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City of Oxnard

Public Works Integrated Master Plan

STORMWATER

PROJECT MEMORANDUM 5.1
BACKGROUND SUMMARY

FINAL DRAFT
December 2015

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City of Oxnard

Public Works Integrated Master Plan

STORMWATER

PROJECT MEMORANDUM 5.1
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BACKGROUND SUMMARY

1.0 INTRODUCTION

The City of Oxnard's (City's) stormwater system serves the City and the surrounding lands that drain into Oxnard, approximately 35 square miles in area. The City's drainage channels are either partly or completely under the jurisdiction of the Ventura County Flood Control District (VCFCD). The drainage facilities for the City either discharge directly into the ocean or they discharge into the VCFCD facilities and then into the ocean. The City maintains a network of storm drains comprised of gravity pipes, force mains, lift stations, and various other infrastructure associated with a stormwater drainage system.

This Project Memorandum (PM) gives a brief background on the project area and the City's existing stormwater system and outlines the regulatory and water quality considerations of this system.

1.1 Project Memoranda (PMs) Used for Reference

Other PMs that expand on the wastewater system needs/recommended projects include:

- PM 5.2 - Stormwater System - Infrastructure Modeling and Alternatives.
- PM 5.3 - Stormwater System - Condition Assessment.
- PM 5.4 - Stormwater System - Treatment Alternatives.

1.2 Other Reports Used for Reference

In developing the alternatives in this Public Works Integrated Master Plan (PWIMP), recommendations from other reports were incorporated to ensure a well-rounded and holistic look at the stormwater system. The following reports are referred to in this PM:

- VCWPD Report of Waste Discharge, Ventura Countywide Stormwater Quality Management Program, (VCWPD, 2015).
- VCWPD Final Environmental Impact Report J Street Drain Project, January 2012 (VCWPD EIR, 2012).
- MS4 NPDES Permit CAS004002, Order No. R4-2010-0108, California Regional Water Quality Control Board, July 2010 (MS4 Permit, 2010).
- City of Oxnard 2030 General Plan, Development Services Department Planning Division, October 2011 (City of Oxnard General Plan, 2011).

- Feasibility of Using the Oxnard Advanced Water Purification Facility to Treat Storm Water from the J Street and Oxnard Industrial Drains (CH2M Hill, 2013).
- Ventura Countywide Stormwater Quality Management Program Annual Report, VCWPD, 2014 (VCWPD, 2014).
- Zhang, X., F.W. Zwiers, G.C. Hegerl, F.H. Lambert, N.P. Gillett, S. Solomon, P.A. Stott and T. Nozawa (July 2007) “Detection of human influence on twentieth-century precipitation trends” Nature 448, 461-465. (Zhang *et al.*, 2007).
- Karl, T.R., R.W. Knight, D.R. Easterling, and R.G. Quayle (February 1996) Indices of Climate Change for the United States. Bulletin of the American Meteorological Society. Vol 77, No. 2, Pp. 279-292. (Karl *et al.*, 1996).
- Knowles, Noah, M.D. Dettinger, D.R. Cayan, 2006: Trends in Snowfall versus Rainfall in the Western United States. Journal of Climate, 19, 4545–4559. (Knowles *et al.*, 2006).
- Kharin, V.V., and F.W. Zwiers (2005) Estimating Extremes in Transient Climate Change Simulations, Journal of Climate 18: 1156–1173. (Kharin and Zweirs, 2005).
- Karl, T.R. and R.W. Knight (1998) Secular trends of precipitation amount, frequency, and intensity in the U.S.A. Bulletin of the American Meteorological Society, Vol. 79, pp. 231-241. (Karl and Knight, 1998).
- Kiparsky, M. and P. Gleick (July 2003) Climate Change and California Water Resources: A Survey and Summary of the Literature. Pacific Institute for Studies in Development, Environment, and Security. (Kiparsky and Gleick, 2003).
- Madsen, T. and E. Figdor (2007) When it Rains, it Pours - Global Warming and the Rising Frequency of Extreme Precipitation in the United States, a report by Environment California Research & Policy Center. December. (Madsen and Figdor, 2007).
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- Kunkel, K., K. Andsager, and D. Easterling (1999) Long-Term Trends in Extreme Precipitation Events over the Conterminous United States and Canada, Journal of Climate 12: 2515-2527. (Kunkel *et al.*, 1999).
- Meehl, G. A., J. M. Arblaster, and C. Tebaldi (September 2005) Understanding future patterns of increased precipitation intensity in climate model simulations, Geophysical Research Letter, 32, L18719. (Meehl *et al.*, 2005).

- Kharin, V.V., F.W. Zwiers, X. Zhang, and G.C. Hegerl (April 2007) Changes in temperature and precipitation extremes in the IPCC ensemble of global coupled model simulations. Journal of Climate 20:1419-1444. (Kharin *et al.*, 2007).
- Dettinger, Michael (2005) From climate-change spaghetti to climate-change distributions for 21st Century California, San Francisco Estuary and Watershed Science, 3(1), article 4. (Dettinger, 2005).
- Santa Clara River Bacteria Total Maximum Daily Load, California EPA, R10-006, March 2012.
- Harbor Beaches of Ventura County Bacteria Total Maximum Daily Load, California EPA, 2007-017 December 2008.

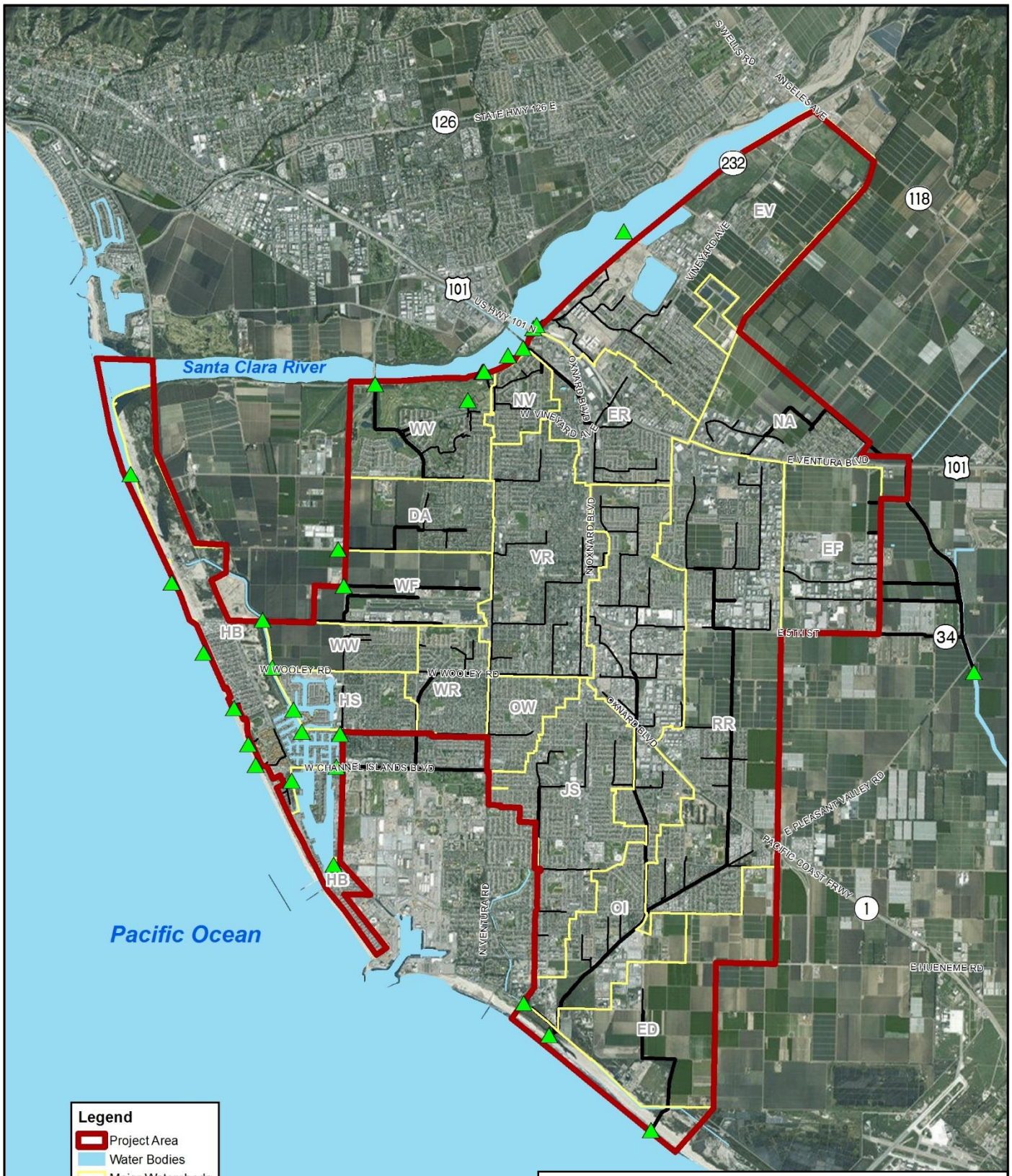
2.0 PROJECT AREA DESCRIPTION

2.1.1 Project Area

The City's project area generally encompasses lands within the city limits of Oxnard together with surrounding lands that drain into Oxnard. The City's drainage area is approximately 35 square miles in size. State Highway 1 passes through the center of Oxnard and joins U.S. Highway 101 at the north edge of the drainage area just south of the Santa Clara River. Highway 101 passes through the northern portion of the area. The project area boundary is illustrated in Figure 1.

2.1.2 Climate

The climate of the project area is mild during summer when high temperatures tend to be around 70 degrees Fahrenheit (F) and cool during winter when temperatures tend to be around 50 degrees F. The warmest month of the year is August with an average maximum temperature of 73.9 degrees F, while the coldest month of the year is December with an average minimum temperature of 45.3 degrees F. Average annual rainfall in the project area is 15.6 inches per year. Rainfall is concentrated during the winter months. The wettest month of the year is February with an average rainfall of 3.9 inches (VCWPD EIR, 2012). Precipitation, temperature, and evaporation are the main climatic conditions that drive runoff in a watershed. Along with climate, runoff can be estimated from a watershed dependent on factors relating to the area, shape, slope, and land characteristics.



PROJECT AREA

FIGURE 1

CITY OF OXNARD

PM NO.5.1 – BACKGROUND SUMMARY

PUBLIC WORKS INTEGRATED MASTER PLAN

CITY OF OXNARD CALIFORNIA

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2.1.3 Topography

The City is situated near the mouth of the Santa Clara River on a gently sloping alluvial fan commonly known as the Oxnard Plain. The land generally slopes in a southwesterly direction toward the ocean at an average rate of about 10 to 20 feet per mile, or a gradient of less than one-half percent. This flat topography has a major bearing on the drainage needs of the area and the associated costs for flood protection. Elevations in the City range from mean sea level to about 128 feet above mean sea level, as illustrated in Figure 2.

2.1.4 Land Use Characteristics

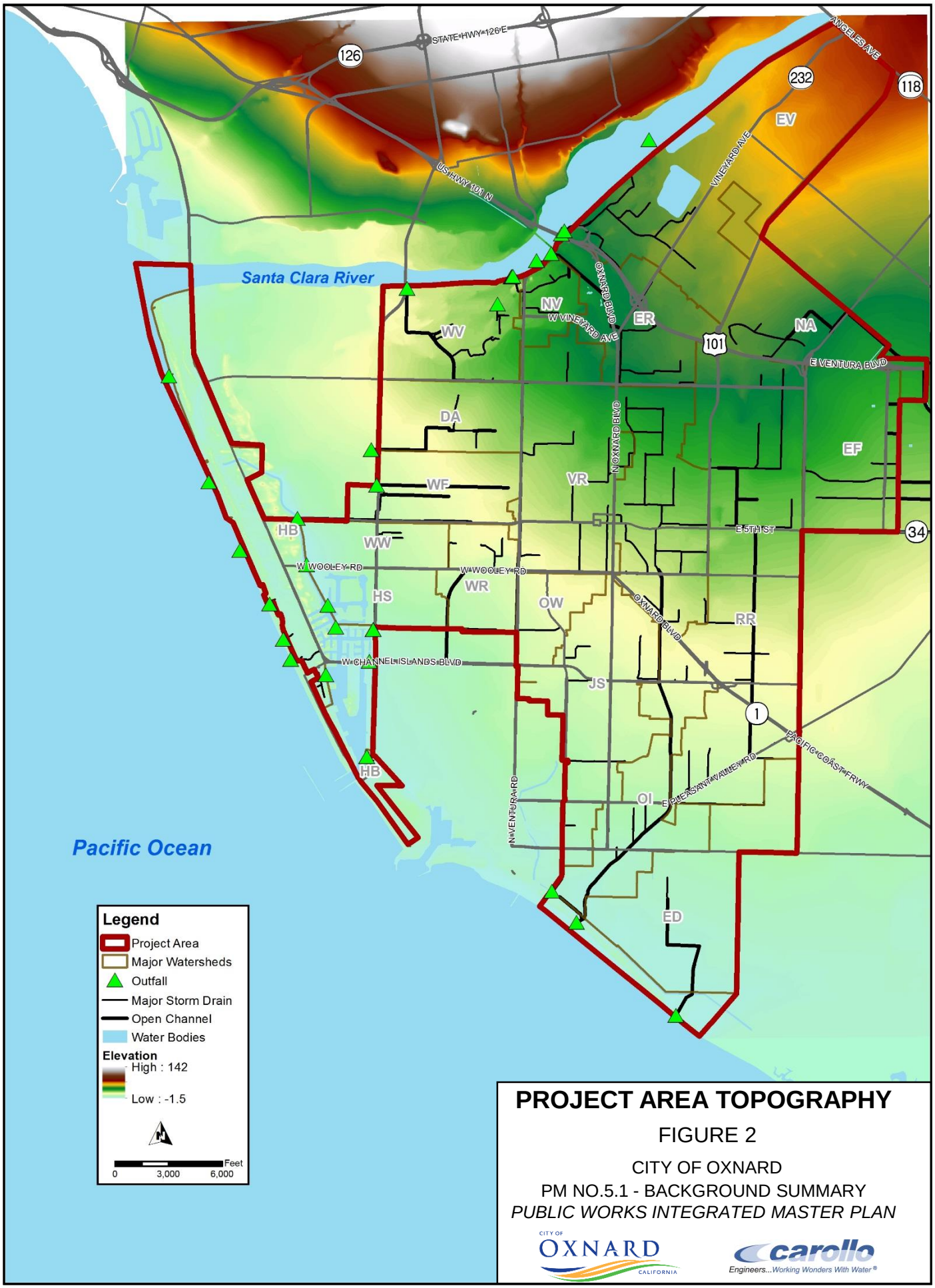
Land use information is an integral component in determining the amount of stormwater runoff generated within a City. The type of land use in an area will affect the pervious surface area, and therefore the volume and characteristics of the stormwater generation. The hydrologic response of a watershed is dependent on surface and subsurface characteristics of the drainage area.

The long service life of storm drainage pipes necessitates that runoff due to future development and changes in land use be accommodated. The type and density of land use is an important factor in runoff estimation because these directly affect surface runoff depending on the imperviousness of the land use type. Detailed existing and future land use were described in PM 1.3, *Population and Land Use Estimates.*

For the purpose of the stormwater system evaluation, land uses presented in PM 1.3 were grouped into 6 categories:

- Agriculture.
- Commercial.
- Industrial.
- Parks/Open Space/Resource Protection.
- Public.
- Residential.

Figure 3 illustrates the existing land use classifications within the project area and used for analysis in PM 5.2.



PROJECT AREA TOPOGRAPHY

FIGURE 2

CITY OF OXNARD

PM NO.5.1 - BACKGROUND SUMMARY

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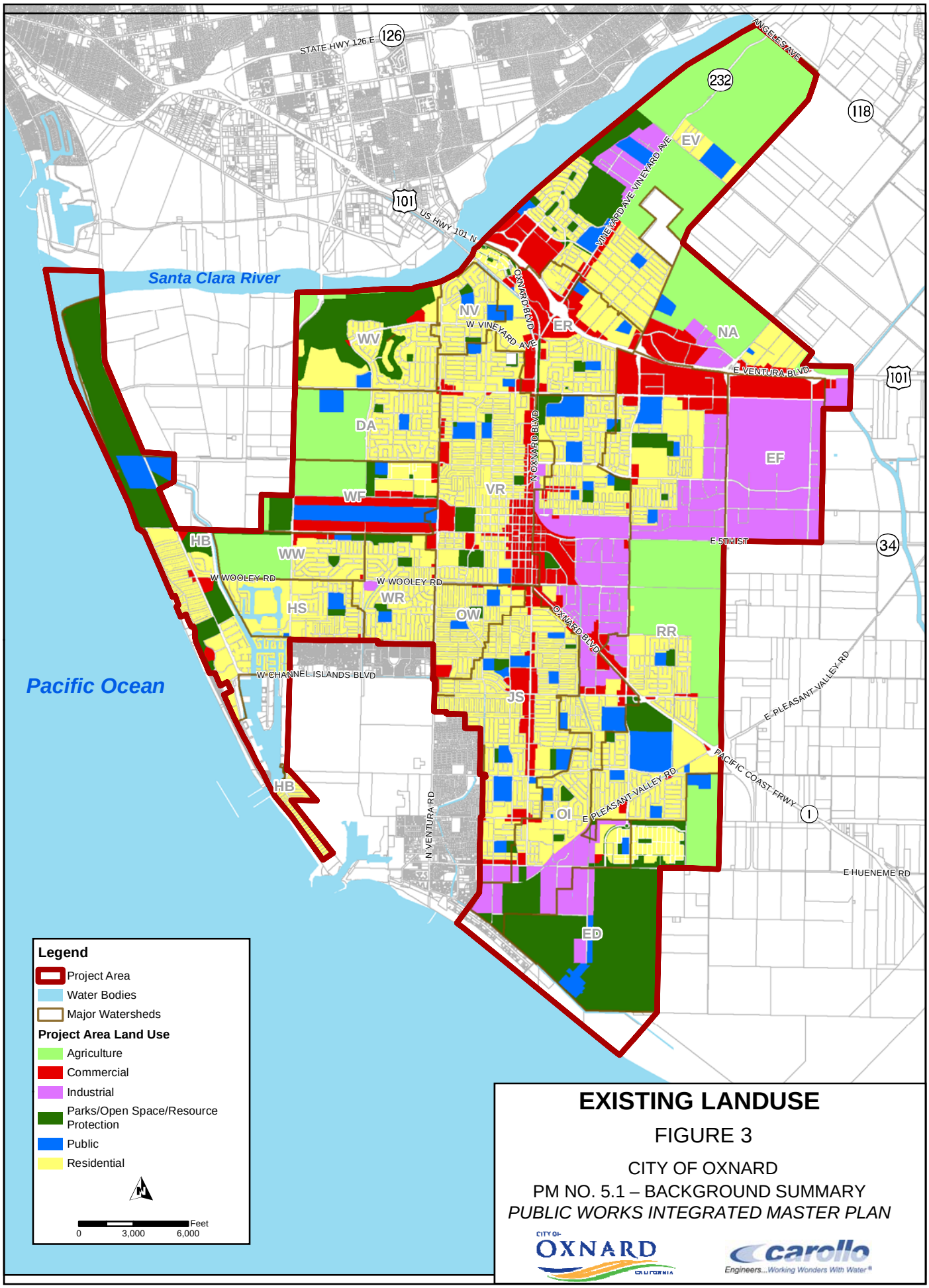

EXISTING LANDUSE

FIGURE 3

CITY OF OXNARD

PM NO. 5.1 – BACKGROUND SUMMARY

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CITY OF OXNARD CALIFORNIA

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2.1.5 FEMA Flood Zones

The Federal Emergency Management Agency (FEMA) recently revised the Flood Insurance Rate Map (FIRM) for the City in 2010. The City resides in the VCWPD Flood Zone 2. The current DFIRM is illustrated on Figure 4. Four flood hazard areas are identified on this figure:

- Floodway.
- 0.2 percent (500-year) chance of annual flooding hazard.
- Area with minimal flooding.
- Area with reduced flooding due to levee.

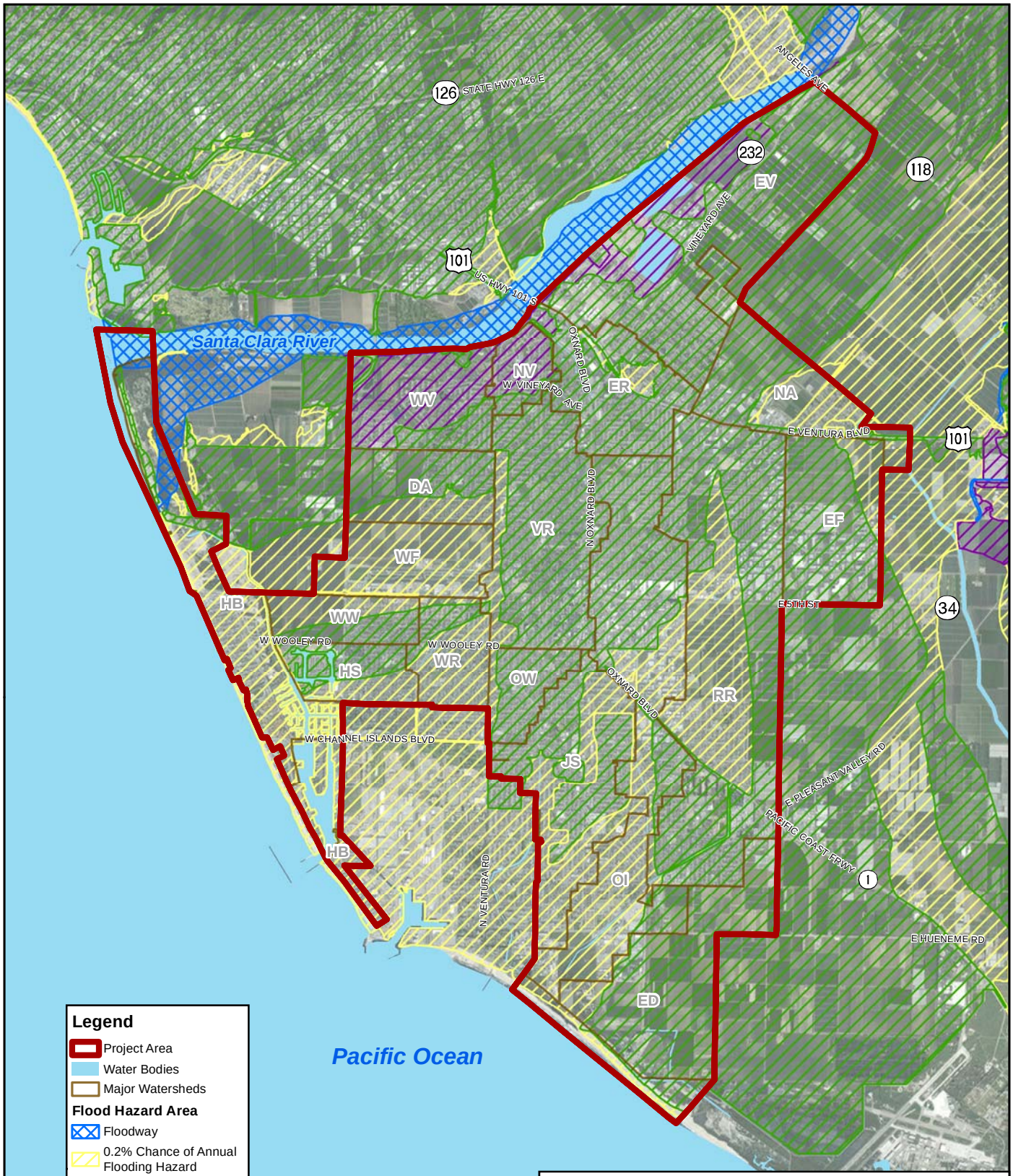
3.0 EXISTING DRAINAGE SYSTEM DESCRIPTION

3.1 System Overview

The City's existing storm drainage system collects and conveys stormwater runoff from developed and undeveloped areas throughout the City. The system includes circular pipelines ranging in size from 4 to 96 inches in diameter, rectangular pipes up to 264-inch by 96-inch in size, open channels, 5 stormwater pump stations, and associated force mains, and various valves and diversion structures throughout the system. Figure 5 shows the existing storm drainage system, including storm drain diameters, detention/retention ponds, pump stations, canals, and outfall locations. In total, there are approximately 162 miles of storm drains and open channels owned by the City, and 28 miles of open channels under the Ventura County jurisdiction.

3.2 Major Drainage Watersheds

The project area is divided into eighteen (18) major drainage watersheds. These boundaries were originally delineated in the 2003 Master Plan of Drainage. The City is familiar with these watersheds, therefore, their delineation has been maintained in this PWIMP for consistency. Figure 6 illustrates these basins, which are defined mainly by topography and major drainage facilities. Table 1 summarizes the areas of these major drainage basins. These major watersheds will be further divided for modeling purposes into smaller subcatchments.



FEMA FLOOD ZONES

FIGURE 4

CITY OF OXNARD

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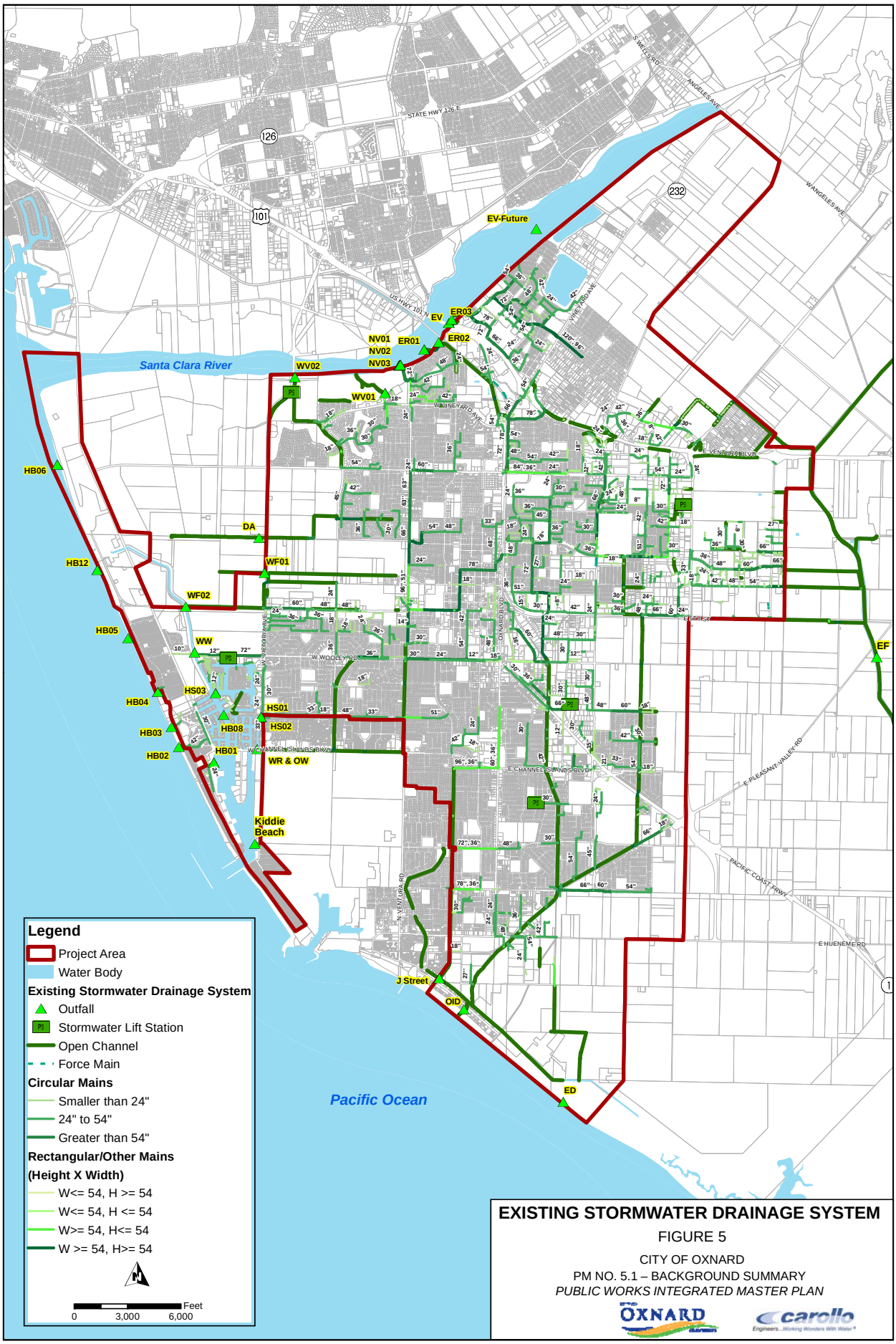


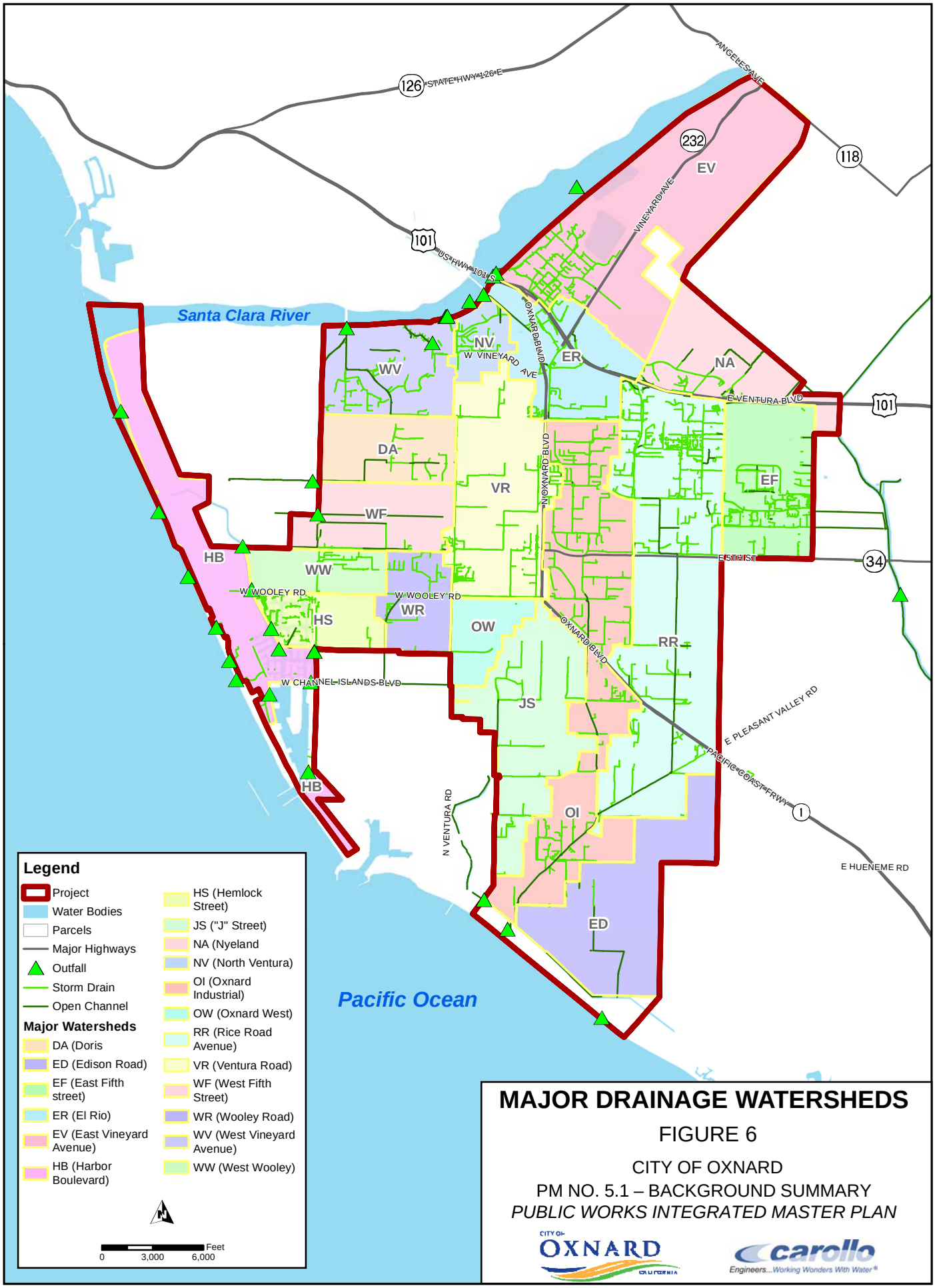
EXISTING STORMWATER DRAINAGE SYSTEM

FIGURE 5

CITY OF OXNARD

PM NO. 5.1 – BACKGROUND SUMMARY

PUBLIC WORKS INTEGRATED MASTER PLAN



MAJOR DRAINAGE WATERSHEDS

FIGURE 6

CITY OF OXNARD

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Table 1	Major Drainage Watersheds Public Works Integrated Master Plan City of Oxnard		
Basin ID	**Basin Description**	**Acres**	**Square Miles**
RR	Rice Road (Avenue)	3,323	5.19
EV	East Vineyard Avenue	2,744	4.29
OI	Oxnard Industrial	2,548	3.98
ED	Edison Road	1,544	2.41
JS	"J" Street	1,491	2.33
VR	Ventura Road	1,647	2.57
WV	West Vineyard Avenue	974	1.52
EF	East Fifth Street	1,119	1.75
ER	El Rio	1,025	1.60
NA	Nyeland Acres	975	1.52
DA	Doris Avenue	725	1.13
WF	West Fifth Street	802	1.25
HB	Harbor Boulevard	1,420	2.22
WR	Wooley Road	546	0.85
HS	Hemlock Street	508	0.79
WW	West Wooley	482	0.75
OW	Oxnard West	408	0.64
NV	North Ventura	308	0.48
Total Area		**22,586**	**35.29**

3.3 Existing Local Drainage Facilities

3.3.1 Description

The City owns and maintains approximately 162 miles of gravity pipes, open channels, and infrastructures. The majority, or approximately 72 percent, of the pipes are circular pipes, but there also are closed rectangular, or arch shaped gravity drains. Table 2 summarizes the size and length of each of these types of facilities as identified in the City's Geographic Information System (GIS).

Table 3 summarizes the material and age information on the pipelines owned by the City as included in the City's GIS. As shown in Table 3, the majority (approximately 63 percent) of the pipes were built using Reinforced Concrete Pipes (RCP).

Table 2	City Local Drainage Facility Type and Size Distribution Public Works Integrated Master Plan City of Oxnard		
Type	**Length, ft**	**Length, miles**	**Percent of Total, %**
Arch	16,930	3.21	1.98%
Circular	612,074	115.92	71.60%
Single Rectangular Box	63,324	11.99	2.36%
Double Rectangular Box	20,196	3.83	0.09%
Triple Rectangular Box	464	0.09	0.01%
Rectangular	109	0.02	7.41%
Elliptical	809	0.15	0.05%
Open Channel	116,112	21.99	13.58
Unknown	24,822	4.70	2.90%
Total	**854,841**	**161.90**	**100%**

Note:
(1) Source: City GIS Database, June 2014.

Table 3 City Local Drainage Facilities Age and Pipe Type (by length)
Public Works Integrated Master Plan
City of Oxnard

	Length, ft						
Material	**Unknown**	**<10 years**	**10-20 years**	**20-30 years**	**>30 years**	**Total**	**% of Total**
A	-	-	-	884	-	884	0.1%
ACMP	-	-	-	788	936	1,724	0.2%
ACP	-	-	180	3,056	6,098	9,333	1.1%
ADS	-	-	-	7,038	-	7,038	0.8%
APC	-	-	1,458	1,262	1,325	4,045	0.5%
CIPP	-	122	7,045	552	1,877	9,596	1.1%
CMP	-	-	2,384	2,963	8,625	13,973	1.6%
CMPA	-	-	1,638	3,045	8,877	13,560	1.6%
CONC	294	1,697	32,952	44,426	10,626	89,995	10.5%
CSP	-	125	172	865	55	1,216	0.1%
CSPA	-	-	-	1,498	-	1,498	0.2%
DIP	-	164	188	-	-	352	0.0%
HDPE	-	922	9,471	-	-	10,393	1.2%
HERCP	-	-	550	-	-	550	0.1%
PCC	-	0	1,157	1,853	558	3,567	0.4%
PVC	-	1,629	25,341	11,351	836	39,157	4.6%
RCB	-	179	20,231	46,066	36,730	103,206	12.1%
RCP	9,599	61,586	158,458	198,893	110,302	538,837	63.0%

Table 3	City Local Drainage Facilities Age and Pipe Type (by length) Public Works Integrated Master Plan City of Oxnard						
	Length, ft						
Material	**Unknown**	**<10 years**	**10-20 years**	**20-30 years**	**>30 years**	**Total**	**% of Total**
RCPA	-	-	-	514	-	514	0.1%
Steel	-	-	-	-	45	45	0.0%
Unknown	27	1,540	756	3,032	-	5,356	0.6%
Total	**9,920**	**67,964**	**261,980**	**328,086**	**186,891**	**854,841**	**100.0%**

Notes:
(1) A = Aluminum
(2) ACMP = Asphalted Corrugated Metal Pipe
(3) ACP = Asbestos Cement Pipe
(4) ADS = Advanced Drainage System
(5) APC = Asphalted Pipe Culvert
(6) CIPP = Cast in place Pipe
(7) CMP = Corrugated Metal Pipe
(8) CMPA = Corrugated Metal Pipe Arch
(9) CONC = Concrete
(10) CSP = Corrugated Steel Pipe
(11) CSPA = Corrugated Steel Pipe Arch
(12) DIP = Ductile Iron Pipe
(13) HDPE = High Density Poly Ethylene Pipe
(14) PCC = Portland Cement Concrete
(15) PVC = Poly Vinyl Chloride
(16) RCB = Reinforced Concrete Box
(17) RCP = Reinforced Concrete Pipe
(18) RCPA = Reinforced Concrete Pipe Arch

3.4 Ventura County Watershed Flood Control Facilities

The VCWPD, previously called the Ventura County Flood Control District, was formed in 1944 to perform drainage services not readily performed by local agencies. The City resides in the VCWPD Flood Zone 2.

3.4.1 Description

Drainage facilities in the study area that are partly or completely in the jurisdiction of VCWPD are included in Table 4. City drainage facilities discharge into these VCWPD channels, whenever possible. Major drainage channels within Oxnard include Doris Avenue Drain, Fifth Street Drain, Wooley Road Drain, Oxnard West Drain, Oxnard Industrial Drain, Rice Road Drain, "J" Street Drain, El Rio Drain, Camarillo Drain, and Nyeland Drain. The large majority of the Ventra County drainage system generally includes concrete pipe, reinforced concrete culverts, rectangular concrete channels, unlined channels, and manholes. VCWPD drainage facilities are shown on Figure 5 and Table 4.

Table 4 VCWPD Jurisdiction Channels Public Works Integrated Master Plan City of Oxnard		
Description	**Length (feet)**	**Length (miles)**
Beardsley Wash	19,333	3.66
Camarillo Drain	1,967	0.37
Doris Avenue Drain	9,291	1.76
El Rio Drain	4,257	0.81
West 5th Street Drain	5,013	0.95
"J" Street Drain	12,532	2.37
Nyeland Drain	7,141	1.35
Oxnard Industrial Drain	18,148	3.44
Oxnard West Drain	13,118	2.48
Revolon Slough	27,422	5.19
Rice Road Drain	20,214	3.83
Wooley Road Drain	5,185	0.98
Unknown Name	6,058	1.15
Notes: Source: City GIS Database, June 2014.		

3.4.2 Planned J-Street Drain Improvements

The purpose of the J Street Drain Improvement Project is to provide flood protection to the 100-year flood level for the area surrounding J Street Drain. Protection from a 100-year flood is the standard set by FEMA under the National Flood Insurance Program (NFIP). Construction of the proposed project would be the first major step of a proactive effort to protect properties currently threatened with flooding from J Street Drain overflow (VCWPD EIR, 2012).

VCWPD channels were initially designed to the Q50 design event. However, due to further development in the City, as well as other factors, these channels may not currently be able to convey this event. VCWPD is in the process of increasing the capacity of the J Street Drain to relieve flooding concerns in the south of the City. This drain was analyzed in 2005 and found to have a capacity between the Q5 and Q10 design hydrologic events. This is far lower than the initial planned capacity of Q50. The improvements to this drain include deepening the existing open channel to a rectangular configuration to convey the Q100 event. In 2012, a final EIR was completed for the improvement project (VCWPD EIR, 2012).

Other than the planned J Street improvements, it is unknown what modifications VCWPD has completed in the study area since the 2003 Master Plan. However, due to the significantly lower existing capacity found in the J Street Drain, and the implications this could have on flooding in the City, a further investigation into the existing capacity of the other VCWPD channels would be prudent.

4.0 REGULATIONS

4.1 Current

4.1.1 Stormwater Quality

The State Water Resources Control Board (SWRCB), in cooperation with the federal Environmental Protection Agency (EPA) has issued stormwater permits under the National Pollutant Discharge Elimination System (NPDES) program. The NPDES program requires that municipalities and counties with certain population sizes acquire municipal separate stormwater system (MS4) permits for discharges of stormwater from public stormwater systems, and develop a program to reduce stormwater pollution to the "maximum extent practicable."

The City is a co-permittee, along with nine other cities and VCWPD, for the MS4 NPDES permit issued by the California Regional Water Quality Control Board (RWQCB). The current MS4 permit was issued on July 8, 2010 (Permit CAS004002, Order No. R4-2010-0108). Additional information on the stormwater permit can be found at http://www.vcstormwater.org/documents/reference/ventcopermit.pdf. Pursuant to the permit, VCWPD has developed a County-wide Stormwater Quality Management Plan that includes management measures/best management practices (BMPs) associated with the following program elements, as required by the permit:

- Program management.
- Programs for residents.
- Programs for industrial/commercial businesses.
- Programs for land development.
- Programs for construction sites.
- Programs for Co-permittee facility maintenance.
- Programs for illicit discharge control.

Ventura County, through the use of a stormwater ordinance, also regulates stormwater quality in the County. The Ventura County Stormwater Ordinance (Ordinance No. 4142) prohibits the discharge of non- stormwater discharges into County stormwater facilities and seeks to reduce pollutants in stormwater to the maximum extent practicable. This ordinance also requires owners to comply with the State construction general stormwater permit prior

to being issued a grading permit for construction activity. The construction general stormwater permit will require the preparation of a Stormwater Pollution Prevention Plan (SWPPP). Further information on stormwater quality can be found in Section 5.0, below, in this PM.

Each co-permittee is responsible for adoption and enforcement of stormwater pollution prevention ordinances, implementation of self-monitoring programs and BMPs, and conducting applicable inspections. The City of Oxnard has adopted a Stormwater Quality Ordinance (Appendix A). The City also has guidelines that govern specific development concerns for storm sewers and drainage and retains the responsibility for the following:

- Maintain storm drain system with channel capacities less than 500 cfs.
- Collect water quality data.
- Act as floodplain manager for areas inside City boundaries.

4.1.2 Stormwater Quantity

The FEMA administers the National Flood Insurance Program (NFIP). In 1985, FEMA completed Flood Insurance Rate Maps (FIRMs) depicting flood zones that have a one percent annual chance of flooding (at that time known as the 100-year flood zone). These maps have since been digitized (DFIRMs) and for this area were issued in 2010. Property owners within Flood Zone A are federally mandated to purchase flood insurance.

The current DFIRMs are based on pre-1984 hydrologic data and hydraulic analyses conducted over 25 years ago (FEMA Flood Insurance Study 06111CV001A for Ventura County, California and Incorporated Areas, Volume 1 of 3, January 20, 2010). Since that time, Ventura County has experienced several years of record rainfall, including 1995, 1998, and 2005 (VCWPD, 2009). The DFIRMs are therefore based on data that do not reflect the trend of increasing rainfall since the 1980s.

Therefore, communities must adopt a floodplain management ordinance addressing construction and habitation in flood zones. In California, the SWRCB provides and encourages communities to adapt the California Model Floodplain Management Ordinance to deal with these DFIRM deficiencies. Ventura County adopted their Flood Plain Management Ordinance (Ordinance 3741) in 1985. Several revisions have been made since then with the latest ordinance adopted in 1990 (Ordinance 3954). The VCWPD implements this ordinance to ensure compliance with the NFIP. The ordinance addresses the risks of development within the floodplain and includes a list of prohibited discharges, exemption procedures, and requirements for construction and permitting. Further discussions of how the FEMA flood zones impact the City are included in PM 5.2, *Stormwater System – Infrastructure Modeling and Alternatives*.

The City's 2030 General Plan also contains policies applicable to stormwater management. These stormwater policies are summarized as follows:

- Development must mitigate flooding problems identified by the NFIP.
- The City shall continue to provide information to FEMA to ensure the FIRMs which cover Oxnard are updated periodically to address changing flood conditions brought about by urban development.

4.1.3 TMDLs

There are a number of water bodies with TMDLs within Ventura County. The City of Oxnard is a participating party in the Santa Clara River Bacteria TMDL as well as implementing the Harbor Beaches TMDL on its own. A brief status update on the TMDLs follows. TMDL documents and additional information can be found at http://www.waterboards.ca.gov/water_issues/programs/tmdl/.

Santa Clara River Bacteria TMDL went into effect in March 2012. The TMDL Implementation Plan is currently in development through an Agreement among County of Ventura and the cities of Fillmore, Oxnard, Santa Paula, and Ventura (VCWPD, 2015). In addition, the same parties have completed development of the receiving water monitoring plan.

The Harbor Beaches TMDL went into effect in December 2008, and dry and wet weather implementation plans were submitted in 2009 and 2010. The City has implemented and continues to implement BMPs aimed at reducing sources and transport of bacteria into the receiving waters at Kiddie and Hobie Beaches.

4.2 Future (Potential)

In January 2015, the VCWPD submitted their report of waste discharge (ROWD), which serves as the application of renewal of the waste discharge requirements set forth in the current order (Order No. R4-2010-0108). While the provisions of the next permit are currently unknown, the VCWPD is anticipating that their next permit will be based on the MS4 Permit for Los Angeles County, Order R4-2012-0175 (LA Permit) (VCWPD, January 2015). The VCWPD ROWD includes proposed recommendations for changing or modifying specific provisions of the Los Angeles County Permit (VCWPD, 2015) and the justification for these recommendations for the purpose of the VCWPD permit renewal process.

On the statewide level, CASQA (2015) outlined their strategic visions and goals for stormwater management. CASQA (2015) outlines a comprehensive plan for stormwater that will achieve the goals of the clean water act. With respect to future regulations, CASQA identified the need for stormwater to be considered a non-point source rather than a point source, and the need for regulations related to stormwater capture and use as a resource.

At the federal level, there was relatively recent EPA action on developing new federal stormwater regulations. However, this effort has recently been abandoned based on the conclusion that a broad regulatory program may not be the best approach for regulating stormwater. The EPA has not yet developed approaches and programs in lieu of federal regulations.

5.0 STORMWATER QUALITY

This section summarizes what is known of Oxnard's stormwater quality, both during wet weather and dry-weather conditions. Water quality data comes from the following two sources:

- Ventura County Watershed Protection District (VCWPD): Data is collected during both dry and wet weather events at two outfalls in Oxnard. Data has been collected in these outfalls since 2010.
- CH2M Hill Study "Feasibility of Using the Oxnard Advanced Water Purification Facility to Treat Stormwater from the J Street and Oxnard Industrial Drains": Water quality data was collected at multiple locations in the J Street Drain and Oxnard Industrial Drain as a part of this study. Data was collected in late 2009 to early 2010 and again in March 2013.

The VCWPD conducts water quality monitoring for the Ventura National Pollution Discharge Elimination System (NPDES) MS4 permit and for the Santa Clara River Bacteria TMDL. There are two major outfall sampling locations in Oxnard where dry and wet weather flows are regularly recorded. The first, the MO-HUE outfall, is located in the southern portion of Oxnard and water quality samples collected from this outfall measures certain pollutants in the Hueneme Drain, which flows to the Ocean. The second, the MO-OXN outfall, is located in the northern portion of Oxnard and water quality samples collected from this outfall measures certain pollutants in the El Rio Drain, which flows to the Santa Clara River. Both of these sampling locations are shown in Figure 7. Recorded water quality data from 2010 to 2013 for these two outfalls are summarized in Tables 5 and 6 for wet and dry weather, respectively.

STORMWATER SAMPLING LOCATIONS

FIGURE 7

CITY OF OXNARD

PM NO. 5.1 – BACKGROUND SUMMARY

PUBLIC WORKS INTEGRATED MASTER PLAN

CITY OF OXNARD CALIFORNIA

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Table 5 Wet Weather Water Quality Data from VCWPD (2010-2013)[1]
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	MO-HUE	MO-OXN
Alkalinity as CaCO3	mg/L	185	46
Ammonia as N	mg/L	0.62	0.85
BOD	mg/L	10	17
Calcium	mg/L	131	19
Chloride	mg/L	1,394	14
COD	mg/L	57	145
Cyanide[2]	mg/L	0.0027	0.0027
DO	%	32	48
E. Coli	MPN/100 mL	12,529	8,943
Fecal Coliform	MPN/100 mL	12,711	10,911
Fluoride	mg/L	0.38	0.21
Hardness as CaCO3	mg/L	816	70
Magnesium	mg/L	120	5
MBAS	mg/L	0.17	0.58
Mercury	ng/L	19	54
Oil and Grease	mg/L	1.5	2.4
pH	pH Units	7.7	7.4
Phenolics	mg/L	0.038	0.035
Phosphorus as P	mg/L	0.28	0.48
Salinity	mg/L	2,613	191
TKN	mg/L	1.9	3.4
Total Coliform	MPN/100 mL	291,338	436,180
Total Dissolved Solids	mg/L	2,775	134
Total Organic Carbon	mg/L	10	22
Total Suspended Solids	mg/L	52	208
TPH[2]	mg/L	1.9	1.9
Turbidity	NTU	18	40
Volatile Suspended Solids	mg/L	15	62

Notes:
(1) Wet weather flows are recorded for three storms annually for MS4 compliance.
(2) All data recorded was below detection limit.

Table 6 Dry Weather Water Quality Data from VCWPD (2010-2013)[1]
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	MO-HUE	MO-OXN
Alkalinity as CaCO3	mg/L	102	233
Ammonia as N	mg/L	0.16	0.44
BOD	mg/L	3.7	3.7
Calcium	mg/L	72	132
Chloride	mg/L	117	1,808
COD	mg/L	58	52
Cyanide[2]	mg/L	0.0027	0.0027
Discharge	cfs	1.2	1.2
DO	%	7.8	7.0
E. Coli	MPN/100mL	1,915	1,566
Fecal Coliform	MPN/100mL	156	953
Fluoride	mg/L	1.1	0.8
Hardness as CaCO3	mg/L	316	769
Magnesium	mg/L	32	107
MBAS	mg/L	0.19	0.19
Mercury	ng/L	-	-
Nitrate as N	mg/L	-	0.52
Oil and Grease	mg/L	-	1.3
pH	pH Units	8.9	8.5
Phenolics	mg/L	0.06	0.05
Phosphorus as P	mg/L	0.12	0.18
Salinity	mg/L	350	2,050
TKN	mg/L	1.5	1.3
Total Coliform	MPN/100mL	55,235	60,863
Total Dissolved Solids	mg/L	680	3,865
Total Organic Carbon	mg/L	14.0	10.6
Total Suspended Solids	mg/L	61	38
TPH[2]	mg/L	1.9	1.9
Turbidity	NTU	9.5	11.0
Volatile Suspended Solids	mg/L	32.0	18.5

Notes:
(1) Dry weather flows are recorded once annually for MS4 compliance. Data is only recorded when there is flow in the channel. Data below detection limit was recorded at detection limit.
(2) All data recorded was below detection limit.

In the CH2M Hill study mentioned above, additional water quality parameters were tested daily from March 18 through March 24, 2013 for two outfalls in the southern part of Oxnard - namely the J Street Drain and the Oxnard Industrial Drain. This study also recorded water quality data that was collected in late 2009 and early 2010 for the same stormwater channels. Tables 7 and 8 tabulate this data. All recorded data from this study is dry weather stormwater channel flows.

Table 7 Dry Weather Water Quality Data from Oxnard Industrial Drain (CH2M Hill)
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	IOD-A (March 2013)	IOD-B (March 2013)	OID 6 (End of 2009 - Beginning of 2010)	OID 7 (End of 2009 - Beginning of 2010)
Oil and Grease	mg/L	<5	<5	NS	NS
Turbidity	NTU	5.8	0.7	NS	NS
Mercury	mg/L	0.0001	0.0001	0.0001	0.00012
Boron	mg/L	1.5	1.5	NS	NS
Calcium	mg/L	351.4	481.4	314,5	383
Iron	mg/L	1.3	0.09	0.27	0.28
Dissolved Iron	mg/L	NS	NS	0.09	0.1
Lithium	mg/L	0.06	0.08	NS	NS
Magnesium	mg/L	115.7	101.4	169	146
Potassium	mg/L	9.7	10.5	28.3	18.3
Silicon	mg/L	5.2	13.6	NS	NS
Sodium	mg/L	275.7	185.7	710.5	492.5
Strontium	mg/L	2.9	4.1	NS	NS
Aluminum	ug/L	443.3	29.7	83.9	50.4
Antimony	ug/L	0.41	0.49	0.43	0.34
Arsenic	ug/L	1.9	1.6	6.7	5.6
Barium	ug/L	41.6	44.9	39.4	34
Beryllium	ug/L	0.12	0.14	0.66	0.66
Cadmium	ug/L	0.56	0.21	0.5	0.27
Chromium	ug/L	2.3	2	10	10
Cobalt	ug/L	1	0.8	1	1
Copper	ug/L	9.2	3.5	3.6	4
Lead	ug/L	2.7	0.3	0.3	0.3
Manganese	ug/L	468.6	53.9	262.5	213
Molybdenum	ug/L	35	52.4	NS	NS
Nickel	ug/L	6.5	13.4	9.9	10.4
Selenium	ug/L	5.8	4	19.1	18.2

Table 7 Dry Weather Water Quality Data from Oxnard Industrial Drain (CH2M Hill)
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	IOD-A (March 2013)	IOD-B (March 2013)	OID 6 (End of 2009 - Beginning of 2010)	OID 7 (End of 2009 - Beginning of 2010)
Silver	ug/L	0.11	0.1	0.36	0.36
Thallium	ug/L	>.2	<.2	0.53	0.53
Vanadium	ug/L	48.1	2.5	2	2
Zinc	ug/L	10,800	4	34	34.1
TDS	mg/L	NS	2,740	3,750	3,150
pH	Units	NS	NS	8.1	8.2
Bicarbonate Alk	mg/L	NS	NS	255	250
Chloride	mg/L	NS	NS	1,060	610
Sulfate	mg/L	NS	NS	1,225	1,300
Bromide	mg/L	NS	NS	6.9	6.3
Fluoride	mg/L	NS	NS	0.68	0.64
NH3-N	mg/L	NS	NS	0.09	0.1
NO3-N	mg/L	NS	NS	5	5
TOC	mg/L	NS	NS	5.4	6.4

Notes:
NS = Not Sampled

Table 8 Dry Weather Water Quality Data from J-Street Drain (CH2M Hill)
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	J St A (March 2013)	J St B (March 2013)	J St 1 (End of 2009 - Beginning of 2010)
Oil and grease	mg/L	<5	<5	NS
Turbidity	NTU	2.61	3.56	NS
Mercury	mg/L	0.04	0.05	0.1
Boron	mg/L	0.59	0.77	NS
Calcium	mg/L	97.86	135.29	243
Iron	mg/L	0.32	0.15	0.3
Dissolved Iron	mg/L	NS	NS	0.4
Lithium	mg/L	0.04	0.04	NS
Magnesium	mg/L	40.29	54.57	353.5
Potassium	mg/L	8.91	11.51	110.4
Silicon	mg/L	7.03	5.94	NS

Table 8 Dry Weather Water Quality Data from J-Street Drain (CH2M Hill)
Public Works Integrated Master Plan
City of Oxnard

Constituent	Units	J St A (March 2013)	J St B (March 2013)	J St 1 (End of 2009 - Beginning of 2010)
Sodium	mg/L	116.4	143.9	2,750
Strontium	mg/L	0.97	1.35	NS
Aluminum	ug/L	112	38.7	85
Antimony	ug/L	0.82	1.35	0.4
Arsenic	ug/L	1.38	1.47	8.4
Barium	ug/L	46.6	58	46.1
Beryllium	ug/L	<0.1	0.25	1.6
Cadmium	ug/L	0.23	0.26	0.8
Chromium	ug/L	1	0.92	10
Cobalt	ug/L	0.35	0.44	0.6
Copper	ug/L	8.37	12.7	2.8
Lead	ug/L	0.74	0.96	0.2
Manganese	ug/L	48.5	34.1	201
Molybdenum	ug/L	11.5	18.7	NS
Nickel	ug/L	2.81	4.77	5.5
Selenium	ug/L	2.87	3.19	19.7
Silver	ug/L	0.12	0.13	0.5
Thallium	ug/L	<0.2	0.28	1.5
Vanadium	ug/L	2.56	1.99	1.2
Zinc	ug/L	15	20.4	34.9
TDS	mg/L	9,100	2,280	10,150
pH	Units	NS	NS	8.1
Bicarbonate Alk	mg/L	NS	NS	255
Chloride	mg/L	NS	NS	5,400
Sulfate	mg/L	NS	NS	1,155
Bromide	mg/L	NS	NS	5.3
Fluoride	mg/L	NS	NS	0.5
NH3-N	mg/L	NS	NS	0.1
NO3-N	mg/L	NS	NS	0.6
TOC	mg/L	NS	NS	4

Notes:
NS = Not Sampled

6.0 CLIMATE CHANGE

6.1 Annual Rainfall

6.1.1 Current Trends

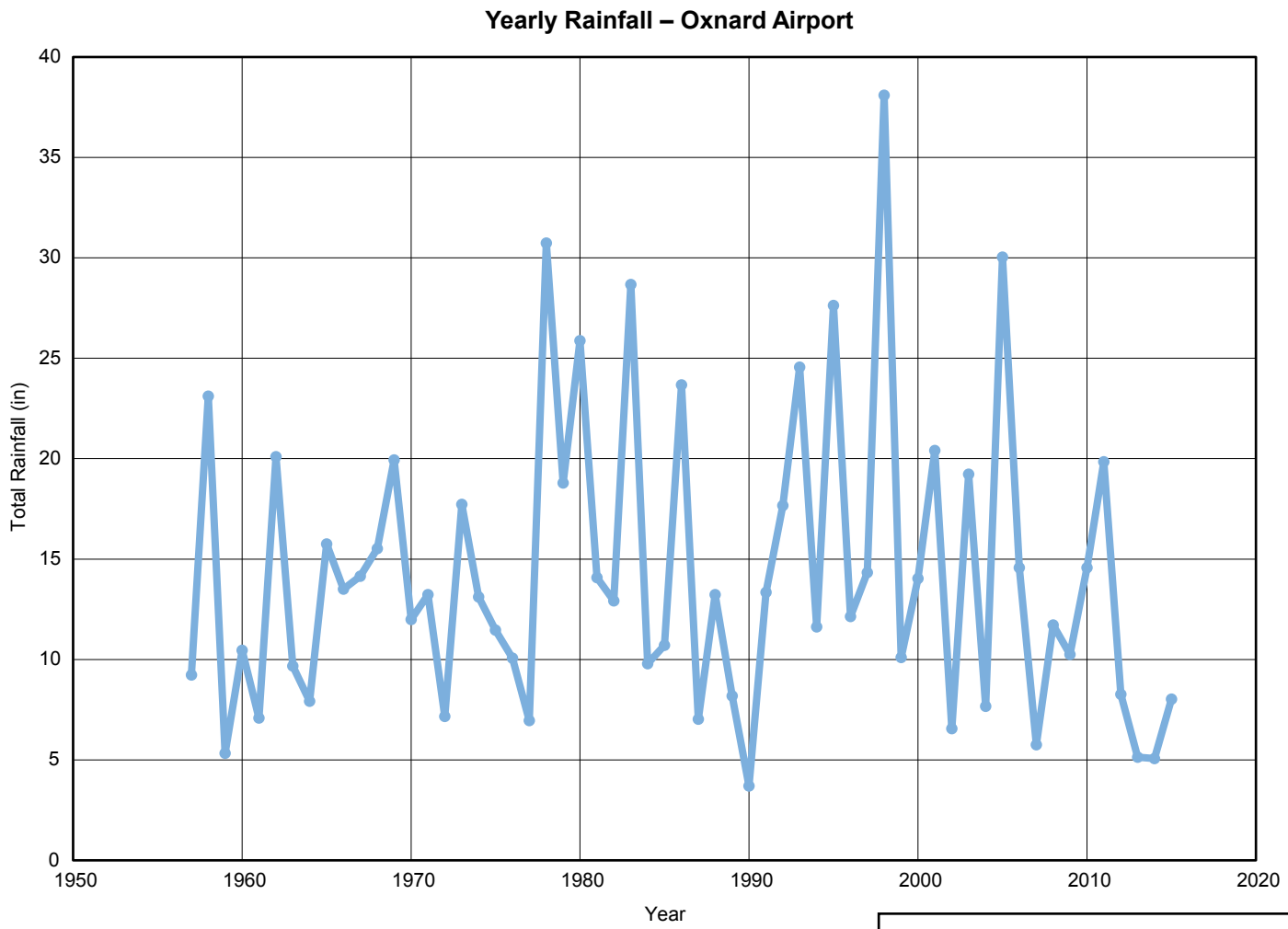
The change in trends of total annual rainfall across the U.S. is already measurable. The results of a recent study performed using two data sets of global rainfall from 1925 through 1999 showed increased annual precipitation in temperate regions of the Northern Hemisphere (Zhang *et al.*, 2007). Since about 1970, total annual precipitation across the U.S. has tended to remain above the twentieth-century mean and averaged about 5 percent more than the previous 70 years (Karl *et al.*, 1996). More importantly, in the western mountains of the U.S., approximately 74 percent of weather stations showed an increase in the fraction of annual precipitation falling as rain rather than snow from 1949 through 2004 (Knowles *et al.*, 2006).

Figure 8 shows the total annual precipitation recorded at the City of Oxnard. The data show an increase in the spread of data points - that is the minimum and maximum levels of total annual precipitation have decreased and increased, respectively, over time. Though it appears that there is a slightly increasing trend for total annual precipitation, it is not statistically significant at this point.

6.1.2 Future Projections

To examine the potential future impacts of global warming, scientists have developed computer models (general circulation and regional climate models) simulating climate. While projected temperature changes are broadly consistent across most modeling efforts, projected changes in total annual precipitation have varied widely across models and emissions scenarios (Kiparsky and Gleick 2003, Madsen and Figdor 2007). In addition, as models are run at finer levels of geographic resolution (e.g., regional or metropolitan level) the accuracy decreases.

California's precipitation patterns vary in different parts of the region. General circulation models (GCMs) do not reproduce detailed precipitation patterns accurately. The usefulness of these models is judged based on their ability to reproduce recent changes. Precipitation relies on meteorological conditions that occur at scales smaller than GCMs currently resolve. In recent years, they have become increasingly accurate and have been applied to more regions of the country. However, most regional studies performed in California have focused on Northern California, and there is still no consensus on projections for total annual precipitation for the Oxnard area. Therefore, it is recommended that long term planning be based on current trends of total annual precipitation analyzed on a monthly basis. Monthly trending would provide more specific information on general trends observed elsewhere of increasing rainfall as snowfall decreases, and the timing of precipitation events occurring earlier in the water year.



HISTORIC ANNUAL PRECIPITATION AT THE OXNARD AIRPORT

FIGURE 8

CITY OF OXNARD

PM NO. 5.1 – BACKGROUND SUMMARY

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6.2 Rainfall Intensity and Distribution

Although projections for total annual precipitation vary significantly, most regional climate model results in the U.S. suggest that the extreme daily precipitation rate will increase relative to changes in the annual mean precipitation rate. During times of high intensity precipitation, runoff rates increase rapidly resulting in less groundwater recharge, decreased surface water quality, and increased reservoir inflow. It is important to consider the potential impact global warming could have on the City's precipitation characteristics (intensity and distribution throughout the year) in order to anticipate necessary modifications to the operational management of the surface water supplies and storage capabilities.

6.2.1 Current Trends

The Environment California Research and Policy Center (ECRPC) released a study in the summer of 2012 evaluating trends in the frequency of extreme levels of precipitation (rainfall or snowfall) across the contiguous U.S. (as well as finer levels of geography). The analysis considered daily precipitation records obtained from the National Climatic Data Center (NCDC) spanning from 1948 through 2011 at more than 3,700 weather stations in 48 states. Patterns in the timing of heavy precipitation relative to the local climate at each weather station were examined (Madsen and Willcox, 2012). The results were found to be consistent with many studies performed previously, including a study completed in 1999 by researchers at the Illinois State Water Survey and the NCDC examining the period from 1931 to 1996 (Kunkel *et al.*, 1999).

The 2012 ECRPC study focused on storms with extreme 24-hour precipitation totals that are defined relative to the local climate, selecting those with an average recurrence interval of 1 year or more. With 95 percent confidence, records show that there is an average increase of 30 percent in frequency of extreme precipitation events across the continental U.S. since 1948. The largest increase is recorded in the New England area, with extreme events happening 85 percent more often than in 1948. In addition, the biggest storms in 2011 produced about 10 percent more precipitation than the biggest storms in 1948 (Madsen and Willcox, 2012).

At the state level, records show a 13 percent increase in frequency of extreme precipitation events in California since 1948 on average – with southern California showing an increasing trend and northern California showing a decreasing trend (Madsen and Willcox, 2012). Detection of statistically significant trends in the frequency of extreme precipitation events becomes more difficult at the metropolitan level. However, in the 2007 version of the study, 55 of the 248 metropolitan areas (as defined by the U.S. Census Bureau) showed a statistically significant increase in the frequency of extreme precipitation events. A review of extreme precipitation for an area including Santa Barbara, Santa Maria and Lompoc showed a 69 percent average increase in frequency of extreme precipitation events since 1948 and an area including Los Angeles, Riverside, and Orange County showed a

58 percent average increase in frequency of extreme precipitation events since 1948 (Madsen and Figdor, 2007).

6.2.2 Future Projections

Further changes in precipitation patterns are projected to occur due to climate change. Both general circulation and regional climate models project the intensity of precipitation is likely to increase around the world, with the most significant increases occurring in the middle to high latitudes (Meehl, 2005). Global simulations show the percentage increase in extreme precipitation is greater than the percentage increase in mean rainfall.

Kharin and Zwiers project the probability of 24-hour precipitation events considered to be extreme will increase by a factor of about 2 by the period of 2046 to 2065 and by a factor of 3 by the end of the 21st century relative to those that occurred during the period of 1981 to 2000. This means that return periods of 10, 20, 50, and 100 years for 24-hour precipitation events will be reduced by a factor of 2 or more (meaning they will occur two or more times as often) by the year 2100 due to climate change (Kharin and Zwiers 2005, Kharin *et al.,* 2007). In effect, these changes will shift design level rainfall. For example, a current 10-year event will become a 5-year event, a 100-year event will become a 50-year event, and so on. This implies that municipalities will have to plan on more frequent and intense flooding events in the future unless new and improved measures are taken.

Projected changes in regions of California are less accurate and do not cover the area of Oxnard. They are mainly associated with changes in moisture flowing in from the Pacific Ocean and the increase in elevation of freezing levels during the winter. By the year 2100, northern California is projected to experience an increase in both low and high intensity events (Dettinger, 2005).

Although there is a lack of model simulation results relevant to projections for the Central Coast, including the area in and around the City, it is recommended that long term planning be based on the current trends of an increase in frequency and change in distribution within the year of extreme levels of precipitation, as opposed to increases or decreases in average annual precipitation.

APPENDIX A - STORMWATER QUALITY ORDINANCE

AGENDA ITEM NO. 5-6

CITY COUNCIL OF THE CITY OF OXNARD

ORDINANCE NO. 2876

ORDINANCE OF THE CITY OF OXNARD, CALIFORNIA, AMENDING ARTICLE XII OF CHAPTER 22 (WATER) OF THE CITY CODE PERTAINING TO STORM WATER QUALITY MANAGEMENT

WHEREAS, the Federal Water Pollution Control Act (Clean Water Act or CWA) (33 USC §§ 1251 et seq.) as implemented by the United States Environmental Protection Agency (EPA) regulations require the adoption of plans and programs for storm water quality management meeting specified criteria; and

WHEREAS, in order to comply with and implement the requirements of the CWA and state clean water laws, the Ventura County Watershed Protection District, County of Ventura and the cities of Camarillo, Fillmore, Moorpark, Ojai, Oxnard, Port Hueneme, San Buenaventura, Santa Paula, Simi Valley and Thousand Oaks (collectively referred to as co-permittees) formed the Ventura Countywide Storm Water Quality Management Program and submitted an application to be covered by a single National Pollutant Discharge Elimination System (NPDES) permit for publicly owned municipal separate storm sewers (MS4s) in Ventura County under their respective jurisdictions; and

WHEREAS, the California Regional Water Quality Control Board, Los Angeles Region, has issued various Orders and NPDES permits to the co-permittees regulating storm water and non-storm water discharges from the MS4s within the Ventura County Watershed Protection District, and the County of Ventura and the incorporated cities therein. The current order and permit are Order R4-2010-0108 and Permit No. CAS004002 issued on July 8, 2010 (MS4 Permit); and

WHEREAS, the City has adopted Article XII of Chapter 22 (Storm Water Quality Management) of the City Code in order to comply with the requirements of applicable federal and state water quality laws and to provide an acceptable program for the conservation of water resources within the City, as well as to protect the health, safety and general welfare of its citizens; and

WHEREAS, the City Council desires to amend Article XII to conform to the current MS4 Permit and, where applicable or appropriate, attempt to recover some of the City's costs associated with compliance with the MS4 Permit; and

WHEREAS, the adoption of this ordinance in order to implement the pollutant control measures described in the MS4 Permit in furtherance of these purposes is exempt from the provisions of the California Environmental Quality Act (CEQA) pursuant to Sections 15305 and 15307-15309 of the State CEQA Guidelines.

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF OXNARD DOES ORDAIN AS FOLLOWS:

Part 1. Article XII of Chapter 22 of the Oxnard City Code is amended to read as follows:

"ARTICLE XII. STORM WATER QUALITY MANAGEMENT

SEC. 22-215. PURPOSE AND INTENT.

This article implements the Federal Water Pollution Control Act (the "Clean Water Act" or "CWA"), 33 U.S.C. Section 1251 et seq., as amended, and Division 7 of the California Water Code by prohibiting the discharge of any pollutant to navigable waters of the United States from a point source unless the discharge is authorized by a permit issued pursuant to the National Pollutant Discharge Elimination System ("NPDES") required by CWA Section 402 (33 U.S.C. Section 1342), and by prohibiting non-storm water discharges into the storm drain system.

SEC. 22-216. DEFINITIONS.

For the purposes of this article, the following words and phrases will have the meanings set forth this section. Words and phrases not defined in this section or elsewhere in this article will have the meanings set forth in the regulations implementing the NPDES, Clean Water Act Section 402, and Division 7 of the California Water Code, as they may be amended from time to time, and if not defined in such laws, then the applicable definitions in the municipal storm water permit will apply.

(A) BASIN PLAN – The Water Quality Control Plan for Coastal Watersheds of Los Angeles and Ventura Counties, adopted by the regional board on June 13, 1994, as amended from time to time.

(B) BEST MANAGEMENT PRACTICES (BMPs) – Measures, practices, and procedures to prevent or reduce, to the maximum extent that is technologically and economically feasible, the discharge of pollutants to the city's storm drain system and receiving waters. A BMP may consist of a structural BMP, source control BMP, treatment control BMP, or any other BMP promulgated by the California Stormwater Quality Association (CASQA), California Department of Transportation (Caltrans), or approved by the director for the purpose of controlling or eliminating storm water pollution.

(C) CHANNEL – An open conduit either naturally or artificially created that periodically or continuously contains moving water, or which forms a connecting link between two waterbodies.

(D) CONSTRUCTION ACTIVITY – Any construction or demolition activity, clearing, grading, grubbing, or excavation or any other activity that results in a land disturbance. Construction activity does not include emergency construction activities required to immediately protect public health and safety or routine maintenance activities required to maintain the integrity of structures by performing minor repair and restoration work, maintain original line and grade, hydraulic capacity, or original purpose of the facility.

(E) CONTAMINATION – An impairment of the quality of waters of the state by waste to a degree that creates a hazard to the public health through poisoning or spread of disease. Contamination also includes any equivalent effect resulting from the disposal of waste, whether or not waters of the state are affected.

(F) CRITICAL SOURCE FACILITIES – Those commercial or industrial facilities or businesses that have a potential to contribute pollutants to storm water runoff and are listed in Part 4.D and Attachment D of the municipal storm water permit.

(G) DECHLORINATED/DEBROMINATED SWIMMING POOL DISCHARGE – Any swimming pool discharge with a residual chlorine or bromine level of 0.1mg/L or less; and that does not contain any detergents, wastes, algaecides, or cyanuric acid in excess of 50 ppm, or any other chemicals including salts from pools commonly referred to as "salt water pools". The term does not include swimming pool filter backwash or swimming pool water containing bacteria.

(H) DEVELOPMENT – Any construction, rehabilitation, redevelopment or reconstruction for which either a discretionary land use approval or a permit is required, for any public or private residential (whether single-family, multi-unit or planned unit development); industrial; commercial; retail; institutional; and other nonresidential projects, including public agency projects; or mass grading for future construction.

(I) DIRECTOR – The public works director or designee.

(J) DISCHARGE – When used without qualification, the discharge of a pollutant.

(K) DISCHARGE OF A POLLUTANT – Any addition of any pollutant to waters of the United States, to the city's storm drain system, or any addition of any pollutant to waters of the contiguous zone from any point source other than a vessel or other floating craft which is being used as a means of transportation.

(L) DISCHARGER – Any person causing a discharge.

(M) EPA – The Environmental Protection Agency of the United States of America.

(N) ENVIRONMENT – The physical conditions that exist within the area and that will be affected by a proposed project. The environment means both naturally occurring and man-made conditions. The area involved will be the area in which significant effects would occur, either directly or indirectly, as a result of the project.

(O) HAZARDOUS SUBSTANCES – Those substances designated as hazardous substances under Section 311(b)(2)(A) of the Clean Water Act, which are listed in the table at 40 CFR Section 116.4, and other applicable law.

(P) HEARING OFFICER – The director, who will preside at the administrative hearings authorized by this article and issue final decisions on matters raised in such hearings.

(Q) ILLICIT CONNECTION – Any engineered conveyance that is connected to the storm drain system, without a permit, through or by which an illicit discharge may occur.

(R) ILLICIT DISCHARGE – Any discharge to the storm drain system that is prohibited under local, state, or federal statutes, ordinances, codes, or regulations. The term illicit discharge includes all non-storm water discharges not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges which are exempt or conditionally exempt in accordance with any applicable order of the regional board or authorized by the regional board executive officer.

(S) INVOICE FOR COSTS – An invoice for the actual costs and expenses of the city, including, but not limited to administrative overhead, salaries, attorneys' fees and other expenses recoverable under applicable law, incurred during any inspection, investigation or proceeding conducted pursuant to this article, where a notice of violation or other enforcement remedy under this article is used to obtain compliance with this article.

(T) MAXIMUM EXTENT PRACTICABLE – The level of pollutant control that is derived from available technology or other controls at the maximum level that is practicable. Pollution prevention and source control BMPs in combination with structural and treatment methods where appropriate are emphasized to achieve compliance. The maximum extent practicable approach is an ever evolving and advancing concept that considers technical and economic feasibility.

(U) MUNICIPAL SEPARATE STORM SEWER SYSTEM (MS4) or STORM DRAIN SYSTEM – A conveyance or system of conveyances, including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains, as defined in 40 CFR Section 122.26(b)(8): (1) owned or operated by the city; (2) designed or used for collecting or conveying storm water; (3) which is not a combined sewer; and (4) which is not part of a publicly owned treatment works, as defined in 40 CFR Section 122.2.

(V) MUNICIPAL STORM WATER PERMIT – NPDES Permit No. CAS004002 Waste Discharge Requirements for Storm Water (Wet Weather) and Non-Storm Water (Dry Weather) Discharges from the Municipal Separate Storm Sewer Systems within the Ventura County Watershed Protection District, County of Ventura, and the Incorporated Cities Therein (Regional Board Order R4-2010-0108), as amended from time to time.

(W) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT – A permit issued under the CWA, including a state general permit and the Municipal Storm Water Permit issued by the regional board.

(X) NEW DEVELOPMENT – Land disturbing activities, structural development, construction or installation of a building structure, creation and replacement of impervious surfaces, and land subdivision.

(Y) NON-STORM WATER DISCHARGE – Any discharge to the storm drain system that is not composed entirely of storm water.

(Z) POINT SOURCE – Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel or other floating craft, from which pollutants are or may be discharged. This term does not include agricultural storm water discharges and return flows from irrigated agriculture.

(AA) POLLUTANT – A "pollutant" as defined in Section 502(6) of the Clean Water Act, 33 U.S.C. Section 1362(6), and incorporated by reference into California Water Code section 13373, or other applicable law, which is discharged into water.

(BB) POLLUTION – The man-made or man-induced alteration of the chemical, physical, biological and radiological integrity of water. Pollution also means an alteration of the quality of waters of the state by waste to a degree that unreasonably affects, or has the potential to unreasonably affect, either the waters for beneficial uses or the facilities which serve these beneficial uses.

(CC) POST-CONSTRUCTION STORM WATER MANAGEMENT PLAN (PCSMP) – A plan that defines the strategy and describes the design, placement and implementation of storm water retention and storm water treatment BMPs to effectively prevent non-storm water discharges and reduce pollutants in storm water discharges to the maximum extent practicable, for post-construction urban runoff to the storm drain system.

(DD) POTABLE WATER SOURCES – The potable water system for the treatment, distribution, and provision of water for residential, commercial, industrial, or institutional use that meets all California safe drinking water regulatory standards for human consumption.

(EE) RECEIVING WATERS – All surface water bodies identified in the basin plan.

(FF) REDEVELOPMENT – Land-disturbing activity that results in the creation, addition or replacement of 5,000 square feet or more of impervious surface area on an already developed site as defined in the municipal storm water permit. Redevelopment includes, but is not limited to: the expansion of a building footprint; addition or replacement of a structure; replacement of impervious surface area that is not part of a routine maintenance activity; and land disturbing activities related to structural or impervious surfaces. For an existing single-family dwelling and accessory structures, redevelopment means projects that create, add, or replace 10,000 square feet of impervious area. Redevelopment does not include routine maintenance to maintain original line and grade, hydraulic capacity, or original purpose of the facility, nor does it include emergency construction activities required to immediately protect public health and safety.

(GG) REGIONAL BOARD – The California Regional Water Quality Control Board, Los Angeles Region.

(HH) RESPONSIBLE PERSON – The person(s) identified in and responsible for compliance with the provisions of a SWPPP, SWPCP, or PCSMP.

(II) SOURCE CONTROL BMP – Any schedule of activities, prohibitions of practices, maintenance procedures, managerial practices or operational practices that aim to prevent storm water pollution by reducing the potential for contamination at the source of pollution.

(JJ) STATE BOARD – The California State Water Resources Control Board.

(KK) STATE GENERAL PERMIT – A permit issued by the state board or the regional board pursuant to 40 CFR Sections 122 and 123 to regulate a category of point sources. The term state general permit includes, but is not limited to, the General Permit for Storm Water Discharges Associated with Construction Activity and the General Industrial Activities Storm Water Permit and the terms and requirements of both. In the event the EPA revokes the in-lieu permitting authority of the state board, then the term state general permit will also refer to any EPA administered storm water control program for industrial, construction, and any other category of activities.

(LL) STORM WATER – Any surface flow, runoff, and/or drainage associated with rain storm events and/or snow melt, as defined in 40 CFR Section 122.26(b)(13).

(MM) STORM WATER POLLUTION CONTROL PLAN (SWPCP) – A plan or equivalent form, as required by the municipal storm water permit or by the director, identifying potential pollutant sources from a construction site with less than one acre of soil disturbance and describing proposed design, placement and implementation of BMPs, to effectively prevent non-storm water discharges and reduce pollutants in storm water discharges to the storm drain system, to the maximum extent practicable, during construction activities.

(NN) STORM WATER POLLUTION PREVENTION PLAN (SWPPP) – A plan, as required by a state general permit, identifying potential pollutant sources and describing the design, placement and implementation of BMPs, to effectively prevent non-storm water discharges and reduce pollutants in storm water discharges during activities covered by the state general permit.

(OO) STRUCTURAL BMP – Any structural facility designed and constructed to mitigate the adverse impacts of storm water runoff pollution.

(PP) TREATMENT – The application of engineered systems that use physical, chemical, or biological processes to remove pollutants.

(QQ) TREATMENT CONTROL BMP – 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.

(RR) VENTURA COUNTY TECHNICAL GUIDANCE MANUAL FOR STORM WATER QUALITY CONTROL MEASURES or TECHNICAL GUIDANCE MANUAL – The county technical guidance manual for storm water quality measures required by the municipal storm water permit, as amended from time to time.

(SS) WASTE – Sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.

(TT) WATERCOURSE – Any natural or artificial channel for passage of water.

(UU) WATERS OF THE STATE – Any surface water or groundwater, including saline waters, within the boundaries of the state of California.

(VV) WATERS OF THE UNITED STATES – Bodies of water as defined in 40 CFR Section 122.2.

(WW) WET SEASON – The calendar period from October 1 through April 15.

SEC. 22-217. PROHIBITION OF ILLICIT CONNECTIONS AND ILLICIT DISCHARGES.

(A) The discharge of pollutants into the storm drain system is prohibited.

(B) All discharges of material other than storm water into the storm drain system must be in compliance with the city's NPDES permit and any other NPDES permit applicable to the subject property.

(C) No person may do any of the following:

(1) Construct, use, maintain, operate or utilize an illicit connection;

(2) Cause, permit, or allow any agent, employee, independent contractor or other person, to construct, maintain, operate, or utilize an illicit connection;

(3) Cause, allow or facilitate an illicit discharge; or

(4) Cause, permit, or allow any agent, employee, or independent contractor, to cause, allow, or facilitate an illicit discharge.

(D) In addition to any other remedy provided by law, the director may, by written notice, require persons responsible for an illicit discharge or illicit connection to immediately, or by a specified date, discontinue the illicit discharge or illicit connection and, if necessary, to take measures to eliminate the source of the illicit discharge or illicit connection. If the illicit discharge or illicit connection is not discontinued in the time specified, the city may take measures to eliminate the source of the illicit discharge or illicit connection to prevent the occurrence of future illicit discharges or illicit connections.

(E) Whenever the director finds that an illicit discharge or illicit connection resulting in the release of pollutants is taking place or has occurred which may result in or has resulted in the release of pollutants is taking place or has occurred which may result in or has resulted in pollutants entering the storm drain system, or watercourse, the director may require by written notice to the responsible person that the pollution cease, be remediated, and the affected property be restored to its pre-pollution condition within a specified time, along with all other remedies available to the city.

(F) The director may, by written notice, require a person responsible for an illicit connection to the storm drain system to eliminate or to secure approval for the connection within a specified time, regardless of whether or not the connection or discharge to it has been established or approved prior to the effective date of this article.

SEC. 22-218. GENERAL DISCHARGE PROHIBITIONS.

(A) No person may discharge any material, other than storm water into the city storm drain system or receiving waters, unless a permit has first been obtained.

(B) The following discharges are exempt from the general permit requirement in subsection (A) of this section:

(1) Discharges originating from a state, federal, or other source for which the city is preempted from regulating by state or federal law;

(2) Discharges covered by a separate individual or general NPDES permit, or conditional waiver for irrigated lands;

(3) Discharge flows from fire-fighting activities; or

(4) Discharges that fall within one of the categories below that are not a source of pollutants that exceed water quality standards, and where specified, meet all the conditions stated:

(a) Natural flows.

(i) Stream diversions authorized by the state board.

(ii) Natural springs and rising groundwater.

(iii) Uncontaminated groundwater infiltration.

(iv) Flows from riparian habitats or wetlands, provided all necessary permits or authorization are received prior to diverting the stream flow.

(b) Flows incidental to urban activities.

(i) Discharges from potable water sources provided the flows are:

(1) Low volume, incidental, and infrequent releases that are innocuous from a water quality perspective;

(2) Dechlorinated, pH adjusted if necessary, re-oxygenated, and both the volume and velocity are controlled to prevent re-suspension of sediments; and

(3) All sediments must be collected and disposed of in a legal manner.

(ii) Gravity flow from foundation, footing, and crawl space drains.

(iii) Discharges from air conditioning condensate with flow segregated to prevent introduction of pollutants.

(iv) Reclaimed and potable irrigation water runoff with flow segregated to prevent introduction of pollutants.

(v) Dechlorinated/debrominated swimming pool discharges that:

(1) do not have Chlorine or Bromine residuals that exceed 0.1 mg/L;

(2) do not contain any chemicals, detergents, wastes, or algaecides;

(3) do not contain cyanuric acid in excess of 50 ppm;

(4) do not contain salts or pH levels in excess of the water quality standards set forth in the municipal storm water permit;

(5) the volume and velocity is controlled to prevent re-suspension of sediments; and

(6) the cleaning waste water and filter back wash is not discharged to storm drain system.

(c) Non-commercial car washing by residents or non-profit organizations.

(d) Sidewalk rinsing using a high pressure-low volume of water device with no additives.

(e) Pooled storm water from treatment BMPs provided that:

(i) The discharge is not a source of pollutants;

(ii) Sediments are to be disposed of properly in compliance with all applicable laws.

SEC. 22-219. SPECIFIC DISCHARGE PROHIBITIONS.

The following discharges are prohibited from entering the storm drain system:

(A) Discharges from the washing or cleaning of gas stations, auto repair garages, or other types of automotive service facilities.

(B) Discharges from mobile auto washing, carpet cleaning, steam cleaning, sandblasting, and other such mobile commercial and industrial operations.

(C) Discharges from areas where repair of machinery and equipment, which are visibly leaking oil, fluid or antifreeze, is performed.

(D) Discharges from storage areas for materials containing grease, oil, or other hazardous substances, or uncovered receptacles containing hazardous materials.

(E) Discharges from swimming pools that have a chlorine/bromine concentration greater than 0.1 mg/L or a chloride concentration greater than 250 mg/L.

(F) Discharges from swimming pool filter backwash, decorative fountains, and ponds.

(G) Discharges from industrial/commercial areas, including the washing or cleaning of restaurant mats.

(H) Discharges from stationary or mobile pet grooming facilities.

(I) Trash container leachate.

(J) Spills, dumping or disposal of pesticide, fungicide, herbicide, litter, landscape and construction debris, garbage, food, animal waste, fuel or chemical wastes, batteries, and any other materials that have the potential to adversely impact water quality.

SEC. 22-220. REDUCTION OF POLLUTANTS IN STORM WATER.

(A) Discharges of storm water containing pollutants that have not been reduced to the maximum extent practicable are prohibited.

(B) Any person engaged in activities that will or may result in pollutants entering the storm drain system or watercourses must undertake all practicable measures to reduce such pollutants.

(C) With written concurrence of the regional board, the city may exempt in writing other non-storm water discharges that are not a source of pollutants to the storm drain system or watercourses.

SEC. 22-221. REDUCTION OF LITTER.

(A) Prohibition. No person may throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, kept, or maintained, in or upon any public or private driveway, parking area, street, alley, sidewalk, trail, or component of the storm drain system or any receiving waters, any refuse, rubbish, garbage, litter, or other discarded or abandoned objects, articles, accumulations, or pollutant so that the same may cause or contribute to pollution.

(B) Waste Management on Residential Sites. Waste must be deposited in a proper receptacle that must be covered to prevent scattering by wind or animal. Spillage and overflow of wastes around containers must be promptly cleaned and properly disposed of.

(C) Waste Management on Commercial, Industrial Sites and Private Residential Complexes. It is the responsibility of any person owning or operating any commercial establishment, industrial park, or residential complex with common areas to procure and place trash receptacles at their own expense on the premises. Persons placing trash in receptacles must do so in such manner as to prevent litter from being carried or deposited by the elements upon any street, sidewalk, or other public place or upon private property. Persons owning or occupying a place of business, who sell or offer for sale food or other goods for immediate consumption wrapped in paper, plastic, cardboard or other similar disposable materials or containers, must endeavor to implement a general litter removal program so as to remove litter generated by such business at least each business day. No person owning or occupying a place of business may sweep into or deposit in the storm drain system the accumulation of litter from any building or lot from any public or private sidewalk or driveway. Persons owning or occupying places of business must keep the sidewalk in front of their business premises free of litter.

SEC. 22-222. CONSTRUCTION DEVELOPMENT.

(A) Any construction activity that results in a land disturbance that requires a grading, building, or discretionary permit must be undertaken in accordance with:

(1) Any conditions and requirements established by the municipal storm water permit or other applicable NPDES permits which are reasonably related to the reduction or elimination of pollutants in storm water runoff from the construction site.

(2) Any condition or requirement established by the director to protect specific watersheds or drainage basins.

(3) Any construction activity requiring a grading, demolition, or stockpile permit must include a plan identifying the structural and non-structural BMPs to be implemented during the construction activity to reduce pollutants in storm water runoff from the site and prevent construction site discharges from causing or contributing to a violation of water quality standards.

(a) The storm water runoff plan required for the construction activity will be based on the area of land to be disturbed by the construction activity as follows:

(i) Any construction activity requiring a grading, demolition or stockpile permit that results in the disturbance of less than one acre of land will require the applicant for such permit to submit and obtain city approval a SWPCP, or equivalent, as required by the municipal storm water permit.

(ii) Any construction activity requiring a grading, demolition or stockpile permit that results in the disturbance of one acre or greater, will require the applicant for such permit to submit and obtain city approval of a SWPPP in accordance with the municipal storm water permit and state general permit.

(b) Prior to the issuance of a grading permit or any permit authorizing construction activity including demolition, clearing, grading, grubbing, excavation, construction, if required by the state board, or where the director determines there is a substantial potential for discharge of significant levels of a pollutant into the storm drain system or receiving waters, the applicant for such permit must submit and obtain approval for the required plan based on the area of land disturbed by the construction activity.

(c) Each applicable SWPPP or SWPCP, must name a responsible person for the project.

(d) The owners of a development project, and their successors and assigns, and each named responsible person, must implement and adhere to the terms, conditions and requirements of the approved SWPPP or SWPCP. Any failure to implement and adhere to the terms, conditions and requirements of such plan will constitute a violation of this article.

(e) Compliance with the conditions and requirements of a SWPPP or SWPCP will not exempt any responsible person from the requirement to comply independently with each provision of this article.

(f) Any construction activity requiring a SWPPP or SWPCP will be inspected a minimum of once during the wet season for the implementation of storm water quality controls. If the city determines that the SWPCP or SWPPP has been improperly implemented, a follow-up site inspection will be conducted by the city within two weeks of the initial inspection.

(g) The city's costs and expenses incurred in the review, approval, or revision of any SWPPP or SWPCP, as well as for the construction site inspection and reinspection will be included as part of the applicable fee for such plans.

SEC. 22-223. POST CONSTRUCTION DEVELOPMENT.

(A) All new development and redevelopment within the city must be undertaken in accordance with:

(1) Any conditions and requirements established by the municipal storm water permit.

(2) Any condition or requirements established by the city to protect specific watersheds or drainage basins.

(B) Applicability of this article to new development and redevelopment projects will be determined in accordance with the municipal storm water permit.

(C) The following requirements apply to new development and redevelopment projects that are subject to post-construction storm water controls:

(1) A PCSMP will be required to be submitted.

(2) Each PCSMP must:

(a) include the name of the owner or other responsible person for the project;

(b) illustrate the location of proposed post-construction storm water controls;

(c) provide engineering calculations and analysis in accordance with the technical guidance manual that demonstrate that the post-construction storm water controls will function appropriately;

(d) include an operation and maintenance plan in accordance with the technical guidance manual. The operation and maintenance plan must specify a required schedule and requirements for maintenance and monitoring;

(e) include a storm water treatment device access and maintenance agreement on the form provided by the city. The director may require that the agreement be recorded with the County Recorder's office.

(3) The owner or responsible person must implement and adhere to the terms, conditions and requirements of the approved PCSMP. Each failure to implement and adhere to the PCSMP will constitute a separate violation of this article.

(4) The city's costs and expenses incurred in the review, approval or revision of any PCSMP or other related requirements will be charged to the owner or responsible person of the applicable new development or redevelopment project as a fee per the applicable city fee resolution.

(5) Compliance with the conditions and requirements of a PCSMP and related maintenance agreement does not exempt any person or development project from the requirement to comply independently with each provision of this article.

(D) The owner or responsible person of a property with a post-construction storm water control device must submit to the city an annual statement on the form provided by the city that certifies that the post-construction storm water device is being adequately maintained and functions as designed. If the annual statement is not timely received by the city, the city may inspect the post-construction storm water device and the owner or responsible person will be charged a fee per the applicable city fee resolution for such inspection and any necessary reinspections.

SEC. 22-224. BEST MANAGEMENT PRACTICES.

(A) Authorization to Adopt and Enforce Best Management Practices. The director may adopt requirements establishing appropriate BMPs for any activity, operation or facility which may cause or contribute to pollution or contamination of the storm drain system. If relevant BMPs have been promulgated by the city or any federal, state or county agency for an activity, operation or facility that would otherwise cause the discharge of pollutants to the storm drain system or watercourses, every person undertaking such activity or operation, or owning or operating such facility must implement such BMPs.

(B) Responsibility to Implement Best Management Practices. Any person engaged in activities or operations or owning facilities or property that will or may result in pollutants entering the storm drain system, or watercourses, as determined by the director, must implement applicable BMPs to the extent they are technologically and economically achievable to prevent or reduce such pollutants.

(C) Minimum BMPs for particular urban activities.

(1) Minimum BMPs for mobile car washes are full containment under and around the vehicle being washed, capture of all water used in the washing operation, and hauling of the captured wash water to a legal point of disposal.

(2) Minimum BMPs for building or sidewalk pressure washing are to use high pressure and low volume of water with no additives at an average usage of 0.006 gallons per square foot of surface area to be rinsed, capture all water used in the washing operation, and haul the captured wash water to a legal point of disposal.

(3) Minimum BMPs for landscape irrigation are inspection of irrigation systems to minimize contact with impervious surfaces, and segregation of runoff from the irrigated area following treatment (pesticide or fertilizer application) to prevent introduction of pollutants.

SEC. 22-225. COMPLIANCE WITH NPDES PERMITS.

Each industrial discharger associated with any construction activity, or any other discharger described in any NPDES permit, must comply with and undertake all other activities required by any applicable NPDES permit with regard to such discharges.

SEC. 22-226. WATERCOURSE AND STORM DRAIN SYSTEM PROTECTION.

(A) Every owner or responsible person for a property, through which a watercourse or portion of the storm drain system passes, must keep and maintain the property reasonably free of litter, debris, vegetation and other obstacles which may contribute pollutants, contaminates or cause a blockage of the flow of water through the watercourse or storm drain system.

(B) Every owner or responsible person for a property must maintain all existing structures within or adjacent to the storm drain system so that such structures will not become a hazard to the use, function or physical integrity of the storm drain system; and, consistent with other laws regarding riparian habitat protection, may not remove healthy bank vegetation beyond that actually necessary for such maintenance, nor remove any such vegetation in a manner as to increase the vulnerability of a watercourse to erosion.

SEC. 22-227. PROHIBITED ACTS AFFECTING WATERCOURSES OR STORM DRAINS.

No person may commit or cause to be committed any of the following acts, unless an appropriate permit or approval from all agencies with jurisdiction over the proposed act or project has first been obtained:

(A) The discharge of a pollutant into any pipe or channel to a watercourse or storm drain system.

(B) Modify the natural flow of water in a watercourse or storm drain system.

(C) Deposit in, plant in or remove any material from a watercourse or storm drain system including its banks, except as required for maintenance.

(D) Construct, alter, enlarge, connect to, change or remove any structure in a watercourse or storm drain system.

(E) Place any loose or unconsolidated material along the side of or within a watercourse or storm drain system, or so close to the side as to cause a diversion of the flow, or to cause a probability of such material being transported by storm waters passing through a watercourse or storm drain system.

SEC. 22-228. INSPECTIONS.

(A) Right to Inspect. Whenever it is necessary to make an inspection to monitor or enforce any of the provisions of, or perform any duty imposed by, this article, any permit, SWPCP, or other applicable law, or whenever the director has reasonable cause to believe there exists upon any premises, including any mobile or portable vehicles, any violation of the provisions of this article, any permit, SWPCP, or other applicable law, or any condition which makes such premises hazardous, unsafe or dangerous, the director is authorized to enter such property at any reasonable time to inspect the same and perform any duty imposed upon the director by this article, or other applicable law.

(B) Entry. The director is authorized to enter public or private property to investigate the source or potential source of a suspected illicit discharge to a storm drain system or watercourses located within the city at all reasonable times to inspect the same and to inspect and copy records related to storm water compliance. Prior to commencing any inspection as authorized by this article, the director will obtain the consent of the owner or responsible person for the premises or will obtain an administrative inspection warrant or criminal search warrant.

(C) Records Review. The director may examine and copy such records as is necessary to determine compliance with the provisions of this article.

(D) Sample and Test. The director may inspect, sample and test any area runoff, soils area (including groundwater testing), process discharge, materials within any waste storage area (including any container contents), or treatment system discharge for the purpose of determining the potential for contribution of pollutants to the storm drain system. The director may investigate the integrity of all storm drain and sanitary sewer systems or other pipelines on the property using appropriate tests, including but not limited to smoke and dye tests or video surveys. The director may take photographs or videotape, make measurements or drawings and create any other record reasonably necessary to document conditions on the property.

(E) Monitoring. The director may undertake monitoring and analysis including both the construction and maintenance of devices at the owners' expense, or require the owner or responsible person to undertake construction and maintenance of devices, at the owners' expense, for the purpose of measuring any discharge or potential source of discharge to the storm drain system.

(F) Test Results. The owner or responsible person of property subject to inspection must provide copies of test results to the city. On submission of a written request to the director, such person will be entitled to receive copies of any results of tests conducted by the city.

SEC. 22-229. INSPECTIONS OF CRITICAL SOURCE FACILITIES.

The city will conduct regular inspections of critical source facilities in accordance with the requirements of the municipal storm water permit. In order to defray the cost of these mandatory inspections, critical source facilities are required to pay the applicable inspection fee established by city council resolution.

SEC. 22-230. REMEDIES FOR VIOLATIONS.

(A) Notice of Violation. The director will review each report of illicit connection or illicit discharge, and, if appropriate, may serve a notice of violation to the owner or responsible person of any public or private property as to which an illicit connection or illicit discharge exists. The notice of violation shall:

(1) Identify the provision(s) of this article, the applicable SWPPP, SWPCP, PCSMP, or permit alleged to have been violated;

(2) State that continued noncompliance may result in civil, criminal or administrative enforcement actions;

(3) State a compliance date;

(4) Describe the manner of abatement required;

(5) Order any necessary remediation work; and

(6) State that the city may recover its costs of abating the violation.

(B) The notice of violation may include where deemed applicable by the director, the following:

(1) Specific steps and time schedules for compliance as reasonably necessary to prevent threatened or future unauthorized illicit discharges, including but not limited to, the threat of an illicit discharge from any pond, pit, well, surface impoundment, holding or storage area;

(2) Specific steps and time schedules for compliance as reasonably necessary to discontinue any illicit connection;

(3) Specific requirements for containment, cleanup, removal, storage, installation of overhead covering or proper disposal of any pollutant having the potential to contact storm water;

(4) Any other terms or requirements reasonably calculated to prevent continued or threatened violations of this article including, but not limited to, requirements for compliance with BMPs guidance documents promulgated by any federal, state or local agency;

(5) Any other terms or requirements reasonably calculated to achieve full compliance with the terms, conditions and requirements of an applicable SWPPP, SWPCP, PCSMP or NPDES permit, or this article.

(C) Cease and Desist Orders.

(1) The director may issue a cease and desist order where the public health, safety and/or welfare requires the same, directing the owner or responsible person to:

(a) Immediately discontinue any illicit connection or illicit discharge to the storm drain system;

(b) Immediately contain or divert any flow of non-storm water off the property, where the flow is occurring in violation of this article;

(c) Immediately discontinue any other violation of this article; and

(d) Clean up the area affected by the violation.

(2) The director may direct by cease and desist order that the owner or responsible person immediately cease any activity not in compliance with the terms, conditions and requirements of the applicable plan, NPDES permit or this article. For construction projects and activities for which a grading or building permit is required a stop work order may be issued by the director or building and safety official of the city to ensure corrective actions are made to the satisfaction of the director. No construction work may proceed until corrective actions have been completed to the satisfaction of the director.

(3) A cease and desist order will be considered a notice of violation.

(D) Recovery of Costs. The director will serve an invoice for costs upon the owner or other responsible person who is subject to a notice of violation or a cease and desist order. If any owner or other responsible person fails to pay the invoice for costs, then the city may institute collection proceedings.

(E) Service of Notices. Any notice of violation, cease and desist order or invoice for costs (collectively, "order") must be served pursuant to the requirements of this article and will be subject to the following:

(1) Each order must state that the recipient has a right to appeal the matter as set forth in this article.

(2) The order must include the address of the affected property and be addressed to the owner as shown on the most recently issued equalized assessment roll or as may otherwise appear in the current records of the city.

(3) If the owner or other responsible person cannot be located after the reasonable efforts of the director, the order will be deemed served 10 business days after posting on the property.

(F) Emergency Abatement. The director is authorized to take any reasonably necessary precautions including, but not limited to, decontamination, packaging, dyking and transportation of materials, in order to protect life, protect property or prevent damage resulting from a condition which is likely to result in a discharge presenting an imminent hazard to the public health, safety or welfare; or which, either individually or in conjunction with other discharges, is an imminent hazard to the city's storm drain system, the environment or which places the city in violation of its NPDES permit. In the furtherance of such an operation, city personnel, any party contracting with the city or a duly authorized representative of another government agency will have immediate access to the premises. The director may prohibit access to the scene of such emergency by any person, vehicle, vessel or thing, and all persons not actually employed in the extinguishment of the condition or the preservation of lives and property in the vicinity thereof. Any costs incurred by the city in performing emergency abatement procedures may be recovered pursuant to subsection (D) of this section.

(G) Consecutive Violations. Each day in which a violation occurs and each separate failure to comply with either a separate provision of this article, a notice of violation, a cease and desist order, an applicable SWPPP, SWPCP, PCSMP, or a condition or requirement of a NPDES permit, constitutes a separate violation.

SEC. 22-231. APPEALS.

(A) Any person aggrieved by the issuance of an order may appeal from the issuance of such order in accordance with the following:

(1) Any such appeal must be filed in writing within 15 days of the date of service of the order by the director upon the appealing party.

(2) No such appeal will be valid for any purpose unless it is timely filed with the City Clerk and unless a filing and processing fee is paid contemporaneously with the filing thereof in an amount as set by city council resolution.

(3) Upon the timely filing of such an appeal, the hearing officer will set a time and place for a hearing on such appeal as expeditiously as is possible and notify the appellant in writing of the time and place of the hearing.

(4) At the time of such hearing, the hearing officer will permit any interested person to present any relevant evidence bearing on the matters involved in the issuance of the order which is the subject of the appeal. The hearing officer need not follow the strict provisions of the rules of evidence as utilized in a judicial proceeding but will follow the substance of such rule to the end that the decision rendered is based upon reliable relevant evidentiary material. The hearing officer's decision will be final and subject only to judicial review.

(B) The provisions of Sections 1094.5 and 1094.6 of the Code of Civil Procedure set forth the procedure for judicial review of any action taken by the city pursuant to this article."

Part 2. Severability. If any section, subsection, sentence, clause, phrase, part or portion of this Ordinance is for any reason held to be invalid or unconstitutional by any court of competent jurisdiction, such decision will not affect the validity of the remaining portions of this Ordinance. The City Council declares that it would have adopted this Ordinance and each section, subsection, sentence, clause, phrase, part or portion thereof, irrespective of the fact that any one of more section, subsections, sentences, clauses, phrases, parts or portions be declared invalid or unconstitutional.

Part 3. Pursuant to Government Code Section 36933(c)(1), the City Attorney was designated to prepare, and the City Clerk published, a summary of this ordinance, and a certified copy of the ordinance was posted in the Office of the City Clerk a minimum of five days before the City Council's adoption of the ordinance.

Part 4. The City Clerk shall certify as to the adoption of this ordinance and shall cause the summary thereof to be published within fifteen calendar (15) days of the adoption and shall post a certified copy of this ordinance, including the vote for and against the same, in the office of the City Clerk, in accordance with Government Code Section 36933. Ordinance No. 2876 was first read on November 5, 2013, and finally adopted on _____, 2013, to become effective thirty days thereafter.

AYES:

NOES:

ABSENT:

_____
Tim Flynn, Mayor

ATTEST:

Daniel Martinez, City Clerk

APPROVED AS TO FORM:

Stephen M. Fischer, Acting City Attorney