



South Placer Municipal Utility District

Sewer System Management Plan

SSMP

Audit Report

Performed By: Technical Services Department

Sam Rose – Technical Services Manager

____/____/____
Date

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Introduction

The Sewer System Management plan (SSMP) is a guiding document developed by the District and ECO:LOGIC Engineers to meet the requirements of the Statewide Order 2006-003-DWQ (GWDR). The purpose of the SSMP is to facilitate proper management of the sewer system, and in so doing, reduce occurrences of sanitary sewer overflows (SSO's). The SSMP is designed to protect the public and the environment and to conform to the Orders set forth by California's State Water Resources Control Board and Region 5S of the Regional Water Quality Control Board.

The SSMP is a living document that is updated and revised to reflect changes in practices, procedures, technology and the collection system. The District's Board of Directors adopted the SSMP in August, 2009.

Regulatory Background

Element 10 of the SSMP: SSMP Program Audits – "As a part of the SSMP, the enrollee is required to conduct periodic internal audits, appropriate to the size of the system and number of SSO's. 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 Enrollee's compliance with the SSMP requirements identified in subsection (D.13), including identification of any deficiencies in the SSMP and the steps to correct them."

The District will determine the need to update the SSMP based on the outcome of the audit and the performance of the collection system.

Audit Process

This audit was performed by the District's Technical Services Department. This audit is organized by each of the SSMP elements. For each section of the SSMP, the following guiding questions were asked:

1. Does this section comply with the State Order?
2. Did the District comply with this section of the SSMP?
3. Is this section of the SSMP effective? (where applicable)

Supporting information is then presented in a discussion for each section.

Updates to the SSMP, as a result of this audit are summarized in Table 1 at the end of this report.

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Section 1: GOALS

GWDR Requirement

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

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

The goals stated in this SSPM are those goals stated in the District's 2007 Strategic Plan (updated in 2008). This section is compliant with the GWDR requirements, as the goals, objectives and strategies stated in the Strategic Plan address all aspects of the District function and operation including: Customer Service, Water Quality and environmental Protection, Long Term needs, Long Term Infrastructure investment, Long Term Financial Stability, Workforce Planning and Development.

The District is in compliance with this section, as the goals stated remain valid and in line with the District's Mission and Vision statements and relevant to this SSMP.

These goals are effective, as they are the grand goals of the District that guide and dictate the more specific goals achieved through the District's Maintenance Work Plans. The Work Plans, the day-to-day operations of the system, are prioritized and have goals based on the concept of preventing disruptions to service and related SSO's.

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Section 2: Organization

GWDR Requirement

The SSMP must identify:

- A. *The name of the agency's responsible or authorized representative;*
- B. *The names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and*
- C. *The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency (OES)).*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

- A. The District's authorized representative is Charles Clark, as identified in the SSMP.
- B. Staff contact information and lines of authority are documented in the SSMP, Section 2 and the Organization Chart located in Appendix A.

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C. The chain of communication for responding to spills is current and documented in the District's Emergency Response Manual.

The District is organized into three departments – Administration, Maintenance and Technical Services. The District has a full-time staff of 23 and 2 to 5 Temporary Laborers.

The Maintenance department provides routine maintenance and repair work for the District's sewer system. Currently there are 249 miles of mainline pipe in the system and 12 employees in the Maintenance department, which equates to 21 miles of pipe per employee. The Superintendent manages the Maintenance department with the following positions under his supervision:

Foreman (x1) Lead Workers (x2) Maintenance Worker III (x1)
 Maintenance Worker II (x6) Maintenance Worker I (x2)

The Maintenance III has the responsibility for the maintenance and inspection of the District's 10 lift stations.

Historically, the District has maintained a consistent ratio of field/maintenance employees per 100 miles of pipe.

Year	1995	1997	1999	2001	2003	2004	2006	2007	2009	2011
Field Workers	8.5	8.5	9	10	11	11	12	12	12	12
Pipe Miles x 10	15.0	15.3	17.2	19.2	20.9	21.5	23.7	24.4	24.6	24.9
Miles pipe/Field Wkr	17.6	18.0	19.1	19.2	19.0	19.5	19.8	20.3	20.5	20.8
EDU's x1000	14.1	15.8	18.6	21.8	24.5	25.8	27.7	28.0	29.3	29.9
EDU/Field Wkr	1659	1859	2067	2180	2227	2345	2306	2333	2442	2492

Technical Services supports the Maintenance Department by providing engineering services, new construction inspection, GIS, IT, Public Outreach and facilitating the FOG programs. The Technical Services Manager heads this department and supervises the following positions:

Engineering Technician I/II (x1*) Field services Technician (x1)
 Inspector I/II – New Construction (x1) Inspector I/II – Source Control (x1)

* One vacant Engineering Technician position

Three (3) personnel are trained as emergency responders for SSO's.

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There have been organizational changes made since the SSMP was adopted in August 2009. These changes took place in the Technical Services Department. The positions of Engineering Manager and Construction Manager have been abolished and replaced with the position of Technical Services Manager. The (former) Engineering Manager is employed on a part-time basis. The Technical Services Manager assumes the responsibilities of the (abolished) positions mentioned above. Edits were made to Table 2.0 (page 7) and Table 2.1 (page 8) as appropriate and the District's Organizational Chart (Appendix A) current and properly depicts the organization.

This section of the SSMP is effective, as all responsible parties are identified and contact information is up-to-date, the line of authority is documented, clear and understood by all District personnel, and the chain of communication for responding to SSO's is documented, understood by all involved. This has been demonstrated through training and responses to SSO's.

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Section 3: Legal Authority

GWDR Requirement

Each Enrollee must demonstrate, through sanitary sewer system use ordinances, service agreements, or other legally binding procedures, that it possesses the necessary legal authority to:

- A. *Prevent illicit discharges into its sanitary sewer system, including I/I from satellite wastewater collection systems and laterals, storm water, unauthorized debris, etc.;*
- B. *Require proper design and construction of sewers and connections;*
- C. *Ensure access for maintenance, inspection and repairs to publicly owned portions of laterals;*
- D. *Limit the discharge of FOG and other debris that may cause blockages; and*
- E. *Enforce violations of its sewer ordinances.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

- A. Achieved through Ordinances 09-02 (Sewer Use)
- B. Achieved through M.U.D. Act and Ordinance 09-02 (Sewer Use)
- C. Achieved through Ordinance 09-02 (Sewer Use)
- D. Achieved through Ordinance 09-01 (FOG Control)
- E. Achieved through the M.U.D. Act.

The District Ordinance 09-01 (FOG Control) was established in July, 2009. To date, there have been few opportunities to apply this ordinance. The development of the

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District's FOG Source Control program nears completion, anticipated to be in effect during the 2011/2012 fiscal year. The Ordinance will be monitored for effectiveness during the implementation of the FOG Source Control program.

Ordinance 09-02 was updated in July, 2009 and has historically served the District well.

Ordinance 88-3 adopts the City of Roseville's Industrial Pre-Treatment code. What the District transport through its collection system is treated at the City of Roseville's treatment plants. The City dictates what they will receive. As partners in the treatment plant, this ordinance serves the District well.

This section of the SSMP is effective, as all aspects of legal authority required by the SSMP are addressed. District personnel (required to do so) are able to properly interpret and apply the ordinances and the M.U.D. Act.

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Section 4: Operation and Maintenance Program

GWDR Requirement

The SSMP must include the elements listed below that are appropriate and applicable the Enrollee's system:

- A. *Each wastewater collection system agency shall maintain up-to-date maps of its wastewater collection system facilities, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable storm water pumping and piping 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 Preventive Maintenance (PM) program should have a system to document scheduled and conducted activities, such as works 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 system for ranking the conditions 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.*

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Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

- A. Facilities maps are current and updated on an on-going basis.
- B. During the fiscal year 2010/2011 District staff performed an evaluation of the (written) Maintenance Work Plans with focus on optimizing District resources. As a result, there has been a change in priorities and a plan was developed to distribute resources (personnel and equipment) accordingly. These changes were implemented July, 2011.

The driving force behind the prioritization of activities was the prevention of system disruptions and the related SSO's. Though the District has historically performed well in this area, a commitment to continuous improvement is a core value of the District and, in light of the current economy and its impact on the District and its rate-payers, the District believed that it was appropriate at this time to ensure that these functions were efficient and resources were optimized. The changes to the Work Plans were to a greater extent related to how the work is scheduled and to a lesser extent how the work is performed. Work Plans are on file at the District offices.

All work is documented in the District's WasteWater Management System (WWMS) database.

- C. The District's Rehabilitation and Replacement Plan:

Short-Term:

The District is in the fourth year of its Hot Spot Elimination Program; currently 31 high frequency lines have been rehabilitated. The program was developed without a completion date. The line segments with the highest frequency intervals have been completed.

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The District condition assessment program is a continuous process. Defects identified are rated and the most severe defects are repaired first. This information is updated on a continuous basis primarily from the data collected through the CCTV inspection process. Updated information on defects and their severity ratings are available. The defects with the most severe ratings (3) are repaired first. Reports generated from this data serve as a prioritized list of work to be done. Work is scheduled from this list.

Improvement Identified: The budgeting process is used for short-term planning. This works well for a single year. What the District lacks is a (formal) time line for completion of repairs over a five-year period. The District will develop a formal Five-Year CIP during the first of the current fiscal year (7/1/2011 – 12/31/2011)

Correction:

Develop a 5-year CIP. To be completed during the 2011/2012 fiscal year

Long-Term:

The District's current Master Plan identifies long-term capital improvement projects along with a timeline for completion. These projects are generally capacity-related improvements.

- D. The District established a Safety and Training Committee during the 2010/2011 fiscal year. This committee consists of the Superintendent, Technical Services Manager, Foreman, and Leadworkers (x2). The purpose is to review and evaluate/update the current safety and training programs, ensure all necessary training is being performed, ensure the corporate culture of the District continues to make safety a top priority and to maintain employee enthusiasm that is necessary for success.

Improvement Identified:

- (1) Review of Safety/Training records revealed that Traffic Control Safety, Trench Shoring training and Generator Operations were not conducted.

*Staff indicates the generator operation training was performed,
but there is no documentation.*

- (2) District does not have a formal/documented training program for the proper and safe operation of equipment.

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This training has historically been on-the-job training without documentation. Initial training (provided by manufacturer) for some (9) personnel is documented – 2007/Vacon Hydro-vac unit)

- (3) District does not have an audit method in place to ensure items one and two above.

Correction:

District is currently developing written training procedures for (both) high pressure hydro-vac units, each CCTV unit and the power rodding and hand rodding units. This will be completed by September 30, 2011. Once completed, all field personnel will be (formally) trained; training will be evaluated/approved by a supervisor and documented. Refresher training will occur annually for 4 years after initial training. Initial training will occur every 5 years.

A monitoring method has been established. The Foreman is responsible for the training program and will administer the monitoring process. The Foreman will ensure all training is performed according to the schedule and all (required) personnel have successfully passed/performed the training requirements.

All required training is now in a training schedule. The Foreman is responsible to ensure training is scheduled and performed. Once training is complete, the supervisor responsible for the training shall submit to the Foreman the training records for review.

Quarterly, the Superintendent will audit the training records to ensure adherence to the schedule and all employees have received the training.

E. Equipment and replacement parts inventory:

The District maintains a 'critical' equipment and parts inventory. In 2010 the District constructed a Secure Equipment facility with one portion dedicated to the storage of critical inventory. Currently critical parts are stored inside the corporation yard building and in the Secure Equipment facility.

Improvement Identified:

- (1) There is no documentation that the District's equipment and replacement parts inventory is audited on a periodic basis.
- (2) There is no method in place to ensure the inventory is current/up-to-date.

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(3) Inventory items are not clearly identified.

Personnel (Foreman and Maintenance Worker III) are aware of each part's location, purpose and compatibility with different lift stations.

Correction:

The Foreman is responsible for the bi-annual audit. A Critical Parts inventory audit form has been developed. This form lists all critical parts, the minimum quantity to be kept on hand and the lift stations each is compatible with. This audit will be performed twice per year by the Maintenance Worker III and audited by the Foreman. This process will also ensure the inventory is current.

Inventory items will be clearly labeled with a unique identifier (number) and reference chart indicating part name, model, and lift station compatibility. Parts will be stored in clearly labeled locations and ordered numerically.

Overall, this section of the SSMP is effective. The processes in place to carry out the required functions (map updates, work plans, rehabilitation & repair, training and critical parts inventory) work well. The deficiencies (mentioned above) have been identified and corrective measures implemented.

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Section 5: Design and Performance Provisions

GWDR Requirement

The SSMP must include the elements listed below that are appropriate and applicable the Enrollee's system:

- 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 for rehabilitation and repair projects.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

The District's Standard Specifications and Improvement Standards for Sanitary Sewers provides inspection and testing standards for new and repaired/rehabilitated sewer facilities. This document was reviewed and revised in November, 2009. The District's General Manager has the authority, through the District Board of Directors and the MUD Act, to make changes to this document as necessary. Any pertinent changes in regulatory requirements or industry procedures/processes are addressed/incorporated during the plan check process for new construction and through contract documents for rehabilitation or repair projects performed by contracted services. District crews performing work on sewer facilities are guided by the Standard Specifications.

In December, 2010, the General Manager authorized a change to the Standard Specifications related to sand/oil separators. No other changes have been made and the document is current.

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This section of the SSMP is effective, as the District Standards are in line, or exceed, industry standards; they are understood and are properly applied by developers and contractors; they are properly enforced by District personnel; and District facilities installed under these guidelines are performing as expected.

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Section 6: Overflow Emergency Response Plan

GWDR Requirements

Each Enrollee 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 overflows;*
- C. Procedures to ensure prompt notification to appropriate regulatory agencies and other potentially affected entities (e.g. health agencies, Regional Water Boards, water suppliers, etc.) of all SSOs that that potentially affect public health or reach the waters of the State in accordance with the MRP. All SSOs shall be reported in accordance with this MRP, the California Water Code, other State Law, and other applicable Regional Water Board WDR's or NPDES permit requirements. The SSMP should identify the officials who will 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 the 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.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

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Discussion:

The District's Emergency Response Plan addresses all items listed above.

Improvement Identified – Field Documentation

Review of field documentation revealed inadequate record for spill estimations. The spill estimation methods contained in the District's Emergency Response Manual were employed, but not documented (per interviews with responding personal). This has been corrected moving forward. The District established a Spill Response audit method that includes a progression of review from the field supervisors, through the foreman to the Superintendent/LRO. The Technical Services Manager will perform final review of all spill reports for completeness and accuracy.

The District's Emergency Response Plan was audited and updated during July, 2011. New spill estimation methods have been created and implemented by District staff and a method for determining and documenting Spill Start Time has been created.

District personnel have worked to improve Spill Estimation methods and have presented their findings at the CWEA Northern Regional Training Conference in Modesto (September 2010) and at CWEA/Sacramento Area Section - Collection Systems Committee - Benchmarking sessions in June, 2011. In addition, the District designed and constructed a Spill Simulator for the purposes of training, improvement of current spill estimation methods and development of new methods.

The District became a member of Cal-WARN in June, 2011. Cal-WARN is a Mutual Assistance program made up of Water and Wastewater agencies in California and its purpose is to provide assistance in the form of personnel and equipment in the event of an emergency that a member agency is unable to effectively respond.

The District has had a Mutual Aid arrangement with its regional partners (City of Roseville and Placer County) for over ten years. In 2009 the District entered into a formal Mutual Agreement with Placer County Water Agency.

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Spill Summary	2007	2008	~2009	2010	*2011	Tot.
Number of Category 1 SSO's	1	0	0	0	0	1
Number of Category 2 SSO's	1	4	2	1	0	8
Mainline Spill	1	1	0	1	0	3
Lower Lateral Spill	1	3	1	0	0	5
Lift Station Spill			1	0	0	1
Total Gallons Spilled	60	90	161	500	0	811
Total Gallons Recovered	30	90	161	500	0	781
SSO Caused by:						
Roots	2	3	1	1	0	7
Grease	0	0	0	0	0	0
Capacity	0	0	0	0	0	0
Lift Station / Operator Error	0	0	1	0	0	1
Construction Debris	0	1	0	0	0	1

* From January 1, 2011 through July 19, 2011

~ July 2, 2011 Adopted Sewer Use Ordinance 09-02, which relinquished ownership of Lower Laterals

This section of the SSMP is effective; as the District has experienced 9 SSO's since January 1, 2007. Each SSO was responded to properly, reported as required.

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Section 7: FOG Control Program.

GWDR Requirement

Each Enrollee shall evaluate its service area to determine whether a FOG control Program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. The 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 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 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 removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements;*
- E. Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee 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.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

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YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

Historically, the District has addressed FOG in the sewer system by identifying the trouble spots and maintaining the proper cleaning schedule to prevent blockages and related SSO's. In March, 2009 the District established Ordinance 09-01, AN ORDINANCE ESTABLISHING REQUIREMENTS REGARDING FATS, OIL AND GREASE. Prior to this, FOG was addressed in the District's Sewer Use Ordinance.

During the 2010/2011 fiscal year, the District employed a consulting (engineering) firm to assistance with the development of a formal Commercial FOG (source control) program that is directed at Food Service Establishments. It is anticipated to be implemented during the 2011/2012 fiscal year.

Also, during the 2010/2011 fiscal year, the District enhanced its Residential FOG program by participating in outreach efforts at community events, developing an informational flyer to be distributed to residents the District serves and establishing a residential FOG Pick up service where residents collect their kitchen grease in containers, call the District and have their FOG taken away and properly disposed.

This section of the SSMP is effective, as the District has not experienced a FOG-related blockage/SSO since the adoption of this SSMP.

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Section 8: System Evaluation and Capacity Assurance Plan

GWDR Requirement

The Enrollee 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 SSO's that escape 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 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;*
- 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; and*
- D. *Schedule: The Enrollee shall develop a schedule of completion dates for all portions of the capital improvement program developed in (A) and (C) above. This schedule shall be reviewed and updated consistent with SSMP review and update requirements as described in Section D. 14.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

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Is this section of the SSMP effective?

YES NO

Discussion:

The District updated its Master Plan, which included a hydraulic model of the sewer system, in January 2009. The model identifies areas that (currently) spill during a ten-year-six-hour rain event, the design storm for the hydraulic model. Historic records and staff experience indicate this is not the case. Staff believes that the model was not calibrated with accurate data.

During the 2006/2007 fiscal year a Dry Weather Flow Study was performed. The rainfall during the years in between the studies was below normal and deemed insufficient for use with the hydraulic model. From October 2010 through May, 2011, the District performed a system-wide Wet Weather Flow Study.

The (current) Fiscal Year Budget (2011/2012) specifies funds for the purpose of running the hydraulic model using the recent storm/flow data.

This section of the SSMP is effective, as the District has experienced no capacity related spills since the adoption of the SSMP in 2009.

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Section 9: Monitoring, Measurement, and Program Modification.

GWDR Requirement

The Enrollee 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.*

Audit Question(s):

Does this section comply with the State Order?

YES NO

Did the District comply with this section of the SSMP?

YES NO

Is this section of the SSMP effective?

YES NO

Discussion:

1. The District maintains records on all maintenance and operation activities. Monthly reports are generated by field supervisors on work completed. This is submitted to the Superintendent for review.

The District reviews and evaluates SSO trends annually.

The District reviews and evaluates the maintenance work plans annually.

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Improvement Identified:

Measuring and monitoring the elements of the SSMP has been performed, but in an informal manner, that was not documented. Work plans are reviewed annually and adjusted as necessary. SSO trends are maintained and analyzed. How the District is performing in this area, relative to historic performance is a key indicator of the success of the SSMP.

Updates to the SSMP, mostly related to responsible parties and contact information, were performed, but not formalized.

There is not a formal process in place to monitor the implementation and measure the effectiveness of each SSMP element.

Correction:

Each element will be reviewed and evaluated quarterly using the SSMP Monitor, Measure, Modify Audit form, which uses the following guiding questions for evaluation purposes:

1. Is this Element still in compliance with the Statewide Order?
2. Is this Element effective in achieving District goals?
3. Is the District effectively carrying out the requirements of this Element

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Section 10: SSMP Program Audits

GWDR Requirement

As part of the SSMP, the Enrollee shall conduct periodic internal audits, appropriate to the size of the system and 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 Enrollee's compliance with the SSMP requirements identified in this subsection (D. 13), including identification of any deficiencies in the SSMP and steps to correct them.

Audit Question(s):

Is an update to the District's SSMP warranted based on the results of the audit?

YES NO

Discussion:

The following table lists the updates made to the SSMP and/or changes implemented in programs/processes as a result of this Audit.

	Section	Updates and/or Changes Implemented
1	Goals	No Updates
2	Organization	No Updates
3	Legal Authority	No Updates
4	Operation & Maintenance	<ul style="list-style-type: none"> • Develop a (formal) 5-year CIP plan ** • Develop Equipment Training plan ** • Improve Training Documentation, Scheduling & Audit methods • Properly Label Critical Parts and develop audit method
5	Design & Performance Provisions	No Updates
6	Overflow Response Plan	<ul style="list-style-type: none"> • Improved Field Documentation methods
7	FOG Program	No Updates
8	System Evaluation & Capacity Assurance	No Updates
9	Monitoring, Measurement & Program Modifications	<ul style="list-style-type: none"> • Developed a more formal review/audit method for each element of the SSMP
10	SSMP Audit	No Updates
11	11 Communication Program	No Updates

South Placer Municipal Utility District
Sewer System Management Plan (SSMP)

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Section 11: Communication Program

GWDR Requirement

The Enrollee 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 Enrollee as the program is developed and implemented; and

The Enrollee shall also create a plan of communication with systems that are tributary and/or satellite to the Enrollee's sanitary sewer system.

Audit Question(s):

None

Discussion:

This SSMP and any changes made will be discussed during a regularly scheduled Board Meeting, which will be open to the public.

South Placer Municipal Utility District
Sanitary Sewer Management Plan – Substantive Change Log

Table 1

Section	Sub Section	Substantive Changes As a Result of the 2011 Audit
1 Goals		No Changes
2 Organization **	A	Page 6 Title of Construction Manager changed to Technical; Services Manager
	B	Page 7 Titled table – Table 2.0
		Page 9 Table 2.1, Element 4, A. – Changed Responsible Party to Sam Rose
		Page 10 Table 2.1, Element 7, C – Changed Responsible Party to Charles W. Clark
		Page 11 Table 2.1, Element 8, A, C, D – Changed Responsible Party to Sam Rose
	C	Page 13 Table 2.2 – Changed Construction Manager to Technical Services Manager
		Page 14, Sub Heading CIWQS Reporting – Changed Construction Manager to Technical Services Manager.
3 Legal Authority		No Changes
4 Operation & Maintenance Program	A	Page 17 Changed Construction Manager to Technical Services Manager. Updated the status of pipe and manholes locations with GPS. Added statement about new developments submitting asset coordinates electronically.
	B	Changed the order of the Maintenance Program to reflect the newly established priorities
	E	Page 20 Added statement about the pneumatic lift station and the use of compressor to operate. Added statement – the District became a member of Cal-WARN.
5 Design & Performance Provisions		No Changes
6 Overflow Emergency Response Plan		Page 22 Sub Heading Overflow Emergency Response Plan – updated the last revision date to August 2011.
	F	Page 23 Added the District has (informal) mutual aid agreement with Placer County Water Agency (PCWA) and removed statement that the District was negotiating with PCWA to formalize this agreement
7 Fog Control Program	A	Added statement that District communicates its Residential FOG program via website.
	G	Updated status of Commercial FOG Program.

South Placer Municipal Utility District
Sanitary Sewer Management Plan – Substantive Change Log

Section	Sub Section	Substantive Changes As a Result of the 2011 Audit
8 System Evaluation 7 Capacity Assurance Plan		No Changes
9 Monitoring, Measurement and Program Assurance Modification	A.	Added statement indicating the District has allotted monies to integrate GIS with maintenance and accounting databases.
	E	Updated SSO Trend tables
10 SSMP Audits		No Changes
11 Communication Program		Removed statement about communication with customers via comments on billing statements.
Appendix A		Updated Organization Chart to reflect changes in the Technical Services Department
Appendix B		Added 'Quarterly SSMP Measuring, Monitoring, Modification Form'
Appendix C		Updated the Mainline SSO Trends data
Appendix D		Added 'Equipment Training' to the Safety / Training Schedule
Incorporated Documents		Maintenance Work Plans – 6/29/2011
		Emergency Response Plan – Updated 8/1/2011

** Changes as a result of the elimination of the Construction Manager and Engineering Manager positions and the establishment of the Technical Services Manager position were made to the SSMP document approximately May, 2010, but were not documented.