



Sewer System Management Plan

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Section 1 – Goals

SWRCB Requirement:

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

Deadline: November 1, 2007

Core goals of Fallbrook Public Utility District’s Sewer System Management Plan are:

- To properly manage, operate, and maintain all portions of FPUD’s wastewater collections system.
- To provide adequate capacity to convey the peak wastewater flows.
- To minimize the frequency of SSO’s.
- To mitigate the impacts that are associated with any SSO that may occur.
- To meet all applicable regulatory notification and reporting requirements.

Specific Collection System Goals:

- 200,000 feet of pipeline flushed each year (entire collection system flushed every 2 years).
- 75,000 feet of pipeline cctv’d each year (entire collection system cctv’d every 6-7 years).
- The wastewater department capital budget outlines the following:

During the course of routine collection system maintenance, owing to the age and general condition of our system, we typically identify 500 to 600 feet of main requiring replacement annually. It is prudent to anticipate this level of expenditure as a minimum commitment until debt retirement in 2012-13. \$60,000 annually in main replacement.

Staff proposes to undertake an ongoing project of greater than 10 years duration at \$10,000 per year to construct manholes at locations in the collection system where they are necessary to allow cleaning. \$10,000 annually in manhole construction (junctions).

Developer funded improvements to continue at current level of \$60,000 annually.

The District currently has 24 smartcovers at critical locations in the service area. These smartcovers may be relocated as needed.

Section 2 – Organization

SWRCB Requirement:

Organization: The SSMP must identify:

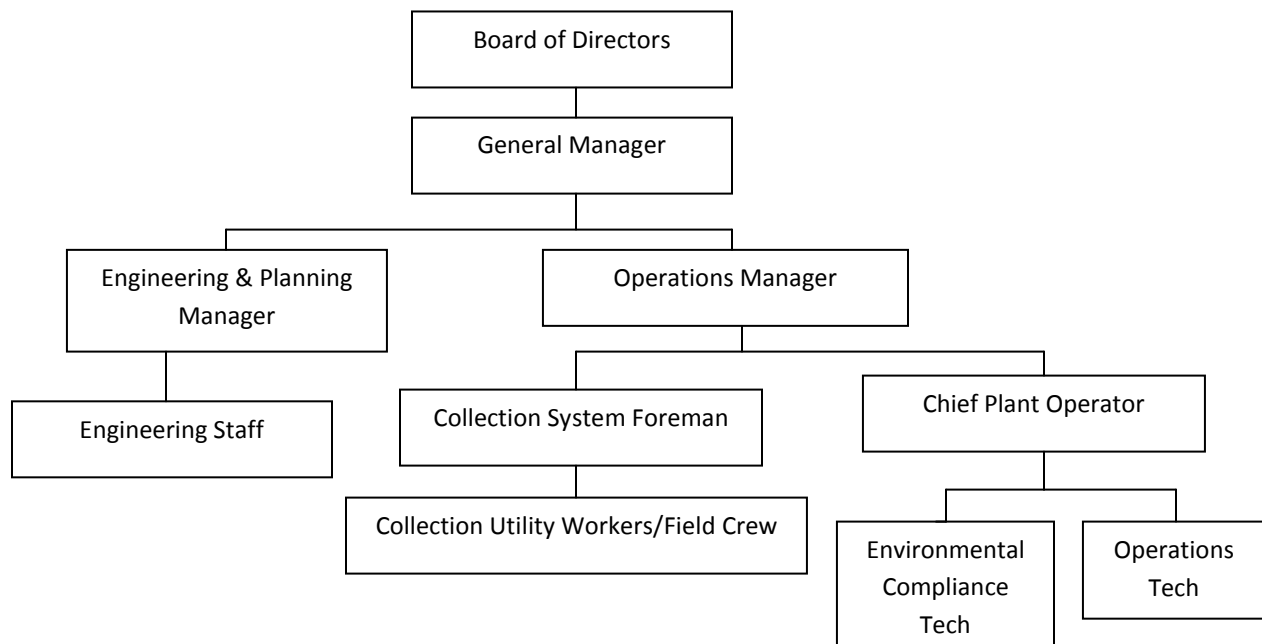
- a) *Name of responsible or authorized representative;*
- b) *Names and telephone numbers for management, administrative, and maintenance positions responsible for implementing specific measures in the SSMP program. Include lines of authority as shown in an org chart or similar document with a narrative explanation; and*
- c) *The chain of communication for reporting SSO's, from receipt of a complaint or other information, including the person responsible for reporting SSO's to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Quality Control Board, and/or State Office of Emergency Services (OES)).*

Deadline: November 1, 2007

The Fallbrook Public Utility District is a public agency in the County of San Diego, State of California. The District has a publically elected 5-Member Board of Directors.

The Operations Manager is Fallbrook Public Utility District's designated legally responsible official.

Below is the pertinent portion of the Fallbrook Public Utility District's organizational chart, which demonstrates lines of authority for management, administrative, and field staff as related to sewer system overflows and the sewer system management plan (a complete District Org Chart is attached at the end of this section). In addition, respective responsibilities are provided in written form following the organizational chart.



General Manager

Under policy direction of the Board of Directors, serves as chief executive officer of the District; manages, plans, organizes and controls public utility water and wastewater programs, services and resources in accordance with short- and long-term goals, policy statements and directives; interprets and administers policies of the Board; and performs related work as required. The General Manager requires notification of all SSOs as soon as practical following control of the situation.

Engineering and Planning Manager

At the general direction of the General Manager, serves as an executive level manager to plan and schedule, the water and wastewater utility engineering processes and public services; to manage and participate in the gathering and compiling of data and professional engineering work in the areas of planning, survey, design, construction management, construction contract administration, cost estimates, specifications, maps, reports, potable, recycled and waste water, corrosion control and water quality system structures and facilities depending on assignment.

Engineering Staff

Under the direction of the Engineering & Planning Manager, performs a wide variety of routine computer aided drafting, simple entry-level recordkeeping, specialized tasks including but not limited to project investigations and surveys, lay-out and design of water/wastewater systems, preparation of estimates, maps and reports for construction, alteration, and maintenance of the water/wastewater utility system and related work as required. The engineering staff performs work related to the SSMP as assigned by the Engineering & Planning Manager.

Operations Manager

Under the general direction of the General Manager performs management tasks, plans, organizes, monitors and manages sections responsible for the maintenance, repair and construction of water storage and distribution systems structures and right-of-ways, the operation of the system to distribute water, potable and recycled, to customers, the wastewater treatment and collection system, the reading, service installation and replacement of water meters, warehouse, equipment and vehicles; manages the supervisors of assigned departments; performs short- and moderately long-range planning of departmental programs and services; conducts studies and prepares administrative reports of findings and recommendations of departmental programs and activities; and performs related work as required. The Operations Manager coordinates development and implementation of the SSMP, and is responsible for overseeing the SSO reporting process and certifying reports (the District's designated LRO).

Collection System Foreman

Under the general direction of the Operations Manager, plans, organizes and supervises a staff of employees assigned to the wastewater collection, treatment and disposal systems, equipment and facilities; performs a variety of technical and administrative support functions; and performs related work as required. The Collection System Foreman makes recommendations for and implements the SSMP and sewer system response; investigates, drafts documentation, and ensures that SSOs have been reported and certified; communicates with District management regarding overflow specifics, response, and remediation; and trains Collection Field Crew.

Collection Utility Workers/Field Crew

Under the supervision of the Collection System Foreman, performs specialized and skilled work in the wastewater collection, treatment and disposal systems; and performs related work as required. The collection field crew performs preventative maintenance activities; mobilizes and responds to notification of stoppages and SSOs; drafts SSO documentation and completes required initial notification and reporting, if necessary, during after-hours events.

Chief Plant Operator

Under the general direction of the Operations Manager, performs management level duties to plan, organize and supervise a staff of wastewater treatment plant personnel; inspects, monitors and operates complex wastewater treatment, collection, maintenance and disposal equipment necessary to maintain safe standards throughout the system; plans, organizes and supervises the activities of the laboratory section; participates actively in the Operations Management team; and performs related work as required. The Chief Plant Operator supervises SSMP and SSO duties as assigned to the Environmental Compliance Technician and the Operations Technician.

Environmental Compliance Technician

Under the general direction of the Chief Plant Operator, plans, organizes and has responsibility for the District contract laboratories, industrial waste program, and FOG (Fats, Oils and Greases) Control program; ensures that the Wastewater and Water Recycling Division is in compliance with all Federal, State, and local regulations by managing, interpreting, and implementing regulatory permit requirements of monitoring and reporting, permit applications, and related environmental programs. The Environmental Compliance Technician assists management in development and implementation of the SSMP; gathers data pertaining to sewer system overflows and ensures that SSOs have been reported and certified; and conducts sampling, if needed, in response to an SSO.

Operations Technician

Under the general direction of the Chief Plant Operator, performs technical and complex project work analysis, establishing methods and procedures for assigned District operations while maintaining records, reports, and schedules; and performs related work as required. The Operations Technician assists management in the development and implementation of the SSMP; and gathers data pertaining to sewer system overflows and assists with ensuring SSOs have been reported and certified.

Chain of Communication for Reporting Overflows

In general, the District is notified of a sewer system overflow either by a call received at our office reception desk or via the District's after-hours answering service. In either event, a member of the collection department is notified immediately. If it is after hours, our collection standby personnel is paged or called out. The collection staff promptly mobilizes personnel and equipment to respond and remediate the spill. Once the spill has been controlled and remediated, staff drafts a report of the overflow incident, and if needed, completes initial report notifications.

The Operations Manager is named as the Legal Responsible Official and is responsible for overseeing the reporting process and certifying all SSOs. The LRO has designated authorized data submitters to report overflows to all necessary agencies as well as the online data base. Data submitters include the Collection System Foreman, a Collection Utility Technician (a lead position), the Environmental Compliance Technician, and the Operations Technician. Data submitters understand the necessity to review the written report for accuracy and then make the appropriate reporting notifications. The initial report notifications may be done in draft form, with a follow-up finalized report submitted once all data is complete and verified (within the guidelines of the adopted State and local Board Orders).

The District reports all spills regardless of size and whether or not the spill reaches waters of the State. The District has always believed in keeping the reporting agencies and the public fully informed.

For contact names and phone numbers related to the positions outlined above, please see the document located at the end of this Section 2, called the *SSMP - FPUD Staff Contact Roster*.

Section 3 – Legal Authority

SWRCB Requirement:

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

- a) Prevent illicit discharges into its sanitary sewer system (examples include I/I, stormwater chemical dumping, unauthorized debris and cut roots, etc);*
- b) Require that sewers and connections be properly designed and constructed;*
- c) Ensure access for maintenance, inspection, or repairs for portions of the lateral owned or maintained by the Public Agency;*
- d) Limit the discharge of fats, oils, and grease and other debris that may cause blockages, and*
- e) Enforce any violation of its sewer ordinances.*

Deadline: May 1, 2009

This chapter describes the legal authority to implement the SSMP plans and procedures.

The SSMP must include the legal authority, through sewer use ordinances, services agreements or other legally binding procedures, to (a) control infiltration and connections from inflow sources, including satellite systems; (b) require that sewers and connections be properly designed and constructed; (c) ensure proper installation, testing, and inspection of new and rehabilitated sewers (such as new or rehabilitated collector sewers and new or rehabilitated service laterals); (d) limit fats and greases and other debris that may cause blockages in the sewage collection system; and (e) implement the general and specific prohibitions of the national pretreatment programs under 40 CFR 403.5.

For part (a), the inflow sources may include items such as sump pumps, roof leaders, yard and stairwell drains, satellite systems, or any other materials that adversely affect the performance of the collection system and/or the Waste Water Treatment Plant.

For part (b) Fallbrook Public Utility District Engineering Department develops and maintains construction standards for Fallbrook Public Utility District pumping stations and the collections system.

For part (c), the legally binding documents will also ensure that the testing is conducted, and the baseline condition assessment is completed for sewer system construction projects (air test, CCTV, pump station performance, etc.) and that procedures are in place to transfer the

resulting test data to the end user. These should also require development and implementation of technical requirements and training standards for construction inspectors.

For part (d), the grease, oils and fats control programs will be for commercial, industrial, and institutional users and will combine source and field control to reduce SSOs caused by the discharge of FOG to the collection system.

A copy of the Administrative Code Index is located at the end of this Section 4.

4.1 Compliance Summary

This SSMP complies with the Order requirements for legal authority under the following enacted ordinances/resolutions or agency policies.

Legal authority for control of fats, oil, and grease (FOG) from Food Service Establishments (FSEs) was established on January 12, 2004 when the FOG Ordinance No. 307 was passed and adopted by Fallbrook Public Utility District Board of Directors. The FOG Ordinance was effective commencing February 12, 2004. Subsequently, the FOG Program Control Fee Ordinance No. 312 was passed and adopted on November 22, 2004, and took effect on December 20, 2004. Fallbrook Public Utility District's existing Wastewater Discharge Regulations implement the general and specific prohibitions and verifications on discharges. Copies of the FOG Ordinance No. 307, the Wastewater Discharge Regulation Resolution set forth in Chapter 30 of the Fallbrook Public Utility District administrative code, and the FOG Fee Ordinance 312 are included in Chapter 31 of the Fallbrook Public Utility District Administrative Code.

The construction and inspection of new lateral connections and bypass piping facilities is legally enforced through Fallbrook Public Utility District's connection permit program, as authorized by Article 20 of the Fallbrook Public Utility District Administrative Code. Fallbrook Public Utility District issues permits to property owners and contract for work according to Fallbrook Public Utility District standards. Approved design and construction standards are situated in electronic files, and are also available on compact disc.

Inspection and testing of new system connections is governed by the permit and related construction standards, which are also located at the permit counter in the Engineering Department at the District Headquarters.

4.2 Compliance Documents

The legal authority for enacting the SSMP programs and policies are included in the following documents:

- Wastewater Discharge Regulations Article 30 Fallbrook Public Utility District Administrative Code
- FOG Ordinance No. 307
- FOG Fee Resolution No. 312
- Legal authority, as outlined in Fallbrook Public Utility District's Administrative Code, is on file in the Board Secretary's office.
- Standard testing and inspection requirements, permit construction, other sections are contained in the Fallbrook Public Utility District Administrative Code.

4.3 Roles and Responsibilities

The roles and responsibilities for enforcement of the legal authority to enact the SSMP programs and policies is derived from acts of Fallbrook Public Utility District's Governing Board. Interpretation of the enabling state legislation giving authority to Fallbrook Public Utility District is provided by Fallbrook Public Utility District General Counsel.

During the course of implementing the FOG Program programmatic changes are anticipated which may necessitate revisions of FOG Ordinance No. 307 and FOG Fee Resolution No. 312. Fallbrook Public Utility District's Engineering Department will be responsible for periodically reviewing and updating these documents, as the need arises, to ensure that the legal authority is comprehensive and covers all aspects of the FOG Source Control Program.

Wastewater Discharge Regulations Article 30 Fallbrook Public Utility District Administrative Code, effective July 1, 1998, is Fallbrook Public Utility District's main ordinance for regulating sewer use and wastewater discharges, and controlling inflow and infiltration and illegal connections to the system. The Fallbrook Public Utility District's Engineering department is responsible for maintaining and updating this ordinance as necessary.

Section 4 – Operations and Maintenance Program

SWRCB Requirement:

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

- a) Maintain an up-to-date map of the sanitary sewer system, showing all gravity line segments and manholes, pumping facilities, pressure pipes and valves, and applicable stormwater conveyance facilities;*
- b) Describe routine preventative operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;*
- c) Develop a rehabilitation and replacement plan to identify and prioritize system deficiencies and implement short-term and long-term rehabilitation actions to address each deficiency. The program should include regular visual and TV inspections of manholes and sewer pipes, and a system for ranking the condition of sewer pipes and scheduling rehabilitation. Rehabilitation and replacement should focus on sewer pipes that are at risk of collapse or prone to more frequent blockages due to pipe defects. Finally, the rehabilitation and replacement plan should include a capital improvement plan that addresses proper management and protection of the infrastructure assets. The plan shall include a time schedule for implementing the short- and long-term plans plus a schedule for developing the funds needed for the capital improvement plan;*
- d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and*
- e) Provide adequate equipment and replacement part inventories, including identification of critical replacement parts.*

Deadline: May 1, 2009

Collection System Maps

Please see the attached collection system maps at the end of this Section 4.

Preventative Operations & Maintenance Activities

The goal of the Fallbrook Public Utility District is preventing SSOs, keeping the public and waters of the state safe. The District has developed several maintenance programs to maintain the sewer system and prevent SSOs. Regular main line cleaning, hot spot cleaning, a closed circuit camera inspection (CCTV) program, lift station maintenance, hot spot lateral maintenance program, outfall main line program and a Fats, Oils and Grease (FOG) program are used as preventive tools to achieve our goal.

The District's Wastewater Collection department has a seven-man crew with a Foreman/Supervisor. The crew is divided into one four-man crew, and one three-man crew, each with a utility technician, who is responsible for quality control and performance. The four-man crew is responsible for main line cleaning, new construction and repairs. The three-man crew is responsible for CCTV, lift stations, lateral maintenance program and the outfall main.

The District cleans its sewer system on a two-year program with more frequently scheduled cleaning of identified hot spots. Hot spots are cleaned on a monthly, 3-month, bi-annual and annual schedule according to type of problem that is in the main line. The District does not use work orders, instead uses sectional map to clean one section at a time down to a major trunk line. Daily information is then recorded on the Collection System Maintenance program to archive sewer main cleaning. Chemical root control is used in areas found to be heavy in roots during CCTV inspection.

The District has two combination sewer cleaning trucks, one used as a primary cleaner for one of the crews, and the other as a back-up in case of break down or emergency. Various cleaning nozzles are used, including root saws and flails. The District also has an easement machine, which is used with the combination trucks to maintain the limited access right-of-way areas.

The District has a CCTV van with a Cue's pan & Tilt camera with 1500 feet of cable and records on a Granite XP system. The District inspects 6,700 feet of main line per month and is four years into a five year plan to have the complete system on library. Currently each main line section is inspected, scored and paperwork reviewed for problems and corrective actions planned. The paperwork is then filed and kept for future reference.

The District's wastewater lift stations are inspected weekly and telemetry alarms are tested. Maintenance programs are done once a month and include mechanical and safety inspections, inspections of the valves and air-n-vacs on the force mains. Wet wells are also cleaned on a monthly schedule.

Although the District doesn't own any part of the laterals on the system, (owners are responsible from the main line to the building), there is a fee agreement to help maintain the lateral from the main to the property line clean out. We have a program similar to the main line trouble spots, in which we will clear stoppages and maintain laterals chemically with root problems.

The District has a monthly Outfall program in which the right of ways, air-n-vacs, vault inspections and valve maintenance are preformed.

The District has a FOG ordinance and a program is used to help keep the fats, oils and grease out of the main sewer system. Inspections and testing is done on a yearly basis or more frequently, if needed.

Rehabilitation and Replacement Plan

A. Condition Assessment and Inspection

The Collections Maintenance Department has a Collection System Assessment Policy with goals to clean the system every two years and conducting a video condition assessment every five years or sooner depending on the original scores given to that segment of main.

The CCTV inspection is performed in house with District trained employees. Information gathered from the inspections is stored in binders for review by management, engineering, department head and leads.

During the inspection of an individual main, numeric scores are given to the defects and then an over all grade will be assigned to that segment. This grade will put that main in one of three categories for further review and assignment for cleaning, root control, repairs or further inspections.

Numeric Assessment of Defects

Defect Category	Guideline	Severity Score (Per occurrence)	
Structural	Cracks/spalls		
	None	0	
	Without offset, < 1/3" thickness	2	
	With offset, > 1/3" thickness	4	
	Severe-gapped-soil exposure	10	
Alignment	Grade		
	None	0	
	Ponding < 1/3" diameter	2	
	Ponding < 1/2" diameter	4	
	Ponding > 1/2" diameter	6	
	Submerged	10	
	Offset Joint/Lateral		
	None	0	
	Downstep or gap, no step	2	
	Upstep, 1/2" or less	4	
	Upstep, 1/2" or more, gap	6-8	
	Structural (Other)	Protruding Lateral	n/a-will be scheduled for repair/replacement

GRADE	SCORES	ACTION
GOOD	0-2	Record score in database. Archive video record.
FAIR	4-6	Record score in database. Record key defect(s) in database. Schedule necessary maintenance to be completed as soon as possible. Schedule necessary additional cleaning or further observation. Schedule repairs when time permits. Archive video record.
POOR	8-10	Record score in database. Record key defect (s) in database. Recommend review level to management: I. Immediate risk of failure requiring emergency repair. II. Potential risk of failure requiring scheduled repair. III. Poor condition requiring scheduled maintenance and/or further observation. Further observation will occur at regular intervals to re-evaluate status and to determine if further degradation has occurred. Non-emergency scheduled rehabilitation and/or repair will be completed, if necessary, as soon as practical. Archive video record.

The numeric assessment of the defects will provide the District with a basis for determining prioritization for subsequent cleanings, increased observation, scheduling of maintenance, rehabilitation and repair.

Repairs will be scheduled according to the numeric score given to the defect and then after the repair, the main will be videoed and given a new grade.

Mains that have been labeled hot spots will be inspected on an annual basis. Most do not have structural defects, rather are of the FOG and root related problems.

Manholes are inspected during the routine cleaning cycles and forms are filled out in the field. These forms are then reviewed and manholes in need of rehabilitation are prioritized and scheduled for repairs in the next budget year or sooner if needed.

B. Rehabilitation and Repairs

The District has funding for rehabilitation and repairs in addition to any major line replacement identified in the wastewater collections system five year capital budget. The District has an annual budget of \$60,000 for the repair or replacement of mains, \$17,584 for the upgrade of two to three manhole junctions in the Collections System, and \$23,153 for the rehabilitation or reconstruction of two existing manholes in the Collections system.

C. Five Year Capital Improvement Plan

The District currently has sufficient capital allocated to sewer treatment and collections from now through build out of the District's sewer service area. Furthermore, on March 26, 2007, the Board of Directors adopted a policy to deny any future discretionary annexations into the District's sewer service area, until conditions change, such as down zoning or parkland or permanent open space additions.

Training Program

The District believes in being proactive instead of reactive in its approach towards the safety of their employees and therefore has a solid safety program in place.

Wastewater Collections personnel are trained in the following fields, usually within their first year of employment. The District then also performs refresher training on a yearly basis or as recommended. The training topics include, but are not limited to; Traffic Control and Flagging, Confined Space, Confined Space Rescue, Hazwopper for Chlorine Gas, Trenching and Shoring Competent Person, Backhoe Safety, CCTV School, Combination Truck Training, CPR/First Aid, Pumps and Motors, State and Regional Spill Reporting, Lockout/Tagout and Electrical Hazards.

Personnel are also required to read and understand the District's Code of Safe Practices and Injury, Illness, & Prevention Program (IIPP). They also attend bi-weekly Safety Tailgate Talks, as well as periodic seminars and training sessions encompassing areas of the wastewater profession. Training records are kept by the District's Safety & Risk Administrator and Human Resources Administrator.

Equipment and Replacement Parts

The Wastewater Collections Department has the necessary equipment to maintain and keep in good working order the sanitary sewer system. This would include the gravity sewer lines, lift stations, force mains and Treatment plant.

The District has two combination trucks for cleaning the system, one Vactor 2100 single axle with 1,000 gallons tanks for fresh water, 5 yard debris tank, single phase fan, 600' of 1" hose, and 8' boom extension. The second combination truck is a Vactor 2100 single axle with 1,000 gallon tank for fresh water, 5 yard debris tank, PD blower, 600' of 1" hose and 10' boom extension. An all-terrain self-propelled easement machine, with 600 feet of 1" hose, is used for places where the combination trucks can't gain access.

A ¾ ton van with a Cue's CCTV system, Grantie XP system, and pan & tilt color camera, with 1500' of cable is used for sewer pipe inspection and video library. The District has replacement parts and trained employees to do almost all repairs needed to the camera system. The District also has a Pearpoint hand-push 200' lateral camera system.

Crew trucks consist of 1 (one) 1-ton extended cab with utility bed, tailgate lift, generator, under the hood air compressor used to operate pneumatic tools for construction and repairs, 1 (one) 1-ton extended cab with utility bed, tailgate lift, generator, drain cleaning machine for laterals and a 1 (one) 1-ton extended cab with utility bed, generator, under the hood air compressor and 10,000 foot pound crane. All trucks are stocked with various parts and hand tools.

One Case extend-a-hoe backhoe is assigned to the Department and access to numerous heavy equipment including front loaders, excavators, skid steer loader, crane, dump trucks, fifth-wheel tractor and trailers, portable air compressor, asphalt cutting machine and light stand are available from the District, as well as a rental business in our town.

The safety equipment for confined space and rescue consist of: 2-4 gas detectors, rescue rated harnesses, 2- DBI/Sala tripods and 1 Davit arm with 2 main wenches and 2 self-retracting life line and ventilation blower.

The District tries to keep replacement parts and motors in stock for all lift stations. Parts would include: motors, impellers, volutes, front and back heads and seals. Smaller pumps are replaced with new units.

Replacement parts for equipment are basic with a few exceptions of critical parts (jetting hose, check valves, nozzles etc.) for the combination trucks. Rentals are used if equipment is down for long periods of time.

Section 5 – Design and Performance Provision

SWRCB Requirement:

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

Deadline: August 1, 2009

The Fallbrook Public Utility District's Standard Specifications for Sewer System Construction is used for all collection system pipeline construction, including new construction, rehabilitation, and repair. The District's Standard Specifications also include 21 construction details and 18 General Sewer Notes that are required to be placed on the cover sheet of all approved plans. A copy of the District's General Sewer Notes and the Table of Contents for the Standards for Sewer Construction are attached at the end of this Section 5.

All new construction, rehabilitation, and repair is either completed by District crews or inspected by a District representative per the District's Standard Specifications. Contractors are required to have a copy of the District's Standard Specifications on the job site at all times.

All new sewer mains are tested and cleaned prior to District acceptance of the sewer main and being put into service. District testing includes air testing of the pipeline, mandrel, wayne ball cleaning, and final CCTV inspection of the pipeline.

On occasion, the District will develop a job specific set of plans and specifications for projects, such as pump stations and treatment plant construction. These job specific plans and specifications are developed by either the District's Engineer or a consulting engineer.

Section 6 – Overflow Emergency Response Plan

SWRCB Requirement:

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

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

Deadline: May 1, 2009

Overflow Emergency Response Plan - Objective

The Fallbrook Public Utility District operates a diverse system of collection sewers, pump stations, force mains, and treatment facilities that are well maintained. The overflow emergency response plan is directed toward several key actions:

- Protecting the public health and the environment
- Performing repair, clean-up, and restoration of the area affected
- Returning damaged equipment and/or facilities back to normal operations as quickly as possible

Overflow Detection

In general the District may receive notification of a sewer overflow by the general public, field personnel, or (early warning) by designated “Smartcover” manhole alarms which are located on manholes in certain hot spots within the District’s collection system.

Overflow notifications received by the District office during regular office hours, or by the District’s answering service after hours, are routed to collection personnel for immediate response. The collection personnel rotates standby duties to cover after hours emergency calls (scheduled by the collection system foreman).

Smartcover manhole alarms transmit alarms to a secure website in Texas, to Hadronex (Smartcover contractor), and on to appropriate District personnel. Intrusion alarms and high level alarms are transmitted to the District’s collection standby pager, and to the collection system foreman’s pager and phone.

Because the District also has potable water employees, a laminated guide card titled, “Spill Response & Reporting Instructions”, has been developed which provides detailed instructions for response and notification in the event of a potable water, recycled water, or sanitary sewer spill. These instructions cover immediate in-house and regulatory notifications specific to the type of spill.

Initial Response

Once notification of an overflow is received, the collection personnel shall initiate immediate response to the location of the overflow. When the crew arrives on site, they are able to determine if they need to call additional personnel and/or equipment to support response efforts. This includes an adequate assessment of needs pertaining to stopping the overflow, overflow recovery, and overflow clean-up. Furthermore, safety concerns such as traffic control and crowd control are also assessed.

Recovery and Clean-up (Mitigation)

Collection personnel are trained to determine the proper course of action and equipment needed to stop the overflow and begin recovery and clean-up efforts. Every effort is made to contain and prevent the discharge of untreated and partially treated wastewater to surface waters and storm drains and to minimize or correct any adverse impacts on the environment resulting from SSO’s.

The collection department utilizes a variety of equipment in recovery and clean-up efforts including combination/vactor trucks, drain cleaning machines, CCTV equipment, containment devices, and heavy equipment for repairs or assistance with cleanup. Additionally, there is a large emphasis placed on containment and wash down whenever possible.

Public Access and Warning

During response to an SSO, the collection personnel will make a determination regarding whether or not public access is reasonably anticipated. In making this decision, various factors are considered, including but not limited to; ease of public access or restriction based on fencing or private property, terrain, the final destination of spill (land, storm drain, or surface water), proximity to schools, spill recovery, and ability to disinfect and remediate spill. In the event that potential public access is anticipated, crews will post the appropriate warning signs in all appropriate locations for a minimum of 72 hours.

Furthermore, when notification is made to the San Diego County Department of Environmental Health, they may request or require Public Warning Postings depending on the specifics of the spill. The District will make certain that all posting requirements are met.

Water Quality Sampling and Analysis

With certain SSOs the San Diego County Department of Environmental Health, State or Regional Water Quality Control Boards may require water quality sampling and analysis. The District's environmental compliance technician and collection system foreman will make sure that proper sampling and analysis is conducted to comply with any regulatory agency requests. Furthermore, the District, may initiate sampling on its own, if deemed prudent, both in the interest of public health and safety as well as for investigative purposes.

Investigation and Documentation

Upon arrival to an SSO, the crew observes flow volume and location of flow (both source and destination). When needed, they will reference the SSCSC Manhole Overflow Gauge for estimating sewer spill volume (found at the end of this Section 6). They will determine if there are any possible witnesses to the overflow, and if so, gather additional information pertaining to start time, as well as other observations. This information is compiled and included on the SSO Report Form (found at the end of this Section 6), which is then completed in its entirety by the crew or the collection system foreman. The report form is thoroughly reviewed prior to initiating regulatory notifications. Many times digital photographs will be taken to document pertinent aspects of the SSO. These photographs are kept on computer file for future reference and documentation. If there are elements of the overflow that require further investigation or assessment, an in-depth investigation will continue beyond just the scope of immediate response and remediation. The collection system foreman will coordinate this investigation with the environmental compliance technician.

Regulatory Notification & Reporting

The District is committed to making all regulatory notifications as required depending on the size, location, and final destination of the sanitary sewer overflow. Regulatory notification and reporting is done using as much data as possible at the time to meet required deadlines, up to and including the thoroughly reviewed SSO Report Form in its entirety. Attached to this Section 6 are several documents providing guidelines for immediate notification.

Guideline documents created by Fallbrook Public Utility District are:

Immediate Notification and Reporting Requirements for Overflows
Sewer Overflow Reporting Table (includes regulatory contact information and numbers)

Guidelines documents created by various regulatory or other agencies are:

San Diego Regional Board - General Guidelines for Sewage Collection Overflows
County of San Diego - Wastewater Spill Reporting Requirements and Guidelines
OES - Fact Sheet, Reporting Sewage Releases

Based on the requirements or guidelines provided by each regulatory or other agency, the District follows up spill notifications with written/computerized reporting as deemed appropriate depending on the criteria of each spill.

The following is a summary of our notification and reporting guidelines, by agency:

State Water Quality Control Board

All reports are completed on the CIWQS site: <http://ciwqs.waterboards.ca.gov/>

- Public Spills to surface waters or storm drains – notification data due within 24-hours, follow-up with a draft report within 3-days, and certify within 15 days.
- Public Spills NOT to surface waters or storm drains, but $\geq 1,000$ gallons – enter a draft report within 3-days, and certify within 15 days.
- Public Spills NOT to surface waters or storm drains, and LESS than 1,000 gallons - enter a certified report within 30 days after the month that the spill occurred.
- All Private Spills – enter a certified report within 30 days after the month that it occurred.

If NO PUBLIC Spills occurred in a month, a NO Spill Certification must be completed for that month, on the CIWQS site, within 30 days after the month that is being reported.

District personnel who have been registered as data submitters and assigned a login and password with the CIWQS site, are permitted to report SSOs using the online database (currently

this includes the collection system foreman, utility technician, environmental compliance technician, and operations technician). The Operations Manager, as the designated legally responsible official for the District, is authorized to complete online SSO certifications and monthly no spill certifications.

San Diego – Local Region 9 - Water Quality Control Board

- Public Spills to surface waters or storm drains – call San Diego Region 9 within 2-hours. **Also within 24-hours** send an email to RB9SSO@waterboards.ca.gov with time and day that Regional Board, OES, and Health Department were notified along with any reference numbers.
- Public Spills NOT to surface waters or storm drains, but $\geq 1,000$ gallons – call San Diego Region 9 within 24-hours.
- Private Spills to surface waters or storm drains, or if $\geq 1,000$ gallons (regardless of destination) – call San Diego Region 9 within 24-hours.
- Spills which are NOT to surface waters or storm drains, and are LESS than 1,000 gallons (whether public or private) – no San Diego Region 9 notification needed.

Notification to the San Diego Region 9 Water Quality Control Board is made by calling Chris Means directly at 858-637-5581. Emails are directed to CMeans@waterboards.ca.gov. After hours, call the SD RWQCB at 858-822-8344.

In those months where the District completes a “No Spill Certification” (meaning no public spills) on the CIWQS site we also make a courtesy notification to the San Diego Region 9 Water Board as well. This is either done by phone or by email to our designated representative.

County of San Diego – Environmental Health (DEH)

- Immediately Reportable Spills –

All spills to waters of the state (ocean, bay, river, dry or flowing creek or stream, drinking water reservoir, etc.).

All unmitigated spills to areas with potential public contact (near homes, schools, parks, etc.) are to be reported immediately to the County of San Diego, Department of Environmental Health.

These spills must be called in to the DEH at any time of the day or night. A facsimile sanitary sewer overflow report should follow within 24 hours.

- Reportable Within 24-Hours -

All mitigated spills. These are to the ground only, no potential for waters of the state contact. The spill is 100% absorbed, cleaned up, or captured.

These spills must be reported to the DEH within 24-hours of occurrence. Both phone calls and facsimiles of sanitary sewer overflow reports are acceptable means of reporting.

- DEH Notification & Contact Information -

During Normal Working Hours (8:30am to 5:00pm Monday through Friday)

Uewan Moffat:	858-495-5579
Fax:	619-338-2315

After Hours, Weekends and Holidays:

County Communications**:	858-656-5255
<i>**Request to have the Haz-Mat Duty Specialist paged.</i>	
Fax:	858-694-3670

- Sampling and Warning Sign Posting Requirements -

The DEH will advise reporting agencies on requirements for sampling and posting signs warning of sewage contamination. Signs must be posted at all areas, including water bodies, where the public may come into contact with wastewater spills. The DEH will be responsible for any required public notifications such as press releases. The DEH will also advise responsible agencies when to remove signs based on bacteriological sampling and other environmental conditions.

Office of Emergency Services (OES) – California

All sewage spills of 1000 gallons or more (regardless of destination) and all spills to storm drains or surface water (regardless of size) will be reported to the California Office of Emergency Services within 2-hours.

Office of Emergency Services 800-852-7550

California Department of Fish and Game

California Department of Fish and Game is normally notified by OES. However, if there is a spill that results in fish kill, immediately contact Bill Paznokas with California Department of Fish and Game at 848-467-4218 (Fax: 858-467-4299). On the weekends, Noel Richards, may also be contacted at 619-572-1006 (cell) or 760-510-1256 (office).

Camp Pendleton – Environmental Security Wastewater Quality Branch

Camp Pendleton 24-Hour Spill Hotline is to be notified immediately, in the event of a sewage spill which reaches and impacts Fallbrook Creek, thereby potentially impacting water resources on Camp Pendleton. 24-Hour Spill Hotline number: 760-390-0784. After initial phone notification, spill reports may be faxed to Camp Pendleton, per their request. If faxed report is requested, District personnel should request the current fax number where report should be sent.

Equipment

The collection department utilizes a variety of equipment in recovery and clean-up efforts including combination/vactor trucks, drain cleaning machines, CCTV equipment, containment devices, and heavy equipment for repairs or assistance with cleanup. A complete inventory of collection department equipment can be found in this SSMP, Section IV, Operations and Maintenance Program, Equipment and Replacement Parts.

Training

During a new employee's probationary period, the collection system foreman conducts training on the proper procedures for responding to an SSO. In addition, employees receive field training conducted by the collection system foreman or utility technicians. Instruction includes actual SSO response, remediation, necessary equipment, information gathering, documentation, and completion of the SSO Report Form.

Section 7 – Fats, Oils, and Grease (FOG) Control Program

SWRCB Requirement:

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

- a) An implementation plan and schedule for a public education outreach program that promotes proper disposal of FOG;*
- b) A plan and schedule for the disposal of FOG generated within the sanitary sewer system service area. This may include a list of acceptable disposal facilities and/or additional facilities needed to adequately dispose of FOG generated within a sanitary sewer system service area;*
- c) The legal authority to prohibit discharges to the system and identify measures to prevent SSOs and blockages caused by FOG;*
- d) Requirements to install grease removal devices (such as traps or interceptors), design standards for the removal devices, maintenance requirements, BMP requirements, record keeping and reporting requirements.*
- e) Authority to inspect grease producing facilities, enforcement authorities, and whether the Enrollee has sufficient staff to inspect and enforce the FOG ordinance;*
- f) An identification of sanitary sewer system sections subject to FOG blockages and establishment of a cleaning maintenance schedule for each section; and*
- g) Development and implementation of source control measures for all sources of FOG discharge to the sanitary sewer system for each section identified in (f) above.*

Deadline: May 1, 2009

Public Information and Outreach

Fallbrook Public Utility District currently has an ongoing, effective public awareness campaign that promotes the proper disposal of grease.

The FPUD *Grease - In the Can, Not in the Drain!* program has been in place since 2003 and is coordinated by our Public Affairs Specialist, who conducts educational school presentations in conjunction with a grease-can decorating contest. To promote this, a bilingual school flier announcing FPUD's Student Art Contest is circulated to all public and private schools within the District. Fallbrook students, grades 1-5, are invited to participate. Teachers are encouraged to promote the project contest with awards to schools with the greatest number of entries. The school with the most participation wins \$400 for its school art programs. The school with the

second-greatest participation wins \$300 for its student art programs. Any school that submits 50 entries wins \$100 for its student art programs. Individual winners for 1st, 2nd, and 3rd place are selected by a judging panel and awarded at an FPUD board meeting. Several honorable mention prizes are also awarded, for a typical annual recognition of 14 student winners. The first year of the contest, about 100 entries were received; in years two and three of the program, more than 500 entries have been received, indicating the dramatic growth of the project.

As of November 2011, about 7,000 grease cans have been crafted by Fallbrook students and youths. The program and demand for classroom presentations has grown so much that the classroom presentation has been adapted into an assembly format to satisfy all the requests for the presentation. Presentations are now given in both the classroom setting, as well as assemblies that combine six classes together in a multi-person room at the schools

This program informs Fallbrook residents about the importance of keeping cooking oils and grease out of the sewer system. Kitchen grease, oils, and fat from food scraps go down the drain, stick to the pipes and clog passageways, causing back-ups and sewer spills. Parents are informed (using a bilingual flier) that their child's decorated grease can, will help. It encourages them to keep the grease can next to the kitchen sink, line it with a plastic bag, and then pour any cooking oil and grease into the can. Then simply toss the filled bag of grease in the trash.

There are several components to the public relations project. First, the Public Affairs Specialist goes into classrooms and, with a vivid presentation, explains the problem to students, then has the students create their own grease cans right there in the classroom. Those students are provided with empty, recycled coffee cans, glue and a variety of craft supplies and decorations. The students then take their grease cans home, along with a flier, explaining the purpose of the can. The second component is the district-wide contest. For this, the students make their own cans at home. These grease cans are particularly creative. For seven years, the District ran a grease-can making booth at the annual Avocado Festival, a street fair attended by 70,000 annually. Passersby were provided with the same above-mentioned cans and decorations. This ended two years ago when it was realized that the majority of the children visiting the booth and making a grease can, had already made one in the classroom.

The classroom education programs are regularly and primarily focused at Maie Ellis Elementary School and Fallbrook Street School (due to the diversity of the student body). The program has also been presented at Live Oak School, St. Stephen's Lutheran School, William H. Frazier, Zion Lutheran School, and the Fallbrook Boys and Girls Club.

Several other factors have facilitated further public education as a result of this program. First, the District regularly holds coffee can drives to collect cans for this program. The Fallbrook Woman's Group has generously participated in these drives as well. Public Affairs has received three grants to fund and expand the program, along with a great deal of media interest, including both newspaper and TV coverage.

Many sanitary sewer overflows in our District are caused by grease blockages, making public awareness of this problem a key priority. This program has been a valuable tool in making the public aware of how pouring kitchen grease down the drain affects infrastructure, wildlife, and the environment. Furthermore, this program is changing behaviors and the effectiveness is demonstrated by a documented reduction of grease-related sanitary sewer overflows since the inception of this program.

Plan, Schedule, and Disposal Facilities for Disposal of FOG

The Fallbrook Public Utility District (FPUD) requires Food Service Establishments (FSE) to capture and properly dispose of the fats, oils and greases generated by their operation. Disposal of the greases in the sewer system contributes to obstruction and blockage of the sanitary sewer system, subsequently causing sewer spills in Fallbrook.

As a requirement of Ordinance 307, FPUD's FOG Program, the FSE's are required to install and maintain grease traps or grease interceptors. These devices are designed to separate and capture FOG to aid in the prevention of sanitary sewer blockages.

Annually a waiver may be given to each FSE and the waiver is good for one year provided they meet one of the following requirements:

1. The FSE will be tested on an annual basis to determine the amount of grease and oil coming from the FSE. A limit of 400 mg/l of oil and grease is allowed within the FPUD service area. If the FSE is at 400 mg/l or less they will be granted a waiver, good for the calendar year, or
2. The installation of a grease interceptor is physically impracticable or impossible, in which case, the FSE is required to submit the reasons and photographs or drawings showing the physical limitations on which the claim is based, or
3. The Engineering and Planning Manager determines that the FSE is not within a grease problem area, as defined in paragraph C.5 of Ordinance 307 and currently poses no threat of being a potential contributor to grease build up.

A copy of the Food Service Establishment Grease-interceptor Waiver Application is located at the end of this Section 7.

The District has taken measures at Treatment Plant No.1 in an emergency to dispose of grease generated by the local FSE's that have problems and require the assistance of the District's Collections Department. In 2006 FPUD staff constructed a grease disposal station prior to the Headwork's portion of the facility. The Fallbrook Administrative Code, Ordinance No. 312, states that fees will be incurred by the FSE in the amount of \$400 per grease interceptor cleaning and disposal.

In the event the FSE can take care of its own grease disposal and doesn't require the assistance of the district, the FSE can utilize any grease interceptor cleaning/grease hauling company.

A few of the companies that have the ability to perform services in the Fallbrook area are:

<u>Company</u>	<u>Contact Number</u>
Liquid Environmental Solutions	858-481-8106
Darling International	858-566-8600
Atlas Pumping Service	800-491-7867
Baker Commodities	800-427-0696
SMC Grease	951-788-6042

Legal Authority for FOG Program

In 2004 FPUD passed Ordinances 307, 308, and 312 (part of the Fallbrook Public Utility District Administrative Code) establishing a Fats, Oils and Grease Control Program. The Ordinance contains a Preventative Maintenance Program, Grease Control Program, Grease Interceptor and/or Grease Trap requirements, Best Management Practices, Fee Schedules, etc.

Ordinance 308 provides that penalties will be incurred for persons who shall violate any provisions of the code or standards adopted. Violators would be guilty of a misdemeanor, punishable by a fine not exceeding \$1,000.00 or by imprisonment in County Jail not exceeding six months, or both.

The FOG ordinances are located in Article 31 of the Fallbrook Public Utility District Administrative Code. A copy of the Administrative Code Index is located at the end of this Section 7.

Requirements and Standards Related to Grease Removal Devices

FSE's within the Fallbrook service area as mentioned in the "Plan, Schedule, and Disposal Facilities for Disposal of FOG section " aren't required to install a grease interceptor if it meets requirement No.1 of having less than 400mg/l oil and grease in its wastewater that is sampled at a minimum once per year.

The FPUD Engineering department can make suggestions on proper Grease Interceptor sizing; however, the District will utilize the Uniform Plumbing Code (UPC) for confirmation of correct sizing depending on the size of the facility.

Although a grease trap is not required by FPUD's FOG program, it is highly desired to possess one. If an FSE chooses to install a grease trap, requirements and suggestions can be found in Ordinance NO. 307 Section E.1-7., as well as, the UPC.

Maintenance requirements for grease interceptors and traps can be found in Ordinance No. 307 Sections F. 1-8. The user is required to maintain traps and interceptors at all times.

The grease interceptors must be pumped out completely a minimum of every three months, or more frequently as needed to prevent the carry over of grease into the sanitary sewer system.

The grease traps are recommended to be cleaned or serviced on a weekly basis. The complete removal of all contents including, floating materials, wastewater, and bottom sludges or solids is suggested.

Best Management Practices (BMP) information is located in Appendix C. of Ordinance No. 307. The information available includes; Dry Clean-Up, Spill Prevention, Maintenance of Equipment, Oil and Grease Collection and Recycling, etc.

Record Keeping and Reporting Requirements.

A redundant filing system is kept by FPUD staff. Each FSE retains a hardcopy file and an electronic file in EXCEL format. Records dating as far as back 1999 are kept in hard copy.

Currently there are no reporting requirements to either the San Diego Regional Water Quality Control Board or the San Diego Department of Environmental Health.

Inspection and Enforcement Authority

FSE inspections are performed at minimum on an annual basis; ideally twice a year is preferable. FOG inspection information can be found in the FPUD FOG Ordinance 307 Section G. 1-3. Each FSE will have their waste stream sampled annually and the sampling is performed unannounced.

As of November 2011 there are approximately 80 FSE's that are required to be inspected and sampled. When a new FSE opens for business, FPUD staff will arrange a meeting with the facility manager and introduce the FOG program requirements and each FSE is offered a copy of the ordinance as well. In addition, FPUD staff will be given a short tour of the facilities and will review record keeping requirements and discuss kitchen "Best Management Practices" (BMP) with the manager.

The enforcement authority originated with the development of District's FOG Ordinance No. 307, which was adopted by the FPUD Board of Directors. In short, the Ordinance contains

enforcement provisions which allow FPUD staff to collect fines for non-compliance of the established 400 mg/l oil and grease limit. It is not the desire of the District to collect monetary fines, but rather to assist the FSE's to be in compliance with the established limit.

Sewer System FOG "Hot-Spots" and Source Control Measures

FPUD established a Collection System Hot Spot Management Program in 2004. The policy establishes guidelines for implementing the program. A "Hot Spot" is identified as a location in the collection system where a peculiar situation has been identified which is subject to spills and requires a higher level of maintenance other than routine (minimum). A copy of the Collection System Hot Spot Management Program can be found at the end of this section.

When a "Hot Spot" location and cleaning frequency has been established, the Collection crew will clean the section and observe the results (grease, roots, etc.) by trapping and removing the material at the downstream manhole. The crew will document the cleaning and the results will be recorded on a specific Hot Spot card and classify the material as light, moderate, or heavy.

The District has five levels of collection system cleaning frequencies and they are as follows; Monthly, Quarterly, Semiannual, Annual, and Routine.

On a yearly basis the Collections crew treats approximately 0.75 miles of pipeline with an industrial root control product. In addition, the pipelines are inspected, as needed, by the use of a closed circuit television (CCTV) system. Records of both events are kept at the Main Office at 990 East Mission Road in Fallbrook.

Section 8 – System Evaluation and Capacity Assurance Plan

SWRCB Requirement:

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

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

Deadline: August 1, 2009

The District currently has sufficient capacity for wastewater treatment and collections from now through build out of the District's sewer service area. Furthermore, on March 26, 2007, the Board of Directors adopted a policy to deny any future discretionary annexations into the District's sewer service area, until conditions change, such as down zoning or parkland or permanent open space additions.

Currently there are only a few areas of the collections system that have been identified as having hydraulic deficiencies. These areas are listed for future improvements on the Capital Budget Section 21 detail for the Collections System (for details see the referenced budget section).

Hydraulic deficiencies are typically identified by the Collections Crew during routine flushing or cleaning. The Collections Crew then reports any deficiencies to the Collections Foreman and he reports the deficiencies to the Operations Manager. The Operations Manager and the Collections Foreman then evaluate the details and specifics of each deficiency. Those deficiencies are then presented to the Engineering & Planning Manager and the Engineering Department for recommendations. Determinations are then made regarding the appropriate improvements and repairs to force mains and main lines. Some improvements may be placed on the Capital Budget mentioned above or scheduled for other action or repairs.

Section 9 – Monitoring, Measurement, and Plan Modifications

SWRCB Requirement:

The collection system agency shall:

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

Deadline: August 1, 2009

The District is committed to continually improving its methods and practices, including the SSMP and its elements. One tool the District utilizes is a Microsoft Excel spreadsheet to record all SSO's. Information on each spill is entered including Event ID, Overflow Type, Date, Street Number, Street Name, if discharge reached surface waters or a storm drain, the agencies the spill was reported to, volume spilled, and volume recovered. This spreadsheet along with the online CIWQS system helps us monitor the history of SSOs, the effectiveness of our SSMP, the effectiveness of our cleaning and maintenance program, as well as identify areas needing further evaluation or improvement.

Each month two updated reports (SSOs over the last 12-months and SSOs to date in the current fiscal year) are given to the Collections Foreman for his review and consideration. A year-end summary report is also generated and kept on file.

The District tracks all line cleaning activity and hot spot schedules. A monthly Collections System Board of Director's report is generated by the Operations Manager and presented to the General Manager, and the Board of Directors for review which includes hot spot flushing, regular line flushing, CCTV footage, common sewer overflows for current and previous year (inclusive of the total number of overflows and gallons spilled/lost).

From time to time, careful review of the historic and current SSO data or trends may indicate a change or modification is needed to the District's current maintenance schedule, cleaning schedule, or SSMP. This can typically be realized through ongoing regular discussions between staff, foreman, and management at various levels, who are regularly involved with the collections system or compliance. It may also be indicated as a result of the foreman's review of the monthly reports provided to him summarizing all SSOs. When a change in maintenance schedules or revision of the SSMP is deemed necessary or prudent, implementation will be initiated following the appropriate chain of command to ensure that the change or revision is completed in a timely and effective manner.

Furthermore, the District has also determined that completion of the annual questionnaire on the CIWQS site is a good reminder to completely review the entire SSMP, section by section, to evaluate both its accuracy and effectiveness in consideration any potential revisions.

Annual Reports should be completed and reviewed sometime around January and February of each year. Annual reports include:

- **Year-End Summary of SSOs**
This reports includes ID#, type (private or common), date, street number and name, if the spill went to surface waters or a storm drain, agencies the spill was reported to, total volume of spill, and volume released to environment. Additional notes will made on this year end report as to the cause of each spill.
- **Annual Maintenance Report**
This report includes a summary of the all the annual maintenance completed compared to the plan (quantity of sewers cleaned verses planned). This data is compiled from the Monthly Collections System Board of Director's Report.

Section 10 – SSMP Program Audits

SWRCB Requirement:

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

Deadline: August 1, 2009 - (and every 2 years minimum)

This District's Operations Manager, Collections Foreman, and Operations Technician are responsible for conducting the internal audit of the SSMP. This audit shall be conducted every 2 years, at minimum, and will focus on evaluating the effectiveness of the District's SSMP and compliance with the requirements, including identification of any deficiencies and the steps to correct them.

The 2-year Audit will include the following review elements:

- Section by section review of the entire SSMP.
- Completion of any needed or recommended updates and revisions, including attachments.
- Distribution of changes to all District SSMP binders.
- Review and evaluation of the 2 most recent Annual Year-End Summaries of SSOs.
- Review and evaluation of the 2 most recent Annual Maintenance Reports.
- Implement any changes required as a result of the review and evaluation of the above listed reports.
- A brief written summary of any notable Audit results and findings, including comments on the effectiveness of the SSMP, the District's compliance with SSMP requirements, and identification of any deficiencies and the recommended corrective steps.

A suggested audit form and recommended elements can be found at the end of this section.

A copy of each audit report will be given to the General Manager and any other management or staff requesting a copy. A copy will also be kept in each SSMP binder at the back of Section 10.

The results of each 2-year audit will be reported to the Board of Directors by way of inclusion in a monthly board packet. In addition, the most recent 2-year audit report will also be posted on FPUD's website for public review and comment for an appropriate duration of time.

Section 11 – Communication Program

SWRCB Requirement:

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

Deadline: August 1, 2009 - (and throughout development)

Website Posting

In June 2008 the Fallbrook Public Utility District posted a notice on its website that the District is currently developing its SSMP and welcomes public comment and input. This posting includes the SSMP Development Plan and Schedule, the Board memorandum, meeting minutes, and staff's email address and phone number where comments and/or questions should be directed. The following is the notice which was posted on www.fpud.com:

We welcome public comment and input on our sewer plan

On July 23, 2007, during a public Board Meeting, the FPUD board of directors adopted the [Sewer System Management Plan \(SSMP\) Development Plan and Schedule](#) {hyperlink}. Please see the [board memorandum](#) {hyperlink} and [meeting minutes](#) {hyperlink}.

As we are currently developing our SSMP, we welcome public comment and input.

Please contact Patti Page at patti@fpud.com or at 728-1128, ext. 2100 with comments and/or questions.

Approval and Certification of the SSMP

The SSMP was adopted, certified, and implemented by the District's Board of Directors at a public Board Meeting on June 22, 2009. Upon approval by the Board of Directors, all sections of the SSMP were certified as complete and implemented by the District's Legally Responsible Official on July 7, 2009 using the online CIWQS system and printing and signing the automated form, and sending it to:

State Water Resources Control Board
Division of Water Quality
Attn: SSO Program Manager
P.O. Box 100
Sacramento, CA 95812

The following notice was also posted on the District's website:

FPUD's Sewer System Management Plan

On June 22, 2009, during a public Board Meeting, the FPUD Board of Directors adopted, certified and implemented FPUD's Sewer System Management Plan. A copy can be viewed in FPUD's Engineering Department at 990 E. Mission Road, in Fallbrook. Please contact Patti Page at Patti@fpud.com or 760-728-1125 ext. 2100, with comments or to schedule an appointment to review the plan.

2-Year Audit – Communication

Every 2 years the District will conduct an audit that focuses on evaluating the effectiveness of the District's SSMP and compliance with the requirements, including identification of any deficiencies and the steps to correct them.

The results of each 2-year audit will be reported to the Board of Directors by way of inclusion in a monthly board packet. In addition, the most recent 2-year audit report will also be posted on FPUD's website for public review and comment for an appropriate duration of time.

5-Year SSMP Update

The SSMP must be updated every five (5) years, and must include any significant program changes. Re-certification by the District's Board of Directors is required when significant updates to the SSMP are made. To complete the certification, the District shall follow the certification steps as outlined above in "Approval and Certification of the SSMP".

Additional Public Communication

FPUD's *Grease – In the Can, Not in the Drain!* public education program, also serves to inform the community about the importance of proper disposal of grease and the importance of maintaining infrastructure and protecting wildlife and the environment. See Section 7 of this SSMP for more detailed information on this program.