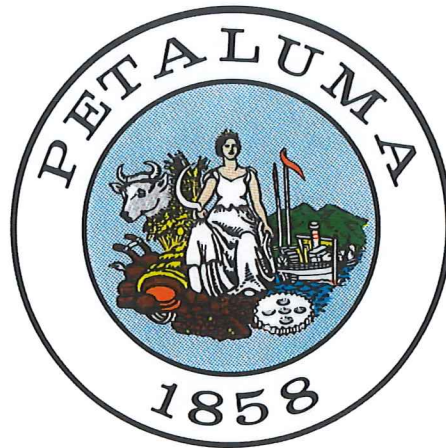


# **City of Petaluma**

## **Sewer System Management Plan**

### **January 2021**



CITY OF PETALUMA  
Department of Public Works & Utilities  
202 North McDowell Blvd.  
Petaluma, CA 94954

**WDID# 2SS010165**

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## APPENDICES

A list of appendix materials for each element (as applicable) is shown at the end of the element and on the first page of each respective appendix.

## CERTIFICATION

I certify under penalty of law that this Sewer System Management Plan, and the subparts contained herein, comply with the requirements set forth in the General Waste Discharge Requirements (WDR) for Sanitary Sewer Systems, Order No. 2006-0003 and MRP WQ 2013-0058 Exec. I further certify that this document and all attachments were prepared under the City of Petaluma direction and supervision in accordance with its policies and procedure to assure that qualified personnel properly provided, evaluated, and incorporated the information reflected in this document, that the information included in this document is, to the best of my knowledge and belief, true, accurate and complete.



**Kent Carothers, P.E.**

Deputy Director of Public Works & Utilities - Operations



**Date**

## List of Abbreviations & Acronyms

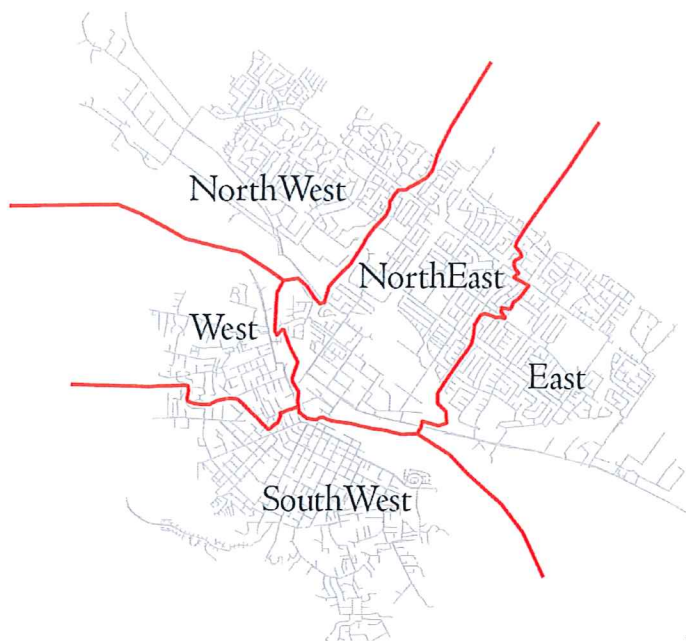
BACWA	Bay Area Clean Water Agencies
BMP	Best Management Practice
BWF	Base wastewater flow
CCTV	Closed circuit television
CDFG	California Department of Fish and Game
CIP	Capital Improvement Plan
CIWQS	California Integrated Water Quality System
CM	Corrective Maintenance
CMMS	Computerized Maintenance Management System
CMOM	Capacity, Management, Operations and Maintenance
CIP	Capital Improvement Program
CWEA	California Water Environment Association
ECS	Environmental Compliance Services
EDU	Equivalent Dwelling Unit
ERP	Emergency Response Plan
FOG	Fats, Oils, Grease
FSE	Food service establishment
GIS	Geographical Information System
gpm	gallons per minute
GPS	Global Positioning System
GWI	Groundwater Infiltration
I/I	Inflow / Infiltration
ICOM3 -	Maintenance and Condition Assessment Database
IEC	Infrastructure Engineering Corporation
ISDHH	Imminent and substantial danger to human health
mgd	million gallons per day
MRP	Monitoring and Reporting Program
NPDES	National Pollution Discharge Elimination System
O&M	Operation and Maintenance
OERP	Overflow Emergency Response Plan
OES	Office of Emergency Services
OSHA	Occupational Safety and Health Administration
POSM	Pipeline Observation System Management
POTW	Publicly-Owned Treatment Works
PM	Preventative Program
PWU	Public Works & Utilities
R&R	Rehabilitation and Replacement
RDI/I	Rainfall-dependent infiltration and inflow
RWQCB	Regional Water Quality Control Board
SCADA	Supervisory Control and Data Acquisition
SHECAP	Sewer Hydraulic Evaluation and Capacity Assessment Plan
SMP	Standard Maintenance Procedure
SOP	Standard Operating Procedure
SSMP	Sewer System Management Plan
SSO	Sanitary Sewer Overflow
SWRCB	State of California Water Resources Control Board
TM	Technical Memorandum
WDR	Waste Discharge Requirements
WPCP	Water Pollution Control plant

# Introduction

## City Service Area and Sewer System

The City of Petaluma (the City) is located in southern Sonoma County with the cities of Santa Rosa and Rohnert Park to the north and Novato to the south. As of 2008, The City has a population of approximately 60,870 based on estimates from the Metropolitan Transportation Commission and the Association of Bay Area Governments. The City has experienced a near zero growth in population and industry over the last 8 years. The city covers approximately 15.5 square miles with a population density of 3,950 persons per square mile. Petaluma is situated within the Petaluma River watershed, which covers an area of 146 square miles that extends southward to San Pablo Bay. A significant amount of the city is in the river's flood plain.

The City's sewer system consists of approximately 3,740 manholes and 196 miles of pipe, ranging from 6 inches to 54 inches in diameter, and 9 pumping stations. Petaluma's wastewater utility provides 24-hour collection, treatment, disposal and reuse of domestic, commercial and industrial wastewater generated by Petaluma, portions of unincorporated Sonoma County, and the community of Penngrove. The sewer system is conveyed to and treated at the City's Ellis Creek Water Recycling Facility. The facility began treating the City's wastewater in 2009 and treats about 5 million gallons of high quality secondary effluent each day, with a design capacity of 6.7 million gallons per day (mgd) of dry weather flow. In the winter time, the wastewater is introduced back into the Petaluma River. During the summer, the recycled water is introduced into the City's recycled water system and used for irrigation of agricultural lands, two golf courses, and a vineyard. The City annually produces about 600 million gallons of recycled water.



## Regulatory Background

This Sewer System Management Plan (SSMP) describes the City of Petaluma's (City's) wastewater collection system management activities. The purpose of these activities is to:

1. Maintain and improve the condition of the collection system infrastructure,
2. Control infiltration/inflow (I/I) and provide appropriate sewer capacity, and to
3. Minimize the number and impact of sanitary sewer overflows (SSOs) that occur.



The State Water Resources Control Board (SWB) has issued statewide waste discharge requirements for sanitary sewer systems which include requirements for development of an SSMP. The State Water Board requirements are outlined in Order No. 2006-0003-DWQ, Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, dated May 2, 2006 (SWB SSO WDR) and the MRP WQ 2013-0058-Exec.

The SSMP is also required by the San Francisco Bay Regional Water Quality Control Board (RWB) in cooperation with the Bay Area Clean Water Agencies (BACWA).

This SSMP includes the elements required by both the SWB and RWB. There are some differences in the requirements and in the organization of the elements between the programs. The difference in organization is outlined in **Table 1**, below. This SSMP is organized following the SWB SSO WDR; **Table 1** identifies the corresponding sections in the RWB SSMP Development Guide.

Both SWB and RWB SSMP requirements are included and addressed in each element. Requirement language has been directly copied from the SWB SSO WDR and the RWB SSMP Development Guide. The SWB SSO WDR uses the term “Enrollee” to mean each individual municipal wastewater agency that has completed and submitted the required application for coverage under the WDR (in this case, the Enrollee is the City of Petaluma). The term “Order” is equivalent to “SWB SSO WDR”, “Regional Water Board” is equivalent to “RWB”, and “State Water Board” is equivalent to “SWB”.

**Table 1. Comparison of State and Regional Water Board SSMP Element Terminology and Development Deadlines**

	State Water Board SSMP Requirements for Agencies Serving 10,000 to 100,000 People		Regional Water Board SSMP Requirements	
	Name of Element	Deadline	Name of Element	Deadline
1	Goals	Nov 2, 2007	Goals	
2	Organization		Organization	
3	Legal Authority	May 2, 2009	Overflow Emergency Response Plan	Aug 31, 2006
4	Operation and Maintenance Program		Fats, Oils, and Grease (FOG) Control Plan	
5	Design and Performance Provisions	Aug 2, 2009	Legal Authority	Aug 31, 2007
6	Overflow Emergency Response Plan	May 2, 2009	Measures and Activities	
7	FOG Control Program		Design and Construction Standards	
8	System Evaluation and Capacity Assurance Plan	Aug 2, 2009	Capacity Management	Aug 31, 2008
9	Monitoring, Measurement, and Program Modifications		Monitoring, Measurement, and Program Modifications	
10	SSMP Audits		SSMP Audits	
11	Communications Plan			