

City of Healdsburg

Sewer System Management Plan (SSMP)



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Table of Contents

Introduction.....	2
Collection System Description.....	2
Sewer System Management Plan (SSMP).....	5
<i>(i) Goal:</i>	5
<i>(ii) Organization:</i>	5
<i>(iii) Legal Authority:</i>	9
<i>(iv) Operation and Maintenance Program</i>	13
<i>(v) Design and Performance Provisions</i>	20
<i>(vi) Overflow Emergency Response Plan</i>	22
<i>(vii) FOG Control Program:</i>	23
<i>(viii) System Evaluation and Capacity Assurance Plan:</i>	25
<i>(ix) Monitoring, Measurement, and Program Modifications:</i> .	28
<i>(x) SSMP Program Audits</i>	29
<i>(xi) Communication Program</i>	29

Appendices:

- A. Satellite Lift Station Survey - 2008
- B. Sewer System Spill Response Plan, March 2009
- C. Ordinance 763 - Sewer Ordinance
- D. Ordinance 985 - Code Enforcement
- E. Sewer System Map
- F. Five-Year CIP
- G. Restaurant/Food Business Inspection Schedule
- H. Sewer Overflow Summary 2005-2008

Figures:

- 1. Sewer Tributary Map - Overall
- 2. Sewer Tributary Map - North Area
- 3. Public Works Department Organizational Chart
- 4. Sewer Lift Stations
- 5. Spending Trend Chart

City of Healdsburg Sewer System Management Plan (SSMP) August 2009

Introduction

This document presents the City of Healdsburg's Sewer System Management Plan, which has been prepared in compliance with State Water Resources Control Board (SWRCB) Order No. 2006-0003-DWQ (Order). The purpose of the Order is to provide a consistent, statewide regulatory approach to address Sanitary Sewer Overflows (SSO's). The State Water Resources Control Board (SWRCB) adopted the Order on May 2, 2006. The Order requires public agencies that own or operate sanitary sewer systems to develop and implement sewer system management plans and report all SSOs to the State Water Board's online SSO database. The City filed a "Notice of Intent" to comply with the terms of the Order on October 25, 2006, and has already implemented the online SSO reporting as required under the schedule contained in the Order.

Following the brief description of the City's collection system below, the City's SSMP has been formatted with the text of the Order shown in italicized text, and the City's SSMP content to address the specific requirements following.

Collection System Description

The City's collection system includes a total of approximately 42 miles of collection system pipelines and 10 lift stations, with capacities ranging from under 1000 to approximately 8 million gallons per day. The table below summarizes the distribution of main sizes throughout the collection system.

Sewer Main Size (inches)	Total Length (lineal feet)
1	46
2	310
3	200
4	3,938
6	145,507
7	297
8	54,926
10	14,079
12	11,642
14	7,711
15	5,870

Sewer Main Size (inches)	Total Length (lineal feet)
16	1,618
18	5,072
21	5,440
24	5,203
30	201
33	6,087
36	918
Other	12,783
(Lineal Feet)	281,848
(Miles)	53.4

Figure 1 below shows the entirety of the collection system with tributary areas delineated. Most of the City sewer system flows by gravity to the Magnolia Lift Station. A large portion of the City is sewered by the relatively new North Trunk Sewer, which was constructed in 1995. This trunk sewer was constructed to serve the areas of the City where nearly all significant new (non-infill) growth was expected to occur. See Figure 2.

The 33-inch Magnolia Trunk sewer collects all wastewater within the City near the south end of Healdsburg Avenue, where it runs under Highway 101 and flows another 4,400 feet south to the Magnolia Lift Station, located near the Foss Creek/Dry Creek confluence. After flowing through a grinder, flow enters the wet-well at the Magnolia Lift Station and is then pumped approximately 3,500 feet through parallel 14" force mains to the WWTP. The parallel force mains run under Dry Creek in two mortar-lined 14" ductile iron pipes.

The remaining 9 lift stations serve smaller areas within the City (see Figure 1.) The Orangewood, Mountain View and Heron Drive lift stations serve the southeastern portion of the City between South Fitch Mountain Road and the Russian River, and isolated high areas north of South Fitch Mountain Road. All flows from the Orangewood and Mountain View lift stations are directed through the Heron Drive lift station.

The characteristics of the City's 9 satellite lift stations are summarized below:

Lift Station	Pumps		Connections		
	No.	HP	Residential	Non-Residential	Total
Chablis	1	9.4	23	0	23
	2	9.4			
Hendricks	1	0.75	3	1	4
	2	0.75			

Lift Station	Pumps		Connections		
	No.	HP	Residential	Non-Residential	Total
Heron*	1	9.4	212	2	214
	2	9.4			
Kennedy	1	5.0	124	1	125
	2	9.4			
Kinley	1	9.4	0	9	9
	2	9.4			
Moore	1	9.4	0	3	3
	2	9.4			
Orangewood	1	9.4	118	1	119
	2	9.4			
Orchard	1	9.4	173	2	175
	2	9.4			
Magnolia	1	60	**	**	**
	2	60			
	3	60			
	4	56			

*Heron also pumps volume from Orchard, Orangewood and Hidden Acres and Sunset. The list omits several small single-service lift stations at City facilities.

** Collects all wastewater from within the City.

Each of the lift stations has been equipped with an electrical transfer switch so that they can be readily powered by stand-by generators. For the smaller satellite lift stations, portable generators owned and maintained by the City are used with manual transfer switches. At the Magnolia Lift Station, a permanently-installed dedicated generator is connected through an automatic transfer switch which starts and operates during a power outage. In addition, the City owns a portable trailer-mounted 6-inch diesel engine-driven pump which is normally parked at the lift station. This pump can also be used as a back-up to the four permanently-mounted pumps at the Magnolia Lift Station.

A report summarizing the characteristics of each lift station, prepared by the City's operators, has been included in Appendix A. The electronic version of the document includes links to pump curves and operations manuals.

The City operates an extensive Supervisory Control and Data Acquisition (SCADA) system that closely monitors all of the City's water and sewer facilities, including the lift stations. All lift stations are each monitored by a local programmable logic (PLC) controller, which transmits data to the SCADA system over a wireless network. Each lift station is monitored for water levels and pump status. A level indicator is shown on the local lift station display, and also sends a remote reading to the SCADA system. The PLC controller uses this indication to start and stop the pumps and to generate an alarm when warranted. For

protection, a high-high level float in each lift station operates as a backup to the level indicator to start both pumps if the wet-well reaches a level above the normal operating range. The controller also monitors and transmits pump data, number of pump starts, pump runtime and wet-well level for historical data collection. In addition to the alarm call-outs, the on-call operator can access the SCADA system from remote sites via an internet connection and observe the status of all water and sewer facilities, including the lift stations.

The PLC at each lift station also sends remote alarms for high (or low) level, high-high level float trigger, incorrect pump control settings, loss of power, PLC cabinet intrusion, or a communication or pump failure. These alarms are transmitted back to the SCADA system, where a voice dialer calls the on-call operator and describes the location and the specific alarm condition. As a backup to the wireless data link, a general lift station failure relay (operated by the high-high float or loss-of-power) also sends a signal by a dedicated phone line to the main sewage lift station (Magnolia), where a cellular dialer will also notify the on-call operator. Taken together, these monitoring and alarming systems provide robust protection against lift station failures that could otherwise cause a spill or overflow.

Sewer System Management Plan (SSMP)

(i) 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.*

The City of Healdsburg recognizes that the collection system is a key component of its sewer utility and is committed to providing responsible and reliable service to the community through a comprehensive operation and maintenance program. The City has therefore implemented a sewer collection system maintenance program, which is intended to accomplish the following:

- Protect the environment and public health by minimizing blockages and overflows;
- Identify areas that need increased maintenance, repair or replacement;
- Reduce operating and maintenance costs;
- Minimize groundwater and surface water intrusion into the sewer system;
- Identify non-compliant dischargers to the City sewer system and take appropriate corrective action;
- Educate the public to avoid misuse of the wastewater system.
- *Identify defective gravity sewer lines located within one hundred fifty (150) Feet of surface waters, including storm drainage channels and creeks and give them higher priority for repair and/or replacement. (added 2/2014)*

(ii) Organization: *The SSMP must identify:*

(a) The name of the responsible or authorized representative as described in Section J of this Order.

(b) The names and telephone numbers for management, administrative and maintenance positions responsible for implementing specific measures in the SSMP program. The SSMP must identify lines of authority through an organization chart or similar document with a narrative explanation; and

(c) The chain of communication for reporting SSOs, from receipt of a complaint or other information, including the person responsible for reporting SSOs to the State and Regional Water Board and other agencies if applicable (such as County Health Officer, County Environmental Health Agency, Regional Water Board, and/or State Office of Emergency Services (OES)).

The City's organization chart for the Public Works Department, which has the responsibility for all SSMP activities, is shown in Figure 3.

The Public Works Department is responsible for construction, operation and maintenance of the City's sewer infrastructure. Specific areas of responsibility include design, construction and maintenance of the sewer treatment and collection systems.

The Public Works Engineering Division consists of four engineers, two public works inspectors, one engineering technician, one engineering aide and an administrative assistant. Responsibilities include implementing the City's Capital Improvement Program (CIP) and interacting on behalf of the City with outside agencies and reviewing land development projects. Other responsibilities include maintaining and updating the City's standard plans and specifications; inspections; issuance and administration of permits, licenses and agreements; flood plain administration; management of the City's Geographic Information Systems (IS and aerial photography), traffic engineering; surveying; and customer service related to public utilities, property development and public right-of-way issues.

The Public Works Operations and Maintenance Division includes 31 full-time and two temporary employees, and is responsible for the operation, maintenance, inspection, and repair of a significant portion of the City's infrastructure. The four primary sections within the O&M division are maintenance, water operations, wastewater operations and internal services. The Public Works Operations Manager oversees these divisions.

The Maintenance Section has nine full-time and two temporary employees who maintain and repair the sanitary sewers. The maintenance section also is responsible for abatement of sidewalk hazards, maintaining streets, traffic signals, signing and striping, storm drains, water distribution piping, and City buildings. The Sewer Maintenance Section focuses on proactive management through regular sewer collection system cleaning (see below), water distribution system flushing, and water system corrosion control.

A separate staff of three Instrumentation Technicians operate and maintain the City's SCADA computer monitoring for the water and wastewater systems.

The Water Section is responsible for the City's water production, treatment, and storage systems and has six employees. This group operates and maintains the City's new Gauntlett/Fitch Treatment Facility, fifteen production wells; chemical treatment systems, seven storage reservoirs, the SCADA communication system and the cross connection control program. The section also includes two positions that are shared with the sewer division (Utility Superintendent and Lab Analyst).

The Wastewater Section, comprised of nine employees, has primary responsibility for operation and maintenance of the wastewater treatment plant and a reclamation system (future), water quality sampling and analysis, inspection of commercial and industrial dischargers to ensure compliance with the City's sewer ordinance, and a public education program. Along with the Maintenance Section, this section operates and maintains the sewer collection system and the City's eight sewer pump stations. Two positions in this section, the Utility Superintendent and Lab Analyst, are shared with the water division.

The Internal Service section consists of three employees. This group provides Citywide inventory and fleet maintenance services for over 100 vehicles and specialized equipment. The section maintains an inventory of many of the City's recurring equipment, materials and parts needs.

The Public Works Director/City Engineer, Mike Kirn, is the designated responsible/authorized representative for the purposes of the SSMP. The Public Works Operations and Maintenance Manager and Utility Superintendent positions are currently vacant. Until these positions are filled, the Wastewater Utility Foreman reports directly to the City Engineer.

The names and telephone numbers for staff responsible for implementing specific measures in the SSMP program are as follows:

SSMP Task	Name	Position	Phone Number
Operation and Maintenance Program (Preventative Maintenance)		Public Works Maintenance Supervisor	(707) 473-4458
Sanitary sewer system mapping		Engineering Aide Engineering Aide	(707) 431-3393 (707) 431-3385
Sanitary sewer system operations and maintenance training		Wastewater Utility Foreman	(707) 473-4495

SSMP Task	Name	Position	Phone Number
Rehabilitation and replacement (Inspection)		Public Works Maintenance Supervisor	(707) 473-4458
Rehabilitation and replacement (CIP implementation)		Senior Civil Engineer	(707) 431-3369
Equipment and replacement part inventories		Storekeeper	(707) 431-3330
Design and performance provisions		Associate Civil Engineer	(707) 431-3334
Overflow emergency response plan		Wastewater Utility Foreman Public Works Maintenance Supervisor	(707) 473-4495 (707) 473-4458
FOG control program (Inspections)		Wastewater Utility Foreman	(707) 473-4495
FOG control program (Public Education)		Administrative Assistant	(707) 431-3578
System evaluation and capacity assurance planning		Senior Civil Engineer	(707) 431-3369
Monitoring, measurement and program modifications		Senior Civil Engineer	(707) 431-3369
SSMP program audits		Senior Civil Engineer	(707) 431-3369

The chain of communication for reporting SSOs including the person responsible for reporting SSO's, is described in the Sewer System Spill Response Plan, (March 2009), which is included as Appendix B

(iii) 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 may 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.

The City's legal authority to control use of the sewer collection system is provided by Ordinance 763 see Appendix C, which has been in effect since 1984. The ordinance provides explicit authority to address all of these SSMP General Permit requirements. Specifically, Ordinance 763 includes the following provisions, among others:

- Generally prohibits waste discharges from adversely affecting the sewer system, the operation of the treatment facilities, the quality of effluent from the treatment plant or the quality of the receiving water.
- Generally prohibits the discharge of any substance that causes the City to violate any State or Federal regulation for sewage discharge, any substance that cannot be treated in the sewage system, any substance which would harm or adversely affect the sewer system.
- Requires permits for any connection to the public sewer and requires compliance with all adopted requirements that apply to sewer connections.
- Requires permits for all non-domestic sewage discharges to the sewer system.
- Specifically requires separation of sewer and storm drain discharges and prohibits discharge of storm drainage to the sewer system, and vice-versa.

- Requires inspection and supervision of all connections and repair to the public sewer system.
- Declares that the City Council will adopt and update regulations establishing construction requirements, materials for sewers, charges for connection, sewer use charges and materials prohibited to be discharged.
- Requires easements or right-of-way for the extension of the public sewers sufficient to allow the laying, maintenance and replacement of the sewer, with widths to be determined by the City Engineer.
- Requires “As-built” drawings to be filed showing the actual location of all mains, structures, “Tees” and laterals before final acceptance of public sewers.
- Requires testing of new public sewer lines for compliance with all City Standards before any acceptance by the City.
- Allows the City to require pretreatment or other controls for industrial wastewaters to control the timing, flow rates and content of discharges.
- Allows the City to revoke an Industrial Wastewater Discharge Permit after a finding that the discharger has violated any provision of the Sewer Use Ordinance.
- Establishes numeric limits for a number of toxic substances exceeding specific concentrations listed in the ordinance
- Requires gravity separation interceptors for floor drains from commercial or manufacturing buildings, warehouses or multi-use structures.
- Requires grease, oil or sand interceptors for discharges that contain grease in excessive amounts, any flammable wastes, sand or other harmful ingredients.
- Requires screening to 1/32nd of an inch for discharges of any garbage, any fruit, vegetable, animal, fish or other solid industrial wastes resulting from the processing, packaging or canning of fruits, vegetables, fish or other foods or products.
- Requires the separation of all domestic or sanitary wastewaters from all industrial wastewaters until the industrial wastewaters have passed through any required pretreatment system or device, and requires control manholes to facilitate inspection and sampling of the industrial waste.

- Requires dischargers to provide protection from accidental discharge of prohibited materials or other wastes regulated by the ordinance.
- Requires that sampling, analysis and flow measurement procedures, equipment and results be subject to inspection by the City at any time.
- Requires immediate notification and follow-up reporting for accidental discharges that would violate the ordinance.
- Requires that all authorized employees of the City be permitted to enter all served properties to inspect, observe, measure, sample or test in accordance with the ordinance.
- Establishes broad categories of prohibited wastes, including:
 - Any liquid or water having a temperature higher than 150 degrees Fahrenheit.
 - Any water or waste containing floatable grease, oil, fat or ether-soluble matter in excess of 50 parts per million, or dispersed nonfloatable grease, oil, fat or ether-soluble matter other than soap, in excess of 500 parts per million.
 - Any gasoline, flammable or explosive liquid, solid or gas.
 - Any garbage other than domestic garbage shredded to 1/4-inch maximum size.
 - Any ashes, bones, hair, whole blood, cinders and mud, straw, shavings, metal, glass, rags, feathers, tar, plastics, wood, paunch manure or any other solids or viscous substances capable of causing an obstruction in the sewers or interference with the proper operation of the sewage system.
 - Any wastes with a pH lower than 6.0 or higher than 9.0 or having any other corrosive property capable of causing damage or hazard to sewer structures, equipment and/or personnel.
 - Any wastes containing a toxic or poisonous substance that could injure or interfere with any sewage treatment process, or constitute a hazard to humans or animals, or create any hazard in the treatment plant.
 - Any wastes containing suspended solids or dissolved matter that would require unusual attention to accommodate at the treatment plant.
 - Any septic tank sludge, unless authorized by a valid disposal permit.

- Any wastes containing more than 0.1 milligrams per liter of dissolved sulfides.
- Any radioactive waste in an amount greater than recommended by local or state public health agencies.
- Any other solid or liquid which is determined by the City Engineer to be detrimental to the sewer system or treatment plant.
- Any water added for the purpose of diluting wastes which would otherwise exceed applicable maximum concentration limitations.
- Any wastes with a median toxicity limit (TLM) lower than 25% as determined by a 96 hour bioassay.
- Any wastes containing algaecides, fungicides, antibiotics, insecticides, strong oxidizing agents or strong reducing agents.
- Any noxious or malodorous gas or substances capable of creating a public nuisance either by itself or by interaction with other substances.
- Any waste producing excessive discoloration or wastewater or treatment plant effluent.
- Any garbage, cheese, fruit, vegetable, fish, animal or other solid material from any food processing plant, industrial plant or retail grocery store, unless the discharge has been shredded to 1/4 inch maximum size, and does not contain more than five percent (5%) solid material by weight (dry basis).
- Any water or wastes containing recognizable portions of the human anatomy.
- Any peak flow or concentration from a commercial or industrial discharge that is 5 times the average daily concentration or flow for more than 15 minutes.

Existing City ordinances, including Ordinance 763, are enforced through the City's existing Code Enforcement Ordinance No. 985, which is typically administered by the City Planning and Building Department. The Chief Building Official is currently the designated "Enforcement Officer" for purposes of enforcement. The Code Enforcement Ordinance authorizes enforcement actions for all City ordinances, as well as any applicable state laws and regulations, and contains provisions for escalating levels of enforcement actions. The ordinance authorizes administrative actions with accompanying fines and penalties, civil actions for collection of costs

by the City, and prosecution as a misdemeanor criminal offense. A copy of the Code Enforcement Ordinance has been included as Appendix D.

In addition, Ordinance 763 authorizes the City Engineer to terminate any discharge that is determined to be an imminent hazard to the health and safety of the users of the system, or to the maintenance and operation of the system itself. This includes specific authorization to disconnect a user from the system if necessary.

(iv) Operation and Maintenance Program. *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;

The City of Healdsburg maintains sewer system mapping as Environmental Systems Research Institute (ESRI) shape file, a proprietary mapping format. The files are maintained as a part of a comprehensive Geographic Information System (GIS) used to document all City infrastructure.

A copy of the complete sewer system map is included in Appendix E. For practical reasons this map does not include all of the recorded data available in the GIS system. Sewer mains are represented as line segments between network structures (i.e. manholes), and these lines are segmented between structures where necessary to indicate changes in age, type or size of pipe. The recorded attribute data for sewer mains includes size, type, year installed, length, maintenance interval, maintenance cycle, reference documentation (construction plan number) and a general comment field and feature ID. The direction of flow is indicated by establishing the beginning and end elevations of pipe segments. To the extent known, private facilities are documented so that maintenance crews can confirm maintenance responsibility.

Network structures such as manholes, mainline cleanouts, and lift stations are represented as point features. Attribute data recorded for sewer features include type, location, notes and feature ID.

The sewer system mapping is available to all City personnel in a variety of formats. The GIS can be accessed from any City computer workstation via a web browser application. For use in the field, maintenance staff has been provided with indexed map books to provide a hard copy of the mapping. To assist field personnel in the event of a sewer overflow, the field maps for the sewer system also show storm drains.

The GIS is continuously maintained and updated. Information from the field is reported back to the City's engineering division for updating and correction, using

standardized Field Observation Forms. These forms are used to document subsurface conditions and infrastructure modifications made by field personnel.

(b) Describe routine preventive operation and maintenance activities by staff and contractors, including a system for scheduling regular maintenance and cleaning of the sanitary sewer system with more frequent cleaning and maintenance targeted at known problem areas. The Preventative Maintenance (PM) program should have a system to document scheduled and conducted activities, such as work orders;

The City implemented a sewer collection system maintenance program in 2001. The purpose of the program since its inception has been to:

- Prevent and minimize spills from the collection system;
- Identify areas in need of increased maintenance, repair or replacement;
- Reduce operating and maintenance costs;
- Minimize groundwater intrusion into the sewer system;
- Identify non-compliant dischargers to the City system and take appropriate corrective action;

In prioritizing maintenance activities, the City's operations and maintenance staff considers such details as the age, configuration and type of collection piping in the system, proximity of structures to receiving waters, zoning information (i.e. housing type and density and types of uses such as residential, industrial or commercial), and maintenance and performance history of specific sections of the system. This information is used to evaluate the risk and potential severity of collection system overflows from specific areas.

After the City initiated the program in 2001, maintenance crews gained working experience with collection system maintenance needs and cleaning schedules were refined to improve the efficiency of the program. Maintenance information (cleanliness, condition, use characteristics, etc.) collected by City crews is continually evaluated to determine whether revisions are necessary. This information is also used to identify infrastructure replacement needs. In some cases, this information is also used to target public education and enforcement efforts.

The City has also established a Spill Prevention and Response Plan, which incorporates measures for spill containment, mitigation, receiving water monitoring, and agency notification (see Appendix B). City crews are equipped and continually trained to implement the spill prevention and notification plan. In addition, the City has established a list of independent contractors to provide assistance to City crews in responding to emergencies where necessary.

Cleaning Techniques: The City has invested over \$300,000 in specialized cleaning equipment, the most significant of which is a Vac-Con Vector/Jetting Truck. In addition, the City has a separate truck-mounted Harben High Pressure Water Jetting unit, four industrial sewer lateral maintenance tools (augers) along with a closed-circuit TV (CCTV) camera which can be used to inspect smaller diameter sewer mains and laterals.



The City uses several cleaning techniques for preventative maintenance and blockage removal. These methods include the following:

- Jetting: This is the most commonly utilized form of cleaning. Uses multiple jets of extremely high-pressure water directed against pipe walls. This technique is highly effective at removing debris and grease build-up, clearing blockages and cutting roots within small diameter pipes.
- Augering: Mechanical rotating blades are used to break up grease deposits, cut roots and loosen debris. This method also partially removes large deposits of silt, sand, gravel and some types of solid waste.



- Flushing: Introduces a heavy flow of water into the sewer line at a manhole. This method is typically used to remove floatable material as well as sand and grit. This method is commonly used in combination with other cleaning methods, especially mechanical augering.

Based on the factors listed above, and based on a familiarity with Healdsburg's sewer system and experience at other collection system agencies, the City established a baseline maximum cleaning interval of three years. Other higher maintenance areas of the City system require cleaning more frequently. These frequencies are continually re-assessed and revised based on feedback from previous cleanings and inspections. This system ensures that the collection system is well maintained and identifies misuse or deterioration of the system that might otherwise cause a blockage or collapse. Cleaning priorities are categorized as follows:

- Three-year List: To adequately clean and maintain the remaining areas of the sewer collection system within a three year period, approximately 13 miles of sewer main are cleaned each year. Areas on this list generally consist of relatively low hazard and problem-free locations. Approximately 90% of the system is on this three-year list.
- One-year List: Areas on this list are identified as very low hazard. Spot locations on this list are monitored to remove potential grit and grease build-up.
- 30-Day List: This was an aggressive maintenance campaign initiated in 2001 and terminated in 2006. Proactive cleaning in these high hazard areas was followed by repair/rehabilitation, which were then moved to the 90-day list.
- 60-Day List: This category captures the most problematic areas of the collection system, which include areas with high-density housing and other areas that see heavy grease loading, which is the most common cause of blockages. Where blockages occur, City staff typically follow-up by contacting the upstream customers to correct the misuse of the system.
- 90-Day List: Areas on this list are identified as medium hazard. The list includes many of the areas which were previously on the 30-day list, but through corrective maintenance and/or waste monitoring, were moved to this 90-day list.
- 180-Day List: Areas on this list are identified as low hazard. Through corrective maintenance and/or industrial waste monitoring, many of the areas, which were previously on the 30 and 90-day list are able to be moved to this 180-day list

- Auger List: This list specifically targets sewer mains and the City-owned portions of laterals that are subject to tree root intrusion. Under most circumstances, hydro jetting alone will not completely remove tree roots. Chronic areas are identified for point repairs and replacements.

Each of these cleaning lists are maintained in a relatively simple spreadsheet database, and includes a record of cleaning dates, staff sign-off and notes on the condition of each cleaned reach. Given the relatively low complexity of the sewer system, this tracking system has proven to be effective and appropriate.

For all mechanical equipment maintenance, including lift stations and cleaning equipment (augers, Harben High Pressure Water Jetting unit, and Vac-Con Vactor/Jetting truck), the City uses a proprietary software package (HTE by Sungard Systems) to schedule maintenance. The software program documents all scheduled and completed maintenance activities and generates work orders for individual tasks. Scheduled maintenance work items and frequencies have been entered for all facilities and equipment using the applicable manufacturer's operation manuals. Tasks and service instructions are entered for each piece of equipment, and the software includes this information when it issues work orders. The majority of the mechanical equipment is lift station pumps, which are pulled for monthly, annual or semi annual inspections to check such items as oil, seals, o-rings, proper lubrication and resistance tests for pump motors. After the work order tasks are completed, City staff enter the follow-up status information into the system (i.e. completed, repaired, parts on order, or taken out of service.) The system is used to identify back-up parts, materials, supplies and equipment that need to be inventoried. The software also tracks maintenance and repair histories to justify equipment replacement.

(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;

The City regularly inspects all of its collection system in conjunction with its collection system maintenance program (described below.) Where necessary, sewer lines are remotely inspected using the City's closed-circuit television (CCTV) camera, or by simple visual inspection where possible. In addition to sewer mains, the regular inspections assess the condition of manhole frames and covers and City-maintained sewer lateral extensions.

These inspections are used to prioritize and schedule collection system repairs. For example, one project discussed below in the System Evaluation and Capacity Assurance Plan section below is the 2003 South Healdsburg Avenue Sewer Line Replacement project. This \$700,000 project was initiated and constructed after the City's cleaning and inspection program identified this reach of the sewer as a high priority for replacement. Before the project was completed, this area was on a 30-day cleaning interval, which was clearly excessive. In 2000, the \$1.5 million Magnolia Trunk Sewer replacement was initiated after a regular video inspection revealed that the portions of the line were beginning to fail structurally and presented an imminent risk of collapse and overflows.

The City's sewer system is operated as an enterprise fund, meaning that its operations are financed and operated in a manner similar to private business enterprises, where the costs (expenses, including depreciation) of providing sewer service are financed primarily through user charges. Using a valuation of all of its sewer facilities and an estimate of design life, the City has identified annual depreciation amounts in the sewer system. In the City's sewer system, depreciation amounts are estimated for treatment, collection system (including manholes and laterals) and lift stations. The goal of the Capital Improvement Program (CIP) is to fully fund this annual depreciation amount, primarily by setting sewer service rates at a level which generates revenue in excess of operating expenses, with the additional revenue directed to projects that replace aging and fully depreciated sewer infrastructure. Where portions of a specific replacement project are attributable to new development, funding derived from service charge revenue may be augmented by revenue from sewer capacity (development) fees.

The City's most recently approved 5-year CIP for the sewer system is included in Appendix F. This document provides the planning tool for proper management and protection of the City's sewer infrastructure. The CIP identifies projects scheduled to occur over the next 5 years and beyond. The 5-year CIP also identifies the funding needs for implementing these short- and long-term plans.

Since the sewer collection system maintenance program was initiated in 2001, the City has invested significant amounts of money under the CIP, and has substantially upgraded its sewer collection, pumping and treatment systems. In addition to the collections system projects described under System Evaluation and Capacity Assurance Plan in Section vii below, the City has made other substantial improvements in collection and treatment:

- Magnolia Lift Station Upgrade (2006) - As described above, the lift station pumps all raw wastewater to the City's new Wastewater Treatment Plant (see below), located approximately one mile south of City limits. This \$700,000 project replaced and upgraded the existing electrical and pumping equipment at the lift station, including replacement of the existing electrical service, replacement of the electrical motor control equipment with

new motor starters and variable frequency drives (VFD's) for the 3 existing pumps and installation of an additional 4th redundant pump and associated piping.

- Satellite Lift Station Improvements: Since 2001, the City has completely rebuilt or upgraded all nine of its satellite lift stations, installing new access doors with safety grating, installing new generator transfer switches, replacing corroded piping and mounting hardware, and upgrading the SCADA control systems with redundant communication and improved alarming (see SCADA system description above).
- Sewer Lateral Upgrades (2006) - This project repaired a total of 1000-lineal feet of 4-inch diameter sewer lateral pipe, in 200 foot or smaller increments, at various locations throughout the City, using trenchless sewer lining techniques. These locations were identified and targeted for rehabilitation under the maintenance and inspection program described in Section iv-c above.
- Sewer Manhole Replacement Project (2006) - This project replaced sewer manholes at various locations throughout the City. As with the 2006 lateral project, these manhole locations were identified and targeted for rehabilitation under the maintenance and inspection program described in Section iv-c above.

In addition to the collection system projects, the City constructed a complete new membrane bio-reactor (MBR) Wastewater Treatment Plant (WWTP) between 2006 and 2008. The new WWTP includes influent screening and equalization storage, grit removal, extended aeration with Biological Nutrient Removal (BNR), microfiltration through hollow membrane fibers, and ultraviolet (UV) light disinfection. The treatment plant and equalization basins were designed to accommodate a 30-day rain event with a 100-year return interval, which will essentially accommodate any foreseeable wet-weather flow event with no bypass or overflow at the WWTP. The new WWTP, which began operation in May 2008 and cost \$32 million, is the largest project ever undertaken by the City.

(d) Provide training on a regular basis for staff in sanitary sewer system operations and maintenance, and require contractors to be appropriately trained; and

The City of Healdsburg conducts 10 to 15 minute bi-weekly tailgate meetings covering a range of topics. These tailgate safety meetings also are required by Cal/OSHA regulations in Title 8, Sections 8406 and 1509 of the California Code of Regulations; however the City has expanded the tailgate schedule to include Title 8 safety topics, as well as topics of sewer operations & maintenance. The operations and maintenance crews are also trained annually on topics ranging from spill containment, collection system safety, use of the City's cleaning equipment (augers, Harben High Pressure Water Jetting unit, and Vac-Con

Vactor/Jetting truck), safe practices and proper generator operations at the City's lift stations. Any changes or revisions to the Sewer System Spill Prevention and Response Plan (see below) are covered in these tailgate meetings. The crews were recently trained on our revised spill response plan (March 2009), proper reporting methods and spill kit procedures.

(e) Provide equipment and replacement part inventories, including identification of critical replacement parts.

The City maintains inventories of equipment spare parts, the most critical of which are spare pumps for the City's lift stations. For the satellite lift stations, the City keeps a minimum of one spare for each type of pump in the system. The City warehouse also maintains an inventory of common repair and replacement parts for the sanitary sewer system, stocking such items as repair clamps and sections of collection system piping in commonly used sizes.

(v) Design and Performance Provisions:

(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

Procedures and standards for inspecting and testing the installation of new sewers, pumps, and other appurtenances and for rehabilitation and repair projects.

Design and performance provisions for work related to the City's public sanitary sewer system are detailed in the Public Works Standard Specifications and Details. The current Public Works Standard Specifications and Details were approved in August 2008, and are routinely updated to reflect new procedures, materials and other improvements/changes within the industry. Bound versions of the Public Works Standard Specifications and Details are available for sale in the City office or can be downloaded from the City's website at:

<http://www.ci.healdsburg.ca.us/index.aspx?page=188>

The Public Works Standard Specifications and Details are composed of four elements:

- Engineering Design Standards - Provides detailed guidance for design of public sewer system improvements.
- Specific Provisions - Provides guidance to design professionals and construction contractors on the materials, installation and required testing methods for public sewer system improvements.
- Approved Materials list - Provides a list of the approved materials as they relate to the Standard Details.

- Standard Details - provides details for the installation of the public sewer system improvements.

All new construction, rehabilitation and repair projects affecting the City sanitary sewer system are reviewed and tested by Public Works staff for conformance with the Public Works Standard Specifications and Details. The City has two full-time Public Works Inspectors and one Public Works Field Technician.

Inspection is required for all sewer improvements and other work within the public right-of-way, all public easements, and for any work for which an encroachment permit has been issued. The City inspects new sewer facilities at all phases of the work in order to insure complete conformance with the requirements of the City's standard specifications. At a minimum, work is inspected at the following points during the progress of sewer installation:

- Prior to the placement of any fill material.
- Immediately after the placement of all pipe and prior to completion of the bedding or beginning backfill.
- During all backfill and compaction operations.
- Prior to and during the placement and compaction of any aggregate base material.
- Form and reinforcement inspections prior to pouring any concrete.
- Prior to paving.
- During all paving operations.
- Prior to requests for payment for any contract items of work.

The City's Specific Provisions include specific testing procedures for public sewers that include:

- Cleaning and flushing
- Low pressure air testing
- Pipe deflection testing
- Television inspecting
- Water or vacuum manhole testing

The City has a well-established inspection scheduling and tracking system. The inspection standards are enforced for private development projects, as well as City capital improvement projects.

(vi) Overflow Emergency Response Plan - Each Enrollee shall develop and implement an overflow emergency response plan that identifies measures to protect public health and the environment. At a minimum, this plan must include the following:

(a) Proper notification procedures so that the primary responders and regulatory agencies are informed of all SSOs in a timely manner;

(b) A program to ensure an appropriate response to 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 Code, other State Law, and other applicable Regional 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.

The City first developed and implemented a Sewer System Spill Response Plan in 2001 and updates the plan on a regular basis. The plan includes detailed response, notification and reporting procedures. The plan includes the following components to address the mandatory SSMP content:

- Specific steps to protect receiving waters;
- Specific and sequential notification procedures for the City's primary responders, including specific additional procedures if surface waters are impacted;
- Specific and sequential notification steps, including time windows, for regulatory agency notifications (recently modified to conform to new

SWRCB directives on notifications, and for a Cal-EMA agency name change);

- Directions for assembling a response team and the specific responsibilities of each team member; and
- Directions for collecting receiving water samples if receiving waters are contaminated or suspected to be contaminated; using pre-assembled sampling kits available at the City's wastewater treatment facility lab.

The plan includes procedures for after-hours and weekend spill events. Three Public Works employees are available on an on-call basis at all times; one Utility Worker and two Utility Operators. These employees can be reached 24-hours per day on their City cell phones.

The plan, which was last updated in March 2009, is included in Appendix B. The City's training program (described above) covers updates to the Sewer System Spill Response Plan so that all responding staff are familiar with the procedures and any current changes to the procedures. Because the City has substantial staff and equipment resources for responding to spills, contractors are rarely used in spill response teams. When contractors are called in, they do not operate as first responders, and are always under the direct supervision of trained City responders. City operations and maintenance staff are regularly trained and are familiar with the necessary traffic control measures, and employ the same procedures used in routine system maintenance during a spill response.

(vii) FOG Control Program: Each Enrollee shall evaluate its service area to determine whether a FOG control program is needed. If an Enrollee determines that a FOG program is not needed, the Enrollee must provide justification for why it is not needed. If FOG is found to be a problem, the Enrollee must prepare and implement a FOG source control program to reduce the amount of these substances discharged to the sanitary sewer system. 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 discharged to the sanitary sewer system for each section identified in (f) above.

Because the City has a relatively high proportion of commercial and industrial customers in its sewer system and in particular, a relatively large number of restaurants, it has already initiated and implemented a FOG program. This program has been in place since 2001. With the exception of providing a disposal facility for FOG materials, the program includes all of the elements described above.

As described in the list above, Ordinance 763 provides the following elements of the FOG program:

- It prohibits discharges with floatable grease, oil, fat or ether-soluble matter in excess of 50 parts per million, or dispersed non-floatable grease, oil, fat or ether-soluble matter other than soap, in excess of 500 parts per million.
- It requires that all authorized employees of the City be permitted to enter all served properties to inspect, observe, measure, sample, or test in accordance with the Ordinance 763. This provides the authority necessary to inspect grease interceptors and traps.
- It requires grease, oil, or sand interceptors for discharges that contain grease in excessive amounts.
- The City's collection system maintenance program takes into account sections of the sanitary sewer system that are subject to FOG blockages. As described above under the Operations and Maintenance Program description, maintenance information, including notes on any grease accumulation, is noted and recorded by City crews during their scheduled cleaning.

Although Ordinance 763 and the City's Code Enforcement Ordinance provide the required enforcement authority, this is rarely necessary.

To monitor and control grease in the collection system, the City issues waste discharge permits with grease control provisions to restaurant and food service businesses. All businesses are required to provide copies of a signed contract with a licensed grease hauler before a permit is issued. Businesses are reviewed for discharge permits on business license applications, plan check processes for building permits, or when inspections identify an unpermitted restaurant discharge. Business licenses are also used to identify new or changed uses, or changes in ownership, either of which triggers an introductory inspection from field staff.

To monitor and control permittees, staff from the City's Public Works Department inspect all restaurant and food-related businesses within the City, covering both sewer and storm water management practices. The Department's operations staff maintains a file for each business and schedules regular inspections. The inspection frequency varies from monthly to annual, and is adjusted depending on individual compliance histories. A copy of the current inspection schedule is attached in Appendix G. This program has been effective at identifying and eliminating discharges of grease and oil to the sewer system.

The City identifies sanitary sewer system sections subject to FOG blockages and establishes cleaning maintenance schedules through the preventive operation and maintenance program described above. Areas subject to FOG blockages are typically placed on the 60-day cleaning list.

The City has also implemented a school education program that addresses FOG and other improper sewer and storm drain discharge practices. The City initiated its education program in late 2004, and visits K through 12 grades in as many as eight classes each year. City staff typically sends out letters offering the program to all teachers in the Healdsburg Unified School District twice each year, and the level of participation and number of classes visited depends on teacher response.

The program includes a slide show presentation, a diorama showing the physical aspects of the storm drain and sewer, as well as an activities folder. The City provides teachers with in-class materials to prepare the students for the topics presented in the program.

In addition to the classroom program, the City's public education program includes distribution of FOG control materials to businesses during inspections. Where necessary to address residential FOG sources, City staff distributes materials targeting residential FOG sources.

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

(a) Evaluation: Actions needed to evaluate those portions of the sanitary sewer system that are experiencing or contributing to an SSO discharge caused by hydraulic deficiency. The evaluation must provide estimates of peak flows (including flows from 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;

Nearly all new development within the City of Healdsburg since the early 1990's has occurred in the northern portion of Healdsburg in areas referred to as Specific Plan Areas A, B, and C. A report titled "Predesign Report for the City of Healdsburg, North Area Off-Site Sewer Improvements," dated November 8, 1991 (1991 Pre-design report) is the planning document which established the hydraulic capacity and alignment of a new trunk sewer to accommodate this development. The North Trunk Sewer, constructed in 1995, was sized to accommodate projected growth Areas A, B, and C, as well as other anticipated in-fill development of the areas tributary to the North Trunk Sewer. The North Trunk Sewer and Specific Plan Areas A, B and C are shown in Figure 2.

Since construction of the North Trunk Sewer, growth projections for Areas A, B and C have changed significantly. Residential housing densities in general are considerably lower than originally projected. Table _ below presents a comparison of the development projections from the North Trunk Sewer Pre-Design report and current projections.

Specific Plan Area	1991 Potential residential development projection*	Existing Connections in 2009	2009 Potential residential development projection **	Total	Net Reduction In connections
A	529	362	64	426	103
B	165	0	41	41	124
C	456	0	220	220	236
Total	1,150	362	325	687	463

* From 1991 Pre-design Report

** Current Development Potential figures are from the 2009 Draft Housing Element provided by the Healdsburg Planning Department.

The projections demonstrate that the relatively new North Trunk Sewer provides more than adequate hydraulic capacity for existing connections and projected new development within Specific Plan Areas A, B, and C.

The City has also undertaken other major trunk sewer upgrade projects since 2001 to address potential sewer system failures that could result in overflows:

- 2000 Magnolia Trunk Sewer Project - The Magnolia Trunk sewer was originally constructed with a thin-walled fiber-reinforced plastic (fiberglass) material sold under the name of "Techite." These pipelines unfortunately had a history of failures, with resulting lawsuits against the manufacturer. The 33-inch Magnolia Sewer Interceptor begins about 600 feet south of Mill Street and extends south on Healdsburg Avenue to the southbound Highway 101 on-ramp, where it passes below the freeway inside of a steel casing. From the east side of the freeway, the pipeline crosses Kinley Drive and then parallels the east side of Foss Creek to the Magnolia Lift Station.

In order to assess the risk of similar failures in the Magnolia Trunk Line, the City video-inspected this line in late 1999. The inspection found substantial structural deficiencies that could potentially cause the pipe to collapse. Given the potential consequences of a spill and the age of the line (approximately 30 years), the City took immediate steps to repair the line. Following a rapidly accelerated design and bond funding process, the project was advertised for bids and awarded for construction in July of 2000, and was completed in early November 2000. The \$1.5 million contract for repairs entailed direct replacement of 4,600 feet of the trunk line, and cured-in-place lining of the remaining 1,500 feet. The project significantly reduced the level of inflow and infiltration reaching the wastewater treatment plant. Although the purpose of this project was not to upsize a hydraulic undersized trunk line, it did address the single largest vulnerability in the collection system for major sewer overflows.

- 2003 South Healdsburg Avenue Sewer Line Replacement - This project, completed at a cost of approximately \$700,000, replaced an existing 6-inch trunk sewer near the south end of Healdsburg Avenue that was aging, drastically under-sized, and had been the cause of many sewer back-ups, overflows, and other maintenance problems. The sewer line was replaced with a new 12-inch line trunk line running west along Healdsburg Avenue from Ward Street, north on Adeline Way, then west on Exchange Street, where it connected to the rehabilitated 33-inch Magnolia Trunk line (see above). The project included approximately 2,250 feet of new sewer main. The capacity and depth of the new sewer line were designed to accommodate future extensions east of Ward Street along Healdsburg Avenue, including the area east of the Russian River.

These recent improvements to the sewer collection system have addressed the potential for SSO discharges caused by hydraulic deficiencies, and the City's record on sewer overflows bears this out. Appendix H contains annual summaries of all collection system events for calendar years 2005 through 2008. Without exception, all overflow events have been the result of specific blockages, and have not been caused by hydraulic deficiencies in the collection system. Due to the

absence of any potential for hydraulic deficiency-related SSO's, the City has not prepared a new Capacity Assurance Plan for the SSMP.

(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 Enrollee 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 as described in Section D. 14.

See discussion above. Due to the collection system projects already completed, there is no longer a potential for hydraulic deficiency-related SSO's, and the City has not prepared a new Capacity Assurance Plan for the SSMP.

(ix) Monitoring, Measurement, and Program Modifications: *The Enrollee shall:*

(a) Maintain relevant information that can be used to establish and prioritize appropriate SSMP activities;

(b) Monitor the implementation and, where appropriate, measure the effectiveness of each element of the SSMP;

(c) Assess the success of the preventative maintenance program;

(d) Update program elements, as appropriate, based on monitoring or performance evaluations; and

(e) Identify and illustrate SSO trends, including: frequency, location, and volume.

The City has an already-established system for prioritizing its sewer maintenance activities as described under Section iv-b. above. The documentation from those maintenance activities provides the relevant information that the City uses to prioritize SSMP activities. These records, combined with the annual SSO summaries shown in Appendix H, are used to identify and highlight SSO trends.

The City also monitors and measures the effectiveness of its program by tracking it's spending on sewer maintenance activities, and comparing reactive to proactive spending amounts. This tracking is shown graphically in Figure __, which has tracked the City's efforts since the program inception in 2001. As the graph indicates, the City's reactive maintenance has fallen and remained at relatively low levels since 2003.

Considering the City's size and relatively low incidences of SSO's, these existing systems provide an appropriate and adequate means to address the required SSMP elements.

(x) SSMP Program Audits - *As part of the SSMP, the Enrollee 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 Enrollee's compliance with the SSMP requirements identified in this subsection (D.13), including identification of any deficiencies in the SSMP and steps to correct them.*

The City's primary vehicle for revisions and improvements to the existing sewer collection system maintenance program has been through feedback from the maintenance and inspection activities described under Section iv-b above, and the City will continue to utilize this mechanism for its SSMP auditing. Audit reports will be prepared and filed at a maximum interval of once every two years.

(xi) Communication Program – *The Enrollee shall communicate on a regular basis with the public on the development, implementation, and performance of its SSMP. The communication system shall provide the public the opportunity to provide input to the Enrollee as the program is developed and implemented.*

The draft SSMP has been posted on the City's website at <http://www.ci.healdsburg.ca.us/index.aspx?page=410> . Individual sections of the SSMP posted on the site as drafts became available, starting with the Goals, Legal Authority, and Operation and Maintenance Program sections on May 2, 2009.

This format facilitates communication with the public on a regular basis through web updates. The site also allowed visitors and users to subscribe to an email notification program for updates to the SSMP at: <http://www.ci.healdsburg.ca.us/index.aspx?page=21> . Any interested visitor may provide input through an e-mail link displayed on the site. As of June 1, 2009, the City had received no comments and enrolled nine subscribers to the e-mail notification option.

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

As described above, there are no tributary and/or satellite systems to the City sewer system.