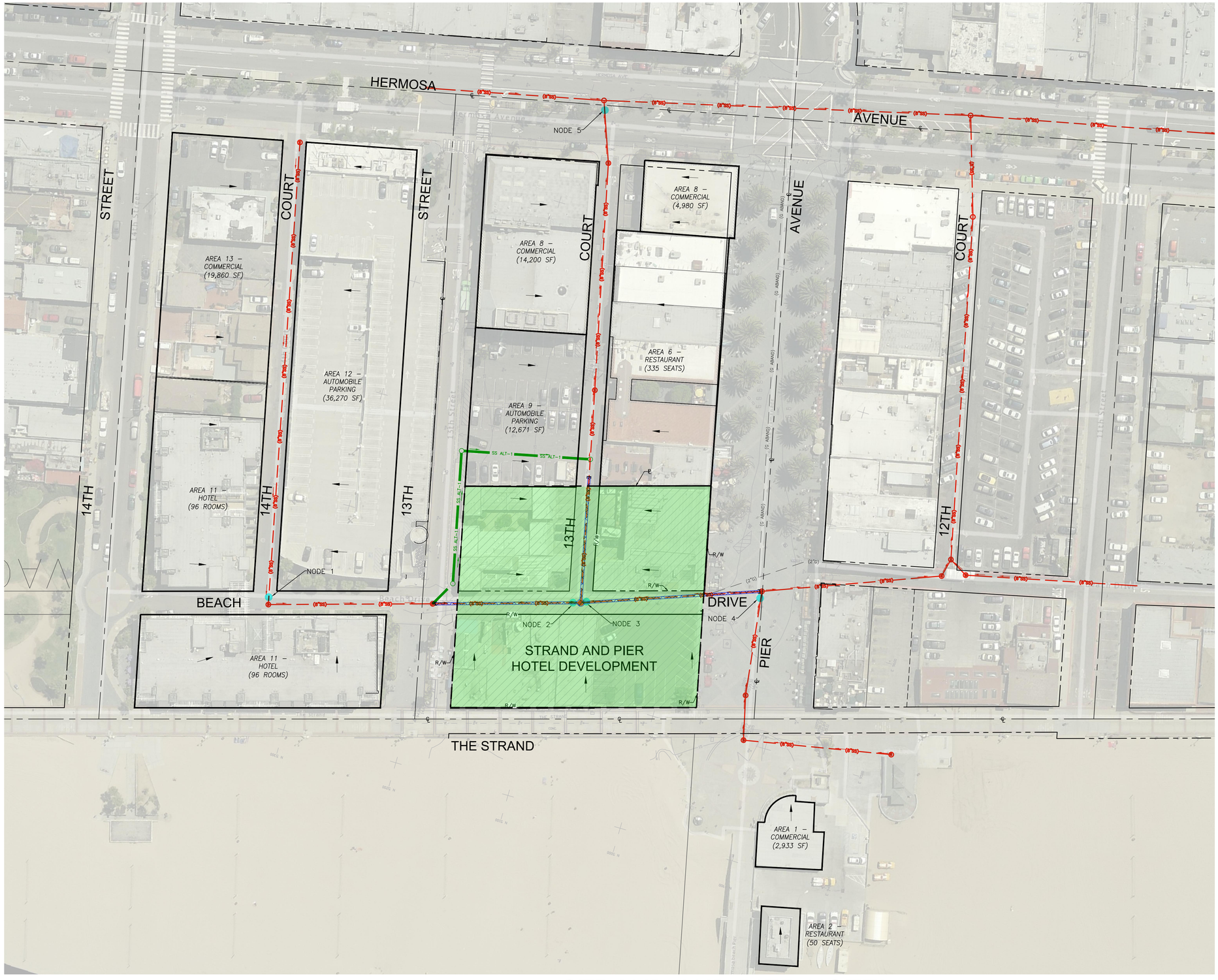

LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
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- PROPERTY LINE
- EXISTING SEWER
- PROPOSED SEWER ALTERNATIVE 1
- EXISTING UTILITY TO BE REMOVED AND RELOCATED
- SANITARY SEWER FLOW ARROW

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

2. FOR THE COMPLETE PROPOSED SEWER RELOCATION EXHIBIT SEE APPENDIX B OF THE STRAND AND PIER HOTEL PROJECT INFRASTRUCTURE TECHNICAL REPORT FOR SEWER AND WATER UTILITIES DATED JUNE 9, 2016.

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

STRAND AND PIER HOTEL

FIGURE 2: SANITARY SEWER CAPACITY STUDY EXHIBIT - PROPOSED CONDITION

06.09.2016

SCALE: 1" = 40'

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C5.2

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Provenance Hotel
City of Hermosa Beach
Sewer Capacity Study

Table 1 - Sewage Flows Summary - Existing Condition

Area	Occupancy	Average Daily Flow Factor (gpd)	Unit	Quantity	Unit	Average Daily Flow (gpd)	Peak Flow (gpd)*
1	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	2,933	sf	293	733
2	Restaurants	50	gal/seat	50	seats	2,500	6,250
3	Automobile Parking	25	gal/1,000 sf gross floor area	7,222	ksf	181	451
4	Restaurants	50	gal/seat	160	seats	8,000	20,000
5	Restaurants	50	gal/seat	134	seats	6,700	16,750
6	Restaurants	50	gal/seat	335	seats	16,750	41,875
7	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	4,980	ksf	498	1,245
8	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	14,200	ksf	1,420	3,550
9	Automobile Parking	25	gal/1,000 sf gross floor area	12,671	ksf	317	792
10.1	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	6,010	ksf	601	1,503
10.2	Residential Apt.	150	gal/D.U.	4	Apt.	600	1,500
10.3	Residential Apt.	200	gal/D.U.	4	Apt.	800	2,000
11	Hotels	150	gal/room	96	rooms	14,400	36,000
12	Automobile Parking	25	gal/1,000 sf gross floor area	36,270	ksf	907	2,267
13	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	19,860	ksf	1,986	4,965
					Project site Subtotal (Areas 3,4,5 and 10)	16,882	42,204
					Totals	**55,952**	**139,881**

Indicates parcel land use within the project site limits.

Provenance Hotel
City of Hermosa Beach
Sewer Capacity Study

Table 2 - Sewage Flows Summary - Proposed Condition

Area	Occupancy	Average Daily Flow Factor (gpd)	Unit	Quantity	Unit	Average Daily Flow (gpd)	Peak Flow (gpd)*
1	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	2,933	ksf	293	733
2	Restaurants	50	gal/seat	50	seats	2,500	6,250
3	Proposed Provenance Hotel - See Tabulation Below						
4							
5							
6	Restaurants	50	gal/seat	335	seats	16,750	41,875
7	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	4,980	ksf	498	1,245
8	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	14,200	ksf	1,420	3,550
9	Automobile Parking	25	gal/1,000 sf gross floor area	12,671	ksf	317	792
10	Proposed Provenance Hotel - See Tabulation Below						
11	Hotels	150	gal/room	96	rooms	14,400	36,000
12	Automobile Parking	25	gal/1,000 sf gross floor area	36,270	ksf	907	2,267
13	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	19,860	ksf	1,986	4,965
Provenance Hotel Development							
	Hotels	150	gal/room	100	rooms	15,000	37,500
	Commercial Shops & Stores	100	gal/1,000 sf gross floor area	5,522	ksf	552	1,381
	Restaurants	50	gal/seat	500	seats	25,000	62,500
	Bars, Cocktail lounges, etc.	20	20 gpd/seat	879	seats	17,580	43,950
	Automobile Parking	25	gal/1,000 sf gross floor area	53,209	ksf	1,330	3,326
					Development Subtotal	59,462	148,656
					Totals	**98,533**	**246,333**

Provenance Hotel
City of Hermosa Beach
Sewer Capacity Study

Table 3 - Sewage Nodes Summary - Existing Condition

Node	Tributary Area ID	Actual Flow (gpd)	Actual Flow (cfs)	Sewer Design Flow Capacity (cfs) 8-inch	Depth (ft)	Sewer Pipe Diameter (in)	Roughness Coefficient	Pipe Slope	Design Ratio (Actual Flow/Design flow)
1	Areas 11, 12, 13	43,232	0.067	**0.329**	0.15	8	0.013	0.003	**20.4%**
2	Areas 11, 12, 13, 4	63,232	0.098	**0.329**	0.18	8	0.013	0.003	**29.8%**
3	Areas 1, 2, 3	7,435	0.012	**0.329**	0.07	8	0.013	0.003	**3.5%**
4	Areas 1, 2	6,983	0.011	**0.329**	0.06	8	0.013	0.003	**3.3%**
5	All Areas	139,881	0.217	**0.329**	0.26	8	0.013	0.003	**65.9%**

Design Ratio = Actual Flow / Design Flow
Design Flow Capacity = 50% of Full Pipe Capacity

Provenance Hotel
City of Hermosa Beach
Sewer Capacity Study

Table 4 - Sewage Nodes Summary - Proposed Condition

Node	Tributary Area ID	Actual Flow (gpd)	Actual Flow (cfs)	Sewer Design Flow Capacity (cfs) 8-inch	Depth (ft)	Sewer Pipe Diameter (in)	Roughness Coefficient	Pipe Slope	Design Ratio (Actual Flow/Design flow)
1	Areas 11, 12, 13	43,232	0.067	**0.329**	0.15	8	0.013	0.003	**20.4%**
2	Areas 11, 12, 13, 4	107,112	0.166	**0.329**	0.23	8	0.013	0.003	**50.4%**
3	Areas 1, 2, 3	10,309	0.016	**0.329**	0.07	8	0.013	0.003	**4.9%**
4	Areas 1, 2	6,983	0.011	**0.329**	0.06	8	0.013	0.003	**3.3%**
5	All Areas	246,333	0.382	**0.329**	0.33	8	0.013	0.003	**116.0%**

Design Ratio = Actual Flow / Design Flow Capacity
Design Flow Capacity = 50% of Full Pipe Capacity

APPENDIX A – LA County Estimated Average Daily Sewage Flows for Various Occupancies

Estimated Average Daily Sewage Flows for Various Occupancies

Occupancy	Abbreviation	*Average daily flow	
Apartment Buildings:			
Bachelor or Single dwelling units	Apt	100	gal/D.U. → 150
1 bedroom dwelling units	Apt	150	gal/D.U. → 200
2 bedroom dwelling units	Apt	200	gal/D.U. → 250
3 bedroom or more dwelling units	Apt	250	gal/D.U. → use 300 GPD per SMD
Auditoriums, churches, etc.	Aud	5	gal/seat
Automobile parking	P	25	gal/1000 sq ft gross floor area
Bars, cocktails lounges, etc.	Bar	20	gal/seat
Commercial Shops & Stores	CS	100	gal/1000 sq ft gross floor area
Hospitals (surgical)	HS	500	gal/bed
Hospitals (convalescent)	HC	85	gal/bed
Hotels	H	150	gal/room
Medical Buildings	MB	300	gal/1000 sq ft gross floor area
Motels	M	150	gal/unit
Office Buildings	Off	200	gal/1000 sq ft gross floor area
Restaurants, cafeterias, etc.	R	50	gal/seat
Schools:			
Elementary or Jr. High	S	10	gal/student
High Schools	HS	15	gal/student
Universities or Colleges	U	20	gal/student
College Dormitories	CD	85	gal/student

*Multiply the average daily flow by 2.5 to obtain the peak flow

Zoning Coefficients

Zone	Coefficient (cfs/Acre)
Agriculture	**0.001**
Residential+:	
R-1	**0.004**
R-2	**0.008**
R-3	**0.012**
R-4	**0.016***
Commercial:	
C-1 through C-4	**0.015***
Heavy Industrial:	
M1 through M-4	**0.021***

***Individual building, commercial or industrial plant capacities shall be the determining factor when they exceed the coefficients shown**

+ Use 0.001 (cfs/unit) for condominiums only

Appendix H – CEQA Guidelines – Appendix G: Environmental Checklist Form – Section XVII

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☐
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number o restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐

Appendix I – Conceptual Excavation Exhibit

LEGEND

ABAND	ABANDONED
AC	ASPHALT CONCRETE
BW	BACK OF WALK
℄	CENTERLINE
CONC	CONCRETE
EX	EXISTING
EG	EXISTING GRADE
FS	FINISHED SURFACE
OG	ORIGINAL GROUND
PL	PROPERTY LINE
SG	SUB-GRADE
SL	STREET LIGHT
TOS	TOP OF SHORING

PROPERTY LINE / RIGHT OF WAY
CENTER LINE
SHORING LINE
PROPOSED BUILDING WALL
GRADE BREAK
TOP/BOTTOM OF SLOPE
EASEMENT LINE
EXISTING SEWER
EXISTING STORM DRAIN
EXISTING WATER

NOTICE TO CONTRACTOR

1. CONTRACTOR SHALL CONFIRM PAD ELEVATION WITH MOISTURE PROOFING AND GEOTECHNICAL SUBGRADE DESIGN PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CHANGE TO PLAN DESIGN PRIOR TO EXCAVATION.

3. THIS PLAN IS ONLY INTENDED TO DEPICT THE MASS PAD EXCAVATION AND DOES NOT INDICATE ANY OTHER EXCAVATIONS REQUIRED FOR CONSTRUCTION OF PROJECT, SUCH AS UTILITY CUTS, FOUNDATION CUTS, DRY WELL BORES, SUBSTRUCTURE CUTS, SUBGRADE CUTS, WATERPROOFING/METHANE PROTECTION, ETC.

4. PAD SUBGRADE ELEVATION INCORPORATES A 6-INCH BUILDING SLAB ON GRADE. CONTRACTOR SHALL ACCOUNT FOR ANY OTHER EXCAVATION NEEDED BY PROJECT.

5. CONTRACTOR SHALL GRADE PAD AS NEEDED TO COMPLY WITH EROSION CONTROL REQUIREMENTS AND AS SITE CONSTRUCTION SEQUENCE DICTATES.

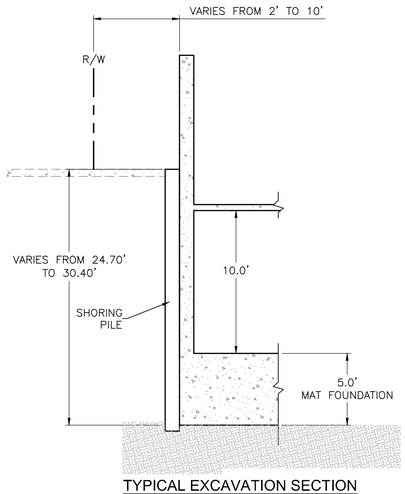
6. THE ACCESS RAMPS SHOWN ON THIS PLAN MAY NEED TO BE REMOVED TO EXCAVATE ALONG BASEMENTS WALLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF TEMPORARY ACCESS RAMPS TO ACHIEVE THE SUBGRADE ELEVATIONS SHOWN ON THIS PLAN.

7. THE CONTRACTOR SHALL PROVIDE A 3 FEET MIN. BENCH AT THE TOE OF TEMPORARY SLOPES TO FORM AND POUR FOUNDATION FOOTINGS AND BASEMENT WALLS.

8. DUE TO THE PRESENCE OF HIGH GROUNDWATER TABLE WITHIN THE VICINITY OF THE PROJECT SITE, DEWATERING ACTIVITIES ARE RECOMMENDED PRIOR AND DURING THE EXCAVATION PHASE. DEWATERING WILL BE ADDRESSED AND HANDLED PER A SEPARATE PLAN AND PERMIT AND IS NOT REPRESENTED WITH THE CONTENT SHOWN ON THIS PLAN.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING THE PROJECT SITE TO DRAIN TO THE DEWATERING PIT SHOWN ON THIS PLAN. THE SLOPES SHALL BE AT MINIMUM 1% TO A MAXIMUM OF 2%.

10. PILES SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. REFER TO THE SHORING PLANS FOR COMPLETE DESIGN AND LAYOUT OF THE SHORING SYSTEM.



TYPICAL EXCAVATION SECTION
SCALE: 1"=5'

SCALE: 1" = 20'

FUSCOE ENGINEERING
600 Wilshire Boulevard, Suite 1470
Los Angeles, California 90017
tel 213.988.8802 • fax 213.988.8803
www.fuscoe.com

C4.1

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

APPENDIX - I STRAND AND PIER HOTEL- EXCAVATION PLAN

06.09.2016

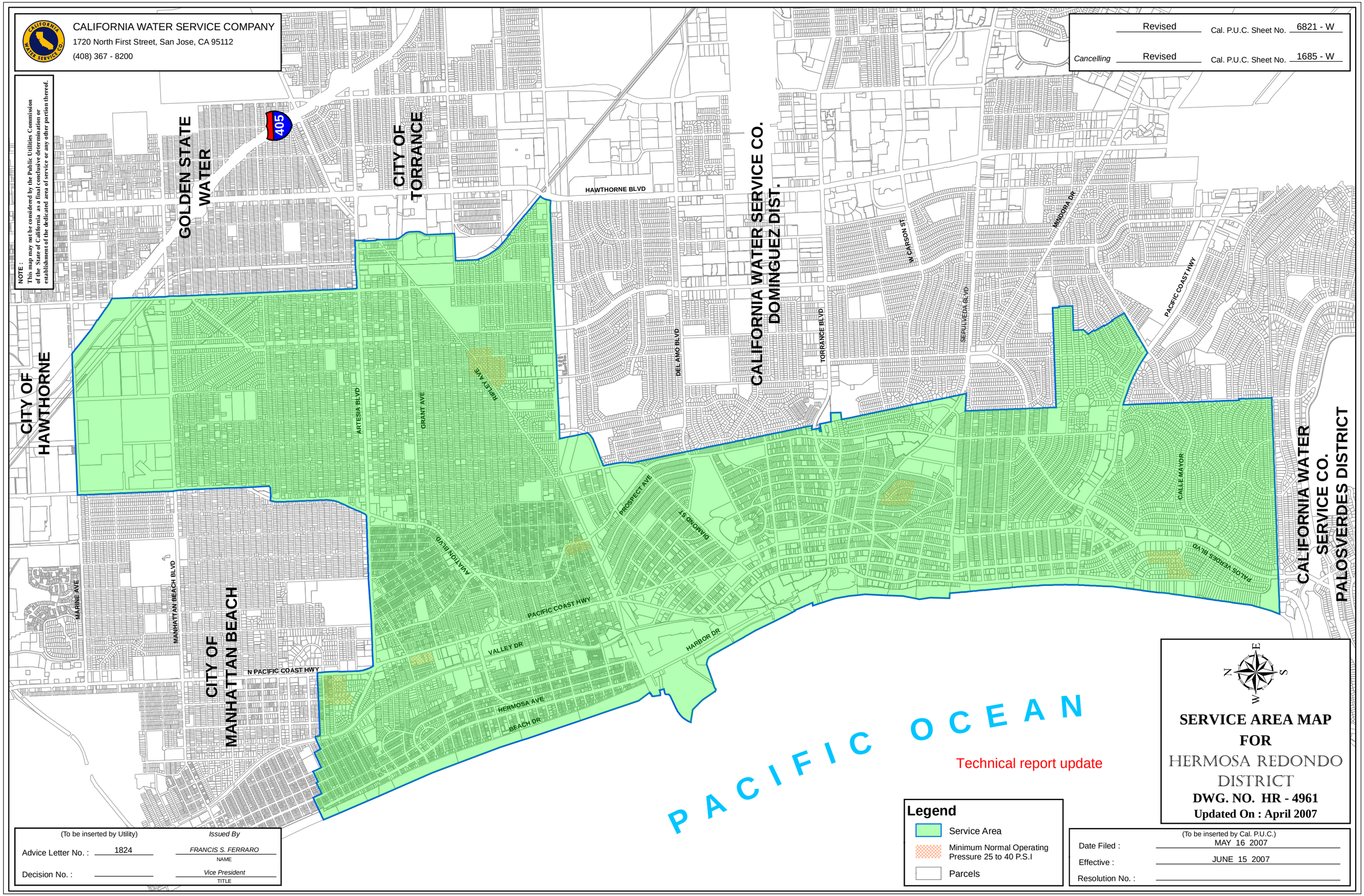
F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 EXCAVATION EXHIBIT.DWG (06-09-16 2:13:31PM) Plotted by: Miguel Cobones

Appendix J – Cal Water Service Area Map

CALIFORNIA WATER SERVICE COMPANY
1720 North First Street, San Jose, CA 95112
(408) 367 - 8200

	Revised	Cal. P.U.C. Sheet No.	6821 - W
Cancelling	Revised	Cal. P.U.C. Sheet No.	1685 - W

NOTE :
This map may not be considered by the Public Utilities Commission of the State of California as a final conclusive determination or establishment of the dedicated area of service or any other portion thereof.



Technical report update

SERVICE AREA MAP FOR HERMOSA REDONDO DISTRICT

DWG. NO. HR - 4961

Updated On : April 2007

Legend

- Service Area
- Minimum Normal Operating Pressure 25 to 40 P.S.I
- Parcels

(To be inserted by Utility)		*Issued By*	
Advice Letter No. :	1824	*FRANCIS S. FERRARO*	NAME
Decision No. :		*Vice President*	TITLE

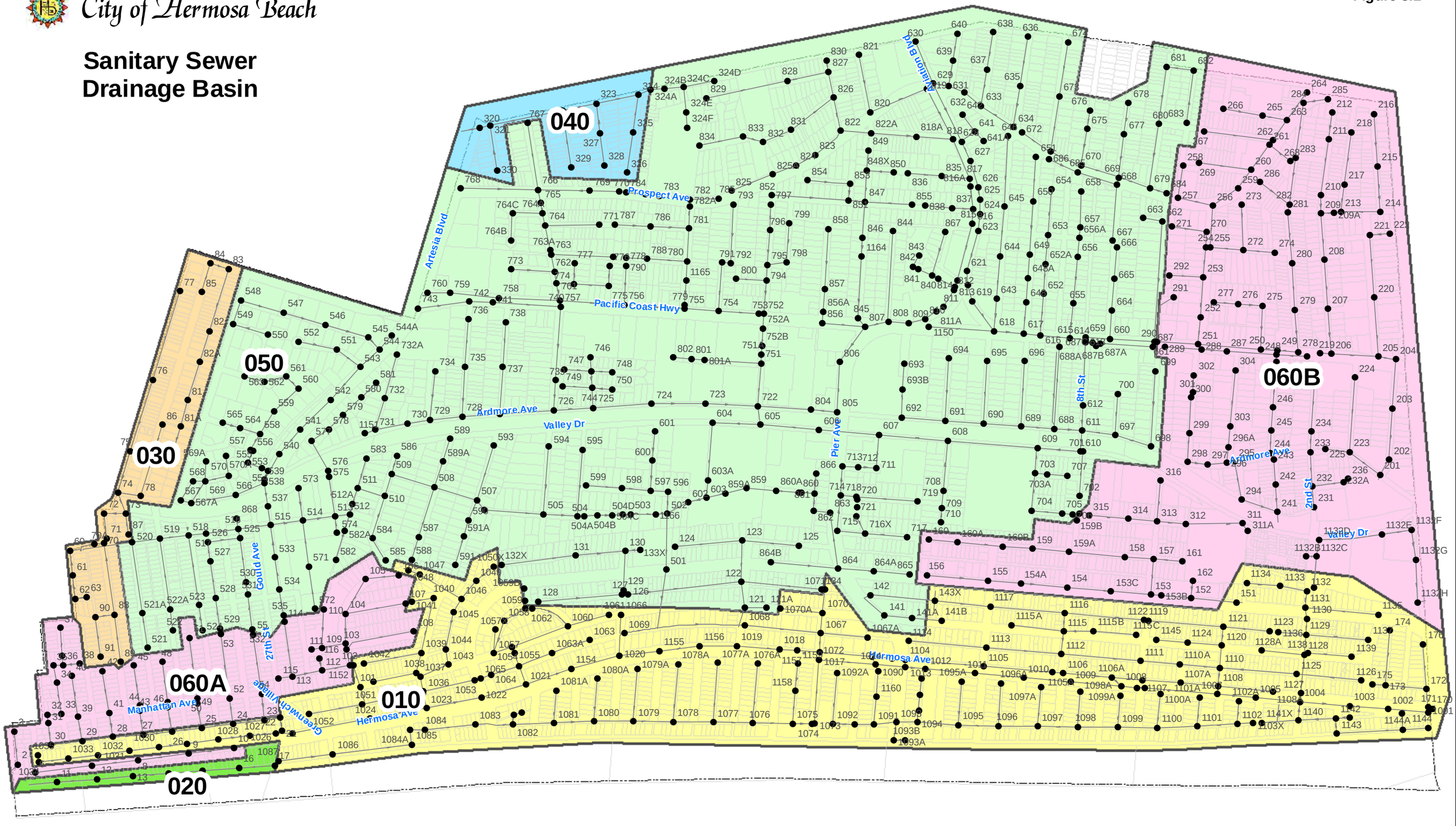
(To be inserted by Cal. P.U.C.)	
Date Filed :	MAY 16 2007
Effective :	JUNE 15 2007
Resolution No. :	

Appendix K – City of Hermosa Beach Sanitary Sewer Drainage Basin

City of Hermosa Beach

Figure 3.1

Sanitary Sewer Drainage Basin



Appendix L – City of Hermosa Beach Sewer Rehabilitation History

City of Hermosa Beach

Sewer Rehabilitation History

Figure 1.1

Hermosa Beach
STRAND & PIER HOTEL PROJECT

TECHNICAL REPORT FOR
HYDROLOGY, GROUNDWATER, AND STORM WATER QUALITY

HERMOSA BEACH
LOS ANGELES COUNTY, CALIFORNIA

PREPARED FOR:

BOLOUR ASSOCIATES, INC.
8383 Wilshire Boulevard
Beverly Hills, CA 90211
323.677.0550

PREPARED BY:

FUSCOE ENGINEERING, INC.
600 Wilshire Boulevard, Suite 1470
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JULY 22, 2016

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Appendix H Los Angeles County Municipal Storm Sewer System (MS4) Permit
Appendix I City of Hermosa Beach Municipal Code Chapter 8.44 Stormwater and Urban Runoff Pollution Control Regulations
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1. INTRODUCTION & BACKGROUND

The Strand & Pier Hotel project site is located in the City of Hermosa Beach in Los Angeles County. The 0.9 acre project site is located in an urbanized and coastal region of Los Angeles and comprises the northwest and northeast corners of the intersection of Pier Avenue and Beach Drive. The project site is bordered to the north by the Beach House Hotel and parking structure, to the west by The Stand and beach, to the east by numerous restaurants and retail areas, and to the south by Pier Avenue. See Figure 1 for a Vicinity Map of the project site.

The project site is currently occupied by several retail/restaurant buildings and surface parking lots. All of the existing land uses on the site are retail/commercial. The retail buildings include Jeanes Fabric Cards, Pier Surf, Hermosa Cyclery, Good Stuff, The Mermaid, and various other restaurants and office uses. The site is relatively flat with grade sloping gently to the south and west. See Figure 2 for the Existing Conditions Aerial and Parcel Overlay.

The proposed project consists of a multistory hotel development with three levels above ground and 1 level of parking below ground, including 100 rooms, hotel amenities, bars and restaurants, spa, outdoor dining areas, a bike shop, retail areas, wedding terrace, and podium pool area. The Providence Hotel improvements include the demolition of all existing structures and utilities at the property location, and would require the repaving of an additional parking lot (City-owned Lot "B") adjacent to the site. See Figure 3 for the Strand & Pier Hotel Proposed Land Plan.

This report analyzes the proposed land use changes within the project site and how these changes may impact the existing infrastructure that lies within or downstream of the site. For those areas where the land use changes may impact the existing infrastructure, measures will be identified to relocate public infrastructure to support the proposed land uses. The analysis will include a review of the drainage systems, groundwater conditions, as well as the existing water quality systems currently in place. For the proposed drainage conditions, changes in impervious conditions will be evaluated to determine if increased flows are expected. Increases in flow or sewage demand are anticipated for domestic water and sewer, thus flows and demand will be compared against the ultimate build-out conditions identified in the Master Plans to determine if the existing system can support the land use changes. Where necessary, upgrades will be identified to support the proposed land uses. For water quality, measures to reduce potential impacts to surface water as a result of post-construction operations will be addressed in this report. This includes structural best management practices (BMPs), and low impact development (LID) strategies for post-construction water quality protection.

Figure 1 Vicinity Map

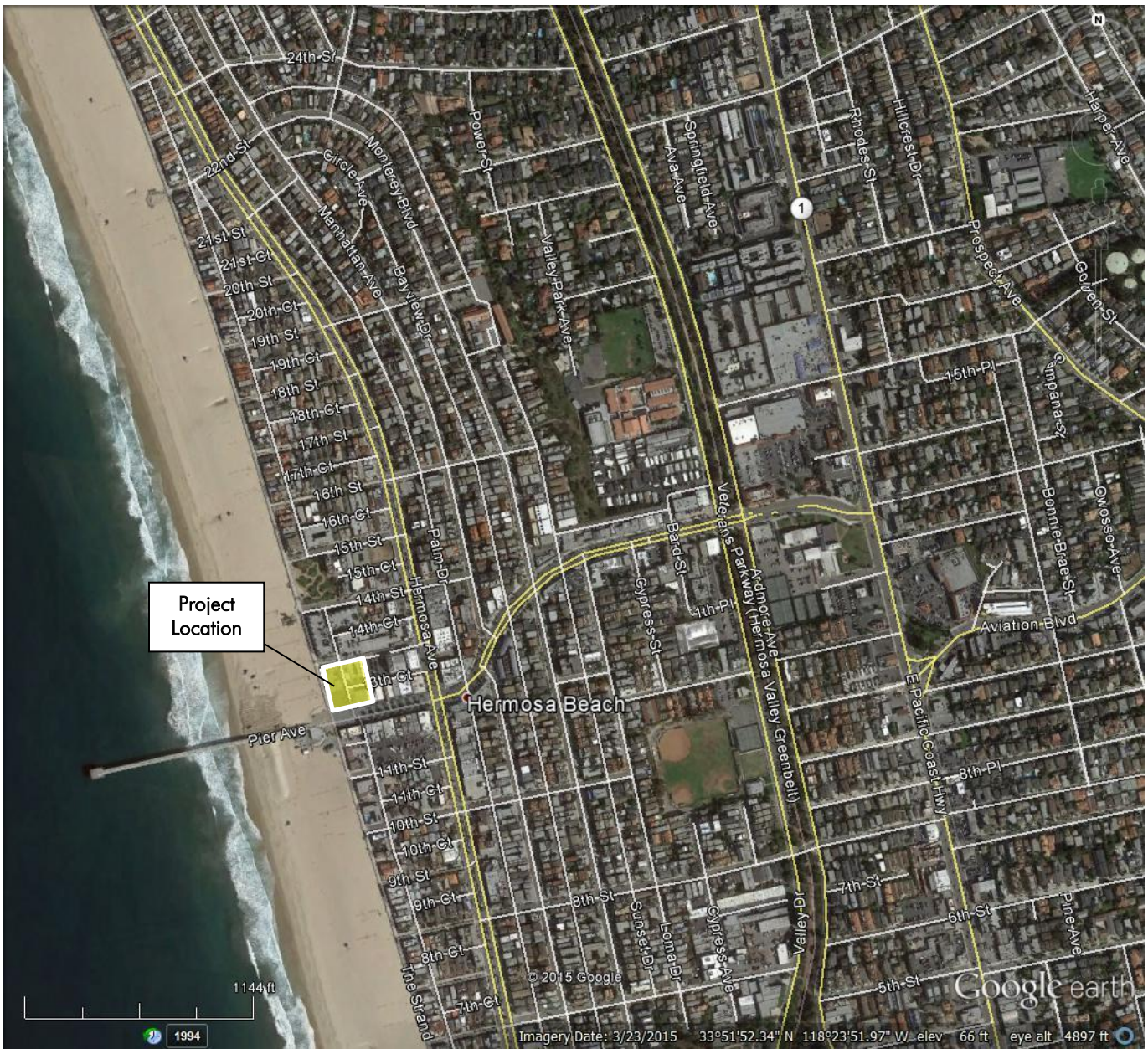
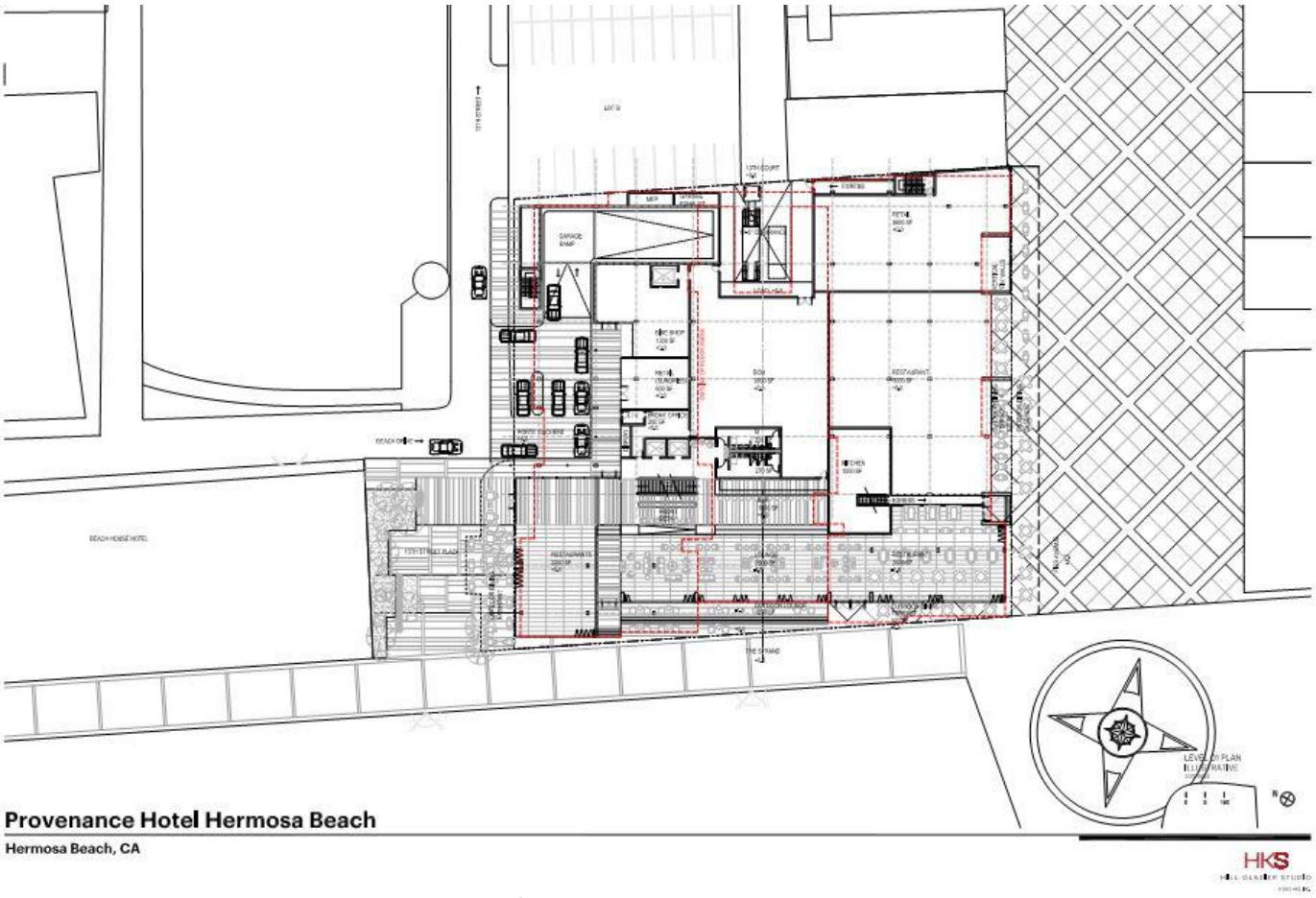


Figure 2 Existing Conditions Aerial

Figure 3 Strand & Pier Hotel Proposed Land Plan



2. ENVIRONMENTAL SETTING

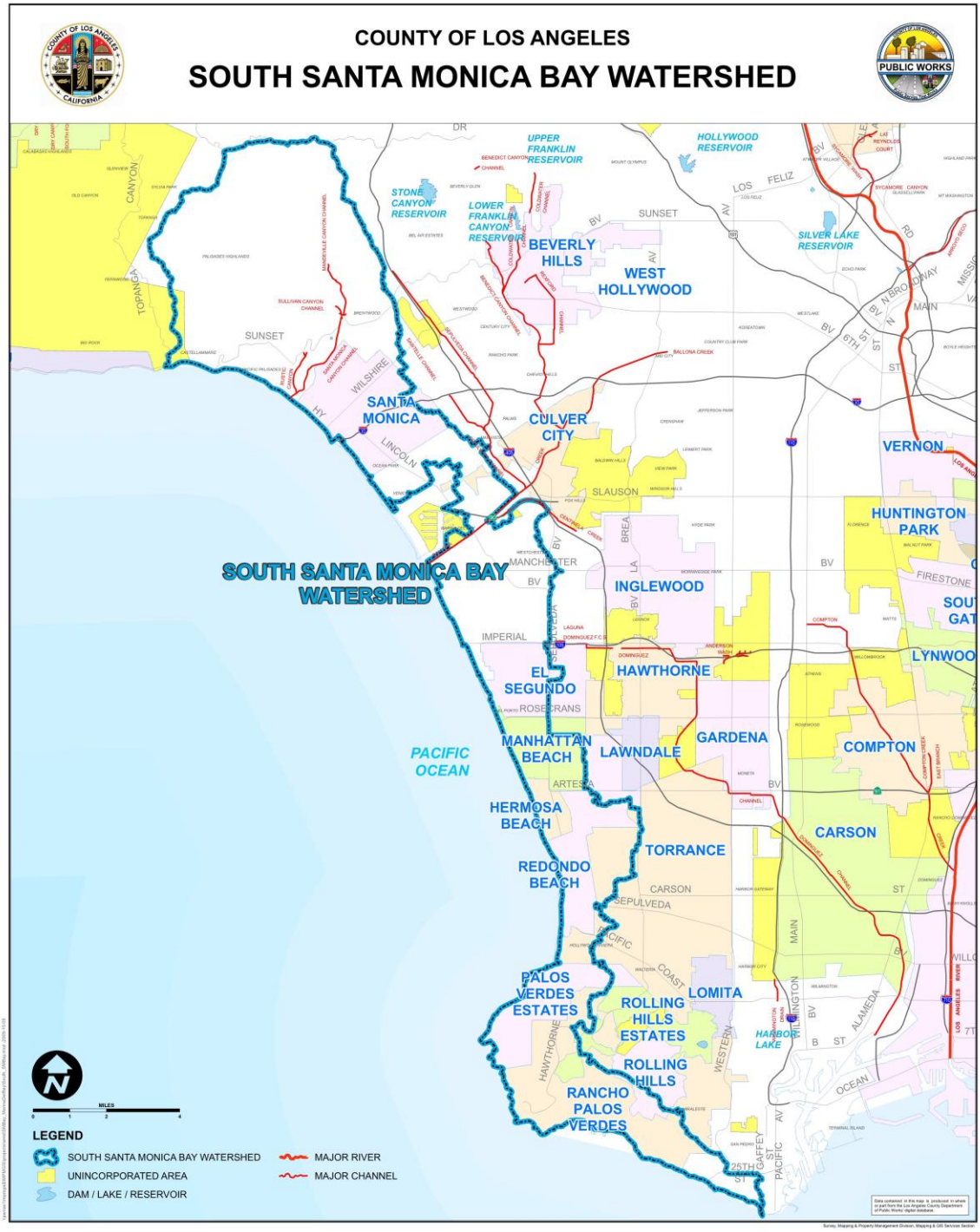
2.1 REGIONAL HYDROLOGY

2.1.1 Watershed Setting

The Project Site is located within the Santa Monica Bay Watershed within Los Angeles County and more specificially within the South Santa Monica Bay Watershed. The South Santa Monica Bay Watershed includes Rancho Palos Verdes, Torrance, Redondo Beach, Hermosa Beach, Manhatten Beach, El Segundo, Culver City, Santa Monica, unicorporated Los Angeles County and the City of Los Angles. The entire watershed resides along the coastal zone and is approximately 87 square miles including 44% residential, 35% rural, 6% commercial, 4% industrial and 11% other land uses.

Groundwater use for domestic water supply is a beneficial use of groundwater basins in Los Angeles County. The City of Hermosa Beach overlies the Los Angeles Coastal Plain Groundwater Basin. The Los Angeles Coastal Plain Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Subbasins. Groundwater flow in the Los Angeles Coastal Plain Groundwater Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water.

Figure 4 South Santa Monica Bay Watershed Map



2.1.2 Regional Hydrology

Surface water flows within Hermosa Beach generally are collected by catch basin inlets which discharge into County maintained storm drain systems before discharging into Santa Monica Bay. There are approximately seven separate County storm drain systems that discharge into Santa Monica Bay within the Hermosa Beach. The proposed project drains into the Pier Ave Drain – Line A storm drain system owned and maintained by LACFCD.

2.1.3 FEMA Information

The project is within Panel 1907 of 2350 (Map Number 06037C1907F, dated September 26, 2008) on the Federal Emergency Management Agency's (FEMA's) Flood Insurance Rate Map (FIRM). Based on the FIRM, the project is within Zone X, which depicts areas determined to be outside of the 0.2% (500-year) annual chance floodplain. Therefore, the processing of a CLOMR/LOMR, through FEMA, will not be required for this project.

2.2 EXISTING HYDROLOGY

2.2.1 Existing Hydrology & Drainage

The topography of the site is relatively flat, with slopes varying from about 0.5% to approximately 1%. The north portion of the site drains from north to southwest, while the south portion of the site drains in a southerly direction. The site is sparsely vegetated with a few landscaped areas within the site. The highest elevations at the site, approximately 15.0', are located within the podium area in between the two buildings on the northeast lot of the existing site; while the lowest elevations on-site, approximately 13.5', are located at the intersection of Pier Avenue and Beach Drive. The existing site currently serves as a commercial/retail area, including restaurants, bars, and shops. Runoff from the site sheet flows into Beach Drive and is conveyed via a concrete gutter and moves south into a grate inlet on Pier Avenue. Refer to Appendix C for Existing Storm Drain Utility Map.

Under the existing conditions, the entire Strand & Pier Hotel project area is built out with high impervious conditions throughout each existing drainage area, and the predominant land use being surface parking lots and commercial/restaurant buildings. Under the proposed conditions, the majority of the parking lots will be replaced with subterranean parking structures and residential/retail buildings. Impervious conditions will remain the same or slightly reduced and peak flows will similarly remain the same or slightly reduced.

The project site has an existing drain inlet approximately 20' east of the intersection of Beach Drive and 13th Court. Runoff encounters a high point about 45' north of the intersection of Beach Drive and 13th Court. Runoff north of the high point sheet flows north on Beach Drive into a catch basin north of 13th Street. Runoff south of the high point sheet flows south into the aforementioned Los Angeles County of Public Works drain inlet, which conveys water south on Beach Drive via a 24" storm drain, which eventually flows south to connect with the 48" storm drain system running under Pier Avenue. There are no drainage issues associated with the project site.

Tables 1 summarizes the impervious conditions and the runoff flows during a 10-year, 25-year, and 50-year storm event for existing condition of the project site. The values depicted in the below table are representative of the entire site. Refer to Appendix A for Existing Condition Hydrology calculations and Appendix C for existing storm drain facilities.

Table 1: Existing Condition Hydrology

Storm Event	Sub-Area	Area (Acres)	Tc (minutes)	% Impervious	Q_{Peak} (cfs)
10-Year	1	1.0	7.0	95%	1.61
25-Year	1	1.0	6.0	95%	2.14
50-Year	1	1.0	6.0	95%	2.45

From an historical performance perspective per discussions with long time City public works staff the Stand & Pier intersection areas will from time to experience poor regional drainage due to existing storm drain outfalls along the beach head being partially blocked from sand build up and/or from high tide events. When these events occur the project adjacent areas of the Stand & Pier intersection can experience standing water conditions up to 4 to 6 inches in water depth and otherwise experience slow drainage conditions.

2.3 SURFACE WATER QUALITY

2.3.1 Regulations

Clean Water Act

Controlling pollution of the nation's receiving water bodies has been a major environmental concern for more than three decades. Growing public awareness of the impacts of water pollution in the United States culminated in the establishment of the federal Clean Water Act[1] (CWA) in 1972, which provided the regulatory framework for surface water quality protection.

The United States Congress amended the CWA in 1987 to specifically regulate discharges to waters of the US from public storm drain systems and storm water flows from industrial facilities, including construction sites, and require such discharges be regulated through permits under the National Pollutant Discharge Elimination System (NPDES).[2] Rather than setting numeric effluent limitations for storm water and urban runoff, CWA regulation calls for the implementation of Best Management Practices (BMPs) to reduce or prevent the discharge of pollutants from these activities to the Maximum Extent Practicable (MEP) for urban runoff and meeting the Best Available Technology Economically achievable (BAT) and Best Conventional Pollutant Control Technology (BCT) standards for construction storm water. Regulations and permits have been implemented at the federal, state, and local level to form a comprehensive regulatory framework to serve and protect the quality of the nation's surface water resources.

In addition to reducing pollution with the regulations described above, the CWA also seeks to maintain the integrity of clean waters of the United States – in other words, to keep clean waters clean and to prevent undue degradation of others. As part of the CWA, the Federal Antidegradation Policy [40 CFR Section 131.12] states that each state "shall develop and adopt a statewide antidegradation policy and identify the methods for implementing such policy…" [40 CFR Section 131.12(a)]. Three levels of protection are defined by the federal regulations:

1. Existing uses must be protected in all of the Nation's receiving waters, prohibiting any degradation that would compromise those existing uses;
2. Where existing uses are better than those needed to support propagation of aquatic wildlife and water recreation, those uses shall be maintained, unless the state finds that degradation is "…necessary to accommodate important economic or social development" [40 CFR Section 131.12(a)(2)]. Degradation, however, is not allowed to fall below the existing use of the receiving water; and
3. States must prohibit the degradation of Outstanding National Resource Waters, such as waters of National and State parks, wildlife refuges, and waters of exceptional recreation or ecological significance.

Federal Anti-Degradation Policy

The Federal Antidegradation Policy (40 Code of Federal Regulations 131.12) requires states to develop statewide antidegradation policies and identify methods for implementing them. Pursuant to the Code of Federal Regulations (CFR), state antidegradation policies and implementation methods shall, at a minimum, protect and maintain (1) existing in-stream water uses; (2) existing water quality, where the quality of the waters exceeds levels necessary to

[1] Also referred to as the Federal Water Pollution Control Act of 1972.
[2] CWA Section 402(p).

support existing beneficial uses, unless the state finds that allowing lower water quality is necessary to accommodate economic and social development in the area; and (3) water quality in waters considered an outstanding national resource.

Porter-Cologne Water Quality Act

In the State of California, the State Water Resources Control Board (SWRCB) and local Regional Water Quality Control Boards (RWQCBs) have assumed the responsibility of implementing US EPA's NPDES Program and other programs under the CWA such as the Impaired Waters Program and the Antidegradation Policy. The primary quality control law in California is the Porter-Cologne Water Quality Act (Water Code Sections 13000 et seq.). Under Porter-Cologne, the SWRCB issues joint federal NPDES Storm Water permits and state Waste Discharge Requirements (WDRs) to operators of municipal separate storm sewer systems (MS4s), industrial facilities, and construction sites to obtain coverage for the storm water discharges from these operations.

California Anti-Degradation Policy

The California Antidegradation Policy, otherwise known as the Statement of Policy with Respect to Maintaining High Quality Water in California was adopted by the SWRCB (State Board Resolution No. 68-16) in 1968. Unlike the Federal Antidegradation Policy, the California Antidegradation Policy applies to all waters of the State, not just surface waters. The policy states that whenever the existing quality of a water body is better than the quality established in individual Basin Plans, such high quality shall be maintained and discharges to that water body shall not unreasonably affect present or anticipated beneficial use of such water resource.

California Toxic Rule

In 2000, the EPA promulgated the California Toxic Rule, which establishes water quality criteria for certain toxic substances to be applied to waters in the State. The EPA promulgated this rule based on the EPA's determination that the numeric criteria are necessary in the State to protect human health and the environment. The California Toxic Rule establishes acute (i.e., short-term) and chronic (i.e., long-term) standards for bodies of water such as inland surface waters and enclosed bays and estuaries that are designated by the LARWQCB as having beneficial uses protective of aquatic life or human health.

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin 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 conform to the State's antidegradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan

NPDES Permit Program

The NPDES permit program was first established under authority of the CWA to control the discharge of pollutants from any point source into the waters of the United States. As indicated

above, in California, the NPDES stormwater permitting program is administered by the SWRCB through its nine RWQCBs.

The General Permit

SWRCB Order No. 2009-0009-DWQ known as "The General Permit" was adopted on September 2, 2009. This NPDES permit establishes a risk-based approach to stormwater control requirements for construction projects by identifying three project risk levels.
The main objectives of the General Permit are to:

1. Reduce erosion
2. Minimize or eliminate sediment in stormwater discharges
3. Prevent materials used at a construction site from contacting stormwater
4. Implement a sampling and analysis program
5. Eliminate unauthorized non-stormwater discharges from construction sites
6. Implement appropriate measures to reduce potential impacts on waterways both during and after construction of projects
7. Establish maintenance commitments on post-construction pollution control measures

California mandates requirements for all construction activities disturbing more than one acre of land to develop and implement Stormwater Pollution Prevention Plans (SWPPP). The SWPPP documents the selection and implementation of Best Management Practices for a specific construction project, charging Owners with stormwater quality management responsibilities. A construction site subject to the General Permit must prepare and implement a SWPPP that meets the requirements of the General Permit.

Los Angeles County Municipal Storm Water System (MS4) Permit

As described above, USEPA regulations require that MS4 permittees implement a program to monitor and control pollutants being discharged to the municipal system from both industrial and commercial projects that contribute a substantial pollutant load to the MS4.

On December 13, 2001, the LARWQCB adopted Order No. 01-182 under the CWA and the Porter-Cologne Act. This Order is the NPDES Permit or MS4 permit for municipal stormwater and urban runoff discharges within Los Angeles County. The requirements of this Order (the "Permit") cover 84 cities and most of the unincorporated areas of Los Angeles County. Under the Permit, LACFCD is designated as the Principal Permittee. The Permittees are the 84 Los Angeles County cities (including the City of Los Angeles) and unincorporated areas within Los Angeles County. Collectively, these are the "Co-Permittees". The Principal Permittee helps to facilitate activities necessary to comply with the requirements outlined in the Permit but is not responsible for ensuring compliance of any of the Permittees.

Since adoption of Order No. 01-182, the LARWQCB has seen adopted Order No. R4-2012-0175, as amended by State Water Board Order WQ 2015-0075 NPDES Permit No. CAS004001 on November 8, 2012. This current permit will expire on December 28, 2017.
The City of Hermosa Beach is a Permittee of the California Regional Water Quality Control Board, Los Angeles Region, and is therefore subject to the requirements set forth in Order No. R4-2012-0175, as amended by State Water Board Order WQ 2015-0075, NPDES Permit No. CAS004001.

Standard Urban Stormwater Mitigation Plan (SUSMP)

Under the current Los Angeles County Municipal NPDES Permit, permittees are required to implement a development planning program to address storm water pollution. These programs require project applicants for certain types of projects to implement Standard Urban Stormwater Mitigation Plans (SUSMP) throughout the operational life of their projects. The purpose of SUSMP is to reduce the discharge of pollutants in storm water by outlining BMPs which must be incorporated into the design plans of new development and redevelopment. A project is subject to SUSMP if it falls under one of the categories listed below:

1. Single-family hillside homes
2. Ten or more unit homes (including single family homes, multifamily homes, condominiums, and apartments).
3. Automotive service facilities
4. Restaurants
5. 100,000 or more square-feet of impervious surface in industrial/commercial development.
6. Retail gasoline outlet
7. Parking lots with 5,000 square feet or more of surface area or with 25 or more parking spaces
8. Redevelopment projects in subject categories that meet redevelopment thresholds
9. Location within or directly adjacent to or discharging directly to an environmentally sensitive area if the discharge is likely to impact a sensitive biological species or habitat and the development creates 2,500 square feet or more of impervious surface.

Permittees are required to adopt the requirements set herein in their own SUSMP. Additional BMPs may be required by ordinance or code adopted by the Permittee and applied in a general way to all projects or on a case by case basis.

Low Impact Development

Low Impact Development (LID) is a stormwater strategy that is used to mitigate the impacts of runoff and stormwater pollution as close to its source as possible. Urban runoff discharged from municipal storm drain systems is one of the principal causes of water quality impacts in most urban areas. The stormwater may contain pollutants such as trash and debris, bacteria and viruses, oil and grease, sediments, nutrients, metals, and toxic chemicals that can negatively affect the ocean, rivers, plant and animal life, and public health.

LID encompasses a set of site design approaches and best management practices (BMPs) that are designed to address runoff and pollution at the source. These LID practices can effectively remove nutrients, bacteria, and metals, while reducing the volume and intensity of stormwater flows.

The project is subject to compliance of Order No. R4-2012-0175, which became effective in November 8, 2012. The main purpose of this law is to ensure that development and redevelopment projects mitigate runoff in a manner that captures or treats rainwater at its source, while utilizing natural resources.

In accordance with Order No. R4-2012-0175, stormwater runoff shall be infiltrated, evapotranspired, captured and used, or treated through high removal efficiency Best

Management Practices (BMPs), onsite, through stormwater management techniques that comply with provisions of the Development Best Management Practices Handbook.

Infiltration is the BMP that is preferred by the City of Hermosa Beach, sitting at the top of the BMP hierarchy. However, due to the close proximity of the project site to the Pacific Ocean, infiltration is not deemed as feasible for the project site. The anticipated high groundwater table is not an ideal characteristic to implement infiltration. Feasible LID solutions include green roofs, store and reuse BMP and biofiltration.

Hermosa Beach Municipal Code

Per City of Hermosa Beach Municipal Code – Chapter 8.44: Stormwater & Urban Runoff Pollution Control Regulation, Chapter 8.44.095 – "Standard Urban Storm Water Mitigation Plan" (SUSMP)" Requirements for New Development and Redevelopment Projects, the project is required to submit a SUSMP that complies with the most current Municipal NPDES Permit (Permit). As a result of this Permit, the project must provide post-construction Structural or Treatment Control Best Management Practices (BMPs) that will provide the necessary treatment to runoff from the site by utilizing either Volume-Based BMPs or Flow-Based BMPs. Volume-based BMPs must be sized and designed to treat the Design Capture Volume (DCV), while Flow-based BMPs must be sized and designed to treat the Water Quality Flow. Table 2 outlines the numerical sizing requirements of such BMPs:

Table 2: NPDES/LID BMP Requirements

Volume-Based BMPs	Flow-Based BMPs
85th percentile 24-hour runoff event per formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998), **OR**	Flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity
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**	Flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for Los Angeles County
Volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system, **OR**	Flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards
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 85th percentile 24-hour runoff event	

The Regional Board has a BMP Hierarchy in which the project must follow when selecting the type or types of BMPs to be constructed on site. The following is the BMP Hierarchy, per Order No. R4-2012-0175 as amended by Order WQ 2015-0075 NPDES NO. CAS004001:

1. On-site infiltration,
2. On-site Bioretention and/or store and reuse,
3. On-site biofiltration , off-site ground water replenishment, and/or off-site retrofit

Pending soils testing and geotechnical analysis on the site, the project has the option of utilizing infiltration areas, bioretention areas, harvest and re-use, or biofiltration planter boxes, among additional flow-based and treatment control BMPs. It is worthy to note that should the project decide to construct any biofiltration BMPs on-site, such BMPs will need to be sized and designed to treat 150% of the Design Capture Volume (DCV), thus increasing the size of the BMP.

Hydromodification

In addition to the LID requirements listed in the Permit, the Permit also addresses requirements for Hydromodification as pertaining to the project. Per Part VI.D.7.c.iv of the Permit:

> *"Each Permittee shall require all New Development and Redevelopment projects located within natural drainage systems as described in Part VI.D.7.c.iv.(1)(a)(iii) to implement hydrologic control measures, to prevent accelerated downstream erosion and to protect stream habitat in natural drainage systems. The purpose of the hydrologic controls is to minimize changes in post-development hydrologic storm water runoff discharge rates, velocities, and duration. This shall be achieved by maintaining the project's pre-project storm water runoff flow rates and durations."*

However, per Part VI.D.7.c.iv.(1)(b)(iv) of the Permit, the project is exempt from such requirements as runoff from the site is discharged directly via storm drain to a receiving water (Santa Monica Bay) that is not susceptible to hydromodification impacts. Runoff from the site is conveyed via storm drain to directly discharge to Hermosa Beach within Santa Monica Bay, located just west of the project site. Since Hermosa Beach is not susceptible to hydromodification impacts, the project need not implement hydrologic control measures as mitigation for hydromodification impacts.

CWA 303(d) List of Water Quality Limited Segments

Under Section 303(d) of the CWA, states are required to identify water bodies that do not meet their water quality standards. Once a water body has been listed as impaired, a Total Maximum Daily Load (TMDL) for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its water quality standard. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL.

Biennially, the LARWQCB prepares a list of impaired waterbodies in the region, referred to as the 303(d) list. The 303(d) list outlines the impaired waterbody and the specific pollutant(s) for which it is impaired. All waterbodies on the 303(d) list are subject to the development of a TMDL.A TMDL establishes the maximum amount of a pollutant that a waterbody can receive and still meet the applicable water quality standard for that pollutant. Depending on the nature

of the pollutant, TMDL implementation may require a cap on pollutant contributions from point sources (waste load allocation), nonpoint sources (load allocation), or both.

According to the 2010 303(d) list of Limited Water Quality Segments published by the SWRCB, the Santa Monica Bay Offshore/Nearshore is listed for Chlordane, DDT (tissue and sediment), Debris, Fish Consumption Advisory, PAH/PCB's, and Sediment Toxicity.

Total Maximum Daily Loads (TMDLs)

Once a water body has been listed as impaired on the 303(d) list, a TMDL for the constituent of concern (pollutant) must be developed for that water body. A TMDL is an estimate of the daily load of pollutants that a water body may receive from point sources, non-point sources, and natural background conditions (including an appropriate margin of safety), without exceeding its water quality standard. Those facilities and activities that are discharging into the water body, collectively, must not exceed the TMDL. In general terms, municipal, small MS4, and other dischargers within each watershed are collectively responsible for meeting the required reductions and other TMDL requirements by the assigned deadline.

The development of TMDLs affecting waters in the Los Angeles area watersheds is the responsibility of the LARWQCB. Adoption of a TMDL requires an amendment to the regional water quality regulations (Basin Plan) and is subject to a substantial public review process. After the LARWQCB adopts the TMDL as a Basin Plan amendment, it is submitted to the State Board for approval. If approved by the State Board, the TMDL is submitted to EPA Region 9 for final review and federal approval. The TMDL does not take effect until the EPA has issued its formal approval. Once a TMDL becomes effective, the schedule for TMDL implementation by each named responsible jurisdiction becomes active. TMDL-specific implementation requirements vary, but typically include preparation of a Coordinated Monitoring Plan (CMP) for the affected watershed, and development of an Implementation Plan detailing how the responsible agencies plan to achieve compliance with the TMDL requirements.

Santa Monica Bay has the following TMDL's: DDT's & PCB's and Bacteria.

2.3.2 Surface Water Quality Conditions

As described above, the Project Site is located within the Santa Monica Bay Watershed Management Area of the Los Angeles Basin, which includes several subwatershed areas. The Project Site is specifically located within the South Subwatershed area.

Beneficial Use

According to the LARWQCB Santa Monica Bay Watershed Report, almost every beneficial use defined in the Basin Plan is identified in water bodies within the Santa Monica Bay Watershed Management Area. Specifically, twenty beneficial uses for surface waters and four beneficial uses for ground waters in the Santa Monica Bay Watershed Management Area are designated in the Basin Plan.

Table 3: Beneficial Uses of Santa Monica Bay

NAV - Navigation	MAR - Marine Habitat
	WILD - Wildlife Habitat
REC1 - Water Contact Recreation	SPWN - Spawning, Reproduction, and/or Early Development
REC2 - Non-contact Water Recreation	SHELL - Shellfish Harvesting
COMM - Commercial And Sport Fishing	
Notes: * = Potential beneficial use Source : (LARWQCB, 2004)	

Water Quality Objectives

As stated in the Basin Plan, water quality objectives (WQOs) are intended to protect the public health and welfare and to maintain or enhance water quality in relation to the designated existing and potential beneficial uses of the water. The water quality objectives to applicable to Santa Monica Bay are in the California Ocean Plan (COP). The applicable narrative objectives in the COP include the following:

> *Marine commuunities, including vertebrate, invetebrate, and plant species, shall not be degraded.*
>
> *The concentration of organic materials in marine sediments shall not be increased to levels which would degrade indigenous biota.*
>
> *The concentrations of substances set forth in Capter II, Table B (Santa Monica Bay TMDL for DDT/PCBs March 2012), in marine sediments shall not be signicantly increased to levels which would degrade indigenous biota.*
>
> *The concentration of organic materials in fish, shellfish, or other marine resoruces used for human consumption shall not bioaccumulate to levels that are harmful to human health.*

2.4 GROUNDWATER QUALITY

2.4.1 Regulations

CA Groundwater Sustainability Act

On Sept. 16, 2014, California Governor Jerry Brown signed into law an unprecedented three-bill legislative package, known as the Sustainable Groundwater Management Act of 2014 (SGMA). The SGMA provides a framework for sustainable management of groundwater supplies by local authorities, with a limited role for state intervention only if necessary to protect the resource.

The act requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt locally-based management plans. The act provides substantial time – 20 years – for GSAs to implement plans and achieve long-term groundwater sustainability. It protects existing surface water and groundwater rights and does not impact current drought response measures.

The California Water Commission (CWC) requires a statewide prioritization of California's groundwater basins using the following eight criteria:

1. Overlying population;
2. Projected growth of overlying population;
3. Public supply wells;
4. Total wells;
5. Overlying irrigated acreage;
6. Reliance on groundwater as the primary source of water;
7. Impacts on the groundwater; including overdraft, subsidence, saline intrusion, and other water quality degradation; and
8. Any other information determined to be relevant by the Department.

The Project Site is located within a medium priority California Statewide Groundwater Elevation Monitoring groundwater basin. GSAs responsible for high-and medium-priority basins must adopt groundwater sustainability plans within five to seven years, depending on whether the basin is in critical overdraft. Agencies may adopt a single plan covering an entire basin or combine a number of plans created by multiple agencies. Preparation of groundwater sustainability plans is exempt from CEQA. Plans must include a physical description of the basin, including groundwater levels, groundwater quality, subsidence, information on groundwater-surface water interaction, data on historical and projected water demands and supplies, monitoring and management provisions, and a description of how the plan will affect other plans, including city and county general plans. Plans will be evaluated every five years.

Board Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties

As required by the California Water Code, the LARWQCB has adopted a plan entitled "Water Quality Control Plan, Los Angeles Region: Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties" (Basin Plan). Specifically, the Basin 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 conform to the State's antidegradation policy, and describes implementation programs to protect all waters in the Los Angeles Region. In addition, the Basin Plan incorporates (by reference) all applicable State and

Regional Board plans and policies and other pertinent water quality policies and regulations. Those of other agencies are referenced in appropriate sections throughout the Basin Plan.

The Basin Plan is a resource for the Regional Board and others who use water and/or discharge wastewater in the Los Angeles Region. Other agencies and organizations involved in environmental permitting and resource management activities also use the Basin Plan. Finally, the Basin Plan provides valuable information to the public about local water quality issues.

Safe Drinking Water Act (SDWA)

The Federal Safe Drinking Act, established in 1974, sets drinking water standards throughout the country and is administered by the USEPA. The drinking water standards established in the SDWA, as set forth in the Code of Federal Regulations (CFR), are referred to as the National Primary Drinking Water Regulations (Primary Standards, Title 40, CFR Part 141) and the National Secondary Drinking Water Regulations (Second Standards, 40 CFR Part 143). California passed its own Safe Drinking Water Act in 1986 that authorizes the State's Department of Health Services (DHS) to protect the public from contaminants in drinking water by establishing maximum contaminants levels (MCLs), as set forth in the CCR, Title 22, Division 4, Chapter 15, that are at least as stringent as those developed by the USEPA, as required by the federal Safe Drinking Water Act.

California Water Plan

The California Water Plan (The Plan) provides a framework for water managers, legislators, and the public to consider options and make decisions regarding California's water future. The Plan, which is updated every five years, presents basic data and information on California's water resources including water supply evaluations and assessments of agricultural, urban, and environmental water uses to quantify the gap between water supplies and uses. The Plan also identifies and evaluates existing and proposed statewide demand management and water supply augmentation programs and projects to address the State's water needs.

The goal for the California Water Plan Update is to meet Water Code requirements, receive broad support among those participating in California's water planning, and be a useful document for the public, water planners throughout the state, legislators and other decision-makers.

Watermaster Service for the Santa Monica Basin

The Santa Monica Basin is an unadjudicated basin. The primary producer in the basin is the city of Santa Monica. The Groundwater management in the Santa Monica Basin has centered primarily on the cleanup of groundwater contaminated by MTBE, most notably in the Arcadia and Charnock sub basins. The cleanup operations are coordinated/overseen by the Los Angeles Regional Water Quality Control Board.

2.4.2 Existing Groundwater Conditions

Regional

Groundwater use for domestic water supply is a beneficial use of groundwater basins in Los Angeles County. The City of Hermosa Beach overlies the Los Angeles Coastal Plain Groundwater Basin. The Los Angeles Coastal Plain Basin is comprised of the Hollywood, Santa Monica, Central, and West Coast Subbasins. Groundwater flow in the Los Angeles Coastal

Plain Groundwater Basin is generally south-southwesterly and may be restricted by natural geological features. Replenishment of groundwater basins occurs mainly by percolation of precipitation throughout the region via permeable surfaces, spreading grounds, and groundwater migration from adjacent basins, as well as injection wells designed to pump freshwater along specific seawater barriers to prevent the intrusion of salt water.

Local

Within the Los Angeles Coastal Plain Groundwater Basin, the Project Site specifically overlies the West Coast Sub basin. As stated above, the West Coast Basin (WCB) is bounded on the west and south by the Pacific Ocean, on the north by the Ballona Escarpment and on the east by the Newport - Inglewood Uplift. The Dominguez Gap Barrier facility was designed to prevent intrusion from San Pedro Bay, and the West Coast Basin Barrier Project from the Pacific Ocean.

Groundwater in the Basin is replenished by recycled water and imported water. Recycled water goes through an extensive treatment process at water reclamation plants. The Water Replenishment District of Southern California (WRD) has been using recycled water for groundwater recharge since 1962. Imported water comes from raw river water in Northern California, most notably from the Colorado River, is imported to Southern California by the Metropolitan Water District of Southern California.

The WCB's average annual production comprises some eleven cities and unincorporated areas of Los Angeles County (re: www.westbasin.org/water-reliability-2020/groundwater/west-coast-groundwater-basin) including the City of Hermosa Beach. The Project Site is located toward the southern portion of the Basin.

On-Site

Geotechnical exploration of the Project Site is pending. Upon further progression of the project, a formal geotechnical report shall be provided by a licensed Geotechnical Engineering, describing such site characteristics as: soil type, soil depth, liquefaction, seismic hazards, groundwater table, and exploratory borings.

Beneficial Use

The Groundwater Basin report for the West Coast Basin has four beneficial uses. They are:

- MUN – Municipal and Domestic Supply
- AGR – Agricultural Supply
- IND – Industrial Service Supply
- PROC – Industrial Process Supply

Water Quality Objectives

Specific water quality objectives have been established for the West Coast Basin to maintain its beneficial uses, and are summarized in **Error! Reference source not found.**.

Table 4: Groundwater Quality Objectives for the West Coast Basin

Basin Name	*TDS*	*Sulfate*	*Chloride*	*Boron*
West Coast Basin	800	250	2250	1.5

Notes:
All units in mg/L unless otherwise stated
Source: Water Quality Control Plan Los Angeles Region – Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties – Adopted by the CA Regional Water Quality Control Board, Los Angeles Region on June 13, 1994

In addition to specific numeric water quality objectives, narrative objectives for all groundwater in the Coastal Plain of Los Angeles and the location of the project site. Narrative objectives have been established for bacteria, chemical constituents and radioactivity, mineral quality, nitrogen (nitrate and nitrite), and taste/odor.

3. THRESHOLDS OF SIGNIFICANCE

California Environmental Quality Act (CEQA) significance criteria are used to evaluate the degree of impact caused by a development project on environmental resources such as hydrology and water quality. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would impact any of the items listed below.

CEQA Thresholds Guide states that a project would normally have a significant impact on surface water quality if discharges associated with the project would create pollution, contamination or nuisance, as defined in Section 13050 of the California Water Code (CWC) or that cause regulatory standards to be violated, as defined in the applicable NPDES stormwater permit or Water Quality Control Plan for the receiving water body. The CEQA Thresholds Guide and CWC include the following definitions:

"Pollution" means an alteration of the quality of the waters of the state to a degree which unreasonably affects either of the following: 1) the waters for beneficial uses or 2) facilities which serve these beneficial uses. "Pollution" may include "Contamination".

"Contamination" means an impairment of the quality of the waters of the state by waste to a degree, which creates a hazard to the public health through poisoning or though the spread of disease. "Contamination" includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

"Nuisance" means anything which meets all of the following requirements: 1) is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property; 2) affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal; and 3) occurs during, or as a result of, the treatment or disposal of wastes.

3.1 HYDROLOGY & WATER QUALITY THRESHOLDS (CEQA CHECKLIST SECTION IX)

CEQA Thresholds Guide states that a project would normally have a significant impact on surface water and groundwater hydrology if it would

A. Cause flooding during the project 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 the 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
D. Affect the rate or change the direction of movement of existing groundwater contaminants
E. Expand the groundwater area affected by contaminants
F. Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion)
G. Cause regulatory water quality standards at an existing production groundwater well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act
H. Change potable water levels sufficiently to:
    a. Reduce the ability of a water utility to use the groundwater basin for public water supplies, conjunctive use purposes, storage of imported water, summer/winter peaking, or to respond to emergencies and drought
    b. Reduce yields of adjacent wells or well fields (public or private)
    c. Adversely change the rate or direction of flow of groundwater
I. Result in the demonstrable and sustained reduction of groundwater recharge capacity

CEQA significance criteria are used to evaluate the degree of impact caused by a development project on environmental resources such as hydrology and water quality. According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would impact any of the items listed below.

Would the Project:

J. Violate any water quality standards or waste discharge requirements?

K. 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? (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)

L. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or in a manner which would result in a substantial erosion or siltation on- or off-site?

M. 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 that would result in flooding on- or off-site?

N. Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

O. Otherwise substantially degrade water quality?

P. 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?

Q. Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

R. 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?

S. Be subject to inundation by seiche, tsunami, or mudflow?

4. ENVIRONMENTAL IMPACTS

The purpose of the proposed conditions evaluation is to determine potential impacts related to the Strand & Pier Hotel project. The proposed project will consist of land uses that are similar to those of the existing condition. The existing conditions of the project site are fully built-out and the proposed changes will have little impact on impervious surfaces and runoff rates.

4.1 PROPOSED HYDROLOGY

The purpose of the proposed conditions evaluation is to evaluate impacts associated with the development of the program-level Project, characterize changes as compared to the existing runoff conditions and identify where additional storm drain facilities are recommended to improve runoff conditions.

The Project site is located within the City of Hermosa Beach; drainage collection, treatment and conveyance are regulated by the City. Storm drain infrastructure in the nearby vicinity of the project is owned and maintained by the County of Los Angeles Department of Public Works (LACDPW). The City of Hermosa Beach defers to the County of Los Angeles methodology for hydrologic computations. The methodology described in the Los Angeles County Department of Public Works Hydrology Manual (2006) was used to compute the 24-hour stormwater runoff flows at the project site. In general, the frequencies selected for storm drain design in areas zoned for urban residential or more impervious types of improvement are as follows:

1. A 10-year storm frequency for areas without sumps
2. A 50-year storm frequency for sump areas

Since the project is not located within a sump, a 10-year frequency storm event will be used for the storm drain design. The Modified Rational Method was used to calculate storm water runoff. The "peak" (maximum value) runoff for a drainage area is calculated using the formula, $Q = CIA$

Where,

Q = Volumetric flow rate (cfs)
C = Runoff coefficient (dimensionless)
I = Rainfall Intensity at a given point in time (in/hr)
A = Basin area (acres)

The LACDPW HydroCalc hydrologic program was used to calculate the existing and proposed condition runoff parameters, including times of concentration and intensities, along with storm hydrographs for existing and proposed conditions at the project site. The HydroCalc hydrologic output includes hydrographs for each of the subareas discharging from the site.

4.1.1 Proposed Drainage Conditions

Under the proposed conditions, the project site will undergo significant redevelopment including replacement of the large at-grade parking lots and existing commercial structures with subterranean parking structures and multi-story hotel building with numerous amenities.

Since the proposed project will incorporate similar impervious footprints, the impervious area will remain essentially the same, as compared to that of the existing condition. This will result in unchanged discharges from the site, as a whole. Refer to Table 9 and Appendix B for Existing Condition Hydrology calculations and Appendix D for existing storm drain facilities.

Table 5: Proposed Condition Hydrology

Storm Event	Sub-Area	Area (Acres)	Tc (minutes)	% Impervious	Q_{Peak} (cfs)
10-Year	1	1.0	5.0	95%	1.90
25-Year	1	1.0	5.0	95%	2.34
50-Year	1	1.0	5.0	95%	2.67

The development of Strand & Pier Hotel will also include the requirement for Low Impact Development (LID) features which reduce volumes and discharge rates of runoff. Between the unchanged impervious surfaces and the incorporation of LID features, runoff discharge rates are anticipated to be reduced below existing condition rates.

Figure 4, 5, and 6 illustrate conceptual excavation, erosion control, and storm drain, respectively, for the proposed project condition. Refer to Appendices L, M, and N for the full size plans.

13TH STREET

13TH COURT

ACCESS RAMP

PIER AVENUE

BEACH DRIVE

THE STRAND

SUBGRADE = -15.40

SUBGRADE = -12.40

2:1 SLOPE

2:1 SLOPE

88.5'

30%

198.8'

185.6'

177.4'

199.2'

20.0'

14.94(EG)

14.90(EG)

14.66(EG)

14.12(EG)

14.04(EG)

14.08(EG)

14.13(EG)

14.26(EG)

14.29(EG)

14.19(EG)

14.49(EG)

14.08(EG)

14.40(EG)

14.62(EG)

13.98(EG)

14.73(EG)

14.56(EG)

14.97(EG)

H=30.4' 14.95TOS −15.40SG

H=29.8' 14.38TOS −15.40SG

14.12TOS −12.40SG H=26.5'

H=30.3' 14.90TOS −15.40SG

−15.40 SG

−12.40 SG

14.26TOS −12.40SG H=24.7'

14.29TOS −12.40SG H=26.7'

14.16TOS −12.40SG H=26.6'

H=29.7' 14.28TOS −15.40SG

H=29.9' 14.49TOS −15.40SG

H=30.2' 14.78TOS −15.40SG

14.12TOS −12.40SG H=26.5'

14.62(EG)

14.73TOS −12.40SG H=27.1'

H=29.9' 14.53TOS −15.40SG

H=27.0' 14.55TOS −12.40SG

H=27.4' 15.00TOS −12.40SG

H=27.1' 14.73TOS −12.40SG

2.4'

12.4'

15

14

LEGEND

ABAND	ABANDONED
AC	ASPHALT CONCRETE
BW	BACK OF WALK
℄	CENTERLINE
CONC	CONCRETE
EX	EXISTING
EG	EXISTING GRADE
FS	FINISHED SURFACE
OG	ORIGINAL GROUND
PL	PROPERTY LINE
SG	SUB−GRADE
SL	STREET LIGHT
TOS	TOP OF SHORING

PROPERTY LINE / RIGHT OF WAY
CENTER LINE
SHORING LINE
PROPOSED BUILDING WALL
GRADE BREAK
TOP/BOTTOM OF SLOPE
EASEMENT LINE
EXISTING SEWER
EXISTING STORM DRAIN
EXISTING WATER

NOTICE TO CONTRACTOR

1. CONTRACTOR SHALL CONFIRM PAD ELEVATION WITH MOISTURE PROOFING AND GEOTECHNICAL SUBGRADE DESIGN PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CHANGE TO PLAN DESIGN PRIOR TO EXCAVATION.

3. THIS PLAN IS ONLY INTENDED TO DEPICT THE MASS PAD EXCAVATION AND DOES NOT INDICATE ANY OTHER EXCAVATIONS REQUIRED FOR CONSTRUCTION OF PROJECT, SUCH AS UTILITY CUTS, FOUNDATION CUTS, DRY WELL BORES, SUBSTRUCTURE CUTS, SUBGRADE CUTS, WATERPROOFING/METHANE PROTECTION, ETC.

4. PAD SUBGRADE ELEVATION INCORPORATES A 6−INCH BUILDING SLAB ON GRADE. CONTRACTOR SHALL ACCOUNT FOR ANY OTHER EXCAVATION NEEDED BY PROJECT.

5. CONTRACTOR SHALL GRADE PAD AS NEEDED TO COMPLY WITH EROSION CONTROL REQUIREMENTS AND AS SITE CONSTRUCTION SEQUENCE DICTATES.

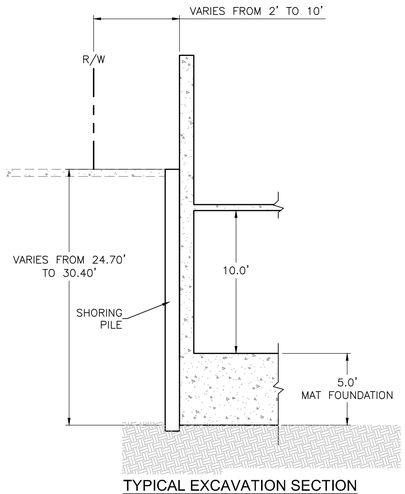
6. THE ACCESS RAMPS SHOWN ON THIS PLAN MAY NEED TO BE REMOVED TO EXCAVATE ALONG BASEMENTS WALLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF TEMPORARY ACCESS RAMPS TO ACHIEVE THE SUBGRADE ELEVATIONS SHOWN ON THIS PLAN.

7. THE CONTRACTOR SHALL PROVIDE A 3 FEET MIN. BENCH AT THE TOE OF TEMPORARY SLOPES TO FORM AND POUR FOUNDATION FOOTINGS AND BASEMENT WALLS.

8. DUE TO THE PRESENCE OF HIGH GROUNDWATER TABLE WITHIN THE VICINITY OF THE PROJECT SITE, DEWATERING ACTIVITIES ARE RECOMMENDED PRIOR AND DURING THE EXCAVATION PHASE. DEWATERING WILL BE ADDRESSED AND HANDLED PER A SEPARATE PLAN AND PERMIT AND IS NOT REPRESENTED WITH THE CONTENT SHOWN ON THIS PLAN.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING THE PROJECT SITE TO DRAIN TO THE DEWATERING PIT SHOWN ON THIS PLAN. THE SLOPES SHALL BE AT MINIMUM 1% TO A MAXIMUM OF 2%.

10. PILES SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. REFER TO THE SHORING PLANS FOR COMPLETE DESIGN AND LAYOUT OF THE SHORING SYSTEM.



TYPICAL EXCAVATION SECTION
SCALE: 1"=5'

Figure 5

20' 0' 10' 20'
SCALE: 1" = 20'

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STRAND AND PIER HOTEL- EXCAVATION PLAN

06.09.2016

C4.1

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 C4.1 EXCAV.DWG (06-10-16 4:39:18PM) Plotted by: Miguel Cabanas

LEGEND

- GRAVEL BAG
- CONSTRUCTION NOTE CALLOUT REFERENCE
- RIGHT OF WAY LINE/ PROPERTY LINE
- CONSTRUCTION FENCE
- DIRECTION OF PROPOSED SURFACE DRAINAGE
- STABILIZED CONSTRUCTION ENTRANCE/EXIT (TC-1) WITH SHAKER PLATE (INGRESS/EGRESS)
- TEMPORARY STORAGE AREA
- TEMPORARY PORTABLE TOILET

EROSION CONTROL CONSTRUCTION NOTES

1. INSTALL 6-FOOT HIGH CHAIN LINK FENCE WITH SCREENING AROUND PERIMETER OF PROPERTY.
2. BMP'S SE-1, SE-5, SE-6, SE-12: PLACE SILT FENCE, FIBER ROLLS, GRAVEL BAGS, OR TEMPORARY SILT DIKE ALONG CONSTRUCTION PERIMETER IN ACCORDANCE WITH CASQA BMP STANDARD.
3. STOCKPILE BMPs THROUGHOUT CONSTRUCTION AREA FOR REPLACEMENT OF DAMAGED BMP'S AND/OR CREATION OF EMERGENCY BMPs. SEE DETAIL 2 ON THIS SHEET.
4. BMP TC-1: TEMPORARY DRIVE PAD TO BE CONSTRUCTED WITH A WIDTH EQUAL TO THE ENTRANCE/EXIT AND AT LEAST 50-FEET MIN. IN LENGTH. DRIVE PAD ON NATURAL GROUND IS TO CONSIST OF 3 TO 6-INCH DIAMETER STONES STACKED TO A HEIGHT OF AT LEAST 12-INCHES MIN. WITH RIDGED STEEL PANEL RUMBLE RACKS ATOP. DRIVE PAD ON ASPHALT/CONCRETE IS TO CONSIST OF RIDGED STEEL PANEL RUMBLE RACKS. PURPOSE OF DRIVE PAD IS TO MITIGATE TRACKING OF MUD AND SILT ONTO PUBLIC STREETS. SEE CASQA BMP STANDARD.
5. BMP WM-9: PLACE PORTABLE TOILET 50-FEET AWAY FROM DOWNSTREAM DRAINAGE FACILITIES, WATERCOURSES, AND CONSTRUCTION PERIMETER. SECONDARY CONTAINMENT SHALL BE RPOVIDED IN CASE OF SPILLS. USE CASQA BMP STANDARD.
6. BMP SE-7: SWEEP AND/OR VACUUM ALL STREETS AND SIDEWALKS, AS NEEDED, TO REMOVE VISIBLE SEDIMENT TRACKED FROM THE CONSTRUCTION SITE. ANY TRACKED SEDIMENT WILL BE REMOVED PRIOR TO THE END OF THE WORK DAY. USE CASQA BMP STANDARD.
7. BMP'S WM-1, WM-3, WM-5, WM-7, WM-8: USE PRIMARY (COVER) AND SECONDARY (GRAVEL BAG BERM) CONTAINMENT FOR TEMPORARY EXPOSED STORAGE AREAS IN ACCORDANCE WITH CASQA BMP STANDARDS.

NOTICE TO CONTACTOR/QSP

1. IT IS THE CONTRACTOR/SUPERVISOR/QUALIFIED SWPPP PRACTITIONER (QSP'S) RESPONSIBILITY TO KEEP THIS WATER POLLUTION CONTROL DRAWING CURRENT. BMP'S SHOULD BE ADDED, MOVED OR REMOVED BASED ON SITE CONDITIONS. HAND-MARKED ALTERATIONS WITH INITIALS AND DATE ARE AN ACCEPTABLE FORM OF ALTERATION. THE CONTRACTOR MAY BE ASKED AT ANY TIME TO PRODUCE THIS WATER POLLUTION CONTROL DRAWING. FAILURE TO KEEP THIS DRAWING CURRENT COULD RESULT IN A NOTICE OF VIOLATION AND/OR FINE.
2. STABILIZED CONSTRUCTION ENTRANCE, MATERIAL DELIVERY AND STORAGE AREA, WASTE COLLECTING AREA, AND EQUIPMENT AREA SHALL BE DESIGNATED BY SITE SUPERVISOR OR QSP AND INCLUDED ON THE WATER POLLUTION CONTROL DRAWING/EROSION CONTROL PLAN. AS SITE CONDITIONS CHANGE, THE WATER POLLUTION CONTROL DRAWING/EROSION CONTROL PLAN SHALL BE UPDATED TO REFLECT CURRENT CONDITIONS. REVISIONS SHALL BE INITIALED AND DATED.
3. THE CONTRACTOR/SUPERVISOR OR QUALIFIED SWPPP PRACTITIONER (QSP) SHALL VERIFY SAMPLING LOCATIONS AT ALL DISCHARGE POINTS IN THE FIELD. SAMPLING LOCATIONS SHALL BE REPRESENTATIVE OF CURRENT SITE CONDITIONS, DISTURBED AREAS AND CONSTRUCTION PHASING. ANY UPDATES TO THE SAMPLING LOCATIONS (E.G., AS A RESULT OF CONSTRUCTION PHASING) SHALL BE NOTED ON THIS MAP AND/OR WATER POLLUTION CONTROL DRAWINGS.
4. ANY INACTIVE PADS, EXCAVATED AREAS OR OTHER DISTURBED AREAS THAT WILL REMAIN INACTIVE FOR LONGER THAN 10 DAYS SHALL BE STABILIZED WITH HYDROSEED, HYDRAULIC MULCH, PLASTIC SHEETING (I.E. VISQUEEN ANCHORED WITH GRAVEL/SANDBAGS) OR EQUIVALENT EROSION CONTROL BMP. TEMPORARY SOIL STABILIZATION MEASURES SHALL BE MAINTAINED UNTIL PERMANENT STABILIZATION CAN BE ESTABLISHED.
5. AN UPDATED EROSION AND SEDIMENT CONTROL PLAN (ESCP) MUST BE REVISED AND APPROVED PRIOR TO EACH RAINY SEASON THROUGH THE SITE GRADING OPERATIONS.

Figure 6

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10' 0' 5' 10'
SCALE: 1" = 10'

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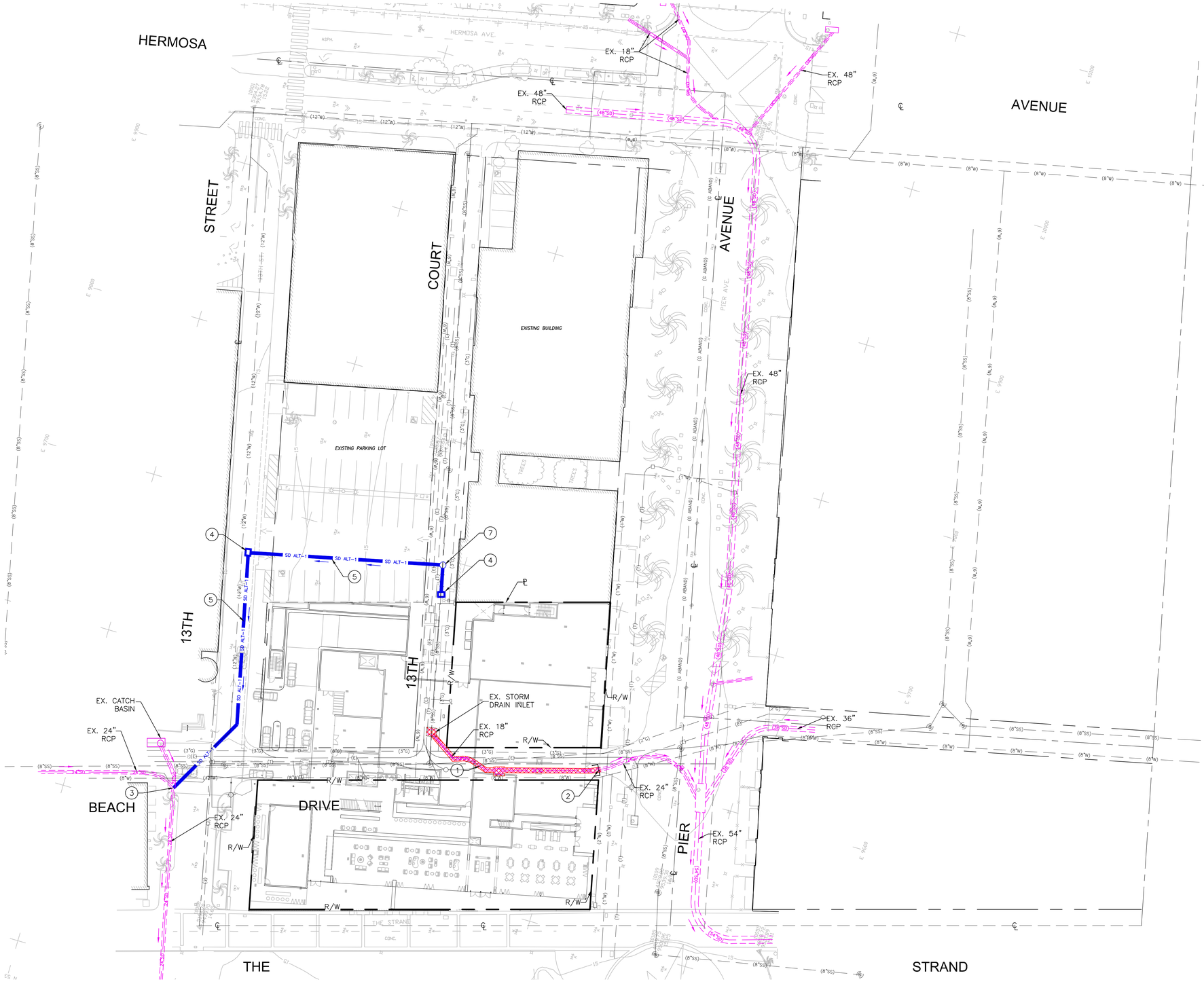
STRAND AND PIER HOTEL- EROSION AND SEDIMENT CONTROL PLAN

07.18.2016

C7.1

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 EROSION CONTROL EXHIBIT.DWG (07-18-16 3:56:00PM) Plotted by: Miguel Cabanos



LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN ALTERNATIVE 1
- EXISTING UTILITY TO BE REMOVED AND RELOCATED
- STORM DRAIN FLOW ARROW

CONSTRUCTION NOTES

1. REMOVE EXISTING STORM DRAIN
2. CAP EXISTING STORM DRAIN
3. CONNECT TO EXISTING STORM DRAIN
4. CONSTRUCT STORM DRAIN INLET
5. PROPOSED 18-INCH RCP PIPE
6. NOT USED
7. NEW STORM DRAIN MANHOLE

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

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STRAND AND PIER HOTEL
STORM DRAIN RELOCATION EXHIBIT

04.13.2016

Figure 7

30' 0' 15' 30'
SCALE: 1" = 30'

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C1.2

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 C1.2 - SD RELOC .DWG (08-10-16 4:27:26PM) Plotted by: Miguel Cabanas

4.1.2 Hydrology Impacts

The following impact assessments are based on the significance criteria established in Section 3.1 for hydrology.

Impact A. Cause flooding during the project 50-year developed storm event, which would have the potential to harm people or damage property or sensitive biological resources

Impact Analysis: Under the existing conditions, the Strand & Pier Hotel project 50-year storm event runoff flows for the entire site is 2.45 cfs. Under the proposed condition, the 50-year storm event runoff flows for the entire site is 2.67 cfs. However, when recognizing the incorporation of storm water capture for the site's run-off (i.e. roof top areas) as employed by the project's LID//MS4 elements, the effective 50-year storm event runoff flows for the entire site are actually 2.48 cfs. Thus, the proposed project condition is a decreased risk in terms of flooding as compared to the existing condition. And thus the project presents no negative impacts with respect to increased risk of surface water flooding.

Also as discussed previously from an historical performance perspective the Stand beach edge areas will from time to experience poor regional drainage including the project adjacent areas. More specifically the Stand & Pier intersection can experience standing water conditions up to 4 to 6 inches in water depth and otherwise experience slow drainage conditions during extremely high tide or very Signiant ran fall events. The proposed project will locally alleviate these conditions due to the very nature the project's SD improvements will capture the site' storm water run-off associated with the initial LID/Water quality storm including most storm events; and not allow that initial run-off the reach the surfaces of the Strand & Pier interstation. Project Grading will also anticipate these conditions so as mitigate the potential for any off-site surface water sources encroaching into the building limits.

Impact B. Substantially reduce or increase the amount of surface water in the water body

Impact Analysis: As mentioned in Impact 'A' Analysis, the amount of surface water flows will be the same under proposed conditions in comparison to the existing condition due to the consistency of impervious area on site. Thus, the proposed condition has no impact on the amount of surface water in the Pacific Ocean.

Impact 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

Impact Analysis: The existing condition surface water sheet flows on 13th Court from Hermosa Avenue west towards a drain inlet just east the intersection of 13th Court and Beach Drive. The proposed project will ultimately reverse half of the runoff on the project site on 13th Court to flow in the opposite direction into the proposed storm drain. See Appendix D for Proposed Storm Drain Utility Map. Also, as aforementioned, there will be a no net increase in surface water flows in the proposed condition. Thus, there is no impact that would produce a substantial change in the current or direction of water flow.

Impact L: Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or in a manner which would result in a substantial erosion or siltation on- or off-site?

Impact Analysis: The proposed project will not substantially alter the existing drainage pattern of the site. Due to the almost entire impervious footprint of the site, the potential for substantial erosion or siltation on- or off-site is not relevant. However, during the construction phase of the project, erosion and sediment control BMPs will be implemented to prevent sediment and other pollutants from entering the storm drain system and ultimately affecting receiving waters downstream of the site.

Impact M: 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 that would result in flooding on- or off-site?

Impact Analysis: The proposed project will tie into the existing drainage infrastructure and therefore will not substantially alter the existing drainage pattern of the site. The proposed project will have a no net increase of surface water flows. Thus, the proposed project will not substantially increase the amount of surface water runoff in a manner that would result in flooding on- or off-site.

Impact N: Create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Impact Analysis: The proposed project plans to utilize capture and use as LID BMPs and proposes one new storm drain line on-site. The capture and use BMPs will retain the entire 85th percentile, 24-hour storm event and reuse the captured storm water for irrigation demands, indoor water demands and cooling tower demands. Implementation of the aforementioned on-site BMPs will reduce the amount of pollutants being discharged from the site. The combined existing and proposed stormwater drainage system have enough capacity to handle flows from the proposed project. The project also plans to utilize additional BMPs such as a green roof supplement the more traditional BMPs. See Appendix D for Proposed Storm Drain Utility Map.

Impact P: 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?

Impact Analysis: The proposed project, which includes a hotel element, is not within a 100-year Special Flood Hazard Area identified by the federal Flood Hazard Boundary or Flood Insurance Rate Map.

Impact Q: Place within a 100-year flood hazard area structures which would impede or redirect flood flows?

Impact Analysis: The proposed project is not located within a 100-year Special Flood Hazard Area and therefore the project structures will not impede or redirect flood flows. Refer to Appendix G for FEMA Flood Insurance Rate Map.

Impact R: 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?

Impact Analysis: The proposed project is not within a region susceptible to a risk of a failing levee or dam. Thus, it will not expose people or structures to a significant risk of loss from a flooding event.

Impact S: Be subject to inundation by seiche, tsunami, or mudflow?

Impact Analysis: Based on the Appendix K - County of Los Angeles Tsunami Inundation Map, the Strand & Pier Hotel project setback enough from the coast line and as such is not located within the area formally delineated as significant risk to both tsunami or mudflows based on its upstream location from the Pacific Ocean and downstream location within a highly developed watershed. Also refer to the Addendum Soils Report prepared by Geo Soils, dated June 6th, 2016 for supplemental and consistent findings for site risk to tsunami inundation.

Impact V: Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Impact Analysis: The proposed project requires the construction of new storm water drainage facilities. The new storm drain lines will run east on 13th Street and across the City of Hermosa Beach's parking Lot B. The project will include LID BMPs including capture and use, green roofs, and cooling towers to manage storm water flows on the project site to ensure that the new facilities will not cause significant environmental effects.

4.2 WATER QUALITY

4.2.1 Construction Activities

Construction Best Management Practices (BMP's) will be designed and maintained as part of the implementation of the SWPPP in compliance with the General Permit. During construction, the SWPPP will be referred to regularly and amended as changes occur throughout the construction process. The Notice of Intent (NOI), Amendments to the SWPPP, Annual Reports, Rain Event Action Plans (REAPs), and Non-Compliance Reporting will be posted to the State's SMARTS website in compliance with the requirements of the General Permit.

Per City of Hermosa Beach Municipal Code – Chapter 8.44: Stormwater & Urban Runoff Pollution Control Regulation, Chapter 8.44.090 – "Requirements for Industrial/Commercial and Construction Activities, Section D," a SWPPP is required only for projects with construction sites one acre or greater, consistent with the municipal NPDES Permit. Therefore, since the project site is just under one acre, the project is exempt from developing and filing a SWPPP. However, the site will implement the good housekeeping practices and erosion/sediment control BMPs during the construction phase of the project as described in the General Permit and adhering to the latest CASQA BMP Handbook.

4.2.2 Post-Construction Activities

With the land uses associated with the development of the Strand & Pier Hotel, the differences between the existing condition and the proposed condition remain very similar, with both characterized as retail, commercial, and parking. Thus, this similarity will not result in long-term impacts to the quality of storm water and urban runoff, subsequently impacting downstream water quality.

Predicted Pollutants and Sources

The pollutants of concern for water quality are those pollutants that are anticipated (expected) or potentially could be generated by the project, based on past and proposed land uses, along with those pollutants that have been identified by regulatory agencies as potentially impairing beneficial uses in receiving water bodies. Based on the proposed residential and commercial land uses for the Strand & Pier Hotel project, the pollutants of concern can be divided up into anticipated pollutants and potential pollutants. Table 6 derived from Los Angeles County's Low Impact Development Standards Manual, summarizes typical pollutants of concern for major land uses and project categories, including those that are proposed for the Strand & Pier Hotel project.

Table 6: Anticipated and Potential Pollutants Generated by Land Use Type

Priority Project Categories and/or Project Features	*Suspended Solids*	*Total Phosphorous*	*Total nitrogen*	*Total Kjeldahl Nitrogen*	*Cadmium, Total*	*Chromium, Total*	*Copper, Total*	*Lead, Total*	*Zinc, Total*
High Density Single Family Residential	X	X			(4)	(4)	X	X	X
Multi-Family Residential	X				(4)	(4)	X		X
Mixed Residential	X	X	X		(4)	(4)	X	X	X
Commercial	X	X	X	X	(4)	(4)	X	X	X
Industrial	X	X	X	X	(4)	(4)	X	X	X
Critical Facilities (3)	X	(4)	(4)	(4)	(4)	(4)	X	X	X
Transportation (streets, roads)	X	X	X	X	(4)	(4)	X	X	X
Institutional	X				(4)	(4)	X		X

Note:

(1) Adapted from Table A-3 of the Technical Manual for Stormwater Best Management Practices in the County of Los Angeles (February 2004) and the Southern California Coastal Water Research Project Land Use Specific Storm Water Monitoring Data. X = exceedance of "standard" by observed median/average concentration; blank = no exceedance of "standard" by observed median/average concentration.

(2) Derived from Table 11 of the 2012 Los Angeles County MS4 Permit (page 104).

(3) Critical facilities include automobile dismantling (SIC 50xx), automobile repair (SIC 75xx), metal fabrication (SIC 34xx), motor freight (SIC 42xx), automobile dealerships (SIC 55xx), chemical manufacturing (SIC 28xx), and machinery manufacturing (SIC 35xx).

(4) No available data to determine if these pollutants of concern originate from this land use. Pollutant is assumed to be produced by this land use unless otherwise proven by the project applicant

Drainage LID Implementation

As mentioned in Section 2.3.1, the Project will meet the requirements of Order No. R4-2012-0175 as amended by Order WQ 2015-0075 NPDES No. CAS004001, pursuant to City of Hermosa Beach Municipal Code – Chapter 8.44: Stormwater & Urban Runoff Pollution Control Regulation Chapter 8.44.095 – "SUSMP" Requirements for New Development and

Redevelopment Projects. Refer to Table 2 for volumetric requirements associated with the aforementioned permit. The LID Manual prioritizes BMP's with infiltration systems as the top tier priority BMP. Since the Project will implement capture and use BMPs as the proposed means of stormwater management, this report does not analyze the feasibility of proposed infiltration systems at the project site. The LID method to size capture and use systems is described below.

The volumetric requirements needed to satisfy the LID requirements of the project are listed below in **Error! Reference source not found.**. It is noted that the same volume was calculated using both the 85th percentile, 24-hour runoff volume, and the 0.75-inch storm event. See Tc Calculator results in Appendix B for further clarification.

Table 7: LID Volume Calculations

Storm Event	Area (Acres)	Time of Concentration (min)	Peak Intensity (in/hr)	Design Capture Volume (cf)
85th Percentile, 24-hour	1.0	22	0.223	2,325
0.75-inch	1.0	22	0.223	2,325

The Project site water quality volume calculated in **Error! Reference source not found.** will be addressed by employing a store and reuse system to retain the stormwater on-site. The store and reuse LID strategy will serve as the site's primary BMP scheme in addition to a green roof feature that will be included in site design to help minimize impervious surface areas for the site. In terms of the project's proposed store and reuse strategy, the preliminary scheme is to collect storm water effluent sourced from all exposed roof top surfaces and at-grade surfaces; and subsequently route those storm water flows to a basement level treatment equipment train. The equipment train will include a high-lo flow diversion structure, a pre-treatment device, secondary and tertiary filtration components and a storm water cistern for storage. The storm water storage will be jointly utilized with the buildings separate grey water sewer recoveries; and ultimately both water recapture systems (i.e. storm water & grey water) will supply the site's grey water re-purposing water demands including the buildings suitable plumbing fixtures, planter irrigation and other mechanical uses (e.g. cooling tower.)

As with any volumetric LID/SUSMP design including the store and re-use BMPs, the final project solution will need to address specific draw down time limits; and be in position to accommodate a re-occurring storm event 72 hours after the initial event. This will be solved through the buildings water re-use water balance analysis and/or by possibly over sizing the storm water cistern storage feature. The methods used to design the store and reuse BMPs shall conform to the guidelines and methodology outlined in Appendix E of the County of Los Angeles Department of Public Works Low Impact Development Standards Manual, dated February 2014.

4.2.3 Water Quality Impacts

The impact assessments are based on the significance criteria established in Section 3 for water quality.

Impact D: Affect the rate or change the direction of movement of existing groundwater contaminants

Impact Analysis: The project site does not overlay a groundwater basin with contaminants. There is no impact that would affect the rate or change the direction of movement of existing groundwater contaminants.

Impact E: Expand the area affected by contaminants

Impact Analysis: The project site does not overlay a groundwater basin with contaminants. There is no impact that would expand the area affected by contaminants.

Impact F: Result in an increased level of groundwater contamination (including that from direct percolation, injection or salt water intrusion)

Impact Analysis: The project site does not overlay a groundwater basin with contaminants. There is no impact that would result in an increased level of groundwater contamination.

Impact G: G. Cause regulatory water quality standards at an existing production well to be violated, as defined in the California Code of Regulations (CCR), Title 22, Division 4, and Chapter 15 and in the Safe Drinking Water Act

Impact Analysis: The project site is not within the vicinity of a groundwater production well. There is no impact that would cause regulatory water quality standards at a groundwater production well.

Impact J: Violate any water quality standards or waste discharge requirements?

Impact Analysis: Based on the incorporation of site design, LID features and BMPs as required under the City of Hermosa Beach Municipal Code, the proposed project will adequately collect, and reuse the harvested water for landscaping purposes and internal plumbing reuse in accordance with local health standards and requirements. Prior to reuse, storm water will be subject to pre-treatment and primary and secondary filtration systems to effectively remove common pollutants from the runoff. Common pollutants include sediment, nutrients, bacteria/pathogens, trash and debris, and heavy metals. Through implementation of the store and reuse system including a multi-phase filtration system, common pollutants associated with storm water are not anticipated to discharge from the site up to the LID storm event. Based on this design, water quality exceedances are not anticipated, and pollutants are not expected in Project runoff that would adversely affect beneficial uses in within the Pacific Ocean.

5. CONCLUSION

The proposed Strand & Pier Hotel project will essentially keep impervious surfaces over existing conditions. Based on the existing built out condition and the proposed land uses under the Strand & Pier Hotel site area including the implementation of low impact development features, no substantial additional sources of pollutants or significant increases in Project runoff are anticipated. Based on the findings of this technical study, the incorporation of site design/LID features, including store and reuse BMPs as required under the City of Hermosa Beach Municipal Code, the project will adequately reduce project related impacts to hydrology and water quality to a level less than significant.

6. REFERENCES

Birch, G.F., Fazeli, M.S., and C. Matthai. (2005). Efficiency of an Infiltration Basin in Removing Contaminants from Urban Stormwater. Environmental Monitoring and Assessment (2005) 101: 23-38.

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APPENDIX A

EXISTING HYDROLOGY CALCULATIONS

Peak Flow Hydrologic Analysis

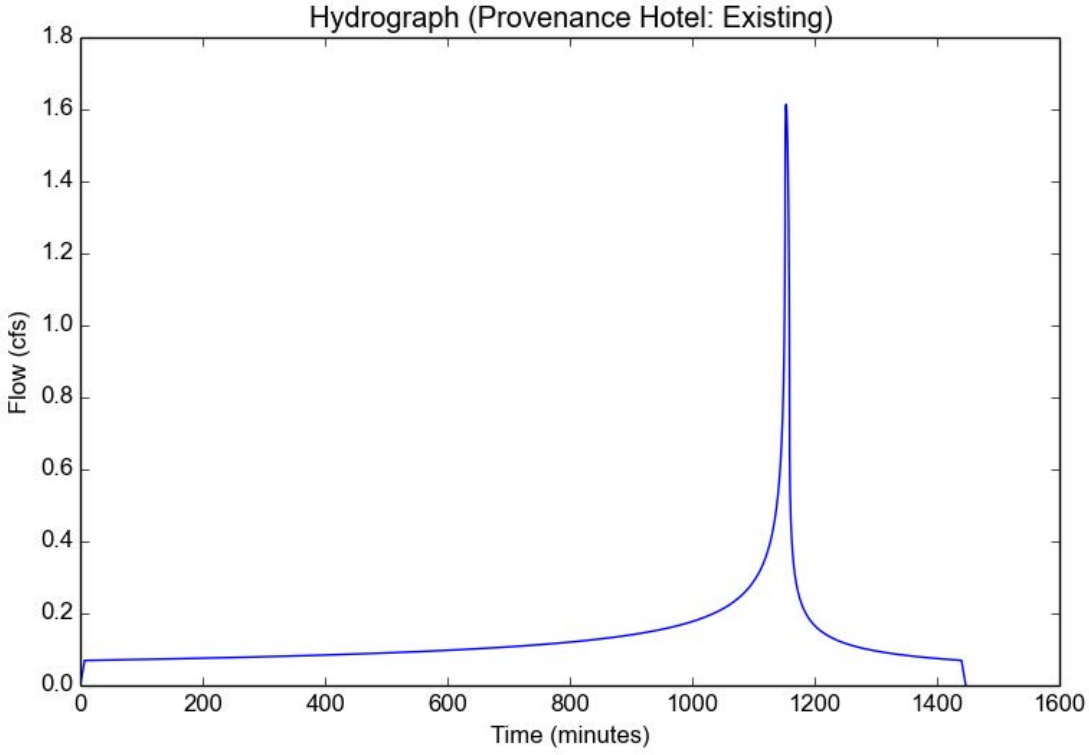
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Existing10.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Existing
Area (ac)	1.0
Flow Path Length (ft)	302.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.6414
Peak Intensity (in/hr)	1.8548
Undeveloped Runoff Coefficient (Cu)	0.2998
Developed Runoff Coefficient (Cd)	0.87
Time of Concentration (min)	7.0
Clear Peak Flow Rate (cfs)	1.6136
Burned Peak Flow Rate (cfs)	1.6136
24-Hr Clear Runoff Volume (ac-ft)	0.259
24-Hr Clear Runoff Volume (cu-ft)	11280.5008



Peak Flow Hydrologic Analysis

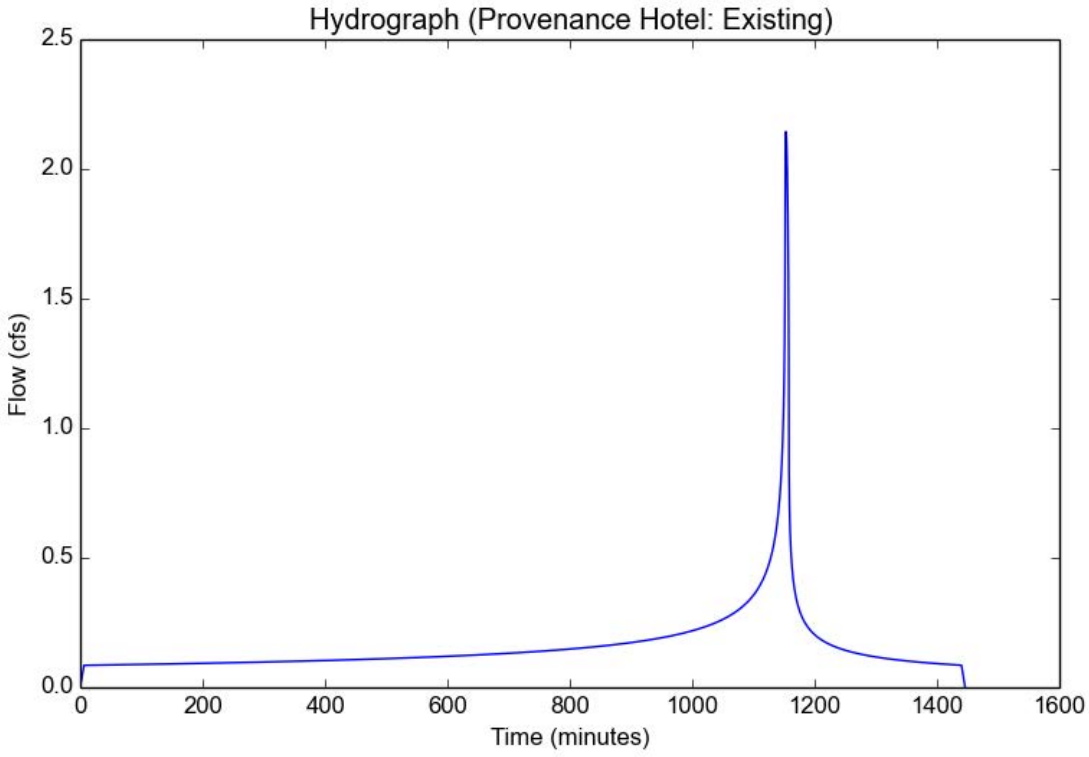
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Existing25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Existing
Area (ac)	1.0
Flow Path Length (ft)	302.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.4778
Peak Intensity (in/hr)	2.4522
Undeveloped Runoff Coefficient (Cu)	0.3903
Developed Runoff Coefficient (Cd)	0.8745
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	2.1445
Burned Peak Flow Rate (cfs)	2.1445
24-Hr Clear Runoff Volume (ac-ft)	0.3185
24-Hr Clear Runoff Volume (cu-ft)	13875.8928



Peak Flow Hydrologic Analysis

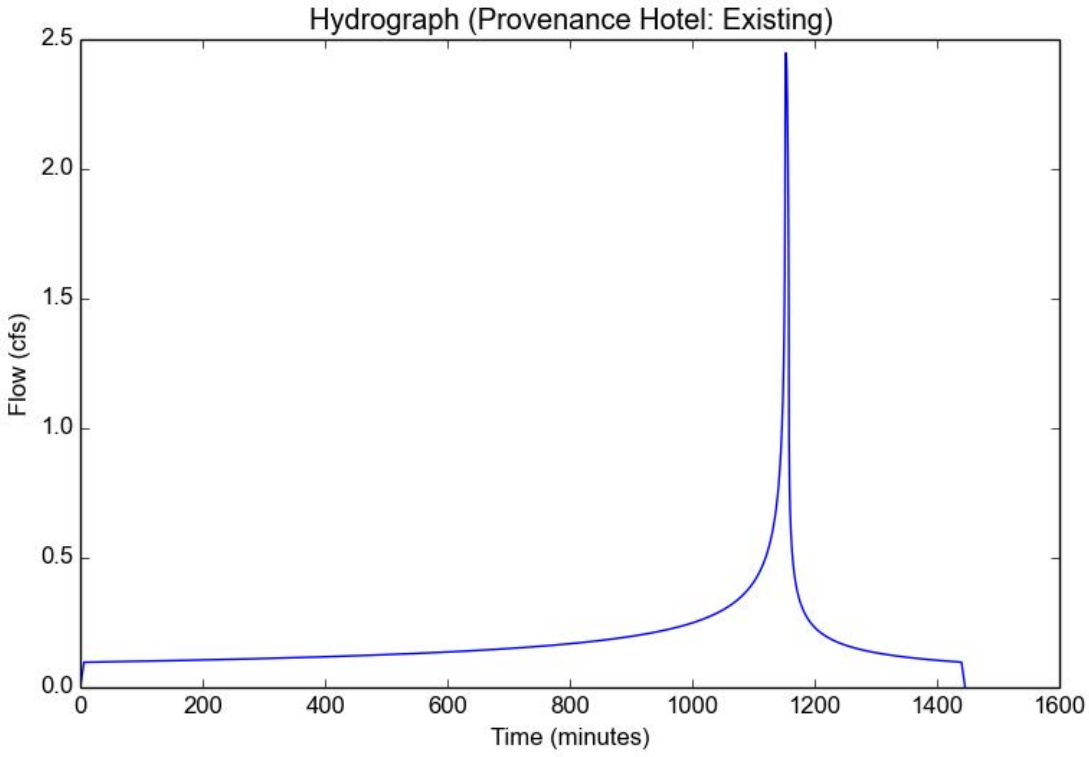
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Existing50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Existing
Area (ac)	1.0
Flow Path Length (ft)	302.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.1
Peak Intensity (in/hr)	2.7929
Undeveloped Runoff Coefficient (Cu)	0.4283
Developed Runoff Coefficient (Cd)	0.8764
Time of Concentration (min)	6.0
Clear Peak Flow Rate (cfs)	2.4478
Burned Peak Flow Rate (cfs)	2.4478
24-Hr Clear Runoff Volume (ac-ft)	0.3629
24-Hr Clear Runoff Volume (cu-ft)	15807.2155



APPENDIX B

PROPOSED HYDROLOGY CALCULATIONS

Peak Flow Hydrologic Analysis

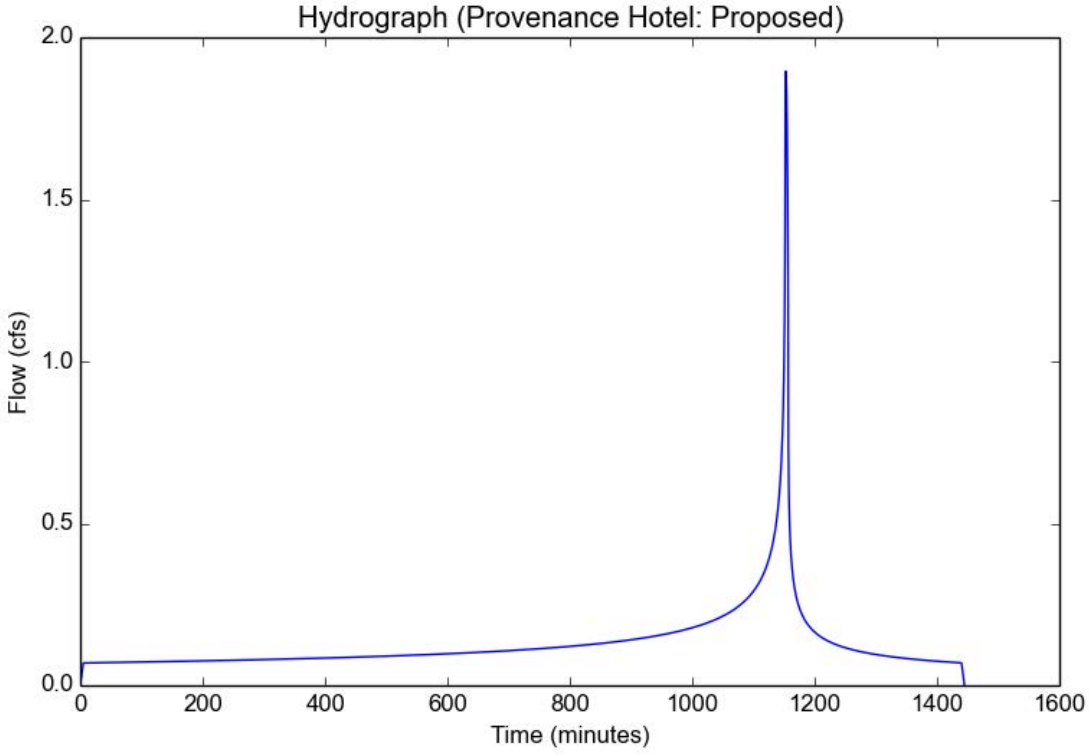
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Proposed10.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Proposed
Area (ac)	1.0
Flow Path Length (ft)	135.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	10-yr
Fire Factor	0
LID	False

Output Results

Modeled (10-yr) Rainfall Depth (in)	3.6414
Peak Intensity (in/hr)	2.1726
Undeveloped Runoff Coefficient (Cu)	0.3479
Developed Runoff Coefficient (Cd)	0.8724
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	1.8953
Burned Peak Flow Rate (cfs)	1.8953
24-Hr Clear Runoff Volume (ac-ft)	0.259
24-Hr Clear Runoff Volume (cu-ft)	11281.3184



Peak Flow Hydrologic Analysis

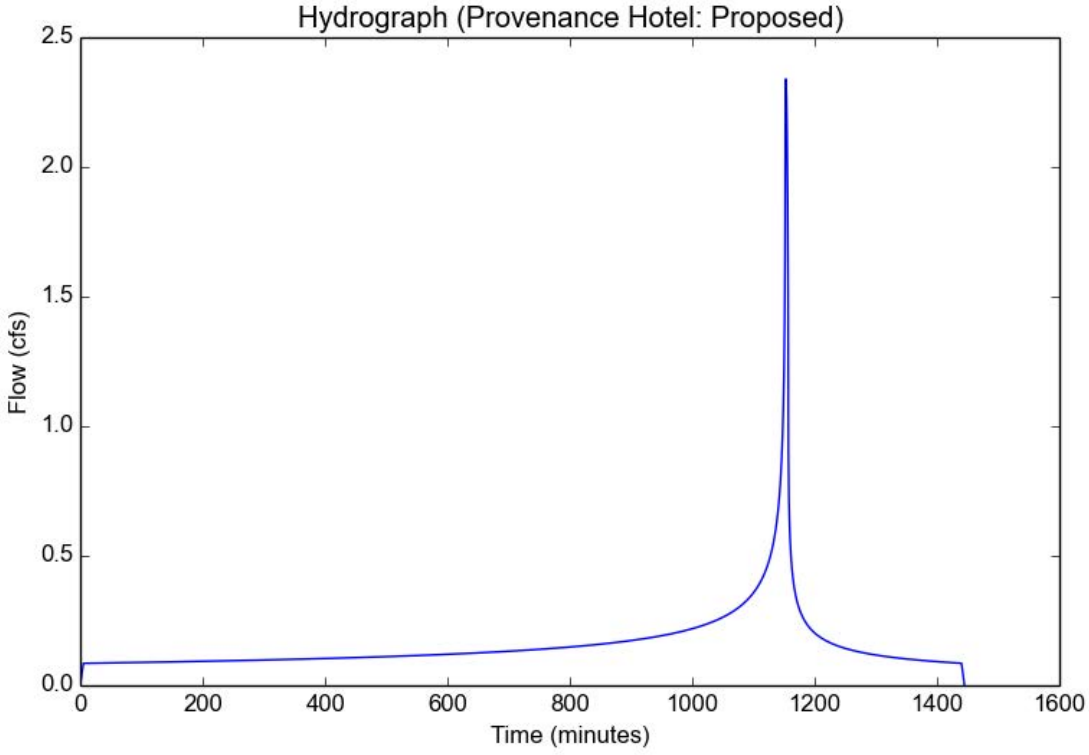
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Proposed25.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Proposed
Area (ac)	1.0
Flow Path Length (ft)	135.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	25-yr
Fire Factor	0
LID	False

Output Results

Modeled (25-yr) Rainfall Depth (in)	4.4778
Peak Intensity (in/hr)	2.6716
Undeveloped Runoff Coefficient (Cu)	0.4156
Developed Runoff Coefficient (Cd)	0.8758
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.3397
Burned Peak Flow Rate (cfs)	2.3397
24-Hr Clear Runoff Volume (ac-ft)	0.3186
24-Hr Clear Runoff Volume (cu-ft)	13876.4105



Peak Flow Hydrologic Analysis

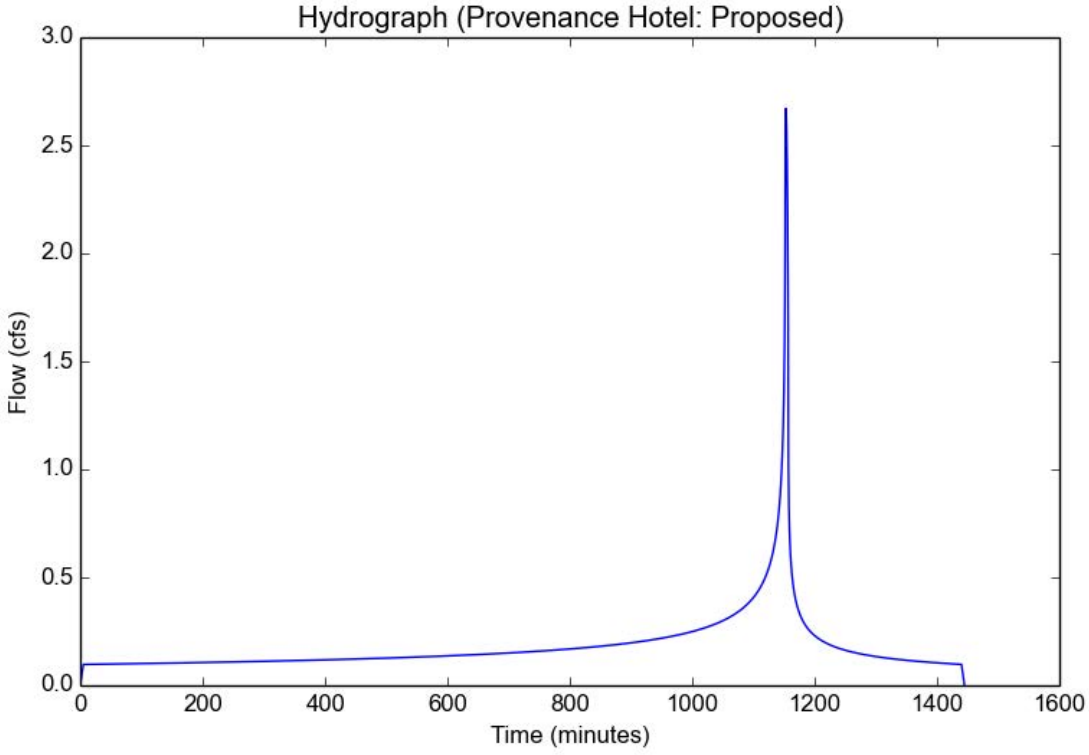
File location: F:/Projects/1321/01/Eng/Admin/Reports/EIR/WQ & Hydrology/Appendix/Provenance Hotel - Proposed50.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Provenance Hotel
Subarea ID	Proposed
Area (ac)	1.0
Flow Path Length (ft)	135.0
Flow Path Slope (vft/hft)	0.01
50-yr Rainfall Depth (in)	5.1
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	50-yr
Fire Factor	0
LID	False

Output Results

Modeled (50-yr) Rainfall Depth (in)	5.1
Peak Intensity (in/hr)	3.0428
Undeveloped Runoff Coefficient (Cu)	0.4546
Developed Runoff Coefficient (Cd)	0.8777
Time of Concentration (min)	5.0
Clear Peak Flow Rate (cfs)	2.6708
Burned Peak Flow Rate (cfs)	2.6708
24-Hr Clear Runoff Volume (ac-ft)	0.3629
24-Hr Clear Runoff Volume (cu-ft)	15807.7144



APPENDIX C

EXISTING STORM DRAIN UTILITY MAP

LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- (SD) EXISTING STORM DRAIN
- (G) EXISTING GAS
- (E) EXISTING UNDERGROUND ELECTRIC
- (E-OH) EXISTING OVERHEAD ELECTRIC
- (T) EXISTING TELEPHONE/TELECOMMUNICATIONS

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

PROVENANCE HOTEL
EXISTING STORM DRAIN PLAN

09.03.2015

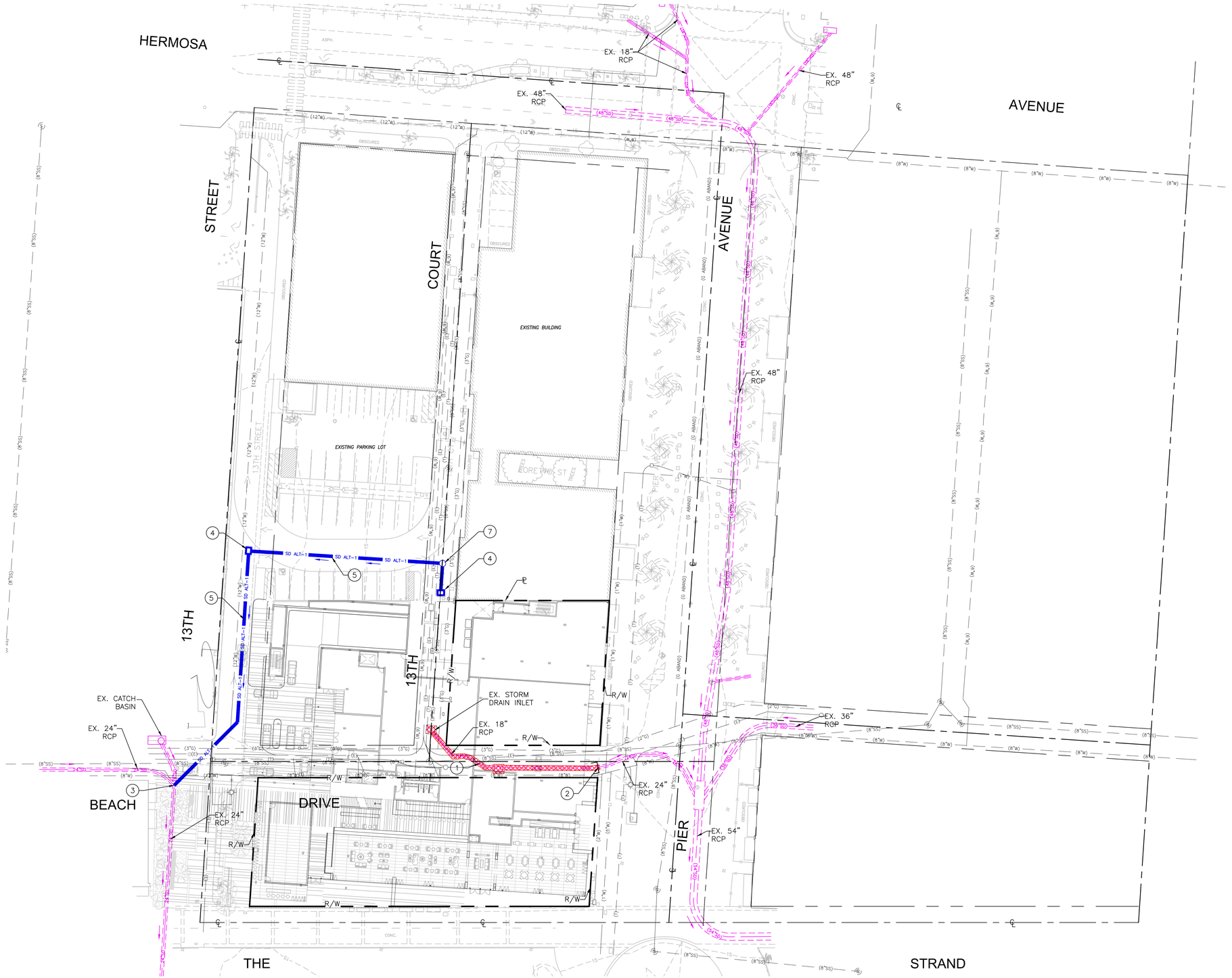
30' 0' 15' 30'
SCALE: 1" = 30'

FUSCOE ENGINEERING
600 Wilshire Boulevard, Suite 1470
Los Angeles, California 90017
tel 213.988.8802 • fax 213.988.8803
www.fuscoe.com

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 EXISTING SD PLAN.DWG (09-10-15 10:44:55AM) Plotted by: Kevin Villarama

APPENDIX D

PROPOSED STORM DRAIN UTILITY MAP



LEGEND

- EXISTING CLEANOUT
- EXISTING CATCH BASIN
- EXISTING FIRE HYDRANT
- EXISTING PARKING METER
- EXISTING SEWER/STORMDRAIN MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING SIGN
- EXISTING STREET LIGHT
- EXISTING STREET LIGHT PULLBOX
- EXISTING TREE
- EXISTING WATER METER
- CENTER LINE
- EXISTING RIGHT OF WAY
- EXISTING LOT LINES
- PROPERTY LINE
- EXISTING STORM DRAIN
- PROPOSED STORM DRAIN ALTERNATIVE 1
- EXISTING UTILITY TO BE REMOVED AND RELOCATED
- STORM DRAIN FLOW ARROW

CONSTRUCTION NOTES

1. REMOVE EXISTING STORM DRAIN
2. CAP EXISTING STORM DRAIN
3. CONNECT TO EXISTING STORM DRAIN
4. CONSTRUCT STORM DRAIN INLET
5. PROPOSED 18-INCH RCP PIPE
6. NOT USED
7. NEW STORM DRAIN MANHOLE

GENERAL NOTES

1. THE EXISTENCE, LOCATION AND CHARACTERISTICS OF ANY UNDERGROUND UTILITY INFORMATION SHOWN HEREON HAS BEEN OBTAINED FROM A REVIEW OF AVAILABLE RECORD DATA. IT SHALL BE THE RESPONSIBILITY AND LIABILITY OF THE CONTRACTOR TO VERIFY THE EXISTENCE OR NONEXISTENCE OF SUCH UTILITIES AND TO PROTECT THEM IN PLACE.

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

PROVENANCE HOTEL
STORM DRAIN RELOCATION EXHIBIT

04.13.2016

30' 0' 15' 30'
SCALE: 1" = 30'

FUSCOE ENGINEERING
600 Wilshire Boulevard, Suite 1470
Los Angeles, California 90017
tel 213.988.8802 ◦ fax 213.988.8803
www.fuscoe.com

PRELIMINARY

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 PROPOSED SD RELOCATION PLAN.DWG (04-13-16 7:10:37PM) Plotted by: Miguel Cobanos

APPENDIX E

SUSMP VOLUME CALCULATIONS

Providence Hotel
City of Hermosa Beach
WQ Contact: Homayoun Behboodi, Associate Engineer – hbehboodi@hermosabch.org
SUSMP Requirements Memo
8/3/2015

Per City of Hermosa Beach Municipal Code –
Chapter 8.44: Stormwater & Urban Runoff Pollution Control Regulation
Chapter 8.44.095 – "SUSMP" Requirements for New Development and Redevelopment Projects

Summary

- Project classified as a "Redevelopment Project"
- Volumetric Treatment Control BMPs or Flow-based Treatment Control BMPs

Volume-Based BMPs	Flow-Based BMPs
85th percentile 24-hour runoff event per formula recommended in Urban Runoff Quality Management, WEF Manual of Practice No. 23/ ASCE Manual of Practice No. 87, (1998), **OR**	Flow of runoff produced from a rain event equal to at least 0.2 inches per hour intensity
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**	Flow of runoff produced from a rain event equal to at least two times the 85th percentile hourly rainfall intensity for Los Angeles County
Volume of runoff produced from a 0.75 inch storm event, prior to its discharge to a storm water conveyance system, **OR**	Flow of runoff produced from a rain event that will result in treatment of the same portion of runoff as treated using volumetric standards
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 85th percentile 24-hour runoff event	

- BMP Hierarchy – Per ORDER NO. R4-2012-0175 as amended by Order WQ 2015-0075 NPDES NO. CAS004001 (City of Hermosa Beach is a Permittee)
    1. On-site infiltration (feasibility per MS4 Permit, no additional requirements per email from Homayoun Behboodi)
    2. Bioretention and/or harvest and use
    3. On-site biofiltration (if using, project required to treat 1.5x DCV), off-site ground water replenishment, and/or off-site retrofit
- BMP Strategies/Options (Pending Soils Testing)
    1. Infiltration Areas

2. Biofiltration/bioretention Planters
3. Self-Treating Areas
4. Groundwater Replenishment Systems

- Tc Calculator LID Volume Calculations
  - 0.75-inch Storm Event = 0.0533 ac-ft = 2,325 ft^3
  - 85th Percentile Storm Event = 0.0533 = 2,325 ft^3
  - See attached for Tc Calculator Analysis
  - Choose either event, both are equal for this project

Peak Flow Hydrologic Analysis

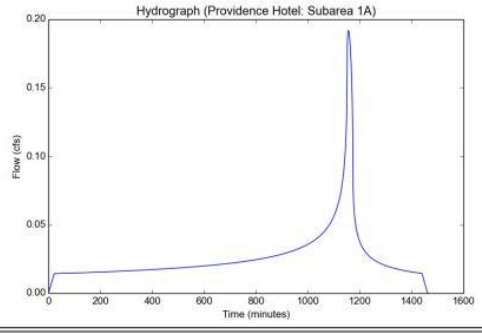
File location: P:/Projects/1321.01/Eng/Admin/Reports/SUSMP/Providence Hotel - 75in Event.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Providence Hotel
Subarea ID	Subarea 1A
Area (ac)	1.0
Flow Path Length (ft)	325.0
Flow Path Slope (vft/hft)	0.01
0.75-inch Rainfall Depth (in)	0.75
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	0.75 inch storm
Fire Factor	0
LID	True

Output Results

Modeled (0.75 inch storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.223
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.86
Time of Concentration (min)	22.0
Clear Peak Flow Rate (cfs)	0.1918
Burned Peak Flow Rate (cfs)	0.1918
24-Hr Clear Runoff Volume (ac-ft)	0.0533
24-Hr Clear Runoff Volume (cu-ft)	2322.0143



Peak Flow Hydrologic Analysis

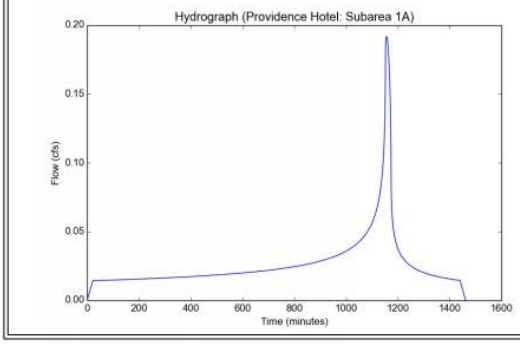
File location: P:/Projects/1321.01/Eng/Admin/Reports/SUSMP/Providence Hotel - 85thPercentile.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Providence Hotel
Subarea ID	Subarea 1A
Area (ac)	1.0
Flow Path Length (ft)	325.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	0.75
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.223
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.86
Time of Concentration (min)	22.0
Clear Peak Flow Rate (cfs)	0.1918
Burned Peak Flow Rate (cfs)	0.1918
24-Hr Clear Runoff Volume (ac-ft)	0.0533
24-Hr Clear Runoff Volume (cu-ft)	2322.0143



Peak Flow Hydrologic Analysis

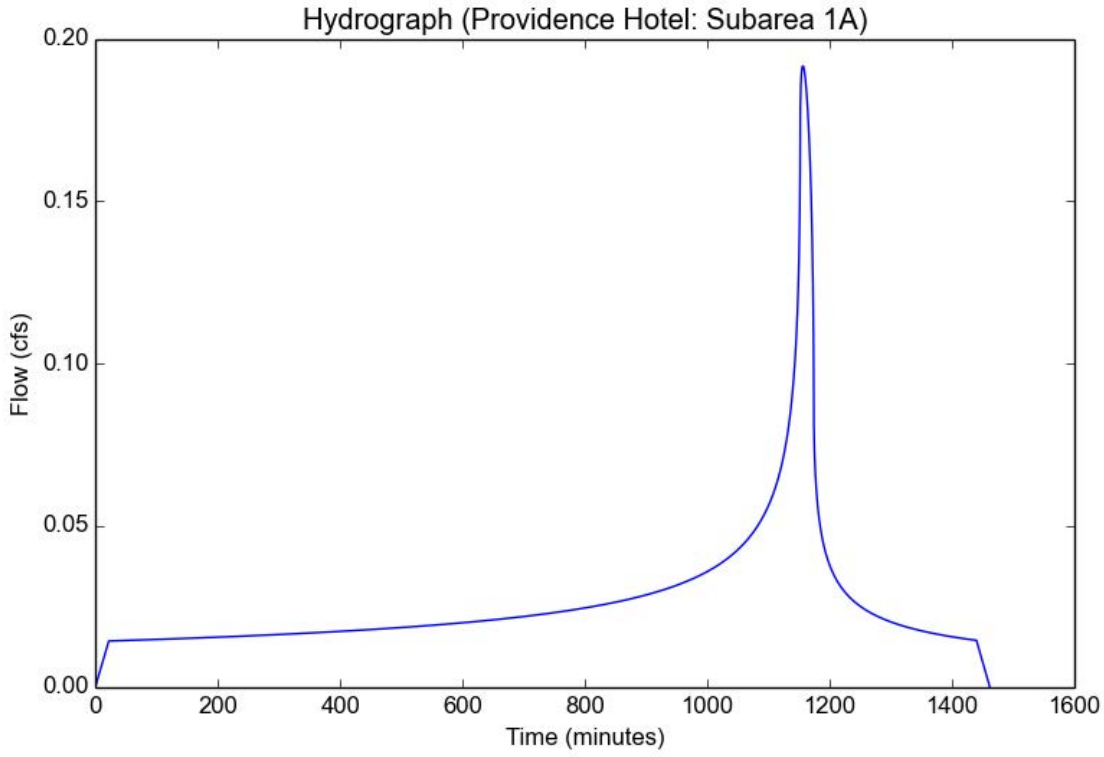
File location: P:/Projects/1321/01/Eng/Admin/Reports/SUSMP/Providence Hotel - 75in Event.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Providence Hotel
Subarea ID	Subarea 1A
Area (ac)	1.0
Flow Path Length (ft)	325.0
Flow Path Slope (vft/hft)	0.01
0.75-inch Rainfall Depth (in)	0.75
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	0.75 inch storm
Fire Factor	0
LID	True

Output Results

Modeled (0.75 inch storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.223
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.86
Time of Concentration (min)	22.0
Clear Peak Flow Rate (cfs)	0.1918
Burned Peak Flow Rate (cfs)	0.1918
24-Hr Clear Runoff Volume (ac-ft)	0.0533
24-Hr Clear Runoff Volume (cu-ft)	2322.0143



Peak Flow Hydrologic Analysis

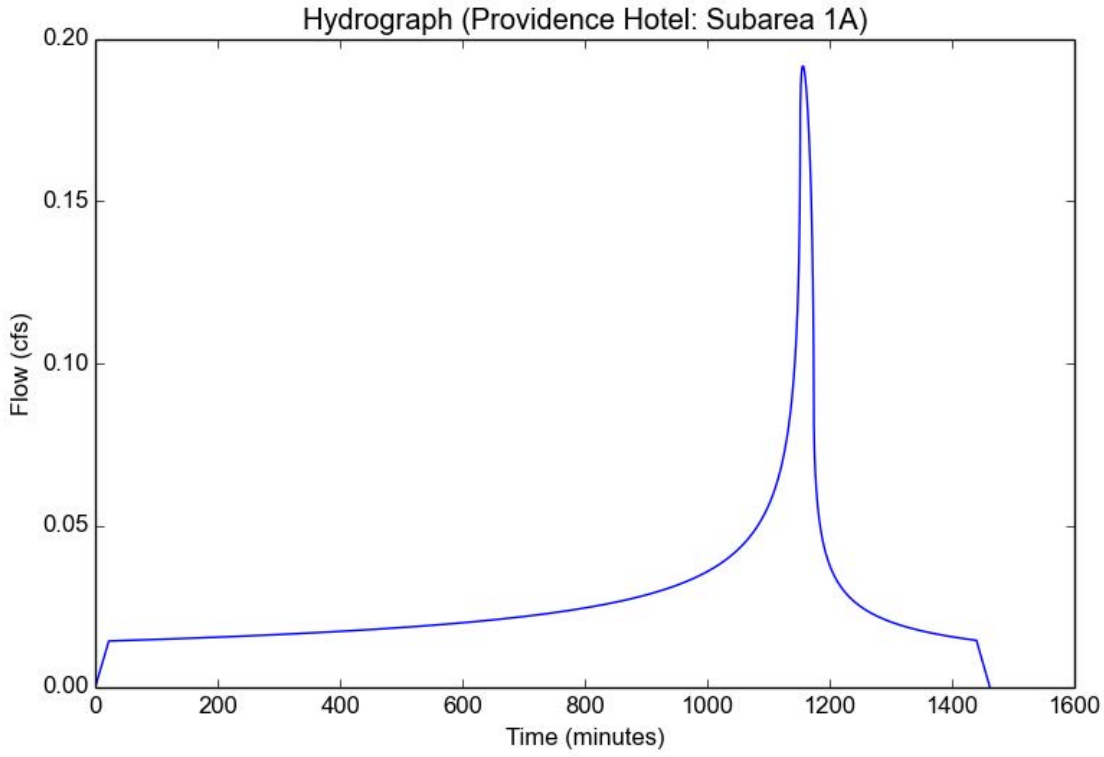
File location: P:/Projects/1321/01/Eng/Admin/Reports/SUSMP/Providence Hotel - 85thPercentile.pdf
Version: HydroCalc 0.3.1-beta

Input Parameters

Project Name	Providence Hotel
Subarea ID	Subarea 1A
Area (ac)	1.0
Flow Path Length (ft)	325.0
Flow Path Slope (vft/hft)	0.01
85th Percentile Rainfall Depth (in)	0.75
Percent Impervious	0.95
Soil Type	3
Design Storm Frequency	85th percentile storm
Fire Factor	0
LID	True

Output Results

Modeled (85th percentile storm) Rainfall Depth (in)	0.75
Peak Intensity (in/hr)	0.223
Undeveloped Runoff Coefficient (Cu)	0.1
Developed Runoff Coefficient (Cd)	0.86
Time of Concentration (min)	22.0
Clear Peak Flow Rate (cfs)	0.1918
Burned Peak Flow Rate (cfs)	0.1918
24-Hr Clear Runoff Volume (ac-ft)	0.0533
24-Hr Clear Runoff Volume (cu-ft)	2322.0143

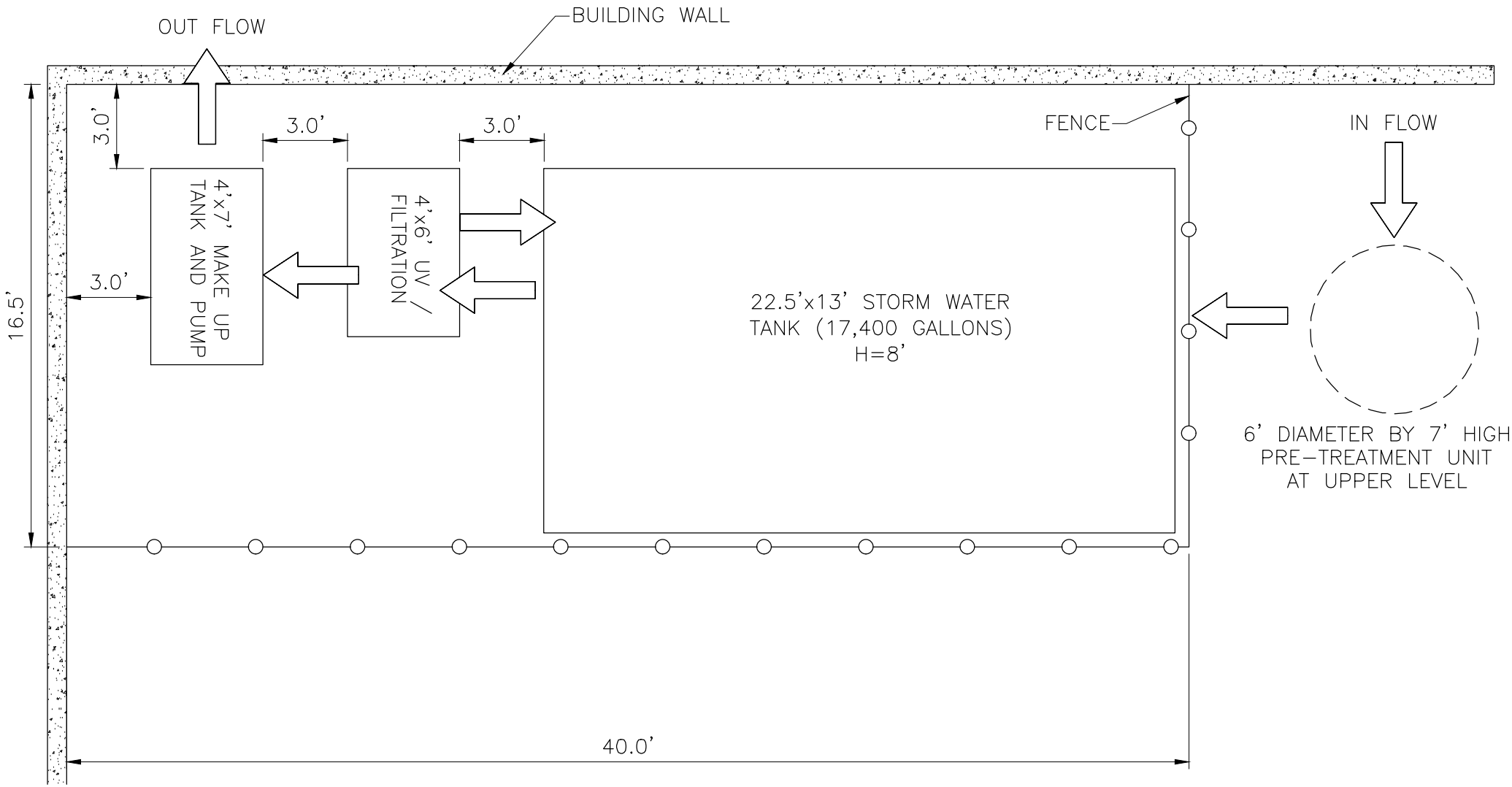


APPENDIX F

SITE BMP CALCULATIONS

PROVENANCE HOTEL OPTION 1
CONCEPTUAL STORM DRAIN CAPTURE AND REUSE SYSTEM LAYOUT

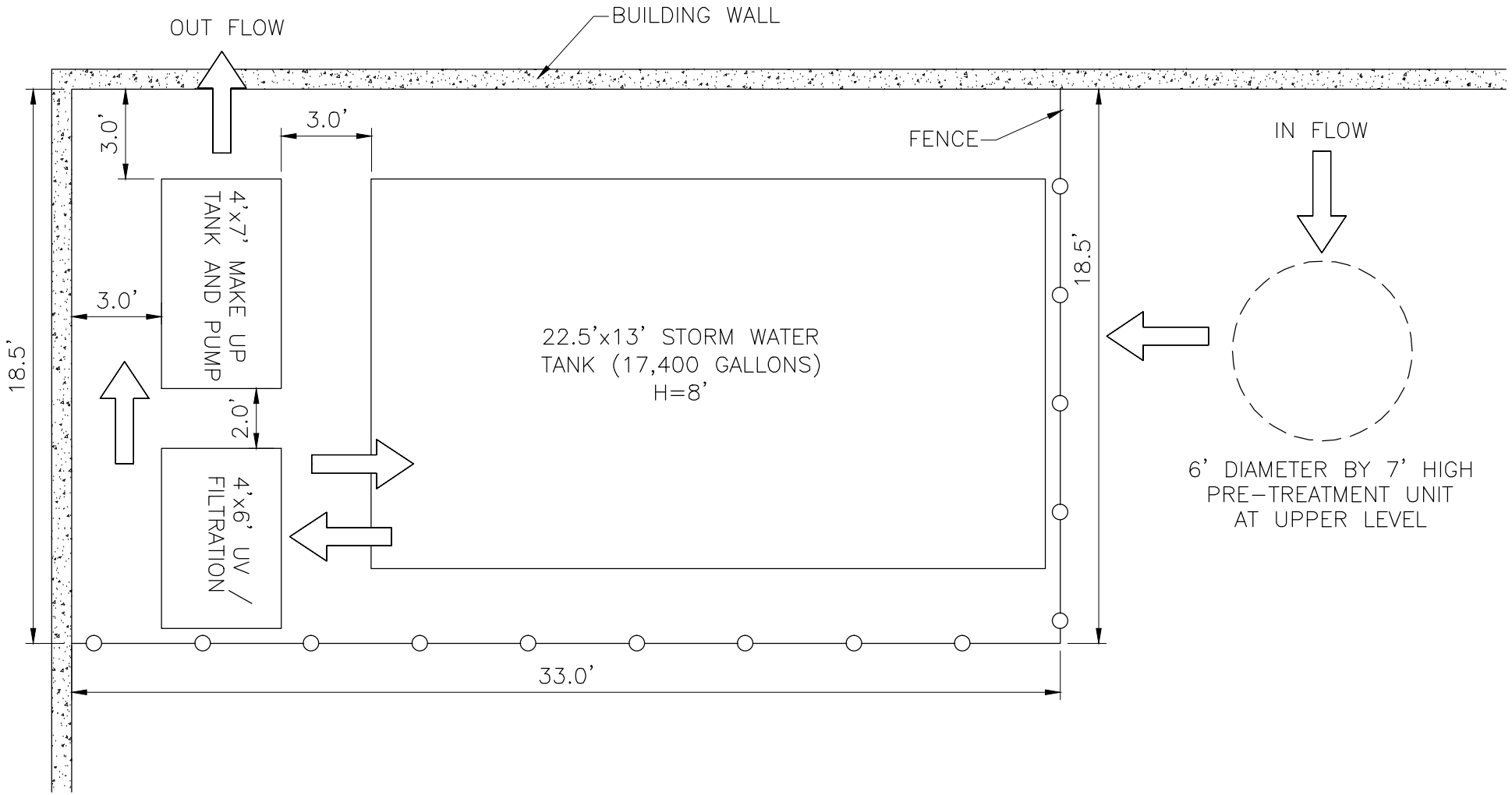
09-25-15



SCALE: 1"=5'

PROVENANCE HOTEL OPTION 2
CONCEPTUAL STORM DRAIN CAPTURE AND REUSE SYSTEM LAYOUT

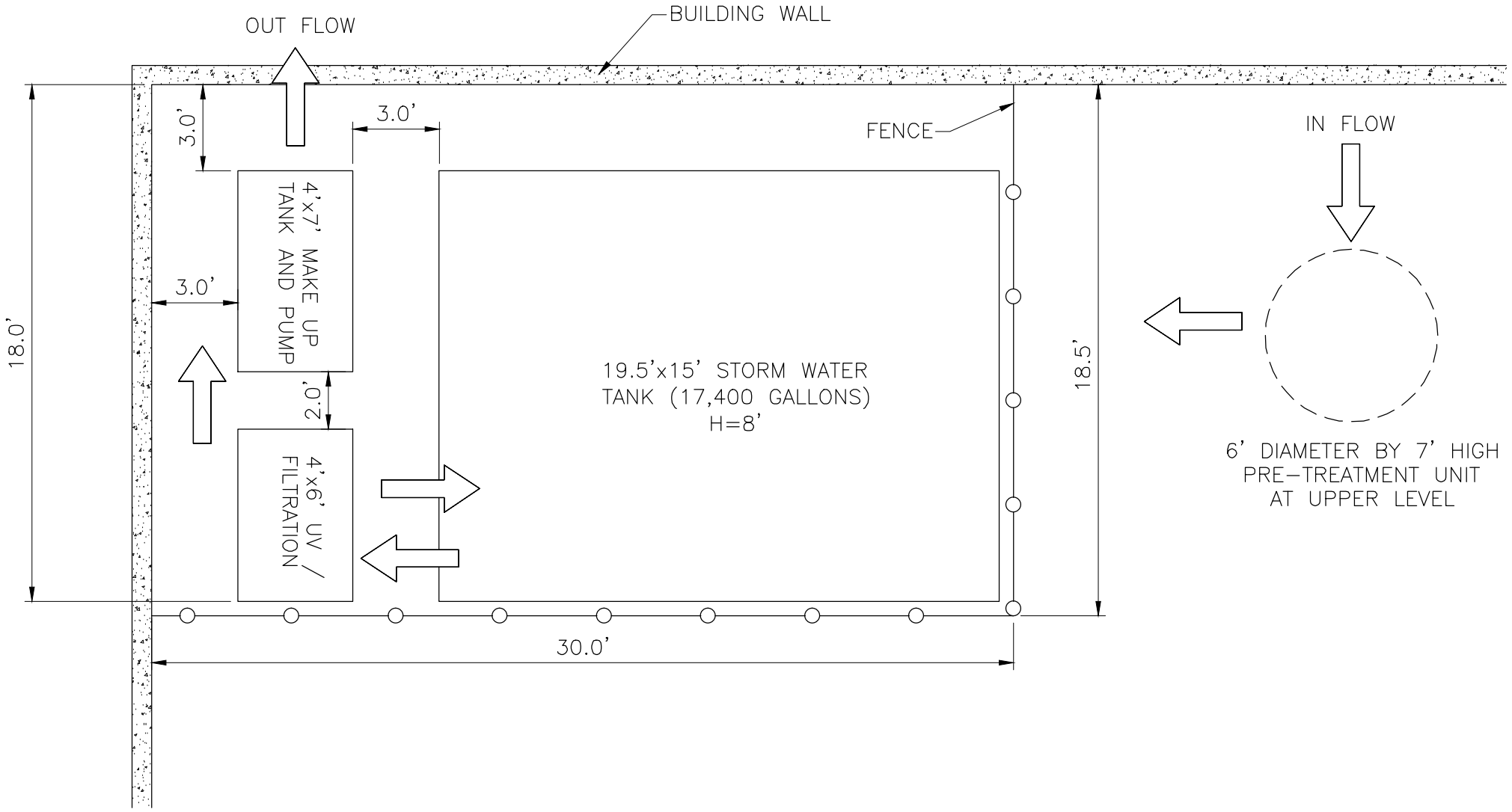
09-25-15



SCALE: 1"=5'

PROVENANCE HOTEL OPTION 3
CONCEPTUAL STORM DRAIN CAPTURE AND REUSE SYSTEM LAYOUT

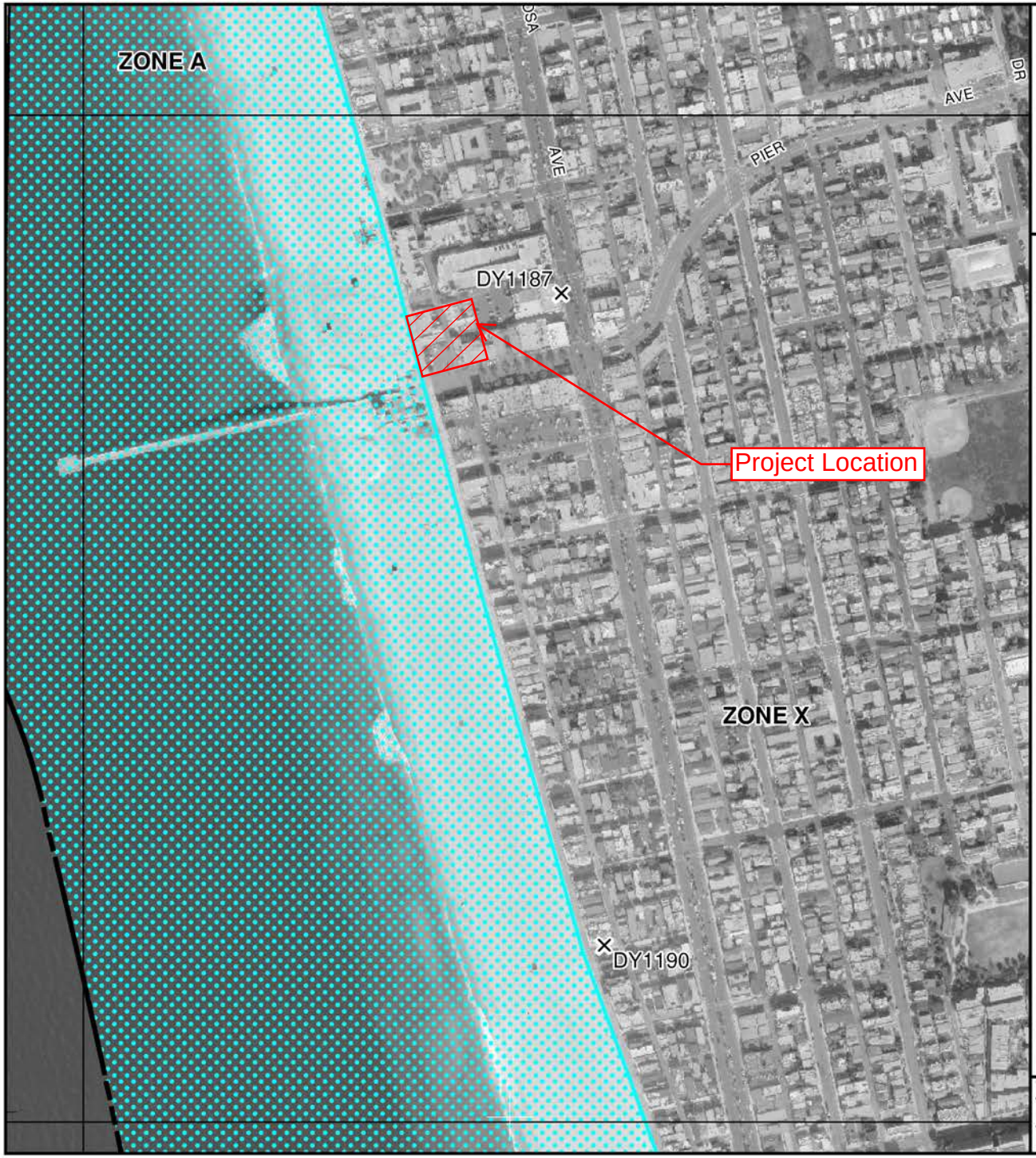
09-25-15



SCALE: 1"=5'

APPENDIX G

FEMA FLOOD INSURANCE RATE MAP



MAP SCALE 1" = 500'

250 0 500 1000 FEET

NFIP

NATIONAL FLOOD INSURANCE PROGRAM

PANEL 1907F

FIRM

FLOOD INSURANCE RATE MAP

LOS ANGELES COUNTY, CALIFORNIA

AND INCORPORATED AREAS

PANEL 1907 OF 2350

(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
HERMOSA BEACH, CITY OF	060124	1907	F
MANHATTAN BEACH, CITY OF	060138	1907	F
REDONDO BEACH, CITY OF	060150	1907	F
TORRANCE, CITY OF	060165	1907	F

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.

MAP NUMBER
06037C1907F

EFFECTIVE DATE
SEPTEMBER 26, 2008

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

APPENDIX H

LOS ANGELES COUNTY MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) PERMIT

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD

LOS ANGELES REGION

320 W. 4th Street, Suite 200, Los Angeles, California 90013

Phone (213) 576 - 6600 • Fax (213) 576 - 6640

http://www.waterboards.ca.gov/losangeles

ORDER NO. R4-2012-0175
NPDES PERMIT NO. CAS004001

WASTE DISCHARGE REQUIREMENTS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) DISCHARGES WITHIN THE COASTAL WATERSHEDS OF LOS ANGELES COUNTY, EXCEPT THOSE DISCHARGES ORIGINATING FROM THE CITY OF LONG BEACH MS4

The municipal discharges of storm water and non-storm water by the Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach (hereinafter referred to separately as Permittees and jointly as the Dischargers) from the discharge points identified below are subject to waste discharge requirements as set forth in this Order.

I. FACILITY INFORMATION

Table 1. Discharger Information

Dischargers	The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach (See Table 4)
Name of Facility	Municipal Separate Storm Sewer Systems (MS4s) within the coastal watersheds of Los Angeles County with the exception of the City of Long Beach MS4
Facility Address	Various (see Table 2)
The U.S. Environmental Protection Agency (USEPA) and the California Regional Water Quality Control Board, Los Angeles Region (Regional Water Board) have classified the Greater Los Angeles County MS4 as a large municipal separate storm sewer system (MS4) pursuant to 40 CFR section 122.26(b)(4) and a major facility pursuant to 40 CFR section 122.2.	

Table 2. Facility Information

Permittee (WDID)	**Contact Information**	
Agoura Hills (*4B190147001*)	**Mailing Address**	30001 Ladyface Court
		Agoura Hills, CA 91301
	Facility Contact, Title, and E-mail	Ken Berkman, City Engineer kberkman@agoura-hills.ca.us

Permittee (WDID)	Contact Information	
Alhambra (*4B190148001*)	**Mailing Address**	111 South First Street
		Alhambra, CA 91801-3796
	Facility Contact and E-mail	David Dolphin ddolphin@cityofalhambra.org
Arcadia (*4B190149001*)	**Mailing Address**	11800 Goldring Road
		Arcadia, CA 91006-5879
	Facility Contact, Title, Phone, and E-mail	Vanessa Hevener, Environmental Services Officer (626) 305-5327 vhevener@ci.arcadia.ca.us
Artesia (*4B190150001*)	**Mailing Address**	18747 Clarkdale Avenue
		Artesia, CA 90701-5899
	Facility Contact, Title, and E-mail	Maria Dadian, Director of Public Works mdadian@cityofartesia.ci.us
Azusa (*4B190151001*)	**Mailing Address**	213 East Foothill Boulevard
		Azusa, CA 91702
	Facility Contact, Title, and E-mail	Carl Hassel, City Engineer chassel@ci.azusa.ca.us
Baldwin Park (*4B190152001*)	**Mailing Address**	14403 East Pacific Avenue
		Baldwin Park, CA 91706-4297
	Facility Contact, Title, and E-mail	David Lopez, Associate Engineer dlopez@baldwinpark.com
Bell (*4B190153001*)	**Mailing Address**	6330 Pine Avenue
		Bell, CA 90201-1291
	Facility Contact, Title, and E-mail	Terri Rodrigue, City Engineer trodrigue@cityofbell.org
Bell Gardens (*4B190139002*)	**Mailing Address**	7100 South Garfield Avenue
		Bell Gardens, CA 90201-3293
	Facility Contact, Title, and Phone	John Oropeza, Director of Public Works (562) 806-7700
Bellflower (*4B190154001*)	**Mailing Address**	16600 Civic Center Drive
		Bellflower, CA 90706-5494
	Facility Contact, Title, and E-mail	Bernie Iniguez, Environmental Services Manager biniguez@bellflower.org
Beverly Hills (*4B190132002*)	**Mailing Address**	455 North Rexford Drive
		Beverly Hills, CA 90210
	Facility Contact, Title, and E-mail	Vincent Chee, Project Civil Engineer kgettler@beverlyhills.org
Bradbury (*4B190155001*)	**Mailing Address**	600 Winston Avenue
		Bradbury, CA 91010-1199
	Facility Contact, Title, and E-mail	Elroy Kiepke, City Engineer mkeith@cityofbradbury.org
Burbank (*4B190101002*)	**Mailing Address**	P.O. Box 6459
		Burbank, CA 91510
	Facility Contact, Title, and E-mail	Bonnie Teaford, Public Works Director bteaford@ci.burbank.ca.us
Calabasas (*4B190157001*)	**Mailing Address**	100 Civic Center Way
		Calabasas, CA 91302-3172
	Facility Contact, Title, and E-mail	Alex Farassati, ESM afarassati@cityofcalabasas.com
Carson (*4B190158001*)	**Mailing Address**	P.O. Box 6234
		Carson, CA 90745
	Facility Contact, Title,	Patricia Elkins, Building Construction Manager

Permittee (WDID)	Contact Information	
	and E-mail	pelkins@carson.ca.us
Cerritos (*4B190159001*)	**Mailing Address**	P.O. Box 3130
		Cerritos, CA 90703-3130
	Facility Contact, Title, and E-mail	Mike O'Grady, Environmental Services mo'grady@cerritos.us
Claremont (*4B190160001*)	**Mailing Address**	207 Harvard Avenue
		Claremont, CA 91711-4719
	Facility Contact, Title, and E-mail	Craig Bradshaw, City Engineer cbradshaw@ci.claremont.ca.us
Commerce (*4B190161001*)	**Mailing Address**	2535 Commerce Way
		Commerce, CA 90040-1487
	Facility Contact and E-mail	Gina Nila gnila@ci.commerce.ca.us
Compton (*4B190162001*)	**Mailing Address**	205 South Willowbrook Avenue
		Compton, CA 90220-3190
	Facility Contact, Title, and Phone	Hien Nguyen, Assistant City Engineer (310) 761-1476
Covina (*4B190163001*)	**Mailing Address**	125 East College Street
		Covina, CA 91723-2199
	Facility Contact, Title, and E-mail	Vivian Castro, Environmental Services Manager vcastro@covinaca.gov
Cudahy (*4B190164001*)	**Mailing Address**	P.O. Box 1007
		Cudahy, CA 90201-6097
	Facility Contact, Title, and E-mail	Hector Rodriguez, City Manager hrodriguez@cityofcudahy.ca.us
Culver City (*4B190165001*)	**Mailing Address**	9770 Culver Boulevard
		Culver City, CA 90232-0507
	Facility Contact, Title, and Phone	Damian Skinner, Manager (310) 253-6421
Diamond Bar (*4B190166001*)	**Mailing Address**	21825 East Copley Drive
		Diamond Bar, CA 91765-4177
	Facility Contact, Title, and E-mail	David Liu, Director of Public Works dliu@diamondbarca.gov
Downey (*4B190167001*)	**Mailing Address**	P.O. Box 7016
		Downey, CA 90241-7016
	Facility Contact , Title, and E-mail	Yvonne Blumberg yblumberg@downeyca.org
Duarte (*4B190168001*)	**Mailing Address**	1600 Huntington Drive
		Duarte, CA 91010-2592
	Facility Contact, Title, and Phone	Steve Esbenshades, Engineering Division Manager (626) 357-7931 ext. 233
El Monte (*4B190169001*)	**Mailing Address**	P.O. Box 6008
		El Monte, CA 91731
	Facility Contact, Title, and Phone	James A Enriquez, Director of Public Works (626) 580-2058
El Segundo (*4B190170001*)	**Mailing Address**	350 Main Street
		El Segundo, CA 90245-3895
	Facility Contact, Title, Phone, and E-mail	Stephanie Katsouleas, Public Works Director (310) 524-2356 skatsouleas@elsegundo.org
Gardena (*4B190118002*)	**Mailing Address**	P.O. Box 47003
		Gardena, CA 90247-3778

Permittee (WDID)	Contact Information	
	Facility Contact, Title, and E-mail	Ron Jackson, Building Maintenance Supervisor jfelix@ci.gardena.ci.us
Glendale (*4B190171001*)	**Mailing Address**	Engineering Section, 633 East Broadway, Room 209
		Glendale, CA 91206-4308
	Facility Contact, Title, and E-mail	Maurice Oillataguerre, Senior Environmental Program Scientist moillataguerre@ci.glendale.ca.us
Glendora (*4B190172001*)	**Mailing Address**	116 East Foothill Boulevard
		Glendora, CA 91741
	Facility Contact, Title, and E-mail	Dave Davies, Deputy Director of Public Works ddavies@ci.glendora.ca.us
Hawaiian Gardens (*4B190173001*)	**Mailing Address**	21815 Pioneer Boulevard
		Hawaiian Gardens, CA 90716
	Facility Contact, Title, and E-mail	Joseph Colombo, Director of Community Development jcolombo@ghcity.org
Hawthorne (*4B190174001*)	**Mailing Address**	4455 West 126th Street
		Hawthorne, CA 90250-4482
	Facility Contact, Title, and E-mail	Arnold Shadbehr, Chief General Service and Public Works ashadbehr@cityofhawthorne.org
Hermosa Beach (*4B190175001*)	**Mailing Address**	1315 Valley Drive
		Hermosa Beach, CA 90254-3884
	Facility Contact, Title, and E-mail	Homayoun Behboodi, Associate Engineer hbehboodi@hermosabch.org
Hidden Hills (*4B190176001*)	**Mailing Address**	6165 Spring Valley Road
		Hidden Hills, CA 91302
	Facility Contact, Title, and Phone	Kimberly Colberts, Environmental Coordinator (310) 257-2004
Huntington Park (*4B190177001*)	**Mailing Address**	6550 Miles Avenue
		Huntington Park, CA 90255
	Facility Contact, Title, and Phone	Craig Melich, City Engineer and City Official (323) 584-6253
Industry (*4B190178001*)	**Mailing Address**	P.O. Box 3366
		Industry, CA 91744-3995
	Facility Contact and Title	Mike Nagaoka, Director of Public Safety
Inglewood (*4B190179001*)	**Mailing Address**	1 W. Manchester Blvd, 3rd Floor
		Inglewood, CA 90301-1750
	Facility Contact, Title, and E-mail	Lauren Amimoto, Senior Administrative Analyst lamimoto@cityofinglewood.org
Irwindale (*4B190180001*)	**Mailing Address**	5050 North Irwindale Avenue
		Irwindale, CA 91706
	Facility Contact, Title, and E-mail	Kwok Tam, Director of Public Works ktam@ci.irwindale.ca.us
La Canada Flintridge (*4B190181001*)	**Mailing Address**	1327 Foothill Boulevard
		La Canada Flintridge, CA 91011-2137
	Facility Contact, Title, and E-mail	Edward G. Hitti, Director of Public Works ehitti@lcf.ca.gov
La Habra Heights (*4B190182001*)	**Mailing Address**	1245 North Hacienda Boulevard
		La Habra Heights, CA 90631-2570
	Facility Contact, Title, and E-mail	Shauna Clark, City Manager shaunac@lhhcity.org
La Mirada	**Mailing Address**	13700 La Mirada Boulevard

Permittee (WDID)	Contact Information	
(*4B190183001*)		La Mirada, CA 90638-0828
	Facility Contact, Title, and E-mail	Steve Forster, Public Works Director sforster@cityoflamirada.org
La Puente (*4B190184001*)	**Mailing Address**	15900 East Marin Street
		La Puente, CA 91744-4788
	Facility Contact, Title, and E-mail	John DiMario, Director of Development Services jdimario@lapuente.org
La Verne (*4B190185001*)	**Mailing Address**	3660 "D" Street
		La Verne, CA 91750-3599
	Facility Contact, Title, and E-mail	Daniel Keesey, Director of Public Works dkeesey@ci.la-verne.ca.us
Lakewood (*4B190186001*)	**Mailing Address**	P.O. Box 158
		Lakewood, CA 90714-0158
	Facility Contact and E-mail	Konya Vivanti kvivanti@lakewoodcity.org
Lawndale (*4B190127002*)	**Mailing Address**	14717 Burin Avenue
		Lawndale, CA 90260
	Facility Contact and Title	Marlene Miyoshi, Senior Administrative Analyst
Lomita (*4B190187001*)	**Mailing Address**	P.O. Box 339
		Lomita, CA 90717-0098
	Facility Contact, Title, and E-mail	Tom A. Odom, City Administrator d.tomita@lomitacity.com
Los Angeles (*4B190188001*)	**Mailing Address**	1149 S. Broadway, 10th Floor
		Los Angeles, CA 90015
	Facility Contact, Title, and Phone	Shahram Kharaghani, Program Manager (213) 485-0587
Lynwood (*4B190189001*)	**Mailing Address**	11330 Bullis Road
		Lynwood, CA 90262-3693
	Facility Contact and Phone	Josef Kekula (310) 603-0220 ext. 287
Malibu (*4B190190001*)	**Mailing Address**	23825 Stuart Ranch Road
		Malibu, CA 90265-4861
	Facility Contact, Title, and E-mail	Jennifer Brown, Environmental Program Analyst jbrown@malibucity.org
Manhattan Beach (*4B190191001*)	**Mailing Address**	1400 Highland Avenue
		Manhattan Beach, CA 90266-4795
	Facility Contact, Title, and Email	Brian Wright, Water Supervisor bwright@citymb.info
Maywood (*4B190192001*)	**Mailing Address**	4319 East Slauson Avenue
		Maywood, CA 90270-2897
	Facility Contact, Title, and Phone	Andre Dupret, Project Manager (323) 562-5721
Monrovia (*4B190193001*)	**Mailing Address**	415 South Ivy Avenue
		Monrovia, CA 91016-2888
	Facility Contact and E-mail	Heather Maloney hmaloney@ci.monrovia.ca.gov
Montebello (*4B190194001*)	**Mailing Address**	1600 West Beverly Boulevard
		Montebello, CA 90640-3970
	Facility Contact and E-mail	Cory Roberts croberts@aaeinc.com
Monterey Park	**Mailing Address**	320 West Newmark Avenue

Permittee (WDID)	Contact Information	
(*4B190195001*)		Monterey Park, CA 91754-2896
	Facility Contact, Phone, and E-mail	Amy Ho (626) 307-1383 amho@montereypark.ca.gov John Hunter (Consultant) at jhunter@jhla.net
Norwalk (*4B190196001*)	**Mailing Address**	P.O. Box 1030
		Norwalk, CA 90651-1030
	Facility Contact and Title	Chino Consunji, City Engineer
Palos Verdes Estates (*4B190197001*)	**Mailing Address**	340 Palos Verdes Drive West
		Palos Verdes Estates, CA 90274
	Facility Contact, Title, and E-mail	Allan Rigg, Director of Public Works arigg@pvestates.org
Paramount (*4B190198001*)	**Mailing Address**	16400 Colorado Avenue
		Paramount, CA 90723-5091
	Facility Contact, Title, and E-mail	Chris Cash, Utility and Infrastructure Assistant Director ccash@paramountcity,org
Pasadena (*4B190199001*)	**Mailing Address**	P.O. Box 7115
		Pasadena, CA 91109-7215
	Facility Contact and E-mail	Stephen Walker swalker@cityofpasadena.net
Pico Rivera (*4B190200001*)	**Mailing Address**	P.O. Box 1016
		Pico Rivera, CA 90660-1016
	Facility Contact, Title, and E-mail	Art Cervantes, Director of Public Works acervantes@pico-rivera.org
Pomona (*4B190145003*)	**Mailing Address**	P.O. Box 660
		Pomona, CA 91769-0660
	Facility Contact, Title, and E-mail	Julie Carver, Environmental Programs Coordinator Julie_Carver@ci.pomona.ca.us
Rancho Palos Verdes (*4B190201001*)	**Mailing Address**	30940 Hawthorne Boulevard
		Rancho Palos Verdes, CA 90275
	Facility Contact, Title, and E-mail	Ray Holland, Interim Public Works Director clehr@rpv.com
Redondo Beach (*4B190143002*)	**Mailing Address**	P.O. Box 270
		Redondo Beach, CA 90277-0270
	Facility Contact, Title, and E-mail	Mike Shay, Principal Civil Engineer mshay@redondo.org
Rolling Hills (*4B190202001*)	**Mailing Address**	2 Portuguese Bend Road
		Rolling Hills, CA 90274-5199
	Facility Contact, Title, and E-mail	Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov
Rolling Hills Estates (*4B190203001*)	**Mailing Address**	4045 Palos Verdes Drive North
		Rolling Hills Estates, CA 90274
	Facility Contact, Title, and E-mail	Greg Grammer, Assistant to the City Manager ggrammer@rollinghillsestatesca.gov
Rosemead (*4B190204001*)	**Mailing Address**	8838 East Valley Boulevard
		Rosemead, CA 91770-1787
	Facility Contact, Title, and Phone	Chris Marcarello, Director of PW (626) 569-2118
San Dimas (*4B190205001*)	**Mailing Address**	245 East Bonita Avenue
		San Dimas, CA 91773-3002
	Facility Contact, Title,	Latoya Cyrus, Environmental Services Coordinator

Permittee (WDID)	Contact Information	
	and E-mail	lcyrus@ci.san-dimas.ca.us
San Fernando (*4B190206001*)	**Mailing Address**	117 Macneil Street
		San Fernando, CA 91340
	Facility Contact, Title, and E-mail	Ron Ruiz, Director of Public Works rruiz@sfcity.org
San Gabriel (*4B190207001*)	**Mailing Address**	425 South Mission Drive
		San Gabriel, CA 91775
	Facility Contact, Title, and Phone	Daren T. Grilley, City Engineer (626) 308-2806 ext. 4631
San Marino (*4B190208001*)	**Mailing Address**	2200 Huntington Drive
		San Marino, CA 91108-2691
	Facility Contact, Title, and E-mail	Chuck Richie, Director of Parks and Public Works crichie@cityofsanmarino.org
Santa Clarita (*4B190117001*)	**Mailing Address**	23920 West Valencia Boulevard, Suite 300
		Santa Clarita, CA 91355
	Facility Contact, Title, and Phone	Travis Lange, Environmental Services Manager (661) 255-4337
Santa Fe Springs (*4B190108003*)	**Mailing Address**	P.O. Box 2120
		Santa Fe Springs, CA 90670-2120
	Facility Contact, Title, and E-mail	Sarina Morales-Choate, Civil Engineer Assistant smorales-choate@santafesprings.org
Santa Monica (*4B190122002*)	**Mailing Address**	1685 Main Street
		Santa Monica, CA 90401-3295
	Facility Contact, Title, and E-mail	Neal Shapiro, Urban Runoff Coordinator nshapiro@smgov.net
Sierra Madre (*4B190209001*)	**Mailing Address**	232 West Sierra Madre Boulevard
		Sierra Madre, CA 91024-2312
	Facility Contact, Title, and Phone	James Carlson, Management Analyst (626) 355-7135 ext. 803
Signal Hill (*4B190210001*)	**Mailing Address**	2175 Cherry Avenue
		Signal Hill, CA 90755
	Facility Contact, Phone, and E-mail	John Hunter (562) 802-7880 jhunter@jlha.net
South El Monte (*4B190211001*)	**Mailing Address**	1415 North Santa Anita Avenue
		South El Monte, CA 91733-3389
	Facility Contact and Phone	Anthony Ybarra, City Manager (626) 579-6540
South Gate (*4B190212001*)	**Mailing Address**	8650 California Avenue
		South Gate, CA 90280
	Facility Contact, Phone, and E-mail	John Hunter (562) 802-7880 jhunter@jlha.net
South Pasadena (*4B190213001*)	**Mailing Address**	1414 Mission Street
		South Pasadena, CA 91030-3298
	Facility Contact, Phone, and E-mail	John Hunter (562) 802-7880 jhunter@jlha.net
Temple City (*4B190214001*)	**Mailing Address**	9701 Las Tunas Drive
		Temple City, CA 91780-2249
	Facility Contact,	Joe Lambert at (626) 285-2171 or

Permittee (WDID)	Contact Information	
	Phone, and E-mail	John Hunter at (562) 802-7880/jhunter@jlha.net
Torrance (*4B190215001*)	**Mailing Address**	3031 Torrance Boulevard
		Torrance, CA 90503-5059
	Facility Contact and Title	Leslie Cortez, Senior Administrative Assistant
Vernon (*4B190216001*)	**Mailing Address**	4305 Santa Fe Avenue
		Vernon, CA 90058-1786
	Facility Contact and Phone	Claudia Arellano (323) 583-8811
Walnut (*4B190217001*)	**Mailing Address**	P.O. Box 682
		Walnut, CA 91788
	Facility Contact and Title	Jack Yoshino, Senior Management Assistant
West Covina (*4B190218001*)	**Mailing Address**	P.O. Box 1440
		West Covina, CA 91793-1440
	Facility Contact, Title, and E-mail	Samuel Gutierrez, Engineering Technician sam.gutierrez@westcovina.org
West Hollywood (*4B190219001*)	**Mailing Address**	8300 Santa Monica Boulevard
		West Hollywood, CA 90069-4314
	Facility Contact, Title, and E-mail	Sharon Perlstein, City Engineer sperlstein@weho.org
Westlake Village (*4B190220001*)	**Mailing Address**	31200 Oak Crest Drive
		Westlake Village, CA 91361
	Facility Contact, Title, Phone, and E-mail	Joe Bellomo, Stormwater Program Manager (805) 279-6856 jbellomo@willdan.com
Whittier (*4B190221001*)	**Mailing Address**	13230 Penn Street
		Whittier, CA 90602-1772
	Facility Contact, Title, and E-mail	David Mochizuki, Director of Public Works dmochizuki@cityofwhittier.org
County of Los Angeles (*4B190107099*)	**Mailing Address**	900 South Fremont Avenue
		Alhambra, CA 91803
	Facility Contact, Title, Phone, and E-mail	Gary Hildebrand, Assistant Deputy Director, Division Engineer (626) 458-4300 ghildeb@dpw.lacounty.gov
Los Angeles County Flood Control District (*4B190107101*)	**Mailing Address**	900 South Fremont Avenue
		Alhambra, CA 91803
	Facility Contact, Title, Phone, and E-mail	Gary Hildebrand, Assistant Deputy Director, Division Engineer (626) 458-4300 ghildeb@dpw.lacounty.gov

Table 3. Discharge Location

Discharge Point	Effluent Description	Discharge Point Latitude	Discharge Point Longitude	Receiving Water
All Municipal Separate Storm Sewer System discharge points within Los Angeles County with the exception of the City of Long Beach	Storm Water and Non-Storm Water	Numerous	Numerous	Surface waters identified in Tables 2-1, 2-1a, 2-3, and 2-4, and Appendix 1, Table 1 of the ***Water Quality Control Plan - Los Angeles Region*** (***Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties***), and other unidentified tributaries to these surface waters within the following Watershed Management Areas: (1) Santa Clara River Watershed; (2) Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; (3) Los Angeles River Watershed; (4) Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; (5) Los Cerritos Channel and Alamitos Bay Watershed Management Area; (6) San Gabriel River Watershed; and (7) Santa Ana River Watershed.[1]

Table 4. Administrative Information

This Order was adopted by the California Regional Water Quality Control Board, Los Angeles Region on:	**November 8, 2012**
This Order becomes effective on:	**December 28, 2012**
This Order expires on:	**December 28, 2017**
In accordance with Title 23, Division 3, Chapter 9 of the California Code of Regulations and Title 40, Part 122 of the Code of Federal Regulations, each Discharger shall file a Report of Waste Discharge as application for issuance of new waste discharge requirements no later than:	**180 days prior to the Order expiration date above**

[1] Note that the Santa Ana River Watershed lies primarily within the boundaries of the Santa Ana Regional Water Quality Control Board. However, a portion of the Chino Basin subwatershed lies within the jurisdictions of Pomona and Claremont in Los Angeles County. The primary receiving waters within the Los Angeles County portion of the Chino Basin subwatershed are San Antonio Creek and Chino Creek.

In accordance with section 2235.4 of Title 23 of the California Code of Regulations, the terms and conditions of an expired permit are automatically continued pending issuance of a new permit if all requirements of the federal NPDES regulations on continuation of expired permits are complied with. Accordingly, if a new order is not adopted by the expiration date above, then the Permittees shall continue to implement the requirements of this Order until a new one is adopted.

I, Samuel Unger, Executive Officer, do hereby certify that this Order with all attachments is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Los Angeles Region, on November 8, 2012.

Samuel Unger

Samuel Unger, Executive Officer

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II. FINDINGS

The California Regional Water Quality Control Board, Los Angeles Region (hereinafter Regional Water Board) finds:

A. Nature of Discharges and Sources of Pollutants

Storm water and non-storm water discharges consist of surface runoff generated from various land uses, which are conveyed via the municipal separate storm sewer system and ultimately discharged into surface waters throughout the region. Discharges of storm water and non-storm water from the Municipal Separate Storm Sewer Systems (MS4s) within the Coastal Watersheds of Los Angeles County convey pollutants to surface waters throughout the Los Angeles Region. In general, the primary pollutants of concern in these discharges identified by the Los Angeles County Flood Control District Integrated Receiving Water Impacts Report (1994-2005) are indicator bacteria, total aluminum, copper, lead, zinc, diazinon, and cyanide. Aquatic toxicity, particularly during wet weather, is also a concern based on a review of Annual Monitoring Reports from 2005-10. Storm water and non-storm water discharges of debris and trash are also a pervasive water quality problem in the Los Angeles Region though significant strides have been made by a number of Permittees in addressing this problem through the implementation of control measures to achieve wasteload allocations established in trash TMDLs.

Pollutants in storm water and non-storm water have damaging effects on both human health and aquatic ecosystems. Water quality assessments conducted by the Regional Water Board have identified impairment of beneficial uses of water bodies in the Los Angeles Region caused or contributed to by pollutant loading from municipal storm water and non-storm water discharges. As a result of these impairments, there are beach postings and closures, fish consumption advisories, local and global ecosystem and aesthetic impacts from trash and debris, reduced habitat for threatened and endangered species, among others. The Regional Water Board and USEPA have established 33 total maximum daily loads (TMDLs) that identify Los Angeles County MS4 discharges as one of the pollutant sources causing or contributing to these water quality impairments.

B. Permit History

Prior to the issuance of this Order, Regional Water Board Order No. 01-182 served as the NPDES Permit for MS4 storm water and non-storm water discharges within the Coastal Watersheds of the County of Los Angeles. The requirements of Order No. 01-182 applied to the Los Angeles County Flood Control District, the unincorporated areas of Los Angeles County under County jurisdiction, and 84 Cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach. The first county-wide MS4 permit for the County of Los Angeles and the incorporated areas therein was Order No. 90-079, adopted by the Regional Water Board on June 18, 1990.

Under Order No. 01-182, the Los Angeles County Flood Control District was designated the Principal Permittee, and the County of Los Angeles and 84 incorporated Cities were each designated Permittees. The Principal Permittee coordinated and facilitated activities necessary to comply with the requirements of Order No. 01-182, but was not responsible for ensuring compliance of any of the other Permittees. The designation of a Principal Permittee has not been carried over from Order No. 01-182.

Order No. 01-182 was subsequently amended by the Regional Water Board on September 14, 2006 by Order No. R4-2006-0074 to incorporate provisions consistent with the assumptions and requirements of the Santa Monica Bay Beaches Dry Weather Bacteria TMDL (SMB Dry Weather Bacteria TMDL) waste load allocations (WLAs). As a result of a legal challenge to Order No. R4-2006-0074, the Los Angeles County Superior Court issued a peremptory writ of mandate on July 23, 2010 requiring the Regional Water Board to void and set aside the amendments adopted through Order No. R4-2006-0074 in Order No. 01-182. The Court concluded that the permit proceeding at which Order No. R4-2006-0074 was adopted was procedurally deficient. The Court did not address the substantive merits of the amendments themselves, and thus made no determination about the substantive validity of Order No. R4-2006-0074. In compliance with the writ of mandate, the Regional Water Board voided and set aside the amendments adopted through Order No. R4-2006-0074 on April 14, 2011. This Order reincorporates requirements equivalent to the 2006 provisions to implement the SMB Dry Weather Bacteria TMDL.

In addition, Order No. 01-182 was amended on August 9, 2007 by Order No. R4-2007-0042 to incorporate provisions consistent with the assumptions and requirements of the Marina del Rey Harbor Mothers' Beach and Back Basins Bacteria TMDL, and was again amended on December 10, 2009 by Order No. R4-2009-0130 to incorporate provisions consistent with the assumptions and requirements of the Los Angeles River Watershed Trash TMDL.

C. Permit Application

On June 12, 2006, prior to the expiration date of Order No. 01-182, all of the Permittees filed Reports of Waste Discharge (ROWD) applying for renewal of their waste discharge requirements that serve as an NPDES permit to discharge storm water and authorized and conditionally exempt non-storm water through their MS4 to surface waters. Specifically, the Los Angeles County Flood Control District (LACFCD) submitted an ROWD application on behalf of itself, the County of Los Angeles, and 78 other Permittees. Several Permittees under Order No. 01-182 elected to not be included as part of the Los Angeles County Flood Control District's ROWD. On June 12, 2006, the Cities of Downey and Signal Hill each submitted an individual ROWD application requesting a separate MS4 Permit; and the Upper San Gabriel River Watershed Coalition, comprised of the cities of Azusa, Claremont, Glendora, Irwindale, and Whittier also submitted an individual ROWD application requesting a separate MS4 Permit for these cities. In 2010, the LACFCD withdrew from its participation in the 2006 ROWD submitted in conjunction with the County and 78 other co-permittees, and submitted a new ROWD also requesting an individual MS4 permit. The LACFCD also requested that, if an individual MS4 permit was not issued to it, it no longer be designated as the

Principal Permittee and it be relieved of Principal Permittee responsibilities. The Regional Water Board evaluated each of the 2006 ROWDs and notified all of the Permittees that their ROWDs did not satisfy federal storm water regulations contained in the USEPA Interpretive Policy Memorandum on Reapplication Requirements for Municipal Separate Storm Sewer Systems; Final Rule, August 9, 1996 (61 ***Fed Reg.*** 41697). Because each ROWD did not satisfy federal requirements, the Regional Water Board deemed all four 2006 ROWDs incomplete. The Regional Water Board also evaluated the LACFCD's 2010 ROWD and found that it too did not satisfy federal requirements for MS4s.

Though five separate ROWDs were submitted, the Regional Water Board retains discretion as the permitting authority to determine whether to issue permits for discharges from MS4s on a system-wide or jurisdiction-wide basis (Clean Water Act (CWA) § 402(p)(3)(B)(i); 40 CFR section 122.26, subdivisions (a)(1)(v) and (a)(3)(ii)). Because of the complexity and networking of the MS4 within Los Angeles County, which often results in commingled discharges, the Regional Water Board has previously adopted a system-wide approach to permitting MS4 discharges within Los Angeles County.

In evaluating the five separate ROWDs, the Regional Water Board considered the appropriateness of permitting discharges from MS4s within Los Angeles County on a system-wide or jurisdiction-wide basis or a combination of both. Based on that evaluation, the Regional Water Board again determined that, because of the complexity and networking of the MS4 within Los Angeles County, that one system-wide permit is appropriate. In order to provide individual Permittees with more specific requirements, certain provisions of this Order are organized by watershed management area, which is appropriate given the requirements to implement 33 watershed-based TMDLs. The Regional Water Board also determined that because the LACFCD owns and operates large portions of the MS4 infrastructure, including but not limited to catch basins, storm drains, outfalls and open channels, in each coastal watershed management area within Los Angeles County, the LACFCD should remain a Permittee in the single system-wide permit; however, this Order relieves the LACFCD of its role as "Principal Permittee."

D. Permit Coverage and Facility Description

The Los Angeles County Flood Control District, the County of Los Angeles, and 84 incorporated cities within the Los Angeles County Flood Control District with the exception of the City of Long Beach (see Table 5, List of Permittees), hereinafter referred to separately as Permittees and jointly as the Dischargers, discharge storm water and non-storm water from municipal separate storm sewer systems (MS4s), also called storm drain systems. For the purposes of this Order, references to the "Discharger" or "Permittee" in applicable federal and state laws, regulations, plans, or policy are held to be equivalent to references to the Discharger, or Permittees herein.

The area covered under this Order encompasses more than 3,000 square miles. This area contains a vast drainage network that serves incorporated and unincorporated areas in every Watershed Management Area within the Los Angeles Region. Maps

depicting the major drainage infrastructure within the area covered under this Order are included in Attachment C of this Order.

Table 5. List of Permittees

Agoura Hills	Hawaiian Gardens	Pomona
Alhambra	Hawthorne	Rancho Palos Verdes
Arcadia	Hermosa Beach	Redondo Beach
Artesia	Hidden Hills	Rolling Hills
Azusa	Huntington Park	Rolling Hills Estates
Baldwin Park	Industry	Rosemead
Bell	Inglewood	San Dimas
Bell Gardens	Irwindale	San Fernando
Bellflower	La Canada Flintridge	San Gabriel
Beverly Hills	La Habra Heights	San Marino
Bradbury	La Mirada	Santa Clarita
Burbank	La Puente	Santa Fe Springs
Calabasas	La Verne	Santa Monica
Carson	Lakewood	Sierra Madre
Cerritos	Lawndale	Signal Hill
Claremont	Lomita	South El Monte
Commerce	Los Angeles	South Gate
Compton	Lynwood	South Pasadena
Covina	Malibu	Temple City
Cudahy	Manhattan Beach	Torrance
Culver City	Maywood	Vernon
Diamond Bar	Monrovia	Walnut
Downey	Montebello	West Covina
Duarte	Monterey Park	West Hollywood
El Monte	Norwalk	Westlake Village
El Segundo	Palos Verdes Estates	Whittier
Gardena	Paramount	County of Los Angeles
Glendale	Pasadena	Los Angeles County Flood Control District
Glendora	Pico Rivera	

E. Los Angeles County Flood Control District

In 1915, the California Legislature enacted the Los Angeles County Flood Control Act, establishing the Los Angeles County Flood Control District (LACFCD). The objects and purposes of the Act are to provide for the control and conservation of the flood, storm and other waste waters within the flood control district. Among its other powers, the LACFCD also has the power to preserve, enhance, and add recreational features to lands or interests in lands contiguous to its properties for the protection, preservation, and use of the scenic beauty and natural environment for the properties or the lands. The LACFCD is governed, as a separate entity, by the County of Los Angeles Board of Supervisors.

The LACFCD's system includes the majority of drainage infrastructure within incorporated and unincorporated areas in every watershed, including approximately 500 miles of open channel, 3,500 miles of underground drains, and an estimated 88,000 catch basins, and several dams. Portions of the LACFCD's current system were originally unmodified natural rivers and water courses.

The LACFCD's system conveys both storm and non-storm water throughout the Los Angeles basin. Other Permittees' MS4s connect and discharge to the LACFCD's system.

The waters and pollutants discharged from the LACFCD's system come from various sources. These sources can include storm water and non-storm water from the Permittees under this permit and other NPDES and non-NPDES Permittees discharging into the LACFCD's system, including industrial waste water dischargers, waste water treatment facilities, industrial and construction stormwater Permittees, water suppliers, government entities, CERCLA potentially responsible parties, and Caltrans. Sources can also include discharges from school districts that do not operate large or medium-sized municipal storm sewers and discharges from entities that have waste discharge requirements or waivers of waste discharge requirements.

Unlike other Permittees, including the County of Los Angeles, the LACFCD does not own or operate any municipal sanitary sewer systems, public streets, roads, or highways.

The LACFCD in contrast to the County of Los Angeles has no planning, zoning, development permitting or other land use authority over industrial or commercial facilities, new developments or re-development projects, or development construction sites located in any incorporated or unincorporated areas within its service area. The Permittees that have such land use authority are responsible for implementing a storm water management program to inspect and control pollutants from industrial and commercial facilities, new development and re-development projects, and development construction sites within their jurisdictional boundaries. Nonetheless, as an owner and operator of MS4s, the LACFCD is required by federal regulations to control pollutant discharges into and from its MS4, including the ability to control through interagency agreements among co-Permittees and other owners of a MS4 the contribution of pollutants from one portion of the MS4 to another portion of the MS4.

F. Permit Scope

This Order regulates municipal discharges of storm water and non-storm water from the Permittees' MS4s. Section 122.26(b)(8) of title 40 of the Code of Federal Regulations (CFR) defines an MS4 as "a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains): (i) [o]wned or operated by a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian

tribal organization, or a designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) [d]esigned or used for collecting or conveying storm water; (iii) [w]hich is not a combined sewer; and (iv) [w]hich is not part of a Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2."

Storm water discharges consist of those discharges that originate from precipitation events. Federal regulations define "storm water" as "storm water runoff, snow melt runoff, and surface runoff and drainage." (40 CFR § 122.26(b)(13).) While "surface runoff and drainage" is not defined in federal law, USEPA's preamble to its final storm water regulations demonstrates that the term is related to precipitation events such as rain and/or snowmelt. (55 ***Fed. Reg.*** 47990, 47995-96 (Nov. 16, 1990)).

Non-storm water discharges consist of all discharges through an MS4 that do not originate from precipitation events. Non-storm water discharges through an MS4 are prohibited unless authorized under a separate NPDES permit; authorized by USEPA pursuant to Sections 104(a) or 104(b) of the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); composed of natural flows; the result of emergency fire fighting activities; or conditionally exempted in this Order.

A permit issued to more than one Permittee for MS4 discharges may contain separate storm water management programs for particular Permittees or groups of Permittees. 40 CFR § 122.26(d)(2)(iv). Given the LACFCD's limited land use authority, it is appropriate for the LACFCD to have a separate and uniquely-tailored storm water management program. Accordingly, the storm water management program minimum control measures imposed on the LACFCD in Part VI.D of this Order differ in some ways from the minimum control measures imposed on other Permittees. Namely, aside from its own properties and facilities, the LACFCD is not subject to the Industrial/Commercial Facilities Program, the Planning and Land Development Program, and the Development Construction Program. However, as a discharger of storm and non-storm water, the LACFCD remains subject to the Public Information and Participation Program and the Illicit Connections and Illicit Discharges Elimination Program. Further, as the owner and operator of certain properties, facilities and infrastructure, the LACFCD remains subject to requirements of a Public Agency Activities Program.

G. Geographic Coverage and Watershed Management Areas

The municipal storm water and non-storm water discharges flow into receiving waters in the Watershed Management Areas of the Santa Clara River Watershed; Santa Monica Bay Watershed Management Area, including Malibu Creek Watershed and Ballona Creek Watershed; Los Angeles River Watershed; Dominguez Channel and Greater Los Angeles/Long Beach Harbors Watershed Management Area; Los Cerritos Channel and Alamitos Bay Watershed Management Area; San Gabriel River Watershed; and Santa Ana River Watershed.

This Order redefines Watershed Management Areas (WMAs) consistent with the delineations used in the Regional Water Board's Watershed Management Initiative. Permittees included in each of the WMAs are listed in Attachment K.

Maps depicting each WMA, its subwatersheds, and the major receiving waters therein are included in Attachment B.

Federal, state, regional or local entities in jurisdictions outside the Los Angeles County Flood Control District, and not currently named as Permittee to this Order, may operate MS4 facilities and/or discharge to the MS4 and water bodies covered by this Order. Pursuant to 40 CFR sections 122.26(d)(1)(ii) and 122.26(d)(2)(iv), each Permittee shall maintain the necessary legal authority to control the contribution of pollutants to its MS4 and shall include in its storm water management program a comprehensive planning process that includes intergovernmental coordination, where necessary.

Sources of MS4 discharges into receiving waters in the County of Los Angeles but not covered by this Order include the following:

- About 34 square miles of unincorporated area in Ventura County, which drain into Malibu Creek and then to Santa Monica Bay,
- About 9 square miles of the City of Thousand Oaks, which also drain into Malibu Creek and then to Santa Monica Bay, and
- About 86 square miles of area in Orange County, which drain into Coyote Creek and then into the San Gabriel River.

Specifically, the Orange County Flood Control District (OCFCD) owns and operates the Los Alamitos Retarding Basin and Pumping Station (Los Alamitos Retarding Basin). The Los Alamitos Retarding Basin is within the San Gabriel River Watershed, and is located adjacent to the Los Angeles and Orange County boundary. The majority of the 30-acre Los Alamitos Retarding Basin is in Orange County; however, the northwest corner of the facility is located in the County of Los Angeles. Storm water and non-storm water discharges, which drain to the Los Alamitos Retarding Basin, are pumped to the San Gabriel River Estuary (SGR Estuary) through pumps and subterranean piping. The pumps and discharge point are located in the County of Los Angeles.

The OCFCD pumps the water within the Los Alamitos Retarding Basin to the San Gabriel River Estuary through four discharge pipes, which are covered by tide gates. The discharge point is located approximately 700 feet downstream from the 2nd Street Bridge in Long Beach. The total pumping capacity of the four pumps is 800 cubic feet per second (cfs). There is also a 5 cfs sump pump that discharges nuisance flow continuously to the Estuary though a smaller diameter uncovered pipe.

The discharge from the Los Alamitos Retarding Basin is covered under the Orange County Municipal NPDES Storm Water Permit (NPDES Permit No. CAS618030, Santa Ana Regional Water Quality Control Board Order No. R8-2010-0062), which was issued to the County of Orange, Orange County Flood Control District and Incorporated Cities on May 22, 2009. The Orange County MS4 Permit references the San Gabriel River Metals and Selenium TMDL (Metals TMDL). The waste load allocations listed in the

Metals TMDL for Coyote Creek are included in the Orange County MS4 Permit. However, the Orange County MS4 Permit does not contain the dry weather copper waste load allocations assigned to the Estuary.

H. Legal Authorities

This Order is issued pursuant to CWA section 402 and implementing regulations adopted by the USEPA and chapter 5.5, division 7 of the California Water Code (commencing with section 13370). This Order serves as an NPDES permit for point source discharges from the Permittees' MS4s to surface waters. This Order also serves as waste discharge requirements (WDRs) pursuant to article 4, chapter 4, division 7 of the California Water Code (commencing with Section 13260).

I. Municipal Separate Storm Sewer System Requirements. The 1972 Clean Water Act[2] established the NPDES Program to regulate the discharge of pollutants from point sources to waters of the United States. However, pollution from storm water and dry-weather urban runoff was largely unabated for over a decade. In response to the 1987 Amendments to the Clean Water Act, USEPA developed Phase I of the NPDES Storm Water Permitting Program in 1990, which established a framework for regulating municipal and industrial discharges of storm water and non-storm water. The Phase I program addressed sources of storm water and dry-weather urban runoff that had the greatest potential to negatively impact water quality. In particular, under Phase I, USEPA required NPDES Permit coverage for discharges from medium and large MS4 with populations of 100,000 or more. Operators of MS4s regulated under the Phase I NPDES Storm Water Program were required to obtain permit coverage for municipal discharges of storm water and non-storm water to waters of the United States

Early in the history of this MS4 Permit, the Regional Water Board designated the MS4s owned and/or operated by the incorporated cities and Los Angeles County unincorporated areas within the Coastal Watersheds of Los Angeles County as a large MS4 due to the total population of Los Angeles County, including that of unincorporated and incorporated areas, and the interrelationship between the Permittees' MS4s, pursuant to 40 CFR section 122.26(b)(4). The total population of the cities and County unincorporated areas covered by this Order was 9,519,338 in 2000 and has increased by approximately 300,000 to 9,818,605 in 2010, according to the United States Census.

This Order implements the federal Phase I NPDES Storm Water Program requirements. These requirements include three fundamental elements: (i) a requirement to effectively prohibit non-storm water discharges through the MS4, (ii) requirements to implement controls to reduce the discharge of pollutants to the maximum extent practicable, and (iii) other provisions the Regional Water Board has determined appropriate for the control of such pollutants.

J. Background and Rationale for Requirements. The Regional Water Board developed the requirements in this Order based on information submitted as part of the Permittees' applications, through monitoring and reporting programs, and other available

[2] Federal Water Pollution Control Act; 33 U.S.C. § 1251 et seq., which, as amended in 1977, is commonly known as the Clean Water Act.

information. In accordance with federal regulations at 40 CFR section 124.8, a Fact Sheet (Attachment F) has been prepared to explain the principal facts and the significant factual, legal, methodological, and policy questions considered in preparing this Order. The Fact Sheet is hereby incorporated into this Order and also constitutes part of the Findings of the Regional Water Board for this Order. Attachments A through E and G through R are also incorporated into this Order.

K. Water Quality Control Plans. The Clean Water Act requires the Regional Water Board to establish water quality standards for each water body in its region. Water quality standards include beneficial uses, water quality objectives and criteria that are established at levels sufficient to protect those beneficial uses, and an antidegradation policy to prevent degrading waters. The Regional Water Board adopted a ***Water Quality Control Plan - Los Angeles Region*** (hereinafter Basin Plan) on June 13, 1994 and has amended it on multiple occasions since 1994. The Basin Plan designates beneficial uses, establishes water quality objectives, and contains implementation programs and policies to achieve those objectives for all waters in the Los Angeles Region. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Basin Plan. Beneficial uses applicable to the surface water bodies that receive discharges from the Los Angeles County MS4 generally include those listed below.

Table 6. Basin Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within Los Angeles County coastal watersheds with the exception of the City of Long Beach	Multiple surface water bodies of the Los Angeles Region	Municipal and Domestic Supply (MUN); Agricultural Supply (AGR); Industrial Service Supply (IND); Industrial Process Supply (PROC); Ground Water Recharge (GWR); Freshwater Replenishment (FRSH); Navigation (NAV); Hydropower Generation (POW); Water Contact Recreation (REC-1); Limited Contact Recreation (LREC-1); Non-Contact Water Recreation (REC-2); Commercial and Sport Fishing (COMM); Warm Freshwater Habitat (WARM); Cold Freshwater Habitat (COLD); Preservation of Areas of Special Biological Significance (BIOL); Wildlife Habitat (WILD); Preservation of Rare and Endangered Species (RARE); Marine Habitat (MAR); Wetland Habitat (WET); Migration of Aquatic Organisms (MIGR); Spawning, Reproduction, and/or Early Development (SPWN); Shellfish Harvesting (SHELL)

1. Total Maximum Daily Loads (TMDLs)

Clean Water Act section 303(d)(1) requires each state to identify the waters within its boundaries that do not meet water quality standards. Water bodies that do not meet water quality standards are considered impaired and are placed on the state's "CWA Section 303(d) List". For each listed water body, the state is required to establish a TMDL of each pollutant impairing the water quality standards in that water body. A TMDL is a tool for implementing water quality standards and is based on the relationship between pollution sources and in-stream water quality conditions. The

TMDL establishes the allowable pollutant loadings for a water body and thereby provides the basis to establish water quality-based controls. These controls should provide the pollution reduction necessary for a water body to meet water quality standards. A TMDL is the sum of the allowable pollutant loads of a single pollutant from all contributing point sources (the waste load allocations or WLAs) and non-point sources (load allocations or LAs), plus the contribution from background sources and a margin of safety. (40 CFR section 130.2(i).) MS4 discharges are considered point source discharges.

Numerous receiving waters within Los Angeles County do not meet water quality standards or fully support beneficial uses and therefore have been classified as impaired on the State's 303(d) List. The Regional Water Board and USEPA have each established TMDLs to address many of these water quality impairments. Pursuant to CWA section 402(p)(B)(3)(iii) and 40 CFR section 122.44(d)(1)(vii)(B), this Order includes requirements that are consistent with and implement WLAs that are assigned to discharges from the Los Angeles County MS4 from 33 State-adopted and USEPA established TMDLs. This Order requires Permittees to comply with the TMDL Provisions in Part VI.E and Attachments L through R, which are consistent with the assumptions and requirements of the TMDL WLAs assigned to discharges from the Los Angeles County MS4. A comprehensive list of TMDLs by watershed management area and the Permittees subject to each TMDL is included in Attachment K.

Waste load allocations in these TMDLs are expressed in several ways depending on the nature of the pollutant and its impacts on receiving waters and beneficial uses. Bacteria WLAs assigned to MS4 discharges are expressed as the number of allowable exceedance days that a water body may exceed the Basin Plan water quality objectives for protection of the REC-1 beneficial use. Since the TMDLs and the WLAs contained therein are expressed as receiving water conditions, receiving water limitations have been included in this Order that are consistent with and implement the allowable exceedance day WLAs. Water quality-based effluent limitations are also included equivalent to the Basin Plan water quality objectives to allow the opportunity for Permittees to individually demonstrate compliance at an outfall or jurisdictional boundary, thus isolating the Permittee's pollutant contributions from those of other Permittees and from other pollutant sources to the receiving water.

WLAs for trash are expressed as progressively decreasing allowable amounts of trash discharges from a Permittee's jurisdictional area within the drainage area to the impaired water body. The Trash TMDLs require each Permittee to make annual reductions of its discharges of trash over a set period, until the numeric target of zero trash discharged from the MS4 is achieved. The Trash TMDLs specify a specific formula for calculating and allocating annual reductions in trash discharges from each jurisdictional area within a watershed. The formula results in specified annual amounts of trash that may be discharged from each jurisdiction into the receiving waters. Translation of the WLAs or compliance points described in the TMDLs into jurisdiction-specific load reductions from the baseline levels, as specified

in the TMDL, logically results in the articulation of an annual limitation on the amount of a pollutant that may be discharged. The specification of allowable annual trash discharge amounts meets the definition of an “effluent limitation”, as that term is defined in subdivision (c) of section 13385.1 of the California Water Code. Specifically, the trash discharge limitations constitute a “numeric restriction … on the quantity [or] discharge rate … of a pollutant or pollutants that may be discharged from an authorized location.”

TMDL WLAs for other pollutants (e.g., metals and toxics) are expressed as concentration and/or mass and water quality-based effluent limitations have been specified consistent with the expression of the WLA, including any applicable averaging periods. Some TMDLs specify that, if certain receiving water conditions are achieved, such achievement constitutes attainment of the WLA. In these cases, receiving water limitations and/or provisions outlining these alternate means of demonstrating compliance are included in the TMDL provisions in Part VI.E of this Order.

The inclusion of water quality-based effluent limitations and receiving water limitations to implement applicable WLAs provides a clear means of identifying required water quality outcomes within the permit and ensures accountability by Permittees to implement actions necessary to achieve the limitations.

A number of the TMDLs for bacteria, metals, and toxics establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL. TMDLs address commingled MS4 discharges by assigning a WLA to a group of MS4 Permittees based on co-location within the same subwatershed. Permittees with co-mingled MS4 discharges are jointly responsible for meeting the water quality-based effluent limitations and receiving water limitations assigned to MS4 discharges in this Order. "Joint responsibility" means that the Permittees that have commingled MS4 discharges are responsible for implementing programs in their respective jurisdictions, or within the MS4 for which they are an owner and/or operator, to meet the water quality-based effluent limitations and/or receiving water limitations assigned to such commingled MS4 discharges.

In these cases, federal regulations state that co-permittees need only comply with permit conditions relating to discharges from the MS4 for which they are owners or operators (40 CFR § 122.26(a)(3)(vi)). Individual co-permittees are only responsible for their contributions to the commingled MS4 discharge. This Order does not require a Permittee to individually ensure that a commingled MS4 discharge meets the applicable water quality-based effluent limitations included in this Order, unless such Permittee is shown to be solely responsible for an exceedance.

Additionally, this Order allows a Permittee to clarify and distinguish their individual contributions and demonstrate that its MS4 discharge did not cause or contribute to exceedances of applicable water quality-based effluent limitations and/or receiving

water limitations. If such a demonstration is made, though the Permittee's discharge may commingle with that of other Permittees, the Permittee would not be held jointly responsible for the exceedance of the water quality-based effluent limitation or receiving water limitation. Individual co-permittees who demonstrate compliance with the water quality-based effluent limitations will not be held responsible for violations by non-compliant co-permittees.

Given the interconnected nature of the Permittees' MS4s, however, the Regional Water Board expects Permittees to work cooperatively to control the contribution of pollutants from one portion of the MS4 to another portion of the system through inter-agency agreements or other formal arrangements.

L. Ocean Plan. In 1972, the State Water Resources Control Board (State Water Board) adopted the Water Quality Control Plan for Ocean Waters of California, California Ocean Plan (hereinafter Ocean Plan). The State Water Board adopted the most recent amended Ocean Plan on September 15, 2009. The Office of Administration Law approved it on March 10, 2010. On October 8, 2010, USEPA approved the 2009 Ocean Plan. The Ocean Plan is applicable, in its entirety, to the ocean waters of the State. In order to protect beneficial uses, the Ocean Plan establishes water quality objectives and a program of implementation. Pursuant to California Water Code section 13263(a), the requirements of this Order implement the Ocean Plan. The Ocean Plan identifies beneficial uses of ocean waters of the State to be protected as summarized in the table below.

Table 7. Ocean Plan Beneficial Uses

Discharge Point	Receiving Water Name	Beneficial Uses
All Municipal Separate Storm Sewer Systems (MS4s) discharge points within Los Angeles County coastal watersheds with the exception of the City of Long Beach	Pacific Ocean	Industrial Water Supply (IND); Water Contact (REC-1) and Non-Contact Recreation (REC-2), including aesthetic enjoyment; Navigation (NAV); Commercial and Sport Fishing (COMM); Mariculture; Preservation and Enhancement of Designated Areas of Special Biological Significance (ASBS); Rare and Endangered Species (RARE); Marine Habitat (MAR); Fish Migration (MIGR); Fish Spawning (SPWN) and Shellfish Harvesting (SHELL)

M. Antidegradation Policy

40 CFR section 131.12 requires that state water quality standards include an antidegradation policy consistent with the federal antidegradation policy. The State Water Board established California's antidegradation policy in State Water Board Resolution No. 68-16 ("Statement of Policy with Respect to Maintaining the Quality of the Waters of the State"). Resolution No. 68-16 incorporates the federal antidegradation policy where the federal policy applies under federal law. Resolution No. 68-16 requires that existing water quality be maintained unless degradation is

justified based on specific findings. The Regional Water Board's Basin Plan implements, and incorporates by reference, both the state and federal antidegradation policies. The permitted discharge is consistent with the antidegradation provision of section 131.12 and State Water Board Resolution No. 68-16.

N. Anti-Backsliding Requirements. Section 402(o)(2) of the CWA and federal regulations at 40 CFR section 122.44(l) prohibit backsliding in NPDES permits. These anti-backsliding provisions require effluent limitations in a reissued permit to be as stringent as those in the previous permit, with some exceptions where limitations may be relaxed. All effluent limitations in this Order are at least as stringent as the effluent limitations in the previous permit.

O. Endangered Species Act. This Order does not authorize any act that results in the taking of a threatened or endangered species or any act that is now prohibited, or becomes prohibited in the future, under either the California Endangered Species Act (Fish and Game Code, §§ 2050 to 2115.5) or the Federal Endangered Species Act (16 U.S.C.A., §§ 1531 to 1544). This Order requires compliance with requirements to protect the beneficial uses of waters of the United States. Permittees are responsible for meeting all requirements of the applicable Endangered Species Act.

P. Monitoring and Reporting. Section 308(a) of the federal Clean Water Act, and 40 CFR sections 122.41(h), (j)-(l), 122.41(i), and 122.48, require that all NPDES permits specify monitoring and reporting requirements. Federal regulations applicable to large and medium MS4s also specify additional monitoring and reporting requirements. (40 C.F.R. §§ 122.26(d)(2)(i)(F) & (d)(2)(iii)(D), 122.42(c).) California Water Code section 13383 authorizes the Regional Water Board to establish monitoring, inspection, entry, reporting, and recordkeeping requirements. The Monitoring and Reporting Program establishes monitoring, reporting, and recordkeeping requirements that implement the federal and State laws and/or regulations. This Monitoring and Reporting Program is provided in Attachment E.

Q. Standard and Special Provisions. Standard Provisions, which apply to all NPDES permits in accordance with 40 CFR section 122.41, and additional conditions applicable to specified categories of permits in accordance with 40 CFR section 122.42, are provided in Attachment D. Dischargers must comply with all standard provisions and with those additional conditions that are applicable under 40 CFR section 122.42 provided in Attachment D. The Regional Water Board has also included in Part VI of this Order various special provisions applicable to the Dischargers. A rationale for the various special provisions contained in this Order is provided in the attached Fact Sheet (Attachment F).

R. State Mandates

Article XIII B, Section 6(a) of the California Constitution provides that whenever "any state agency mandates a new program or higher level of service on any local government, the state shall provide a subvention of funds to reimburse that local government for the costs of the program or increased level of service." The requirements of this Order do not constitute state mandates that are subject to a

subvention of funds for several reasons as described in detail in the attached Fact Sheet (Attachment F).

S. California Water Code Section 13241. The California Supreme Court has ruled that although California Water Code section 13263 requires the State and Regional Water Boards (collectively, Water Boards) to consider the factors set forth in California Water Code section 13241 when issuing an NPDES permit, the Water Boards may not consider the factors to justify imposing pollutant restriction that are less stringent than the applicable federal regulations require. (***City of Burbank v. State Water Resources Control Bd.*** (2005) 35 Cal.4th 613, 618, 626-627). However, when the pollutant restrictions in an NPDES permit are more stringent than federal law requires, California Water Code section 13263 requires that the Water Boards consider the factors described in section 13241 as they apply to those specific restrictions. As noted in the preceding finding, the Regional Water Board finds that the requirements in this permit are not more stringent than the minimum federal requirements. Therefore, a 13241 analysis is not required for permit requirements that implement the effective prohibition on the discharge of non-storm water discharges into the MS4, or for controls to reduce the discharge of pollutants in storm water to the maximum extent practicable, or other provisions that the Regional Water Board has determined appropriate to control such pollutants, as those requirements are mandated by federal law. Notwithstanding the above, the Regional Water Board has developed an economic analysis of the permit's requirements, consistent with California Water Code section 13241. That analysis is provided in the Fact Sheet (Attachment F of this Order).

T. California Environmental Quality Act (CEQA). This action to adopt an NPDES Permit is exempt from the provisions of Chapter 3 of the California Environmental Quality Act (CEQA) (Public Resources Code, § 21100, et seq.) pursuant to California Water Code section 13389. (***County of Los Angeles v. Cal. Water Boards*** (2006) 143 Cal.App.4th 985.)

U. Notification of Interested Parties. In accordance with State and federal laws and regulations, the Regional Water Board has notified the Permittees and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharges authorized by this Order and has provided them with an opportunity to provide written and oral comments. Details of notification, as well as the meetings and workshops held on drafts of the permit, are provided in the Fact Sheet of this Order.

V. Consideration of Public Comment. The Regional Water Board, in a public meeting, heard and considered all oral and written comments pertaining to the discharges authorized by this Order and the requirements contained herein. The Regional Water Board has prepared written responses to all timely comments, which are incorporated by reference as part of this Order.

W. This Order serves as an NPDES permit pursuant to CWA section 402 or amendments thereto, and becomes effective fifty (50) days after the date of its adoption, provided that the Regional Administrator, USEPA, Region IX, expresses no objections.

X. This Order supersedes Order No. 01-182 as amended, except for enforcement purposes.

Y. Review by the State Water Board. Any person aggrieved by this action of the Regional Water Board may petition the State Water Board to review the action in accordance with California Water Code section 13320 and California Code of Regulations, title 23, sections 2050 and following. The State Water Board must ***receive*** the petition by 5:00 p.m., 30 days after the Regional Water Board action, except that if the thirtieth day following the action falls on a Saturday, Sunday, or state holiday, the petition must be received by the State Water Board by 5:00 p.m. on the next business day. Copies of the law and regulations applicable to filing petitions may be found on the Internet at: http://www.waterboards.ca.gov/public_notices/petitions/water_quality or will be provided upon request.

THEREFORE, IT IS HEREBY ORDERED, that the Dischargers, in order to meet the provisions contained in Division 7 of the California Water Code (commencing with section 13000), and regulations, plans, and policies adopted thereunder, and the provisions of the Clean Water Act and regulations and guidelines adopted thereunder, shall comply with the following requirements:

III. DISCHARGE PROHIBITIONS

A. Prohibitions – Non-Storm Water Discharges

1. Prohibition of Non-Storm Water Discharges. Each Permittee shall, for the portion of the MS4 for which it is an owner or operator, prohibit non-storm water discharges through the MS4 to receiving waters except where such discharges are either:

a. Authorized non-storm water discharges separately regulated by an individual or general NPDES permit;

b. Temporary non-storm water discharges authorized by USEPA[3] pursuant to sections 104(a) or 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that either: (i) will comply with water quality standards as applicable or relevant and appropriate requirements ("ARARs") under section 121(d)(2) of CERCLA; or (ii) are subject to either (a) a written waiver of ARARs by USEPA pursuant to section 121(d)(4) of CERCLA or (b) a written determination by USEPA that compliance with ARARs is not practicable considering the exigencies of the situation pursuant to 40 CFR. section 300.415(j);

c. Authorized non-storm water discharges from emergency fire fighting activities (i.e., flows necessary for the protection of life or property)[4];

d. Natural flows, including:

i. Natural springs;

[3] These typically include short-term, high volume discharges resulting from the development or redevelopment of groundwater extraction wells, or USEPA or State-required compliance testing of potable water treatment plants, as part of a USEPA authorized groundwater remediation action under CERCLA.

[4] Discharges from vehicle washing, building fire suppression system maintenance and testing (e.g., sprinkler line flushing), fire hydrant maintenance and testing, and other routine maintenance activities are not considered emergency fire fighting activities.

ii. Flows from riparian habitats and wetlands;

iii. Diverted stream flows, authorized by the State or Regional Water Board;

iv. Uncontaminated ground water infiltration[5];

v. Rising ground waters, where ground water seepage is not otherwise covered by a NPDES permit[6]; or

e. Conditionally exempt non-storm water discharges in accordance with Parts III.A.2 and III.A.3 below.

2. Conditional Exemptions from Non-Storm Water Discharge Prohibition. The following categories of non-storm water discharges are conditionally exempt from the non-storm water discharge prohibition, provided they meet all required conditions specified below, or as otherwise approved by the Regional Water Board Executive Officer, in all areas regulated by this Order with the exception of direct discharges to Areas of Special Biological Significance (ASBS) within Los Angeles County. Conditional exemptions from the prohibition on non-storm water discharges through the MS4 to an ASBS are identified in Part III.A.3 below.

a. Conditionally Exempt Essential Non-Storm Water Discharges: These consist of those discharges that fall within one of the categories below; meet all required best management practices (BMPs) as specified in i. and ii. below, including those enumerated in the referenced BMP manuals; are essential public services discharge activities; and are directly or indirectly required by other state or federal statute and/or regulation:

i. Discharges from essential ***non-emergency*** fire fighting activities[7] provided appropriate BMPs are implemented based on the CAL FIRE, Office of the State Fire Marshal's ***Water-Based Fire Protection Systems Discharge Best Management Practices Manual*** (September 2011) for water-based fire protection system discharges, and based on Riverside County's ***Best Management Practices Plan for Urban Runoff Management*** (May 1, 2004) or equivalent BMP manual for fire training activities and post-emergency fire fighting activities;

ii. Discharges from drinking water supplier distribution systems, where not otherwise regulated by an individual or general NPDES permit[8], provided

[5] Uncontaminated ground water infiltration is water other than waste water that enters the MS4 (including foundation drains) from the ground through such means as defective pipes, pipe joints, connections, or manholes. Infiltration does not include, and is distinguished from, inflow. (See 40 CFR § 35.2005(20).)

[6] A NPDES permit for discharges associated with ground water dewatering is required within the Los Angeles Region.

[7] This includes fire fighting training activities, which simulate emergency responses, and routine maintenance and testing activities necessary for the protection of life and property, including building fire suppression system maintenance and testing (e.g. sprinkler line flushing) and fire hydrant testing and maintenance. Discharges from vehicle washing are not considered essential and as such are not conditionally exempt from the non-storm water discharge prohibition.

[8] Drinking water supplier distribution system releases means sources of flows from drinking water storage, supply and distribution systems (including flows from system failures), pressure releases, system maintenance, distribution line testing, and flushing and dewatering of pipes, reservoirs, and vaults, and minor non-invasive well maintenance activities not involving chemical addition(s) where not otherwise regulated by NPDES Permit No. CAG674001, NPDES Permit No. CAG994005, or another separate NPDES permit.

appropriate BMPs are implemented based on the American Water Works Association (California-Nevada Section) ***Guidelines for the Development of Your Best Management Practices (BMP) Manual for Drinking Water System Releases*** (2005) or equivalent industry standard BMP manual. Additionally, each Permittee shall work with drinking water suppliers that may discharge to the Permittee's MS4 to ensure for all discharges greater than 100,000 gallons: (1) notification at least 72 hours prior to a planned discharge and as soon as possible after an unplanned discharge; (2) monitoring of any pollutants of concern[9] in the drinking water supplier distribution system release; and (3) record keeping by the drinking water supplier. Permittees shall require that the following information is maintained by the drinking water supplier(s) for all discharges to the MS4 (planned and unplanned) greater than 100,000 gallons: name of discharger, date and time of notification (for planned discharges), method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type of dechlorination equipment used, type of dechlorination chemicals used, concentration of residual chlorine, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be retained for five years and made available upon request by the Permittee or Regional Water Board.

b. Those discharges that fall within one of the categories below, provided that the discharge itself is not a source of pollutants and meets all required conditions specified in Table 8 or as otherwise specified or approved by the Regional Water Board Executive Officer:

i. Dewatering of lakes[10];

ii. Landscape irrigation;

iii. Dechlorinated/debrominated swimming pool/spa discharges[11], where not otherwise regulated by a separate NPDES permit;

iv. Dewatering of decorative fountains[12];

v. Non-commercial car washing by residents or by non-profit organizations;

[9] Pollutants of concern from drinking water supplier distribution system releases may include trash and debris, including organic matter, total suspended solids (TSS), residual chlorine, pH, and any pollutant for which there is a water quality-based effluent limitation (WQBEL) in Part VI.E applicable to discharges from the MS4 to the receiving water. Determination of the pollutants of concern for a particular discharge shall be based on an evaluation of the potential for the constituent(s) to be present in the discharge at levels that may cause or contribute to exceedances of applicable WQBELs or receiving water limitations.

[10] Dewatering of lakes does not include dewatering of drinking water reservoirs. Dewatering of drinking water reservoirs is addressed in Part III.A.2.a.ii.

[11] Conditionally exempt dechlorinated/debrominated swimming pool/spa discharges do not include swimming pool/spa filter backwash or swimming pool/spa water containing bacteria, detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives.

[12] Conditionally exempt discharges from dewatering of decorative fountains do not include fountain water containing bacteria, detergents, wastes, or algaecides, or any other chemicals in excess of applicable water quality objectives.

vi. Street/sidewalk wash water[13].

3. Conditional Exemptions from Non-Storm Water Discharge Prohibition within an ASBS. The following non-storm water discharges from the MS4 directly to an ASBS are conditionally exempt pursuant to the California Ocean Plan as specified below, provided that:

a. The discharges are essential for emergency response purposes, structural stability, slope stability or occur naturally, including the following discharges:

i. Discharges associated with emergency fire fighting activities (i.e., flows necessary for the protection of life or property)[14];

ii. Foundation and footing drains;

iii. Water from crawl space or basement pumps;

iv. Hillside dewatering;

v. Naturally occurring ground water seepage via a MS4; and

vi. Non-anthropogenic flows from a naturally occurring stream via a culvert or MS4, as long as there are no contributions of anthropogenic runoff.

b. The discharges fall within one of the conditionally exempt essential non-storm water discharge categories in Part III.A.2.a. above.

c. Conditionally exempt non-storm water discharges shall not cause or contribute[15] to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations in this Order or the water quality objectives in Chapter II of the Ocean Plan, or alter natural ocean water quality in an ASBS.

4. Permittee Requirements. Each Permittee shall:

a. Develop and implement procedures to ensure that a discharger, if not a named Permittee in this Order, fulfills the following for non-storm water discharges to the Permittee's MS4:

i. Notifies the Permittee of the planned discharge in advance, consistent with requirements in Table 8 or recommendations pursuant to the applicable BMP manual;

ii. Obtains any local permits required by the MS4 owner(s) and/or operator(s);

[13] Conditionally exempt non-storm water discharges of street/sidewalk wash water only include those discharges resulting from use of high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area in accordance with Regional Water Board Resolution No. 98-08. Conditionally exempt non-storm water discharges of street/sidewalk wash water do not include hosing of any sidewalk or street with a garden hose with a pressure nozzle.
[14] See note 4.
[15] Based on the water quality characteristics of the conditionally exempt non-storm water discharge itself.

iii. Provides documentation that it has obtained any other necessary permits or water quality certifications[16] for the discharge;

iv. Conducts monitoring of the discharge, if required by the Permittee;

v. Implements BMPs and/or control measures as specified in Table 8 or in the applicable BMP manual(s) as a condition of the approval to discharge into the Permittee's MS4; and

vi. Maintains records of its discharge to the MS4, consistent with requirements in Table 8 or recommendations pursuant to the applicable BMP manual. For lake dewatering, Permittees shall require that the following information is maintained by the lake owner / operator: name of discharger, date and time of notification, method of notification, location of discharge, discharge pathway, receiving water, date of discharge, time of the beginning and end of the discharge, duration of the discharge, flow rate or velocity, total number of gallons discharged, type(s) of sediment controls used, pH of discharge, type(s) of volumetric and velocity controls used, and field and laboratory monitoring data. Records shall be made available upon request by the Permittee or Regional Water Board.

b. Develop and implement procedures that minimize the discharge of landscape irrigation water into the MS4 by promoting conservation programs.

i. Permittees shall coordinate with the local water purveyor(s), where applicable, to promote landscape water use efficiency requirements for existing landscaping, use of drought tolerant, native vegetation, and the use of less toxic options for pest control and landscape management.

ii. Permittees shall develop and implement a coordinated outreach and education program to minimize the discharge of irrigation water and pollutants associated with irrigation water consistent with Part VI.D.4.c of this Order (Public Information and Participation Program).

c. Evaluate monitoring data collected pursuant to the Monitoring and Reporting Program (MRP) of this Order (Attachment E), and any other associated data or information, and determine whether any of the authorized or conditionally exempt non-storm water discharges identified in Parts III.A.1, III.A.2, and III.A.3 above are a source of pollutants that may be causing or contributing to an exceedance of applicable receiving water limitations in Part V and/or water quality-based effluent limitations in Part VI.E. To evaluate monitoring data, the Permittee shall either use applicable interim or final water quality-based effluent limitations for the pollutant or, if there are no applicable interim or final water quality-based effluent limitations for the pollutant, use applicable action levels provided in Attachment G. Based on non-storm water outfall-based monitoring as implemented through the MRP, if monitoring data show

[16] Pursuant to the Federal Clean Water Act § 401.

exceedances of applicable water quality-based effluent limitations or action levels, the Permittee shall take further action to determine whether the discharge is causing or contributing to exceedances of receiving water limitations in Part V.

d. If the Permittee determines that any of the conditionally exempt non-storm water discharges identified in Part III.A.2.b above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, the Permittee(s) shall report its findings to the Regional Water Board in its annual report. Based on this determination, the Permittee(s) shall also either:

i. Effectively prohibit[17] the non-storm water discharge to the MS4; or

ii. Impose conditions in addition to those in Table 8, subject to approval by the Regional Water Board Executive Officer, on the non-storm water discharge such that it will not be a source of pollutants; or

iii. Require diversion of the non-storm water discharge to the sanitary sewer; or

iv. Require treatment of the non-storm water discharge prior to discharge to the receiving water.

e. If the Permittee determines that any of the authorized or conditionally exempt essential non-storm water discharges identified in Parts III.A.1.a through III.A.1.c, III.A.2.a, or III.A.3 above is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, the Permittee shall notify the Regional Water Board within 30 days if the non-storm water discharge is an authorized discharge with coverage under a separate NPDES permit or authorized by USEPA under CERCLA in the manner provided in Part III.A.1.b above, or a conditionally exempt essential non-storm water discharge or emergency non-storm water discharge.

f. If the Permittee prohibits the discharge from the MS4, as per Part III.A.4.d.i, then the Permittee shall implement procedures developed under Part VI.D.9 (Illicit Connections and Illicit Discharges Elimination Program) in order to eliminate the discharge to the MS4.

5. If a Permittee demonstrates that the water quality characteristics of a specific authorized or conditionally exempt essential non-storm water discharge resulted in an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations during a specific sampling event, the Permittee shall not be found in violation of applicable receiving water limitations and/or water quality-based effluent limitations for that specific sampling event. Such

[17] To "effectively prohibit" means to not allow the non-storm water discharge through the MS4 unless the discharger obtains coverage under a separate NPDES permit prior to discharge to the MS4.

demonstration must be based on source specific water quality monitoring data from the authorized or conditionally exempt essential non-storm water discharge or other relevant information documenting the characteristics of the specific non-storm water discharge as identified in Table 8.

6. Notwithstanding the above, the Regional Water Board Executive Officer, based on an evaluation of monitoring data and other relevant information for specific categories of non-storm water discharges, may modify a category or remove categories of conditionally exempt non-storm water discharges from Parts III.A.2 and III.A.3 above if the Executive Officer determines that a discharge category is a source of pollutants that causes or contributes to an exceedance of applicable receiving water limitations and/or water quality-based effluent limitations, or may require that a discharger obtain coverage under a separate individual or general State or Regional Water Board permit for a non-storm water discharge.

Table 8. Required Conditions for Conditionally Exempt Non-Storm Water Discharges

Discharge Category	General Conditions Under Which Discharge Through the MS4 is Allowed	Conditions/BMPs that are Required to be Implemented Prior to Discharge Through the MS4
All Discharge Categories	See discharge specific conditions below.	Ensure conditionally exempt non-storm water discharges avoid potential sources of pollutants in the flow path to prevent introduction of pollutants to the MS4 and receiving water. Whenever there is a discharge of 100,000 gallons or more into the MS4, Permittees shall require advance notification by the discharger to the potentially affected MS4 Permittees, including at a minimum the LACFCD, if applicable, and the Permittee with jurisdiction over the land area from which the discharge originates.
Dewatering of lakes	Discharge allowed only if all necessary permits/water quality certifications for dredge and fill activities, including water diversions, are obtained prior to discharge.	Ensure procedures for advanced notification by the lake owner / operator to the Permittee(s) no less than 72 hours prior to the planned discharge. Immediately prior to discharge, visible trash on the shoreline or on the surface of the lake shall be removed and disposed of in a legal manner. Immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed, shall be inspected and cleaned out. Discharges shall be volumetrically and velocity controlled to minimize resuspension of sediments. Measures shall be taken to stabilize lake bottom sediments. Ensure procedures for water quality monitoring for pollutants of concern[18] in the lake. Ensure record-keeping of lake dewatering by the lake owner / operator.

[18] Pollutants of concern include, at a minimum, trash and debris, including organic matter, TSS, and any pollutant for which there is a water quality-based effluent limitation in Part VI.E for the lake and/or receiving water.

Landscape irrigation using potable water	Discharge allowed if runoff due to potable landscape irrigation is minimized through the implementation of an ordinance specifying water efficient landscaping standards, as well as an outreach and education program focusing on water conservation and landscape water use efficiency.	Implement BMPs to minimize runoff and prevent introduction of pollutants to the MS4 and receiving water. Implement water conservation programs to minimize discharge by using less water.
Landscape irrigation using reclaimed or recycled water	Discharge of reclaimed or recycled water runoff from landscape irrigation is allowed if the discharge is in compliance with the producer and distributor operations and management (O&M) plan, and all relevant portions thereof, including the Irrigation Management Plan.	Discharges must comply with applicable O&M Plans, and all relevant portions thereof, including the Irrigation Management Plan.

Dechlorinated/ debrominated swimming pool/spa discharges	Discharges allowed after implementation of specified BMPs. Pool or spa water containing copper-based algaecides is not allowed to be discharged to the MS4. Discharges of cleaning waste water and filter backwash allowed only if authorized by a separate NPDES permit.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Swimming pool water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Swimming pool water shall not contain any detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives.[19] Swimming pool discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Swimming pool discharges shall be volumetrically and velocity controlled to promote evaporation and/or infiltration. Ensure procedures for advanced notification by the pool owner to the Permittee(s) at least 72 hours prior to planned discharge for discharges of 100,000 gallons or more. For discharges of 100,000 gallons or more, immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed, shall be inspected and cleaned out.
Dewatering of decorative fountains	Discharges allowed after implementation of specified BMPs. Fountain water containing copper-based algaecides may not be discharged to the MS4. Fountain water containing dyes my not be discharged to the MS4.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Fountain water must be dechlorinated or debrominated using holding time, aeration, and/or sodium thiosulfate. Chlorine residual in the discharge shall not exceed 0.1 mg/L. Fountain discharges are to be pH adjusted, if necessary, and be within the range of 6.5 and 8.5 standard units. Fountain discharges shall be volumetrically and velocity controlled to promote evaporation and/or infiltration. Ensure procedures for advanced notification by the fountain owner to the Permittee(s) at least 72 hours prior to planned discharge for discharges of 100,000 gallons or more. For discharges of 100,000 gallons or more, immediately prior to discharge, the discharge pathway and the MS4 inlet to which the discharge is directed, shall be inspected and cleaned out.
Non-commercial car washing by residents or by non-	Discharges allowed after implementation of specified BMPs.	Implement BMPs and ensure discharge avoids potential sources of pollutants in the flow path to prevent introduction of pollutants prior to discharge to the MS4 and receiving water. Minimize the amount of water used by employing water conservation practices such as turning off

[19] Applicable mineral water quality objectives for surface waters are contained in Chapter 3 of the Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties.

profit organizations		nozzles or kinking the hose when not spraying a car, and using a low volume pressure washer. Encourage use of biodegradable, phosphate free detergents and non-toxic cleaning products. Where possible, wash cars on a permeable surface where wash water can percolate into the ground (e.g. gravel or grassy areas). Empty buckets of soapy or rinse water into the sanitary sewer system (e.g., sinks or toilets).
Street/sidewalk wash water	Discharges allowed after implementation of specified BMPs.	Sweeping should be used as an alternate BMP whenever possible and sweepings should be disposed of in the trash. BMPs shall be in accordance with Regional Water Board Resolution No. 98-08 that requires: 1) removal of trash, debris, and free standing oil/grease spills/leaks (use absorbent material if necessary) from the area before washing and 2) use of high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area. In areas of unsanitary conditions (e.g., areas where the congregation of transient populations can reasonably be expected to result in a significant threat to water quality), whenever practicable, Permittees shall collect and divert street and alley wash water from the Permittee's street and sidewalk cleaning public agency activities to the sanitary sewer.

IV. EFFLUENT LIMITATIONS AND DISCHARGE SPECIFICATIONS

A. Effluent Limitations

1. **Technology Based Effluent Limitations**: Each Permittee shall reduce pollutants in storm water discharges from the MS4 to the maximum extent practicable (MEP).

2. **Water Quality-Based Effluent Limitations (WQBELs).** This Order establishes WQBELs consistent with the assumptions and requirements of all available TMDL waste load allocations assigned to discharges from the Permittees' MS4s.

   a. Each Permittee shall comply with applicable WQBELs as set forth in Part VI.E of this Order, pursuant to applicable compliance schedules.

B. Land Discharge Specifications – Not Applicable

C. Reclamation Specifications – Not Applicable

V. RECEIVING WATER LIMITATIONS

A. Receiving Water Limitations

1. Discharges from the MS4 that cause or contribute to the violation of receiving water limitations are prohibited.

2. Discharges from the MS4 of storm water, or non-storm water, for which a Permittee is responsible[20], shall not cause or contribute to a condition of nuisance.

3. The Permittees shall comply with Parts V.A.1 and V.A.2 through timely implementation of control measures and other actions to reduce pollutants in the discharges in accordance with the storm water management program and its components and other requirements of this Order including any modifications. The storm water management program and its components shall be designed to achieve compliance with receiving water limitations. If exceedances of receiving water limitations persist, notwithstanding implementation of the storm water management program and its components and other requirements of this Order, the Permittee shall assure compliance with discharge prohibitions and receiving water limitations by complying with the following procedure:

   a. Upon a determination by either the Permittee or the Regional Water Board that discharges from the MS4 are causing or contributing to an exceedance of an applicable Receiving Water Limitation, the Permittee shall promptly notify and thereafter submit an Integrated Monitoring Compliance Report (as described in the Program Reporting Requirements, Part XVIII.A.5 of the Monitoring and Reporting Program) to the Regional Water Board for approval. The Integrated Monitoring Compliance shall describe the BMPs that are currently being

[20] Pursuant to 40 CFR § 122.26(a)(3)(vi), a Permittee is only responsible for discharges of storm water and non-storm water from the MS4 for which it is an owner or operator.

implemented by the Permittee and additional BMPs, including modifications to current BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedances of receiving water limitations. The Integrated Monitoring Compliance Report shall include an implementation schedule. This Integrated Monitoring Compliance Report shall be incorporated in the annual Storm Water Report unless the Regional Water Board directs an earlier submittal. The Regional Water Board may require modifications to the Integrated Monitoring Compliance Report.

b. The Permittee shall submit any modifications to the Integrated Monitoring Compliance Report required by the Regional Water Board within 30 days of notification.

c. Within 30 days following the Regional Water Board Executive Officer's approval of the Integrated Monitoring Compliance Report, the Permittee shall revise the storm water management program and its components and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, an implementation schedule, and any additional monitoring required.

d. The Permittee shall implement the revised storm water management program and its components and monitoring program according to the approved implementation schedule.

4. So long as the Permittee has complied with the procedures set forth in Part V.A.3. above and is implementing the revised storm water management program and its components, the Permittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the Regional Water Board to modify current BMPs or develop additional BMPs.

B. Ground Water Limitations – Not Applicable

VI. PROVISIONS

A. Standard Provisions

1. Federal Standard Provisions. Each Permittee shall comply with all Standard Provisions included in Attachment D of this Order, in accordance with 40 CFR sections 122.41 and 122.42.

2. Legal Authority

a. Each Permittee must establish and maintain adequate legal authority, within its respective jurisdiction, to control pollutant discharges into and from its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize or enable the Permittee to:

i. Control the contribution of pollutants to its MS4 from storm water discharges associated with industrial and construction activity and control the quality of storm water discharged from industrial and construction sites. This requirement applies both to industrial and construction sites with coverage under an NPDES permit, as well as to those sites that do not have coverage under an NPDES permit.

ii. Prohibit all non-storm water discharges through the MS4 to receiving waters not otherwise authorized or conditionally exempt pursuant to Part III.A;

iii. Prohibit and eliminate illicit discharges and illicit connections to the MS4;

iv. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;

v. Require compliance with conditions in Permittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);

vi. Utilize enforcement mechanisms to require compliance with applicable ordinances, permits, contracts, or orders;

vii. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Co-permittees;

viii. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as the State of California Department of Transportation;

ix. Carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with applicable municipal ordinances, permits, contracts and orders, and with the provisions of this Order, including the prohibition of non-storm water discharges into the MS4 and receiving waters. This means the Permittee must have authority to enter, monitor, inspect, take measurements, review and copy records, and require regular reports from entities discharging into its MS4;

x. Require the use of control measures to prevent or reduce the discharge of pollutants to achieve water quality standards/receiving water limitations;

xi. Require that structural BMPs are properly operated and maintained; and

xii. Require documentation on the operation and maintenance of structural BMPs and their effectiveness in reducing the discharge of pollutants to the MS4.

b. Each Permittee must submit a statement certified by its chief legal counsel that the Permittee has the legal authority within its jurisdiction to implement and enforce each of the requirements contained in 40 CFR § 122.26(d)(2)(i)(A-F) and this Order. Each Permittee shall submit this certification annually as part of its Annual Report beginning with the first Annual Report required under this Order. These statements must include:

i. Citation of applicable municipal ordinances or other appropriate legal authorities and their relationship to the requirements of 40 CFR § 122.26(d)(2)(i)(A)-(F) and of this Order; and

ii. Identification of the local administrative and legal procedures available to mandate compliance with applicable municipal ordinances identified in subsection (i) above and therefore with the conditions of this Order, and a statement as to whether enforcement actions can be completed administratively or whether they must be commenced and completed in the judicial system.

3. Fiscal Resources

a. Each Permittee shall conduct a fiscal analysis of the annual capital and operation and maintenance expenditures necessary to implement the requirements of this Order.

b. Each Permittee shall also enumerate and describe in its Annual Report the source(s) of funds used in the past year, and proposed for the coming year, to meet necessary expenditures on the Permittee's storm water management program.

4. Responsibilities of the Permittees

a. Each Permittee is required to comply with the requirements of this Order applicable to discharges within its boundaries. Permittees are not responsible for the implementation of the provisions applicable to other Permittees. Each Permittee shall:

i. Comply with the requirements of this Order and any modifications thereto.

ii. Coordinate among its internal departments and agencies, as necessary, to facilitate the implementation of the requirements of this Order applicable to such Permittees in an efficient and cost-effective manner.

iii. Participate in intra-agency coordination (e.g. Planning Department, Fire Department, Building and Safety, Code Enforcement, Public Health, Parks and Recreation, and others) and inter-agency coordination (e.g. co-Permittees, other NPDES permittees) necessary to successfully implement the provisions of this Order.

5. Public Review

a. All documents submitted to the Regional Water Board in compliance with the terms and conditions of this Order shall be made available to members of the public pursuant to the Freedom of Information Act (5 U.S.C. § 552 (as amended)) and the Public Records Act (Cal. Government Code § 6250 et seq.).

b. All documents submitted to the Regional Water Board Executive Officer for approval shall be made available to the public for a 30-day period to allow for public comment.

6. Regional Water Board Review

Any formal determination or approval made by the Regional Water Board Executive Officer pursuant to the provisions of this Order may be reviewed by the Regional Water Board. A Permittee(s) or a member of the public may request such review upon petition within 30 days of the effective date of the notification of such decision to the Permittee(s) and interested parties on file at the Regional Water Board.

7. Reopener and Modification

a. This Order may be modified, revoked, reissued, or terminated in accordance with the provisions of 40 CFR sections 122.44, 122.62, 122.63, 122.64, 124.5, 125.62, and 125.64. Causes for taking such actions include, but are not limited to:

i. Endangerment to human health or the environment resulting from the permitted activity, including information that the discharge(s) regulated by this Order may have the potential to cause or contribute to adverse impacts on water quality and/or beneficial uses;

ii. Acquisition of newly-obtained information that would have justified the application of different conditions if known at the time of Order adoption;

iii. To address changed conditions identified in required reports or other sources deemed significant by the Regional Water Board;

iv. To incorporate provisions as a result of future amendments to the Basin Plan, such as a new or revised water quality objective or the adoption or reconsideration of a TMDL, including the program of implementation. Within 18 months of the effective date of a revised TMDL or as soon as practicable thereafter, where the revisions warrant a change to the provisions of this Order, the Regional Water Board may modify this Order consistent with the assumptions and requirements of the revised WLA(s), including the program of implementation;

v. To incorporate provisions as a result of new or amended statewide water quality control plans or policies adopted by the State Water Board, or in consideration of any State Water Board action regarding the precedential language of State Water Board Order WQ 99-05;

vi. To incorporate provisions as a result of the promulgation of new or amended federal or state laws or regulations, USEPA guidance concerning regulated activities, or judicial decisions that becomes effective after adoption of this Order.

vii. To incorporate effluent limitations for toxic constituents determined to be present in significant amount in the discharge through a more comprehensive monitoring program included as part of this Order and based on the results of the reasonable potential analysis;

viii. In accordance with the provisions set forth in 40 CFR Parts 122 and 124, to include requirements for the implementation of the watershed management approach or to include new Minimum Levels (MLs); and/or

ix. To include provisions or modifications to WQBELs in Part VI.E and Attachments L-R in this Order prior to the final compliance deadlines, if practicable, that would allow an action-based, BMP compliance demonstration approach with regard to final WQBELs for storm water discharges. Such modifications shall be based on the Regional Water Board's evaluation of whether Watershed Management Programs in Part VI.C. have resulted in attainment of interim WQBELs for storm water and review of relevant research, including but not limited to data and information provided by Permittees and other stakeholders, on storm water quality and the efficacy and reliability of storm water control technologies. Provisions or modifications to WQBELs in Part VI.E. shall only be included in this Order where there is evidence that storm water control technologies can reliably achieve final WQBELs.

b. After notice and opportunity for a hearing, this Order may be terminated or modified for cause, including, but not limited to:

i. Violation of any term or condition contained in this Order;

ii. Obtaining this Order by misrepresentation, or failure to disclose all relevant facts; or

iii. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge.

c. The filing of a request by a Permittee for a modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

d. This Order may be modified to make corrections or allowances for changes in the permitted activity, following the procedures at 40 CFR section 122.63, if processed as a minor modification. Minor modifications may only:

i. Correct typographical errors; or

ii. Require more frequent monitoring or reporting by a Permittee.

8. Any discharge of waste to any point(s) other than specifically described in this Order is prohibited, and constitutes a violation of this Order.

9. A copy of this Order shall be maintained by each Permittee so as to be available during normal business hours to Permittee employees responsible for implementation of the provisions of this Order and members of the public.

10. The discharge of any product registered under the Federal Insecticide, Fungicide, and Rodenticide Act to any waste stream that may ultimately be released to waters of the United States, is prohibited, unless specifically authorized elsewhere in this Order or another NPDES permit. This requirement is not applicable to products used for lawn and agricultural purposes.

11. Oil or oily material, chemicals, refuse, or other pollutionable materials shall not be stored or deposited in areas where they may be picked up by rainfall and carried off of the property and/or discharged to surface waters. Any such spill of such materials shall be contained and removed immediately.

12. If there is any storage of hazardous or toxic materials or hydrocarbons at a facility owned and/or operated by a Permittee and if the facility is not manned at all times, a 24-hour emergency response telephone number shall be prominently posted where it can easily be read from the outside.

13. Enforcement

a. Violation of any of the provisions of this Order may subject the violator to any of the penalties described herein or in Attachment D of this Order, or any combination thereof, at the discretion of the prosecuting authority; except that only one kind of penalty may be applied for each kind of violation.

b. Failure to comply with provisions or requirements of this Order, or violation of other applicable laws or regulations governing discharges through the MS4 to receiving waters, may subject a Permittee to administrative or civil liabilities, criminal penalties, and/or other enforcement remedies to ensure compliance. Additionally, certain violations may subject a Permittee to civil or criminal enforcement from appropriate local, state, or federal law enforcement entities.

c. The California Water Code provides that any person who violates a waste discharge requirement or a provision of the California Water Code is subject to civil penalties of up to $5,000 per day, $10,000 per day, or $25,000 per day of

violation, or when the violation involves the discharge of pollutants, is subject to civil penalties of up to $10 per gallon per day or $25 per gallon per day of violation; or some combination thereof, depending on the violation, or upon the combination of violations.

d. California Water Code section 13385(h)(1) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each serious violation. Pursuant to California Water Code section 13385(h)(2), a "serious violation" is defined as any waste discharge that violates the effluent limitations contained in the applicable waste discharge requirements for a Group II pollutant by 20 percent or more, or for a Group I pollutant by 40 percent or more. Appendix A of 40 CFR section 123.45 specifies the Group I and II pollutants. Pursuant to California Water Code section 13385.1(a)(1), a "serious violation" is also defined as "a failure to file a discharge monitoring report required pursuant to Section 13383 for each complete period of 30 days following the deadline for submitting the report, if the report is designed to ensure compliance with limitations contained in waste discharge requirements that contain effluent limitations."

e. California Water Code section 13385(i) requires the Regional Water Board to assess a mandatory minimum penalty of three-thousand dollars ($3,000) for each violation whenever a person violates a waste discharge requirement effluent limitation in any period of six consecutive months, except that the requirement to assess the mandatory minimum penalty shall not be applicable to the first three violations within that time period.

f. Pursuant to California Water Code section 13385.1(d), for the purposes of section 13385.1 and subdivisions (h), (i), and (j) of section 13385, "effluent limitation" means a numeric restriction or a numerically expressed narrative restriction, on the quantity, discharge rate, concentration, or toxicity units of a pollutant or pollutants that may be discharged from an authorized location. An effluent limitation may be final or interim, and may be expressed as a prohibition. An effluent limitation, for these purposes, does not include a receiving water limitation, a compliance schedule, or a best management practice.

g. Unlike subdivision (c) of California Water Code section 13385, where violations of effluent limitations may be assessed administrative civil liability on a per day basis, the mandatory minimum penalties provisions identified above require the Regional Water Board to assess mandatory minimum penalties for "each violation" of an effluent limitation. Some water quality-based effluent limitations in Attachments L through R of this Order (e.g., trash, as described immediately below) are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year.

h. Trash TMDLs.

i. Consistent with the 2009 amendments to Order No. 01-182 to incorporate the Los Angeles River Trash TMDL, the water quality-based effluent limitations in Attachments L through R of this Order for trash are expressed as annual effluent limitations. Therefore, for such limitations, there can be no more than one violation of each interim or final effluent limitation per year. Trash is considered a Group I pollutant, as specified in Appendix A to 40 CFR section 123.45. Therefore, each annual violation of a trash effluent limitation in Attachments L through R of this Order by forty percent or more would be considered a "serious violation" under California Water Code section 13385(h). With respect to the final effluent limitation of zero trash, any detectable discharge of trash necessarily is a serious violation, in accordance with the State Water Board's Enforcement Policy. Violations of the effluent limitations in Attachments L through R of this Order would not constitute "chronic" violations that would give rise to mandatory liability under California Water Code section 13385(i) because four or more violations of the effluent limitations subject to a mandatory penalty cannot occur in a period of six consecutive months.

ii. For the purposes of enforcement under California Water Code section 13385, subdivisions (a), (b), and (c), not every storm event may result in trash discharges. In trash TMDLs adopted by the Regional Water Board, the Regional Water Board states that improperly deposited trash is mobilized during storm events of greater than 0.25 inches of precipitation. Therefore, violations of the effluent limitations are limited to the days of a storm event of greater than 0.25 inches. Once a Permittee has violated the annual effluent limitation, any subsequent discharges of trash during any day of a storm event of greater than 0.25 inches during the same storm year constitutes an additional "day in which the violation [of the effluent limitation] occurs".

14. This Order does not exempt any Permittee from compliance with any other laws, regulations, or ordinances that may be applicable.

15. The provisions of this Order are severable. If any provisions of this Order or the application of any provision of this Order to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this Order shall not be affected.

B. Monitoring and Reporting Program (MRP) Requirements

Dischargers shall comply with the MRP and future revisions thereto, in Attachment E of this Order or may, in coordination with an approved Watershed Management Program per Part VI.C, implement a customized monitoring program that achieves the five Primary Objectives set forth in Part II.A. of Attachment E and includes the elements set forth in Part II.E. of Attachment E.

C. Watershed Management Programs

1. General

a. The purpose of this Part VI.C is to allow Permittees the flexibility to develop Watershed Management Programs to implement the requirements of this Order on a watershed scale through customized strategies, control measures, and BMPs.

b. Participation in a Watershed Management Program is voluntary and allows a Permittee to address the highest watershed priorities, including complying with the requirements of Part V.A. (Receiving Water Limitations), Part VI.E (Total Maximum Daily Load Provisions) and Attachments L through R, by customizing the control measures in Parts III.A.4 (Prohibitions – Non-Storm Water Discharges) and VI.D (Minimum Control Measures).

c. Customized strategies, control measures, and BMPs shall be implemented on a watershed basis, where applicable, through each Permittee's storm water management program and/or collectively by all participating Permittees through a Watershed Management Program.

d. The Watershed Management Programs shall ensure that discharges from the Permittee's MS4: (i) achieve applicable water quality-based effluent limitations in Part VI.E and Attachments L through R pursuant to the corresponding compliance schedules, (ii) do not cause or contribute to exceedances of receiving water limitations in Parts V.A and VI.E and Attachments L through R, and (iii) do not include non-storm water discharges that are effectively prohibited pursuant to Part III.A. The programs shall also ensure that controls are implemented to reduce the discharge of pollutants to the maximum extent practicable (MEP) pursuant to Part IV.A.1.

e. Watershed Management Programs shall be developed either collaboratively or individually using the Regional Water Board's Watershed Management Areas (WMAs). Where appropriate, WMAs may be separated into subwatersheds to focus water quality prioritization and implementation efforts by receiving water.

f. Each Watershed Management Program shall be consistent with Part VI.C.5-C.8 and shall:

i. Prioritize water quality issues resulting from storm water and non-storm water discharges from the MS4 to receiving waters within each WMA,

ii. Identify and implement strategies, control measures, and BMPs to achieve the outcomes specified in Part VI.C.1.d,

iii. Execute an integrated monitoring program and assessment program pursuant to Attachment E – MRP, Part IV to determine progress towards achieving applicable limitations and/or action levels in Attachment G, and

iv. Modify strategies, control measures, and BMPs as necessary based on analysis of monitoring data collected pursuant to the MRP to ensure that applicable water quality-based effluent limitations and receiving water limitations and other milestones set forth in the Watershed Management Program are achieved in the required timeframes.

v. Provide appropriate opportunity for meaningful stakeholder input, including but not limited to, a permit-wide watershed management program technical advisory committee (TAC) that will advise and participate in the development of the Watershed Management Programs and enhanced Watershed Management Programs from month 6 through the date of program approval. The composition of the TAC may include at least one Permittee representative from each Watershed Management Area for which a Watershed Management Program will be developed, and must include a minimum of one public representative from a non-governmental organization with public membership, and staff from the Regional Water Board and USEPA Region IX.

g. Permittees may elect to develop an enhanced Watershed Management Program (EWMP). An EWMP is one that comprehensively evaluates opportunities, within the participating Permittees' collective jurisdictional area in a Watershed Management Area, for collaboration among Permittees and other partners on multi-benefit regional projects that, wherever feasible, retain (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event for the drainage areas tributary to the projects, while also achieving other benefits including flood control and water supply, among others. In drainage areas within the EWMP area where retention of the 85th percentile, 24-hour storm event is not feasible, the EWMP shall include a Reasonable Assurance Analysis to demonstrate that applicable water quality based effluent limitations and receiving water limitations shall be achieved through implementation of other watershed control measures. An EWMP shall:

i. Be consistent with the provisions in Part VI.C.1.a.-f and VI.C.5-C.8;

ii. Incorporate applicable State agency input on priority setting and other key implementation issues;

iii. Provide for meeting water quality standards and other CWA obligations by utilizing provisions in the CWA and its implementing regulations, policies and guidance;

iv. Include multi-benefit regional projects to ensure that MS4 discharges achieve compliance with all final WQBELs set forth in Part VI.E. and do not cause or contribute to exceedances of receiving water limitations in Part V.A. by retaining through infiltration or capture and reuse the storm water volume from the 85th percentile, 24-hour storm for the drainage areas tributary to the multi-benefit regional projects.;

v. In drainage areas where retention of the storm water volume from the 85th percentile, 24-hour event is not technically feasible, include other watershed control measures to ensure that MS4 discharges achieve compliance with all interim and final WQBELs set forth in Part VI.E. with compliance deadlines occurring after approval of a EWMP and to ensure that MS4 discharges do not cause or contribute to exceedances of receiving water limitations in Part V.A.;

vi. Maximize the effectiveness of funds through analysis of alternatives and the selection and sequencing of actions needed to address human health and water quality related challenges and non-compliance;

vii. Incorporate effective innovative technologies, approaches and practices, including green infrastructure;

viii. Ensure that existing requirements to comply with technology-based effluent limitations and core requirements (e.g., including elimination of non-storm water discharges of pollutants through the MS4, and controls to reduce the discharge of pollutants in storm water to the maximum extent practicable) are not delayed;

ix. Ensure that a financial strategy is in place.

2. Compliance with Receiving Water Limitations Not Otherwise Addressed by a TMDL through a WMP or EWMP

a. For receiving water limitations in Part V.A. associated with water body-pollutant combinations not addressed through a TMDL, but which a Permittee elects to address through a Watershed Management Program or EWMP as set forth in this Part VI.C., a Permittee shall comply as follows:

i. For pollutants that are in the same class[21] as those addressed in a TMDL for the watershed and for which the water body is identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:

(1) Permittees shall demonstrate that the Watershed Control Measures to achieve the applicable TMDL provisions identified pursuant to Part VI.C.5.b.iv.(3) will also adequately address contributions of the pollutant(s) within the same class from MS4 discharges to receiving waters, consistent with the assumptions and requirements of the corresponding TMDL provisions, including interim and final requirements and deadlines for their achievement, such that the MS4 discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part V.A.

[21] Pollutants are considered in a similar class if they have similar fate and transport mechanisms, can be addressed via the same types of control measures, and within the same timeline already contemplated as part of the Watershed Management Program for the TMDL.

(2) Permittees shall include the water body-pollutant combination(s) in the Reasonable Assurance Analysis in Part VI.C.5.b.iv.(5).

(3) Permittees shall identify milestones and dates for their achievement consistent with those in the corresponding TMDL.

ii. For pollutants that are not in the same class as those addressed in a TMDL for the watershed, but for which the water body is identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:

(1) Permittees shall assess contributions of the pollutant(s) from MS4 discharges to the receiving waters and sources of the pollutant(s) within the drainage area of the MS4 pursuant to Part VI.C.5.a.iii.
(2) Permittees shall identify Watershed Control Measures pursuant to Part VI.C.5.b. that will adequately address contributions of the pollutant(s) from MS4 discharges to receiving waters such that the MS4 discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part V.A.
(3) Permittees shall include the water body-pollutant in the Reasonable Assurance Analysis in Part VI.C.5.b.iv.(5).
(4) Permittees shall identify enforceable requirements and milestones and dates for their achievement to control MS4 discharges such that they do not cause or contribute to exceedances of receiving water limitations within a timeframe(s) that is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary. The time between dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint (e.g., x% of the MS4 drainage area is meeting the receiving water limitations) and dates shall relate either to taking a specific action or meeting a milestone.

(5) Where the final date(s) in (4) is beyond the term of this Order, the following conditions shall apply:

(a) For an EWMP, in drainage areas where retention of (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event will be achieved, each participating Permittee shall continue to target implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges that are a source of pollutants to receiving waters.

(b) For a WMP and in areas of a EWMP where retention of the volume in (a) is technically infeasible and where the Regional Water Board determines that MS4 discharges cause or

contribute to the water quality impairment, participating Permittees may initiate development of a stakeholder-proposed TMDL upon approval of the Watershed Management Program or EWMP. For MS4 discharges from these drainage areas to the receiving waters, any extension of this compliance mechanism beyond the term of this Order shall be consistent with the implementation schedule in a TMDL for the waterbody pollutant combination(s) adopted by the Regional Water Board.

iii. For pollutants for which there are exceedances of receiving water limitations in Part V.A., but for which the water body is not identified as impaired on the State's Clean Water Act Section 303(d) List as of the effective date of this Order:

(1) Upon an exceedance of a receiving water limitation, based on data collected pursuant to the MRP and approved IMPs and CIMPs, Permittees shall assess contributions of the pollutant(s) from MS4 discharges to the receiving waters and sources of the pollutant(s) within the drainage area of the MS4 pursuant to Part VI.C.5.a.iii.

(2) If MS4 discharges are identified as a source of the pollutant(s) that has caused or contributed to, or has the potential to cause or contribute to, the exceedance(s) of receiving water limitations in Part V.A., Permittees shall address contributions of the pollutant(s) from MS4 discharges through modifications to the WMP or EWMP pursuant to Part VI.C.8.a.ii.

(a) In a modified WMP or EWMP, Permittees shall identify Watershed Control Measures pursuant to Part VI.C.5.b. that will adequately address contributions of the pollutant(s) from MS4 discharges to receiving waters such that the MS4 discharges of the pollutant(s) will not cause or contribute to exceedances of receiving water limitations in Part V.A.

(b) Permittees shall modify the Reasonable Assurance Analysis pursuant to Part VI.C.5.b.iv.(5) to address the pollutant(s).

(c) Permittees shall identify enforceable requirements and milestones and dates for their achievement to control MS4 discharges such that they do not cause or contribute to exceedances of receiving water limitations within a timeframe(s) that is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary. The time between dates shall not exceed one year. Milestones shall relate to a specific water quality endpoint (e.g., x% of the MS4 drainage area is meeting the receiving water limitations) and dates shall relate either to taking a specific action or meeting a milestone.

(d) Where the final date(s) in (4) is beyond the term of this Order, the following conditions shall apply:

(i) For an EWMP, in drainage areas where retention of (i) all non-storm water runoff and (ii) all storm water runoff from the 85th percentile, 24-hour storm event will be achieved, each participating Permittee shall continue to target implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges that are a source of pollutants to receiving waters.

(ii) For a WMP and in areas of a EWMP where retention of the volume in (a) is technically infeasible, for newly identified exceedances of receiving water limitations, a Permittee may request that the Regional Water Board approve a modification to its WMP or EWMP to include these additional water body-pollutant combinations.

b. A Permittee's full compliance with all requirements and dates for their achievement in an approved Watershed Management Program or EWMP shall constitute a Permittee's compliance with the receiving water limitations provisions in Part V.A. of this Order for the specific water body-pollutant combinations addressed by an approved Watershed Management Program or EWMP.

c. If a Permittee fails to meet any requirement or date for its achievement in an approved Watershed Management Program or EWMP, the Permittee shall be subject to the provisions of Part V.A. for the waterbody-pollutant combination(s) that were to be addressed by the requirement.

d. Upon notification of a Permittee's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, a Permittee's full compliance with all of the following requirements shall constitute a Permittee's compliance with the receiving water limitations provisions in Part V.A. not otherwise addressed by a TMDL, if all the following requirements are met:

i. Provides timely notice of its intent to develop a WMP or EWMP,

ii. Meets all interim and final deadlines for development of a WMP or EWMP,

iii. For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of

pollutants from MS4 discharges that cause or contribute to exceedances of receiving water limitations, and

iv. Receives final approval of its WMP or EWMP within 28 or 40 months, respectively.

3. Compliance with Receiving Water Limitations Addressed by a TMDL through a WMP or EWMP

a. A Permittee's full compliance with all requirements and dates for their achievement in an approved Watershed Management Program or EWMP shall constitute a Permittee's compliance with provisions pertaining to applicable interim water quality based effluent limitations and interim receiving water limitations in Part VI.E. and Attachments L-R for the pollutant(s) addressed by the approved Watershed Management Program or EWMP.

b. Upon notification of a Permittee's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, a Permittee's full compliance with all of the following requirements shall constitute a Permittee's compliance with the receiving water limitations provisions in Part V.A., if all the following requirements are met:

i. Provides timely notice of its intent to develop a WMP or EWMP,

ii. Meets all interim and final deadlines for development of a WMP or EWMP,

iii. For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of pollutants from MS4 discharges that cause or contribute to exceedances of receiving water limitations, and

iv. Receives final approval of its WMP or EWMP within 28 or 40 months, respectively.

c. Subdivision b. does not apply to receiving water limitations corresponding to final compliance deadlines pursuant to TMDL provisions in Part VI.E. that have passed or will occur prior to approval of a WMP or EWMP.

4. Process

a. Timelines for Implementation

i. Implementation of the following requirements shall occur per the schedule specified in Table 9 below:

Table 9. Watershed Management Program Implementation Requirements

Part	Provision	Due Date
VI.C.4.b	Notify Regional Water Board of intent to develop Watershed Management Program or enhanced WMP and request submittal date for draft program plan	6 months after Order effective date
VI.C.4.c	For Permittee(s) that elect not to implement the conditions of Part VI.C.4.c.i or c.ii, submit draft plan to Regional Water Board	1 year after Order effective date
VI.C.4.c	For Permittee(s) that elect to implement the conditions of Part VI.C.4.c.i or c.ii, submit draft plan to Regional Water Board	18 months after Order effective date
VI.C.4.c.iv	For Permittees that elect to collaborate on an enhanced WMP that meets the requirements of Part VI.C.4.c.iv,submit draft plan to Regional Water Board	18 months after Order effective date, provide final work plan for development of enhanced WMP 30 months after Order effective date, submit draft plan
VI.C.4.c	Comments provided to Permittees by Regional Water Board	4 months after submittal of draft plan
VI.C.4.c	Submit final plan to Regional Water Board	3 months after receipt of Regional Water Board comments on draft plan
VI.C.4.c	Approval or denial of final plan by Regional Water Board or by the Executive Officer on behalf of the Regional Water Board	3 months after submittal of final plan
VI.C.6	Begin implementation of Watershed Management Program or EWMP	Upon approval of final plan
VI.C.8	Comprehensive evaluation of Watershed Management	Every two years from date of

	Program or EWMP and submittal of modifications to plan	approval

b. Permittees that elect to develop a Watershed Management Program or EWMP must notify the Regional Water Board no later than six months after the effective date of this Order.

i. Such notification shall specify if the Permittee(s) are requesting a 12-month or 18-month submittal date for the draft Watershed Management Program, per Part VI.C.4.c.i – ii, or if the Permittees are requesting a 18/30-month submittal date for the draft EWMP per Part VI.C.4.c.iv.

ii. As part of their notice of intent to develop a WMP or EWMP, Permittees shall identify all applicable interim and final trash WQBELs and all other final WQBELs and receiving water limitations pursuant to Part VI.E. and the applicable attachment(s) with compliance deadlines occurring prior to approval of a WMP or EWMP. Permittees shall identify watershed control measures, where possible from existing TMDL implementation plans, that will be implemented by participating Permittees concurrently with the development of a Watershed Management Program or EWMP to ensure that MS4 discharges achieve compliance with applicable interim and final trash WQBELs and all other final WQBELs and receiving water limitations set forth in Part VI.E. and the applicable attachment(s) by the applicable compliance deadlines occurring prior to approval of a WMP or EWMP.

iii. As part of their notification, Permittees electing to develop an EWMP shall submit all of the following in addition to the requirements of Part VI.C.4.b.i.-ii.:

(1) Plan concept and geographical scope,

(2) Cost estimate for plan development,

(3) Executed MOU/agreement among participating Permittees to fund plan development, or final draft MOU among participating Permittees along with a signed letter of intent from each participating City Manager or head of agency. If a final draft MOU is submitted, the MOU shall be fully executed by all participating Permittees within 12 months of the effective date of this Order.

(4) Interim milestones for plan development and deadlines for their achievement,

(5) Identification of, and commitment to fully implement, one structural BMP or a suite of BMPs at a scale that provides meaningful water quality improvement within each watershed covered by the plan within 30 months of the effective date of this Order in addition to

watershed control measures to be implemented pursuant to b.ii. above. The structural BMP or suite of BMPs shall be subject to approval by the Regional Water Board Executive Officer, and

(6) Demonstration that the requirements in Parts VI.C.4.c.iv.(1) and (2) have been met.

c. Permittees that elect to develop a Watershed Management Program shall submit a draft plan to the Regional Water Board as follows:

i. For Permittees that elect to collaborate on the development of a Watershed Management Program, Permittees shall submit the draft Watershed Management Program no later than 18 months after the effective date of this Order if the following conditions are met in greater than 50% of the land area covered by the WMP:

(1) Demonstrate that there are LID ordinances in place and/or commence development of a Low Impact Development (LID) ordinance(s) meeting the requirements of this Order's Planning and Land Development Program within 60 days of the effective date of the Order and have a draft ordinance within 6 months of the effective date of the Order, and

(2) Demonstrate that there are green streets policies in place and/or commence development of a policy(ies) that specifies the use of green street strategies for transportation corridors within 60 days of the effective date of the Order and have a draft policy within 6 months of the effective date of the Order.

(3) Demonstrate in the notification of the intent to develop a Watershed Management Program that Parts VI.C.4.c.i(1) and (2) have been met in greater than 50% of the watershed area.

ii. For a Permittee that elects to develop an individual Watershed Management Program, the Permittee shall submit the draft Watershed Management Program no later than 18 months after the effective date of this Order if the following conditions are met:

(1) Demonstrate that there is a LID ordinance in place for the Permittee's jurisdiction and/or commence development of a Low Impact Development (LID) ordinance for the Permittee's jurisdiction meeting the requirements of this Order's Planning and Land Development Program within 60 days of the effective date of the Order and have a draft ordinance within 6 months of the effective date of the Order, and

(2) Demonstrate that there is a green streets policy in place for the Permittee's jurisdiction and/or commence development of a policy

that specifies the use of green street strategies for transportation corridors within the Permittee's jurisdiction within 60 days of the effective date of the Order and have a draft policy within 6 months of the effective date of the Order.

(3) Demonstrate in the notification of the intent to develop a Watershed Management Program that Parts VI.C.4.c.ii.(1) and (2) have been met.

iii. For Permittees that elect not to implement the conditions under Part VI.C.4.c.i. or Part VI.C.4.c.ii., Permittees shall submit the draft Watershed Management Program no later than 12 months after the effective date of this Order.

iv. For Permittees that elect to collaborate on the development of an EWMP, Permittees shall submit the work plan for development of the EWMP no later than 18 months after the effective date of this Order, and shall submit the draft program no later than 30 months after the effective date of this Order if the following conditions are met in greater than 50% of the land area in the watershed:

(1) Demonstrate that there are LID ordinances in place and/or commence development of a Low Impact Development (LID) ordinance(s) meeting the requirements of this Order's Planning and Land Development Program within 60 days of the effective date of the Order and have a draft ordinance within 6 months of the effective date of the Order, and

(2) Demonstrate that there are green streets policies in place and/or commence development of a policy(ies) that specifies the use of green street strategies for transportation corridors within 60 days of the effective date of the Order and have a draft policy within 6 months of the effective date of the Order.

(3) Demonstrate in the notification of the intent to develop an EWMP that Parts VI.C.4.c.iv.(1) and (2) have been met in greater than 50% of the watershed area.

d. Until the Watershed Management Program or EWMP is approved by the Regional Water Board or by the Executive Officer on behalf of the Regional Water Board, Permittees that elect to develop a Watershed Management Program or EWMP shall:

i. Continue to implement watershed control measures in their existing storm water management programs, including actions within each of the six categories of minimum control measures consistent with 40 CFR section 122.26(d)(2)(iv),

ii. Continue to implement watershed control measures to eliminate non-storm water discharges through the MS4 that are a source of pollutants to receiving waters consistent with CWA section 402(p)(3)(B)(ii), and

iii. Implement watershed control measures, where possible from existing TMDL implementation plans, to ensure that MS4 discharges achieve compliance with interim and final trash WQBELs and all other final WQBELs and receiving water limitations pursuant to Part VI.E. and set forth in Attachments L through R by the applicable compliance deadlines occurring prior to approval of a WMP or EWMP.

e. Permittees that do not elect to develop a Watershed Management Program or EWMP, or that do not have an approved WMP or EWMP within 28 or 40 months, respectively, of the effective date of this Order, shall be subject to the baseline requirements in Part VI.D and shall demonstrate compliance with receiving water limitations pursuant to Part V.A. and with applicable interim water quality-based effluent limitations in Part VI.E pursuant to subparts VI.E.2.d.i.(1)-(3).

f. Permittees subject to the Middle Santa Ana River Watershed Bacteria Indicator TMDL shall submit a Comprehensive Bacteria Reduction Plan (CBRP) for dry weather to the Regional Water Board Executive Officer no later than nine months after the effective date of this Order. The CBRP shall describe, in detail, the specific actions that have been taken or will be taken to achieve compliance with the dry weather water quality-based effluent limitations and the receiving water limitations for the Middle Santa Ana River Watershed Bacteria Indicator TMDL by December 31, 2015. The CBRP shall also establish a schedule for developing a CBRP to comply with the water quality-based effluent limitations and the receiving water limitations for the Middle Santa Ana River Bacteria TMDL during wet weather by December 31, 2025. The CBRP may be developed in lieu of the Watershed Management Program for MS4 discharges of bacteria within the Middle Santa Ana River Watershed.

5. Program Development

a. Identification of Water Quality Priorities

Permittees shall identify the water quality priorities within each WMA that will be addressed by the Watershed Management Program. At a minimum, these priorities shall include achieving applicable water quality-based effluent limitations and/or receiving water limitations established pursuant to TMDLs, as set forth in Part VI.E and Attachments L through R of this Order.

i. Water Quality Characterization. Each plan shall include an evaluation of existing water quality conditions, including characterization of storm water and non-storm water discharges from the MS4 and receiving water quality,

to support identification and prioritization/sequencing of management actions.

ii. Water Body-Pollutant Classification. On the basis of the evaluation of existing water quality conditions, water body-pollutant combinations shall be classified into one of the following three categories:

(1) Category 1 (Highest Priority): Water body-pollutant combinations for which water quality-based effluent limitations and/or receiving water limitations are established in Part VI.E and Attachments L through R of this Order.

(2) Category 2 (High Priority): Pollutants for which data indicate water quality impairment in the receiving water according to the State's Water Quality Control Policy for Developing California's Clean Water Act Section 303(d) List (State Listing Policy) and for which MS4 discharges may be causing or contributing to the impairment.

(3) Category 3 (Medium Priority): Pollutants for which there are insufficient data to indicate water quality impairment in the receiving water according to the State's Listing Policy, but which exceed applicable receiving water limitations contained in this Order and for which MS4 discharges may be causing or contributing to the exceedance.

iii. Source Assessment. Utilizing existing information, potential sources within the watershed for the water body-pollutant combinations in Categories 1 - 3 shall be identified.

(1) Permittees shall identify known and suspected storm water and non-storm water pollutant sources in discharges to the MS4 and from the MS4 to receiving waters and any other stressors related to MS4 discharges causing or contributing to the water quality priorities. The identification of known and suspected sources of the highest water quality priorities shall consider the following:

(a) Review of available data, including but not limited to:

(i) Findings from the Permittees' Illicit Connections and Illicit Discharge Elimination Programs;

(ii) Findings from the Permittees' Industrial/Commercial Facilities Programs;

(iii) Findings from the Permittees' Development Construction Programs;

(iv) Findings from the Permittees' Public Agency Activities Programs;

(v) TMDL source investigations;

(vi) Watershed model results;

(vii) Findings from the Permittees' monitoring programs, including but not limited to TMDL compliance monitoring and receiving water monitoring; and

(viii) Any other pertinent data, information, or studies related to pollutant sources and conditions that contribute to the highest water quality priorities.

(b) Locations of the Permittees' MS4s, including, at a minimum, all MS4 major outfalls and major structural controls for storm water and non-storm water that discharge to receiving waters.

(c) Other known and suspected sources of pollutants in non-storm water or storm water discharges from the MS4 to receiving waters within the WMA.

iv. Prioritization. Based on the findings of the source assessment, the issues within each watershed shall be prioritized and sequenced. Watershed priorities shall include at a minimum:

(1) TMDLs

(a) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines within the permit term, or TMDL compliance deadlines that have already passed and limitations have not been achieved.

(b) Controlling pollutants for which there are water quality-based effluent limitations and/or receiving water limitations with interim or final compliance deadlines between September 6, 2012 and October 25, 2017.

(2) Other Receiving Water Considerations

(a) Controlling pollutants for which data indicate impairment or exceedances of receiving water limitations in the receiving water and the findings from the source assessment implicates discharges from the MS4 shall be considered the second highest priority.

b. Selection of Watershed Control Measures

i. Permittees shall identify strategies, control measures, and BMPs to implement through their individual storm water management programs, and collectively on a watershed scale, with the goal of creating an efficient program to focus individual and collective resources on watershed priorities.

ii. The objectives of the Watershed Control Measures shall include:

(1) Prevent or eliminate non-storm water discharges to the MS4 that are a source of pollutants from the MS4 to receiving waters.

(2) Implement pollutant controls necessary to achieve all applicable interim and final water quality-based effluent limitations and/or receiving water limitations pursuant to corresponding compliance schedules.

(3) Ensure that discharges from the MS4 do not cause or contribute to exceedances of receiving water limitations.

iii. Watershed Control Measures may include:

(1) Structural and/or non-structural controls and operation and maintenance procedures that are designed to achieve applicable water quality-based effluent limitations, receiving water limitations in Part VI.E and/or Attachments L through R;

(2) Retrofitting areas of existing development known or suspected to contribute to the highest water quality priorities with regional or sub-regional controls or management measures; and

(3) Stream and/or habitat rehabilitation or restoration projects where stream and/or habitat rehabilitation or restoration are necessary for, or will contribute to demonstrable improvements in the physical, chemical, and biological receiving water conditions and restoration and/or protection of water quality standards in receiving waters.

iv. The following provisions of this Order shall be incorporated as part of the Watershed Management Program:

(1) Minimum Control Measures.

(a) Permittees shall assess the minimum control measures (MCMs) as defined in Part VI.D.4 to Part VI.D.10 of this Order to identify opportunities for focusing resources on the high priority issues in each watershed. For each of the following minimum control measures, Permittees shall identify potential modifications that will address watershed priorities:

(i) Development Construction Program

(ii) Industrial/Commercial Facilities Program

(iii) Illicit Connection and Illicit Discharges Detection and Elimination Program

(iv) Public Agency Activities Program

(v) Public Information and Participation Program

(b) At a minimum, the Watershed Management Program shall include management programs consistent with 40 CFR section 122.26(d)(2)(iv)(A)-(D).

(c) If the Permittee(s) elects to eliminate a control measure identified in Parts VI.D.4, VI.D.5, VI.D.6 and VI.D.8 to VI.D.10 because that specific control measure is not applicable to the Permittee(s), the Permittee(s) shall provide a justification for its elimination. The Planning and Land Development Program is not eligible for elimination.

(d) Such customized actions, once approved as part of the Watershed Management Program, shall replace in part or in whole the requirements in Parts VI.D.4, VI.D.5, VI.D.6 and VI.D.8 to VI.D.10 for participating Permittees.

(2) Non-Storm Water Discharge Measures. Where Permittees identify non-storm water discharges from the MS4 as a source of pollutants that cause or contribute to exceedance of receiving water limitations, the Watershed Control Measures shall include strategies, control measures, and/or BMPs that must be implemented to effectively eliminate the source of pollutants consistent with Parts III.A and VI.D.10. These may include measures to prohibit the non-storm water discharge to the MS4, additional BMPs to reduce pollutants in the non-storm water discharge or conveyed by the non-storm water discharge, diversion to a sanitary sewer for treatment, or strategies to require the non-storm water discharge to be separately regulated under a general NPDES permit.

(3) TMDL Control Measures. Permittees shall compile control measures that have been identified in TMDLs and corresponding implementation plans. Permittees shall identify those control measures to be modified, if any, to most effectively address TMDL requirements within the watershed. If not sufficiently identified in previous documents, or if implementation plans have not yet been developed (e.g., USEPA established TMDLs), the Permittees shall evaluate and identify control measures to achieve water quality-based effluent limitations and/or

receiving water limitations established in this Order pursuant to these TMDLs.

(a) TMDL control measures shall include where necessary control measures to address both storm water and non-storm water discharges from the MS4.

(b) TMDL control measures may include baseline or customized activities covered under the general MCM categories in Part VI.D as well as BMPs and other control measures covered under the non-storm water discharge provisions of Part III.A of this Order.

(c) The WMP shall include, at a minimum, those actions that will be implemented during the permit term to achieve interim and/or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines within the permit term.

(4) Each plan shall include the following components:

(a) Identification of specific structural controls and non-structural best management practices, including operational source control and pollution prevention, and any other actions or programs to achieve all water quality-based effluent limitations and receiving water limitations contained in this Part VI.E and Attachments L through R to which the Permittee(s) is subject;

(b) For each structural control and non-structural best management practice, the number, type, and location(s) and/or frequency of implementation;

(c) For any pollution prevention measures, the nature, scope, and timing of implementation;

(d) For each structural control and non-structural best management practice, interim milestones and dates for achievement to ensure that TMDL compliance deadlines will be met; and

(e) The plan shall clearly identify the responsibilities of each participating Permittee for implementation of watershed control measures.

(5) Permittees shall conduct a Reasonable Assurance Analysis for each water body-pollutant combination addressed by the Watershed Management Program. A Reasonable Assurance Analysis (RAA) shall be quantitative and performed using a peer-reviewed model in the public domain. Models to be considered for the RAA, without exclusion, are the Watershed Management Modeling System (WMMS), Hydrologic Simulation Program-FORTRAN (HSPF), and the Structural BMP Prioritization and Analysis Tool (SBPAT). The RAA shall commence with assembly of all available, relevant subwatershed data collected within the last 10 years, including land use and pollutant

loading data, establishment of quality assurance/quality control (QA/QC) criteria, QA/QC checks of the data, and identification of the data set meeting the criteria for use in the analysis. Data on performance of watershed control measures needed as model input shall be drawn only from peer-reviewed sources. These data shall be statistically analyzed to determine the best estimate of performance and the confidence limits on that estimate for the pollutants to be evaluated. The objective of the RAA shall be to demonstrate the ability of Watershed Management Programs and EWMPs to ensure that Permittees' MS4 discharges achieve applicable water quality based effluent limitations and do not cause or contribute to exceedances of receiving water limitations.

(a) Permittees shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable water quality-based effluent limitations and/or receiving water limitations in Attachments L through R with compliance deadlines during the permit term.

(b) Where the TMDL Provisions in Part VI.E and Attachments L through R do not include interim or final water quality-based effluent limitations and/or receiving water limitations with compliance deadlines during the permit term, Permittees shall identify interim milestones and dates for their achievement to ensure adequate progress toward achieving interim and final water quality-based effluent limitations and/or receiving water limitations with deadlines beyond the permit term.

(c) For water body-pollutant combinations not addressed by TMDLs, Permittees shall demonstrate using the RAA that the activities and control measures identified in the Watershed Control Measures will achieve applicable receiving water limitations as soon as possible.

(6) Permittees shall provide documentation that they have the necessary legal authority to implement the Watershed Control Measures identified in the plan, or that other legal authority exists to compel implementation of the Watershed Control Measures.

c. Compliance Schedules

Permittees shall incorporate compliance schedules in Attachments L through R into the plan and, where necessary develop interim milestones and dates for their achievement. Compliance schedules and interim milestones and dates for their achievement shall be used to measure progress towards addressing the highest water quality priorities and achieving applicable water quality-based effluent limitations and/or receiving water limitations.

i. Schedules must be adequate for measuring progress on a watershed scale once every two years.

ii. Schedules must be developed for both the strategies, control measures and BMPs implemented by each Permittee within its jurisdiction and for those that will be implemented by multiple Permittees on a watershed scale.

iii. Schedules shall incorporate the following:

(1) Compliance deadlines occurring within the permit term for all applicable interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R of this Order,

(2) Interim milestones and dates for their achievement within the permit term for any applicable final water quality-based effluent limitation and/or receiving water limitation in Part VI.E and Attachments L through R, where deadlines within the permit term are not otherwise specified.

(3) For watershed priorities related to addressing exceedances of receiving water limitations in Part V.A and not otherwise addressed by Part VI.E:

(a) Milestones based on measureable criteria or indicators, to be achieved in the receiving waters and/or MS4 discharges,

(a) A schedule with dates for achieving the milestones, and

(b) A final date for achieving the receiving water limitations as soon as possible.

(c) The milestones and implementation schedule in (a)-(c) fulfill the requirements in Part V.A.3.a to prepare an Integrated Monitoring Compliance Report.

6. Watershed Management Program Implementation

Each Permittee shall begin implementing the Watershed Management Program or EWMP immediately upon approval of the plan by the Regional Water Board or the Executive Officer on behalf of the Regional Water Board.

a. Permittees may request an extension of deadlines for achievement of interim milestones established pursuant to Part VI.C.4.c.iii.(3) only. Permittees shall provide requests in writing at least 90 days prior to the deadline and shall include in the request the justification for the extension. Extensions shall be subject to approval by the Regional Water Board Executive Officer.

7. Integrated Watershed Monitoring and Assessment

Permittees in each WMA shall develop an integrated monitoring program as set forth in Part IV of the MRP (Attachment E) or implement a customized monitoring program with the primary objective of allowing for the customization of the outfall monitoring program (Parts VIII and IX) in conjunction with an approved Watershed Management Program or EWMP, as defined below. Each monitoring program shall assess progress toward achieving the water quality-based effluent limitations and/or receiving water limitations per the compliance schedules, and progress toward addressing the water quality priorities for each WMA. The customized monitoring program shall be submitted as part of the Watershed Management Program, or where Permittees elect to develop an EWMP, shall be submitted within 18 months of the effective date of this Order. If pursuing a customized monitoring program, the Permittee(s) shall provide sufficient justification for each element of the program that differs from the monitoring program requirements as set forth in Attachment E. Monitoring programs shall be subject to approval by the Executive Officer following a public comment period. The customized monitoring program shall be designed to address the Primary Objectives detailed in Attachment E, Part II.A and shall include the following program elements:

- Receiving Water Monitoring
- Storm Water Outfall Monitoring
- Non-Storm Water Outfall Monitoring
- New Development/Re-Development Effectiveness Tracking
- Regional Studies

8. Adaptive Management Process

a. Watershed Management Program Adaptive Management Process

i. Permittees in each WMA shall implement an adaptive management process, every two years from the date of program approval, adapting the Watershed Management Program or EWMP to become more effective, based on, but not limited to a consideration of the following:

(1) Progress toward achieving interim and/or final water quality-based effluent limitations and/or receiving water limitations in Part VI.E and Attachments L through R, according to established compliance schedules;

(2) Progress toward achieving improved water quality in MS4 discharges and achieving receiving water limitations through implementation of the watershed control measures based on an evaluation of outfall-based monitoring data and receiving water monitoring data;

(3) Achievement of interim milestones;

(4) Re-evaluation of the water quality priorities identified for the WMA based on more recent water quality data for discharges from the MS4 and the receiving water(s) and a reassessment of sources of pollutants in MS4 discharges;

(5) Availability of new information and data from sources other than the Permittees' monitoring program(s) within the WMA that informs the effectiveness of the actions implemented by the Permittees;

(6) Regional Water Board recommendations; and

(7) Recommendations for modifications to the Watershed Management Program solicited through a public participation process.

ii. Based on the results of the adaptive management process, Permittees shall report any modifications, including where appropriate new compliance deadlines and interim milestones, with the exception of those compliance deadlines established in a TMDL, necessary to improve the effectiveness of the Watershed Management Program or EWMP in the Annual Report, as required pursuant to Part XVIII.A.6 of the MRP (Attachment E), and as part of the Report of Waste Discharge (ROWD) required pursuant to Part II.B of Attachment D – Standard Provisions.

(1) The adaptive management process fulfills the requirements in Part V.A.4 to address continuing exceedances of receiving water limitations.

iii. Permittees shall implement any modifications to the Watershed Management Program or EWMP upon approval by the Regional Water Board Executive Officer or within 60 days of submittal if the Regional Water Board Executive Officer expresses no objections.

D. Storm Water Management Program Minimum Control Measures

1. General Requirements

a. Each Permittee shall implement the requirements in Parts VI.D.4 through VI.D.10 below, or may in lieu of the requirements in Parts VI.D.4 through VI.D.10 implement customized actions within each of these general categories of control measures as set forth in an approved Watershed Management Program per Part VI.C. Implementation shall be consistent with the requirements of 40 CFR § 122.26(d)(2)(iv).

b. Timelines for Implementation

i. Unless otherwise noted in Part VI.D, each Permittee that does not elect to develop a Watershed Management Program or EWMP per Part VI.C shall implement the requirements contained in Part VI.D within 6 months after the

effective date of this Order. In the interim, a Permittee shall continue to implement its existing storm water management program, including actions within each of the six categories of minimum control measures consistent with 40 CFR section 122.26(d)(2)(iv).

ii. Permittees that elect to develop a Watershed Management Program or EWMP shall continue to implement their existing storm water management programs, including actions within each of the six categories of minimum control measures consistent with 40 CFR section 122.26(d)(2)(iv) until the Watershed Management Program or EWMP is approved by the Regional Water Board Executive Officer.

2. Progressive Enforcement and Interagency Coordination

a. Each Permittee shall develop and implement a Progressive Enforcement Policy to ensure that (1) regulated Industrial/Commercial facilities, (2) construction sites, (3) development and redevelopment sites with post-construction controls, and (4) illicit discharges are each brought into compliance with all storm water and non-storm water requirements within a reasonable time period as specified below.

i. Follow-up Inspections

In the event that a Permittee determines, based on an inspection or illicit discharge investigation conducted, that a facility or site operator has failed to adequately implement all necessary BMPs, that Permittee shall take progressive enforcement actions which, at a minimum, shall include a follow-up inspection within 4 weeks from the date of the initial inspection and/or investigation.

ii. Enforcement Action

In the event that a Permittee determines that a facility or site operator has failed to adequately implement BMPs after a follow-up inspection, that Permittee shall take enforcement action as established through authority in its municipal code and ordinances, through the judicial system, or refer the case to the Regional Water Board, per the Interagency Coordination provisions below.

iii. Records Retention

Each Permittee shall maintain records, per their existing record retention policies, and make them available on request to the Regional Water Board, including inspection reports, warning letters, notices of violations, and other enforcement records, demonstrating a good faith effort to bring facilities into compliance.

iv. Referral of Violations of Municipal Ordinances and California Water Code § 13260

A Permittee may refer a violation(s) of its municipal storm water ordinances and/or California Water Code section 13260 by Industrial and Commercial facilities and construction site operators to the Regional Water Board

provided that the Permittee has made a good faith effort of applying its Progressive Enforcement Policy to achieve compliance with its own ordinances. At a minimum, a Permittee's good faith effort must be documented with:

(1) Two follow-up inspections, and

(2) Two warning letters or notices of violation.

v. Referral of Violations of the Industrial and Construction General Permits, including Requirements to File a Notice of Intent or No Exposure Certification

For those facilities or site operators in violation of municipal storm water ordinances and subject to the Industrial and/or Construction General Permits, Permittees may escalate referral of such violations to the Regional Water Board (promptly via telephone or electronically) after one inspection and one written notice of violation (copied to the Regional Water Board) to the facility or site operator regarding the violation. In making such referrals, Permittees shall include, at a minimum, the following documentation:

(1) Name of the facility or site,

(2) Operator of the facility or site,

(3) Owner of the facility or site,

(4) WDID Number (if applicable),

(5) Records of communication with the facility/site operator regarding the violation, which shall include at least one inspection report,

(6) The written notice of violation (copied to the Regional Water Board),

(7) For industrial sites, the industrial activity being conducted at the facility that is subject to the Industrial General Permit, and

(8) For construction sites, site acreage and Risk Factor rating.

b. Investigation of Complaints Transmitted by the Regional Water Board Staff

Each Permittee shall initiate, within one business day,[22] investigation of complaints from facilities within its jurisdiction. The initial investigation shall include, at a minimum, a limited inspection of the facility to confirm validity of the complaint and to determine if the facility is in compliance with municipal storm water ordinances and, if necessary, to oversee corrective action.

c. Assistance with Regional Water Board Enforcement Actions

As directed by the Regional Water Board Executive Officer, Permittees shall assist Regional Water Board enforcement actions by:

i. Assisting in identification of current owners, operators, and lessees of properties and sites.

[22] Permittees may comply with the Permit by taking initial steps (such as logging, prioritizing, and tasking) to "initiate" the investigation within that one business day. However, the Regional Water Board would expect that the initial investigation, including a site visit, to occur within four business days.

ii. Providing staff, when available, for joint inspections with Regional Water Board inspectors.

iii. Appearing to testify as witnesses in Regional Water Board enforcement hearings.

iv. Providing copies of inspection reports and documentation demonstrating application of its Progressive Enforcement Policy.

3. Modifications/Revisions

a. Each Permittee shall modify its storm water management programs, protocols, practices, and municipal codes to make them consistent with the requirements in this Order.

4. Requirements Applicable to the Los Angeles County Flood Control District

a. Public Information and Participation Program (PIPP)

i. General

(1) The LACFCD shall participate in a regional Public Information and Participation Program (PIPP) or alternatively, shall implement its own PIPP that includes the requirements listed in this part. The LACFCD shall collaborate, as necessary, with other Permittees to implement PIPP requirements. The objectives of the PIPP are as follows:

(a) To measurably increase the knowledge of the target audience about the MS4, the adverse impacts of storm water pollution on receiving waters and potential solutions to mitigate the impacts.

(b) To measurably change the waste disposal and storm water pollution generation behavior of target audiences by encouraging the implementation of appropriate alternatives by providing information to the public.

(c) To involve and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of stormwater pollution.

ii. PIPP Implementation

(1) The LACFCD shall implement the PIPP requirements listed in this Part VI.D.5 using one or more of the following approaches:

(a) By participating in a collaborative PIPP covering the entire service area of the Los Angeles County Flood Control District,

(b) By participating in one or more Watershed Group sponsored PIPPs, and/or

(c) Individually within the service area of the Los Angeles County Flood Control District.

(2) If the LACFCD participates in a collaborative District-wide or Watershed Group PIPP, the LACFCD shall provide the contact information for their appropriate staff responsible for storm water public education activities to the designated PIPP coordinator and contact information changes no later than 30 days after a change occurs.

iii. Public Participation

(1) The LACFCD, in collaboration with the County of Los Angeles, shall continue to maintain the countywide hotline (888-CLEAN-LA) for public reporting of clogged catch basin inlets and illicit discharges/dumping, faded or missing catch basin labels, and general storm water management information.

(a) The LACFCD shall include the reporting information, updated when necessary, in public information, and the government pages of the telephone book, as they are developed or published.

(b) The LACFCD, in collaboration with the County of Los Angeles, shall continue to maintain the www.888cleanla.com website.

iv. Residential Outreach Program

(1) Working in conjunction with a District-wide or Watershed Group sponsored PIPP or individually, the LACFCD shall implement the following activities:

(a) Conduct storm water pollution prevention public service announcements and advertising campaigns

(b) Facilitate the dissemination of public education materials including, at a minimum, information on the proper handling (i.e., disposal, storage and/or use) of:

(i) Vehicle waste fluids

(ii) Household waste materials (i.e., trash and household hazardous waste)

(iii) Construction waste materials

(iv) Pesticides and fertilizers (including integrated pest management practices [IPM] to promote reduced use of pesticides),

(v) Green waste (including lawn clippings and leaves)

(vi) Animal wastes

(c) Facilitate the dissemination of activity-specific storm water pollution prevention public education materials, at a minimum, for the following points of purchase:

(i) Automotive parts stores

(ii) Home improvement centers / lumber yards / hardware stores / paint stores

(iii) Landscaping / gardening centers

(iv) Pet shops / feed stores

(d) Maintain a storm water website, which shall include educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities listed in Part VI.D.5.

(e) When implementing activities in (a)-(d), the LACFCD shall use effective strategies to educate and involve ethnic communities in storm water pollution prevention through culturally effective methods.

b. Industrial/Commercial Facilities Program

If the LACFCD operates, or has authority over, any facility(ies) identified in Part VI.D.6.b, LACFCD shall comply with the requirements in Part VI.D.6 for those facilities.

c. Public Agency Activities Program

i. General

(1) The LACFCD shall implement a Public Agency Activities Program to minimize storm water pollution impacts from LACFCD-owned or operated facilities and activities. Requirements for Public Agency Facilities and Activities consist of the following components:

(a) Public Construction Activities Management.

(b) Public Facility Inventory

(c) Public Facility and Activity Management

(d) Vehicle and Equipment Washing

(e) Landscape and Recreational Facilities Management

(f) Storm Drain Operation and Maintenance

(g) Parking Facilities Management

(h) Emergency Procedures

(i) Employee and Contractor Training

ii. Public Construction Activities Management

(1) The LACFCD shall implement and comply with the Planning and Land Development Program requirements in Part VI.D.7 of this Order at LACFCD-owned or operated public construction projects that are categorized under the project types identified in Part VI.D.7 of this Order.

(2) The LACFCD shall implement and comply with the appropriate Development Construction Program requirements in Part VI.D.8 of this Order at LACFCD-owned or operated construction projects as applicable.

(3) For LACFCD-owned or operated projects that disturb less than one acre of soil, the LACFCD shall require the implementation of an effective combination of erosion and sediment control BMPs from Table 13 (see Construction Development Program).

(4) The LACFCD shall obtain separate coverage under the Construction General Permit for all LACFCD-owned or operated construction sites that require coverage.

iii. Public Facility Inventory

(1) The LACFCD shall maintain an updated watershed-based inventory and map of all LACFCD-owned or operated facilities that are potential sources of storm water pollution. The incorporation of facility information into a GIS is recommended. Sources to be tracked include but are not limited to the following:

(a) Chemical storage facilities

(b) Equipment storage and maintenance facilities (including landscape maintenance-related operations)

(c) Fueling or fuel storage facilities

(d) Materials storage yards

(e) Pesticide storage facilities

(f) LACFCD buildings

(g) LACFCD vehicle storage and maintenance yards

(h) All other LACFCD-owned or operated facilities or activities that the LACFCD determines may contribute a substantial pollutant load to the MS4.

(2) The LACFCD shall include the following minimum fields of information for each LACFCD-owned or operated facility in its watershed-based inventory and map.

(a) Name of facility

(b) Name of facility manager and contact information

(c) Address of facility (physical and mailing)

(d) A narrative description of activities performed and principal products used at each facility and status of exposure to storm water.

(e) Coverage under the Industrial General Permit or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

(3) The LACFCD shall update its inventory and map once during the Permit term. The update shall be accomplished through a collection of new information obtained through field activities.

iv. Public Agency Facility and Activity Management

(1) The LACFCD shall obtain separate coverage under the Industrial General Permit for all LACFCD-owned or operated facilities where industrial activities are conducted that require coverage under the Industrial General Permit.

(2) The LACFCD shall implement the following measures for flood management projects:

(a) Develop procedures to assess the impacts of flood management projects on the water quality of receiving waterbodies; and

(b) Evaluate existing structural flood control facilities during the planning phases of major maintenance or rehabilitation projects to determine if retrofitting the facility to provide additional pollutant removal from storm water is feasible.

(3) The LACFCD shall implement and maintain the general and activity-specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) or an equivalent set of BMPs when such activities occur at LACFCD-owned or operated facilities and field activities (e.g., project sites) including but not limited to the facility types listed in Part VI.D.9.c above, and at any area that includes the activities described in Table 18, or that have the potential to discharge pollutants in storm water.

(4) Any contractors hired by the LACFCD to conduct Public Agency Activities shall be contractually required to implement and maintain the general and activity specific BMPs listed in Table 18 or an equivalent set of BMPs. The LACFCD shall conduct oversight of contractor activities to ensure these BMPs are implemented and maintained.

(5) Effective source control BMPs for the activities listed in Table 18 shall be implemented at LACFCD-owned or operated facilities, unless the pollutant generating activity does not occur. The LACFCD shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA, see Attachment A for definition), a water body subject to TMDL Provisions in Part VI.E, or a CWA section 303(d) listed water body (see Part VI.E below). Likewise, for those BMPs that are not adequately protective of water quality standards, the LACFCD shall implement additional site-specific controls.

v. Vehicle and Equipment Washing

(1) The LACFCD shall implement and maintain the activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) or an equivalent set of BMPs for all fixed vehicle and equipment washing areas;

(2) The LACFCD shall prevent discharges of wash waters from vehicle and equipment washing to the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:

(a) Self-contain, and haul off for disposal; or

(b) Equip with a clarifier or an alternative pre-treatment device and plumb to the sanitary sewer in accordance with applicable waste water provider regulations

(3) The LACFCD shall ensure that any LACFCD facilities constructed, redeveloped, or replaced shall not discharge wastewater from vehicle and equipment wash areas to the MS4 by plumbing all areas to the sanitary sewer in accordance with applicable waste water provider regulations, or self-containing all waste water/ wash water and hauling to a point of legal disposal.

vi. Landscape and Recreational Facilities Management

(1) The LACFCD shall implement and maintain the activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) or an equivalent set of BMPs for all its public right-of-ways, flood control facilities and open channels and reservoirs, and landscape and recreational facilities and activities.

(2) The LACFCD shall implement an IPM program that includes the following:

(a) Pesticides are used only if monitoring indicates they are needed, and pesticides are applied according to applicable permits and established guidelines.

(b) Treatments are made with the goal of removing only the target organism.

(c) Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial non-target organisms, and the environment.

(d) The use of pesticides, including Organophosphates and Pyrethroids, does not threaten water quality.

(e) Partner, as appropriate, with other agencies and organizations to encourage the use of IPM.

(f) Adopt and verifiably implement policies, procedures, and/ or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) for Public Agency Facilities and Activities.

(g) Policies, procedures, and ordinances shall include a schedule to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:

(i) Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.

(ii) Quantify pesticide use by staff and hired contractors.

(iii) Demonstrate implementation of IPM alternatives where feasible to reduce pesticide use.

(3) The LACFCD shall implement the following requirements:

(a) Use a standardized protocol for the routine and non-routine application of pesticides (including pre-emergents), and fertilizers.

(b) Ensure there is no application of pesticides or fertilizers (1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA, (2) within 48 hours of a ½-inch rain event, or (3) when water is flowing off the area where the application is to occur. This requirement does not apply to the application of aquatic pesticides or pesticides which require water for activation.

(c) Ensure that no banned or unregistered pesticides are stored or applied.

(d) Ensure that all staff applying pesticides are certified in the appropriate category by the California Department of Pesticide Regulation, or are under the direct supervision of a pesticide applicator certified in the appropriate category.

(e) Implement procedures to encourage the retention and planting of native vegetation to reduce water, pesticide and fertilizer needs; and

(f) Store pesticides and fertilizers indoors or under cover on paved surfaces, or use secondary containment.

(i) Reduce the use, storage, and handling of hazardous materials to reduce the potential for spills.

(ii) Regularly inspect storage areas.

vii. Storm Drain Operation and Management

(1) The LACFCD shall implement and maintain the activity specific BMPs listed in Table 18 or equivalent set of BMPs for storm drain operation and maintenance.

(2) Ensure that all the material removed from the MS4 does not reenter the system. Solid material shall be dewatered in a contained area and liquid material shall be disposed in accordance with any of the following measures:

(a) Self-contain, and haul off for legal disposal; or

(b) Equip with a clarifier or an alternative pre-treatment device; and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.

(3) Catch Basin Cleaning

(a) In areas that are not subject to a trash TMDL, the LACFCD shall determine priority areas and shall update its map or list of catch basins with their GPS coordinates and priority:

Priority A: Catch basins that are designated as consistently generating the highest volumes of trash and/or debris.

Priority B: Catch basins that are designated as consistently generating moderate volumes of trash and/or debris.

Priority C: Catch basins that are designated as generating low volumes of trash and/or debris.

The map or list shall contain the rationale or data to support priority designations.

(b) In areas not subject to a trash TMDL, the LACFCD shall inspect its catch basins according to the following schedule:

Priority A: A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.

Priority B: A minimum of once during the wet season and once during the dry season every year.

Priority C: A minimum of once per year.

Catch basins shall be cleaned as necessary on the basis of inspections. At a minimum, LACFCD shall ensure that any catch basin that is determined to be at least 25% full of trash shall be cleaned out. LACFCD shall maintain inspection and cleaning records for Regional Water Board review.

(c) In areas that are subject to a trash TMDL, the subject Permittees shall implement the applicable provisions in Part VI.E.

(4) Catch Basin Labels and Open Channel Signage

(a) LACFCD shall label all catch basin inlets that they own with a legible “no dumping” message.

(b) The LACFCD shall inspect the legibility of the catch basin stencil or label nearest the inlet prior to the wet season every year.

(c) The LACFCD shall record all catch basins with illegible stencils and re-stencil or re-label within 180 days of inspection.

(d) The LACFCD shall post signs, referencing local code(s) that prohibit littering and illegal dumping, at designated public access points to open channels, creeks, urban lakes, and other relevant waterbodies.

(5) Open Channel Maintenance

The LACFCD shall implement a program for Open Channel Maintenance that includes the following:

(a) Visual monitoring of LACFCD owned open channels and other drainage structures for trash and debris at least annually;

(b) Removal of trash and debris from open channels a minimum of once per year before the wet season;

(c) Elimination of the discharge of contaminants produced by storm drain maintenance and clean outs; and

(d) Proper disposal of debris and trash removed during open channel maintenance.

(6) Infiltration from Sanitary Sewer to MS4/Preventive Maintenance

(a) The LACFCD shall implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to its MS4 thorough routine preventive maintenance of its MS4.

(b) The LACFCD shall implement controls to limit infiltration of seepage from sanitary sewers to its MS4 where necessary. Such controls must include:

(i) Adequate plan checking for construction and new development;

(ii) Incident response training for its employees that identify sanitary sewer spills;

(iii) Code enforcement inspections;

(iv) MS4 maintenance and inspections;

(v) Interagency coordination with sewer agencies; and

(vi) Proper education of its staff and contractors conducting field operations on its MS4.

(7) LACFCD-Owned Treatment Control BMPs

(a) The LACFCD shall implement an inspection and maintenance program for all LACFCD-owned treatment control BMPs, including post-construction treatment control BMPs.

(b) The LACFCD shall ensure proper operation of all its treatment control BMPs and maintain them as necessary for proper operation, including all post-construction treatment control BMPs.

(c) Any residual water produced by a treatment control BMP and not being internal to the BMP performance when being maintained shall be:

(i) Hauled away and legally disposed of; or

(ii) Applied to the land without runoff; or

(iii) Discharged to the sanitary sewer system (with permits or authorization); or

(iv) Treated or filtered to remove bacteria, sediments, nutrients, and meet the limitations set in Table 19 (Discharge Limitations for Dewatering Treatment BMPs), prior to discharge to the MS4.

viii. Parking Facilities Management

LACFCD-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned no less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a LACFCD-owned parking lot be cleaned less than once a month.

ix. Emergency Procedures

The LACFCD may conduct repairs and rehabilitation of essential public service systems and infrastructure in emergency situations with a self-waiver of the provisions of this Order as follows:

(1) The LACFCD shall abide by all other regulatory requirements, including notification to other agencies as appropriate.

(2) Where the self-waiver has been invoked, the LACFCD shall notify the Regional Water Board Executive Officer of the occurrence of the emergency no later than 30 business days after the situation of emergency has passed.

(3) Minor repairs of essential public service systems and infrastructure in emergency situations (that can be completed in less than one week) are not subject to the notification provisions. Appropriate BMPs to reduce the threat to water quality shall be implemented.

x. Employee and Contractor Training

(1) The LACFCD shall, no later than one year after Order adoption and annually thereafter before June 30, train all of their employees and contractors in targeted positions (whose interactions, jobs, and activities affect storm water quality) on the requirements of the overall storm water management program to:

(a) Promote a clear understanding of the potential for activities to pollute storm water.

(b) Identify opportunities to require, implement, and maintain appropriate BMPs in their line of work.

(2) The LACFCD shall, no later than one year after Order adoption and annually thereafter before June 30, train all of their employees and contractors who use or have the potential to use pesticides or fertilizers (whether or not they normally apply these as part of their work). Outside contractors can self-certify, providing they certify they have received all applicable training required in the Order and have documentation to that effect. Training programs shall address:

(a) The potential for pesticide-related surface water toxicity.

(b) Proper use, handling, and disposal of pesticides.

(c) Least toxic methods of pest prevention and control, including IPM.

(d) Reduction of pesticide use.

(3) The LACFCD shall require appropriate training of contractor employees in targeted positions as described above.

d. Illicit Connections and Illicit Discharge Elimination Program

i. General

(1) The LACFCD shall continue to implement an Illicit Connection and Illicit Discharge (IC/ID) Program to detect, investigate, and eliminate IC/IDs to its MS4. The IC/ID Program must be implemented in accordance with the requirements and performance measures specified in the following subsections.

(2) As stated in Part VI.A.2 of this Order, each Permittee must have adequate legal authority to prohibit IC/IDs to the MS4 and enable enforcement capabilities to eliminate the source of IC/IDs.

(3) The LACFCD's IC/ID Program shall consist of at least the following major program components:

(a) An up-to-date map of LACFCD's MS4

(b) Procedures for conducting source investigations for IC/IDs

(c) Procedures for eliminating the source of IC/IDs

(d) Procedures for public reporting of illicit discharges

(e) Spill response plan

(f) IC/IDs education and training for LACFCD staff

ii. MS4 Mapping

(1) The LACFCD shall maintain an up-to-date and accurate electronic map of its MS4. If possible, the map should be maintained within a GIS. The map must show the following, at a minimum:

(a) Within one year of Permit adoption, the location of outfalls owned and maintained by the LACFCD. Each outfall shall be given an alphanumeric identifier, which must be noted on the map. Each mapped outfall shall be located using a geographic positioning system (GPS). Photographs of the major outfalls shall be taken to provide baseline information to track operation and maintenance needs over time.

(b) The location and length of open channels and underground storm drain pipes with a diameter of 36 inches or greater that are owned and operated by the LACFCD.

(c) The location and name of all waterbodies receiving discharges from those MS4 major outfalls identified in (a).

(d) All LACFCD's dry weather diversions installed within the MS4 to direct flows from the MS4 to the sanitary sewer system, including the owner and operator of each diversion.

(e) By the end of the Permit term, map all known permitted and documented connections to its MS4 system.

(2) The MS4 map shall be updated as necessary.

iii. Illicit Discharge Source Investigation and Elimination

(1) The LACFCD shall develop written procedures for conducting investigations to prioritize and identify the source of all illicit discharges to its MS4, including procedures to eliminate the discharge once the source is located.

(2) At a minimum, the LACFCD shall initiate[23] an investigation(s) to identify and locate the source within one business day of becoming aware of the illicit discharge.

(3) When conducting investigations, the LACFCD shall comply with the following:

(a) Illicit discharges suspected of being sanitary sewage and/or significantly contaminated shall be investigated first.

(b) The LACFCD shall track all investigations to document, at a minimum, the date(s) the illicit discharge was observed; the results

[23] Permittees may comply with the Permit by taking initial steps (such as logging, prioritizing, and tasking) to "initiate" the investigation within one business day. However, the Regional Water Board would expect that the initial investigation, including a site visit, occur within two business days of becoming aware of the illicit discharge.

of the investigation; any follow-up of the investigation; and the date the investigation was closed.

(c) The LACFCD shall prioritize and investigate the source of all observed illicit discharges to its MS4.

(d) If the source of the illicit discharge is found to be a discharge authorized under an NPDES permit, the LACFCD shall document the source and report to the Regional Water Board within 30 days of determination. No further action is required.

(e) If the source of the illicit discharge has been determined to originate from within the jurisdiction of other Permittee(s) with land use authority over the suspected responsible party/parties, the LACFCD shall immediately alert the appropriate Permittee(s) of the problem for further action by the Permittee(s).

(4) When taking corrective action to eliminate illicit discharges, the LACFCD shall comply with the following:

(a) If the source of the illicit discharge has been determined or suspected by the LACFCD to originate within an upstream jurisdiction(s), the LACFCD shall immediately notify the upstream jurisdiction(s), and notify the Regional Water Board within 30 days of such determination and provide all the information collected and efforts taken.

(b) Once the Permittee with land use authority over the suspected responsible party/parties has been alerted, the LACFCD may continue to work in cooperation with the Permittee(s) to notify the responsible party/parties of the problem, and require the responsible party/parties to immediately initiate necessary corrective actions to eliminate the illicit discharge. Upon being notified that the discharge has been eliminated, the LACFCD may, in conjunction with the Permittee(s) conduct a follow-up investigation to verify that the discharge has been eliminated and cleaned up to the satisfaction of the LACFCD. The LACFCD shall document its follow-up investigation. The LACFCD may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection and investigation activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy.

(c) If the source of the illicit discharge cannot be traced to a suspected responsible party, the LACFCD, in conjunction with other affected Permittees, shall continue implementing the illicit discharge/spill response plan.

(5) In the event the LACFCD and/or other Permittees are unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, including the inability to find the responsible party/parties, or other circumstances prevent the full elimination of an ongoing illicit discharge, the LACFCD and/or other Permittees shall notify the Regional Water Board within 30 days of such determination and provide available information to the Regional Water Board.

iv. Identification and Response to Illicit Connections

(1) Investigation

The LACFCD, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation within 21 days, to determine the following: (1) source of the connection, (2) nature and volume of discharge through the connection, and (3) responsible party for the connection.

(2) Elimination

The LACFCD, upon confirmation of an illicit connection to its MS4, shall ensure that the connection is:

(a) Permitted or documented, provided the connection will only discharge storm water and non-storm water allowable under this Order or other individual or general NPDES Permits/WDRs, or

(b) Eliminated within 180 days of completion of the investigation, using its formal enforcement authority, if necessary, to eliminate the illicit connection.

(3) Documentation

Formal records must be maintained for all illicit connection investigations and the formal enforcement taken to eliminate illicit connections.

v. Public Reporting of Non-Stormwater Discharges and Spills

(1) The LACFCD shall, in collaboration with the County, continue to maintain the 888-CLEAN-LA hotline and corresponding internet site at www.888cleanla.org to promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s.

(2) The LACFCD shall include information regarding public reporting of illicit discharges or improper disposal on the signage adjacent to open channels as required in Part VI.D.9.h.vi.(4).

(3) The LACFCD shall develop and maintain written procedures that document how complaint calls and internet submissions are received, documented, and tracked to ensure that all complaints are adequately addressed. The procedures shall be evaluated annually to determine whether changes or updates are needed to ensure that the procedures accurately document the methods employed by the LACFCD. Any identified changes shall be made to the procedures subsequent to the annual evaluation.

(4) The LACFCD shall maintain documentation of the complaint calls and internet submissions and record the location of the reported spill or IC/ID and the actions undertaken, including referrals to other agencies, in response to all IC/ID complaints.

vi. Illicit Discharge and Spill Response Plan

(1) The LACFCD shall implement an ID and spill response plan for all spills that may discharge into its system. The ID and spill response plan shall clearly identify agencies responsible for ID and spill response and cleanup, contact information, and shall contain at a minimum the following requirements:

(a) Coordination with spill response teams throughout all appropriate departments, programs and agencies so that maximum water quality protection is provided.

(b) Initiation of investigation of all public and employee ID and spill complaints within one business day of receiving the complaint to assess validity.

(c) Response to ID and spills within 4 hours of becoming aware of the ID or spill, except where such IDs or spills occur on private property, in which case the response should be within 2 hours of gaining legal access to the property.

(d) IDs or spills that may endanger health or the environment shall be reported to appropriate public health agencies and the Office of Emergency Services (OES).

vii. Illicit Connection and Illicit Discharge Education and Training

(1) The LACFCD must continue to implement a training program regarding the identification of IC/IDs for all LACFCD field staff, who, as part of their normal job responsibilities (e.g., storm drain inspection and maintenance), may come into contact with or otherwise observe an illicit discharge or illicit connection to its MS4. Contact information, including the procedure for reporting an illicit discharge, must be included in the LACFCD's fleet vehicles that are used by field staff. Training program documents must be available for review by the Regional Water Board.

(2) The LACFCD's training program should address, at a minimum, the following:

(a) IC/ID identification, including definitions and examples,

(b) investigation,

(c) elimination,

(d) cleanup,

(e) reporting, and

(f) documentation.

(3) The LACFCD must create a list of applicable positions which require IC/ID training and ensure that training is provided at least twice during the term of this Order. The LACFCD must maintain documentation of the training activities.

(4) New LACFCD staff members must be provided with IC/ID training within 180 days of starting employment.

(5) The LACFCD shall require its contractors to train their employees in targeted positions as described above.

5. Public Information and Participation Program

a. General

i. Each Permittee shall implement a Public Information and Participation Program (PIPP) that includes the requirements listed in this Part VI.D.5. Each Permittee shall be responsible for developing and implementing the PIPP and implementing specific PIPP requirements. The objectives of the PIPP are as follows:

(1) To measurably increase the knowledge of the target audiences about the MS4, the adverse impacts of storm water pollution on receiving waters and potential solutions to mitigate the impacts.

(2) To measurably change the waste disposal and storm water pollution generation behavior of target audiences by developing and encouraging the implementation of appropriate alternatives.

(3) To involve and engage a diversity of socio-economic groups and ethnic communities in Los Angeles County to participate in mitigating the impacts of storm water pollution.

b. PIPP Implementation

i. Each Permittee shall implement the PIPP requirements listed in this Part VI.D.4 using one or more of the following approaches:

(1) By participating in a County-wide PIPP,

(2) By participating in one or more Watershed Group sponsored PIPPs, and/or

(3) Or individually within its jurisdiction.

ii. If a Permittee participates in a County-wide or Watershed Group PIPP, the Permittee shall provide the contact information for their appropriate staff responsible for storm water public education activities to the designated PIPP coordinator and contact information changes no later than 30 days after a change occurs.

c. Public Participation

i. Each Permittee, whether participating in a County-wide or Watershed Group sponsored PIPP, or acting individually, shall provide a means for public reporting of clogged catch basin inlets and illicit discharges/dumping, faded or missing catch basin labels, and general storm water and non-storm water pollution prevention information.

(1) Permittees may elect to use the 888-CLEAN-LA hotline as the general public reporting contact or each Permittee or Watershed Group may establish its own hotline, if preferred.

(2) Each Permittee shall include the reporting information, updated when necessary, in public information, and the government pages of the telephone book, as they are developed or published.

(3) Each Permittee shall identify staff or departments who will serve as the contact person(s) and shall make this information available on its website.

(4) Each Permittee is responsible for providing current, updated hotline contact information to the general public within its jurisdiction.

ii. Organize events targeted to residents and population subgroups to educate and involve the community in storm water and non-storm water pollution prevention and clean-up (e.g., education seminars, clean-ups, and community catch basin stenciling).

d. Residential Outreach Program

i. Working in conjunction with a County-wide or Watershed Group sponsored PIPP or individually, each Permittee shall implement the following activities:

(1) Conduct storm water pollution prevention public service announcements and advertising campaigns

(2) Public education materials shall include but are not limited to information on the proper handling (i.e., disposal, storage and/or use) of:

(a) Vehicle waste fluids

(b) Household waste materials (i.e., trash and household hazardous waste, including personal care products and pharmaceuticals)

(c) Construction waste materials

(d) Pesticides and fertilizers (including integrated pest management practices [IPM] to promote reduced use of pesticides)

(e) Green waste (including lawn clippings and leaves)

(f) Animal wastes

(3) Distribute activity specific storm water pollution prevention public education materials at, but not limited to, the following points of purchase:

(a) Automotive parts stores

(b) Home improvement centers / lumber yards / hardware stores/paint stores

(c) Landscaping / gardening centers

(d) Pet shops / feed stores

(4) Maintain storm water websites or provide links to storm water websites via the Permittee's website, which shall include educational material and opportunities for the public to participate in storm water pollution prevention and clean-up activities listed in Part VI.D.4.

(5) Provide independent, parochial, and public schools within in each Permittee's jurisdiction with materials to educate school children (K-12) on storm water pollution. Material may include videos, live presentations, and other information. Permittees are encouraged to work with, or leverage, materials produced by other statewide agencies and associations such as the State Water Board's "Erase the Waste" educational program and the California Environmental Education Interagency Network (CEEIN) to implement this requirement.

(6) When implementing activities in subsections (1)-(5), Permittees shall use effective strategies to educate and involve ethnic communities in storm water pollution prevention through culturally effective methods.

6. Industrial/Commercial Facilities Program

a. General

i. Each Permittee shall implement an Industrial / Commercial Facilities Program that meets the requirements of this Part VI.D.6. The Industrial / Commercial

Facilities Program shall be designed to prevent illicit discharges into the MS4 and receiving waters, reduce industrial / commercial discharges of storm water to the maximum extent practicable, and prevent industrial / commercial discharges from the MS4 from causing or contributing to a violation of receiving water limitations. At a minimum, the Industrial / Commercial Facilities Program shall be implemented in accordance with the requirements listed in this Part VI.D.6, or as approved in a Watershed Management Program per Part VI.C. Minimum program components shall include the following components:

(1) Track

(2) Educate

(3) Inspect

(4) Ensure compliance with municipal ordinances at industrial and commercial facilities that are critical sources of pollutants in storm water

b. Track Critical Industrial / Commercial Sources

i. Each Permittee shall maintain an updated watershed-based inventory or database containing the latitude / longitude coordinates of all industrial and commercial facilities within its jurisdiction that are critical sources of storm water pollution. The inventory or database shall be maintained in electronic format and incorporation of facility information into a Geographical Information System (GIS) is recommended. Critical Sources to be tracked are summarized below:

(1) Commercial Facilities

(a) Restaurants

(b) Automotive service facilities (including those located at automotive dealerships)

(c) Retail Gasoline Outlets

(d) Nurseries and Nursery Centers (Merchant Wholesalers, Nondurable Goods, and Retail Trade)

(2) USEPA “Phase I” Facilities [as specified in 40 CFR §122.26(b)(14)(i)-(xi)]

(3) Other federally-mandated facilities [as specified in 40 CFR §122.26(d)(2)(iv)(C)]

(a) Municipal landfills

(b) Hazardous waste treatment, disposal, and recovery facilities

(c) Industrial facilities subject to section 313 “Toxic Release Inventory” reporting requirements of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) [42 U.S.C. § 11023]

(4) All other commercial or industrial facilities that the Permittee determines may contribute a substantial pollutant load to the MS4.

ii. Each Permittee shall include the following minimum fields of information for each critical source industrial and commercial facility identified in its watershed-based inventory or database:

(1) Name of facility

(2) Name of owner/ operator and contact information

(3) Address of facility (physical and mailing)

(4) North American Industry Classification System (NAICS) code

(5) Standard Industrial Classification (SIC) code

(6) A narrative description of the activities performed and/or principal products produced

(7) Status of exposure of materials to storm water

(8) Name of receiving water

(9) Identification of whether the facility is tributary to a CWA § 303(d) listed water body segment or water body segment subject to a TMDL, where the facility generates pollutants for which the water body segment is impaired.

(10) Ability to denote if the facility is known to maintain coverage under the State Water Board's General NPDES Permit for the Discharge of Stormwater Associated with Industrial Activities (Industrial General Permit) or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

(11) Ability to denote if the facility has filed a No Exposure Certification with the State Water Board.

iii. Each Permittee shall update its inventory of critical sources at least annually. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter- and intra-agency informational databases (e.g., business licenses, pretreatment permits, sanitary sewer connection permits, and similar information).

c. Educate Industrial / Commercial Sources

i. At least once during the five-year period of this Order, each Permittee shall notify the owner/operator of each of its inventoried commercial and industrial sites identified in Part VI.D.6.b of the BMP requirements applicable to the site/source.

ii. Business Assistance Program

(1) Each Permittee shall implement a Business Assistance Program to provide technical information to businesses to facilitate their efforts to reduce the discharge of pollutants in storm water. Assistance shall be targeted to select business sectors or small businesses upon a determination that their activities may be contributing substantial pollutant

loads to the MS4 or receiving water. Assistance may include technical guidance and provision of educational materials. The Program may include:

(a) On-site technical assistance, telephone, or e-mail consultation regarding the responsibilities of business to reduce the discharge of pollutants, procedural requirements, and available guidance documents.

(b) Distribution of storm water pollution prevention educational materials to operators of auto repair shops; car wash facilities; restaurants and mobile sources including automobile/equipment repair, washing, or detailing; power washing services; mobile carpet, drape, or upholstery cleaning services; swimming pool, water softener, and spa services; portable sanitary services; and commercial applicators and distributors of pesticides, herbicides and fertilizers, if present.

d. Inspect Critical Commercial Sources

i. Frequency of Mandatory Commercial Facility Inspections

Each Permittee shall inspect all commercial facilities identified in Part VI.D.6.b twice during the 5-year term of the Order, provided that the first mandatory compliance inspection occurs no later than 2 years after the effective date of this Order. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. In addition, each Permittee shall implement the activities outlined in the following subparts.

ii. Scope of Mandatory Commercial Facility Inspections

Each Permittee shall inspect all commercial facilities to confirm that storm water and non-storm water BMPs are being effectively implemented in compliance with municipal ordinances. At each facility, inspectors shall verify that the operator is implementing effective source control BMPs for each corresponding activity. Each Permittee shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA), a water body subject to TMDL provisions in Part VI.E, or a CWA § 303(d) listed impaired water body. Likewise, for those BMPs that are not adequately protective of water quality standards, a Permittee may require additional site-specific controls.

e. Inspect Critical Industrial Sources

Each Permittee shall conduct industrial facility compliance inspections as specified below.

i. Frequency of Mandatory Industrial Facility Compliance Inspections

(1) Minimum Inspection Frequency

Each Permittee shall perform an initial mandatory compliance inspection at all industrial facilities identified in Part VI.D.6.b no later than 2 years after the effective date of this Order. After the initial inspection, all

facilities that have not filed a No Exposure Certification with the State Water Board are subject to a second mandatory compliance inspection. A minimum interval of 6 months between the first and the second mandatory compliance inspection is required. A facility need not be inspected more than twice during the term of the Order unless subject to an enforcement action as specified in Part VI.D.6.h below.

(2) Exclusion of Facilities Previously Inspected by the Regional Water Board

Each Permittee shall review the State Water Board's Storm Water Multiple Application and Report Tracking System (SMARTS) database[24] at defined intervals to determine if an industrial facility has recently been inspected by the Regional Water Board. The first interval shall occur approximately 2 years after the effective date of the Order. The Permittee does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period. The second interval shall occur approximately 4 years after the effective date of the Order. Likewise, the Permittee does not need to inspect the facility if it is determined that the Regional Water Board conducted an inspection of the facility within the prior 24 month period.

(3) No Exposure Verification

As a component of the first mandatory inspection, each Permittee shall identify those facilities that have filed a No Exposure Certification with the State Water Board. Approximately 3 to 4 years after the effective date of the Order, each Permittee shall evaluate its inventory of industrial facilities and perform a second mandatory compliance inspection at a minimum of 25% of the facilities identified to have filed a No Exposure Certification. The purpose of this inspection is to verify the continuity of the no exposure status.

(4) Exclusion Based on Watershed Management Program

A Permittee is exempt from the mandatory inspection frequencies listed above if it is implementing industrial inspections in accordance with an approved Watershed Management Program per Part VI.C.

ii. Scope of Mandatory Industrial Facility Inspections

Each Permittee shall confirm that each industrial facility:

(1) Has a current Waste Discharge Identification (WDID) number for coverage under the Industrial General Permit, and that a Storm Water Pollution Prevention Plan (SWPPP) is available on-site; ***or***

(2) Has applied for, and has received a current No Exposure Certification for facilities subject to this requirement;

(3) Is effectively implementing BMPs in compliance with municipal ordinances. Facilities must implement the source control BMPs identified

[24] SMARTS is accessible at https://smarts.waterboards.ca.gov/smarts/faces/SwSmartsLogin.jsp

in Table 10, unless the pollutant generating activity does not occur. The Permittees shall require implementation of additional BMPs where storm water from the MS4 discharges to a water body subject to TMDL Provisions in Part VI.E, or a CWA § 303(d) listed impaired water body. Likewise, if the specified BMPs are not adequately protective of water quality standards, a Permittee may require additional site-specific controls. For critical sources that discharge to MS4s that discharge to SEAs, each Permittee shall require operators to implement additional pollutant-specific controls to reduce pollutants in storm water runoff that are causing or contributing to exceedances of water quality standards.

(4) Applicable industrial facilities identified as not having either a current WDID or No Exposure Certification shall be notified that they must obtain coverage under the Industrial General Permit and shall be referred to the Regional Water Board per the Progressive Enforcement Policy procedures identified in Part VI.D.2.

f. Source Control BMPs for Commercial and Industrial Facilities

Effective source control BMPs for the activities listed in Table 10 shall be implemented at commercial and industrial facilities, unless the pollutant generating activity does not occur:

Table 10. Source Control BMPs at Commercial and Industrial Facilities

Pollutant-Generating Activity	BMP Narrative Description
Unauthorized Non-Storm water Discharges	Effective elimination of non-storm water discharges
Accidental Spills/ Leaks	Implementation of effective spills/ leaks prevention and response procedures
Vehicle/ Equipment Fueling	Implementation of effective fueling source control devices and practices
Vehicle/ Equipment Cleaning	Implementation of effective equipment/ vehicle cleaning practices and appropriate wash water management practices
Vehicle/ Equipment Repair	Implementation of effective vehicle/ equipment repair practices and source control devices
Outdoor Liquid Storage	Implementation of effective outdoor liquid storage source controls and practices
Outdoor Equipment Operations	Implementation of effective outdoor equipment source control devices and practices
Outdoor Storage of Raw Materials	Implementation of effective source control practices and structural devices
Storage and Handling of Solid Waste	Implementation of effective solid waste storage/ handling practices and appropriate control measures
Building and Grounds Maintenance	Implementation of effective facility maintenance practices

Pollutant-Generating Activity	BMP Narrative Description
Parking/ Storage Area Maintenance	Implementation of effective parking/ storage area designs and housekeeping/ maintenance practices
Storm water Conveyance System Maintenance Practices	Implementation of proper conveyance system operation and maintenance protocols
Pollutant-Generating Activity	**BMP Narrative Description from Regional Water Board Resolution No. 98-08**
Sidewalk Washing	**1.** Remove trash, debris, and free standing oil/grease spills/leaks (use absorbent material, if necessary) from the area before washing; and **2.** Use high pressure, low volume spray washing using only potable water with no cleaning agents at an average usage of 0.006 gallons per square feet of sidewalk area.
Street Washing	Collect and divert wash water to the sanitary sewer – publically owned treatment works (POTW). Note: POTW approval may be needed.

g. Significant Ecological Areas (SEAs)

See VI.D.6.e.ii.3.

h. Progressive Enforcement

Each Permittee shall implement its Progressive Enforcement Policy to ensure that Industrial / Commercial facilities are brought into compliance with all storm water requirements within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

7. Planning and Land Development Program

a. Purpose

i. Each Permittee shall implement a Planning and Land Development Program pursuant to Part VI.D.7.b for all New Development and Redevelopment projects subject to this Order to:

(1) Lessen the water quality impacts of development by using smart growth practices such as compact development, directing development towards existing communities via infill or redevelopment, and safeguarding of environmentally sensitive areas.

(2) Minimize the adverse impacts from storm water runoff on the biological integrity of Natural Drainage Systems and the beneficial uses of water

bodies in accordance with requirements under CEQA (Cal. Pub. Resources Code § 21000 et seq.).

(3) Minimize the percentage of impervious surfaces on land developments by minimizing soil compaction during construction, designing projects to minimize the impervious area footprint, and employing Low Impact Development (LID) design principles to mimic predevelopment hydrology through infiltration, evapotranspiration and rainfall harvest and use.

(4) Maintain existing riparian buffers and enhance riparian buffers when possible.

(5) Minimize pollutant loadings from impervious surfaces such as roof tops, parking lots, and roadways through the use of properly designed, technically appropriate BMPs (including Source Control BMPs such as good housekeeping practices), LID Strategies, and Treatment Control BMPs.

(6) Properly select, design and maintain LID and Hydromodification Control BMPs to address pollutants that are likely to be generated, reduce changes to pre-development hydrology, assure long-term function, and avoid the breeding of vectors[25].

(7) Prioritize the selection of BMPs to remove storm water pollutants, reduce storm water runoff volume, and beneficially use storm water to support an integrated approach to protecting water quality and managing water resources in the following order of preference:

(a) On-site infiltration, bioretention and/or rainfall harvest and use.

(b) On-site biofiltration, off-site ground water replenishment, and/or off-site retrofit.

b. Applicability

i. New Development Projects

(1) Development projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

(a) All development projects equal to 1 acre or greater of disturbed area and adding more than 10,000 square feet of impervious surface area

(b) Industrial parks 10,000 square feet or more of surface area

(c) Commercial malls 10,000 square feet or more surface area

(d) Retail gasoline outlets 5,000 square feet or more of surface area

(e) Restaurants (SIC 5812) 5,000 square feet or more of surface area

[25] Treatment BMPs when designed to drain within 96 hours of the end of rainfall minimize the potential for the breeding of vectors. See California Department of Public Health ***Best Management Practices for Mosquito Control in California*** (2012) at http://www.westnile.ca.gov/resources.php

(f) Parking lots 5,000 square feet or more of impervious surface area, or with 25 or more parking spaces

(g) Street and road construction of 10,000 square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets[26] (December 2008 EPA-833-F-08-009) to the maximum extent practicable. Street and road construction applies to standalone streets, roads, highways, and freeway projects, and also applies to streets within larger projects.

(h) Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) 5,000 square feet or more of surface area

(i) Redevelopment projects in subject categories that meet Redevelopment thresholds identified in Part VI.D.6.b.ii (Redevelopment Projects) below

(j) Projects located in or directly adjacent to, or discharging directly to a Significant Ecological Area (SEA), where the development will:

(i) Discharge storm water runoff that is likely to impact a sensitive biological species or habitat; and

(ii) Create 2,500 square feet or more of impervious surface area

(k) Single-family hillside homes. To the extent that a Permittee may lawfully impose conditions, mitigation measures or other requirements on the development or construction of a single-family home in a hillside area as defined in the applicable Permittee's Code and Ordinances, each Permittee shall require that during the construction of a single-family hillside home, the following measures are implemented:

(i) Conserve natural areas

(ii) Protect slopes and channels

(iii) Provide storm drain system stenciling and signage

(iv) Divert roof runoff to vegetated areas before discharge unless the diversion would result in slope instability

(v) Direct surface flow to vegetated areas before discharge unless the diversion would result in slope instability.

ii. Redevelopment Projects

(1) Redevelopment projects subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution, prior to completion of the project(s), are:

(a) Land-disturbing activity that results in the creation or addition or replacement of 5,000 square feet or more of impervious surface area

[26] http://water.epa.gov/infrastructure/greeninfrastructure/index.cfm

on an already developed site on development categories identified in Part VI.D.6.c. (New Development/Redevelopment Performance Criteria).

(b) Where Redevelopment results in an alteration to more than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, the entire project must be mitigated.

(c) Where Redevelopment results in an alteration of less than fifty percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-construction storm water quality control requirements, only the alteration must be mitigated, and not the entire development.

(i) Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health and safety. Impervious surface replacement, such as the reconstruction of parking lots and roadways which does not disturb additional area and maintains the original grade and alignment, is considered a routine maintenance activity. Redevelopment does not include the repaving of existing roads to maintain original line and grade.

(ii) Existing single-family dwelling and accessory structures are exempt from the Redevelopment requirements unless such projects create, add, or replace 10,000 square feet of impervious surface area.

(d) In this section, Existing Development or Redevelopment projects shall mean all discretionary permit projects or project phases that have not been deemed complete for processing, or discretionary permit projects without vesting tentative maps that have not requested and received an extension of previously granted approvals within 90 days of adoption of the Order. Projects that have been deemed complete within 90 days of adoption of the Order are not subject to the requirements Section 7.c. For Permittee's projects the effective date shall be the date the governing body or their designee approves initiation of the project design.

(e) Specifically, the Newhall Ranch Project Phases I and II (a.k.a. the Landmark and Mission Village projects) are deemed to be an existing development that will at a minimum, be designed to comply with the Specific LID Performance Standards attached to the Waste Discharge Requirements (Order No. R4-2012-0139). All subsequent phases of the Newhall Ranch Project constructed during the term of this Order shall be subject to the requirements of this Order.

c. New Development/ Redevelopment Project Performance Criteria

i. Integrated Water Quality/Flow Reduction/Resources Management Criteria

(1) Each Permittee shall require all New Development and Redevelopment projects (referred to hereinafter as "new projects") identified in Part VI.D.7.b to control pollutants, pollutant loads, and runoff volume emanating from the project site by: (1) minimizing the impervious surface area and (2) controlling runoff from impervious surfaces through infiltration, bioretention and/or rainfall harvest and use.

(2) Except as provided in Part VI.D.7.c.ii. (Technical Infeasibility or Opportunity for Regional Ground Water Replenishment), Part VI.D.7.d.i (Local Ordinance Equivalence), or Part VI.D.7.c.v (Hydromodification), below, each Permittee shall require the project to retain on-site the Stormwater Quality Design Volume (SWQDv) defined as the runoff from:

(a) The 0.75-inch, 24-hour rain event or

(b) The 85th percentile, 24-hour rain event, as determined from the Los Angeles County 85th percentile precipitation isohyetal map, ***whichever is greater***.

(3) Bioretention and biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.

(4) When evaluating the potential for on-site retention, each Permittee shall consider the maximum potential for evapotranspiration from green roofs and rainfall harvest and use.

ii. Alternative Compliance for Technical Infeasibility or Opportunity for Regional Ground Water Replenishment

(1) In instances of technical infeasibility or where a project has been determined to provide an opportunity to replenish regional ground water supplies at an offsite location, each Permittee may allow projects to comply with this Order through the alternative compliance measures as described in Part VI.D.7.c.iii.

(2) To demonstrate technical infeasibility, the project applicant must demonstrate that the project cannot reliably retain 100 percent of the SWQDv on-site, even with the maximum application of green roofs and rainwater harvest and use, and that compliance with the applicable post-construction requirements would be technically infeasible by submitting a site-specific hydrologic and/or design analysis conducted and endorsed by a registered professional engineer, geologist, architect, and/or landscape architect. Technical infeasibility may result from conditions including the following:

(a) The infiltration rate of saturated in-situ soils is less than 0.3 inch per hour and it is not technically feasible to amend the in-situ soils to attain an infiltration rate necessary to achieve reliable performance of infiltration or bioretention BMPs in retaining the SWQDv on-site.

(b) Locations where seasonal high ground water is within 5 to 10 feet of the surface,

(c) Locations within 100 feet of a ground water well used for drinking water,

(d) Brownfield development sites where infiltration poses a risk of causing pollutant mobilization,

(e) Other locations where pollutant mobilization is a documented concern[27],

(f) Locations with potential geotechnical hazards, or

(g) Smart growth and infill or redevelopment locations where the density and/ or nature of the project would create significant difficulty for compliance with the on-site volume retention requirement.

(3) To utilize alternative compliance measures to replenish ground water at an offsite location, the project applicant shall demonstrate ***(i)*** why it is not advantageous to replenish ground water at the project site, ***(ii)*** that ground water can be used for beneficial purposes at the offsite location, and ***(iii)*** that the alternative measures shall also provide equal or greater water quality benefits to the receiving surface water than the Water Quality/Flow Reduction/Resource Management Criteria in Part VI.7.D.c.i.

iii. Alternative Compliance Measures

When a Permittee determines a project applicant has demonstrated that it is technically infeasible to retain 100 percent of the SWQDv on-site, or is proposing an alternative offsite project to replenish regional ground water supplies, the Permittee shall require one of the following mitigation options:

(1) On-site Biofiltration

(a) If using biofiltration due to demonstrated technical infeasibility, then the new project must biofiltrate 1.5 times the portion of the SWQDv that is not reliably retained on-site, as calculated by Equation 1 below.

Equation 1:

$$Bv = 1.5 * [SWQDv - Rv]$$

Where:

Bv = biofiltration volume

[27] Pollutant mobilization is considered a documented concern at or near properties that are contaminated or store hazardous substances underground.

SWQDv = the storm water runoff from a 0.75 inch, 24-hour storm or the 85th percentile storm, ***whichever is greater***.

Rv = volume reliably retained on-site

(b) Conditions for On-site Biofiltration

(i) Biofiltration systems shall meet the design specifications provided in Attachment H to this Order unless otherwise approved by the Regional Water Board Executive Officer.

(ii) Biofiltration systems discharging to a receiving water that is included on the Clean Water Act section 303(d) list of impaired water quality-limited water bodies due to nitrogen compounds or related effects shall be designed and maintained to achieve enhanced nitrogen removal capability. See Attachment H for design criteria for underdrain placement to achieve enhanced nitrogen removal.

(2) Offsite Infiltration

(a) Use infiltration or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv, less the volume of storm water runoff reliably retained on-site, at an approved offsite project, and

(b) Provide pollutant reduction (treatment) of the storm water runoff discharged from the project site in accordance with the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.

(c) The required offsite mitigation volume shall be calculated by Equation 2 below and equal to:

Equation 2:

$$Mv = 1.0 * [SWQDv - Rv]$$

Where:

Mv = mitigation volume

SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, ***whichever is greater***

Rv = the volume of storm water runoff reliably retained on-site.

(3) Ground Water Replenishment Projects

Permittees may propose, in their Watershed Management Program or EWMP, regional projects to replenish regional ground water supplies at offsite locations, provided the groundwater supply has a designated beneficial use in the Basin Plan.

(a) Regional groundwater replenishment projects must use infiltration, ground water replenishment, or bioretention BMPs to intercept a volume of storm water runoff equal to the SWQDv for new development and redevelopment projects, subject to Permittee conditioning and approval for the design and implementation of post-construction controls, within the approved project area, and

(b) Provide pollutant reduction (treatment) of the storm water runoff discharged from development projects, within the project area, subject to Permittee conditioning and approval for the design and implementation of post-construction controls to mitigate storm water pollution in accordance with the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.

(c) Permittees implementing a regional ground water replenishment project in lieu of onsite controls shall ensure the volume of runoff captured by the project shall be equal to:

Equation 2:

$$Mv = 1.0 * [SWQDv - Rv]$$

Where:

Mv = mitigation volume

SWQDv = runoff from the 0.75 inch, 24-hour storm event or the 85th percentile storm, whichever is greater

Rv = the volume of storm water runoff reliably retained on-site.

(d) Regional groundwater replenishment projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment projects which did not implement on site retention BMPs . Each Permittee may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.

(4) Offsite Project - Retrofit Existing Development

Use infiltration, bioretention, rainfall harvest and use and/or biofiltration BMPs to retrofit an existing development, with similar land uses as the new development or land uses associated with comparable or higher storm water runoff event mean concentrations (EMCs) than the new development.

Comparison of EMCs for different land uses shall be based on published data from studies performed in southern California. The retrofit plan shall be designed and constructed to:

(a) Intercept a volume of storm water runoff equal to the mitigation volume (Mv) as described above in Equation 2, except biofiltration BMPs shall be designed to meet the biofiltration volume as described in Equation 1 and

(b) Provide pollutant reduction (treatment) of the storm water runoff from the project site as described in the Water Quality Mitigation Criteria provided in Part VI.D.7.c.iv.

(5) Conditions for Offsite Projects

(a) Project applicants seeking to utilize these alternative compliance provisions may propose other offsite projects, which the Permittees may approve if they meet the requirements of this subpart.

(b) Location of offsite projects. Offsite projects shall be located in the same sub-watershed (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) as the new development or redevelopment project. Each Permittee may consider locations outside of the HUC-12 but within the HUC-10 subwatershed area if there are no opportunities within the HUC-12 subwatershed or if greater pollutant reductions and/or ground water replenishment can be achieved at a location within the expanded HUC-10 subwatershed. The use of a mitigation, ground water replenishment, or retrofit project outside of the HUC-12 subwatershed is subject to the approval of the Executive Officer of the Regional Water Board.

(c) Project applicant must demonstrate that equal benefits to ground water recharge cannot be met on the project site.

(d) Each Permittee shall develop a prioritized list of offsite mitigation, ground water replenishment and/or retrofit projects, and when feasible, the mitigation must be directed to the highest priority project within the same HUC-12 or if approved by the Regional Water Board Executive Officer, the HUC-10 drainage area, as the new development project.

(e) Infiltration/bioretention shall be the preferred LID BMP for offsite mitigation or ground water replenishment projects. Offsite retrofit projects may include green streets, parking lot retrofits, green roofs, and rainfall harvest and use. Biofiltration BMPs may be considered for retrofit projects when infiltration, bioretention or rainfall harvest and use is technically infeasible.

(f) Each Permittee shall develop a schedule for the completion of offsite projects, including milestone dates to identify, fund, design, and construct the projects. Offsite projects shall be completed as soon as possible, and at the latest, within 4 years of the certificate of occupancy for the first project that contributed funds toward the

construction of the offsite project, unless a longer period is otherwise authorized by the Executive Officer of the Regional Water Board. For public offsite projects, each Permittee must provide in their annual reports a summary of total offsite project funds raised to date and a description (including location, general design concept, volume of water expected to be retained, and total estimated budget) of all pending public offsite projects. Funding sufficient to address the offsite volume must be transferred to the Permittee (for public offsite mitigation projects) or to an escrow account (for private offsite mitigation projects) within one year of the initiation of construction.

(g) Offsite projects must be approved by the Permittee and may be subject to approval by the Regional Water Board Executive Officer, if a third-party petitions the Executive Officer to review the project. Offsite projects will be publicly noticed on the Regional Water Board's website for 30 days prior to approval.

(h) The project applicant must perform the offsite projects as approved by either the Permittee or the Regional Water Board Executive Officer or provide sufficient funding for public or private offsite projects to achieve the equivalent mitigation storm water volume.

(6) Regional Storm Water Mitigation Program

A Permittee or Permittee group may apply to the Regional Water Board for approval of a regional or sub-regional storm water mitigation program to substitute in part or wholly for New and Redevelopment requirements for the area covered by the regional or sub-regional storm water mitigation program. Upon review and a determination by the Regional Water Board Executive Officer that the proposal is technically valid and appropriate, the Regional Water Board may consider for approval such a program if its implementation meets all of the following requirements:

(a) Retains the runoff from the 85th percentile, 24-hour rain event or the 0.75 inch, 24-hour rain event, whichever is greater;
(b) Results in improved storm water quality;
(c) Protects stream habitat;
(d) Promotes cooperative problem solving by diverse interests;
(e) Is fiscally sustainable and has secure funding; and
(f) Is completed in five years including the construction and start-up of treatment facilities.
(g) Nothing in this provision shall be construed as to delay the implementation of requirements for new and redevelopment, as approved in this Order.

(7) Water Quality Mitigation Criteria

(a) Each Permittee shall require all New Development and Redevelopment projects that have been approved for offsite mitigation or ground water replenishment projects as defined in Part VI.D.7.c.ii-iii to also provide treatment of storm water runoff from the project site. Each Permittee shall require these projects to design and implement post-construction storm water BMPs and control measures to reduce pollutant loading as necessary to:

(i) Meet the pollutant specific benchmarks listed in Table 11 at the treatment systems outlet or prior to the discharge to the MS4, and

(ii) Ensure that the discharge does not cause or contribute to an exceedance of water quality standards at the Permittee's downstream MS4 outfall.

(b) Each Permittee may allow the project proponent to install flow-through modular treatment systems including sand filters, or other proprietary BMP treatment systems with a demonstrated efficiency at least equivalent to a sand filter. The sizing of the flow through treatment device shall be based on a rainfall intensity of:

(i) 0.2 inches per hour, or

(ii) The one year, one-hour rainfall intensity as determined from the most recent Los Angeles County isohyetal map, ***whichever is greater***.

Table 11. Benchmarks Applicable to New Development Treatment BMPs[28]

Conventional Pollutants

Pollutant	Suspended Solids mg/L	Total P mg/L	Total N mg/L		TKN mg/L	
Effluent Concentration	14	0.13	1.28		1.09	

Metals

Pollutant	Total Cd µg/L	Total Cu µg/L	Total Cr µg/L	Total Pb µg/L	Total Zn µg/L
Effluent Concentration	0.3	6	2.8	2.5	23

[28] The treatment control BMP performance benchmarks were developed from the median effluent water quality values of the six highest performing BMPs, per pollutant, in the storm water BMP database (http://www.bmpdatabase.org/, last visited September 25, 2012).

(c) In addition to the requirements for controlling pollutant discharges as described in Part VI.D.7.c.iii. and the treatment benchmarks described above, each Permittee shall ensure that the new development or redevelopment will not cause or contribute to an exceedance of applicable water quality-based effluent limitations established in Part VI.E pursuant to Total Maximum Daily Loads (TMDLs).

iv. Hydromodification (Flow/ Volume/ Duration) Control Criteria

Each Permittee shall require all New Development and Redevelopment projects located within natural drainage systems as described in Part VI.D.7.c.iv.(1)(a)(iii) to implement hydrologic control measures, to prevent accelerated downstream erosion and to protect stream habitat in natural drainage systems. The purpose of the hydrologic controls is to minimize changes in post-development hydrologic storm water runoff discharge rates, velocities, and duration. This shall be achieved by maintaining the project's pre-project storm water runoff flow rates and durations.

(1) Description

(a) Hydromodification control in natural drainage systems shall be achieved by maintaining the Erosion Potential (Ep) in streams at a value of 1, unless an alternative value can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and prevent damage to stream habitat in natural drainage system tributaries (see Attachment J - Determination of Erosion Potential).

(ii) Hydromodification control may include one, or a combination of on-site, regional or sub-regional hydromodification control BMPs, LID strategies, or stream and riparian buffer restoration measures. Any in-stream restoration measure shall not adversely affect the beneficial uses of the natural drainage systems.

(iii) Natural drainage systems that are subject to the hydromodification assessments and controls as described in this Part of the Order, include all drainages that have not been improved (e.g., channelized or armored with concrete, shotcrete, or rip-rap) or drainage systems that are tributary to a natural drainage system, except as provided in Part VI.D.7c.iv.(1)(b)--Exemptions to Hydromodification Controls [see below]. The clearing or dredging of a natural drainage system does not constitute an "improvement."

(iv) Until the State Water Board or the Regional Water Board adopts a final Hydromodification Policy or criteria, Permittees shall implement the Hydromodification Control Criteria described in Part VI.D.7.c.iv.(1)(c) to control the potential adverse impacts of changes in hydrology that may result from new development and

redevelopment projects located within natural drainage systems as described in Part VI.D.7.c.iv.(1)(a)(iii).

(b) Exemptions to Hydromodification Controls. Permittees may exempt the following New Development and Redevelopment projects from implementation of hydromodification controls where assessments of downstream channel conditions and proposed discharge hydrology indicate that adverse hydromodification effects to beneficial uses of Natural Drainage Systems are unlikely:

(i) Projects that are replacement, maintenance or repair of a Permittee's existing flood control facility, storm drain, or transportation network.

(ii) Redevelopment Projects in the Urban Core that do not increase the effective impervious area or decrease the infiltration capacity of pervious areas compared to the pre-project conditions.

(iii) Projects that have any increased discharge directly or via a storm drain to a sump, lake, area under tidal influence, into a waterway that has a 100-year peak flow (Q100) of 25,000 cfs or more, or other receiving water that is not susceptible to hydromodification impacts.

(iv) Projects that discharge directly or via a storm drain into concrete or otherwise engineered (not natural) channels (e.g., channelized or armored with rip rap, shotcrete, etc.), which, in turn, discharge into receiving water that is not susceptible to hydromodification impacts (as in Parts VI.D.7.c.iv.(1)(b)(i)-(iii) above).

(v) LID BMPs implemented on single family homes are sufficient to comply with Hydromodification criteria.

(c) Hydromodification Control Criteria. The Hydromodification Control Criteria to protect natural drainage systems are as follows:

(i) Except as provided for in Part VI.D.7.c.iv.(1)(b), projects disturbing an area greater than 1 acre but less than 50 acres within natural drainage systems will be presumed to meet pre-development hydrology if one of the following demonstrations is made:

1. The project is designed to retain on-site, through infiltration, evapotranspiration, and/or harvest and use, the storm water volume from the runoff of the 95th percentile, 24-hour storm, or
2. The runoff flow rate, volume, velocity, and duration for the post-development condition do not exceed the pre-development condition for the 2-year, 24-hour rainfall event. This condition may be substantiated by simple screening models, including those described in ***Hydromodification Effects on Flow Peaks***

and Durations in Southern California Urbanizing Watersheds (Hawley et al., 2011) or other models acceptable to the Executive Officer of the Regional Water Board, or

3. The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by a Hydromodification Analysis Study and the equation presented in Attachment J. Alternatively, Permittees can opt to use other work equations to calculate Erosion Potential with Executive Officer approval.

(ii) Projects disturbing 50 acres or more within natural drainage systems will be presumed to meet pre-development hydrology based on the successful demonstration of one of the following conditions:

1. The site infiltrates on-site at least the runoff from a 2-year, 24-hour storm event, or
2. The runoff flow rate, volume, velocity, and duration for the post-development condition does not exceed the pre-development condition for the 2-year, 24-hour rainfall events. These conditions must be substantiated by hydrologic modeling acceptable to the Regional Water Board Executive Officer, or
3. The Erosion Potential (Ep) in the receiving water channel will approximate 1, as determined by a Hydromodification Analysis Study and the equation presented in Attachment J.

(c) Alternative Hydromodification Criteria

(i) Permittees may satisfy the requirement for Hydromodification Controls by implementing the hydromodification requirements in the County of Los Angeles Low Impact Development Manual (2009) for all projects disturbing an area greater than 1 acre within natural drainage systems.

(ii) Each Permittee may alternatively develop and implement watershed specific Hydromodification Control Plans (HCPs). Such plans shall be developed no later than one year after the effective date of this Order.

(iii) The HCP shall identify:

1. Stream classifications
2. Flow rate and duration control methods
3. Sub-watershed mitigation strategies
4. Stream and/or riparian buffer restoration measures, which will maintain the stream and tributary Erosion Potential at 1 unless

an alternative value can be shown to be protective of the natural drainage systems from erosion, incision, and sedimentation that can occur as a result of flow increases from impervious surfaces and prevent damage to stream habitat in natural drainage system tributaries.

(iv) The HCP shall contain the following elements:

1. Hydromodification Management Standards
2. Natural Drainage Areas and Hydromodification Management Control Areas
3. New Development and Redevelopment Projects subject to the HCP
4. Description of authorized Hydromodification Management Control BMPs
5. Hydromodification Management Control BMP Design Criteria
6. For flow duration control methods, the range of flows to control for, and goodness of fit criteria
7. Allowable low critical flow, Qc, which initiates sediment transport
8. Description of the approved Hydromodification Model
9. Any alternate Hydromodification Management Model and Design
10. Stream Restoration Measures Design Criteria
11. Monitoring and Effectiveness Assessment
12. Record Keeping
13. The HCP shall be deemed in effect upon Executive Officer approval.

v. Watershed Equivalence.

Regardless of the methods through which Permittees allow project applicants to implement alternative compliance measures, the subwatershed-wide (defined as draining to the same HUC-12 hydrologic area in the Basin Plan) result of all development must be at least the same level of water quality protection as would have been achieved if all projects utilizing these alternative compliance provisions had complied with Part VI.D.7.c.i (Integrated Water Quality/Flow Reduction/Resource Management Criteria).

vi. Annual Report

Each Permittee shall provide in their annual report to the Regional Water Board a list of mitigation project descriptions and estimated pollutant and flow reduction analyses (compiled from design specifications submitted by project

applicants and approved by the Permittee(s)). Within 4 years of Order adoption, Permittees must submit in their Annual Report, a comparison of the expected aggregate results of alternative compliance projects to the results that would otherwise have been achieved by retaining on site the SWQDv.

d. Implementation

i. Local Ordinance Equivalence

A Permittee that has adopted a local LID ordinance prior to the adoption of this Order, and which includes a retention requirement numerically equal to the 0.75-inch, 24-hour rain event or the 85th percentile, 24-hour rain event, whichever is greater, may submit documentation to the Regional Water Board that the alternative requirements in the local ordinance will provide equal or greater reduction in storm water discharge pollutant loading and volume as would have been obtained through strict conformance with Part VI.D.7.c.i. (Integrated Water Quality/Flow Reduction Resources Management Criteria) or Part VI.D.7.c.ii. (Alternative Compliance Measures for Technical Infeasibility or Opportunity for Regional Ground water Replenishment) of this Order and, if applicable, Part VI.D.7.c.iv. (Hydromodification (Flow/Volume Duration) Control Criteria).

(1) Documentation shall be submitted within 180 days after the effective date of this Order.

(2) The Regional Water Board shall provide public notice of the proposed equivalency determination and a minimum 30-day period for public comment. After review and consideration of public comments, the Regional Water Board Executive Officer will determine whether implementation of the local ordinance provides equivalent pollutant control to the applicable provisions of this Order. Local ordinances that do not strictly conform to the provisions of this Order must be approved by the Regional Water Board Executive Officer as being “equivalent” in effect to the applicable provisions of this Order in order to substitute for the requirements in Parts VI.D.7.c.i and, where applicable, VI.D.7.c.iv.

(3) Where the Regional Water Board Executive Officer determines that a Permittee’s local LID ordinance does not provide equivalent pollutant control, the Permittee shall either

(a) Require conformance with Parts VI.D.7.c.i and, where applicable, VI.D.7.c.iv, or

(b) Update its local ordinance to conform to the requirements herein within two years of the effective date of this Order.

ii. Project Coordination

(1) Each Permittee shall facilitate a process for effective approval of post-construction storm water control measures. The process shall include:

(a) Detailed LID site design and BMP review including BMP sizing calculations, BMP pollutant removal performance, and municipal approval; and

(b) An established structure for communication and delineated authority between and among municipal departments that have jurisdiction over project review, plan approval, and project construction through memoranda of understanding or an equivalent agreement.

iii. Maintenance Agreement and Transfer

(1) Prior to issuing approval for final occupancy, each Permittee shall require that all new development and redevelopment projects subject to post-construction BMP requirements, with the exception of simple LID BMPs implemented on single family residences, provide an operation and maintenance plan, monitoring plan, where required, and verification of ongoing maintenance provisions for LID practices, Treatment Control BMPs, and Hydromodification Control BMPs including but not limited to: final map conditions, legal agreements, covenants, conditions or restrictions, CEQA mitigation requirements, conditional use permits, and/ or other legally binding maintenance agreements. Permittees shall require maintenance records be kept on site for treatment BMPs implemented on single family residences.

(a) Verification at a minimum shall include the developer's signed statement accepting responsibility for maintenance until the responsibility is legally transferred; and either:

(i) A signed statement from the public entity assuming responsibility for BMP maintenance; or

(ii) Written conditions in the sales or lease agreement, which require the property owner or tenant to assume responsibility for BMP maintenance and conduct a maintenance inspection at least once a year; or

(iii) Written text in project covenants, conditions, and restrictions (CCRs) for residential properties assigning BMP maintenance responsibilities to the Home Owners Association; or

(iv) Any other legally enforceable agreement or mechanism that assigns responsibility for the maintenance of BMPs.

(b) Each Permittee shall require all development projects subject to post-construction BMP requirements to provide a plan for the operation and maintenance of all structural and treatment controls. The plan shall be submitted for examination of relevance to keeping the BMPs in proper working order. Where BMPs are transferred to Permittee for ownership and maintenance, the plan shall also include all relevant costs for upkeep of BMPs in the transfer. Operation and Maintenance plans for private BMPs shall be kept on-site for periodic review by Permittee inspectors.

iv. Tracking, Inspection, and Enforcement of Post-Construction BMPs

(1) Each Permittee shall implement a tracking system and an inspection and enforcement program for new development and redevelopment post-construction storm water no later than 60 days after Order adoption date.

(a) Implement a GIS or other electronic system for tracking projects that have been conditioned for post-construction BMPs. The electronic system, at a minimum, should contain the following information:

(i) Municipal Project ID

(ii) State WDID No.

(iii) Project Acreage

(iv) BMP Type and Description

(v) BMP Location (coordinates)

(vi) Date of Acceptance

(vii) Date of Maintenance Agreement

(viii) Maintenance Records

(ix) Inspection Date and Summary

(x) Corrective Action

(xi) Date Certificate of Occupancy Issued

(xii) Replacement or Repair Date

(b) Inspect all development sites upon completion of construction and prior to the issuance of occupancy certificates to ensure proper installation of LID measures, structural BMPs, treatment control BMPs and hydromodification control BMPs. The inspection may be combined with other inspections provided it is conducted by trained personnel.

(c) Verify proper maintenance and operation of post-construction BMPs previously approved for new development and redevelopment and operated by the Permittee. The post-construction BMP maintenance inspection program shall incorporate the following elements:

(i) The development of a Post-construction BMP Maintenance Inspection checklist

(ii) Inspection at least once every 2 years after project completion, of post-construction BMPs to assess operation conditions with particular attention to criteria and procedures for post-construction

treatment control and hydromodification control BMP repair, replacement, or re-vegetation.

(d) For post-construction BMPs operated and maintained by parties other than the Permittee, the Permittee shall require the other parties to document proper maintenance and operations.

(e) Undertake enforcement action per the established Progressive Enforcement Policy as appropriate based on the results of the inspection. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

8. Development Construction Program

a. Each Permittee shall develop, implement, and enforce a construction program that:

i. Prevents illicit construction-related discharges of pollutants into the MS4 and receiving waters.

ii. Implements and maintains structural and non-structural BMPs to reduce pollutants in storm water runoff from construction sites.

iii. Reduces construction site discharges of pollutants to the MS4 to the MEP.

iv. Prevents construction site discharges to the MS4 from causing or contributing to a violation of water quality standards.

b. Each Permittee shall establish for its jurisdiction an enforceable erosion and sediment control ordinance for all construction sites that disturb soil.

c. Applicability

The provisions contained in Part VI.D.8.d below apply exclusively to construction sites less than 1 acre. Provisions contained in Part VI.D.8.e – j, apply exclusively to construction sites 1 acre or greater. The requirements contained in this part apply to all activities involving soil disturbance with the exception of agricultural activities. Activities covered by this permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving and linear underground/overhead projects (LUPs).

d. Requirements for Construction Sites Less than One Acre

i. For construction sites less than 1 acre, each Permittee shall:

(1) Through the use of the Permittee's erosion and sediment control ordinance or and/or building permit, require the implementation of an effective combination of erosion and sediment control BMPs from Table 12 to prevent erosion and sediment loss, and the discharge of construction wastes.

Table 12. Applicable Set of BMPs for All Construction Sites

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
Sediment Controls	Silt Fence
	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm Water Management	Water Conservation Practices
	Dewatering Operations
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management
	Concrete Waste Management
	Sanitary/Septic Waste Management

(2) Possess the ability to identify all construction sites with soil disturbing activities that require a permit, regardless of size, and shall be able to provide a list of permitted sites upon request of the Regional Water Board. Permittees may use existing permit databases or other tracking systems to comply with these requirements.

(3) Inspect construction sites on as needed based on the evaluation of the factors that are a threat to water quality. In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.

(4) Implement the Permittee's Progressive Enforcement Policy to ensure that construction sites are brought into compliance with the erosion and sediment control ordinance within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

e. Each Permittee shall require operators of public and private construction sites within its jurisdiction to select, install, implement, and maintain BMPs that comply with its erosion and sediment control ordinance.

f. The requirements contained in this part apply to all activities involving soil disturbance with the exception of agricultural activities. Activities covered by this permit include but are not limited to grading, vegetation clearing, soil compaction, paving, re-paving and linear underground/overhead projects (LUPs).

g. Construction Site Inventory / Electronic Tracking System

i. Each Permittee shall use an electronic system to inventory grading permits, encroachment permits, demolition permits, building permits, or construction permits (and any other municipal authorization to move soil and/ or construct or destruct that involves land disturbance) issued by the Permittee. To satisfy this requirement, the use of a database or GIS system is recommended.

ii. Each Permittee shall complete an inventory and continuously update as new sites are permitted and sites are completed. The inventory / tracking system shall contain, at a minimum:

(1) Relevant contact information for each project (e.g., name, address, phone, email, etc. for the owner and contractor.

(2) The basic site information including location, status, size of the project and area of disturbance.

(3) The proximity all water bodies, water bodies listed as impaired by sediment-related pollutants, and water bodies for which a sediment-related TMDL has been adopted and approved by USEPA.

(4) Significant threat to water quality status, based on consideration of factors listed in Appendix 1 to the Statewide General Permit for Discharges of Storm Water Associated with Construction Activity (Construction General Permit).

(5) Current construction phase where feasible.

(6) The required inspection frequency.

(7) The project start date and anticipated completion date.

(8) Whether the project has submitted a Notice of Intent and obtained coverage under the Construction General Permit.

(9) The date the Permittee approved the Erosion and Sediment Control Plan (ESCP).

(10) Post-Construction Structural BMPs subject to Operation and Maintenance Requirements.

h. Construction Plan Review and Approval Procedures

i. Each Permittee shall develop procedures to review and approve relevant construction plan documents.

ii. The review procedures shall be developed and implemented such that the following minimum requirements are met:

(1) Prior to issuing a grading or building permit, each Permittee shall require each operator of a construction activity within its jurisdiction to prepare and submit an ESCP prior to the disturbance of land for the Permittee's review and written approval. The construction site operator shall be prohibited from commencing construction activity prior to receipt of written approval by the Permittee. Each Permittee shall not approve any ESCP unless it contains appropriate site-specific construction site BMPs that

meet the minimum requirements of a Permittee's erosion and sediment control ordinance.

(2) ESCPs must include the elements of a Storm Water Pollution Prevention Plan (SWPPP). SWPPPs prepared in accordance with the requirements of the Construction General Permit can be accepted as ESCPs.

(3) At a minimum, the ESCP must address the following elements:

(a) Methods to minimize the footprint of the disturbed area and to prevent soil compaction outside of the disturbed area.

(b) Methods used to protect native vegetation and trees.

(c) Sediment/Erosion Control.

(d) Controls to prevent tracking on and off the site.

(e) Non-storm water controls (e.g., vehicle washing, dewatering, etc.).

(f) Materials Management (delivery and storage).

(g) Spill Prevention and Control.

(h) Waste Management (e.g., concrete washout/waste management; sanitary waste management).

(i) Identification of site Risk Level as identified per the requirements in Appendix 1 of the Construction General Permit.

(4) The ESCP must include the rationale for the selection and design of the proposed BMPs, including quantifying the expected soil loss from different BMPs.

(5) Each Permittee shall require that the ESCP is developed and certified by a Qualified SWPPP Developer (QSD).

(6) Each Permittee shall require that all structural BMPs be designed by a licensed California Engineer.

(7) Each Permittee shall require that for all sites, the landowner or the landowner's agent sign a statement on the ESCP as follows:

(a) "I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that submitting false and/ or inaccurate information, failing to update the ESCP to reflect current conditions, or failing to properly and/ or adequately implement the ESCP may result in revocation of grading and/ or other permits or other sanctions provided by law."

(8) Prior to issuing a grading or building permit, each Permittee must verify that the construction site operators have existing coverage under

applicable permits, including, but not limited to the State Water Board's Construction General Permit, and State Water Board 401 Water Quality Certification.

(9) Each Permittee shall develop and implement a checklist to be used to conduct and document review of each ESCP.

i. BMP Implementation Level

i. Each Permittee shall implement technical standards for the selection, installation and maintenance of construction BMPs for all construction sites within its jurisdiction.

ii. The BMP technical standards shall require:

(1) The use of BMPs that are tailored to the risks posed by the project. Sites are to be ranked from Low Risk (Risk 1) to High Risk (Risk 3). Project risks are to be calculated based on the potential for erosion from the site and the sensitivity of the receiving water body. Receiving water bodies that are listed on the Clean Water Act (CWA) Section 303(d) list for sediment or siltation are considered High Risk. Likewise, water bodies with designated beneficial uses of SPWN, COLD, and MIGR are also considered to be High Risk. The combined (sediment/receiving water) site risk shall be calculated using the methods provided in Appendix 1 of the Construction General Permit. At a minimum, the BMP technical standards shall include requirements for High Risk sites as defined in Table 15.

(2) The use of BMPs for all construction sites, sites equal or greater to 1 acre, and for paving projects per Tables 14 and 16 of this Order.

(3) Detailed installation designs and cut sheets for use within ESCPs.

(4) Maintenance expectations for each BMP, or category of BMPs, as appropriate.

iii. Permittees are encouraged to adopt respective BMPs from latest versions of the ***California BMP Handbook, Construction*** or ***Caltrans Stormwater Quality Handbooks, Construction Site Best Management Practices (BMPs) Manual*** and addenda. Alternatively, Permittees are authorized to develop or adopt equivalent BMP standards consistent for Southern California and for the range of activities presented below in Tables 13 through 16.

iv. The local BMP technical standards shall be readily available to the development community and shall be clearly referenced within each Permittee's storm water or development services website, ordinance, permit approval process and/or ESCP review forms. The local BMP technical standards shall also be readily available to the Regional Water Board upon request.

v. Local BMP technical standards shall be available for the following:

Table 13. Minimum Set of BMPs for All Construction Sites

Erosion Controls	Scheduling
	Preservation of Existing Vegetation
Sediment Controls	Silt Fence
	Sand Bag Barrier
	Stabilized Construction Site Entrance/Exit
Non-Storm water Management	Water Conservation Practices
	Dewatering Operations
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management
	Concrete Waste Management
	Sanitary/Septic Waste Management

Table 14. Additional BMPs Applicable to Construction Sites Disturbing 1 Acre or More

Erosion Controls	Hydraulic Mulch
	Hydroseeding
	Soil Binders
	Straw Mulch
	Geotextiles and Mats
	Wood Mulching
Sediment Controls	Fiber Rolls
	Gravel Bag Berm
	Street Sweeping and/ or Vacuum
	Storm Drain Inlet Protection
	Scheduling
	Check Dam
Additional Controls	Wind Erosion Controls
	Stabilized Construction Entrance/ Exit
	Stabilized Construction Roadway
	Entrance/ Exit Tire Wash
Non-Storm water Management	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
	Spill Prevention and Control

Table 15. Additional Enhanced BMPs for High Risk Sites

Erosion Controls	Hydraulic Mulch
	Hydroseeding
	Soil Binders
	Straw Mulch

	Geotextiles and Mats
	Wood Mulching
	Slope Drains
Sediment Controls	Silt Fence
	Fiber Rolls
	Sediment Basin
	Check Dam
	Gravel Bag Berm
	Street Sweeping and/or Vacuum
	Sand Bag Barrier
	Storm Drain Inlet Protection
Additional Controls	Wind Erosion Controls
	Stabilized Construction Entrance/Exit
	Stabilized Construction Roadway
	Entrance/Exit Tire Wash
	Advanced Treatment Systems*
Non-Storm water Management	Water Conservation Practices
	Dewatering Operations (Ground water dewatering only under NPDES Permit No. CAG994004)
	Vehicle and Equipment Washing
	Vehicle and Equipment Fueling
	Vehicle and Equipment Maintenance
Waste Management	Material Delivery and Storage
	Stockpile Management
	Spill Prevention and Control
	Solid Waste Management

* Applies to public roadway projects.

Table 16. Minimum Required BMPs for Roadway Paving or Repair Operation (For Private or Public Projects)

1.	Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall unless required by emergency conditions.
2.	Install gravel bags and filter fabric or other equivalent inlet protection at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat.
3.	Prevent the discharge of release agents including soybean oil, other oils, or diesel to the storm water drainage system or receiving waters.
4.	Minimize non storm water runoff from water use for the roller and for evaporative cooling of the asphalt.
5.	Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.
6.	Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.
7.	Collect solid waste by vacuuming or sweeping and securing in an

	appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.
8.	Cover the "cold-mix" asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.
9.	Cover loads with tarp before haul-off to a storage site, and do not overload trucks.
10.	Minimize airborne dust by using water spray or other approved dust suppressant during grinding.
11.	Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near storm water drainage system or receiving waters.
12.	Protect stockpiles with a cover or sediment barriers during a rain.

j. Construction Site Inspection

i. Each Permittee shall use its legal authority to implement procedures for inspecting public and private construction sites.

ii. The inspection procedures shall be implemented as follows:

(1) Inspect the public and private construction sites as specified in Table 17 below:

Table 17. Inspection Frequencies for Sites One Acre or Greater

Site	Inspection Frequency Shall Occur
a. All sites 1 acre or larger that discharge to a tributary listed by the state as an impaired water for sediment or turbidity under the CWA § 303(d)	(1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA[29], (2) within 48 hours of a ½-inch rain event and at (3) least once every two weeks
b. Other sites 1 acre or more determined to be a significant threat to water quality[30]	
c. All other construction sites with 1 acre or more of soil disturbance not meeting the criteria above	At least monthly

(2) Each Permittee shall inspect all phases of construction as follows:

(a) Prior to Land Disturbance

Prior to allowing an operator to commence land disturbance, each Permittee shall perform an inspection to ensure all necessary erosion

[29] www.srh.noaa.gov/forecast

[30] In evaluating the threat to water quality, the following factors shall be considered: soil erosion potential; site slope; project size and type; sensitivity of receiving water bodies; proximity to receiving water bodies; non-storm water discharges; past record of non-compliance by the operators of the construction site; and any water quality issues relevant to the particular MS4.

and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan.

(b) During Active Construction, including Land Development[31] and Vertical Construction[32]

In accordance with the frequencies specified in Part VI.D.8.j and Table 17 of this Order, each Permittee shall perform an inspection to ensure all necessary erosion and sediment structural and non-structural BMP materials and procedures are available per the erosion and sediment control plan throughout the construction process.

(c) Final Landscaping / Site Stabilization[33]

At the conclusion of the project and as a condition of approving and/or issuing a Certificate of Occupancy, each Permittee shall inspect the constructed site to ensure that all graded areas have reached final stabilization and that all trash, debris, and construction materials, and temporary erosion and sediment BMPs are removed.

(3) Based on the required frequencies above, each construction project shall be inspected a minimum of three times.

(4) Inspection Standard Operating Procedures

Each Permittee shall develop, implement, and revise as necessary, standard operating procedures that identify the inspection procedures each Permittee will follow. Inspections of construction sites, and the standard operating procedures, shall include, but are not limited to:

(a) Verification of active coverage under the Construction General Permit for sites disturbing 1 acre or more, or that are part of a planned development that will disturb 1 acre or more and a process for referring non-filers to the Regional Water Board.

(b) Review of the applicable ESCP and inspection of the construction site to determine whether all BMPs have been selected, installed, implemented, and maintained according to the approved plan and subsequent approved revisions.

(c) Assessment of the appropriateness of the planned and installed BMPs and their effectiveness.

(d) Visual observation and record keeping of non-storm water discharges, potential illicit discharges and connections, and potential discharge of pollutants in storm water runoff.

(e) Development of a written or electronic inspection report generated from an inspection checklist used in the field.

[31] Activities include cuts and fills, rough and finished grading; alluvium removals; canyon cleanouts; rock undercuts; keyway excavations; stockpiling of select material for capping operations; and excavation and street paving, lot grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm sewer system and/or other drainage improvement.
[32] The build out of structures from foundations to roofing, including rough landscaping.
[33] All soil disturbing activities at each individual parcel within the site have been completed.

(f) Tracking of the number of inspections for the inventoried construction sites throughout the reporting period to verify that the sites are inspected at the minimum frequencies required in Table 17 of this Order.

k. Enforcement

Each Permittee shall implement its Progressive Enforcement Policy to ensure that construction sites are brought into compliance with all storm water requirements within a reasonable time period. See Part VI.D.2 for requirements for the development and implementation of a Progressive Enforcement Policy.

l. Permittee Staff Training

i. Each Permittee shall ensure that all staff whose primary job duties are related to implementing the construction storm water program are adequately trained.

ii. Each Permittee may conduct in-house training or contract with consultants. Training shall be provided to the following staff positions of the MS4:

(1) Plan Reviewers and Permitting Staff

Ensure staff and consultants are trained as qualified individuals, knowledgeable in the technical review of local erosion and sediment control ordinance, local BMP technical standards, ESCP requirements, and the key objectives of the State Water Board QSD program. Permittees may provide internal training to staff or require staff to obtain QSD certification.

(2) Erosion Sediment Control/Storm Water Inspectors

Each Permittee shall ensure that its inspectors are knowledgeable in inspection procedures consistent with the State Water Board sponsored program QSD or a Qualified SWPPP Practitioner (QSP) or that a designated person on staff who has been trained in the key objectives of the QSD/QSP programs supervises inspection operations. Each Permittee may provide internal training to staff or require staff to obtain QSD/QSP certification. Each inspector must be knowledgeable of the local BMP technical standards and ESCP requirements.

(3) Third-Party Plan Reviewers, Permitting Staff, and Inspectors

If the Permittee utilizes outside parties to conduct inspections and/or review plans, each Permittee shall ensure these staff are trained per the requirements listed above. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

9. Public Agency Activities Program

a. Each Permittee shall implement a Public Agency Activities Program to minimize storm water pollution impacts from Permittee-owned or operated facilities and activities and to identify opportunities to reduce storm water pollution impacts

from areas of existing development. Requirements for Public Agency Facilities and Activities consist of the following components:

i. Public Construction Activities Management

ii. Public Facility Inventory

iii. Inventory of Existing Development for Retrofitting Opportunities

iv. Public Facility and Activity Management

v. Vehicle and Equipment Wash Areas

vi. Landscape, Park, and Recreational Facilities Management

vii. Storm Drain Operation and Maintenance

viii. Streets, Roads, and Parking Facilities Maintenance

ix. Emergency Procedures

x. Municipal Employee and Contractor Training

b. Public Construction Activities Management

i. Each Permittee shall implement and comply with the Planning and Land Development Program requirements in Part VI.D.7 of this Order at Permittee-owned or operated (i.e., public or Permittee sponsored) construction projects that are categorized under the project types identified in Part VI.D.7.b of this Order.

ii. Each Permittee shall implement and comply with the appropriate Development Construction Program requirements in Part VI.D.8 of this Order at Permittee-owned or operated construction projects as applicable.

iii. For Permittee-owned or operated projects (including those under a capital improvement project plan) that disturb less than one acre of soil, each Permittee shall require an effective combination of erosion and sediment control BMPs from Table 13 (see Construction Development Program, minimum BMPs).

iv. Each Permittee shall obtain separate coverage under the Construction General Permit for all Permittee-owned or operated construction sites that require coverage.

c. Public Facility Inventory

i. Each Permittee shall maintain an updated inventory of all Permittee-owned or operated (i.e., public) facilities within its jurisdiction that are potential sources of storm water pollution. The incorporation of facility information into a GIS is recommended. Sources to be tracked include but are not limited to the following:

(1) Animal control facilities

(2) Chemical storage facilities

(3) Composting facilities

(4) Equipment storage and maintenance facilities (including landscape maintenance-related operations)

(5) Fueling or fuel storage facilities (including municipal airports)

(6) Hazardous waste disposal facilities

(7) Hazardous waste handling and transfer facilities

(8) Incinerators

(9) Landfills

(10) Materials storage yards

(11) Pesticide storage facilities

(12) Fire stations

(13) Public restrooms

(14) Public parking lots

(15) Public golf courses

(16) Public swimming pools

(17) Public parks

(18) Public works yards

(19) Public marinas

(20) Recycling facilities

(21) Solid waste handling and transfer facilities

(22) Vehicle storage and maintenance yards

(23) Storm water management facilities (e.g., detention basins)

(24) All other Permittee-owned or operated facilities or activities that each Permittee determines may contribute a substantial pollutant load to the MS4.

ii. Each Permittee shall include the following minimum fields of information for each Permittee-owned or operated facility in its inventory.

(1) Name of facility

(2) Name of facility manager and contact information

(3) Address of facility (physical and mailing)

(4) A narrative description of activities performed and potential pollution sources.

(5) Coverage under the Industrial General Permit or other individual or general NPDES permits or any applicable waiver issued by the Regional or State Water Board pertaining to storm water discharges.

iii. Each Permittee shall update its inventory at least once during the 5-year term of the Order. The update shall be accomplished through collection of new information obtained through field activities or through other readily available inter and intra-agency informational databases (e.g., property management, land-use approvals, accounting and depreciation ledger account, and similar information).

d. Inventory of Existing Development for Retrofitting Opportunities

i. Each Permittee shall develop an inventory of retrofitting opportunities that meets the requirements of this Part VI.9.d. Retrofit opportunities shall be identified within the public right-of-way or in coordination with a TMDL implementation plan(s). The goals of the existing development retrofitting inventory are to address the impacts of existing development through regional or sub-regional retrofit projects that reduce the discharges of storm water pollutants into the MS4 and prevent discharges from the MS4 from causing or contributing to a violation of water quality standards as defined in Part V.A, Receiving Water Limitations.

ii. Each Permittee shall screen existing areas of development to identify candidate areas for retrofitting using watershed models or other screening level tools.

iii. Each Permittee shall evaluate and rank the areas of existing development identified in the screening to prioritize retrofitting candidates. Criteria for evaluation may include but are not limited to:

(1) Feasibility, including general private and public land availability;

(2) Cost effectiveness;

(3) Pollutant removal effectiveness;

(4) Tributary area potentially treated;

(5) Maintenance requirements;

(6) Landowner cooperation;

(7) Neighborhood acceptance;

(8) Aesthetic qualities;

(9) Efficacy at addressing concern; and

(10) Potential improvements to public health and safety.

iv. Each Permittee shall consider the results of the evaluation in the following programs:

(1) The Permittee's storm water management program: Highly feasible projects expected to benefit water quality should be given a high priority to implement source control and treatment control BMPs in a Permittee's SWMP.

(2) Off-site mitigation for New Development and Redevelopment: Each Permittee shall consider high priority retrofit projects as candidates for off-site mitigation projects per Part VI.D.7.c.iii.(4).(d).

(3) Where feasible, at the discretion of the Permittee, the existing development retrofitting program may be coordinated with flood control projects and other infrastructure improvement programs per Part VI.D.9.e.ii.(2) below.

v. Each Permittee shall cooperate with private landowners to encourage site specific retrofitting projects. Each Permittee shall consider the following practices in cooperating with private landowners to retrofit existing development:

(1) Demonstration retrofit projects;

(2) Retrofits on public land and easements that treat runoff from private developments;

(3) Education and outreach;

(4) Subsidies for retrofit projects;

(5) Requiring retrofit projects as enforcement, mitigation or ordinance compliance;

(6) Public and private partnerships;

(7) Fees for existing discharges to the MS4 and reduction of fees for retrofit implementation.

e. Public Agency Facility and Activity Management

i. Each Permittee shall obtain separate coverage under the Industrial General Permit for all Permittee-owned or operated facilities where industrial activities are conducted that require coverage under the Industrial General Permit.

ii. Each Permittee shall implement the following measures for Permittee- owned and operated flood management projects:

(1) Develop procedures to assess the impacts of flood management projects on the water quality of receiving water bodies; and

(2) Evaluate existing structural flood control facilities to determine if retrofitting the facility to provide additional pollutant removal from storm water is feasible.

iii. Each Permittee shall ensure the implementation and maintenance of activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) or an equivalent set of BMPs when such activities occur at Permittee-owned or operated facilities and field activities (e.g., project sites) including but not limited to the facility types listed in Part VI.D.9.c above, and at any area that includes the activities described in Table 18, or that have the potential to discharge pollutants in storm water.

iv. Any contractors hired by the Permittee to conduct Public Agency Activities including, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair shall be contractually required to implement and maintain the activity specific BMPs listed in Table 18. Each Permittee shall conduct oversight of contractor activities to ensure these BMPs are implemented and maintained.

v. Permittee-owned or operated facilities that have obtained coverage under the Industrial General Permit shall implement and maintain BMPs consistent with the associated SWPPP and are therefore not required to implement and maintain the activity specific BMPs listed in Table 18.

vi. Effective source control BMPs for the activities listed in Table 18 shall be implemented at Permittee-owned or operated facilities, unless the pollutant generating activity does not occur. Each Permittee shall require implementation of additional BMPs where storm water from the MS4 discharges to a significant ecological area (SEA, see Attachment A for definition), a water body subject to TMDL provisions in Part VI.E., or a CWA § 303(d) listed water body (see Part VI.E below). Likewise, for those BMPs that are not adequately protective of water quality standards, a Permittee may require additional site-specific controls.

Table 18. BMPs for Public Agency Facilities and Activities

General and Activity Specific BMPs	
General BMPs	Scheduling and Planning
	Spill Prevention and Control
	Sanitary/Septic Waste Management
	Material Use
	Safer Alternative Products
	Vehicle/Equipment Cleaning, Fueling and Maintenance
	Illicit Connection Detection, Reporting and Removal
	Illegal Spill Discharge Control
	Maintenance Facility Housekeeping Practices
Flexible Pavement	Asphalt Cement Crack and Joint Grinding/ Sealing
	Asphalt Paving
	Structural Pavement Failure (Digouts) Pavement Grinding and Paving
	Emergency Pothole Repairs
	Sealing Operations
Rigid Pavement	Portland Cement Crack and Joint Sealing
	Mudjacking and Drilling
	Concrete Slab and Spall Repair
Slope/ Drains/ Vegetation	Shoulder Grading
	Nonlandscaped Chemical Vegetation Control
	Nonlandscaped Mechanical Vegetation Control/

General and Activity Specific BMPs	
	Mowing
	Nonlandscaped Tree and Shrub Pruning, Brush Chipping, Tree and Shrub Removal
	Fence Repair
	Drainage Ditch and Channel Maintenance
	Drain and Culvert Maintenance
	Curb and Sidewalk Repair
Litter/ Debris/ Graffiti	Sweeping Operations
	Litter and Debris Removal
	Emergency Response and Cleanup Practices
	Graffiti Removal
Landscaping	Chemical Vegetation Control
	Manual Vegetation Control
	Landscaped Mechanical Vegetation Control/ Mowing
	Landscaped Tree and Shrub Pruning, Brush Chipping, Tree and Shrub Removal
	Irrigation Line Repairs
	Irrigation (Watering), Potable and Nonpotable
Environmental	Storm Drain Stenciling
	Roadside Slope Inspection
	Roadside Stabilization
	Stormwater Treatment Devices
	Traction Sand Trap Devices
Bridges	Welding and Grinding
	Sandblasting, Wet Blast with Sand Injection and Hydroblasting
	Painting
	Bridge Repairs
Other Structures	Pump Station Cleaning
	Tube and Tunnel Maintenance and Repair
	Tow Truck Operations
	Toll Booth Lane Scrubbing Operations
Electrical	Sawcutting for Loop Installation
Traffic Guidance	Thermoplastic Striping and Marking
	Paint Striping and Marking
	Raised/ Recessed Pavement Marker Application and Removal
	Sign Repair and Maintenance
	Median Barrier and Guard Rail Repair
	Emergency Vehicle Energy Attenuation Repair
Storm Maintenance	Minor Slides and Slipouts Cleanup/ Repair
Management and Support	Building and Grounds Maintenance
	Storage of Hazardous Materials (Working Stock)
	Material Storage Control (Hazardous Waste)

General and Activity Specific BMPs	
	Outdoor Storage of Raw Materials
	Vehicle and Equipment Fueling
	Vehicle and Equipment Cleaning
	Vehicle and Equipment Maintenance and Repair
	Aboveground and Underground Tank Leak and Spill Control

f. Vehicle and Equipment Washing

i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 (BMPs for Public Agency Facilities and Activities) for all fixed vehicle and equipment washing; including fire fighting and emergency response vehicles.

ii. Each Permittee shall prevent discharges of wash waters from vehicle and equipment washing to the MS4 by implementing any of the following measures at existing facilities with vehicle or equipment wash areas:

(1) Self-contain, and haul off for disposal; or

(2) Equip with a clarifier or an alternative pre-treatment device and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.

iii. Each Permittee shall ensure that any municipal facilities constructed, redeveloped, or replaced shall not discharge wastewater from vehicle and equipment wash areas to the MS4 by plumbing all areas to the sanitary sewer in accordance with applicable waste water provider regulations, or self-containing all waste water/ wash water and hauling to a point of legal disposal.

g. Landscape, Park, and Recreational Facilities Management

i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 for all public right-of-ways, flood control facilities and open channels, lakes and reservoirs, and landscape, park, and recreational facilities and activities.

ii. Each Permittee shall implement an IPM program that includes the following:

(1) Pesticides are used only if monitoring indicates they are needed, and pesticides are applied according to applicable permits and established guidelines.

(2) Treatments are made with the goal of removing only the target organism.

(3) Pest controls are selected and applied in a manner that minimizes risks to human health, beneficial non-target organisms, and the environment.

(4) The use of pesticides, including Organophosphates and Pyrethroids, does not threaten water quality.

(5) Partner with other agencies and organizations to encourage the use of IPM.

(6) Adopt and verifiably implement policies, procedures, and/ or ordinances requiring the minimization of pesticide use and encouraging the use of IPM techniques (including beneficial insects) for Public Agency Facilities and Activities.

(7) Policies, procedures, and ordinances shall include commitments and a schedule to reduce the use of pesticides that cause impairment of surface waters by implementing the following procedures:

(a) Prepare and annually update an inventory of pesticides used by all internal departments, divisions, and other operational units.

(b) Quantify pesticide use by staff and hired contractors.

(c) Demonstrate implementation of IPM alternatives where feasible to reduce pesticide use.

iii. Each Permittee shall implement the following requirements:

(1) Use a standardized protocol for the routine and non-routine application of pesticides (including pre-emergents), and fertilizers.

(2) Ensure there is no application of pesticides or fertilizers (1) when two or more consecutive days with greater than 50% chance of rainfall are predicted by NOAA[34], (2) within 48 hours of a ½-inch rain event, or (3) when water is flowing off the area where the application is to occur. This requirement does not apply to the application of aquatic pesticides described in Part VI.D.9.g.iii.(1) above or pesticides which require water for activation.

(3) Ensure that no banned or unregistered pesticides are stored or applied.

(4) Ensure that all staff applying pesticides are certified in the appropriate category by the California Department of Pesticide Regulation, or are under the direct supervision of a pesticide applicator certified in the appropriate category.

(5) Implement procedures to encourage the retention and planting of native vegetation to reduce water, pesticide and fertilizer needs; and

(6) Store pesticides and fertilizers indoors or under cover on paved surfaces, or use secondary containment.

(a) Reduce the use, storage, and handling of hazardous materials to reduce the potential for spills.

(b) Regularly inspect storage areas.

h. Storm Drain Operation and Maintenance

[34] www.srh.noaa.gov/forecast

i. Each Permittee shall implement and maintain the activity specific BMPs listed in Table 18 for storm drain operation and maintenance.

ii. Ensure that all material removed from the MS4 does not reenter the system. Solid material shall be dewatered in a contained area and liquid material shall be disposed in accordance with any of the following measures:

(1) Self-contain, and haul off for legal disposal; or

(2) Applied to the land without runoff; or

(3) Equip with a clarifier or an alternative pre-treatment device; and plumb to the sanitary sewer in accordance with applicable waste water provider regulations.

iii. Catch Basin Cleaning

(1) In areas that are not subject to a trash TMDL, each Permittee shall determine priority areas and shall update its map or list of Catch Basins with their GPS coordinates and priority:

Priority A: Catch basins that are designated as consistently generating the highest volumes of trash and/or debris.

Priority B: Catch basins that are designated as consistently generating moderate volumes of trash and/or debris.

Priority C: Catch basins that are designated as generating low volumes of trash and/or debris.

The map or list shall contain the rationale or data to support priority designations.

(2) In areas that are not subject to a trash TMDL, each Permittee shall inspect catch basins according to the following schedule:

Priority A: A minimum of 3 times during the wet season (October 1 through April 15) and once during the dry season every year.

Priority B: A minimum of once during the wet season and once during the dry season every year.

Priority C: A minimum of once per year.

Catch basins shall be cleaned as necessary on the basis of inspections. At a minimum, Permittees shall ensure that any catch basin that is determined to be at least 25% full of trash shall be cleaned out. Permittees shall maintain inspection and cleaning records for Regional Water Board review.

(3) In areas that are subject to a trash TMDL, the subject Permittees shall implement the applicable provisions in Part VI.E.

iv. Trash Management at Public Events

(1) Each Permittee shall require the following measures for any event in the public right of way or wherever it is foreseeable that substantial quantities

of trash and litter may be generated, including events located in areas that are subject to a trash TMDL:

(a) Proper management of trash and litter generated; and

(b) Arrangement for temporary screens to be placed on catch basins; or

(c) Provide clean out of catch basins, trash receptacles, and grounds in the event area within one business day subsequent to the event.

v. Trash Receptacles

(1) Each Permittee shall ensure trash receptacles, or equivalent trash capturing devices, are covered in areas newly identified as high trash generation areas within its jurisdiction.

(2) Each Permittee shall ensure that all trash receptacles are cleaned out and maintained as necessary to prevent trash overflow.

vi. Catch Basin Labels and Open Channel Signage

(1) Each Permittee shall label all storm drain inlets that they own with a legible “no dumping” message.

(2) Each Permittee shall inspect the legibility of the stencil or label nearest each inlet prior to the wet season every year.

(3) Each Permittee shall record all catch basins with illegible stencils and re-stencil or re-label within 180 days of inspection.

(4) Each Permittee shall post signs, referencing local code(s) that prohibit littering and illegal dumping, at designated public access points to open channels, creeks, urban lakes, and other relevant water bodies.

vii. Additional Trash Management Practices

(1) In areas that are not subject to a trash TMDL, each Permittee shall install trash excluders, or equivalent devices, on or in catch basins or outfalls to prevent the discharge of trash to the MS4 or receiving water no later than four years after the effective date of this Order in areas defined as Priority A (Part VI.D.9.h.iii.(1)) except at sites where the application of such BMP(s) alone will cause flooding. Lack of maintenance that causes flooding is not an acceptable exception to the requirement to install BMPs. Alternatively, each Permittee may implement alternative or enhanced BMPs beyond the provisions of this Order (such as but not limited to increased street sweeping, adding trash cans near trash generation sites, prompt enforcement of trash accumulation, increased trash collection on public property, increased litter prevention messages or trash nets within the MS4) that provide substantially equivalent removal of trash. Each Permittee shall demonstrate that BMPs, which substituted for trash excluders, provide equivalent trash removal performance as excluders. When outfall trash capture is provided, revision of the schedule for inspection and cleanout of catch basins in Part VI.D.9.h.iii.(2) shall be reported in the next year’s annual report.

viii. Storm Drain Maintenance

Each Permittee shall implement a program for Storm Drain Maintenance that includes the following:

(1) Visual monitoring of Permittee-owned open channels and other drainage structures for trash and debris at least annually.

(2) Removal of trash and debris from open channels a minimum of once per year before the wet season.

(3) Elimination of the discharge of contaminants during MS4 maintenance and clean outs.

(4) Proper disposal of debris and trash removed during storm drain maintenance.

ix. Infiltration from Sanitary Sewer to MS4/Preventive Maintenance

(1) Each Permittee shall implement controls and measures to prevent and eliminate infiltration of seepage from sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4.

(2) Each Permittee that operates both a municipal sanitary sewer system and a MS4 must implement controls and measures to prevent and eliminate infiltration of seepage from the sanitary sewers to the MS4s that must include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both. Implementation of a Sewer System Management Plan in accordance with the Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, may be used to fulfill this requirement.

(3) Each Permittee shall implement controls to limit infiltration of seepage from sanitary sewers to the MS4 where necessary. Such controls must include:

(a) Adequate plan checking for construction and new development;

(b) Incident response training for its municipal employees that identify sanitary sewer spills;

(c) Code enforcement inspections;

(d) MS4 maintenance and inspections;

(e) Interagency coordination with sewer agencies; and

(f) Proper education of its municipal staff and contractors conducting field operations on the MS4 or its municipal sanitary sewer (if applicable).

x. Permittee Owned Treatment Control BMPs

(1) Each Permittee shall implement an inspection and maintenance program for all Permittee owned treatment control BMPs, including post-construction treatment control BMPs.

(2) Each Permittee shall ensure proper operation of all treatment control BMPs and maintain them as necessary for proper operation, including all post-construction treatment control BMPs.

(3) Any residual water[35] produced by a treatment control BMP and not being internal to the BMP performance when being maintained shall be:

(a) Hauled away and legally disposed of; or

(b) Applied to the land without runoff; or

(c) Discharged to the sanitary sewer system (with permits or authorization); or

(d) Treated or filtered to remove bacteria, sediments, nutrients, and meet the limitations set in Table 19 (Discharge Limitations for Dewatering Treatment BMPs), prior to discharge to the MS4.

Table 19. Discharge Limitations for Dewatering Treatment BMPs[36]

Parameter	Units	Limitation
Total Suspended Solids	mg/L	100
Turbidity	NTU	50
Oil and Grease	mg/L	10

i. Streets, Roads, and Parking Facilities Maintenance

i. Each Permittee shall designate streets and/or street segments within its jurisdiction as one of the following:

Priority A: Streets and/or street segments that are designated as consistently generating the highest volumes of trash and/or debris.

Priority B: Streets and/or street segments that are designated as consistently generating moderate volumes of trash and/or debris.

Priority C: Streets and/or street segments that are designated as generating low volumes of trash and/or debris.

ii. Each Permittee shall perform street sweeping of curbed streets according to the following schedule:

Priority A: Streets and/or street segments that are designated as Priority A shall be swept at least two times per month.

Priority B: Streets and/or street segments that are designated as Priority B shall be swept at least once per month.

Priority C: Streets and/or street segments that are designated as Priority C shall be swept as necessary but in no case less than once per year.

[35] See Attachment A.
[36] Technology based effluent limitations.

iii. Road Reconstruction

Each Permittee shall require that for any project that includes roadbed or street paving, repaving, patching, digouts, or resurfacing roadbed surfaces, that the following BMPs be implemented for each project.

(1) Restrict paving and repaving activity to exclude periods of rainfall or predicted rainfall[37] unless required by emergency conditions.

(2) Install sand bags or gravel bags and filter fabric at all susceptible storm drain inlets and at manholes to prevent spills of paving products and tack coat;

(3) Prevent the discharge of release agents including soybean oil, other oils, or diesel into the MS4 or receiving waters.

(4) Prevent non-storm water runoff from water use for the roller and for evaporative cooling of the asphalt.

(5) Clean equipment over absorbent pads, drip pans, plastic sheeting or other material to capture all spillage and dispose of properly.

(6) Collect liquid waste in a container, with a secure lid, for transport to a maintenance facility to be reused, recycled or disposed of properly.

(7) Collect solid waste by vacuuming or sweeping and securing in an appropriate container for transport to a maintenance facility to be reused, recycled or disposed of properly.

(8) Cover the “cold-mix” asphalt (i.e., pre-mixed aggregate and asphalt binder) with protective sheeting during a rainstorm.

(9) Cover loads with tarp before haul-off to a storage site, and do not overload trucks.

(10) Minimize airborne dust by using water spray during grinding.

(11) Avoid stockpiling soil, sand, sediment, asphalt material and asphalt grindings materials or rubble in or near MS4 or receiving waters.

(12) Protect stockpiles with a cover or sediment barriers during a rain.

iv. Parking Facilities Maintenance

(1) Permittee-owned parking lots exposed to storm water shall be kept clear of debris and excessive oil buildup and cleaned no less than 2 times per month and/or inspected no less than 2 times per month to determine if cleaning is necessary. In no case shall a Permittee-owned parking lot be cleaned less than once a month.

j. Emergency Procedures

i. Each Permittee may conduct repairs of essential public service systems and infrastructure in emergency situations with a self-waiver of the provisions of this Order as follows:

[37] A probability of precipitation (POP) of 50% is required.

(1) The Permittee shall abide by all other regulatory requirements, including notification to other agencies as appropriate.

(2) Where the self-waiver has been invoked, the Permittee shall submit to the Regional Water Board Executive Officer a statement of the occurrence of the emergency, an explanation of the circumstances, and the measures that were implemented to reduce the threat to water quality, no later than 30 business days after the situation of emergency has passed.

(3) Minor repairs of essential public service systems and infrastructure in emergency situations (that can be completed in less than one week) are not subject to the notification provisions. Appropriate BMPs to reduce the threat to water quality shall be implemented.

k. Municipal Employee and Contractor Training

i. Each Permittee shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees in targeted positions (whose interactions, jobs, and activities affect storm water quality) on the requirements of the overall storm water management program, or shall ensure contractors performing privatized/contracted municipal services are appropriately trained to:

(1) Promote a clear understanding of the potential for activities to pollute storm water.

(2) Identify opportunities to require, implement, and maintain appropriate BMPs in their line of work.

Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

ii. Each Permittee shall, no later than 1 year after Order adoption and annually thereafter before June 30, train all of their employees and contractors who use or have the potential to use pesticides or fertilizers (whether or not they normally apply these as part of their work). Training programs shall address:

(1) The potential for pesticide-related surface water toxicity.

(2) Proper use, handling, and disposal of pesticides.

(3) Least toxic methods of pest prevention and control, including IPM.

(4) Reduction of pesticide use.

iii. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

10. Illicit Connections and Illicit Discharges Elimination Program

a. General

i. Each Permittee shall continue to implement an Illicit Connection and Illicit Discharge Elimination (IC/ID) Program to detect, investigate, and eliminate IC/IDs to the MS4. The IC/ID Program must be implemented in accordance with the requirements and performance measures specified in this Order.

ii. As stated in Part VI.A.2 of this Order, each Permittee must have adequate legal authority to prohibit IC/IDs to the MS4 and enable enforcement capabilities to eliminate the source of IC/IDs.

iii. Each Permittee's IC/ID Program shall consist of at least the following major program components:

(1) Procedures for conducting source investigations for IC/IDs

(2) Procedures for eliminating the source of IC/IDs

(3) Procedures for public reporting of illicit discharges

(4) Spill response plan

(5) IC/IDs education and training for Permittee staff

b. Illicit Discharge Source Investigation and Elimination

i. Each Permittee shall develop written procedures for conducting investigations to identify the source of all suspected illicit discharges, including procedures to eliminate the discharge once the source is located.

ii. At a minimum, each Permittee shall initiate an investigation(s) to identify and locate the source within 72 hours of becoming aware of the illicit discharge.

iii. When conducting investigations, each Permittee shall comply with the following:

(1) Illicit discharges suspected of being sanitary sewage and/or significantly contaminated shall be investigated first.

(2) Each Permittee shall track all investigations to document at a minimum the date(s) the illicit discharge was observed; the results of the investigation; any follow-up of the investigation; and the date the investigation was closed.

(3) Each Permittee shall investigate the source of all observed illicit discharges.

iv. When taking corrective action to eliminate illicit discharges, each Permittee shall comply with the following:

(1) If the source of the illicit discharge has been determined to originate within the Permittee's jurisdiction, the Permittee shall immediately notify the responsible party/parties of the problem, and require the responsible party to initiate all necessary corrective actions to eliminate the illicit discharge.

Upon being notified that the discharge has been eliminated, the Permittee shall conduct a follow-up investigation to verify that the discharge has been eliminated and cleaned-up to the satisfaction of the Permittee(s). Each Permittee shall document its follow-up investigation. Each Permittee may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VI.D.2.

(2) If the source of the illicit discharge has been determined to originate within an upstream jurisdiction, the Permittee shall notify the upstream jurisdiction and the Regional Water Board within 30 days of such determination and provide all of the information collected regarding efforts to identify its source. Each Permittee may seek recovery and remediation costs from responsible parties or require compensation for the cost of all inspection, investigation, cleanup and oversight activities. Resulting enforcement actions shall follow the program's Progressive Enforcement Policy, per Part VI.D.2.

(3) If the source of the illicit discharge cannot be traced to a suspected responsible party, affected Permittees shall implement its spill response plan and then initiate a permanent solution as described in section 10.b.v below.

v. In the event the Permittee is unable to eliminate an ongoing illicit discharge following full execution of its legal authority and in accordance with its Progressive Enforcement Policy, or other circumstances prevent the full elimination of an ongoing illicit discharge, including the inability to find the responsible party/parties, the Permittee shall provide for diversion of the entire flow to the sanitary sewer or provide treatment. In either instance, the Permittee shall notify the Regional Water Board in writing within 30 days of such determination and shall provide a written plan for review and comment that describes the efforts that have been undertaken to eliminate the illicit discharge, a description of the actions to be undertaken, anticipated costs, and a schedule for completion.

c. Identification and Response to Illicit Connections

i. Investigation

Each Permittee, upon discovery or upon receiving a report of a suspected illicit connection, shall initiate an investigation within 21 days, to determine the following: (1) source of the connection, (2) nature and volume of discharge through the connection, and (3) responsible party for the connection.

ii. Elimination

Each Permittee, upon confirmation of an illicit MS4 connection, shall ensure that the connection is:

(1) Permitted or documented, provided the connection will only discharge storm water and non-storm water allowed under this Order or other individual or general NPDES Permits/WDRs, or
(2) Eliminated within 180 days of completion of the investigation, using its formal enforcement authority, if necessary, to eliminate the illicit connection.

iii. Documentation

Formal records must be maintained for all illicit connection investigations and the formal enforcement taken to eliminate illicit connections.

d. Public Reporting of Non-Storm Water Discharges and Spills

i. Each Permittee shall promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s through a central contact point, including phone numbers and an internet site for complaints and spill reporting. Each Permittee shall also provide the reporting hotline to Permittee staff to leverage the field staff that has direct contact with the MS4 in detecting and eliminating illicit discharges.

ii. Each Permittee shall implement the central point of contact and reporting hotline requirements listed in this part in one or more of the following methods:

(1) By participating in a County-wide sponsored hotline

(2) By participating in one or more Watershed Group sponsored hotlines

(3) Or individually within its own jurisdiction

(4) The LACFCD shall, in collaboration with the County, continue to maintain the 888-CLEAN-LA hotline and internet site to promote, publicize, and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s.

iii. Each Permittee shall ensure that signage adjacent to open channels, as required in Part F.8.h.vi, include information regarding dumping prohibitions and public reporting of illicit discharges.

iv. Each Permittee shall develop and maintain written procedures that document how complaint calls are received, documented, and tracked to ensure that all complaints are adequately addressed. The procedures shall be evaluated to determine whether changes or updates are needed to ensure that the procedures accurately document the methods employed by the Permittee. Any identified changes shall be made to the procedures subsequent to the evaluation.

v. Each Permittee shall maintain documentation of the complaint calls and record the location of the reported spill or IC/ ID and the actions undertaken in response to all IC/ID complaints, including referrals to other agencies.

e. Spill Response Plan

i. Each Permittee shall implement a spill response plan for all sewage and other spills that may discharge into its MS4. The spill response plan shall clearly identify agencies responsible for spill response and cleanup, telephone numbers and e-mail address for contacts, and shall contain at a minimum the following requirements:

(1) Coordination with spill response teams throughout all appropriate departments, programs and agencies so that maximum water quality protection is provided.

(2) Initiate investigation of all public and employee spill complaints within one business day of receiving the complaint to assess validity.

(3) Response to spills for containment within 4 hours of becoming aware of the spill, except where such spills occur on private property, in which case the response should be within 2 hours of gaining legal access to the property.

(4) Spills that may endanger health or the environment shall be reported to appropriate public health agencies and the Office of Emergency Services (OES).

f. Illicit Connection and Illicit Discharge Education and Training

i. Each Permittee must continue to implement a training program regarding the identification of IC/IDs for all municipal field staff, who, as part of their normal job responsibilities (e.g., street sweeping, storm drain maintenance, collection system maintenance, road maintenance), may come into contact with or otherwise observe an illicit discharge or illicit connection to the MS4. Contact information, including the procedure for reporting an illicit discharge, must be readily available to field staff. Training program documents must be available for review by the permitting authority.

ii. Each Permittee shall ensure contractors performing privatized/contracted municipal services such as, but not limited to, storm and/or sanitary sewer system inspection and repair, street sweeping, trash pick-up and disposal, and street and right-of-way construction and repair are trained regarding IC/ID identification and reporting. Permittees may provide training or include contractual requirements for IC/ID identification and reporting training. Outside contractors can self-certify, providing they certify they have received all applicable training required in the Permit and have documentation to that effect.

iii. Each Permittee's training program should address, at a minimum, the following:

(1) IC/ID identification, including definitions and examples,

(2) investigation,

(3) elimination,

(4) cleanup,

(5) reporting, and

(6) documentation.

iv. Each Permittee must create a list of applicable positions and contractors which require IC/ID training and ensure that training is provided at least twice during the term of the Order. Each Permittee must maintain documentation of the training activities.

v. New Permittee staff members must be provided with IC/ID training within 180 days of starting employment.

E. Total Maximum Daily Load Provisions

1. The provisions of this Part VI.E. implement and are consistent with the assumptions and requirements of all waste load allocations (WLAs) established in TMDLs for which some or all of the Permittees in this Order are responsible.

a. Part VI.E of this Order includes provisions that are designed to assure that Permittees achieve WLAs and meet other requirements of TMDLs covering receiving waters impacted by the Permittees' MS4 discharges. TMDL provisions are grouped by WMA (WMA) in Attachments L through R.

b. The Permittees subject to each TMDL are identified in Attachment K.

c. The Permittees shall comply with the applicable water quality-based effluent limitations and/or receiving water limitations contained in Attachments L through R, consistent with the assumptions and requirements of the WLAs established in the TMDLs, including implementation plans and schedules, where provided for in the State adoption and approval of the TMDL (40 CFR §122.44(d)(1)(vii)(B); Cal. Wat. Code §13263(a)).

d. A Permittee may comply with water quality-based effluent limitations and receiving water limitations in Attachments L through R using any lawful means.

2. Compliance Determination

a. General

i. A Permittee shall demonstrate compliance at compliance monitoring points established in each TMDL or, if not specified in the TMDL, at locations identified in an approved TMDL monitoring plan or in accordance with an approved integrated monitoring program per Attachment E, Part VI.C.5 (Integrated Watershed Monitoring and Assessment).

ii. Compliance with water quality-based effluent limitations shall be determined as described in Parts VI.E.2.d and VI.E.2.e, or for trash water quality-based effluent limitations as described in Part VI.E.5.b, or as otherwise set forth in TMDL specific provisions in Attachments L through R.

iii. Pursuant to Part VI.C, a Permittee may, individually or as part of a watershed-based group, develop and submit for approval by the Regional Water Board Executive Officer a Watershed Management Program that addresses all water quality-based effluent limitations and receiving water limitations to which the Permittee is subject pursuant to established TMDLs.

b. Commingled Discharges

i. A number of the TMDLs establish WLAs that are assigned jointly to a group of Permittees whose storm water and/or non-storm water discharges are or may be commingled in the MS4 prior to discharge to the receiving water subject to the TMDL.

ii. In these cases, pursuant to 40 CFR section 122.26(a)(3)(vi), each Permittee is only responsible for discharges from the MS4 for which they are owners and/or operators.

iii. Where Permittees have commingled discharges to the receiving water, compliance at the outfall to the receiving water or in the receiving water shall be determined for the group of Permittees as a whole unless an individual Permittee demonstrates that its discharge did not cause or contribute to the exceedance, pursuant to subpart v. below.

iv. For purposes of compliance determination, each Permittee is responsible for demonstrating that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation(s) at the outfall or receiving water limitation(s) in the target receiving water.

v. A Permittee may demonstrate that its discharge did not cause or contribute to an exceedance of an applicable water quality-based effluent limitation or receiving water limitation in any of the following ways:

(1) Demonstrate that there is no discharge from the Permittee's MS4 into the applicable receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation; or

(2) Demonstrate that the discharge from the Permittee's MS4 is controlled to a level that does not exceed the applicable water quality-based effluent limitation; or

(3) For exceedances of bacteria receiving water limitations or water quality-based effluent limitations, demonstrate through a source investigation pursuant to protocols established under California Water Code section 13178 or for exceedances of other receiving water limitations or water quality-based effluent limitations, demonstrate using other accepted source identification protocols, that pollutant sources within the jurisdiction of the Permittee or the Permittee's MS4 have not caused or contributed to the exceedance of the Receiving Water Limitation(s).

c. Receiving Water Limitations Addressed by a TMDL

i. For receiving water limitations in Part V.A. associated with water body-pollutant combinations addressed in a TMDL, Permittees shall achieve compliance with the receiving water limitations in Part V.A. as outlined in this Part VI.E. and Attachments L through R of this Order.

ii. A Permittee's full compliance with the applicable TMDL requirement(s), including compliance schedules, of this Part VI.E. and Attachments L through R constitutes compliance with Part V.A. of this Order for the specific pollutant addressed in the TMDL.

iii. As long as a Permittee is in compliance with the applicable TMDL requirements in a time schedule order (TSO) issued by the Regional Water Board pursuant to California Water Code sections 13300 and 13385(j)(3), it is not the Regional Water Board's intention to take an enforcement action for violations of Part V.A. of this Order for the specific pollutant(s) addressed in the TSO.

d. Interim Water Quality-Based Effluent Limitations and Receiving Water Limitations

i. A Permittee shall be considered in compliance with an applicable interim water quality-based effluent limitation and interim receiving water limitation for a pollutant associated with a specific TMDL if any of the following is demonstrated:

(1) There are no violations of the interim water quality-based effluent limitation for the pollutant associated with a specific TMDL at the Permittee's applicable MS4 outfall(s),[38] including an outfall to the receiving water that collects discharges from multiple Permittees' jurisdictions;

(2) There are no exceedances of the applicable receiving water limitation for the pollutant associated with a specific TMDL in the receiving water(s) at, or downstream of, the Permittee's outfall(s);

(3) There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant associated with a specific TMDL; or

(4) The Permittee has submitted and is fully implementing an approved Watershed Management Program or EWMP pursuant to Part VI.C.

(a) To be considered fully implementing an approved Watershed Management Program or EWMP, a Permittee must be implementing

[38] An outfall may include a manhole or other point of access to the MS4 at the Permittee's jurisdictional boundary.

all actions consistent with the approved program and applicable compliance schedules, including structural BMPs.

(b) Structural storm water BMPs or systems of BMPs should be designed and maintained to treat storm water runoff from the 85th percentile, 24-hour storm, where feasible and necessary to achieve applicable WQBELs and receiving water limitations, and maintenance records must be up-to-date and available for inspection by the Regional Water Board.

(c) A Permittee that does not implement the Watershed Management Program in accordance with the milestones and compliance schedules shall demonstrate compliance with its interim water quality-based effluent limitations and/or receiving water limitations pursuant to Part VI.E.2.d.i.(1)-(3), above.

(d) Upon notification of a Permittee's intent to develop a WMP or EWMP and prior to approval of its WMP or EWMP, a Permittee's full compliance with all of the following requirements shall constitute a Permittee's compliance with provisions pertaining to interim WQBELs with compliance deadlines occurring prior to approval of a WMP or EWMP. This subdivision (d) shall not apply to interim trash WQBELs.

(1) Provides timely notice of its intent to develop a WMP or EWMP,

(2) Meets all interim and final deadlines for development of a WMP or EWMP,

(3) For the area to be covered by the WMP or EWMP, targets implementation of watershed control measures in its existing storm water management program, including watershed control measures to eliminate non-storm water discharges of pollutants through the MS4 to receiving waters, to address known contributions of pollutants from MS4 discharges that cause or contribute to the impairment(s) addressed by the TMDL(s), and

(4) Receives final approval of its WMP or EWMP within 28 or 40 months, respectively.

e. Final Water Quality-based Effluent Limitations and/or Receiving Water Limitations

i. A Permittee shall be deemed in compliance with an applicable final water quality-based effluent limitation and final receiving water limitation for the pollutant(s) associated with a specific TMDL if any of the following is demonstrated:

(1) There are no violations of the final water quality-based effluent limitation for the specific pollutant at the Permittee's applicable MS4 outfall(s)[39];

(2) There are no exceedances of applicable receiving water limitation for the specific pollutant in the receiving water(s) at, or downstream of, the Permittee's outfall(s);

(3) There is no direct or indirect discharge from the Permittee's MS4 to the receiving water during the time period subject to the water quality-based effluent limitation and/or receiving water limitation for the pollutant(s) associated with a specific TMDL; or

(4) In drainage areas where Permittees are implementing an EWMP, (i) all non-storm water and (ii) all storm water runoff up to and including the volume equivalent to the 85th percentile, 24-hour event is retained for the drainage area tributary to the applicable receiving water. This provision (4) shall not apply to final trash WQBELs.

3. USEPA Established TMDLs

TMDLs established by the USEPA, to which Permittees are subject, do not contain an implementation plan adopted pursuant to California Water Code section 13242. However, USEPA has included implementation recommendations as part of these TMDLs. In lieu of inclusion of numeric water quality based effluent limitations at this time, this Order requires Permittees subject to WLAs in USEPA established TMDLs to propose and implement best management practices (BMPs) that will be effective in achieving compliance with USEPA established numeric WLAs. The Regional Water Board may, at its discretion, revisit this decision within the term of this Order or in a future permit, as more information is developed to support the inclusion of numeric water quality based effluent limitations.

a. Each Permittee shall propose BMPs to achieve the WLAs contained in the applicable USEPA established TMDL(s), and a schedule for implementing the BMPs that is as short as possible, in a Watershed Management Program or EWMP.

b. Each Permittee may either individually submit a Watershed Management Program, or may jointly submit a WMP or EWMP with other Permittees subject to the WLAs contained in the USEPA established TMDL.

c. At a minimum, each Permittee shall include the following information in its Watershed Management Program or EWMP, relevant to each applicable USEPA established TMDL:

i. Available data demonstrating the current quality of the Permittee's MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;

[39] Ibid.

ii. A detailed description of BMPs that have been implemented, and/or are currently being implemented by the Permittee to achieve the WLA(s), if any;

iii. A detailed time schedule of specific actions the Permittee will take in order to achieve compliance with the applicable WLA(s);

iv. A demonstration that the time schedule requested is as short as possible, taking into account the time since USEPA establishment of the TMDL, and technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the WLA(s);

(1) For the Malibu Creek Nutrient TMDL established by USEPA in 2003, in no case shall the time schedule to achieve the final numeric WLAs exceed five years from the effective date of this Order; and

v. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and numeric milestones and the date(s) for their achievement.

d. Each Permittee subject to a WLA in a TMDL established by USEPA shall submit a draft of a Watershed Management Program or EWMP to the Regional Water Board Executive Officer for approval per the schedule Part VI.C.4.

e. If a Permittee does not submit a Watershed Management Program, or the plan is determined to be inadequate by the Regional Water Board Executive Officer and the Permittee does not make the necessary revisions within 90 days of written notification that plan is inadequate, the Permittee shall be required to demonstrate compliance with the numeric WLAs immediately based on monitoring data collected under the MRP (Attachment E) for this Order.

4. State Adopted TMDLs where Final Compliance Deadlines have Passed

a. Permittees shall comply immediately with water quality-based effluent limitations and/or receiving water limitations to implement WLAs in state-adopted TMDLs for which final compliance deadlines have passed pursuant to the TMDL implementation schedule.

b. Where a Permittee believes that additional time to comply with the final water quality-based effluent limitations and/or receiving water limitations is necessary, a Permittee may within 45 days of Order adoption request a time schedule order pursuant to California Water Code section 13300 for the Regional Water Board's consideration.

c. Permittees may either individually request a TSO, or may jointly request a TSO with all Permittees subject to the water quality-based effluent limitations and/or receiving water limitations, to implement the WLAs in the state-adopted TMDL.

d. At a minimum, a request for a time schedule order shall include the following:

i. Data demonstrating the current quality of the MS4 discharge(s) in terms of concentration and/or load of the target pollutant(s) to the receiving waters subject to the TMDL;

ii. A detailed description and chronology of structural controls and source control efforts, since the effective date of the TMDL, to reduce the pollutant load in the MS4 discharges to the receiving waters subject to the TMDL;

iii. Justification of the need for additional time to achieve the water quality-based effluent limitations and/or receiving water limitations;

iv. A detailed time schedule of specific actions the Permittee will take in order to achieve the water quality-based effluent limitations and/or receiving water limitations;

v. A demonstration that the time schedule requested is as short as possible, taking into account the technological, operation, and economic factors that affect the design, development, and implementation of the control measures that are necessary to comply with the effluent limitation(s); and

vi. If the requested time schedule exceeds one year, the proposed schedule shall include interim requirements and the date(s) for their achievement. The interim requirements shall include both of the following:

(1) Effluent limitation(s) for the pollutant(s) of concern; and

(2) Actions and milestones leading to compliance with the effluent limitation(s).

5. Water Quality-Based Effluent Limitations for Trash

Permittees assigned a Waste Load Allocation in a trash TMDL shall comply as set forth below.

a. Effluent Limitations: Permittees shall comply with the interim and final water quality-based effluent limitations for trash set forth in Attachments L through R for the following Trash TMDLs:

i. Lake Elizabeth Trash TMDL (Attachment L)

ii. Santa Monica Bay Nearshore and Offshore Debris TMDL (Attachment M)

iii. Malibu Creek Watershed Trash TMDL (Attachment M)

iv. Ballona Creek Trash TMDL (Attachment M)

v. Machado Lake Trash TMDL (Attachment N)

vi. Los Angeles River Trash TMDL (Attachment O)

vii. Peck Road Park Lake Trash TMDL (Attachment O)

viii. Echo Park Lake Trash TMDL (Attachment O)

ix. Legg Lake Trash TMDL (Attachment O)

b. Compliance

i. Pursuant to California Water Code section 13360(a), Permittees may comply with the trash effluent limitations using any lawful means. Such compliance options are broadly classified as ***full capture***, ***partial capture, institutional controls,*** or ***minimum frequency of assessment and collection,*** as described below, and any combination of these may be employed to achieve compliance:

(1) Full Capture Systems:

(a) The Basin Plan authorizes the Regional Water Board Executive Officer to certify ***full capture systems***, which are systems that meet the operating and performance requirements as described in this Order, and the procedures identified in "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System."[40]

(b) Permittees are authorized to comply with their effluent limitations through certified ***full capture systems*** provided the requirements of paragraph (c), immediately below, and any conditions in the certification, continue to be met.

(c) Permittees may comply with their effluent limitations through progressive installation of ***full capture systems*** throughout their jurisdictional areas until all areas draining to Lake Elizabeth, Santa Monica Bay, Malibu Creek, Ballona Creek, Machado Lake, the Los Angeles River system, Legg Lake, Peck Road Park Lake, and/or Echo Park Lake are addressed. For purposes of this Order, attainment of the effluent limitations shall be conclusively presumed for any drainage area to Lake Elizabeth, Santa Monica Bay, Malibu Creek (and its tributaries), Ballona Creek (and its tributaries), Machado Lake, the Los Angeles River (and its tributaries), Legg Lake, Peck Road Park Lake, and/or Echo Park Lake where certified ***full capture systems*** treat all drainage from the area, provided that the ***full capture systems*** are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Regional Water Board.

[40] The Regional Water Board currently recognizes eight ***full capture systems***. These are: Vortex Separation Systems (VSS) and seven other Executive Officer certified ***full capture systems***, including specific types or designs of trash nets; two gross solids removal devices (GSRDs); catch basin brush inserts and mesh screens; vertical and horizontal trash capture screen inserts; and a connector pipe screen device. See August 3, 2004 Los Angeles Regional Water Quality Control Board Memorandum titled "Procedures and Requirements for Certification of a Best Management Practice for Trash Control as a Full Capture System.

(i) A Permittee shall be deemed in compliance with its final effluent limitation if it demonstrates that all drainage areas under its jurisdiction and/or authority are serviced by appropriate certified ***full capture systems*** as described in paragraph (1)(c).

(ii) A Permittee shall be deemed in compliance with its interim effluent limitations, where applicable:

1. By demonstrating that ***full capture systems*** treat the percentage of drainage areas in the watershed that corresponds to the required trash abatement.

2. Alternatively, a Permittee may propose a schedule for installation of ***full capture systems*** in areas under its jurisdiction and/or authority within a given watershed, targeting first the areas of greatest trash generation, for the Executive Officer's approval. The Executive Officer shall not approve any such schedule that does not result in timely compliance with the final effluent limitations, consistent with the established TMDL implementation schedule and applicable State policies. A Permittee shall be deemed in compliance with its interim effluent limitations provided it is fully in compliance with any such approved schedule.

(2) Partial Capture Devices and Institutional Controls: Permittees may comply with their interim and final effluent limitations through the installation of ***partial capture devices*** and the application of ***institutional controls***.[41]

(a) Trash discharges from areas serviced solely by ***partial capture devices*** may be estimated based on demonstrated performance of the device(s) in the implementing area.[42] That is, trash reduction is equivalent to the ***partial capture devices'*** trash removal efficiency multiplied by the percentage of drainage area serviced by the devices.

(b) Except as provided in subdivision (c), immediately below, trash discharges from areas addressed by ***institutional controls*** and/or ***partial capture devices*** (where site-specific performance data is not available) shall be calculated using a mass balance approach, based on the daily generation rate (DGR) for a representative area.[43] The DGR shall be determined from direct measurement of trash deposited in the drainage area during any thirty-day period between June 22nd and September 22nd exclusive of rain events[44], and shall be re-calculated every year thereafter unless a less frequent period for recalculation is approved by the Regional Water Board Executive Officer. The DGR

[41] While interim effluent limitations may be complied with using ***partial capture devices***, compliance with final effluent limitations cannot be achieved with the exclusive use of ***partial capture devices***.
[42] Performance shall be demonstrated under different conditions (e.g. low to high trash loading).
[43] The area(s) should be representative of the land uses and activities within the Permittees' authority and shall be approved by the Executive Officer prior to the 30-day collection period.
[44] Provided no special events are scheduled that may affect the representative nature of that collection period.

shall be calculated as the total amount of trash collected during this period divided by the length of the collection period.

DGR = (Amount of trash collected during a 30-day collection period[45] / (30 days)

The DGR for the applicable area under the Permittees' jurisdiction and/or authority shall be extrapolated from that of the representative drainage area(s). A mass balance equation shall be used to estimate the amount of trash discharged during a storm event.[46] The ***Storm Event Trash Discharge*** for a given rain event in the Permittee's drainage area shall be calculated by multiplying the number of days since the last street sweeping by the DGR and subtracting the amount of any trash recovered in the catch basins.[47] For each day of a storm event that generates precipitation greater than 0.25 inch, the Permittee shall calculate a ***Storm Event Trash Discharge***.

Storm Event Trash Discharge = [(Days since last street sweeping*DGR)] – [Amount of trash recovered from catch basins][48]

The sum of the ***Storm Event Trash Discharges*** for the storm year shall be the Permittee's calculated annual trash discharge.

Total Storm Year Trash Discharge = ∑Storm Event Trash Discharges from Drainage Area

(c) The Executive Officer may approve alternative compliance monitoring approaches for calculating total storm year trash discharge, upon finding that the program will provide a scientifically-based estimate of the amount of trash discharged from the Permittee's MS4.

(3) Combined Compliance Approaches:

Permittees may comply with their interim and final effluent limitations through a combination of ***full capture systems***, ***partial capture devices***, and ***institutional controls***. Where a Permittee relies on a combination of approaches, it shall demonstrate compliance with the interim and final effluent limitations as specified in (1)(c) in areas where ***full capture systems*** are installed and as specified in (2)(a) or (2)(b), as appropriate, in areas where ***partial capture devices*** and ***institutional controls*** are applied.

(4) Minimum Frequency of Assessment and Collection Approach:

If allowed in a trash TMDL and approved by the Executive Officer, a Permittee may alternatively comply with its final effluent limitations by

[45] Between June 22nd and September 22nd
[46] Amount of trash shall refer to the uncompressed volume (in gallons) or drip-dry weight (in pounds) of trash collected.
[47] Any negative values shall be considered to represent a zero discharge.
[48] When more than one storm event occurs prior to the next street sweeping the discharge shall be calculated from the date of the last assessment.

implementing a program for ***minimum frequency of assessment and collection*** (MFAC) in conjunction with BMPs. To the satisfaction of the Executive Officer, the MFAC/BMP program must meet the following criteria:

(a) The MFAC/BMP Program includes an initial minimum frequency of trash assessment and collection and suite of structural and/or nonstructural BMPs. The MFAC/BMP program shall include collection and disposal of all trash found in the receiving water and shoreline. Permittees shall implement an initial suite of BMPs based on current trash management practices in land areas that are found to be sources of trash to the water body. The initial minimum frequency of trash assessment and collection shall be set as specified in the following TMDLs:

  (i) Malibu Creek Watershed Trash TMDL

  (ii) Machado Lake Trash TMDL

  (iii) Legg Lake Trash TMDL

(b) The MFAC/BMP Program includes reasonable assurances that it will be implemented by the responsible Permittees.

(c) MFAC protocols may be based on SWAMP protocols for rapid trash assessment, or alternative protocols proposed by Permittees and approved by the Regional Water Board Executive Officer.

(d) Implementation of the MFAC/BMP program should include a Health and Safety Program to protect personnel. The MFAC/BMP program shall not require Permittees to access and collect trash from areas where personnel are prohibited.

(e) The Regional Water Board Executive Officer may approve or require a revised assessment and collection frequency and definition of the critical conditions under the MFAC:

  (i) To prevent trash from accumulating in deleterious amounts that cause nuisance or adversely affect beneficial uses between collections;

  (ii) To reflect the results of trash assessment and collection;

  (iii) If the amount of trash collected does not show a decreasing trend, where necessary, such that a shorter interval between collections is warranted; or

  (iv) If the amount of trash collected is decreasing such that a longer interval between collections is warranted.

(f) At the end of the implementation period, a revised MFAC/BMP program may be required if the Regional Water Board Executive Officer determines that the amount of trash accumulating between

collections is causing nuisance or otherwise adversely affecting beneficial uses.

(g) With regard to (4)(e)(i), (4)(e)(ii), or (4)(e)(iii), above, the Regional Water Board Executive Officer is authorized to allow responsible Permittees to implement additional structural or non-structural BMPs in lieu of modifying the monitoring frequency.

ii. If a Permittee is not in compliance with its applicable interim and/or final effluent limitation as identified in Attachments L through R, then it shall be in violation of this Order.

(1) A Permittee relying on ***partial capture devices*** and/or ***institutional controls*** that has violated its interim and/or final effluent limitation(s) shall be presumed to have violated the applicable limitation for each day of each storm event that generated precipitation greater than 0.25 inch during the applicable storm year, except those storm days on which it establishes that its cumulative Storm Event Trash Discharges has not exceeded the applicable effluent limitation.

(2) If a Permittee relying on ***full capture systems*** has failed to demonstrate that the ***full capture systems*** for any drainage area are adequately sized and maintained, and that maintenance records are up-to-date and available for inspection by the Regional Water Board, and that it is in compliance with any conditions of its certification, shall be presumed to have discharged trash in an amount that corresponds to the percentage of the baseline waste load allocation represented by the drainage area in question.

(a) A Permittee may overcome this presumption by demonstrating (using any of the methods authorized in Part VI.E.5.b) that the actual or calculated discharge for that drainage area is in compliance with the applicable interim or final effluent limitation.

iii. Each Permittee shall be held liable for violations of the effluent limitations assigned to their area. If a Permittee's compliance strategy includes ***full*** or ***partial capture devices*** and it chooses to install a full or partial capture device in the MS4 physical infrastructure of another public entity, it is responsible for obtaining all necessary permits to do so. If a Permittee believes it is unable to obtain the permits needed to install a full capture or partial capture device within another Permittee's MS4 physical infrastructure, either Permittee may request the Executive Officer to hold a conference with the Permittees. Nothing in this Order shall affect the right of that public entity or a Permittee to seek indemnity or other recourse from the other as they deem appropriate. Nothing in this subsection shall be construed as relieving a Permittee of any liability that the Permittee would otherwise have under this Order.

c. Monitoring and Reporting Requirements (pursuant to California Water Code section 13383)

i. Each Permittee shall submit a TMDL Compliance Report as part of its Annual Report detailing compliance with the applicable interim and/or final effluent limitations. Reporting shall include the information specified below. The report shall be submitted on the reporting form specified by the Regional Water Board Executive Officer. The report shall be signed under penalty of perjury by the Permittee's principal executive officer or ranking elected official or duly authorized representative of the officer, consistent with Part V.B of Attachment D (Standard Provisions), who is responsible for ensuring compliance with this Order. Each Permittee shall be charged with and shall demonstrate compliance with its applicable effluent limitations beginning with its December 15, 2013, TMDL Compliance Report.

(1) Reporting Compliance based on Full Capture Systems: Permittees shall provide information on the number and location of full capture installations, the sizing of each full capture installation, the drainage areas addressed by these installations, and compliance with the applicable interim or final effluent limitation, in its TMDL Compliance Report. The Los Angeles Water Board will periodically audit sizing, performance, and other data to validate that a system satisfies the criteria established for a ***full capture system*** and any conditions established by the Regional Water Board Executive Officer in the certification.

(2) Reporting Compliance based on Partial Capture Systems and/or Institutional Controls:

(a) Using Performance Data Specific to the Permittee's Area: In its TMDL Compliance Report, a Permittee shall provide: (i) site-specific performance data for the applicable device(s); (ii) information on the number and location of such installations, and the drainage areas addressed by these installations; and (iii) calculated compliance with the applicable effluent limitations.

(b) Using Direct Measurement of Trash Discharge: Permittees shall provide an accounting of DGR and trash removal via street sweeping, catch basin clean outs, etc., in a database to facilitate the calculation of discharge for each rain event. The database shall be maintained and provided to the Regional Water Board for inspection upon request. In its TMDL Compliance Report, a Permittee shall provide information on its annual DGR, calculated storm year discharge, and compliance with the applicable effluent limitation.

(3) Reporting Compliance based on Combined Compliance Approaches:

Permittees shall provide the information specified in Part VI.E.5.c.i(1) for areas where ***full capture systems*** are installed and that are specified in Part VI.E.5.c.i(2)(a) or (b), as appropriate, for areas where ***partial capture devices*** and ***institutional controls*** are applied. In its TMDL Compliance Report, a Permittee shall also provide information on compliance with the applicable effluent limitation based on the combined compliance approaches.

(4) Reporting Compliance based on an MFAC/BMP Approach:

The MFAC/BMP Program includes a Trash Monitoring and Reporting Plan, and a requirement that the responsible Permittees will self-report any non-compliance with its provisions. The results and report of the Trash Monitoring and Reporting Plan must be submitted to Regional Water Board with the Permittee's Annual Report.

ii. Violation of the reporting requirements of this Part shall be punishable pursuant to, inter alia, California Water Code section 13385, subdivisions (a)(3) and (h)(1), and/or section 13385.1.

APPENDIX I

CITY OF HERMOSA BEACH MUNICIPAL CODE CHAPTER 8.44 STORMWATER AND URBAN RUNOFF POLLUTION CONTROL REGULATIONS

Chapter 8.44
STORMWATER AND URBAN RUNOFF POLLUTION CONTROL REGULATIONS Revised 7/15

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8.44.010 Title. Revised 7/15

This chapter shall be known as the "City of Hermosa Beach Stormwater Management and Discharge Control Ordinance." (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.020 Findings. Revised 7/15

A. The Congress of the United States (hereinafter "Congress") has determined that pollutants contained in stormwater and dry weather runoff are responsible for the environmental degradation of oceans, lakes, rivers, and other waters of the United States.

B. Congress, in 1987, amended the Clean Water Act of 1972 to reduce pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System (hereinafter "NPDES") requirements to regulate stormwater and dry weather runoff discharge into municipal storm drain systems.

C. Stormwater and dry weather runoff flows from individual properties onto streets, then through storm drains to coastal waters along the city of Hermosa Beach.

D. The City of Hermosa Beach is a co-permittee under the "Waste Discharge Requirements for

Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4" (Order No. R4-2012-0175), NPDES Permit No. CAS004001, effective December 28, 2012, issued by the California Regional Water Quality Control Board--Los Angeles Region, which also serves as a NPDES permit under the Federal Clean Water Act. As a co-permittee, the city is required to maintain adequate legal authority within its respective jurisdiction to control pollutant discharges and to require the use of control measures to prevent or reduce the discharge of pollutants into the MS4 to achieve water quality standards.

E. In order to control, in a cost-effective manner, the quantity and quality of stormwater and dry weather runoff to the maximum extent practicable, the adoption of reasonable regulations, as set forth herein, is essential.

F. It is the intent of this chapter to simplify and streamline the Hermosa Beach Municipal Code with respect to stormwater low impact development provisions for new development and redevelopment projects by incorporating the substantive elements of the stormwater provisions of Chapter 15.48, Green Building Standards, into this chapter.

G. The city of Hermosa Beach is small in geographic area, comprising 1.4 square miles. Accordingly, it is reasonable to simplify the determination of the stormwater quality design volume for new development and redevelopment projects by adopting a single design storm depth applicable to all project sites within the city while meeting the intent of the Municipal NPDES Permit. The stormwater quality design volume is defined by the Municipal NPDES Permit as the greater of either the runoff from the 0.75 inch, twenty-four (24) hour rain event or the eighty-fifth percentile, twenty-four (24) hour storm as determined from the Los Angeles County eighty-fifth percentile precipitation isohyetal map. According to the referenced map, the largest eighty-fifth percentile, twenty-four (24) hour rain event within the city of Hermosa Beach is approximately 0.77 inches. Thus to simplify regulatory requirements and streamline the project review process, the city of Hermosa Beach has determined to define the stormwater quality design volume as the runoff from the 0.8 inch, twenty-four (24) hour rain event for all new development and redevelopment projects subject to low impact development requirements of Section 8.44.095. (Ord. 15-1351 §1 (part), 2015: Ord. 02-1224U §1, 2002)

8.44.030 Purpose and intent. Revised 7/15

A. The purpose of this chapter is to comply with the Federal Clean Water Act, the California Porter-Cologne Water Quality Control Act, and the Municipal NPDES Permit where the city has jurisdictional authority by:

1. Reducing pollutants in stormwater discharges to the maximum extent practicable;

2. Regulating illicit connections and illicit discharges and thereby reducing the level of

contamination of stormwater and dry weather runoff into the MS4; and

3. Regulating nonstormwater discharges to the MS4.

B. This chapter is also intended to provide the city with the legal authority necessary to implement and enforce the requirements contained in 40 CFR Section 122.26(d)(2)(i)(A) through (F) and in the Municipal NPDES Permit to the extent they are applicable in the city, to control discharges to and from those portions of the MS4 over which it has jurisdiction as required by the Municipal NPDES Permit, and to hold dischargers to the MS4 accountable for their contributions of pollutants and flows.

C. This chapter also sets forth requirements for the construction and operation of certain "commercial and industrial facilities," "new development," and "redevelopment" projects, and other activities (as further defined herein), which are intended to ensure compliance with the stormwater mitigation measures prescribed in the current version of the Municipal NPDES Permit, which is on file in the office of the city clerk of this city. This chapter authorizes the authorized enforcement officer to define and adopt applicable best management practices (BMPs) and other stormwater pollution control measures, to grant emergency self-waivers from Municipal NPDES Permit requirements, as provided herein, to cite infractions, and to impose fines pursuant to this chapter. Except as otherwise provided herein, an authorized enforcement officer shall administer, implement, and enforce the provisions of this chapter. (Ord. 15-1351 §1 (part), 2015: Ord. 02-1224U §1, 2002; Ord. 01-1211 §1, 2001)

8.44.040 Definitions. Revised 7/15

Except as specifically provided herein, any term used in this chapter shall be defined as that term is defined in the current Municipal NPDES Permit, or if it is not specifically defined in the Municipal NPDES Permit, then as such the term is defined in the Federal Clean Water Act, as amended, and/or the regulations promulgated thereunder. The following definitions apply to this chapter only:

"Authorized enforcement officer" means the city manager, public works director, community development director, fire chief or police chief, or the designees of those individuals.

"Automotive service facilities" means a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 5511, 7532-7534, or 7536-7539.

"Best management practices (BMPs)" means practices or physical devices or systems designed to prevent or reduce pollutant loading from stormwater or nonstormwater discharges to receiving waters, or designed to reduce the volume of stormwater or nonstormwater discharged to the receiving water. Examples of BMPs may include public education and outreach, proper planning of development projects, proper cleaning of catch basin inlets, and proper sludge or waste-handling and disposal, among others.

"City" means the city of Hermosa Beach.

"Commercial development" means any development on private land that is not heavy industrial or residential. The category includes, but is not limited to: hospitals, laboratories and other medical facilities, government facilities, educational and religious institutions, recreational facilities, plant nurseries, multi-apartment buildings, car wash facilities, mini-malls and other business complexes, shopping malls, hotels, office buildings, public warehouses, and other light industrial complexes.

"Construction" means any construction or demolition activity, clearing, grading, grubbing, excavation, or any other activity that results in land disturbance. Construction does not include routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, original line and grade, hydraulic capacity, or original purpose of facility; emergency construction activities required to immediately protect public health and safety (including fire prevention); clearing and grubbing of vegetation for landscape maintenance which is not associated with a larger construction project; interior remodeling with no outside exposure of construction material or construction waste to stormwater; mechanical permit work; or sign permit work. See "Routine maintenance" definition below. Where clearing, grading, or excavating of underlying soil takes place during a repaving operation, Construction General Permit coverage is required if one (1) acre or more is disturbed or the activities are part of a larger plan of construction.

"Construction General Permit" means the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-0009-DWQ (NPDES No. CAS000002), adopted September 2, 2009, and any successor permit to that permit.

"Control" means to minimize, reduce, eliminate, or prohibit by technological, legal, contractual or other means, the discharge of pollutants from an activity or activities.

"Development" means any construction, rehabilitation, redevelopment or reconstruction of any public or private residential project (whether single-family, multi-unit or planned unit development); industrial, commercial, retail and other nonresidential projects, including public agency projects; or mass grading for future construction. It does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of facility, nor does it include emergency construction activities required to immediately protect public health and safety.

"Directly adjacent" means situated within two hundred (200) feet of the contiguous zone required for the continued maintenance, function, and structural stability of the environmentally sensitive area.

"Discharge" means when used without qualification the "discharge of a pollutant."

"Discharge of a pollutant" means any addition of any "pollutant" or combination of pollutants to "waters of the United States" from any "point source" or, any addition of any pollutant or combination of pollutants to the waters of the "contiguous zone" or the ocean from any point source other than a vessel or other floating craft which is being used as a means of transportation. The term "discharge"

includes additions of pollutants into waters of the United States from: surface runoff which is collected or channeled by man; discharges through pipes, sewers, or other conveyances owned by a state, municipality, or other person which do not lead to a treatment works; and discharges through pipes, sewers, or other conveyances, leading into privately owned treatment works.

"Discharging directly" means outflow from a drainage conveyance system that is composed entirely or predominantly of flows from the subject property, development, subdivision, or industrial facility, and not commingled with the flows from adjacent lands.

"Discretionary project" is defined in the same manner as Section 15357 of the "Guidelines For Implementation Of The California Environmental Quality Act" contained in Title 14 of the California Code of Regulations, as amended, and means a project which requires the exercise of judgment or deliberation when the city decides to approve or disapprove a particular activity, as distinguished from situations where the city merely has to determine whether there has been conformity with applicable statutes, ordinances, or regulations.

"Disturbed area" means an area that is altered as a result of clearing, grading, and/or excavation.

"Dry weather runoff" means surface water flow produced by nonstormwater resulting from residential, commercial, and industrial activities involving the use of potable and nonpotable water.

"Environmentally sensitive area (ESA)" means an area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which would be easily disturbed or degraded by human activities and developments (California Public Resources Code Section 30107.5). Areas subject to stormwater mitigation requirements are areas designated as significant ecological areas by the Hermosa Beach Coastal Land Use Plan; an area designated as a significant natural area by the California Department of Fish and Game's Significant Natural Areas Program, provided that area has been field verified by the Department of Fish and Game; an area listed in the Water Quality Control Plan--Los Angeles Region--Basin Plan for the Coastal Watersheds of Los Angeles and Ventura Counties as supporting the rare, threatened, or endangered species (RARE) beneficial use; and an area identified by the city as environmentally sensitive.

"Good housekeeping practices" means common practices related to the storage, use, or cleanup of materials, performed in a manner that minimizes the discharge of pollutants. Examples include, but are not limited to, purchasing only the quantity of materials to be used at a given time, use of alternative and less environmentally harmful products, cleaning up spills and leaks, and storing materials in a manner that will contain any leaks or spills.

"Hillside" means property located in an area with known erosive soil conditions, where the development contemplates grading on any natural slope that is twenty-five (25) percent or greater and

where grading contemplates cut or fill slopes.

"Illicit connection" means any human-made conveyance that is connected to the MS4 without a permit, excluding roof drains and other similar type connections. Examples include channels, pipelines, conduits, inlets, or outlets that are connected directly to the storm drain system.

"Illicit discharge" means any discharge into the MS4 or from the MS4 into a receiving water that is prohibited under local, state or federal statutes, ordinances, codes or regulations. The term illicit discharge includes all nonstormwater discharge except authorized nonstormwater discharges; conditionally exempt nonstormwater discharges; and nonstormwater discharges resulting from natural flows specifically identified in the Municipal NPDES Permit.

"Infiltration" means the downward entry of water into the surface of the soil.

"Inspection" means the entry and conducting of an on-site review of a facility and its operations, at reasonable times, to determine compliance with specific municipal or other legal requirements. The steps involved in performing an inspection include, but are not limited to:

1. Pre-inspection documentation research;

2. Request for entry;

3. Interview of facility personnel;

4. Facility walk-through;

5. Visual observation of the condition of facility premises;

6. Examination and copying of records as required;

7. Sample collection (if necessary or required);

8. Exit conference (to discuss preliminary evaluation); and

9. Report preparation, and if appropriate, recommendations for coming into compliance.

"Low impact development (LID)" means building or landscape features designed to retain or filter stormwater runoff.

"Municipal NPDES Permit" means the "Waste Discharge Requirements for Municipal Separate Storm Sewer System (MS4) Discharges within the Coastal Watersheds of Los Angeles County, Except Those Discharges Originating from the City of Long Beach MS4" (Order No. R4-2012-0175), NPDES Permit No. CAS004001, effective December 28, 2012, issued by the California Regional Water Quality Control Board--Los Angeles Region, and any successor permit to that permit.

"Municipal separate storm sewer system" or "MS4" means a conveyance or system of conveyances (consisting of roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):

1. Owned or operated by a state, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to state law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or a designated and approved management agency under Section 208 of the Clean Water Act that discharges to waters of the United States;

2. Designed or used for collecting or conveying stormwater;

3. Which is not a combined sewer; and

4. Which is not part of a publicly owned treatment works (POTW) as defined in 40 Code of Federal Regulations 122.2.

"New development" means land disturbing activities; structural development, including construction or installation of a building or structure; demolition of existing development and construction of a new building or structure; creation of impervious surfaces; and land subdivision.

"Nonstormwater discharge" means any discharge to an MS4 or from the MS4 into a receiving water that is not composed entirely of stormwater.

"NPDES Permit" means any waste discharge requirements issued by the California Regional Water Quality Control Board--Los Angeles Region or the State Water Resources Control Board as an NPDES Permit pursuant to California Water Code Section 13370 (other than the Municipal NPDES Permit).

"Parking lot" means land area or a facility for the temporary parking or storage of motor vehicles used for business, for industry, for commerce, for government, for nonprofit enterprises or for personal use, with a parking lot size of five thousand (5,000) square feet or more, or with twenty-five (25) or more parking spaces.

"Pollutant" means those "pollutants" defined in Section 502(6) of the federal Clean Water Act (33 U.S.C. Section 1362(6)), or incorporated into California Water Code Section 13373. Examples of pollutants include, but are not limited to, the following:

1. Commercial and industrial waste (such as fuels, solvents, detergents, plastic pellets, hazardous or toxic substances, fertilizers, pesticides, slag, ash, and sludge);

2. Metals such as cadmium, lead, zinc, copper, silver, nickel, chromium; and nonmetals such as phosphorus and arsenic;

3. Petroleum hydrocarbons (such as fuels, lubricants, surfactants, waste oils, solvents, coolants and grease);

4. Excessive eroded soils, sediment and particulate materials in amounts which may adversely affect the beneficial use of the receiving waters, flora or fauna of the state;

5. Animal wastes (such as discharge from confinement facilities, kennels, pens, and recreational facilities); and

6. Substances having characteristics such as pH less than six (6) or greater than nine (9), or unusual coloration or turbidity, or excessive levels of fecal coliform, or fecal streptococcus, or enterococcus.

"Project" means all development, redevelopment, and land disturbing activities.

"Redevelopment" means the creation, addition, or replacement of impervious surfaces on an already developed site. Redevelopment includes, but is not limited to, the following activities that meet the minimum standards set forth in this definition: (1) the expansion of a building footprint, an addition, or replacement of a structure; (2) development of a structure, including an increase in impervious area; (3) replacement of impervious surface that is not part of a routine maintenance activity; and (4) land disturbing activities related to structural or impervious surfaces. Redevelopment does not include routine maintenance activities that are conducted to maintain original line and grade, hydraulic capacity, original purpose of facility or emergency redevelopment activity required to protect public health safety.

"Regional Board" means the California Regional Water Quality Control Board--Los Angeles Region.

"Restaurant" means a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption. (SIC Code 5812, Establishments primarily engaged in the retail sale of prepared food and drinks for on-premises or immediate consumption. Caterers and industrial and institutional food service establishments are also included in this industry.)

"Retail gasoline outlet" means any facility engaged in selling gasoline and lubricating oils.

"Routine maintenance" includes, but is not limited to, projects conducted to:

1. Maintain the original line and grade, hydraulic capacity, or original purpose of the facility;

2. Perform as needed restoration work to preserve the original design grade, integrity and hydraulic capacity of flood control facilities;

3. Includes road shoulder work, regrading dirt or gravel roadways and shoulders and performing ditch cleanouts;

4. Update existing lines (including replacing existing lines with new materials or pipes) and facilities to comply with applicable codes, standards, and regulations regardless if such projects result in increased capacity; and

5. Repair leaks.

Routine maintenance does not include construction of new lines or facilities resulting from compliance with applicable codes, standards and regulations. New lines are those that are not associated with existing facilities and are not part of a project to update or replace existing lines.

"Runoff" means any runoff including stormwater and dry weather flows from a drainage area that reaches a receiving water body or subsurface. During dry weather it is typically comprised of base flow either contaminated with pollutants or uncontaminated, and nuisance flows.

"Significant ecological area" (SEA) means an area that is determined to possess an example of biotic resources that cumulatively represent biological diversity, for the purposes of protecting biotic diversity, as part of the Hermosa Beach Coastal Land Use Plan. Areas are designated as SEAs if they possess one (1) or more of the following criteria:

1. The habitat of rare, endangered, and threatened plant and animal species;

2. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind, or are restricted in distribution on a regional basis;

3. Biotic communities, vegetative associations, and habitat of plant and animal species that are either one of a kind or are restricted in distribution in Los Angeles County;

4. Habitat that at some point in the life cycle of a species or group of species, serves as a concentrated breeding, feeding, resting, migrating grounds and is limited in availability either regionally or within Los Angeles County;

5. Biotic resources that are of scientific interest because they are either an extreme in physical/geographical limitations, or represent an unusual variation in a population or community;

6. Areas important as game species habitat or as fisheries;

7. Areas that would provide for the preservation of relatively undisturbed examples of natural

biotic communities in Los Angeles County; and

8. Sensitive coastal resource areas defined in California Public Resources Code Section 30116 as: "[s]pecial marine and land habitat areas, wetlands, lagoons, and estuaries as mapped and designated in Part 4 of the coastal plan."

"Simple LID BMP" means a BMP constructed above ground on a single-family residential home that can be readily inspected by a homeowner or inspector. Simple LID BMPs do not require an operation and maintenance plan per the Municipal NPDES Permit. Examples of such BMPs include, but are not limited to, vegetated swales, rain barrels and above ground cisterns, rain gardens, and pervious pavement.

"Site" means the land or water area where any "facility or activity" is physically located or conducted, including adjacent land used in connection with the facility or activity.

"Source control BMP" means any schedule of activities, prohibition of practices, maintenance procedures, managerial practices or operational practices that aim to prevent stormwater pollution by reducing the potential for contamination at the source of pollution.

"Storm event" means a rainfall event that produces more than 0.1 inch of precipitation in twenty-four (24) hours unless specifically stated otherwise.

"Stormwater" means stormwater runoff and surface runoff and drainage related to precipitation events (pursuant to 40 Code of Federal Regulations Section 122.26(b)(13); 55 Federal Register 47990, 47996 (Nov. 16, 1990)).

"Stormwater runoff" means that part of precipitation (rainfall or snowmelt) which travels via flow across a surface to the MS4 or receiving waters from impervious, semi-pervious or pervious surfaces. When all other factors are equal, runoff increases as the perviousness of a surface decreases.

"Structural BMP" means any structural facility designed and constructed to mitigate the adverse impacts of stormwater and dry weather runoff pollution (e.g., canopy, structural enclosure). Structural BMPs may include both treatment control BMPs and source control BMPs.

"Treatment" means the application of engineered systems that use physical, chemical, or biological processes to remove pollutants. Such processes include, but are not limited to, filtration, gravity settling, media adsorption, biodegradation, biological uptake, chemical oxidation and UV radiation.

"Treatment control BMP" means any engineered system designed to remove pollutants by simple gravity settling of particulate pollutants, filtration, biological uptake, media absorption or any other physical, biological, or chemical process. (Ord. 15-1351 §1 (part), 2015: Ord. 01-1211 §§2, 3, 4, 2001; Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.050 Construction and application. Revised 7/15

This chapter shall be construed to assure consistency with the requirements of the federal Clean Water Act and the California Porter-Cologne Water Quality Control Act, and acts amendatory thereof or supplementary thereto, applicable implementing regulations, and the Municipal NPDES Permit, and any amendment, revision or reissuance thereof. (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.060 Prohibited activities. Revised 7/15

A. Illicit Discharges and Connections. It is prohibited to establish, use, maintain, or continue illicit connections to the MS4, or to commence or continue any illicit discharges to the MS4. This prohibition against illicit connections is expressly retroactive and applies to connections made in the past but excludes permitted improvements to real property over which uncontaminated stormwater runoff flows.

B. Littering. It is prohibited to throw, deposit, place, leave, maintain, keep, or permit to be thrown, deposited, placed, left, or maintained or kept, any refuse, rubbish, garbage, or any other discarded or abandoned objects, articles or accumulations, in or upon any street, alley, sidewalk, walk street, driveway, storm drain, inlet, catch basin conduit or drainage structure, business place, or upon any private plot of land in the city, so that the same might be or become a pollutant or be discharged to or through the MS4. No person shall throw or deposit litter in any fountain, pond, lake, stream, or other body of water within the city. This subsection shall not apply to refuse, rubbish, garbage or recyclables deposited in containers, bags, or other appropriate receptacles which are placed in designated locations for regular solid waste pick up and disposal.

C. Disposal of Landscape Debris. It is prohibited to intentionally dispose of leaves, dirt, or other landscape debris into the MS4.

D. Nonstormwater Discharges. All nonstormwater discharges into the MS4 are prohibited unless those flows are: in compliance with a separate NPDES Permit; pursuant to a discharge exemption by the Regional Board, the Regional Board's Executive Officer, or the State Water Resources Control Board; associated with emergency firefighting activities (i.e., flows necessary for the protection of life or property); natural flows as defined in the Municipal NPDES Permit; conditionally exempt nonstormwater discharges as defined in accordance with the Municipal NPDES Permit; or authorized as a temporary nonstormwater discharge by U.S. Environmental Protection Agency (USEPA) pursuant to Sections 104(a) or 104(b) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). Prohibited discharges include, but are not limited to:

1. The discharge of wash waters to the MS4 when gas stations, auto repair garages, or other type of automotive service facilities (including those located at automotive dealerships) are cleaned;

2. The discharge of wastewater to the MS4 from mobile auto washing, steam cleaning, mobile carpet cleaning, and other such mobile commercial and industrial operations;

3. Discharges to the MS4 from areas where repair of machinery and equipment, including motor vehicles, which are visibly leaking oil, fluid or antifreeze, is undertaken;

4. Discharges of runoff to the MS4 from storage areas of materials containing grease, oil, or other hazardous substances (e.g., motor vehicle parts), and uncovered receptacles containing hazardous materials;

5. The discharge of chlorinated/brominated swimming pool water and filter backwash or swimming pool water discharges that contain any detergents, wastes, or algaecides, or any other chemicals including salts from pools commonly referred to as "salt water pools" in excess of applicable water quality objectives;

6. Discharges of runoff from the washing of toxic materials from paved or unpaved areas to the MS4;

7. Discharges to the MS4 from washing impervious surfaces in industrial/commercial areas which results in a discharge of runoff to the MS4, unless specifically required by the state's, or the city's, or Los Angeles County's Health and Safety Codes and conducted utilizing BMPs specified in the Municipal NPDES Permit, or permitted under a separate NPDES Permit;

8. Discharges from the washing out of concrete trucks, pumps, tools, and equipment into the MS4;

9. Discharges to the MS4 of any pesticide, fungicide, or herbicide, banned by the USEPA or the California Department of Pesticide Regulation;

10. The disposal of hazardous wastes into trash or recycling containers used for municipal solid waste disposal, or placed for removal by municipal solid waste disposal or permitted collector, where such disposal causes or threatens to cause a direct or indirect discharge to the MS4;

11. Discharge of any food or food processing wastes; and

12. Discharge of any fuel and chemical wastes, animal wastes, garbage, batteries, and other materials that have potential adverse impacts on water quality.

E. Discharges in Violation of the Municipal NPDES Permit. Any discharge that would result in or contribute to a violation of the Municipal NPDES Permit, either separately or in combination with other discharges, is prohibited. Liability for any such discharge shall be the responsibility of the person(s)

causing or responsible for the discharge, and such person(s) shall defend, indemnify, and hold harmless the city from all losses, liabilities, claims, or causes of actions in any administrative or judicial action relating to such discharge.

F. Industrial Activities. No person shall conduct any industrial activity in the city without obtaining all permits required by state or federal law, including a NPDES General Industrial Activity Stormwater Permit when required. Persons conducting industrial activities within the city shall refer to the most recent edition of the Industrial/Commercial Stormwater Best Management Practices Handbook, produced and published by the California Stormwater Quality Association, for specific guidance on selecting BMPs for reducing pollutants in stormwater discharges from industrial activities. (Ord. 15-1351 §1 (part), 2015: Ord. 02-1224U §§6 – 10, 2002; Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.070 Exempted discharges and conditionally exempted discharges. Revised 7/15
Discharges from those activities specifically identified in, or pursuant to the Municipal NPDES Permit as being exempted discharges or conditionally exempted discharges shall not be considered a violation of this chapter; provided, that any applicable BMPs developed pursuant to the Municipal NPDES Permit are implemented to minimize any adverse impacts from such identified sources and that required conditions outlined in the Municipal NPDES Permit are met prior to discharge. (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.080 Good housekeeping provisions. Revised 7/15
Owners and occupants of property within the city shall implement best management practices to prevent or reduce the discharge of pollutants to the MS4 to the maximum extent practicable. Treatment and structural BMPs shall be properly operated and maintained to prevent the breeding of vectors. Implementation includes, but is not limited to:

A. Septic Waste. No person shall leave, deposit, discharge, dump, or otherwise expose or create the potential to expose any chemical or septic waste to precipitation.

B. Use of Water. Runoff of water used for irrigation purposes shall be minimized to the maximum extent practicable. Runoff of water from the conditionally exempt washing down of paved areas shall be minimized to the maximum extent practicable utilizing BMPs specified in the Municipal NPDES Permit including sweeping and collection of debris for trash disposal. Conditionally exempt nonstormwater discharges of roadway/driveway wash water only include those discharges resulting from use of high pressure, low volume spray washing, using only potable water with no cleaning agents. Conditionally exempt nonstormwater discharges of roadway/driveway wash water do not include hosing of any driveway or roadway with a garden hose with a pressure nozzle. Water used for irrigation purposes is also subject to Chapter 8.56.

C. Storage of Materials, Machinery, and Equipment. Machinery or equipment that is to be repaired or

maintained in areas susceptible to or exposed to stormwater shall be placed in a manner so that leaks, spills and other maintenance-related pollutants are not discharged to the MS4.

D. Removal and Disposal of Oil, Chemicals, Debris, or Other Pollutionable Materials from Industrial/Commercial Motor Vehicle Parking Lots. Industrial/commercial motor vehicle parking lots with more than twenty-five (25) parking spaces that are located in areas potentially exposed to stormwater shall be swept regularly (including use of absorbent material if necessary) or other equally effective measures shall be utilized, to remove oil, chemicals, debris, or other pollutionable materials from such parking lots.

E. Food Wastes. Food wastes generated by nonresidential food service and food distribution sources shall be properly disposed of and in a manner so such wastes are not discharged to the MS4.

F. Best Management Practices. BMPs shall be used in areas exposed to stormwater for the removal and lawful disposal of all fuels, chemicals, fuel and chemical wastes, animal wastes, landscape debris, garbage, batteries, and hazardous, toxic, or other materials which have potential adverse impacts on water quality. (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.090 Requirements for industrial/commercial and construction activities. Revised 7/15

A. Each industrial discharger, discharger associated with construction activity, or other discharger described in any general stormwater permit addressing such discharges, as may be issued by the U.S. Environmental Protection Agency, the State Water Resources Control Board, or the Regional Board, shall comply with all requirements of such permit. Each discharger identified in an individual NPDES Permit shall comply with and undertake all activities required by such permit. Proof of compliance with any such permit may be required in a form acceptable to the director of community development prior to the issuance of any grading, building, or occupancy permits, or any other type of permit or license issued by the city.

B. Stormwater runoff containing sediment, construction materials, or other pollutants from the construction site and any adjacent staging, storage, or parking areas shall be reduced to the maximum extent practicable. The following shall apply to all construction projects within the city, regardless of project size, and shall be required from the time of land clearing, demolition, or commencement of construction until receipt of a certificate of occupancy:

1. Sediment, construction wastes, trash and other pollutants from construction activities shall be reduced to the maximum extent practicable;

2. Structural controls such as sediment barriers, plastic sheeting, detention ponds, filters, berms, and similar controls shall be utilized to the maximum extent practicable in order to minimize the escape of sediment and other pollutants from the site;

3. All excavated soil shall be located on the site in a manner that minimizes the amount of sediment running onto the street, drainage facilities, or adjacent properties. Soil piles not actively in use shall be bermed or covered with plastic or similar materials until the soil is either used or removed from the site;

4. No washing of construction or other vehicles is permitted adjacent to a construction site. No water from the washing of construction vehicles or equipment on the construction site is permitted to run off the construction site and enter the MS4;

5. Solid waste receptacles must be situated at convenient locations on construction sites and must be maintained in such a manner that trash and litter and construction waste does not accumulate on the site nor migrate off site. Receptacles must be securely covered at the end of each business day and during rain events; and

6. Erosion from slopes and channels must be controlled through the effective combination of BMPs.

C. The owner or authorized representative of the owner must certify in a form acceptable to the director of community development, or designee, that BMPs to control runoff from construction activity at all construction sites as required under this chapter will be implemented prior to the issuance of any demolition, building or grading permit.

D. In addition to the provisions of subsections (B) and (C) of this section, construction sites covering less than one acre must implement an effective combination of erosion and sediment control BMPs from the Municipal NPDES Permit to prevent erosion and sediment loss, and the discharge of construction wastes, to the satisfaction of the community development director, or designee.

E. In addition to the provisions of subsection (B) of this section, construction sites covering one (1) acre or more must adhere to the requirements set forth in the Municipal NPDES Permit and the Construction General Permit. A Stormwater Pollution Prevention Plan (SWPPP) shall be developed by a Qualified SWPPP Developer (QSD) for construction sites one (1) acre or more consistent with the Municipal NPDES Permit. Such plans must be submitted to the director of community development, or designee, for review and approval prior to the issuance of building or grading permits. The SWPPP must include all elements required by the Construction General Permit. SWPPPs must be prepared in accordance with their calculated risk level per the Construction General Permit. BMPs selected for erosion and sediment control shall be detailed in the SWPPP. BMPs shall be selected from the Municipal NPDES Permit, as applicable, and, at a minimum, shall include those BMPs specified in Attachments A, C, D, and/or E of the Construction General Permit (or any equivalent attachments in a later amended Permit) based on the project type or risk level. Selected BMPs must be selected, designed, implemented, and maintained in accordance with the

BMP technical standards presented in the latest version of the California Stormwater Quality Association (CASQA) Stormwater Best Management Practices Handbook for Construction; or Caltrans Stormwater Quality Handbook, Construction Site Best Management Practices Manual and addenda.

F. Roadway paving and repair projects must implement at a minimum the BMPs listed in the Municipal NPDES Permit for such projects. Roadway paving or repair projects one (1) acre or more in size shall also abide by the Construction General Permit, and implement all necessary BMPs as required for coverage under the Construction General Permit. (Ord. 15-1351 §1 (part), 2015: Ord. 02-1224U §13, 2002)

8.44.095 Low impact development requirements for new development and redevelopment projects. Revised 7/15

A. Projects Required to Comply. All new development and the following types of redevelopment projects are required to comply with the new development and redevelopment project performance criteria set forth in the Municipal NPDES Permit:

1. All redevelopment projects, including single or multifamily residential projects, adding or replacing more than five thousand (5,000) square feet of impervious surface area;

2. Industrial parks or sites with five thousand (5,000) square feet or more of surface area;

3. Commercial malls or sites with five thousand (5,000) square feet or more of surface area;

4. Automotive service facilities (SIC 5013, 5014, 5511, 5541, 7532-7534 and 7536-7539) with five thousand (5,000) square feet or more of surface area;

5. Retail gasoline outlets with five thousand (5,000) square feet or more of surface area;

6. Restaurants (SIC 5812) with five thousand (5,000) square feet or more of surface area;

7. Parking lots with five thousand (5,000) square feet or more of impervious surface area or with twenty-five (25) or more parking spaces (cumulative on the project site);

8. Any redevelopment project located in or directly adjacent to or discharging directly into a significant ecological area (as defined herein), where the development will:

a. Discharge stormwater and dry weather runoff that is likely to impact a sensitive biological species or habitat; and

b. Create two thousand five hundred (2,500) square feet or more of impervious surface area.

B. The following do not constitute new development or redevelopment and are not required to comply with the new development and redevelopment project performance criteria set forth in the Municipal NPDES Permit:

1. Routine maintenance activities conducted to maintain original line and grade, hydraulic capacity, original purpose of facility, or emergency redevelopment activity required to protect public health and safety;

2. Discretionary permit projects or phased project applications which have been deemed complete by the effective date of this chapter; and

3. Discretionary permit projects with a valid vesting tentative map.

C. Where redevelopment results in an alteration to more than fifty (50) percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-development stormwater quality control requirements, the entire project must comply with the new development/redevelopment project performance criteria in the Municipal NPDES Permit.

D. Where redevelopment results in an alteration to less than fifty (50) percent of impervious surfaces of a previously existing development, and the existing development was not subject to post-development stormwater quality control requirements, only the alteration must comply with the new development/redevelopment project performance criteria in the Municipal NPDES Permit, and not the entire development.

E. Street and road construction of five thousand (5,000) square feet or more of impervious surface area shall follow USEPA guidance regarding Managing Wet Weather with Green Infrastructure: Green Streets (December 2008 EPA-833-F-08-009) to the maximum extent practicable. Street and road construction applies to standalone streets, roads, alleys, and highways, and also applies to streets, roads and alleys within larger projects.

F. Incorporation of Low Impact Development Program Requirements into Project Plans.

1. New development and redevelopment projects are required to control pollutants and runoff volume from the project site by minimizing the impervious surface area through effective site design and use of water permeable surfaces (e.g., permeable paving or landscaping) to the extent it is technically feasible on not less than fifty (50) percent of exterior surface areas excluding building footprints, and controlling runoff through infiltration, bioretention, and/or rainfall harvest and use, in accordance with the standards set forth in the Municipal NPDES Permit.

2. An application for a new development or a redevelopment project identified in subsection (A) of this section shall incorporate into the project plans a stormwater mitigation plan ("SWMP"), which includes those BMPs necessary to control stormwater pollution from the completed

project. Structural or treatment control BMPs (including, as applicable, post-construction treatment control BMPs) set forth in project plans shall meet the design standards set forth in the Municipal NPDES Permit.

3. Hillside new development or redevelopment projects identified in subsection (A) of this section shall implement mitigation measures where applicable to:

a. Conserve natural areas;

b. Protect slopes and channels from erosion;

c. Provide storm drain system stenciling and signage;

d. Divert roof runoff to vegetated or other permeable areas before discharge unless the diversion would result in slope instability; and

e. Direct surface flow to vegetated or other permeable areas before discharge unless the diversion would result in slope instability.

4. New Development/Redevelopment Project Performance Criteria. Post-construction treatment control BMPs are required for all new development and redevelopment projects identified in subsection (A) of this section unless alternative measures are allowed as provided in the Municipal NPDES Permit. BMPs must be implemented to retain on-site the stormwater quality design volume (SWQDv), defined as runoff from the 0.80 inch, twenty-four (24) hour rain event.

5. BMPs shall meet the design specifications and on-site retention potential described in the Municipal NPDES Permit.

For projects unable to retain one hundred (100) percent of the SWQDv on-site due to technical infeasibility as defined in the Municipal NPDES Permit, the projects must implement alternative compliance measures in accordance with the Municipal NPDES Permit.

6. The following categories of projects which otherwise do not require compliance with this section, but which the director of community development, or designee, has determined may potentially have adverse impacts on post-development stormwater quality, shall be designed to include post-construction treatment control BMPs to mitigate the adverse impacts on post-development stormwater quality to the maximum extent practicable and must implement a site-specific plan to mitigate post-development stormwater. Projects where one or more of the following project characteristics exist are deemed to potentially have adverse impacts on post-development stormwater quality:

a. Vehicle or equipment fueling areas;

b. Vehicle or equipment maintenance areas, including washing and repair;

c. Commercial or industrial waste handling or storage;

d. Outdoor handling or storage of hazardous materials;

e. Outdoor manufacturing areas;

f. Outdoor food handling or processing;

g. Outdoor animal care, confinement, or slaughter; or

h. Outdoor horticulture activities.

G. Issuance of Discretionary Permits. No discretionary permit may be issued for any new development or redevelopment project identified in subsection (A) of this section or projects listed in subsection (F)(6) of this section until the director of community development, or designee, confirms that the project plans comply with the applicable stormwater mitigation plans, BMP requirements and enumerated design criteria requirements set forth in this chapter.

H. Issuance of Certificates of Occupancy. As a condition for issuing a certificate of occupancy for new development or redevelopment projects identified in subsection (A) of this section or projects listed in subsection (F)(6) of this section, the director of community development, or designee, shall require facility operators and/or owners to build all the stormwater pollution control BMPs and structural or treatment control BMPs that are shown on the approved project plans and to submit a signed certification statement stating that the site and all structural or treatment control BMPs will be maintained in compliance with the Municipal NPDES Permit and other applicable regulatory requirements.

Project owners shall provide an operation and maintenance plan, monitoring plan if required by the director of community development, or designee, and verification of ongoing maintenance provisions for LID practices, structural or treatment control BMPs, and hydromodification control BMPs including but not limited to: final map conditions, legal agreements, recorded covenants, conditions or restrictions, CEQA mitigation requirements, conditional use permits, and/or other legally binding maintenance agreements to the satisfaction of the director, or designee. These maintenance records must be kept on site for treatment BMPs implemented on single-family residences.

I. Transfer of Properties Subject to Requirement for Maintenance of Structural and Treatment Control BMPs.

1. The transfer or lease of a property subject to a requirement for maintenance of structural and/or treatment control BMPs shall include conditions requiring the transferee and its

successors and assigns to either (a) assume responsibility for maintenance of any existing structural or treatment control BMP, or (b) replace an existing structural or treatment control BMP with new control measures or BMPs meeting the then-current standards of the city and the Municipal NPDES Permit. Such requirement shall be included in any sale or lease agreement or deed for such property. The condition of transfer shall include a provision that the successor property owner or lessee conduct maintenance inspections of all structural or treatment control BMPs at least once a year and retain proof of inspection by the city for a minimum of five (5) years.

2. For residential properties where the structural or treatment control BMPs are located within a common area which will be maintained by a homeowners' association, language regarding the responsibility for maintenance shall be included in the project's conditions, covenants, and restrictions (CC&Rs). Printed educational materials will be required to accompany the first deed transfer to highlight the existence of the requirement and to provide information on what stormwater management facilities are present, signs that maintenance is needed, and how the necessary maintenance can be performed. The transfer of this information shall also be required with any subsequent sale of the property.

3. If structural or treatment control BMPs are located within an area proposed for dedication to a public agency, they will be the responsibility of the developer until the dedication is accepted.

J. California Environmental Quality Act. Provisions of this section shall be complimentary to, and shall not replace, any applicable requirements for stormwater mitigation required under the California Environmental Quality Act (CEQA). (Ord. 15-1351 §1 (part), 2015: Ord. 01-1211 §5, 2001)

8.44.100 Inspection authority. Revised 7/15

A. Authority to Enforce. The city's authorized enforcement officers and designees thereof, are authorized and directed to enforce all provisions of this chapter.

B. Right of Entry. Whenever necessary to make an inspection to enforce any of the provisions of this chapter, or whenever an authorized enforcement officer has reasonable cause to believe that there exists in any building or upon any premises any condition which constitutes a violation of the provisions of this chapter, an authorized enforcement officer may enter such building or premises at all reasonable times to inspect the same or perform any duty imposed upon the officer by this chapter; provided, that: (1) if such building or premises be occupied, he or she shall first present proper credentials and request entry; and (2) if such building or premises be unoccupied, he or she shall first make a reasonable effort to locate the owner or other persons having charge or control of the building or premises and request entry. Any such request for entry shall state that the property owner or occupant has the right to refuse entry and that in the event such entry is refused, inspection may be made only upon issuance of an inspection warrant. In the event the owner and/or occupant

refuses entry after such request has been made, the officer may seek assistance from any court of competent jurisdiction in obtaining such entry.

C. Authority to Carry Out Inspections, Conduct Samplings, and Establishing Sampling Devices. An authorized enforcement officer may carry out all inspections, surveillance, and monitoring procedures necessary to determine compliance and noncompliance with the Municipal NPDES Permit, including the prohibition of nonstormwater discharges into the MS4 and receiving waters. With the consent of the owner or occupant or pursuant to an inspection warrant, any authorized enforcement officer may establish on any property such devices as necessary to conduct sampling and monitoring activities necessary to determine the concentrations of pollutants in stormwater and/or nonstormwater runoff. The inspections provided for herein may include but are not limited to:

1. Inspecting efficiency or adequacy of construction or post-construction BMPs;

2. Inspection, sampling, and testing any area runoff, soils in areas subject to runoff, and/or treatment system discharges;

3. Inspection of the integrity of all storm drain and sanitary sewer systems, including the use of smoke and dye tests and video survey of such pipes and conveyance systems;

4. Inspection of all records of the owner, contractor, developer or occupant of public or private property relating to BMP inspections conducted by the owner, contractor, developer or occupant and obtaining copies of such records as necessary; and

5. Identifying points of stormwater discharge from the premises whether surface or subsurface and locating any illicit connection or discharge.

D. Requirement to Sample or Monitor. Any authorized enforcement officer may order that any person engaged in any activity and/or owning or operating any facility which may cause or contribute to stormwater pollution or contamination, illicit discharges, and/or discharge of nonstormwater to the MS4, undertake such monitoring activities and/or analyses and furnish such reports as the officer may specify. All costs incurred for such activity shall be borne by the party ordered to do the sampling. In the event the owner or operator of a facility subject to a monitoring and/or analyses order fails to conduct required monitoring and/or analyses and furnish the required reports in the form required, an authorized enforcement officer may cause such monitoring and/or analyses and the cost, therefore, including the reasonable additional administrative costs incurred by the city, shall be borne by the owner of the property and the cost thereof shall be invoiced to the owner of the property. If the invoice is not paid within sixty (60) days of the issuance thereof, the costs shall be a lien upon and against the property and continue in existence until the same shall be paid. If the lien is not satisfied by the owner of the property within three (3) months after the completion by an authorized enforcement officer of the required monitoring and/or analyses and reports, the property may be sold in satisfaction thereof

in a like manner as other real property is sold under execution.

E. Facility Inspections. The director of public works, or designee, may periodically inspect every commercial and industrial facility as defined under the Municipal NPDES Permit at least twice during the term of the Municipal NPDES Permit and as often as necessary to insure compliance with this chapter as the director of public works, or designee, deems appropriate. (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

8.44.110 Violations of stormwater and dry weather runoff pollution control regulations. Revised 7/15

A. Violations.

1. Violations of the provisions of this chapter are subject to the administrative penalty provisions of Chapter 1.10. Each day that a violation continues shall constitute a separate offense.

2. Concealment. Causing, permitting, aiding, abetting, or concealing a violation of any provision of this chapter shall constitute a violation of such provision.

B. Public Nuisance.

1. In addition to being subject to the administrative penalty provisions:

a. Any action or inaction or condition caused or permitted to exist in violation of:

i. Any of the provisions of this chapter; or

ii. Any requirement of either the Municipal NPDES Permit, the Construction General Permit, an approved stormwater mitigation plan, an approved SWPPP with respect to a property, the Industrial General Permit; or

b. Any false certification or verification, or any failure to comply with a certification or verification provided by a project applicant or the applicant's successor in interest; or

c. Any failure to properly operate and maintain any structural or treatment control BMP on a property in accordance with an approved stormwater mitigation plan or the Municipal NPDES Permit, is hereby determined to be a threat to the public health, safety and welfare, is declared and deemed a public nuisance, and may be abated or restored by the authorized enforcement officer, and a civil or criminal action to abate, enjoin or otherwise compel the cessation of such nuisance may be brought by the city. Nuisance abatement is governed by Chapter 8.28.

2. The cost of public nuisance abatement and restoration shall be assessed against the property, as set forth in Chapter 8.28.

3. If any violation of this chapter constitutes a seasonal or recurring nuisance, either the community development director or public works director, or their designee, shall so declare and provide notice to the address of the property via certified mail. The failure of any person to take appropriate annual or seasonal precautions required by the notice shall constitute a public nuisance and a violation of this chapter.

C. Enforcement Procedure for Public Nuisance.

1. For the first failure to comply with any provision contained in this chapter that will be prosecuted as a nuisance, rather than enforced pursuant to the city's administrative penalty provisions, an authorized enforcement officer shall issue to the violator a written notice which includes the following information: (a) a description of the violation being committed; (b) a specified time within which the violation must be corrected or within which the violator may file a written response to the officer disputing the existence of a violation; and (c) a description of the penalties which may be imposed for continued noncompliance.

2. If the violator demonstrates that the violation does not exist, or has been corrected, no further action need be taken. If, however, the violation exists and is not corrected within the prescribed time, the authorized enforcement officer may thereafter pursue any of the enforcement remedies described below in this section.

3. Notice is only required under this section in the first instance for failure to comply with any provision of this chapter and is not required for subsequent violations of the same or substantially similar activity.

4. Notice under this provision is not required before the city may pursue an administrative penalty under Chapter 1.10.

D. Civil Actions. In addition to any other remedies provided in this section, any violation of this chapter may be enforced by civil action brought by the city. In any such action, the city may seek, as appropriate, any or all of the following remedies:

1. A temporary and/or permanent injunction;

2. Assessment of the violator for the costs of any investigation, inspection, or monitoring survey which led to the establishment of the violation, and for the reasonable costs of preparing and bringing legal action under this subsection;

3. Costs incurred in removing, correcting, or terminating the adverse effects resulting from violation; and

4. Compensatory damages for loss, damage or destruction of water quality, wildlife, fish, or aquatic life.

E. Administrative Enforcement Powers. In addition to the other enforcement powers and remedies established by this chapter, the authorized enforcement officers have the authority to utilize the following administrative remedies:

1. Cease and Desist Orders. When an authorized enforcement officer finds that a violation of this chapter has taken place or is likely to take place, the officer may issue an order to cease and desist such discharge, or practice, or operation likely to cause such violation and direct that those persons not complying shall: (a) comply with the requirement, (b) comply with a time schedule for compliance, or (c) take appropriate remedial or preventive action to prevent a specified violation from recurring.

2. Notice to Clean. Whenever an authorized enforcement officer finds any oil, earth, debris, grass, weeds, dead trees, rubbish, refuse, waste, container or any other material of any kind, in or upon the sidewalk abutting or adjoining any parcel of land, or upon any parcel of land or grounds, which may result in pollutants entering the MS4 or a nonstormwater discharge to the MS4, he or she may give notice to the owner or occupant of the adjacent property to remove such oil, earth, debris, grass, weeds, dead trees, rubbish, refuse, waste, container or other material, in any manner that the officer may reasonably direct. The recipient of such notice shall undertake the activities as described in the notice.

F. Permit Revocation. To the extent the city makes a provision of this chapter or any identified BMP a condition of approval to the issuance of a permit or license, any person in violation of such condition is subject to the permit revocation procedures set forth in this Code.

G. Remedies. Remedies specified in this chapter are in addition to and do not supersede or limit any and all other remedies, civil, or criminal, including remedies under the Federal Clean Water Act and/or Porter-Cologne Act. The remedies provided for in this section shall be cumulative and not exclusive.

H. Citizen Reporting. Members of the public are encouraged to report possible violations of this chapter to the city's public works department. (Ord. 15-1351 §1 (part), 2015: Ord. 07-1281, 2007)

8.44.120 No taking. Revised 7/15

The provisions of this chapter shall not be construed or operated to deprive any property owner of substantially all of the market value of such owner's property or otherwise constitute an unconstitutional taking without compensation. (Ord. 15-1351 §1 (part), 2015: Ord. 96-1165 §1, 1996; Ord. 94-1113, 1994)

APPENDIX J

CEQA GUIDELINES – APPENDIX G ENVIRONMENTAL CHECKLIST FORM

APPENDIX G:
ENVIRONMENTAL CHECKLIST FORM

NOTE: The following is a sample form and may be tailored to satisfy individual agencies' needs and project circumstances. It may be used to meet the requirements for an initial study when the criteria set forth in CEQA Guidelines have been met. Substantial evidence of potential impacts that are not listed on this form must also be considered. The sample questions in this form are intended to encourage thoughtful assessment of impacts, and do not necessarily represent thresholds of significance.

1. Project title: _____
2. Lead agency name and address:

   _____
   _____
   _____
3. Contact person and phone number: _____
4. Project location: _____
5. Project sponsor's name and address:

   _____
   _____
   _____
6. General plan designation: _____ 7. Zoning: _____
8. Description of project: (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary.)

   _____
   _____
   _____
   _____
9. Surrounding land uses and setting: Briefly describe the project's surroundings:

   _____
   _____
   _____
   _____
10. Other public agencies whose approval is required (e.g., permits, financing approval, or participation agreement.)

    _____
    _____
    _____
    _____

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☐ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology /Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology / Water Quality
☐ Land Use / Planning	☐ Mineral Resources	☐ Noise
☐ Population / Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Utilities / Service Systems	☐ Mandatory Findings of Significance

DETERMINATION: (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

_____ _____

Signature Date

_____ _____

Signature Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.

   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.

   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

a) the significance criteria or threshold, if any, used to evaluate each question; and

b) the mitigation measure identified, if any, to reduce the impact to less than significance

SAMPLE QUESTION

Issues:

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
I. AESTHETICS. Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☐	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☐
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☐	☐
II. AGRICULTURE AND FORESTRY RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☐
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☐
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☐
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☐
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☐
III. AIR QUALITY. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☐	☐	☐	☐
IV. BIOLOGICAL RESOURCES: Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or US Fish and Wildlife Service?	☐	☐	☐	☐
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES. Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	☐	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☐	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☐	☐
VI. GEOLOGY AND SOILS. Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	☐	☐	☐	☐
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☐
ii) Strong seismic ground shaking?	☐	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☐	☐
iv) Landslides?	☐	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☐
VII. GREENHOUSE GAS EMISSIONS. Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☐	☐
VIII. HAZARDS AND HAZARDOUS MATERIALS. Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☐
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☐
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☐
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☐	☐	☐
IX. HYDROLOGY AND WATER QUALITY. Would the project:				
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?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☐
j) Inundation by seiche, tsunami, or mudflow?	☐	☐	☐	☐
X. LAND USE AND PLANNING. Would the project:				
a) Physically divide an established community?	☐	☐	☐	☐
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☐
XI. MINERAL RESOURCES. Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☐
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☐
XII. NOISE -- Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. POPULATION AND HOUSING. Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☐
XIV. PUBLIC SERVICES.				
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:	☐	☐	☐	☐
Fire protection?	☐	☐	☐	☐
Police protection?	☐	☐	☐	☐
Schools?	☐	☐	☐	☐
Parks?	☐	☐	☐	☐
Other public facilities?	☐	☐	☐	☐
XV. RECREATION.				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☐
XVI. TRANSPORTATION/TRAFFIC. Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐	☐	☐
b) Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☐	☐	☐	☐
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☐	☐	☐
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☐
e) Result in inadequate emergency access?	☐	☐	☐	☐
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☐	☐

	Potentially Significant Impact	**Less Than Significant with Mitigation Incorporated**	**Less Than Significant Impact**	**No Impact**
XVII. UTILITIES AND SERVICE SYSTEMS. Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☐
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☐
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☐	☐
XVIII. MANDATORY FINDINGS OF SIGNIFICANCE.				
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number o restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☐	☐	☐

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☐	☐

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino,*(1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors,* (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; *San Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2009

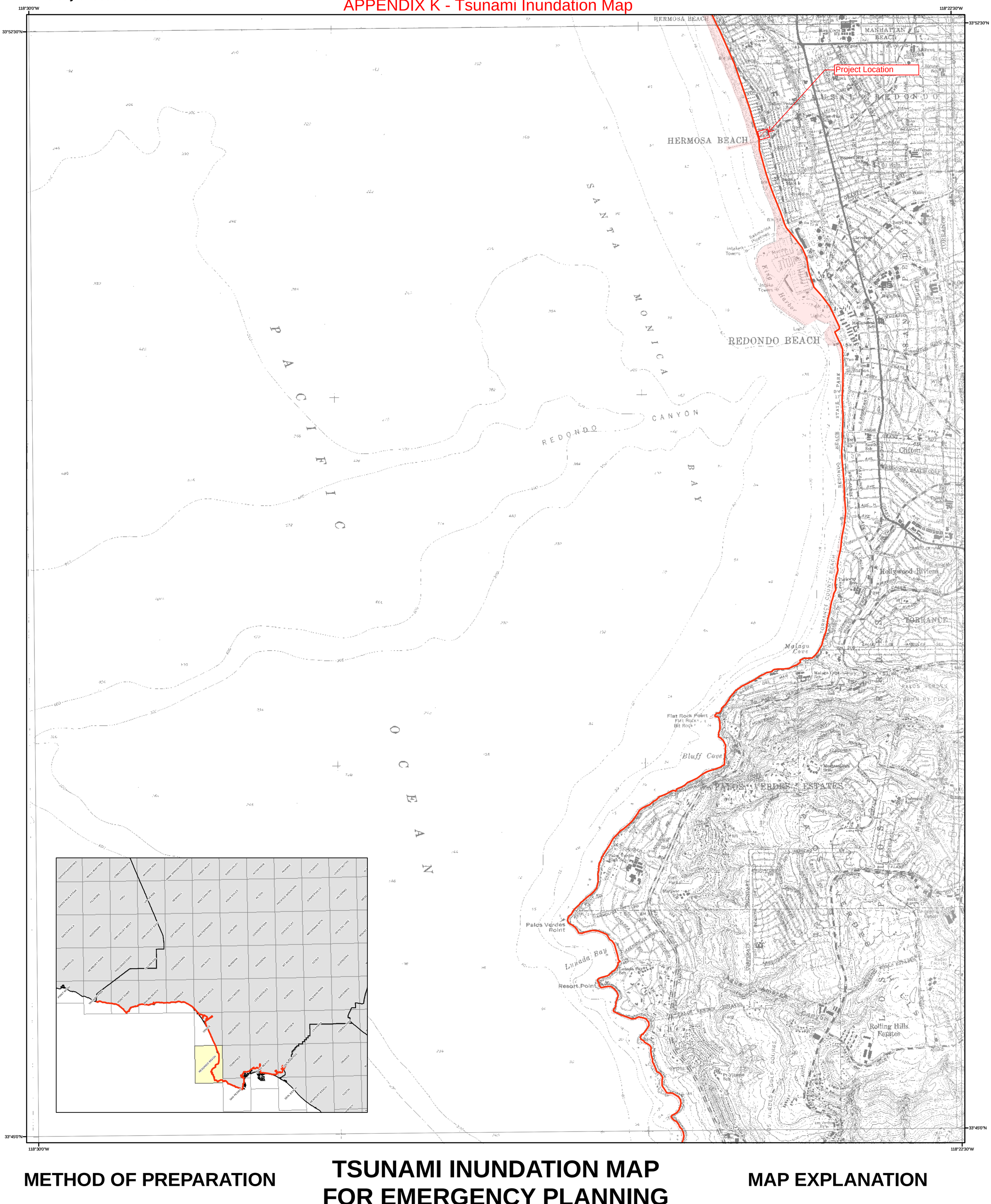
APPENDIX K

TSUNAMI INUNDATION MAP

California Emergency Management Agency
California Geological Survey
University of Southern California

Tsunami Inundation Map for Emergency Planning
Redondo Beach Quadrangle
APPENDIX K - Tsunami Inundation Map

State of California
County of Los Angeles



METHOD OF PREPARATION

Initial tsunami modeling was performed by the University of Southern California (USC) Tsunami Research Center funded through the California Emergency Management Agency (CalEMA) by the National Tsunami Hazard Mitigation Program. The tsunami modeling process utilized the MOST (Method of Splitting Tsunamis) computational program (Version 0), which allows for wave evolution over a variable bathymetry and topography used for the inundation mapping (Titov and Gonzalez, 1997; Titov and Synolakis, 1998).

The bathymetric/topographic data that were used in the tsunami models consist of a series of nested grids. Near-shore grids with a 3 arc-second (75- to 90-meters) resolution or higher, were adjusted to "Mean High Water" sea-level conditions, representing a conservative sea level for the intended use of the tsunami modeling and mapping.

A suite of tsunami source events was selected for modeling, representing realistic local and distant earthquakes and hypothetical extreme undersea, near-shore landslides (Table 1). Local tsunami sources that were considered include offshore reverse-thrust faults, restraining bends on strike-slip fault zones and large submarine landslides capable of significant seafloor displacement and tsunami generation. Distant tsunami sources that were considered include great subduction zone events that are known to have occurred historically (1960 Chile and 1964 Alaska earthquakes) and others which can occur around the Pacific Ocean "Ring of Fire."

In order to enhance the result from the 75- to 90-meter inundation grid data, a method was developed utilizing higher-resolution digital topographic data (3- to 10-meters resolution) that better defines the location of the maximum inundation line (U.S. Geological Survey, 1993; Intermap, 2003; NOAA, 2004). The location of the enhanced inundation line was determined by using digital imagery and terrain data on a GIS platform with consideration given to historic inundation information (Lander, et al., 1993). This information was verified, where possible, by field work coordinated with local county personnel.

The accuracy of the inundation line shown on these maps is subject to limitations in the accuracy and completeness of available terrain and tsunami source information, and the current understanding of tsunami generation and propagation phenomena as expressed in the models. Thus, although an attempt has been made to identify a credible upper bound to inundation at any location along the coastline, it remains possible that actual inundation could be greater in a major tsunami event.

This map does not represent inundation from a single scenario event. It was created by combining inundation results for an ensemble of source events affecting a given region (Table 1). For this reason, all of the inundation region in a particular area will not likely be inundated during a single tsunami event.

References:

Intermap Technologies, Inc., 2003, Intermap product handbook and quick start guide: Intermap NEXTmap document on 5-meter resolution data, 112 p.

Lander, J.F., Lockridge, P.A., and Kozuch, M.J., 1993, Tsunamis Affecting the West Coast of the United States 1806-1992: National Geophysical Data Center Key to Geophysical Record Documentation No. 29, NOAA, NESDIS, NGDC, 242 p.

National Atmospheric and Oceanic Administration (NOAA), 2004, Interferometric Synthetic Aperture Radar (IfSAR) Digital Elevation Models from GeoSAR platform (EarthData): 3-meter resolution data.

Titov, V.V., and Gonzalez, F.I., 1997, Implementation and Testing of the Method of Tsunami Splitting (MOST): NOAA Technical Memorandum ERL PMEL – 112, 11 p.

Titov, V.V., and Synolakis, C.E., 1998, Numerical modeling of tidal wave runup: Journal of Waterways, Port, Coastal and Ocean Engineering, ASCE, 124 (4), pp 157-171.

U.S. Geological Survey, 1993, Digital Elevation Models: National Mapping Program, Technical Instructions, Data Users Guide 5, 48 p.

TSUNAMI INUNDATION MAP FOR EMERGENCY PLANNING

State of California ~ County of Los Angeles

REDONDO BEACH QUADRANGLE

March 1, 2009

SCALE 1:24,000

0.5 0.25 0 0.5 1 Miles

1,000 500 0 1,000 2,000 3,000 4,000 5,000 Feet

0.5 0.25 0 0.5 1 Kilometers

Table 1: Tsunami sources modeled for the Los Angeles County coastline.

Sources (M = moment magnitude used in modeled event)		Areas of Inundation Map Coverage and Sources Used		
		Malibu	Santa Monica	Los Angeles Harbor
Local Sources	Anacapa-Dume Fault	X	X	
	Catalina Fault	X	X	X
	Channel Island Thrust Fault		X	
	Newport-Inglewood Fault			X
	Santa Monica Fault	X	X	
	Palos Verdes Landslide #1		X	X
	Palos Verdes Landslide #2			X
Distant Sources	Cascadia Subduction Zone #2 (M9.2)		X	X
	Central Aleutians Subduction Zone#1 (M8.9)		X	X
	Central Aleutians Subduction Zone#2 (M8.9)		X	X
	Central Aleutians Subduction Zone#3 (M9.2)	X	X	X
	Chile North Subduction Zone (M9.4)	X	X	X
	1960 Chile Earthquake (M9.3)		X	X
	1964 Alaska Earthquake (M9.2)	X	X	X
	Japan Subduction Zone #2 (M8.8)		X	X
	Kuril Islands Subduction Zone #2 (M8.8)		X	X
	Kuril Islands Subduction Zone #3 (M8.8)		X	X
	Kuril Islands Subduction Zone #4 (M8.8)		X	X

MAP EXPLANATION

Tsunami Inundation Line

Tsunami Inundation Area

PURPOSE OF THIS MAP

This tsunami inundation map was prepared to assist cities and counties in identifying their tsunami hazard. It is intended for local jurisdictional, coastal evacuation planning uses only. This map, and the information presented herein, is not a legal document and does not meet disclosure requirements for real estate transactions nor for any other regulatory purpose.

The inundation map has been compiled with best currently available scientific information. The inundation line represents the maximum considered tsunami runup from a number of extreme, yet realistic, tsunami sources. Tsunamis are rare events; due to a lack of known occurrences in the historical record, this map includes no information about the probability of any tsunami affecting any area within a specific period of time.

Please refer to the following websites for additional information on the construction and/or intended use of the tsunami inundation map:

State of California Emergency Management Agency, Earthquake and Tsunami Program:
http://www.oes.ca.gov/WebPage/oeswebsite.nsf/Content/B1EC51BA215931768825741F005E8D80?OpenDocument

University of Southern California – Tsunami Research Center:
http://www.usc.edu/dept/tsunamis/2005/index.php

State of California Geological Survey Tsunami Information:
http://www.conservation.ca.gov/cgs/geologic_hazards/Tsunami/index.htm

National Oceanic and Atmospheric Agency Center for Tsunami Research (MOST model):
http://nctr.pmel.noaa.gov/time/background/models.html

MAP BASE

Topographic base maps prepared by U.S. Geological Survey as part of the 7.5-minute Quadrangle Map Series (originally 1:24,000 scale). Tsunami inundation line boundaries may reflect updated digital orthophotographic and topographic data that can differ significantly from contours shown on the base map.

DISCLAIMER

The California Emergency Management Agency (CalEMA), the University of Southern California (USC), and the California Geological Survey (CGS) make no representation or warranties regarding the accuracy of this inundation map nor the data from which the map was derived. Neither the State of California nor USC shall be liable under any circumstances for any direct, indirect, special, incidental or consequential damages with respect to any claim by any user or any third party on account of or arising from the use of this map.

APPENDIX L

SITE EXCAVATION PLAN

13TH COURT

13TH STREET

ACCESS RAMP

BEACH DRIVE

PIER AVENUE

THE STRAND

SUBGRADE = -10.70

SUBGRADE = -7.70

198.8'

185.6'

177.4'

199.2'

72.5'

30%

20.0'

16.0'

2.0'

DEWATERING PIT

2:1 SLOPE

14.90(EG)
H=25.6' 14.90TOS −10.70SG

14.94(EG)
H=25.65' 14.95TOS −10.70SG

14.66(EG)
H=25.08' 14.38TOS −10.70SG

14.12(EG)

14.04(EG)

14.08(EG)
14.12TOS −7.70SG H=21.82'

14.13(EG)

14.26(EG)
14.26TOS −7.70SG H=21.96'

14.29(EG)
14.29TOS −7.70SG H=21.99'

14.19(EG)

14.16TOS −7.70SG H=21.86'

14.49(EG)

H=24.98' 14.28TOS −10.70SG

14.08(EG)

14.40(EG)

H=25.19' 14.49TOS −10.70SG

H=25.48' 14.78TOS −10.70SG

14.78(EG)

2.4'

12.4'

H=25.23' 14.53TOS −10.70SG

14.56(EG)

H=22.25' 14.55TOS −7.70SG

14.97(EG)

H=22.70' 15.00TOS −7.70SG

H=22.43' 14.73TOS −7.70SG

14.73(EG)

13.98(EG)

14.12TOS −7.70SG H=21.82'

14.62(EG)

14.73TOS −7.70SG H=22.43'

−7.70 SG

LEGEND

ABAND	ABANDONED
AC	ASPHALT CONCRETE
BW	BACK OF WALK
℄	CENTERLINE
CONC	CONCRETE
EX	EXISTING
EG	EXISTING GRADE
FS	FINISHED SURFACE
OG	ORIGINAL GROUND
PL	PROPERTY LINE
SG	SUB−GRADE
SL	STREET LIGHT
TOS	TOP OF SHORING

PROPERTY LINE / RIGHT OF WAY
CENTER LINE
SHORING LINE
PROPOSED BUILDING WALL
GRADE BREAK
TOP/BOTTOM OF SLOPE
EASEMENT LINE
EXISTING SEWER
EXISTING STORM DRAIN
EXISTING WATER

NOTICE TO CONTRACTOR

1. CONTRACTOR SHALL CONFIRM PAD ELEVATION WITH MOISTURE PROOFING AND GEOTECHNICAL SUBGRADE DESIGN PRIOR TO EXCAVATION. CONTRACTOR SHALL NOTIFY ENGINEER OF ANY CHANGE TO PLAN DESIGN PRIOR TO EXCAVATION.

3. THIS PLAN IS ONLY INTENDED TO DEPICT THE MASS PAD EXCAVATION AND DOES NOT INDICATE ANY OTHER EXCAVATIONS REQUIRED FOR CONSTRUCTION OF PROJECT, SUCH AS UTILITY CUTS, FOUNDATION CUTS, DRY WELL BORES, SUBSTRUCTURE CUTS, SUBGRADE CUTS, WATERPROOFING/METHANE PROTECTION, ETC.

4. PAD SUBGRADE ELEVATION INCORPORATES A 6−INCH BUILDING SLAB ON GRADE. CONTRACTOR SHALL ACCOUNT FOR ANY OTHER EXCAVATION NEEDED BY PROJECT.

5. CONTRACTOR SHALL GRADE PAD AS NEEDED TO COMPLY WITH EROSION CONTROL REQUIREMENTS AND AS SITE CONSTRUCTION SEQUENCE DICTATES.

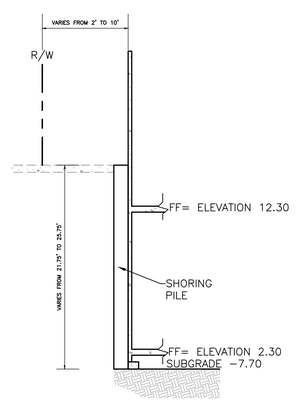
6. THE ACCESS RAMPS SHOWN ON THIS PLAN MAY NEED TO BE REMOVED TO EXCAVATE ALONG BASEMENTS WALLS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND REMOVAL OF TEMPORARY ACCESS RAMPS TO ACHIEVE THE SUBGRADE ELEVATIONS SHOWN ON THIS PLAN.

7. THE CONTRACTOR SHALL PROVIDE A 3 FEET MIN. BENCH AT THE TOE OF TEMPORARY SLOPES TO FORM AND POUR FOUNDATION FOOTINGS AND BASEMENT WALLS.

8. DUE TO THE PRESENCE OF HIGH GROUNDWATER TABLE WITHIN THE VICINITY OF THE PROJECT SITE, DEWATERING ACTIVITIES ARE RECOMMENDED PRIOR AND DURING THE EXCAVATION PHASE. DEWATERING WILL BE ADDRESSED AND HANDLED PER A SEPARATE PLAN AND PERMIT AND IS NOT REPRESENTED WITH THE CONTENT SHOWN ON THIS PLAN.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR GRADING THE PROJECT SITE TO DRAIN TO THE DEWATERING PIT SHOWN ON THIS PLAN. THE SLOPES SHALL BE AT MINIMUM 1% TO A MAXIMUM OF 2%.

10. PILES SHOWN ON THESE PLANS ARE FOR GRAPHICAL PURPOSES ONLY. REFER TO THE SHORING PLANS FOR COMPLETE DESIGN AND LAYOUT OF THE SHORING SYSTEM.



TYPICAL EXCAVATION SECTION
SCALE: 1"=5'

10' 0' 5' 10'
SCALE: 1" = 10'

FUSCOE ENGINEERING
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Los Angeles, California 90017
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PRELIMINARY

BOLOUR ASSOCIATES
8383 WILSHIRE BLVD, STE. 290
BEVERLY HILLS, CA 90211

PROVENANCE HOTEL- EXCAVATION PLAN

10.15.2015

F:\PROJECTS\1321\01\ENG\EXHIBITS\1321-01 EXCAVATION EXHIBIT.DWG (10-20-15 1:20:44PM) Plotted by: Kevin Villarama

FUSCOE ENGINEERING

Irvine
San Diego
Ontario
Los Angeles
El Centro
San Ramon

July 22, 2016

BOLOUR ASSOCIATES, INC.
8383 Wilshire Blvd. Suite 920
Beverly Hills, CA 90211

Dear Sir or Madam:

This letter has been enclosed to inform you of your responsibilities as the owner of this SWPPP. **The SWPPP is intended to be a "living" document**, integrating changes to the plan as the construction project progresses. Furthermore, it is to be kept within the premises of the project at all times and kept on file for a period of three years after construction is completed. Below is a list of requirements that you, the Project Superintendent, or the Qualified SWPPP Practitioner (QSP) will need to fulfill in order to consider this SWPPP compliant once soil-disturbing activities begin:

1. Provide the name and contact information for the **Qualified SWPPP Practitioner (QSP)** and the **General Contractor** in Section 6.2 and in Appendix K.
2. Insert copies of the **Permit Registration Documents (PRDs),** including the signed Fee Statement and WDID Receipt (issued by the SWRCB) in Appendix C (available online through SMARTS).
3. Insert a copy of the **Tentative Construction Activity Schedule** provided by the contractor into Appendix H of this SWPPP, and update the schedule as needed.
4. Insert a list of **Contractors and Subcontractors** in Appendix L, and update the list as necessary.
5. Include copies of the appropriate **Training Documentation** in Appendix J, including training for the designated Qualified SWPPP Practitioner (QSP).
6. Update **Site Plan / SWPPP Exhibits / Erosion Control Plan** by hand as the project site changes (location of trailer, stockpiling, cement wash out areas, construction phasing, etc.). Dates and initials should accompany each change on the plan. Include copies in the SWPPP (Appendix B).
7. **Site inspections** must be performed quarterly, prior to anticipated storm events, during extended storm events, and after actual storm events (see Section 7.5 for further details). Inspection forms can be found in Appendix P and Appendix Q. On-site BMPs need to be inspected on a weekly basis. The Visual Inspection Report found in Appendix P of the SWPPP should be used for inspections and is highly recommended for any other site inspection not required by the Construction General Permit.
8. **Spill Reports** must be filled out when they occur at the project site (Appendix N).
9. Periodically distribute the **Memorandum to Employees** in Appendix J.
10. Have all subcontractors sign a copy of the **Subcontractor Notification Letter** in Appendix M.

11. Complete and submit the **Annual Report** to the SWRCB prior to September 1, 2016 and annually thereafter while the project is under construction. This report must be based on the inspection reports accumulated for each year. Details are provided in Appendix F.

If you have any questions regarding this letter, please feel free to contact me.

Sincerely,

FUSCOE ENGINEERING, INC.

Andrew Willdrot, PE
Project Manager

SWPPP CERTIFICATION

QUALIFIED SWPPP DEVELOPER (QSD) CERTIFICATION

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete and meets the requirements of the California Construction General Permit (CAS000002, Order No. 2009-0009-DWQ).

PREPARED BY: Fuscoe Engineering, Inc.

05/27/2016

Signature Date

Lynn Kubasek, CPESC #5608, QSD #00573
Stormwater Specialist

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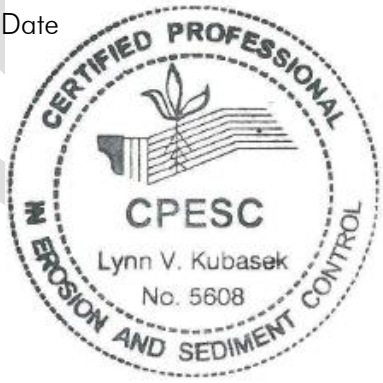

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OWNER / LEGALLY RESPONSIBLE PERSON (LRP) CERTIFICATION

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

_____ _____

Signature Date

Michael Mathews
Properties Group, Project Management

Bolour Associates, Inc.
8383 Wilshire Blvd. Suite 920
Beverly Hills, CA 90211
323.677.0550 ext 106
MMathews@bolourassociates.com

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APPENDICES

Appendix A Construction General Permit
Appendix B Exhibits
Appendix C Submitted Permit Registration Documents:
C1 PRD Instructions
C2 NOI
C3 Risk Assessment (Sediment and Receiving Water Risk Determination)
C4 Site Plan/Vicinity Map
C5 Signed Certification Statement/Fee Statement & WDID Receipt
Appendix D Submitted Changes to PRDs / COIs (due to change in ownership or acreage)
Appendix E SWPPP Amendment Log & SWPPP Amendments
Appendix F Annual Reporting Requirements
Appendix G Runoff Coefficient and Run-on Computation Sheets
Appendix H Construction Activity Schedule & BMP Implementation Schedule
Appendix I CASQA BMP Handbook Fact Sheets
Appendix J Training Documentation Forms & Sample Memorandum to Employees
Appendix K Responsible Parties
Appendix L Contractors and Subcontractors
Appendix M Sample Subcontractor Notification Letter and Log
Appendix N Significant Spill Reports
Appendix O Quick Reference Disposal Alternatives
Appendix P Visual Inspection Forms, Reports & Rain Gauge Log
Appendix Q Rain Event Action Plans (REAPs)
Appendix R Guidance on Field Measurements
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ACRONYMS & ABBREVIATIONS

ASTM	American Society for Testing and Materials
ATS	Active Treatment System
BAT/BCT	Best Available Technology/Best Control Technology
BMP	Best Management Practice
BOD	Biochemical Oxygen Demand
CASQA	California Stormwater Quality Association
CFR	Code of Federal Regulations
cfs	cubic feet per second
CGP	General Construction Permit
COD	Chemical Oxygen Demand
COI	Change of Information
CPESC	Certified Professional in Erosion and Sediment Control
CPSWQ	Certified Professional in Storm Water Quality
CSMP	Construction Site Monitoring Program
ELAP	Environmental Laboratory Accreditation Program
EPA	Environmental Protection Agency
GIS	Geographic Information Systems
LOEC	Lowest Observed Effect Concentration
LRP	Legally Responsible Person
MATC	Maximum Allowable Threshold Concentration
MBAS	Methylene Blue Activated Substances
MDL	Method Detection Limit
MS4	Municipal Separate Storm Sewer System
MSDS	Material Safety Data Sheets
MSRP	Monitoring, Sampling & Reporting Plan
NAL	Numeric Action Level
NEL	Numeric Effluent Limitation
NICET	National Institute for Certification in Engineering Technologies
NOAA	National Oceanic and Atmospheric Administration
NOEC	No Observed Effect Concentration
NOI	Notice of Intent
NOT	Notice of Termination
NPDES	National Pollutant Discharge Elimination System
NTU	Nephelometric Turbidity Units
O&M	Operations & Maintenance
OC DAMP	Orange County Drainage Area Management Plan

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PRD	Permit Registration Document
QA/QC	Quality Assurance/Quality Control
QAPrP	Quality Assurance Program Plan
QSD	Qualified SWPPP Developer
QSP	Qualified SWPPP Practitioner
REAP	Rain Event Action Plan
RUSLE	Revised Universal Soil Loss Equation
RWQCB	Regional Water Quality Control Board
SAFIT	Southwestern Association of Freshwater Invertebrate Taxonomists
SMARTS	Stormwater Multi Application and Tracking System
SSC	Suspended Sediment Concentration
STE	Standard Taxonomic Effect
SUSMP	Standard Urban Stormwater Mitigation Plan
SVOC	Semi-Volatile Organic Compounds
SWAMP	Surface Water Ambient Monitoring Program
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TDS	Total Dissolved Solids
TMDL	Total Maximum Daily Load
TSP	Trisodium Phosphate
TSS	Total Suspended Solids
USDA	United States Department of Agriculture
VOC	Volatile Organic Compounds
WDID	Waste Discharge Identification
WDR	Waste Discharge Requirement
WQMP	Water Quality Management Plan

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1. SWPPP REQUIREMENTS

1.1. INTRODUCTION

This Storm Water Pollution Prevention Plan (SWPPP) has been prepared to provide specifications for the management of both storm water and non-storm water discharges during the construction and operation of Providence Hotel in the City of Hermosa Beach. It has been developed as required under State Water Resource Control Board (SWRCB) Order No. 2009-0009-DWQ National Pollutant Discharge Elimination System (NPDES) General Permit No. CAS000002 (herein referred to as the General Permit or CGP) and in accordance with good engineering practices.

This SWPPP describes this facility and its operations, identifies potential sources of storm water pollution at the facility and recommends appropriate Best Management Practices (BMPs) or pollution control measures to reduce the discharge of pollutants in storm water runoff construction and operational (post-construction) activities. The contents of the SWPPP include, among other requirements, Construction Site Monitoring Program (CSMP), requirements for preparing Rain Event Action Plans (REAPs), employee training documentation, guidelines for periodic reviews of this SWPPP and annual reporting requirements.

1.2. SWPPP OBJECTIVES

The objective of this SWPPP is to provide general and specific guidelines for the project owner and contractors to follow in order to maintain and improve existing on-site water quality, and to protect and preserve natural habitat, pursuant to the General Permit. This SWPPP is to be amended or revised when necessary to meet the following objectives:

- Identify all pollutants and their sources, including sources of sedimentation and erosion associated with construction, construction site erosion and all other activities associated with construction activity are controlled;
- Where not otherwise required to be under a Regional Water Quality Control Board (RWQCB) permit, all non-storm water discharges are identified and either eliminated, controlled, or treated;
- Identify, construct, implement in accordance with a time schedule, site BMPs that are effective and result in the reduction or elimination of pollutants in storm water discharges and authorized non-storm water discharges from construction activity to the Best Available Technology/Best Control Technology(BAT/BCT) standard;
- Calculations and design details as well as BMP controls for site run-on are complete and correct;
- Stabilization BMPs installed to reduce or eliminate pollutants after construction are completed;
- Identify post-construction BMPs, which are those measures to be installed during construction that are intended to reduce or eliminate pollutants after construction is completed; and