Mendocino City Community Services District

Sewer System Management Plan

August 1, 2018

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List of Abbreviations

CCTV Closed circuit television
CIP Capital Improvement Plan
CIWQS California Integrated Water Quality System
FOG Fats, Oils and Grease
FSE Food service establishment
MCCSD Mendocino City Community Services District
mgd million gallons per day
NPDES National Pollution Discharge Elimination System
OERP Overflow Emergency Response Plan
OES Office of Emergency Services
RWQCB Regional Water Quality Control Board
SHECAP Sewer Hydraulic Evaluation and Capacity Assessment Plan
SSMP Sewer System Management Plan
SSO Sanitary Sewer Overflow
SWRCB State Water Resources Control Board
WDR Waste Discharge Requirements

Mendocino City Community Services District
Sewer System Management Plan

Section 1

Introduction

1.1 System Overview

The MCCSD service area encompasses a population of approximately 1,000 residents and covers a 1 square mile area. This area is predominantly characterized by residential development. The MCCSD Sewerage System is comprised of collection, treatment and disposal facilities. The District manages and maintains over 47,000 feet of collection system sewer lines and three lift stations (Figure 1). The California Department of Parks and Recreation maintains a collection system and lift station at Russian Gulch State Park. State Park wastewater is pumped from their lift station through a force main to the MCCSD gravity collection system. Wastewater collected from the Mendocino Sewerage System is treated at the District's wastewater treatment plant. The plant provides full tertiary treatment before discharge via an ocean outfall. There is no industrial flow to the MCCSD Sewerage System. It is anticipated that there will be continued residential growth in the service area.

The District's wastewater collection system is comprised of vitrified clay, concrete, and PVC pipe ranging in size from 15-inch trunk lines to 4-inch laterals. The collection system includes the major portion of the system that was built in the mid 1970's, several pre-existing concrete collection lines from the old "Heeser System", and a private collection system constructed three years after the District system was completed in the Hills Ranch Subdivision.

Several of the old sewer lines were incorporated into the District collection system that was completed in 1975. The date of the installation of the original "Heeser System" is unknown. In 2003, the District added a privately owned Hills Ranch Subdivision collection system and lift station at the request of the property owners. This system was constructed in 1978.

Three lift stations, "A" (Main Street), "B" (Heeser Drive), and Hills Ranch are now maintained and operated by the MCCSD. Originally, lift stations "A" and "B" served only a limited number of local residents; therefore, they had wet wells designed to provide 12 hours storage capacity, which eliminates the need for standby power facilities. Hills Ranch Lift Station C, located in the Suntrap Meadow Circle cul-de-sac, collects wastewater from the areas within the subdivision. This station pumps wastewater by means of centrifugal pumps through a 4-inch PVC force main to the gravity portion of the system at Manhole No. HR9 located in the intersection of Hills Ranch Road and Suntrap Meadow Circle. The lift station has an emergency generator.

1.2 SSMP Background

The State Water Resources Control Board (SWRCB) acted at its meeting on May 2, 2006 to require all public wastewater collection system agencies in California with greater than one mile of sewers to be regulated under Statewide General Waste Discharge Requirements (WDR). The SWRCB action applies to the Mendocino City Community Services District (MCCSD), and mandates the development of a Sewer System Management Plan (SSMP) and the reporting of sanitary sewer overflows (SSOs) using an electronic reporting system. The SWRCB SSMP requirements are similar to those promulgated by the California Regional Water Quality Control Board (RWQCB).

The intent of this SSMP is to meet the requirements of both the RWQCB and the Statewide WDR. The organization of this document is consistent with the RWQCB guidelines, but the contents address both the RWQCB and SWRCB requirements. This SSMP is in compliance with California Regional Water Quality Board, North Coast Region (SDRWQB); order R1-2015-0039.

The SSMP outlines the annual management and scheduled maintenance for the sewer lines and the District's three lift stations. A five year cleaning and videotaping schedule of the sewer lines and lift stations has been developed by MCCSD. The District performs ongoing repair and maintenance activities to the collection system and the ocean outfall line as needed. Any damage to the collection system found during regular collection system maintenance will be repaired during that year.

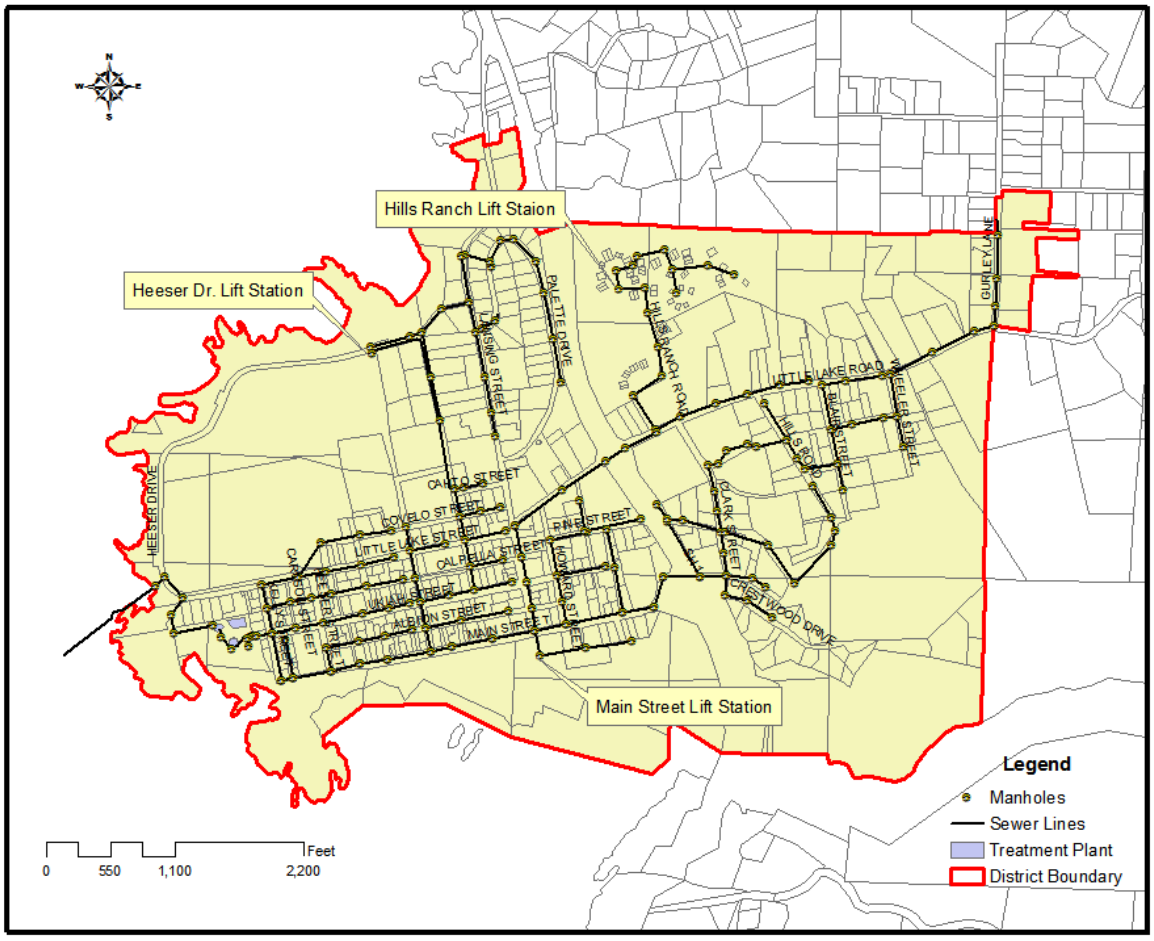


Figure 1 Location map showing MCCSD collection system and lift stations

The SSMP includes eleven elements, as follows:

I. Goals
II. Organization
III. Legal Authority
IV. Operation and Maintenance Program
V. Design and Performance Provisions
VI. Overflow Emergency Response Plan
VII. Fats, Oils and Grease Control Program
VIII. System Evaluation and Capacity Assurance Plan
IX. Monitoring, Measurement, and Program Modifications
X. SSMP Program Audits
XI. Communication Plan

1.3 SSMP Development Plan and Implementation Schedule

MCCSD has developed an SSMP Development Plan and Implementation Scheduled designed to address each mandated element of the SSMP and in accordance with the specified deadlines required in the WDRs. The SSMP Development Plan and Implementation Schedule has been divided into three (3) phases based upon to GWDR deadline (see Appendix A).

Section 2

Element I—Goals

The purpose of the SSMP is to provide a plan and schedule to manage, operate, and maintain all parts of the sanitary sewer system. The primary objective of this Plan is to eliminate sanitary sewer overflows. The District has developed goals to reduce the frequency of sanitary sewer overflows and mitigate any SSOs that occur. The District seeks to provide high quality and cost-effective wastewater collection for its constituents by meeting these goals. The District's Board of Directors and MCCSD personnel are committed to providing the resources necessary to maintain the sewer collection system and to implement this SSMP.

2.1 SSMP Goals

The following goals are herewith established by this SSMP:

- Properly manage and operate the District's facilities to minimize SSOs.
- Implement regular, proactive maintenance of the system to remove roots, debris, and fats, oils and grease in areas prone to blockages that may cause sewer backups or SSOs.
- Provide adequate capacity to convey peak wastewater flows.
- Protect public health and safety.
- Perform all activities in accordance with established safety policies and practices.
- Protection of the Pacific Ocean waters and tributaries within the District's service area.
- Protect the Town's shallow aquifer.
- Retain qualified employees who are well trained and certified in Collection System Maintenance.
- Uphold the District's standards and specifications on newly constructed public and private sewers.
- Preserve the District's capital investment in the sanitary sewer system to assure maximum system service life.

Section 3

Element II—Organization

The intent of this section of the SSMP is to identify District Staff who are responsible for implementing this SSMP, responding to SSO events, and meeting the SSO reporting requirements. This section also includes the designation of the Authorized Representative to meet SWRCB requirements for completing and certifying spill reports.

3.1 District Organization

The Mendocino City Community Services District is a special district that is also an enterprise district. The District is governed by a 5-member Board of Directors elected at large. Election of Directors is held in November of odd numbered years. Directors are elected to serve four year terms. The District Board routinely meets on the last Monday of each month, with special meetings called as necessary. Daily management is carried out by the District Superintendent who oversees the District's staff and reports directly to the Board of Directors. Figure 2 illustrates the MCCSD organizational structure.

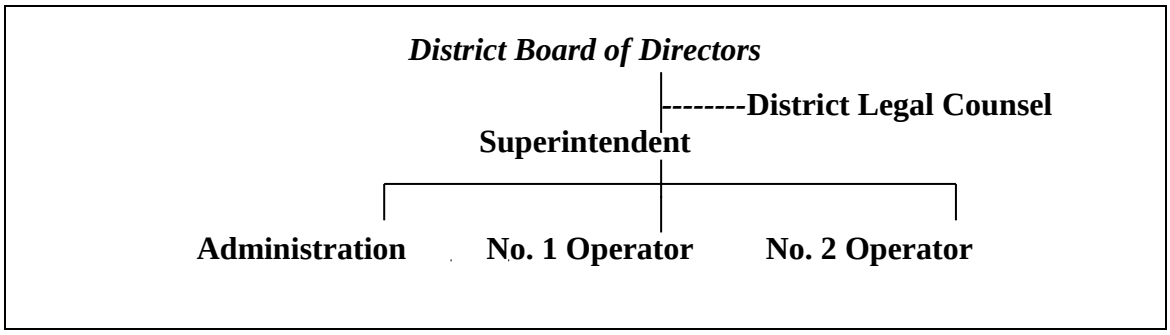


Figure 2 MCCSD Organization Chart

3.2 Description of General Responsibilities of District Personnel

District Superintendent

Under administrative direction from the Board of Directors, the District Superintendent plans and manages the affairs of the District and directs the staff in all functions and operations. The District Superintendent represents Board policy and programs with employees, community organization, and the general public. The District Superintendent reviews budget requests and makes recommendations to the Board on final expenditure levels, manages all labor/management activities, and performs all related work as required. The District Superintendent performs inspections to ensure compliance with approved plans and enforcement of District regulations relating to construction of public and private sewers, collection system pumping stations and related appurtenances, and is the chief wastewater treatment plant operator.

Administrative Assistant

Under direction and supervision of the Board of Directors and the District Superintendent, the Administrative Assistant performs secretarial, receptionist and administrative tasks, some of which are complex and confidential in nature. The Administrative Assistant provides technical assistance to the general public and public agencies regarding implementing District procedures for development review and permit issuance. The Administrative Assistant is responsible for the District's accounting and financial record keeping activities, and provides a variety of responsible professional assistance in the areas of budgeting, and fiscal planning and control, and performs related work as assigned.

Operator No. 1

Is under the direction of the District Superintendent, and reports directly to the District Superintendent. Operator No. 1 operates a variety of plant equipment in connection with the continuous safe and efficient operation of the wastewater treatment plant and collection system in order to meet all WDR and N.P.D.E.S. discharge requirements. Operator No. 1 personally performs a variety of tasks related to the maintenance, cleaning, and repair of the District's wastewater collection system, pump stations, and related appurtenances. When required, Operator No. 1 is responsible for enforcement of District safety regulations. This staff position is also responsible for collecting process samples and performing all laboratory testing and analyses.

Operator No. 2

Under supervision of the District Superintendent, the Maintenance/Operator performs a variety of tasks related to the maintenance, cleaning, and repairing of the District's wastewater collection system, pump stations, and related appurtenances. Maintains the collection system and updates the District's collection system maintenance records.

3.3 Responsibility for SSMP Implementation

MCCSD's SSMP identifies staff responsible for implementation of the SSMP program. Table 1 summarizes the responsibilities for SSMP implementation by element.

Table 1 Responsibility for SSMP Implementation by Element

SSMP Elements	Responsible Person(s)
I – Goals	District Superintendent
II – Organization	District Superintendent
III – Legal Authority	District Superintendent, District Legal Counsel
IV – Operations and Maintenance Program	District Superintendent
V – Design and Performance Provisions	District Superintendent, Engineering Consultant
VI – Overflow Emergency Response Plan	District Superintendent
VII – FOG Control Program	District Superintendent
VIII – System Evaluation and Capacity Assurance Plan	District Superintendent, Engineering Consultant
IX – Monitoring, Measurement and Program Modifications	District Superintendent, Engineering Consultant
X – SSMP Program Audits	District Superintendent
XI – Communication Plan	District Superintendent

Element I – Goals

The District Superintendent is responsible for leading staff in the implementation of the District's goals.

Element II – Organization

The District Superintendent is responsible for updating the organizational chart, and for assigning SSMP implementation assignments.

Element III – Legal Authority

The District Superintendent is responsible for upholding or revising the District's Sanitary Sewer Use and Sewer System Design Standards Ordinances (Appendix B). The Sanitary Sewer Use Ordinance includes residential and non-residential sewer use regulations and discharge permitting procedures and pre-treatment requirements for non-residential users. The Sewer System Design Standards Ordinance establishes standards for new and rehabilitated collection system components. The District's legal counsel will review these ordinances and any amendments to the ordinances, and will make recommendations for necessary changes.

Element IV—Operations and Maintenance Program

The District Superintendent is responsible for developing the Collection System Operation and Maintenance Program (CSOMP, Appendix C). The CSOMP establishes procedures intended to prevent or minimize the potential for sanitary sewer overflows. MCCSD staff maintains the CSOMP and amend or update it as necessitated by the addition of new facilities, or changes in operation or maintenance of the sewer system that may materially affect the potential for sewer overflows.

Element V—Design and Performance Provision

The District uses consultants and contract engineering firms to develop and review design and construction documents and plans to ensure that all construction projects meet the District's standards. A District contract engineer would be responsible for updating standards for installation, rehabilitation and repair of the collection system.

The District's contract engineer and the District Superintendent are responsible for inspecting, testing, and acceptance of all new collection system construction projects, rehabilitated, or repaired portions of the collection system to ensure the District's construction standards have been followed. The District

Superintendent serves as project manager for new and rehabilitated facilities, as needed. MCCSD has adopted a Sewer System Design Standards Ordinance that provides standards for the installation, rehabilitation and repair of the collection system, pump stations, and related appurtenances (Appendix B).

Element VI – Overflow Emergency Response Plan

The District Superintendent is responsible for implementing the Overflow Emergency Response Plan (Appendix D). Revising the plan and annual operator training is also the Superintendent's responsibility.

Element VII – Fats, Oils, and Grease Control Program

The District Superintendent and operators are responsible for developing a Fats, Oils, and Grease Program that identifies grease hot spots to help develop and maintain an effective cleaning program for grease problem sewers. The Fat Oil and Grease Ordinance is attached in Appendix B.

The Operators are responsible for inspecting grease interceptor traps that have been installed at non-residential locations at the District Superintendent's direction. The District Superintendent under the direction of the Board of Directors is responsible for enforcing user discharge permit regulations.

Element VIII – System Evaluation and Capacity Assurance Plan

An engineering consultant hired by the District will perform a collection system capacity evaluation study. The engineering firm is responsible for establishing and assessing capacity requirements for the District's collection system and for providing recommendations for corrective actions needed to address hydraulic deficiencies.

The District Superintendent is responsible for preparation and implementation of the District's System Evaluation and Capacity Assurance Plan, which includes an implementation schedule that prioritizes short and long-term actions recommended by the District's engineer to correct hydraulic deficiencies. The District Superintendent under the direction of the Board of Directors is responsible for development and implementation of the District's long-term Capital Improvement Plan (CIP) including updating budgets and schedules for making capital improvements to reduce inflow and infiltration and to correct hydraulic deficiencies.

Element IX – Monitoring, Measurement and Program Modifications

The District Superintendent is responsible for monitoring implementation and assessing success of the overall SSMP program elements with the assistance of staff. The District Superintendent will update the SSMP, as needed. SSO trends, including frequency, location, and volume will be identified by the Superintendent. Key performance indicators monitored by staff to measure SSMP performance include service calls, blockages, and SSOs over the last year.

Element X – SSMP Program Audits

The District Superintendent is responsible for overseeing SSMP audits. Every two years an internal audit will be performed and a report will be prepared and kept on file that evaluates the effectiveness of the SSMP and District compliance with SSMP requirements.

Element XI – Communication Plan

The District Superintendent is responsible for communicating with the public and nearby agencies the status of the District's SSMP. Public notification will be given that the District is preparing an SSMP at a regularly scheduled Board of Directors meeting to provide the public with an opportunity for input to the District as the program is developed and implemented.

The District Superintendent will notify Russian Gulch State Park, which operates a tributary collection system to the MCCSD sanitary sewer system, that the District is preparing an SSMP.

3.4 Authorized Representative

The District Superintendent is the District's authorized representative registered with the State Water Resources Control Board to enter and certify SSO data by email, which is accessed through the California Integrated Water Quality System (CIWQS). The District Superintendent has been authorized by the Board of Directors to prepare and submit electronic reports. Name and contact information for the current authorized representative is available in Appendix E.

3.5 Chain of Communication for Responding to SSOs

The communication chain for responding to an SSO is shown in Figure 3. Detailed information on the District's overflow response procedure can be found in Element 3 Overflow Emergency Response Plan and in the District's full Overflow Emergency Response Plan in Appendix D.

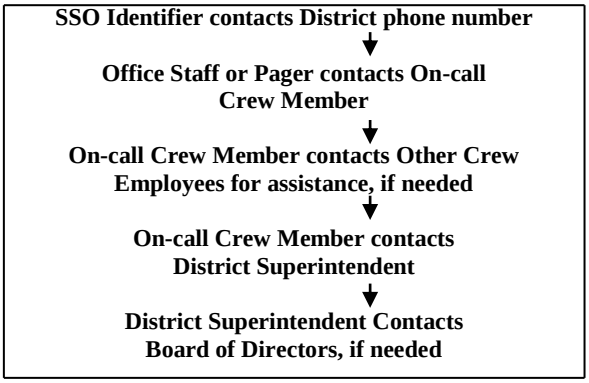


Figure 3 Chain of Communication for Responding to SSOs

3.6 Chain of Communication for Reporting SSOs

The chain of responsibilities for reporting SSOs to the various regulatory agencies is shown in Figure 4. Detailed information on SSO reporting can be found in Element 3 Overflow Emergency Response Plan and in the District's full Overflow Emergency Response Plan in Appendix D.

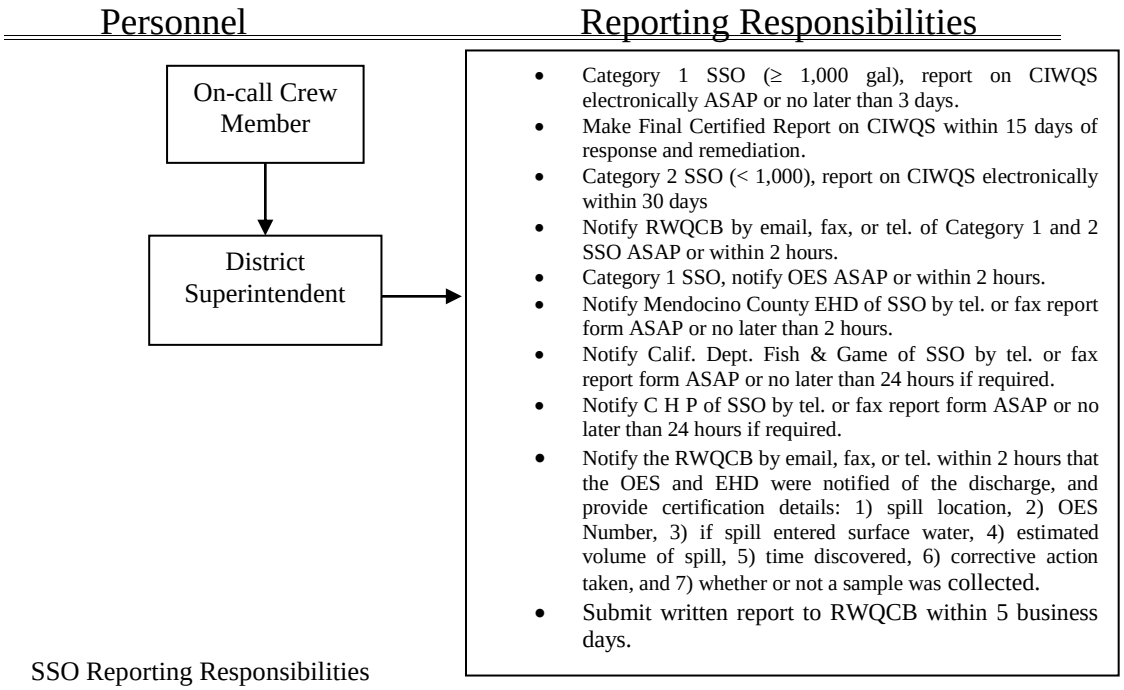


Figure 4 SSO Reporting Responsibilities

Section 4

Element III – Legal Authority

MCCSD has adopted ordinances and entered into service agreements that provide the District with the legal authority to meet the requirements of the Statewide General Waste Discharge Requirements (WDR). The Sanitary Sewer Use Ordinance 09-2, the Fats, Oils, and Grease Ordinance 09-3, and the Sewer System Design Standards, Ordinance 08-2 (Appendix B), and the legal agreements between the Mendocino Unified School District (MUSD) and the California Department of Parks and Recreation (CDPR) are intended to:

1. Prevent illicit discharges into the Mendocino Sewerage System, such as inflow and infiltration and chemical dumping;
2. Require that sewers and connections be properly designed and constructed;
3. Ensure access for maintenance, inspection, or repair for portions of the lateral owned or maintained by MCCSD;
4. Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and
5. Enforce any violation of its sewer ordinances.

The Sanitary Sewer Use Ordinance (Ord. 09-2) addresses the prevention of unauthorized discharges and the installation of pretreatment equipment. The Fats, Oils, and Grease Ordinance 09-3 limits fats, oils, and grease from entering the collection system to prevent blockages, and provides standards for the installation of grease control devices. The Sewer System Design Standards Ordinance, 08-2, sets the design criteria for new sewers and collection system appurtenances.

The District has approved a Source Control Program (SCP) with the adoption of Resolution 202 (Appendix F). The purpose of the Source Control Program was to prevent the introduction of pollutants into the MCCSD Sewerage System through pretreatment of discharges into the collection system. This program outlined a discharge permit procedure for non-residential users and categorical and local discharge limits. The SCP helped prevent SSOs caused by blockages and damage to the collection system from illicit discharges.

The legal agreements between the MUSD and CDPR have given the District the legal authority to regulate discharges to the Mendocino Sewerage System from tributary agencies and to charge connection and monthly fees for wastewater treatment.

Section 5

Element IV – Operation and Maintenance Program

MCCSD has developed a proactive operation and maintenance program (Appendix C). The program includes guidelines for the operation and maintenance of the sanitary sewer collection system. The O & M Program has a detailed discussion about the District's collection system maps, operation and maintenance activities, the District's capital improvement program, system rehabilitation and replacement, and District personnel training.

5.1 Collection System Maps

In 2001, the District approved development a geographic information system (GIS) Many layers of information can be overlaid onto the base map, such as sewer and manhole locations, District and parcel boundaries, cultural features, roads, well locations, and a no-drill buffer zone. Database information that is georeferenced to a location can be selected, and queried database information can be displayed.

Manhole and sewer line layers were created to show the sewer lines between manholes. An attribute table with manhole and sewer line information was georeferenced to each manhole and sewer line that is displayed on the GIS. The attribute table lists the line type, line material and the pipe diameter. The

attribute table can be used to label the collection system on maps or to query information about the system. The District is able to use the attribute table and map displays for collection system maintenance scheduling.

A well layer was created with the location of 420 wells that were surveyed with a Trimble dGPS unit. A well attributes table was created and edited, which includes well depths and coordinates. The collection system overlies the town's shallow aquifer, so knowing the location of all wells in relation to the collection system is critical to preventing contamination of the groundwater supply.

The sewer line layer was used to create a no well drilling buffer zone. Mendocino County restricts well drilling within 50 feet of a sewer line. The new buffer zone layer will quickly identify restricted drilling areas.

Accurate collection system maps are easily created with the GIS. Maintenance maps are created for the District's 5-year collection system maintenance program. They identify the manholes and the sewer line sections scheduled to be cleaned annually. Pertinent cut sheet information about each sewer line section is entered into the map layer attribute table. Any new lateral connections and existing laterals will be added to a new sewer lateral layer in the future. A Hot Spot layer will also be generated in the near future to assist maintenance crews to regularly maintain these trouble areas.

5.2 Operation and Maintenance Activities

Sewer Line Cleaning

In 2009, MCCSD purchased a trailer mounted high pressure jetter for sewer line cleaning of sewer mains and emergency cleaning of mainline blockages. In 2011 MCCSD purchased an Aries Portable Pipeline Television Inspection System. The District cleans and videotapes the collection system using the Jetter and Camera system. Contractors are used to clean lift station wet wells. Normally $1/5^{th}$ of the collection system (Figure 5) and Hot Spot areas are cleaned on an annual basis (Maps in Appendix C).

When cleaning lines, high-pressure water jetting equipment is always directed upstream using the least amount of pressure to advance the nozzle to the upstream manhole. The line is cleaned by applying high pressure only in the direction of flow to prevent backup into lateral connections. The upstream manhole is vented by removing the manhole cover while jetting. When visual inspection indicates an abnormal build-up of grease, grit, and debris existing within a sewer line, additional passes are made through the line with the high-pressure water jetting equipment.

There are several old sections of the collection system that are not accessible to jetting equipment or are exceptionally long sections without manhole access. In these areas, flushing is used to keep the lines clear of material that may cause blockages.

Videotaping of Sewer Lines

During annual cleaning, all sewer lines that are high pressure water jetted are then videoed and recorded. The video recording is used to locate damage to the collection system, which is next scheduled for repair during the current budget year.

Record Keeping

Collection system cleaning logs and video recording records are maintained by The District. District personnel review the logs and videotapes to locate and schedule repairs to damaged sections. The Sewer Maintenance Database is regularly updated from the data collected during annual maintenance. Maintenance logs include data on hot spot line segments, the condition of lines, line size and type, and any offset or cracked sewer lines.

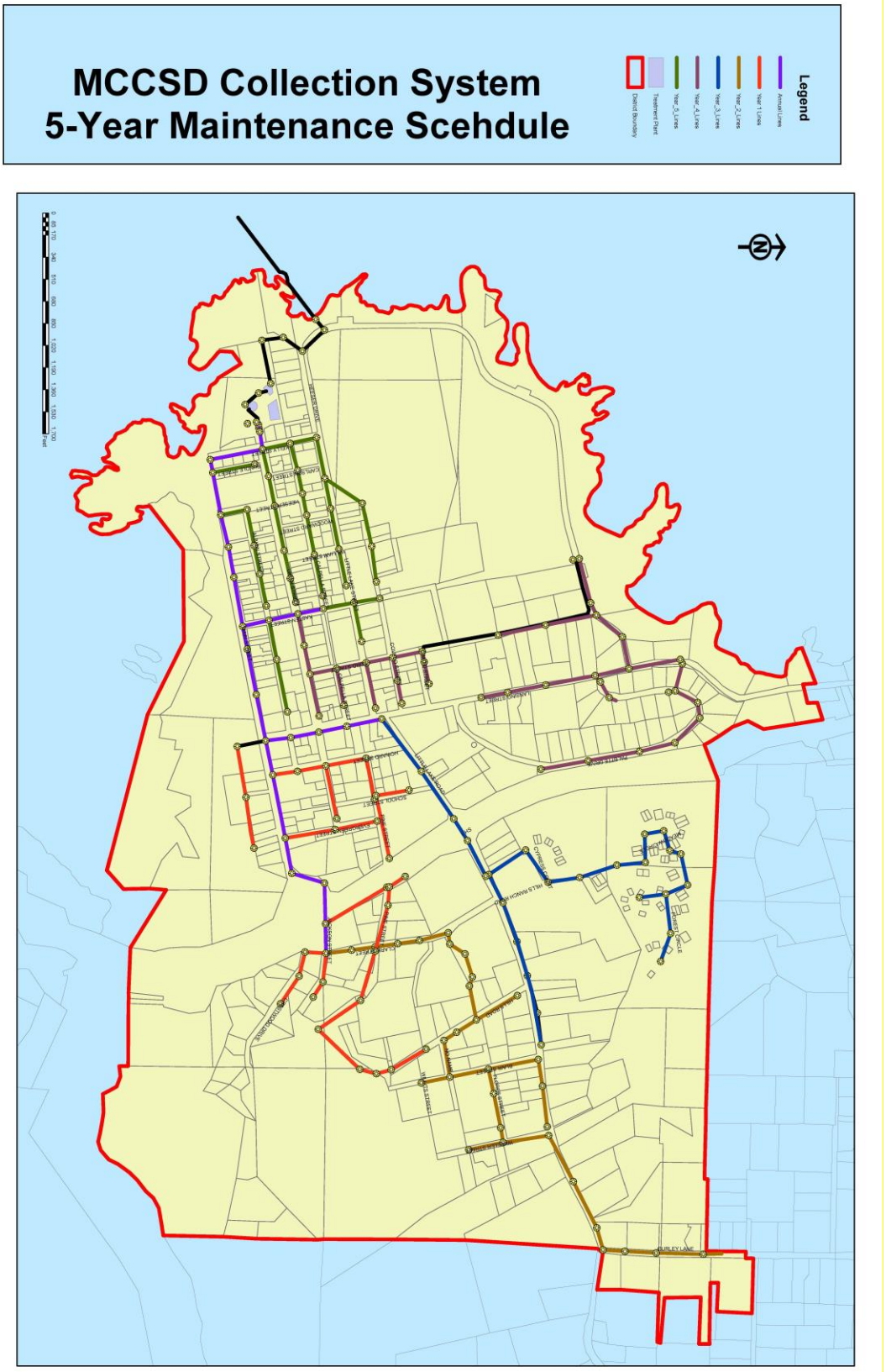


Figure 5 5-Year Collection System Maintenance Program Map

Hot Spots

Areas where visual or video inspections indicate repeated or unusual accumulation of grease, grit roots or other debris, or in areas with a past history of sewage blockages, are considered hot spots. Hot spots are cleaned as frequently as necessary to prevent sewer line blockages and spills; however, in no case is the interval greater than once annually for cleaning or inspection. Since hot spots result from special circumstances sometimes they may require special cleaning procedures. If there is a question on how to clean a particular hot spot, District personnel will request that a contractor recommends additional cleaning procedures or repairs needed to correct the problem area. Hot spots are video inspected to determine if the cause is due to damage, root intrusion, breakage or separation, etc., and corrective actions shall be initiated. Hot Spots are mapped and added to the Collection System Operation and Maintenance Program when they are identified (Appendix C).

Lift Stations

The District has three lift stations. The Hills Ranch and Heeser Drive Lift Stations utilize pumps located in dry pits. Motors are connected directly to the pumps. The Main Street Lift Station utilizes air compressors in a dry pit to pump wastewater to the gravity collection system. All of the District's lift stations have multiple pumps or compressors to prevent accidental spills due to equipment failures. Lift stations are designed so one pump is capable of handling all of the anticipated flow to allow the additional pump(s) to be a true backup.

The variety of lift station equipment requires different operation and maintenance procedures for each lift station design and the type of pumps that are used at each station. To facilitate the maintenance of the District's lift stations, a pump run is initiated several times during the week during routine inspections. Routine maintenance is performed, including the monthly greasing of all bearing and fittings, until major service is required. Additional pump maintenance is based upon manufacturer's recommendations. A checklist, tailored to each site, is used to document and assist in the routine maintenance. Routine maintenance is performed at each lift station from a weekly maintenance checklist printed from the District's Jet Stream maintenance program. Work performed at the lift stations is entered into the District's sewer maintenance database on a weekly basis from the data obtained from the checklist.

5.3 Capital Improvement and Equipment Replacement Programs

Capital Improvement Program

The District's Capital Improvement Program is for anticipated wastewater system improvements. This program includes the cost of major rehabilitation, expansion or upgrading of the treatment plant and the collection system as they reach their useful lives, increasing system design capacity, or for new regulatory operational requirements.

The District does not have a restricted Capital Improvement Fund. The funds that are not used in a fiscal year are added to the District's unrestricted general fund. In 2016, the MCCSD Capital Improvement Fund was 8.2% of Annual Revenues or $54,589. The MCCSD Capital Improvement revenues are generated from connection fees and the interest from the District's investments.

It is District policy that connection fees are proportionately charged to all users. The connection fee is called the Right of Use fee by MCCSD. This is a hook-up fee or capacity share fee. The charge is based on an Equivalent Single Dwelling (ESD) of plant sewer capacity. The fee represents the value of the proportionate share of the existing wastewater system charges to new customers or expanding users. The fee is normally calculated by adding:

Existing System Value
Previously paid debt service
Future capital improvements
Proportionate share of current debt service

The total plant capacity is divided by the ESDs of system capacity. There are 1,500 ESDs of plant capacity in MCCSD sewerage system. In 2016-17, 1,098.36 ESDs of plant capacity have been collected from past and current users. The remaining portion (401.64 ESDs of plant capacity) of the capital costs of the system will be recovered from future users and expanding users through connection fees.

The original residential hook-up fee was $250 and a commercial connection cost $350. The Right of Use ordinance and connection fee schedule were revised. The connection fee charges were increased, and the increase was based on an engineering study by Larson and Associates (Appendix G) that revalued the Mendocino Sewerage System and recommended an increase in the fees to recover the current value of the remaining plant capacity. Major rehabilitation, expansion or upgrading of the District's collection system will be funded by this program.

Equipment Replacement Program

The District sets aside equipment replacement reserves on an annual basis. Equipment replacement funds are a line item budget expense determined from the amount equal to the straight-line depreciation (based on original costs) of the assets. The original plant, collection system, outfall, two lift stations and subsequent plant improvements were valued at $3.77 million for a connection fee study in 2006. For the 2016-17 fiscal year budget, $150,000 was included in the budget for equipment replacement. The District does not have a restricted Equipment Replacement Fund (Depreciation Fund), but revenues collected for equipment replacement are deposited into the general fund.

5.4 Rehabilitation and Replacement Plan

Following regularly scheduled annual collection system cleaning and videotaping, the private contractor prepares a detailed report and videotape of the work that was performed. The location of damaged sewer lines root intrusion and excessive grease deposits are identified in the report. Cracked and damaged lines are scheduled as soon as possible for repairs. The District uses local plumbing and underground contractors to make the point repairs. If possible, MCCSD will slip line damaged sewers to avoid digging up overlying streets. Equipment Replacement Fund reserves are used to pay for sewer line rehabilitation and lift station equipment replacement.

Any deficiencies in the collection system that are identified during routine maintenance are scheduled to be upgraded during the current fiscal year. Cash reserves from the Capital Improvement Fund are used for collection system upgrades and improvements.

5.5 Equipment and Replacement Parts

An inventory of critical spare parts and collection system sewer lines are stored at the treatment plant or at individual lift stations to ensure that critical equipment can be repaired immediately. If a component fails that is not in stock, the District has pump around equipment and lift station bypass equipment to prevent an SSO until the replacement parts can be delivered and the repairs can be made.

5.6 Training

To prevent or contain SSOs, the District has emergency pump around and containment equipment for sewer line blockages. This equipment will be installed until the blockage is cleared and any wastewater that has been contained in a storm drain will be pumped back to the gravity collection system. Plant operators are given regular training in the operation and setup of the pump around and containment equipment.

Each lift station has an emergency bypass, so in case of a prolonged power outage or an equipment failure the lift station wet well can be pumped to the gravity portion of the collection system. A bypass pump installed in the wet well is powered by an emergency generator in these situations. District personnel are trained on the setup and operation of this equipment.

MCCSD uses a sewer maintenance contractor to clean and videotape the collection system. MCCSD personnel assist the maintenance crew during cleaning with traffic control. All plant operators are certified flaggers. All District operators have taken specialized training courses in Operation and Maintenance of Wastewater Collection Systems.

The District has a Safety Program that includes training in confined space entry, infections and infectious diseases, traffic hazards, and underground excavation safety.

MCCSD purchased a high pressure trailer mounted sewer jetter in 2009. This equipment will be used to clear blockages and for regularly scheduled sewer maintenance. Plant personnel are trained on operation of the equipment.

Section 6

Element V – Design and Performance Provisions

The District currently maintains approximately nine miles of sanitary sewer collection pipelines. The MCCSD sanitary sewer system carries wastewater from homes, businesses, Russian Gulch State Park, and the Mendocino Unified School District via a network of gravity sewer lines , force mains, and three sewage lift stations (see collection system and lift stations locations map, Figure 1) within the MCCSD service area. Collected wastewater is from residential and commercial users. There are no industrial wastewater dischargers within the District. The California Department of Parks and Recreation maintains a collection system and lift station at Russian Gulch State Park. State Park wastewater is pumped from their lift station through a force main to the MCCSD gravity collection system. Wastewater collected from the Mendocino Sewerage System is treated at the District's wastewater treatment plant. The plant provides full tertiary treatment before discharge via an ocean outfall.

The District has developed design criteria and standards for the construction, inspection, testing, and acceptance of new, rehabilitated, or repaired portions of the collection system.

6.1 Sewer System Design Standards Ordinance

MCCSD has adopted a Sewer System Design Standards Ordinance 08-2 (Appendix B) after it was reviewed and edited by the District's contract engineer. The provisions of the ordinance provide guidelines for design and construction of new sanitary sewer systems and pump stations and appurtenances; and for the rehabilitation and repair of existing sanitary sewer systems; and procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

The District's sewer design and performance guidelines establish the minimum acceptable design criteria. More stringent requirements may be imposed by the District based on specific project conditions. These guidelines may reference additional conditions which may be promulgated by all other pertinent ordinances, codes and official policy set forth by the MCCSD, Mendocino County, or other government agencies.

The District's guidelines for the design and construction of new and rehabilitated sewers within the MCCSD regulate the following areas:

- Application and permitting
- Notification prior to construction
- Inspections and backfilling
- Sewer and lateral construction and approved materials
- Easements and access roads
- New and rehabilitated sewer main testing and acceptance
- Lift station requirements

Section 7

Element VI – Overflow Emergency Response Plan

MCCSD has developed an Overflow Emergency Response Plan (OERP). The OERP (Appendix D) defines the District's plans, procedures and requirements for responding**,** remediating and reporting sanitary sewer overflows from sewers and lift stations. The OERP was developed to satisfy terms and conditions of the California Regional Water Quality Control Board, North Coast Region, NPDES Permit No. CA0022870, the Statewide General Waste Discharge Requirements, Order No. 2006-0003, and State Water Board General Order No. WQ 2008-0002-EXEC.

The purpose of the OERP is to assure a prompt and appropriate level of response is made to every reported sewage spill received by the District so that adverse effects to public health, water quality, the environment, and public and private property can be minimized. The OERP further includes provisions to ensure notifications and reports are made to the appropriate local, state and federal authorities, and that response actions taken by the District are properly documented. By responding promptly with adequate resources to sewage spills, and promptly providing regulatory agencies with required spill notification and spill reports, the risk of enforcement actions against the District can be minimized.

The core elements of the OERP are the spill response procedures, and the regulatory agency spill notification and reporting requirements. The OERP provides continuity between core elements, from the initial receipt of a spill notification through completion of the regulatory spill report. In addition to these core elements, the OERP also addresses public notification procedures, public education, public outreach, resource sharing, mutual aid agreements, training and OERP updating. These additional elements are essential to the maintenance and development of the OERP.

The OERP was developed in cooperation with District staff, the North Coast Regional Water Quality Control Board, the Mendocino County Environmental Health Department, California Department of Parks and Recreation, Water Resources Control Board, and California Office of Emergency Services.

Section 8

Element VII – Fats, Oils, and Grease (FOG) Control Program

The District operates and maintains a sewer collection system and wastewater treatment plant that serves the residences and businesses in Mendocino. A primary District collection system operating goal is to prevent sanitary sewer overflows (SSOs) due to FOG blockages.

To avoid future blockage problems, the District has developed a FOG Program to educate both residential property owners and Food and Beverage Establishments (FBEs) on the proper practices for dealing with FOG. Proper practices may include the requirement to install and maintain a grease control device (GCD) in a FBE that is designed to remove FOG from the wastewater stream.

8.1 FOG Program Management

MCCSD has two approaches to FOG management. The first approach is to minimize the FOG that enters the collection system. Both sources (residential and commercial) of FOG are part of this approach. The residential FOG management program focuses on public education through such means as mailers. This is the only practical approach as the District's FOG Ordinance has no authority to require residential contributors to install GCDs. The commercial FOG management program is to minimize the commercial FOG that enters the system by: 1) requiring a grease-producing FBE to have GCD equipment, 2) to ensure that the GCD equipment is properly sized and maintained, and 3) that FOG is hauled from the FBE at an appropriate frequency by an approved wastehauler.

The second approach is to remove the FOG that enters the collection system. MCCSD has developed a Collection System Operation and Maintenance Program to proactively maintain the sewer system to remove roots, debris, and fats, oils and grease in "Hot Spot" areas prone to blockages that may cause sewer backups or SSOs. The primary method of removing FOG from the collection system is sewer cleaning. Flushing with a high pressure 'grease nozzle' is the preferred method and equipment.

8.2 Authority

The District has adopted the Sanitary Sewer Use Ordinance, 09-2 Section 2 of this ordinance prohibits "any wastewater having a fat waste, oil or grease (FOG) content, whether or not emulsified, in excess of two hundred (200) milligrams per liter" from being discharged through the MCCSD sewer system to the Mendocino wastewater treatment facility. The intent of this Section was to establish District authority to prevent Users from discharging greases and other food wastes that can quickly accumulate in laterals and sewer mainlines and cause blockages.

In 2009, the FOG Program was created through the FOG Ordinance, 09-3. The FOG Ordinance establishes quality and quantity standards on all wastewater and waste discharges containing FOG, and it provides pretreatment standards for commercial FOG producers. The MCCSD is responsible for enforcing the FOG Ordinance on Food and Beverage Establishments (FBE's).

8.3 Implementation of the FOG Program

The MCCSD FOG Ordinance focuses on commercial FOG producers. All New FBEs are required to install, operate, and maintain an approved type and adequately sized GCD prior to commencing discharges of wastewater to the District's sewer system. An existing FBE without a GCD may be required to install, operate, and maintain one if it is determined that the FBE is producing FOG.

All existing FBEs shall be inspected by the District to determine their impact on the MCCSD sewer system resulting from the discharge of FOG. Existing FBEs, determined by the District, to have a reasonable potential to adversely impact the MCCSD sewer system will be notified of their obligation to install a GCD within the specified period set forth in a notification letter.

If Users are complying with the Sanitary Sewer Use and FOG ordinances, periodic inspections by the District are all that is necessary to monitor compliance.

The requirement that a FBE shall install an approved GCD may be waived for any of the following conditions:

1. The installation of a grease interceptor is not feasible or applicable.
2. There is not adequate slope for gravity flow between kitchen plumbing fixtures and the grease interceptor and/or between the grease interceptor and the private collection lines or the public sewer.
3. There is not adequate space for installation and/or maintenance of a GCD.
4. The FBE has a negligible FOG discharge and insignificant impact to the sewer system.

A FBE may submit a written request for a waiver from the grease interceptor or a grease trap requirement to the District. Upon determination by the District that reasons are sufficient to justify a waiver, the waiver will be issued or revised to relieve the FBE from the requirement to install a GCD.

A FBE that operates without a grease control device may be required to pay an annual FOG Disposal Mitigation Fee to equitably cover the costs of increased maintenance of the sewer system as a result of the FBE's inability to adequately remove FOG from its wastewater discharge.

8.4 "Hot Spot" Analysis

The District has performed an analysis of FOG "Hot Spots" within the collection system. Videos of collection system cleaning and the history of stoppages and overflows was used to identify potential "Hot Spots" for the FOG Control Program (see "Hot Spot" Map, Appendix C).

8.5 Enforcement

Following a violation of the Sanitary Sewer Use or FOG Ordinances or applicable law, MCCSD may issue the User a Notice of Violation (NOV). A NOV shall:

1. Describe the violation and the basis for the violation;
2. Cite the provision of the Ordinance or law violated;
3. Require correction of the violation and/or a written explanation of the cause of the violation within a specified timeframe;
4. Set forth any administrative enforcement action imposed by MCCSD; and
5. Provide written instructions for obtaining a hearing and the deadlines for doing so, if applicable.

MCCSD may impose in an NOV any of the enforcement actions set forth in the Sanitary Sewer Use or FOG Ordinances including monetary fines against a User upon a finding that a violation of these Ordinances has occurred.

The Board of Directors may require the User to pay any additional costs incurred which are reasonably related to the enforcement of any requirements of the Sewer Use or FOG Ordinances. These costs may include any inspections, monitoring, sampling or other investigations required by MCCSD on a non-routine basis; procurement of records; additional treatment; reasonable attorney fees and other legal costs; any expert analysis required on a non-routine basis; any damage to the MCCSD Sewerage System; costs required to resume normal operations of the MCCSD Sewerage System; and any other costs incurred by the District in its enforcement efforts.

The District may impose a compliance schedule setting forth the action(s) necessary to comply with the FOG Ordinance and the deadlines for completing such action(s).

The Board of Directors may approve the physical termination of service whenever the User:

1. fails to comply with the terms of a Notice of Violation or Compliance Schedule;
2. fails to make timely payment of any amount due to MCCSD;
3. fails to provide reports or other documents required by MCCSD to determine compliance with this Ordinance;
4. knowingly provides a false statement to MCCSD;
5. falsifies, tampers with or knowingly renders inaccurate any monitoring device or sample collection equipment;
6. refuses access to User's facilities upon MCCSD's demand without delay; or
7. discharges any Wastewater in violation of the Sanitary Sewer Use or FOG Ordinances.

Section 9

Element VIII – System Evaluation and Capacity Assurance Plan

The MCCSD wastewater collection, treatment, and disposal facilities serve a community with an approximate resident population of 650, covering an area of approximately 700 acres. This area is predominantly characterized as oceanside residential, commercial, and visitor serving facilities.

The District's collection system is comprised of over 47,000 lineal feet of collection system sewer lines and three lift stations. Wastewater is treated at the District's wastewater treatment plant. The plant provides full secondary and tertiary treatment before discharge via an ocean outfall. There is no industrial flow to the MCCSD sewerage system. The District does receive wastewater from a fourth pump station serving the

Russian Gulch State Park, which is located approximately one mile north of the District. It is also anticipated that there will be minimal residential growth in the service area.

Growth of the wastewater system could occur through new development within the boundaries of the MCCSD or expansion of the system to serve existing areas adjacent to the MCCSD currently utilizing on-site disposal systems (septic systems). There currently is approximately 87 acres of undeveloped land within the District, and approximately 125 acres of land adjacent to the District's boundaries contained within the Sphere of Influence. Growth projections represented in the August 2009, General Plan for Mendocino County indicate that countywide the population will grow at a rate of 0.95 percent each year over the next 40 years.

The District completed a Sewer System Capacity Analyses study in November 2009 (Appendix H). The study was performed by SHN Consulting Engineers & Geologists, Inc. to inventory collection system components, to determine the affects of population growth on existing sewer capacity, and to analyze and evaluate wastewater collection system performance during peak day flows and storm and wet weather events. The study also measured collection system inflow and infiltration. SHN hydraulically modeled the collection system using the Haestead Methods Sewer CAD to recognize hydraulic deficiencies that could lead to future SSOs. A capital improvement plan was included in the SHN report. Eight capital improvement projects with their 2010 estimated costs were recommended by SHN (see Table 4.1 from SHN Study).

Table 4.1
Capital Improvements Summary

Project #	Location	Description	Estimated Cost
Project #1	MH 10 to MH 11	Upgrade line size form 15″ to 24″	$98,337
Project #2	MH 16 to MH 19	Repair/Replacement for Sags	$212,850
Project #3	MH 4A to C/O 4A	Manhole Additions	$29,700
Project #4	MH 81 to hr0 and hr0 to hr1	Upgrade line size from 6″ to 8″	$159,300
Project #5	MH H to MH I and MH I to MH J	Upgrade line materials from Plastic to PVC	$132,894
Project #6	MH 47 to C/O 47 and C/O 47 to Capped Main Line	Manhole Additions	$23,625
Project #7	MH 73 to C/O 73 to C/O 73a to C/O at Parcel	Manhole Additions	$29,025
Project #8	Various Locations	Root Treatment	$10,000

In summary the SHN report stated,

"The MCCSD sewer system is in "good" condition, especially considering its age. According to EPA criteria for evaluating the infiltration and inflow, the District's system is rated non excessive. Hydraulic modeling of the sewer system indicates no capacity problems (even at build-out), except where an over sized line was installed on an extremely low slope. Improvements summarized in Table 4.1 include replacing this section of line, however, the priority for implementing this project is low. Other projects identified in Table 4.1 address specific defects or material susceptible to failure. Implementation of these projects should be planned as funding becomes available. Operation of the MCCSD system have maintained the collection system well and extended the useful life of the system well past its design life. Continued maintenance activities as currently practiced should be supported at existing levels. Additional documentation of the collection system using the MCCSD GIS system should be considered."

Section 10

Element IX – Monitoring, Measurement, and Plan Modifications

The MCCSD SSMP process is based on the continuous improvement approach. Element IX, Monitoring, Measurement, and Plan Modifications of the SSMP includes the identification and tracking of several key performance indicators that are used to measure the progress of the SSMP implementation and the performance of the collection system:

1. Service calls, blockages, and SSOs over past 12 months
2. SSO events by cause (roots, grease, debris, other)
3. Volume of SSOs and volume contained
4. Annual maintenance performed compared to plan

Each Element of the SSMP is monitored to determine its effectiveness. SSMP Elements will be updated and modified to keep them current, accurate, and available for audit if required. Performance indicators are or will be tracked to evaluate the long-term effectiveness of the SSMP Elements described in this plan and for reporting in the Regional Water Quality Control Board (RWQCB) Annual Reports. An assessment of the collection system preventative maintenance program will periodically be performed to establish the success of the SSMP. SSOs locations, frequencies, and volumes will be used to identify and illustrate SSO trends.

MCCSD maintains all relevant data used to establish these SSMP monitoring and measurement activities. The SSMP Elements will be modified as required based on a historical review of the collection system key performance indicators listed in Table 2. As the historic record grows, future annual reports to the RWQCB will include trend plots for key measures. Performance measures related to maintenance activities will be tabulated and charted in the Annual Collection System report.

Section 11

Element X – SSMP Program Audits

The Audit Program provides the District with a strategy to measure SSMP performance. The SSMP is reviewed at all levels of the organization having authorities and responsibilities in the SSMP implementation. The internal (self) audit of the SSMP results in a biennial audit report. All Elements of the SSMP are reviewed critically with regards to their ability to effectively and efficiently meet the State General Waste Discharge Requirements (GWDR), comply with District policies, and provide excellent community service.

The District Superintendent is responsible for overseeing SSMP audits. Every two years an internal audit will be performed and a report will be prepared and kept on file that evaluates the effectiveness of the SSMP and District compliance with SSMP requirements. The overall SSMP performance is evaluated and reported to the Board of Directors biennially following the end of the fiscal year. Any gaps between targeted results and actual progress are identified or anticipated and mitigation measures developed and implemented to close or avoid any performance gaps. Any Plan updates necessary to enhance the SSMP performance are identified and included as a part of the Biennial SSMP Report process. The SSMP is updated by incorporating adopted recommendations.

11.1. Overflow Emergency Response

District staff meets regularly to review emergency response actions and collaborate on methods and procedures that will improve performance. Performance standards are developed and communicated. Actual response times are reviewed; and changes are made and documented if needed.

Table 2 SSMP Performance Indicators

Indicator
Number of SSOs (by season)
Wet season
Dry Season
Number of SSOs (by volume)
< 10 gal
10 – 99 gal
100 – 999 gal
≥1000 gal
SSO Volume
Total
Recovered
Total Volume conveyed to the plant
Total volume SSO / Total volume conveyed
Number of SSO (by cause)
Blockages
Roots
Grease
Debris
Debris from Laterals
Animal Carcass
Construction Debris
Multiple causes
Infrastructure failure
Inflow & Infiltration
Electrical Power Failure
Flow Capacity Deficiency
Natural Disaster
Bypass
Cause Unknown
Number of SSOs per mile of sewer per year
Volume of SSOs per mile of sewer per year
Average Emergency Response Time
Business Hours
Non-business hours
Maintenance activities (lineal ft/yr)
Televised inspection
Top-down cleaning
Smoke inspection

11.2. Hydraulic Performance Monitoring

The District monitors and evaluates the hydraulic performance of the entire system. Any unusual change in collection system flow depth is investigated to determine the cause and if a blockage is found it is immediately removed. Work priorities and a capital improvement project schedule can be initiated based on a review of the system performance and needs.

11.3. Hydraulic Models

The District uses a qualified engineering firm to model and assess the hydraulic performance of its network of sewer pipes and pumping stations, and to predict future flow based on growth projections.

11.4. Structural Condition Assessment

The MCCSD's collection and outfall system is inspected by closed circuit television every 5-years. Based on these inspections, the condition of each sewer in the system has been assessed. The inspections are used

to prioritize and schedule future inspections and rehabilitation or replacement of system components. Changes are made to work priorities and project schedules based on the findings of field investigations and criticality of system needs.

11.5. Maintenance Management Approaches

Data are accumulated by the District on maintenance hot spots and displayed on GIS maps to display locations requiring additional attention. This information forms the basis for prioritizing cleaning, inspection, and rehabilitation. All lift station wet wells are physically inspected annually, all sewers are cleaned on a maximum five year rotation, and operationally challenged sewers will be cleaned more often as needed. This ongoing monitoring and adjustment process will work to optimize staff efficiency and system performance. The maintenance program is regularly reviewed for changes such as disconnection or new connections including restaurants and priorities adjusted as appropriate. Effectiveness of root control is also monitored and changes to cleaning schedules made as needed.

11.6. Sewer Design Criteria and Standards and Specifications

The District has a Sewer System Design Standards Ordinance that incorporates the latest advances in design and construction techniques as described in Element V, Design and Performance Provisions, of this SSMP. The District's design standards, specifications and standard details are continuously monitored for currency and effectiveness by MCCSD staff in consultation with the District's engineering firm. Staff input based on field experience is provided and reviewed by the contract engineer.

Section 12

Element XI – Communication Program

This section highlights the communications and outreach plan developed for the District's Sewer System Management Plan (SSMP). MCCSD's primary "customers" are the residential and commercial customers that connect to the sewers located in the MCCSD boundary. In addition, two users contribute flow to the MCCSD sanitary sewer collection system. These contributing agencies are the Mendocino Unified School District (MUSD) and the Russian Gulch State Park.

12.1. Communications with Contributing Agencies

The District developed a communications program with its contributing agencies. The plan calls for communicating with contributing agencies by including SSMP updates with their monthly sewer fee billing statements and direct mailing of SSMP information as appropriate. The District plans to work with MUSD and State Parks during the SSMP development.

12.2. Communications with and outreach to residential and commercial customers and the General Public

The District has included SSMP development information on the MCCSD website where the public is informed about the SSMP. The MCCSD website provides a list of the SSMP Sections, PDF files for draft SSMP sections, and a link for customers to provide feedback and comments on the draft sections**.** The site is also referred to in all other outreach efforts.

The District conducts extensive public outreach and education to residents and businesses related to sanitary sewer overflows, preventing grease blockages and Best Management Practices for handling of grease waste through the website and by direct mailing. Residential customers are mailed educational material about the how to properly dispose of fats, oils, and grease and what not to dispose of in the sewer.

The District's FOG Program inspects 17 food service facilities for compliance with Best Management Practices for grease removal device maintenance and FOG disposal, and District personnel distribute

educational materials during these inspections. The District will also conduct a Plan Check for all new and remodeling restaurants to determine proper grease removal device sizing. The District annually mails informational flyers to all residential and business property owners and tenants describing the negative impacts of discharging fats, oil, and grease into the sanitary sewer system. In areas where a sewer overflow is attributed to the buildup of fats, oils, or grease in the sewer pipes, the District canvasses the vicinity with door hanger type flyers notifying the neighbors of the event and reinforcing the message to avoid pouring these items down the drain and describe the continued negative impacts that this will likely have on the sewer system. The District's communications program involves mailing, emailing, and posting on the District's website the SSMP and other related information, and inviting stakeholders to SSMP development, implementation, and performance review meetings for input and information dissemination.

12.3 Outreach to Plumbers and Building Contractors

Plumbers and sewer contractors have access to all available MCCSD plans, specifications and standard details. Information is available on construction standards, proper operations and maintenance activities, the need and methods to reduce SSOs, and effective measures for preventing blockages.

12.4 Communications with District elected officials

The MCCSD Board of Directors has been advised of the SSMP progress. The SSMP Development Plan and Schedule was approved by the Board in March, 2008.

Appendix A

SSMP Implementation Schedule

REQUIRED ELEMENT	PHASE 1 TASKS	STATUS/ DUE DATE
SSMP Development Plan and Schedule Board certification of Plan and Schedule	**Initial plan on how the agency intends on developing and implementing their SSMP.** Present SSMP Development plan to Board for approval.	**Due May 1, 2008** Status: March 31, 2008 Board passes resolution 206 approving SSMP and Schedule
(1) Goal SSMP Goals	**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.** Stated goals for SSMP	**Due: May 1, 2008** Status: March 31, 2008 Board passes resolution 206 approving SSMP Goals
(2) Organization Organizational Chart for SSMP Development and Implementation SSO Chain of Communications	**Names and staff positions responsible for developing and implementing the SSMP.** Develop organizational chart of management, administration and maintenance personnel. Develop the internal chain of communications for reporting SSOs.	**Due: May 1, 2008** Status: Completed Status: March 31, 2008 Board passes resolution 206 approving SSO Chain of Communications
SSMP CERTIFICATION	**Draft SSMP and Schedule CIWQS Certification.** Certify approved draft SSMP and schedule via CIWQS.	**Due: May 1, 2008** Status: CIWQS certify by Dist. Superintendent on May 1, 2008

REQUIRED ELEMENT	PHASE 2 TASKS	STATUS/ DUE DATE
(3) Overflow Emergency Response Plan	**Written Procedures defining how the District responses to SSOs.**	**Due: February 1, 2010**
Overflow Response Procedures	Develop standard operating procedures for SSO response.	Status: Updating existing document
Notification Procedures	Develop notification procedures to ensure all required regulators (and others) are properly and timely notified of an SSO event.	Status: Updating existing document
Emergency Response Training	Develop and implement Emergency Response Training Program for staff or contractors, if utilized.	Status: Updating existing document
Traffic and Crowd Control	Develop procedures for traffic and crowd control to be utilized during an SSO event.	Status: Updating existing document
Monitoring and Sampling	Develop procedures for monitoring and sampling, if required, for an SSO event.	Status: Updating existing document
Follow-Up	Develop procedures for following up on an SSO event, including investigation for the cause or responsible party.	Status: Updating existing document
(4) Grease Control Program - FOG (Fats, Oils & Grease)	**Prepare and implement a FOG Control Program to reduce the amount of these substances from being discharged into the collection system.**	**Due: November 1, 2010**
Determination of FOG problems	Evaluate System to determine if FOG related problems exist.	Status: Ongoing Practice
FOG characterization Study	If FOG problems are present, perform a FOG Characterization Study to determine the location and extent of the problem.	Status: Under development
FOG Ordinance	Develop ordinance to ensure legal authority to prevent the discharge of FOG into the sewer system.	Status: Board passed Ordinance 09-3 Controlling Fats Oils and Grease 12/21/2009
FOG Program	Develop a program to reduce and/or eliminate FOG related sources.	Status: Board adopts resolution 213 Fats , Oils and Grease (FOG)Program 11/30/09
Develop a FOG Source Control Program	Establish an appropriate FOG source control program. A look at non-Residential as large contributors.	

REQUIRED ELEMENT	PHASE 2 TASKS	STATUS/ DUE DATE
Public Outreach	Develop an appropriate public education, outreach program and marketing materials designed to assist in the reduction of FOG.	Status: Under development
FOG Disposal	Develop a list of authorized FOG disposal sites.	Status: Under development
FOG Inspections	Develop and implement a FOG inspection program.	Status: Under development
(5) Legal Authority	**Agency's legal authority to operate and maintain its sewage collection system.**	**Due: February 1, 2015**
Ordinance Development for Preventing Illicit Discharges	Develop/amend required ordinance to comply with Order. Add a FOG Ordinance (Fats, Oils and Grease). Amend Sanitary Sewer Use Ordinance.	Status: Under development
Ordinance Development Requiring Proper Design and Construction	Develop/amend required ordinance to comply with Order. Add a FOG Ordinance (Fats, Oils and Grease). Amend Sewer System Design Standards Ordinance and Sanitary Sewer Use Ordinance.	Status: Under development
Ordinance Development for the Limiting of the Fats, Oils and Grease	Develop/amend required ordinance to comply with Order. Add a FOG Ordinance (Fats, Oils and Grease)	Status: Under development
Ordinance Development to Enforce Violations	Develop/amend required ordinance to comply with Order. Add a FOG Ordinance (Fats, Oils and Grease)	Status: Under development
Ordinance Legal Review	Ordinances developed, amended, and reviewed by District's legal counsel.	Status: Under development
Ordinance Adoption	Adoption of required ordinances by Board of Directors	Adopt prior to February 2010

REQUIRED ELEMENT	PHASE 2 TASKS	STATUS/ DUE DATE
(6) Operation and Maintenance	**Collection System operations program and procedures.**	**Due: February 1, 2016**
Mapping	Up to date mapping of the sewage collection system facilities including appropriate storm water systems.	Status: Ongoing Practice
Mapping Updates	Develop procedures for maintaining mapping data.	Status: Ongoing Practice
Preventative Maintenance Program	Develop a written description of the preventative maintenance activities the District employs.	Status: Ongoing Practice
Pipeline Maintenance	Develop a schedule for line cleaning and maintenance.	Status: Ongoing Practice
Pumping and Other Facilities	Develop a schedule for maintenance of pumping and other facilities	Status: Ongoing Practice
Problem Areas	Identify problem areas (high maintenance areas; HMA) and develop procedures for their maintenance.	Status: Under development
Rehabilitation and Replacement Program	Develop a short and long term plan for the rehabilitation or replacement due to system deficiencies, including CIP funding.	Status: Under development
Inspection Program	Develop a program and schedule for the regular visual and videotape inspection of the system.	Status: Ongoing Practice
Inspection Schedule	Develop a schedule for ongoing inspection of the entire collection system.	Status: Ongoing Practice
Work Orders	Develop a system to track and schedule all maintenance activities.	Status: Under development
Equipment and parts inventory	Develop an inventory of equipment and replacement parts.	Status: Under development
Critical parts	Develop an inventory of critical replacement parts including procedures for acquisition.	Status: Under development

REQUIRED ELEMENT	PHASE 3 TASKS	STATUS/ DUE DATE
(7) Design and Performance	**Prepare and implement a Capital Improvement Plan that will provide the hydraulic capacity of the sewer system under peak flow conditions.**	**Due: August 1, 2016**
Design Standards	Develop design standards for new and rehabilitated systems including procedures to ensure capacity in existing system due to new or remodeled construction	Status: Under development
Inspection and testing standards	Develop inspection and testing standards for new and rehabilitated systems including acceptance testing procedures. Amend Sewer System Design Standards Ordinance.	Status: Under Development
(8) System Hydraulic Evaluation and Capacity Assurance Plan (SHECAP)	**Evaluate those portions of the system that are experiencing capacity related overflows. Establish steps to eliminate capacity related overflows including an I&I program, short and long term CIP for capacity issues.**	**August 1, 2010**
Inflow and Infiltration (I&I)	Develop procedures to detect and remediate I&I problems.	Status: Ongoing Practice
Hydraulic Model	Develop a hydraulic model of the system.	Status: Ongoing Practice
Identify Deficiencies	Identify areas of the system that exhibit capacity deficiencies.	Status: Ongoing Practice
Analyze Defects	Analyze and prioritize repairs/replacement of pipeline defects.	Status: Ongoing Practice
Capital Improvement Projects	Develop a prioritized CIP for these improvements and a schedule of completion dates.	Status: Ongoing Practice
(9) Monitoring, Measurements and Plan Modifications	**The ongoing evaluation of the performance of the SSMP document and its ability to achieve its stated goals.**	**Due: August 1, 2016**
Data Management	Develop procedures for accumulating and analyzing system maintenance, repairs, projects, reductions of SSOs, and any other pertinent data.	Status: Under development
Program Effectiveness	Develop procedures, report, etc. to measure the effectiveness of the SSMP.	Status: Under development
Program Changes	Develop procedures to initiate changes, enhancements, or correct deficiencies in the SSMP.	Status: Under development

REQUIRED ELEMENT	PHASE 3 TASKS	STATUS/ DUE DATE
(10) SSMP Program Audits	**Program audits are required every two years following the adoption of the final SSMP (August 1, 2012). Audits shall document the success of the SSMP and improvements made to it.**	**Due: August 1, 2018**
Document Control	Develop procedure for SSMP document control.	Status: Under development
Key Individual(s)	Identify key individual(s) responsible for the SSMP audit (every 2 years).	Status: Under development
Checklist	Develop a checklist to assist and ensure the SSMP is in compliance and effective.	Status: Under development
Reports	Develop reports to assist with analyzing the effectiveness of the SSMP.	Status: Under development
Milestones	Develop milestones (time, events, etc.) that denote program review.	Status: Under development
(11) Communication Program	**The communication program is the agency's outreach to the community and satellite contributors about the public collection system and the SSMP document.**	**Due: August 1, 2016**
Public Outreach	Develop a protocol for soliciting and responding to public input.	Status: Under development
Staff SSMP Awareness	Develop a program to ensure staff awareness of SSMP procedures, protocol, etc.	Status: Under development
FINAL SSMP CERTIFICATION	**Final SSMP document, after all elements have been developed, documented and implemented.**	**Due: August 1, 2016**
Review by District Attorney	Review of completed SSMP by the District's Attorney.	Status: To be developed
Adoption/Certification of SSMP by Board of Directors	Adoption and certification of final SSMP document by District's governing body.	Status: To be developed

Appendix B

Ordinances

1. **Sewer System Design Standards, 08-2**
2. **Sanitary Sewer Use Ordinance, 09-2**
3. **Fats Oils and Grease Ordinance, 09-3**

Appendix C

1. **Collection System Operation and Maintenance Program**
2. **Hot Spot Map**

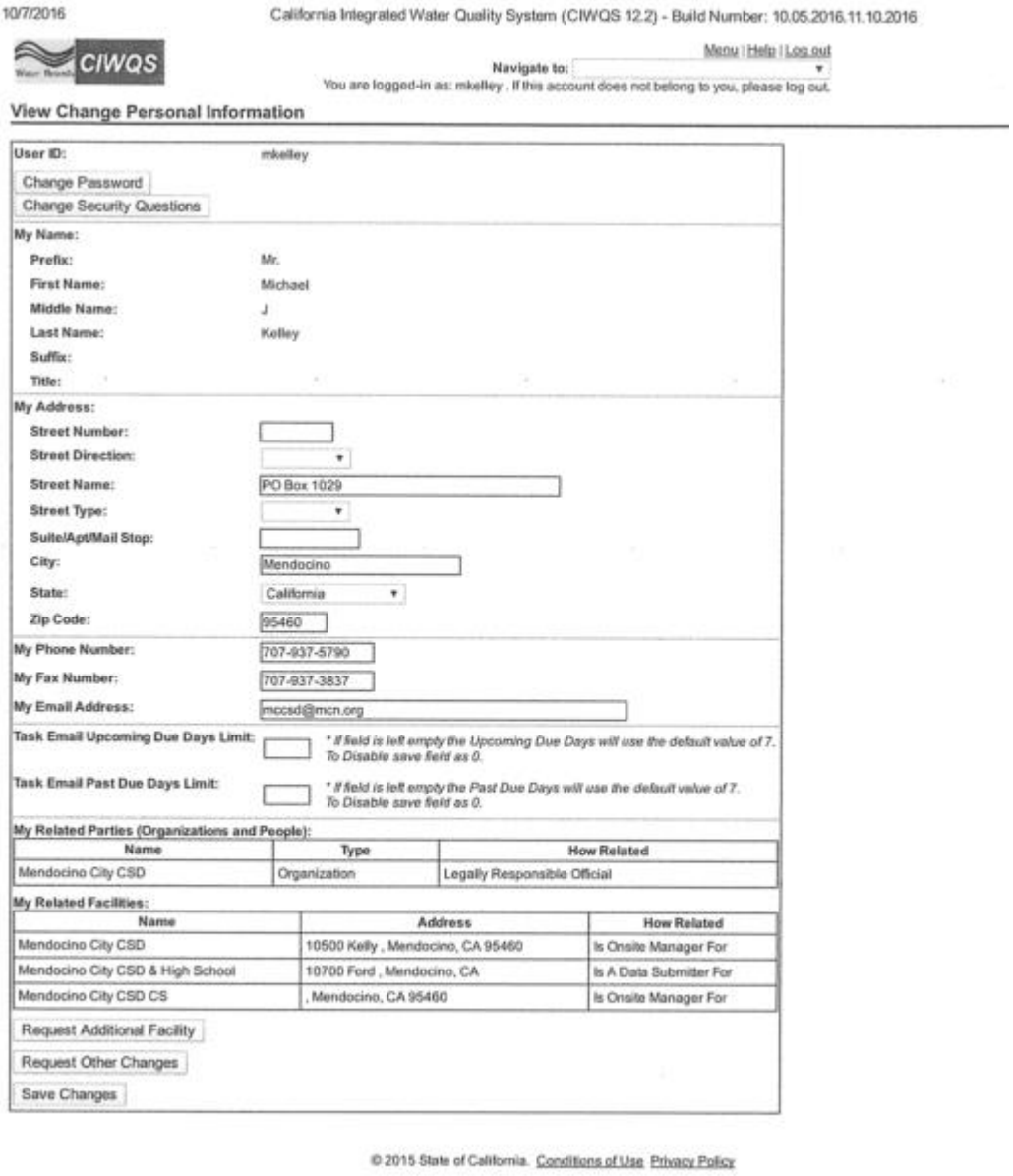
Appendix D

Overflow Emergency Response Plan

Appendix E

CIWQS Authorized Representative

Legal Representative:
Michael Kelley, District Superintendent
17251 Franklin Road
Fort Bragg, CA 95437
Tel. # (707) 964-0740



10/7/2016 California Integrated Water Quality System (CIWQS 12.2) - Build Number: 10.05.2016.11.10.2016

CIWQS

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First Name:	Michael
Middle Name:	J
Last Name:	Kelley
Suffix:	
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My Address:	
Street Number:	
Street Direction:	
Street Name:	PO Box 1029
Street Type:	
Suite/Apt/Mail Stop:	
City:	Mendocino
State:	California
Zip Code:	95460
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My Fax Number:	707-937-3837
My Email Address:	mccsd@mcn.org
Task Email Upcoming Due Days Limit:	* If field is left empty the Upcoming Due Days will use the default value of 7. To Disable save field as 0.
Task Email Past Due Days Limit:	* If field is left empty the Past Due Days will use the default value of 7. To Disable save field as 0.

My Related Parties (Organizations and People):

Name	Type	How Related
Mendocino City CSD	Organization	Legally Responsible Official

My Related Facilities:

Name	Address	How Related
Mendocino City CSD	10500 Kelly , Mendocino, CA 95460	Is Onsite Manager For
Mendocino City CSD & High School	10700 Ford , Mendocino, CA	Is A Data Submitter For
Mendocino City CSD CS	, Mendocino, CA 95460	Is Onsite Manager For

Request Additional Facility

Request Other Changes

Save Changes

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Appendix F

Source Control Program and Resolution 202

Appendix G

Oscar Larson & Associates Engineering Study

Mendocino City Community Services District Wastewater Facilities

Sewer System Connection Fees

	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012
Present Value of Current Assets (1)	$ 9,421,879	$ 9,989,872	$ 10,598,731	$ 11,174,675	$ 11,811,917	$ 12,583,787
Replacement Projects (Budgeted or Anticipated.)	$ 16,000	$ 66,000	$ -	$ 30,000	$ -	$ -
Capital Improvement Projects Anticipated	$ 40,000	$ -	$ -	$ -	$ 130,000	$ -
Accumulated Prior Debt Service (Interest and Principal)	$ 838,750	$ 886,450	$ 951,270	$ 1,015,041	$ 1,077,761	$ 1,139,429
Current Year Debt Service (Interest and Principal)	$ 47,700	$ 64,820	$ 63,771	$ 62,720	$ 61,668	$ 65,613
Subtotal	$ 10,364,328	$ 11,007,142	$ 11,613,772	$ 12,282,436	$ 13,081,346	$ 13,788,829
Less Present Value of Grants (1, 2)	$ (7,170,348)	$ (7,559,991)	$ (7,970,808)	$ (8,403,949)	$ (8,860,627)	$ (9,342,121)
Total	$ 3,193,981	$ 3,447,151	$ 3,642,964	$ 3,878,488	$ 4,220,719	$ 4,446,708
1,500	System Capacity in Equivalent Single-Family Dwelling Units (ESD's) (4)					
Conection Fee, per ESD, To Recover Actual Costs	$ 2,129	$ 2,298	$ 2,429	$ 2,586	$ 2,814	$ 2,964
Recommended Connection Fee, per ESD (3)	$ 2,130	$ 2,300	$ 2,430	$ 2,590	$ 2,820	$ 2,970
Connection Fee, per ESD, To Recover Full Present Value	$ 6,910	$ 7,338	$ 7,743	$ 8,188	$ 8,721	$ 9,193
Recommended Connection Fee, per ESD (3)	$ 6,910	$ 7,340	$ 7,750	$ 8,190	$ 8,730	$ 9,200

Notes:

1. Asset value assumed to increase at the average rate of increase of the ENR over the past 3 years (12/200 to 12/2006), which has been 5.4% per year. Plus the previous year's work in progress and capital improvements.

2. Previous grants reduced the cost to the District of the facilities. Connection fees are only required to recover the present value of the actual costs to the District of the facilities. Funds to replace the facilities (depreciation) should be collected as a part of user fees and should be adequate to cover the full replacement costs of the facilites as grants may not be available in the future.

3. Rounded up to nearest even $10.

4. Assumes no increase in system capacity due to capital improvement projects.

Appendix H

SHN Sewer System Capacity Analyses