

Ramona Municipal Water District

Sanitary Sewer Management Plan



Revised
July 14, 2009

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Executive Summary

On May 2, 2006 the State Water Resources Control Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ (WDR). The findings associated with the WDR state “To facilitate proper funding and management of sanitary sewer systems, each Enrollee must develop and implement a system-specific Sewer System Management Plan (SSMP).”

A detailed outline of the information to be addressed in the SSMP is provided in the body of the WDR. These elements include:

1. SSMP Goals
2. Organization
3. Legal Authority
4. Operation and Maintenance Program
5. Design and Performance Provisions
6. Overflow Emergency Response Plan
7. Fats, Oils, and Grease (FOG) Control Program
8. System Evaluation and Capacity Assurance Plan
9. Monitoring, Measurement, and Program Modifications
10. SSMP Program Audits
11. Communication Program

The initial step in the development of the Sanitary Sewer Maintenance Plan (SSMP), as mandated by the WDR, was to evaluate the impacts of developing the SSMP, determine the requirements as they pertained to the Ramona Municipal Water District (District), and develop a schedule which met the milestone dates as established by the WDR.

There was also a requirement to prepare a written document detailing the information as to how the SSMP would be developed, and to obtain approval from the District Board of this SSMP Development Plan and Schedule (Plan). This plan was approved by the Ramona Municipal Water District on July 10, 2007.

Much of the development work for the SSMP was already initiated by staff as part of the routine practices of the District. In-house staff is tasked with addressing aspects of the plan associated with those activities currently undertaken by District staff - those related to the operation and maintenance of the system, emergency response and spill reporting, staff training, mapping, design, system capacity assessment, and monitoring of the effort as a whole. Some elements of the SSMP have been developed with the assistance of external resources in order to more fully develop and implement an on-going program as required. Enhancements to the Grease Control Program and the associated Legal Authority were reviewed. In May of 2009, Legislative Code was adopted that permits the development and implementation of Rules and Regulations for management of Fats, Oils and Grease (FOG).. The System Evaluation and Capacity Assurance Plan has been finalized and is in-place to meet the required deadline of August 2, 2009.

Compliance with the Statewide WDR means compliance with the components of this Plan, as presented and certified by the Ramona Municipal Water District's Board of Directors. The Sanitary Sewer Management Plan is a living document, intended to be routinely updated and amended as required, for best management of the Collection System.

There is a requirement for a bi-annual audit of the activities of the District for compliance with the criteria set forth in the SSMP. There is also a requirement for updates of this SSMP, every five year which incorporate any significant program changes and re-certification by the governing board at that time.

Ramona Municipal Water District's Sewer System Management Plan

On May 2, 2006 the State Water Resources Control Board adopted Statewide General Waste Discharge Requirements for Sanitary Sewer Systems, Order No. 2006-0003-DWQ (WDR).

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SSMP Phase I

(Completed by November 2, 2007 Deadline)

SSMP Development Plan and Schedule

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There was also a requirement to prepare a written document detailing the information as to how the SSMP would be developed, and to obtain approval from the District Board of the SSMP Development Plan and Schedule (Plan). A Plan document, along with the attached general schedule of project activities, served as the Plan, as required by the WDR and was approved by the Board by November 2, 2007.

Goals and Organization

The goals and organizational structure for the Collection Division were well defined prior to the adoption of the new Waste Discharge Requirements; however, the Division reviewed the information available in light of this new WDR and prepared a synopsis of this information for inclusion in this SSMP. This element of the Plan was completed by the required November 2, 2007 deadline, but will be reviewed and updated as required, to keep the information current.

Goals

As stated in the WDR, *“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 do occur.”*

The use of specific Collection Division goals is intended to provide focus for the Collection organization on those aspects of the work which will ensure compliance with these requirements of the WDR. The goals are based on Best Management Practices (BMPs) in the industry and focus on the needs of the system related to inspection, maintenance, reporting, and emergency response. All are critical elements of a well functioning system that minimize the potential for spills from the Collection System to the environment.

Goals related to cleaning, repair and replacement of infrastructure as well as equipment, spare parts, and tools; inspection of critical system components utilizing televising, and visual inspections methods, as well as appropriate technical and safety training, are incorporated here.

Current goals, as of May 2, 2009, are as follows:

1. Provide a sanitary sewer system hydro-jetting program to maintain a free flowing gravity system.
2. Perform routine sanitary sewer lift station checks and maintenance.
3. Respond to service requests in an orderly and timely fashion.
4. Perform sanitary sewer mark outs as received by Dig-Alert in a timely fashion.
5. Maintain easement access as seasonal work to assure access.
6. Maintain an inventory of routine maintenance parts, and critical parts.
7. Maintain records of Division activities.
8. Perform routine and special sanitary sewer closed circuit televising inspections.
9. Provide updated information for sanitary sewer mapping.
10. Maintain a Computerized Maintenance Management System for improved information sharing.
11. Complete monthly spill/no-spill reports as required by the State of California Water Resources Control Board.
12. Complete monthly reports of the Division’s activities.
13. Maintain an updated emergency contact list to include employees, emergency outside assistance and vendors.
14. Provide training to assure a safe work environment and safe work practices.

Performance measures will be developed and maintained by the staff in order to assess compliance with these goals on an on-going basis, and to provide data for use in assessing the District's compliance with the WDR during the Bi-annual audit process required under the WDR.

Organizational Structure

The structure of the Collections Division is intended to provide clear lines of authority and responsibility for the completion of tasks necessary to the proper operation of the unit.

Duly Authorized Representative

The General Manager has identified the Wastewater Operations Manager as the duly authorized representative of the District, as described in Section J of the Order, Report Declaration.

Contact Information

The District maintains an up-to-date phone list for all staff. The list contains contact numbers for daytime contacts, as well as multiple methods for contacting staff during nights, weekend, and holidays (Appendix B). Updated lists are routinely provided to every member of the RMWD staff for their use. In addition, the District contracts the services of an after-hours Answering Service. The Answering Service has 24 hour access to employee contact information and is tasked with ensuring response within a limited timeframe for any emergency calls received at the District office number.

Organization Chart

The District was established to provide water, sewer, fire and park services to the public. 58.5 full time employees support the mission of the District. Staff is distributed throughout the District as shown in the organizational chart located in Appendix A.

The General Manager has overall responsibility for the activities of the District. The Wastewater Operations Manager is responsible for oversight of the Collections System, including response to Sanitary Sewer Overflows (SSO), and ensuring staff, budgets and equipment are available to properly maintain the system. The Collection System Supervisor has day-to-day responsibility for overseeing the maintenance activities of the crew, and providing the initial response for any SSOs, should they occur. The District Engineer is responsible for managing the Capital Improvement Program (CIP) and Capital Replacement Program (CRP).

The Collection System Division consists of four dedicated full-time staff. Additional technical support is provided, as needed, by an Electrical/Instrumentation Technician, a Waterworks Mechanic, and a Laboratory Analyst I. The duties expected of each position are clearly defined in the job descriptions which are available on the District's website, and are updated on a regular basis. Administrative activities of the Division are addressed by the Wastewater Operations Manager, the Collections System Supervisor, and the Collections Worker III. The Supervisor, the Collection Worker III and the Collection Workers I & II are responsible for maintenance of the system.

SSO Reporting Chain of Command

The District has an Emergency Response Plan that identified the roles and responsibilities of each responder in the event of any emergency situation. While a sewer system overflow (SSO) is a specific type of event, the roles required are similar to other emergency situations which the District may encounter. As such, the defined roles will be the same.

The initial responder to any emergency is tasked with assessing the nature of the emergency, and making contact with the necessary additional staff to respond to the situation at hand.

During daytime hours, any emergency call is immediately routed to the Collection System Supervisor who takes an active role in the evaluation of any potential spills, ensures initial notification of regulators and provides guidance to the crews in the containment, clean-up and mitigation processes. The initial contacts with regulators are made within the required 2 hour timeframe for reporting an SSO. These regulators include the San Diego Regional Water Quality Control Board, the County Department of Public Health, and others as required.

The Wastewater Operations Manager assists the Collection System Supervisor in maintaining communication with Regulators and obtaining any needed assistance via contracts, CalWARN networks, or other methods to assist in the management of the activities.

In the case of a wastewater spill outside of normal working hours, the on-call duty person, typically a Collection System Operator will receive the initial call and respond to the site. This person will contact the Collections System Supervisor, or if he is unavailable, the Wastewater Operations Manager.

A current copy of the District's SSO Emergency Response Plan is maintained in every Collection System vehicle, as well as in the Office. This plan is discussed in more detail later in this document.

SSMP Phase II

(Completed by of May 2, 2009 Deadline)

Legal Authority

Based on the WDR 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: prevent illicit discharges, require that sewers and connections be properly designed and constructed, ensure access for maintenance, inspection or repairs, limit the discharge of fats, oils, and grease (FOG) or other debris, and enforce any violation of its sewer ordinances.

A review of existing codes, for compliance with the new WDR requirements, has been performed by District staff and the necessary legal authority is in place. Where ever a Code section exists under 7.52 – Santa Maria Sewer Service Area, a duplicate Code exists in section 7.54 – San Vicente Sewer Service Area, therefore, only the Code for the Santa Maria Sewer Service Area is identified in the discussion below and the reader can reference the duplicate code under section 7.54 as necessary.

Prevention of illicit discharges

Prevention of Illicit discharges is addressed in detail under the RMWD Legislative Code (Code) Sections:

- 7.52.060 Sewer System Use Rules and Regulations – Implementation and Purpose
- 7.52.070 Use of the public sewers – Restrictions
- 7.52.080 Hazardous discharges – District options
- 7.52.100 Industrial Permits

as well as other areas of the Code dedicated to specific topics such as recycled water use.

Design and construction of sewers

The District has adopted the Water Agency Standards Committee Standard Specifications (WAS Standards) for Potable Water, Recycled Water and Sewer Facilities. These address the design and construction of sewer facilities.

- 7.04.010 Standard specifications and drawings adopted

Additional code sections which address aspects of design and construction of sewers include:

- 7.52.031 Determination of mitigation fees
- 7.52.150 Sewer line extension policy
- 7.56 Local sewer service benefit areas
- 7.60 Service area expansion and annexation
- 7.72 Package treatment plants
- 7.80 Public water and sewer facilities by private parties

Access for maintenance, inspection or repairs

The requirement for customers to provide access for maintenance, inspection or repairs is addressed in Sections:

- 7.52.120 Entry upon private property to enforce provisions.

Limit the discharge of fats, oils, and grease (FOG) or other debris

A new FOG Ordinance, allowing for the development and implementation of FOG related Rules and Regulations, was approved in May, 2009.

- 7.55 Fats Oils and Grease

In addition, previously enacted code limits the discharge of fats, oils, and grease (FOG) or other debris and is addressed under Code Sections:

- 7.52.070 Uses of public sewers – Restrictions

Enforcement of violation of its sewer ordinances

Enforcement of any violation of the District's sewer ordinances is addressed in Code Sections:

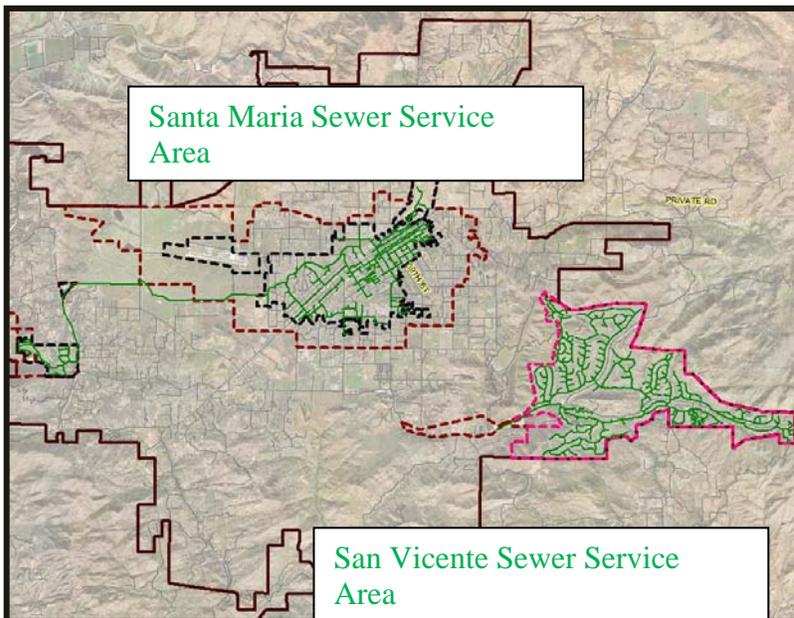
- 7.52.210 Violation – Responsibility for loss or damage.
- 7.52.220 Enforcement measures in case of delinquency
- 7.52.230 Board of directors enforcement
- 7.88.020 Billing for undocumented Sewer Connections

Operation and Maintenance Program

The Operation and Maintenance Program for the Wastewater Collection System is the primary mechanism for reducing sanitary sewer overflows on a routine basis. In order to accomplish this, several tools and procedures are in place.

Sewer System Mapping

The SSMP mandates the District to maintain up-to-date maps for the sanitary sewer system showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves. The District has been in the process of developing its Graphical Information System for some time. The sewer system was completed in early 2009.



Staff continues to review this existing data, adding/updating details as new information is located in the field. This tool has already proven to be extremely valuable for the staff as they perform their routine cleaning, televising, mark-outs and other maintenance duties.

In addition to maintaining current maps of the District's facilities, the GIS section of the

Engineering Department will assist in importing data provided by others, such as the data from the Granite XP Televising System, and the County's stormwater and flood control maps, which will improve the ability of Collection System staff to maintain the system and respond to emergency overflows.

Updating of this system will be done as a routine part of the system maintenance, and dates of corrections, additions, and updates will be maintained in the shape file of the mapping system directly.

Routine Preventive Operation and Maintenance Activities

Regular operation and maintenance activities are essential to ensure the collection system continues to provide reliable service to the community. District staff has designed, and is in the process of developing a sustainable maintenance management system (MMS) that includes documentation of scheduled and conducted activities via a work order tracking system as required by the WDR. The MMS is an enterprise system incorporating the use of existing computer systems and software such as an SQL Server and Oracle for relational database management and reporting, GIS data for mapping, Excel for data analysis, Granite XP for televising system software, as well as USA Imaging for Work Order Scheduling, GIS mapping functionality and Document Management. The MMS addresses the WDR's requirement for the scheduling and documenting of:

- routine cleaning of the collection system,
- televising of the collection system,
- accelerated maintenance locations,
- manhole assessment and maintenance, and
- pump station maintenance,

as well as other Collection System activities such as smoke testing, lateral mark-out tasks and customer requested investigations. All documentation of the work performed by the District related to the collection system is maintained electronically for a minimum of 5 years. This information can be produced upon request of the Regional Board or other regulators.

The MMS is the primary method used to assist the supervisor and manager in the:

- identification and prioritization of system deficiencies,
- targeting of problem areas,
- incorporation of a system for ranking the condition of sewer pipes, and the
- development of both long term and short term Rehabilitation and Replacement Plans.

All components as identified in the SSMP are considered "Best Practices" in the industry and, as such, development has been underway by District staff for some time. It is anticipated that this portion of the Operations and Maintenance Plan will continue to be developed by in-house staff from the Collection Division in conjunction with current contract providers (primarily CUES and USA Imaging Software Solutions), and with assistance from the Engineering Department, as-needed, to develop the Rehabilitation and Replacement Plans. The MMS will also provide valuable data for incorporation in the System Evaluation and Capacity Assurance Plan, to be discussed later in this document.

Training Plans

A key focus of the SSMP is to ensure that Collection System staff is properly trained in all aspects of sanitary sewer system operations and maintenance, and to ensure that any contractors performing work for the District in this capacity also have appropriate training. The Collection System Supervisor is tasked with maintaining and updating a list

of training, in conjunction with Human Resources, to ensure that training is consistent with federal, state, and local requirements, as well as best practices within the industry. Training requirements have been identified, and staff is in the process of developing a written implementation plan which will meet the technical and organizational needs of the District, as well as the requirements of the WDR.

Equipment and Replacement Part Inventories

A complete inventory of equipment and replacement parts, including the identification of critical replacement parts, is required by the WDR. District staff has prepared an inventory list and updated the replacement parts lists, including the identification of critical replacement parts, as part of the development of the SSMP. The District maintains sufficient parts to make at least two repairs on each size and type of pipe in the District's system.

All inventory is issued through the District Warehouse, and the stock and availability is managed as part of the purchasing process. The inventory of parts and equipment is maintained through the Purchasing Agent.

Overflow Emergency Response Program

The Overflow Emergency Response Program is a documented procedure that is already in use by the Ramona Municipal Water District. The current emergency response plan contains the necessary components required by the SSMP. These components include:

- Notification procedures for responders to ensure a timely response,
- A Standard Operating Procedure (SOP) for response to overflows,
- Procedures to ensure prompt notification of appropriate regulators,
- Procedures for training appropriate personnel on the Emergency Response Plan,
- Procedures to control traffic, crowd and other emergency situations, and
- A program to contain, minimize and correct any Sanitary Sewer Overflows (SSO) that do occur.

Some form of this document has been in place since the implementation, by the San Diego Region of the California RWQCB, of Order No. 96-04 - General Waste Discharge Requirements Prohibiting Sanitary Sewer Overflows by Sewage Collection Agencies.

Staff routinely reviews this document to ensure that all information provided is up-to-date and reflects current practices. Recently, the San Diego Regional Water Quality control board provided a flow chart for notifications in the event of a spill (Appendix C). This chart has been incorporated into the Overflow Emergency Response Program Procedures.

Grease Control Program

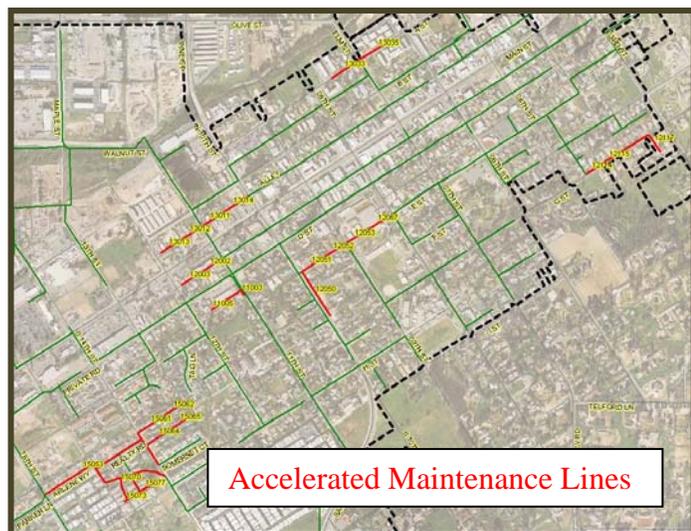
Fats, oils and grease (FOG) along with roots, are the primary cause of wastewater spills for the industry as a whole. To comply with previous Order No. 96-04 in reducing and managing potential spills, District staff has identified the most serious locations which are effected by the accumulation of FOG and has implemented an Accelerated Maintenance cleaning program to address these locations.

There have been no FOG related spills recorded in the District therefore, the development of the FOG Program will continue with on-going accelerated maintenance, and routine assessment of the needs for a more robust FOG and Source Control program in the future. Assessment of this program will incorporate a more in-depth analysis of commercial establishments which may contribute FOG and other problematic constituents such as high Total Dissolved Solids (TDS), and petroleum products such as automotive grease and oils, to the wastewater stream.

In addition, the SSMP requires the FOG Control Program to include:

- a public education outreach program to promote the proper disposal of FOG,
- a plan and schedule for the disposal of FOG,
- the legal authority to prohibit discharges caused by FOG,
- requirements to install grease removal devices, design standards for these devices, maintenance requirements, Best Management Practices, record keeping and reporting requirements associated with grease removal devices, and
- the development and implementation of source control measures for all sources of FOG discharged to the sanitary sewer system for each Accelerated Maintenance location identified.

Of the 1602 sewer mains in the District, 45 are included in our Accelerated Maintenance Plan. Thirty-two of these lines are included in the plan primarily due to roots. Of the 13 mains included due to FOG accumulation, nine are located in residential areas and only four are associated with business/commercial properties. Staff recognizes that any location where FOG accumulates has a potential for spill. They closely monitor the condition of the pipes between maintenance periods, making adjustments as required. The primary method for managing FOG discharged to the system is increased line maintenance and public education.



Residential Door Hanger

Public Outreach

As no fog related spills have occurred in the District since the implementation of the accelerated maintenance program, the outreach to the public is currently focused on one-on-one discussions with those restaurants and apartment complexes where the accumulation of FOG is incurring extensive maintenance efforts. A door hanger has been developed, in both English and Spanish, to remind home owners not to dispose of grease and oil and other itmes into the sewer.

A Food Service Establishment (FSE) Best Management Practices Handbook, for restaurants and a similar handbook for automotive facilities, is under development and will be provided to customers when contact is initiated.

Plan and schedule for the disposal of FOG

The District does not endorse any one particular FOG disposal company, but the Collection System Supervisor has a list of companies maintained for the benefit of customers. Disposal of FOG from grease interceptors is required on a regular basis in order to ensure proper functioning of the equipment. This maintenance aspect is discussed further in the FSE Handbook.

Legal Authority to prohibit discharges caused by FOG

The District's new Fats Oils and Grease Ordinance, Legislative Code Section 7.55, prohibits the discharges caused by FOG and provides staff with the necessary authorization to implement FOG control measures.

Additional sections of the code address FOG related design and construction requirements, as well as prohibition of discharges:

“Section 7.52.070

4. The following described substances, materials, waters or wastes if it appears likely in the opinion of the district that such wastes can harm either the sewers, sewage treatment process, or equipment, have an adverse effect on the receiving stream, or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of these wastes, the general manager will give consideration to such factors as the quantities of subject wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, capacity of the sewage treatment plant, degree of treatability of wastes in the sewage treatment plant, and other pertinent factors. The substances prohibited are, but not limited to:

b. Any water or waste containing fats, wax, grease or oils, whether emulsified or not with suspended solids in excess of one hundred mg/l or containing substances which may



solidify or become viscous at temperatures between thirty-two and one hundred fifty degrees F.

Requirements for grease interceptors

The requirement for the installation of grease interceptors is detailed in:

Section 7.52.090

Grease, oil and sand interceptors shall be provided when, in the opinion of the district, they are necessary for the proper handling of liquid wastes, sand or other harmful ingredients; except, that such interceptors shall not be required for private living quarters or dwelling units.”

The requirements for the design of these facilities is addressed by the Districts adoption of the WAS Standards, Section 7.04.010 Standard specifications and drawings adopted, as previously discussed in this SSMP.

The maintenance requirements, Best Management Practices, record keeping and reporting requirements associated with grease removal devices have been developed as part of the FSE Best Management Practices Handbook and will be distributed as the program is further implemented.

Develop and Implement Source Control Measures

The level of effort required for further development and implementation of the Source Control Program is anticipated to be approximately 400 - 500 hours during the coming year. Staff utilized a budget of \$60,000 in the fiscal year 2009/2010 budget to support the initial development of this program. An additional \$60,000 is budgeted in fiscal year 2010/2011 in order to provide support for contact with customers regarding FOG Best Management Practices. The permit requires the development of source control measures for each location identified in the Accelerated Maintenance locations. This work will be on-going during the coming year.

SSMP Phase III

(Completed by August 2, 2009 Deadline)

Design and Performance

The SSMP requires that the District have written “...design and construction standards and specifications for the installation of new sewer systems, pump stations and other appurtenances; and for the rehabilitation and repair of existing sewer systems...” In addition “Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects” are required.

All design is performed under the direction of the RMWD District Engineer. Design is performed by an engineer of record who is required to be a California Registered Professional Engineer. The Engineering Department plans, budgets, designs, constructs, construction manages and inspects the installation of new sewers, pumps, other appurtenances and the major rehabilitation and repair of these facilities. All designs are

consistent with good engineering practices and conform to all national, state and regional standards and regulations.

RMWD actively participates in San Diego Regional Standards Committee (RSC) and the Water Agency Standards Committee (WAS) in the development of standard plans, standard specifications, design guidelines and approved material lists. The RMWD has adopted the Water Agency Standards (WAS) as the basis for design and construction standards and specifications (RMWD Legislative Code Section 7.04.010) and conforms to the “Greenbook” Standard Specifications for Public Works Construction. These Standards are the primary documents by which new construction and/or rehabilitation of existing systems is performed. Variances from these standards are at the discretion of the District Engineer.

All new sewer service requests are evaluated by the Engineering Department and conditions set to assure existing and new sewer facilities are adequate for current and future flows. Required onsite and offsite sewer facilities are designed by the developer’s engineer in accordance with the aforementioned standards and additional requirements established by the District Engineer. All plans and specifications are reviewed and approved by the District Engineer. Construction is inspected for compliance to the approved plans and specifications and the final project acceptance is by the District Engineer.

The authority of the District Engineer to assure proper conditions are set for new connections, design preparation, easement acquisition, and construction completion is noted in numerous sections of the RMWD Legislative Code.

System Evaluation and Capacity Assurance Plan

Per the WDR, “The Enrollee shall prepare and implement a capital improvement plan (CIP) that will provide hydraulic capacity of key 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 an evaluation of any portion of the sanitary sewer system that is experiencing or contributing to an SSO discharge caused by hydraulic deficiency, assessment of current design criteria, and capacity enhancement measures.

The evaluation of the system must include:

- estimates of peak hydraulic flows,
- capacity of key system components,
- location of hydraulic deficiencies, and the
- identification of contributions to peak flows associated with overflow events.

For any identified hydraulic deficiencies, a short and long-term CIP must be established. From the WDR “The CIP may include increases in pipe size, Inflow and Infiltration reduction programs, increases and redundancy in pumping capacity, and storage facilities.”

The WDR goes on to state that the Enrollee shall identify sources of funding and shall develop a schedule of completion dates for all portions of the CIP developed by the evaluation above. This schedule shall be reviewed and updated every two years, consistent with the SSMP review.

Long term evaluation

To assure that the hydraulic capacity of key sewer system elements for dry weather peak flow conditions, as well as the appropriate design for storm or wet weather events, the RMWD Engineering Department analyzes the relevant information maintained by Wastewater Operations and incorporates this into master plans and the five year capital improvement program (CIP) and capital replacement program (CRP).

The planning includes: estimates of peak hydraulic flows, capacity of key system components, location of hydraulic deficiencies, and the contributions to peak flows associated with overflow events (SSO). The process assesses current design criteria, and capacity enhancement measures, and includes increases in pipe size, Inflow and Infiltration reduction programs, increases and redundancy in pumping capacity, and storage facilities. The District currently has identified the hydraulic capacity of key elements of the collection system and those facilities that require upgrades or expansion, and updates these on a regular basis based on site specific system evaluations (as addressed in “short term evaluation”).

Every year as part to the budgeting process the five year CIP and CRP are developed by integrating projected growth, based on the County of San Diego General Plan, master plan information, site specific sewer system evaluations (discussed in “short term evaluation”) and identified hydraulic deficiencies associated with both existing and new development. The CIP and CRP address each project with its own budget sheet and schedule, including an assessment of why the project is required and what the benefits are to the sewer system. Each year the sources of funding are identified and schedules for completion for all projects in the CIP and CRP are developed and monitored. As part of implementing and monitoring the schedule and budget for the above mentioned CIP and CRP projects, project priorities are established and the Engineering Department creates and maintains a critical path method scheduling system for all projects. Reports are prepared monthly and submitted to the RMWD Board on the status of the current Fiscal Year Budget items.

The San Vicente Sewer Service Area (SVSSA) is approximately 99% built out and no plans exist for future expansion of SVSSA collection system.

The Santa Maria Sewer Service Area (SMSSA) is approximately 50% built out and planning for ultimate build out has been completed. In April 2008 RMWD completed a preliminary design report (PDR) for SMSSA and identified the key treatment elements required to meet growth over the next 20-30 years. These facilities are identified in the current five year CIP. Design of the facilities is in progress.

The aforementioned processes are used as part of the short term evaluations associated with all requests for sewer service.

Short term evaluation

Every request for a sewer connection is evaluated to determine what, if any, impact the new development will have on the peak hydraulics, key system components, hydraulic deficiencies and contribute to peak flows associated with overflow events (SSO). The evaluations address all components from the sewer lateral, collectors, mains, pump stations, interceptors and treatment facilities. The Engineering Department runs a sewer system model to determine the long term and short term impacts of the proposed new connection(s). In addition alternative analyses are prepared that address different alignments and facilities improvements. A detailed report is prepared on each evaluation and the file is linked to the GIS system to assist in future evaluations and to assess the potential cumulative impacts. The resulting report is similar to a sub-area plan and is used to supplement the overall long term evaluation and planning.

This process continuously assesses current design criteria, and capacity enhancement measures, and includes increases in pipe size, Inflow and Infiltration reduction programs, increases and redundancy in pumping capacity, storage facilities and treatment facilities. Financing and project funding is addressed in the report along with a potential schedule. However, developers are rarely sure of when their project will be built.

All of the above information is identified and tracked in order to allow for full and easy access so that information may be provided upon request.

Monitoring, Measurement, and Program Modifications

The SSMP must also contain provisions for maintaining relevant information that can be used to establish and prioritize appropriate SSMP activities, monitoring the implementation and, where appropriate, measuring the effectiveness of each element of the SSMP. Updating of the program, as identified by monitoring or performance evaluations, and documentation of spill related trends, including frequency, location and volume are required.

District staff will maintain documentation on each aspect of the SSMP and will develop reporting mechanisms to support improved system management, and to advise interested parties of the status of the SSMP implementation as well as the effectiveness of the program overall.

SSMP Program Audits - Every two years

At a minimum, bi-annual internal audits of the SSMP are required. As mandated in the WDR the audit will be documented in a formal written report, to be kept on file at the District's office, and will focus on evaluating the effectiveness of the SSMP, the District's compliance with the SSMP and the identification of any deficiencies in the SSMP with corrective action steps indicated.

An audit plan and reporting format has been prepared as part of the SSMP (Appendix D) and will be available for use by District staff during periodic audit reviews of the program.

Communication Program

Public communication regarding the development, implementation, and performance must be an element of the SSMP. As stated in the WDR, “The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.”

The Development Plan was presented to the District Board on July 6, 2007, as a regular agenda item, with standard notification to the public for review and input into the document. The Final SSMP will be presented to the District Board prior to August 2, 2009, also as a regular agenda time with standard notification to the public for review and input into the document. For some aspects of the SSMP, such as the FOG Control Program, additional public outreach will be incorporated. Staff will evaluate methods to distribute information to the public such as the inclusion of information with routine mailings, targeted mailings, door hangers and web pages on the District’s website, as well as other component specific outreach methods.

The WDR specifically identifies the need to develop a plan of communication for systems that are tributary or satellite to the District’s system. At this time, there are no such systems.

Final SSMP

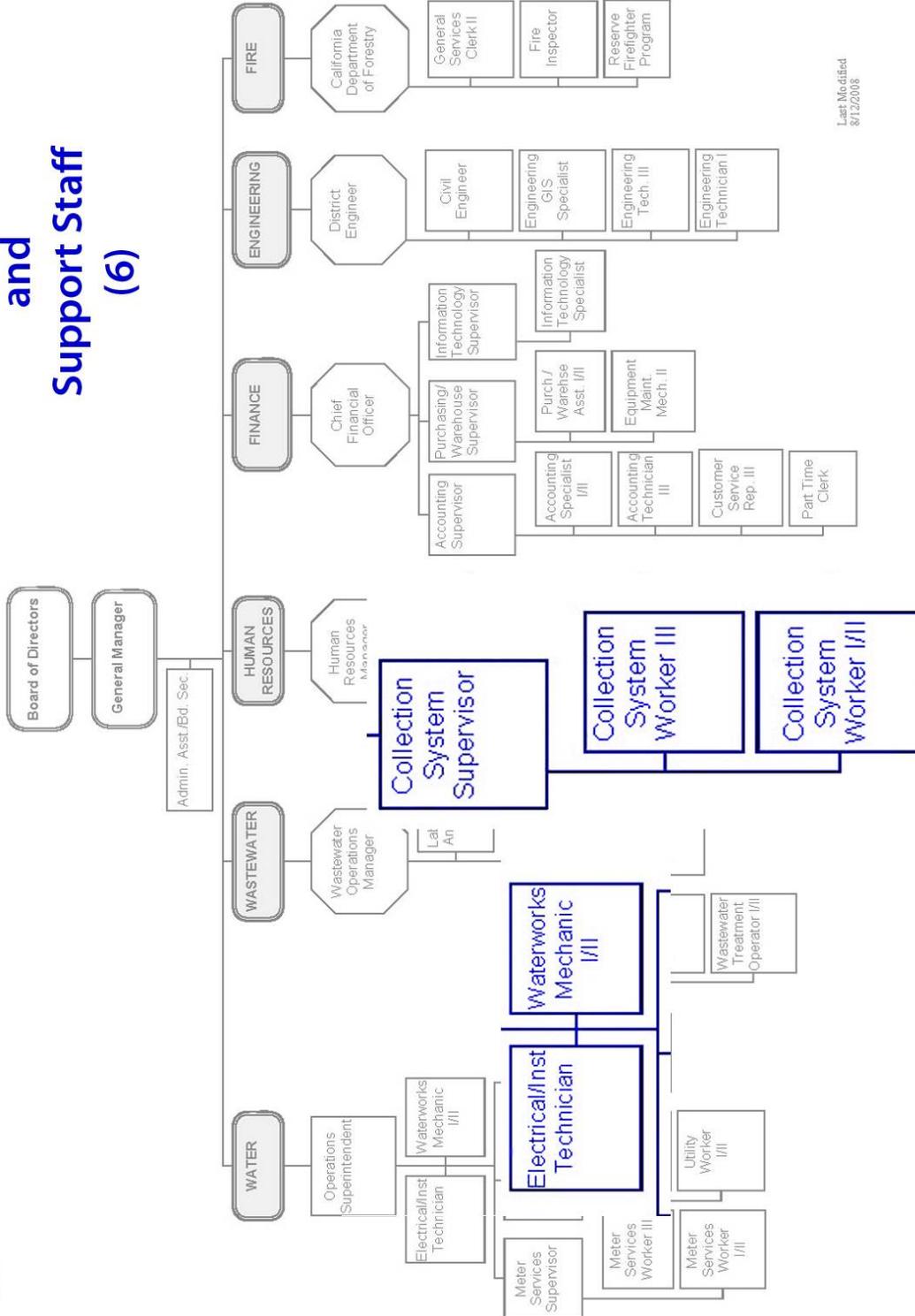
Board Approval Required by August 2, 2009

The District is required to certify that the final SSMP and its constituent subparts are in compliance with the Sanitary Sewer Order within the time frames identified; therefore the final Sanitary Sewer Management Plan will be presented to the Board on July 14, 2009, to ensure final approval by the Board no later than August 2, 2009.

Appendix A: RMWD Organizational Chart

RAMONA MUNICIPAL WATER DISTRICT - FY 08-09
Effective July 1, 2008

Collection System Staff and Support Staff (6)



Last Modified
8/12/2008



Appendix B – RMWD Telephone List

Contact 760-789-1330

Appendix D: Bi-Annual Audit Review Checklist
(See following pages)

Audit Assessment Checklist					
Auditor:		Date:			
	Reference:	Yes	No	Initials	Comments:
Goals					
Is there a hydro-jetting program in place?	USAI Work Order System				
Does the staff perform routine sanitary sewer lift station checks and maintenance?	USAI Work Order System				
Does the staff respond to service requests in an orderly and timely fashion?	USAI Work Order System				
Are Dig-Alert mark outs completed in a timely fashion?	USAI Work Order System				
Are easements maintained?	USAI Work Order System				
Is the spare parts inventory complete and up-to-date?	Collections Staff/Warehousing				
Are records of activities maintained?	Collections Staff				
Are televised inspections performed?	Granite XP				
Is a method in place to provide updated information for sanitary sewer mapping?	Collections/Engineering Staff				
Is a CMMS in place and utilized?	USAI Work Order System				
Are monthly spill/no-spill reports completed on time?	CIWQS System				
Are monthly reports of Divison's activities maintained?	Collections Staff				
Are emergency contact lists complete and up-to-date?	See ERP and Phone List				
Is safety training and technical training provided?	HR Dept Database				
Are the goals in the SSMP still appropriate?	Collections Management				
Organization					
Is an up-to-date organization chart available?	Appendix A				
Has the chart been updated in the SSMP?	Appendix A				
Does the SSMP clearly state:					
The name of the responsible or authorized representative as described in Section J of the Order?	Appendix B - see Wastewater Operations Manager				
The names and telephone numbers for Administrative and Maintenance positions	Appendix B				
Legal Authority					
Prevents illicit discharges?	7.52.060; 7.52.070; 7.52.080; 7.52.100				
Requires sewers and connections to be properly designed and constructed?	7.04.010; 7.52.150; 7.56; 7.60; 7.72; 7.80				
Ensures access for maintenance, inspection or repairs?	7.52.120				
Limits the discharge of fats, oils grease and other debris?	7.55; 7.52.070				
Enforces any violation of its sewer ordinances?	7.52.210; 7.52.220; 7.52.230; 7.88.020				

Audit Assessment Checklist						
Auditor:		Reference:	Date:		Initials	Comments:
			Yes	No		
Operations and Maintenance Program						
When was the Sewer System Map last updated?	USAI DataWindow					
Is the map current for?						
Gravity Line Segements	USAI DataWindow					
Force Mains	USAI DataWindow					
Manholes	USAI DataWindow					
Pumping Facilities	USAI DataWindow					
Pressure Pipes	USAI DataWindow					
Valves	USAI DataWindow					
Are up-to-date external elements/information included?						
County Stormwater	USAI DataWindow					
County Flood Control	USAI DataWindow					
Waterways/streams	USAI DataWindow					
Granite XP Information	USAI DataWindow					
Parcels/APN data	USAI DataWindow					
Is routine cleaning of the collection system performed?	USAI Work Order System					
Is the planned cycle for cleaning adhered to?	USAI Work Order System					
Is routine televising of the collection system completed?	Granite XP					
Is the planned cycle for televising adhered to?	USAI Work Order System					
Are accelerated maintenance locations identified?	USAI DataWindow					
What is the planned frequency of manhole maintenance?	USAI Work Order System					
What is the frequency of manhole maintenance?	USAI Work Order System					
What is the planned frequency of pump station maintenance?	USAI Work Order System					
What is the frequency of pump station maintenance?	USAI Work Order System					
Are system deficiencies identified and prioritized?	USAI Work Order System/Granite XP					
Are problem areas targeted for attention?	USAI Work Order System/Budget Documents					
Is a system of ranking the condition of the pipes incorporated?	Granite XP					
Are long term and short term Rehab and Replacment Plans in place?	Budget Documents					

Audit Assessment Checklist						
Auditor:		Reference:	Date:		Initials	Comments:
			Yes	No		
Has smoke testing been performed during this auditing cycle?	USAI Work Order System					
Have mark-outs been performed timely?	USAI Work Order System					
Have training plans been developed for each position?	Collections/HR					
Have employees attended all required safety training?	HR					
Have employees attended all required technical training?	HR					
Has inventory list been reviewed and updated?	Collections/Warehouse Staff					
Are critical parts available in the warehouse?	Collections/Warehouse Staff					
Are parts for at least two repairs on each size and type of pipe in the warehouse?	Collections/Warehouse Staff					
Overflow Emergency Response Program						
Are notification procedures in place?	SSO Emer Response Plan					
Is SOP current?	SSO Emer Response Plan					
Has ERP training been performed?	SSO Emer Response Plan					
Are procedures for traffic and crowd control in place?	SSO Emer Response Plan					
Is a program in place to contain SSOs?	SSO Emer Response Plan					
Is a program in place to minimize SSOs?	SSO Emer Response Plan					
Is a program in place to correct SSOs?	SSO Emer Response Plan					
Are all SSOs reported promptly, with correct information?	CIWQS System					
Grease Control Program						
Is a FOG Ordinance in place?		7.55				
Is public outreach taking place? What type?	Collections					
Have FSE Best Management Practices been provided to any customers?	Collections					
Have additional Source Control Measures been implemented? Why/why not?	Collections					

Audit Assessment Checklist					
Auditor:		Date:			
	Reference:	Yes	No	Initials	Comments:
Design and Performance					
Have peak hydraulic capacities been estimated?	Engineering documents				
Have hydraulic deficiencies been identified?	Engineering documents				
Have capacities of key system components been documented?	Engineering documents				
Have peak flows associated with overflow events been identified?	Mapping/CIQWS				
Have short term CIP's been prepared?	Budget/Eng docs				
Have long term CIP's been prepared?	Budget/Eng docs				
Monitoring, Measurement, Program Modifications					
Have reporting mechanisms been developed to support system improvements?	Collections				
Are trends of various data maintained?	USAI Work Order System				
Are spill locations, frequencies and volumes recorded and evaluated?	CIQWS				
Are maintenance activities modified and updated? How?	Collections				
Audit Program					
When was the last audit performed? By who?	Collections				
Is a written report of the last audit available on file with the District?	Collections				
Have deficiencies identified in the previous audit been addressed?	Collections				
Were appropriate corrective steps were taken?	Collections				
Communication Program:					
What public communication regarding the implementation and performance under this SSMP has been provided?	Board Agendas, Collections				
Are there any systems tributary or satellite to the District system?	Collections/USAI DataWindow				

