



COUNTY OF SAN MATEO
Inter-Departmental Correspondence
Public Works



Date: June 26, 2014
Board Meeting Date: August 5, 2014
Special Notice / Hearing: None
Vote Required: Majority

To: Honorable Board of Supervisors, Acting as the Governing Board of the ten County Sewer/Sanitation Districts

From: James C. Porter, Director of Public Works

Subject: Re-certification of the Sewer System Management Plan for the ten County Sewer/Sanitation Districts Governed by the Board of Supervisors

RECOMMENDATION:

Acting as the Governing Board of the ten County Sewer/Sanitation Districts, adopt a Resolution:

- A) Re-certifying the Sewer System Management Plan in accordance with the California State Water Resources Control Board Statewide General Waste Discharge Requirements for Sanitary Sewer Systems; and
- B) Directing the Director of Public Works to implement and periodically update the revised Sewer System Management Plan as necessary to comply with current regulatory requirements and best practices.

BACKGROUND:

On May 2, 2006, the California State Water Resources Control Board (State Water Board) adopted the Statewide General Waste Discharge Requirements (GWDR) for Sanitary Sewer Systems Order No. 2006-0003 (Order) to provide a consistent, statewide regulatory approach to address sanitary sewer overflows (SSOs). All public agencies that own or operate sanitary sewer systems greater than one mile in length that collect and/or convey wastewater to publicly owned treatment facilities are required to comply with the Order.

The Order requires that these public agencies report all SSOs in the State Water Board's online SSO database and seek approval from their governing board for the development of a Sewer System Management Plan (SSMP) and the final SSMP at a public meeting. The Order also requires agencies to update their SSMPs every five

years to include significant program changes and re-certify the SSMP by their governing board at a public meeting when significant updates to the SSMP are made.

The SSMP documents an agency's existing or proposed programs to properly operate and maintain its sanitary sewer system. The SSMP must address eleven (11) specific elements in accordance with the Order. Exhibit "A" includes the "Summary of the Eleven Sewer System Management Plan (SSMP) Requirements".

The ten County Sewer/Sanitation Districts (Districts) governed by your Board provide sanitary sewage collection, transport, treatment and disposal services to approximately 12,000 residences, businesses, schools, and institutions in ten (10) areas of San Mateo County with an estimated total population of 60,000 based on the Year 2000 Census.

On August 25, 2009, your Board adopted Resolution No. 070339, approving the SSMP prepared in accordance with the Order and directing the Director of Public Works to implement and periodically update the SSMP as necessary to comply with current regulatory requirements and best practices.

DISCUSSION:

Since the SSMP was approved in 2009, the Department has periodically updated portions of the SSMP to comply with current regulatory requirements and best practices. However, the SSMP must be re-certified at this time to comply with the five year re-certification requirement of the Order.

The most significant changes to the SSMP elements are described below:

Element 3 "Overflow Emergency Response Plan"

The Sanitary Sewer Overflow (SSO) Reporting Form, SSO Reporting Procedures and SSO Field Response Procedures have been modified. Newly developed SSO Cleanup Standard Operating Procedures (SOP) and Water Quality Monitoring Program Plan have been added to this element.

Element 4 "Fats, Oils, and Grease (FOG) Control Program"

This Element has been updated by adding inspections of food service establishments that are within both the unincorporated areas of San Mateo County and the Silicon Valley Clean Water (SVCW, formerly South Bayside System Authority [SBSA]) service area. Descriptions of SVCW's FOG Program and the SOP for Restaurant Grease Inspection have also been added to this Element.

Element 8 "Capacity Management (System Evaluation and Capacity Assurance Plan)"

This Element has been updated to identify Districts with hydraulically deficient (capacity related) projects. The Element was also modified to document the Sewer System Flow Monitoring and Hydraulic Modeling Projects completed for the Burlingame Hills Sewer Maintenance District (BHSMD) and the Crystal Springs County Sanitation District (CSCSD) in 2011. In addition, the closed circuit television (CCTV) inspection of the

sewer systems in BHSMD, CSCSD and part of Emerald Lake Heights Sewer Maintenance District have been documented as completed in this Element.

Element 10 “SSMP Audits”

This Element has been modified to include specific questions to be asked for each element of the SSMP as part of the required audit process.

The revised SSMP in its entirety is available on the Public Works Sewer Services web page at:

<http://publicworks.smcgov.org/sites/publicworks.smcgov.org/files/San%20Mateo%20Co%20SSMP%202014-07.pdf>.

County Counsel has reviewed and approved the Resolution as to form.

Approval of this action will contribute to the Shared Vision 2025 outcome of a Healthy Community by providing an updated plan to manage the Districts effectively to minimize sanitary sewer overflows, which may pollute surface or ground water, threaten public health, and impair the recreational use of surface waters.

FISCAL IMPACT:

The cost of implementing the SSMP will be charged to each district proportionately based on the number of equivalent residential units per district. The State Water Board also requires that an annual fee be paid for enrollment in the mandatory online reporting program. Costs for complying with the SSO reporting requirement will be allocated to the specific district that experienced an SSO.

There is no impact on the General Fund.

Exhibit “A”: Summary of the Eleven Sewer System Management Plan (SSMP) Requirements

Exhibit “A”

Summary of the Eleven Sewer System Management Plan (SSMP) Requirements

1. Goal

The goal of the SSMP is to provide a plan to properly manage, operate, and maintain all parts of the sanitary sewer system. This will help reduce and prevent sanitary sewer overflows (SSOs), as well as mitigate any SSOs that do occur.

2. Organization

The SSMP must identify the name of the representative responsible for the overall operation of the regulated facility, and names and phone numbers for management, administrative, and maintenance positions. It includes lines of authority through an organization chart and chain of communication for reporting SSOs.

3. Legal Authority

The agency must demonstrate its legal authority to:

- a) Prevent illicit discharges into its sanitary sewer system;
- b) Require that sewers and connections be properly designed and constructed;
- c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the agency;
- d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
- e) Enforce any violation of its sewer ordinances.

4. Operation and Maintenance Program

The SSMP must include the following elements:

- a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;
- b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program

should have a system to document scheduled and conducted activities, such as work orders;

- c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;
- d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and
- e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

5. Design and Performance Provisions

The SSMP must include:

- a) Design and construction standards and specifications for the installation of new sanitary sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and
- b) Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

6. Overflow Emergency Response Plan

The agency shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

- a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

- b) A program to ensure an appropriate response to all overflows;
- c) Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities of all SSOs that potentially affect public health or reach the waters of the State. All SSOs shall be reported in accordance with the Regional and State Water Boards. The SSMP should identify the officials who will receive immediate notification;
- d) Procedures to ensure that appropriate staff and contractor personnel are aware of and follow the Emergency Response Plan and are appropriately trained;
- e) Procedures to address emergency operations, such as traffic and crowd control and other necessary response activities; and
- f) A program to ensure that all reasonable steps are taken to contain and prevent the discharge of untreated and partially treated wastewater to waters of the United States and to minimize or correct any adverse impact on the environment resulting from the SSOs, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the discharge.

7. Fats, Oils, and Grease (FOG) Control Program

The agency shall evaluate its service area to determine whether a FOG control program is needed. If determined that a FOG program is not needed, the agency must provide justification for why it is not needed. If FOG is found to be a problem, the agency must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. This plan shall include the following as appropriate:

- a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;
- b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;
- c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;

- d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, Best Management Practice (BMP) requirements, record keeping and reporting requirements;
- e) Authority to inspect grease producing facilities, enforcement authorities, and whether the agency has sufficient staff to inspect and enforce the FOG ordinance;
- f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and
- g) Development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each section identified in (f) above.

8. System Evaluation and Capacity Assurance Plan

The agency shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key sanitary sewer system elements for dry weather peak flow conditions, as well as the appropriate design storm or wet weather event. At a minimum, the plan must include:

- a) **Evaluation:** Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from SSOs that escape from the system) associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies (including components of the system with limiting capacity) and the major sources that contribute to the peak flows associated with overflow events;
- b) **Design Criteria:** Where design criteria do not exist or are deficient, undertake the evaluation identified in (a) above to establish appropriate design criteria; and
- c) **Capacity Enhancement Measures:** The steps needed to establish a short- and long-term CIP to address identified hydraulic deficiencies, including prioritization, alternatives analysis, and schedules. The CIP may include increases in pipe size, I/I reduction programs, increases and redundancy in pumping capacity, and storage facilities. The CIP shall include an implementation schedule and shall identify sources of funding.
- d) **Schedule:** The agency shall develop a schedule of completion dates for all portions of the capital improvement program developed in (a)-(c) above. This schedule shall be reviewed and updated consistent with the SSMP review and update requirements.

9. Monitoring, Measurement, and Program Modifications

The agency shall:

- a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;
- b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;
- c) Assess the success of the preventative maintenance program;
- d) Update program elements, as appropriate, based on monitoring or performance evaluations; and
- e) Identify and illustrate SSO trends, including: frequency, location, and volume.

10. SSMP Program Audits

The agency shall conduct periodic internal audits, appropriate to the size of the system and the number of SSOs. At a minimum, these audits must occur every two years and a report must be prepared and kept on file. This audit shall focus on evaluating the effectiveness of the SSMP and the agency's compliance with the SSMP requirements, including identification of any deficiencies in the SSMP and steps to correct them.

11. Communication Program

The agency shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the agency as the program is developed and implemented. The agency shall also create a plan of communication with systems that are tributary and/or satellite to the agency's sanitary sewer system.