

North Marin Water District

Sanitary Sewer System Management Plan



North Marin Water District

President	Dennis Rodoni
Director	Jack Baker
Director	Stephen Petterle
Director	Rick Fraites
Director	John Schoonover
General Manager	Chris DeGabriele

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Attachments:

Regional Water Quality Control Order 92-57

Service area Drawing C-13

Collection System Drawing OPS -13

Fiscal Year Budget 2013-2014

Contract Operations Agreement and SOP

Asset Management Spreadsheet

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Introduction

The California State Water Resources Control Board adopted order No. 2006-003, Statewide General Waste Discharge Requirements (WDR) for Wastewater Collection Agencies, on May 2, 2006. The WDR affects all sewer agencies in the state and regulated the discharge of sanitary sewer overflows to receiving waters. The WDR requires the electronic reporting of all sanitary sewer overflows as well as the development of a Sewer System Management Plan (SSMP) and specifies monitoring, reporting and SSMP implementation requirements. The District began electronic reporting on _____.

Development of the SSMP is phased with compliance dates based on population. Since NMWD's Oceana Marin current population of 200 connections is less than 2,500, the SSMP goals and organization sections were completed in May, 2008 with subsequent milestones completion planned in February, 2010 and August, 2010.

The purpose of the SSMP is to:

- Properly manage, operate and maintain all portions of the District's wastewater collection system
- Provide adequate capacity to convey peak wastewater flows
- Minimize frequency of sanitary sewer system overflows
- Mitigate impacts of sanitary sewer overflows that may occur
- Meet all notification and reporting requirements

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Section I. Goals

The North Marin Water District has adopted the following Mission Statement that guides all facets of the District's administration and operation.

Mission Statement: North Marin Water District provides an adequate supply of safe, reliable and high quality water and delivers reliable and continuous sewer service to our customers at reasonable cost consistent with good conservation practices and minimum environmental impact.

The District's goals for the wastewater collection system are:

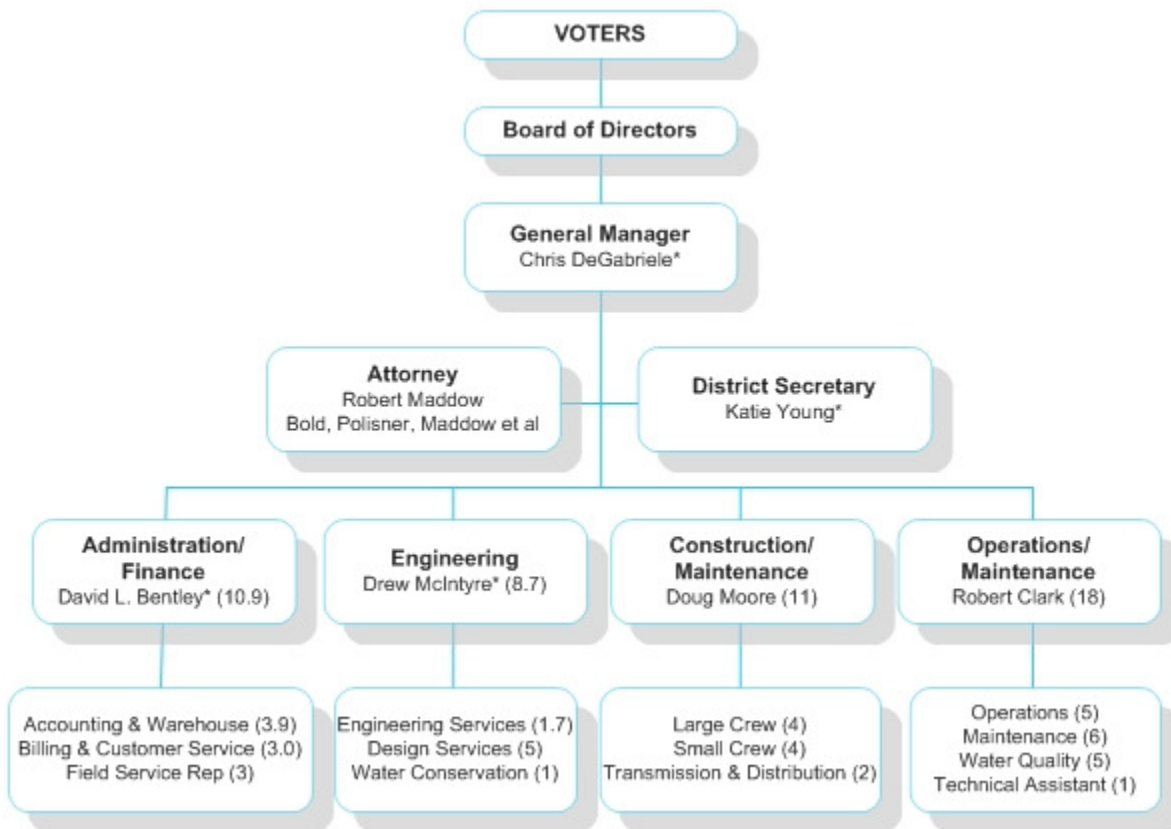
- Operate all pump stations at peak efficiency and perform preventive maintenance on equipment at all sanitary sewer pump stations.
- Maintain records of the sanitary sewer system
- Develop and implement a capital improvement and replacement program directed at maintaining the current sewer system assets, improving system reliability and providing adequate capacity to limit the occurrence of spills.
- Minimize the number and the magnitude of spills.
- Clean out critical sections of the sewer line annually along with 1/5 of the remaining lines, completing a rotation of the cleaning the entire system every five years to eliminate the risk of spills and ensure reliable service.
- Conduct an annual sewer line condition assessment through video inspection of 1/5 of the lines completing a rotation to visually inspect the entire system every five years to identify infiltrations and intrusion points requiring repairs.
- Respond to emergency sewer calls within two hours 95 percent of the time.
- Conduct appropriate analysis/evaluation of SSOs utilizing historical maintenance records and develop strategies to reduce future risk.

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Section II. Organization

The organization chart below identifies District staff that is responsible for implementing, managing and updating the SSMP.

Organization Chart
December 2013



General Manager – The General Manager is appointed by a five-member board of directors and is the chief administrative officer of the District. The General Manager is the District’s Legally Responsible Official (LRO) and is responsible for the overall development and implementation of the District’s SSMP as well as reporting SSOs to the appropriate agencies. The General Manager is also the District’s public information officer.

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Chief Engineer – The Chief Engineer plans, manages and oversees District-wide systems engineering, project design, construction management and project inspection. The Chief Engineer coordinates the development and implementation of the District’s SSMP.

Operations/Maintenance Superintendent - The Operations/Maintenance Superintendent evaluates plans, organizes and supervises the work of operations field staff responsible for operation, cleaning, inspection, repair and maintenance of the District’s sewer collection system. The Operations/Maintenance Superintendent is also responsible for ensuring that SSO emergency response and investigations are appropriately documented for reporting purposes. The Operations/Maintenance Superintendent is also the District’s safety officer.

District Field Staff – District Field Staff from either the Operation/Maintenance or Construction/Maintenance departments operate, clean, inspect, repair and maintain the District’s sewer collection system. The District Field Staff is responsible for responding to service requests including SSOs. SSOs are investigated and documented by Field Staff.

SSO Incident Command – In the event that command personnel are absent, the specific order of command is as follows:

General Manager ⇒ Chief Engineer ⇒ Operations/Maintenance Superintendent

Service Request Response – The District office is open Monday through Friday, except for holidays, 8 AM to 5:00 PM. The telephone number is 415-897-4133. All District personnel can be reached via this telephone number. All Oceana Marin sewer service calls are referred directly to the Operations/Maintenance Superintendent. All after-hours calls are routed to the District’s answering service who then directly notifies the District’s Field Staff assigned to serve “on-call” duty at that date/time. The on-call District Field Staff person is furnished with a District truck and cell phone to facilitate timely response.

Section III. Overflow

The District has developed a comprehensive emergency operations plan for the cleanup and abatement of accidental discharge of sewage and will include in this SSMP.

<u>Section</u>	<u>Title</u>	<u>Page</u>
7D.01	District Personnel Responsible for Cleanup	7D-2
7D.02	District Capability to Perform Cleanup	7D-2
7D.03	Specific Measures and Procedures	7D-2

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7D.04 Required Notifications and Reports

7D-4

ADDENDUM: Spill Prevention Control and Countermeasure Plan

GENERAL GUIDANCE FOR ALL EMPLOYEES

- 1. Notify Emergency Coordinator or designee immediately.**
- 2. Take immediate action if appropriate to minimize incident.**
- 3. Caution: Sewage can be hazardous to your health. Use common sense.**

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SECTION 7D

SEWAGE SPILLS

PLAN FOR CLEANUP AND ABATEMENT OF ACCIDENTAL DISCHARGE OF SEWAGE

7D.01 DISTRICT PERSONNEL RESPONSIBLE FOR CLEANUP

District personnel can be reached 24 hours per day, 7 days per week at (415) 897-4133. The line of authority with direct responsibility for cleanup is:

1. Operations/Maintenance Superintendent
2. Treatment Plant Supervisor (Treatment Plant Facility Problems)
3. Water Quality Supervisor (Indian Valley Golf Course & watershed problems)
4. Electrical/Mechanical Supervisor (Lift Station Problems)
5. Contact Operations and Maintenance Personnel (initial response)

7D.02 DISTRICT CAPABILITY TO PERFORM CLEANUP

All District resources would be applied to cleanup measures, which resources include the in-house capability to repair any of the system facilities. Cleanup or abatement measures requiring specialized equipment the District does not have would be performed by others as identified in the next section.

7D.03 SPECIFIC MEASURES AND PROCEDURES

In the event of a blockage resulting in an overflow or spill, assistance should be obtained in removing the blockage as follows:

Collection System Spill

- a. During normal working hours
Novato Sanitary District, Novato (415) 892-1694.
- b. After hours:
Roto Rooter, San Rafael (415) 454-7281 or 898-2700; or
Roy's Sewer Service (415) 456-2320 or (707) 763-0226.

In the event of a sewer break, sewage would be diverted around the break area (most likely by pumping from the upstream to the downstream manhole, and then the line repaired.

In any case of a spill from the collection system, all visible debris would be picked up and the area hosed down if run-off can be diverted back into the sewer system. Any spill washdown that cannot be directly put back into the sewer system will need to be contained, decontaminated and picked up for disposal.

Lift Station Spill

In the event of equipment failure resulting in an accidental spill, at least temporary repairs should be accomplished. Restoration of operation should be relatively swift since each station is equipped with a pump capable of pumping the maximum inflow. If both pumps fail, check with yard for other available pumps that could be used. In the event of power outage over an extended period resulting in an accidental spill, the standby portable generator should be connected to operate the station until power is restored.

All visible debris would be cleaned up and the area hosed down if contained within the vault. Any spill outside of the vault will need to be contained, decontaminated and picked up for disposal.

Force Main Spill

In the event of a force main break resulting in an accidental spill, first turn off the pump

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to prevent additional discharge. Then, together with cleanup operations, repair the force main. If failure is so severe that a possibility exists that repairs might take so long that available lift station retention storage could be exceeded, emergency measures would be taken to avoid an additional spill. These measures, depending on specific circumstances, could be either installing an emergency diversion loop connected below and above the break, or having a septic tank pumping truck haul sewage from the lift station to the ponds. Reliable haulers are:

- a. City Sewer Service, Pt. Reyes Station: (415) 663-1059.
- b. Roto Rooter, San Rafael (415) 454-7281; or
Roy's Sewer Service (415) 456-2320 or (707) 763-0226.

Pond Spill

In the extremely unlikely event of a spill resulting from pond berm failure, effluent would drain rapidly with little opportunity for containment. It is probable that, in the absence of a catastrophic event, both ponds would not fail simultaneously and the undamaged pond could be utilized until repairs to the other pond are completed.

Should the situation arise where it is known well in advance that a pond spill is expected to occur, all feasible remedies will be explored with the North Coast Regional Water Quality Control Board (NCRWQCB) prior to spill. The most feasible measures are:

- a. Increase storage capacity by sandbagging or otherwise increasing levee height.
- b. If there is no additional option for containment, control discharge through a temporarily constructed spillway to assure that the spill will not cause the pond levee to fail by erosion, and/or arrange with the NCRWQCB to discharge to the irrigation field to prevent overflow, taking all possible measures to assure that any discharge that runs off the irrigation field is off the highest possible quality and well disinfected. Cleanup measures would be as described in Item 1 above, plus any additional measures dictated by circumstances or as requested by the NCRWQCB.

Disposal Piping/Irrigation Field Spill

In the event of a spill that results in runoff outside of the designated disposal area, there is ample pond storage during the irrigation season to immediately shut off discharge to the fields and to make repairs and allow the ground to dry out. It is unlikely that any standing pools would result, but if so, they should be drained by pumping the water back to the ponds or onto the disposal area.

7D.04 REQUIRED NOTIFICATIONS AND REPORTS

1. Notify the Operations/Maintenance Superintendent at once.
2. The North Coast Regional Water Quality Control Board (NCRWCQB) must be notified within 2 hours at the following telephone numbers:
 - a. California Office of Emergency Services: (800) 852-7550
 - b. Spills involving Oceana Marin system: 707-576-2220, North Coast RWCQB.
 - c. Marin County Health Department (Health & Human Services) (if potential public health impact): 415-499-7237
 - d. California Department of Fish and Game Region 3 (Central Coast) (if ocean or live stream impacted): 707-944-5500
3. A report shall be filed with the Emergency Coordinator upon return to the office using the form on the following page.

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4. A report shall be filed with the California Integrated Water Quality System (CIWQS) within 24 hours. To be completed by the legally-responsible person on site (O&M Superintendent, Chief Engineer or General Manager).

REPORT OF DISTRICT SEWAGE SPILL

Sewage System: Oceana Marin _____

1. Time of Discovery or Notification of Spill: Date: _____ Time: _____

2. If not employee, person initially reporting spill:

Name: _____

Phone No. _____

3. Location of Spill: _____

Source of Spill: _____

Area Affected: _____

Discharge of spill to water body:

a. Ocean _____

b. Live Stream Bed _____
(include name of stream, if available)

c. Dry stream bed: _____

Final surface discharge location if
other than water body: _____

4. Estimate spill volume and/or flow rate: _____

5. If live stream, estimated stream flow: _____

6. Time and duration of spill:

Start: Date _____ Time: _____

End: Date _____ Time: _____

7. The spill has been reported to:

Office of Emergency Services: **(800) 852-7550**

By: _____

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Date: _____

Time: _____

North Coast Regional Water Quality Control Board
(Oceana Marin): **707-576-2220**

By: _____

Date: _____

Time: _____

Marin County **(415) 499-7237**

By: _____

Date: _____

Time: _____

California Department of Fish & Game **(707) 944-5500**

By: _____

Date: _____

Time: _____

8. Remedial Actions (use additional sheets if needed):

Initial Actions Taken: _____

Follow-up Actions Needed: _____

9. Remarks: _____

Report Completed By: _____

Section IV. FOG

Because the service area has no commercial services the FOG program consists only of an annual clean out of the primary lift station wet well and grit chamber.

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Section V. Authority

The North Marin Water District operates and maintains the collection and treatment system for the Oceana Marin wastewater operations near Dillon Beach under the California Regional Water Quality Control Board North Coast Region Order No. 92-57 ID No. 1B80173MAR. See Attachment A.

Section VI. Monitoring

- a. Sewer System Maps are located in the engineering server file folder 3000 included in the plan are the Service Area drawing C-13 and collection system drawing OPS 6A.
- b. Annual operating budgets are developed by District staff. Budgets include Operating income from monthly service charges and misc service charges, Operating expenditures for the collection, treatment disposal accounting and general administration and capitol improvement projects. Attached is the current fiscal year budget.
- c. Preventive maintenance program is administered through a contract operations agreement with Phillips and Associates which includes weekly, monthly and annual maintenance tasks. Attached is current agreement.
- d. The district has an annual infiltration and intrusion inspection program that completes an entire system TV inspection every five years. See assessment spread sheet .In the annual budget planning process the results of these inspection deficiencies are included in the capitol improvement projects plans. The planned improvements are outline for a five year period in a priority order. See the attached fiscal year budget.
- e. Contingency planning for this small system is done on an as needed basis and is not a formal process.
- f. Training for this system is primarily provided by the Operations and Maintenance contractor for their staff. In the attached agreement there is an outline of this training. For the District staff emergency Operations plan and hazardous materials business plan training is conducted annually.
- g. Out reach to local vendors for clean out services is included as part of the emergency Operation plan as described above.

Section VII. Design

All district facility improvements are designed by in house engineering staff or an outside consultant and follow standard design specification. All designs and specifications can be found at the Main District office.

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Section VII. Capacity

The capacity for this system was established through a planning process and the development of a long range plan. The current long rang plan can be obtained at the Main District office.

Section IX. Monitoring

Through our contract operations and maintenance program District staff meets with the contractor twice a year. These meeting include a review of all system equipment failures and any accidental discharges. Because we have not seen more them one discharge every three years there is not a more formal process.

Section X. Audits

Because this is such a small collection system we have put together a five year review plan.