

**SEWAGE COLLECTION SYSTEM INSPECTION FORM
(EPA Reg 9, March , 2011)**

General Information

Utility Name:		
Address:		
Contact Person:		
Phone:	Cell:	Fax:
Email:		

System Overview

Population: _____ Service Area (Sqr. Miles): _____

Service Area Description: _____

	Residential	Commercial	Industrial	Total
Number of service connections				

Combined Sewers (% of system): _____

Name and NPDES permit number for WWTP(s) owned or operated by the collection system utility: _____

Name and NPDES permit number for WWTP(s) that receive flow from the collection system utility: _____

Names of upstream collection systems sending flow to the collection system utility:

Names of downstream collection systems receiving flow from the collection system utility:

Do any interagency agreements exist with upstream collection systems? (Y/N) _____

Does the utility maintain the legal authority to limit flow from upstream satellite collection systems? (Y/N) _____

System inventory (list only assets owned by utility)

Miles of gravity main	Miles of force main	Miles of Laterals	Number of maintenance access structures	Number of pump stations	Number of siphons

Utility responsibility for laterals (none, whole, lower)_____

Size Distribution of Collection System

Diameter in inches	Gravity Sewer (miles)	Force Mains (miles)
6 inches or less		
8 inches		
9 - 18 inches		
19 - 36 inches		
> 36 inches		

Age Distribution of Collection System

Age	Sewer Mains, miles	# of Pump Stations
0 - 25 years		
26 - 50 years		
51 - 75 years		
> 76 years		

System Flow Characteristics

Collection System		
Average Daily Dry Weather Flow (MGD)	Peak Daily Wet Weather Flow (MGD)	Peak Instantaneous Wet Weather Flow (MGD)

Location of flow monitor(s) from which above information obtained:

Period over which flow was monitored:

Agency conducting the flow monitoring:

If no flow monitors, describe method for estimating flows:

Wastewater Treatment Plant		
Average Daily Dry Weather Flow (MGD)	Peak Daily Wet Weather Flow (MGD)	Peak Instantaneous Wet Weather Flow (MGD)

Upstream Satellite Name	Avg. Dry Weather Flow (MGD)		Peak Flow (MGD)	Flow based on meter or estimate?
		% of total flow		

Constructed Relief Points		
Relief Point	Location	Number of Discharges/Year

Regulatory Background

Does the system operate under the provisions of an NPDES permit (either their own or under provisions of another agencies permit)? (Y/N)_____

Permit holder _____ Permit # _____

Does the system operate under a state permit? (Y/N)_____

Are there any spill reporting requirements? (Y/N)_____

Which agency (or agencies) promulgates the spill reporting requirements?_____

Outline the spill reporting requirements (summarize spill reporting requirement for each applicable statute, regulation and permit), or alternatively, provide a copy of each applicable statute, regulation, and/or permit:

Spills

Sanitary Sewer Overflows From and Caused by Utility						
Year	Mains (Miles of Mains _____)		Laterals (Miles of Laterals _____)		Totals (Total Miles _____)	
	#SSOs	Gross Spill Volume (gallons)	#SSOs	Gross Spill Volume (gallons)	Total SSOs	Total Gross Spill Volume (gallons)
2005						
2006						
2007						
2008						
2009						
2010 (thru 3-31)						
Total						

Spill Cause

Year (as listed in Table above)	Blockage								Gravity Pipe Break	Force Main Break	Pump Station	Capacity				
	Grease		Roots		Debris		Multiple									
	#	%	#	%	#	%	#	%					#	%	#	%
2005																
2006																
2007																
2008																
2009																
2010 (thru 3-31)																
Total																

Please provide a copy, on CD if possible, of facility spill records for the time period of January 1, 2005 to March 31, 2010. The information for each spill should include, at a minimum, the following: Date of spill, time spill reported, location of spill (address and city), whether the spill occurred in a private lateral, whether it reached a surface water, total volume of the spill, volume of spill recovered, volume of spill that reached a surface water, the appearance point of the spill, final spill destination, spill cause and explanation, and whether a health warning was posted.

BUILDING BACKUPS (list only backups caused by problems in sewer mains)		
Year	Number of backups	Cost of Settled Claims
TOTAL		

STAFFING

Indicate *Number of Staff – As pertaining specifically to collection system responsibilities

***Provided as numerical or FTEs or positions**

Management and Administrative: Budgeted _____ Filled _____

Maintenance: Budgeted _____ Filled _____

Electricians and Mechanical Technicians: Budgeted _____ Filled _____

Operators: Budgeted _____ Filled _____

Engineering: Budgeted _____ Filled _____

Number of Certified Collection System Operators/Certification Program: _____

Number of Sewer Cleaning Crews: _____

Sewer Cleaning Crew Size: _____

Contractor Services	Contractor Name(s) (NA if contractors not used)	Cost (\$/year)
Sewer Cleaning		
Chemical Root Control		
Spot Repairs		
CCTV		
Spill Response		
Other:		

EQUIPMENT

List Major Equipment Owned by the Utility:

Equipment	Number	Number in Service
Combination Trucks (hydroflush and vactor)		
Hydroflusher		
Mechanical Rodder		
CCTV Truck		
Utility Truck		
Portable Pumps		
Portable Generator		

FINANCIAL

Does the collection system operate from an enterprise fund? Yes/No

REVENUES	
Revenue Source	Annual Revenue (\$/year)
User Fees	
Connection Fees	
Grants	
Bonds	
SRF Loans	
TOTAL	

EXPENSES		
Expense	Annual Cost (\$/year)	Cost / Mile of Pipe (Total Pipe Mileage: _____)
Maintenance		
Operations (electric, fuel, etc.)		
Salaries and Benefits		
Capital Improvements		
Debt payments		
TOTAL		

Average Monthly Household User Fee for Sewage Collection: _____
Wastewater Treatment: _____
Total Wastewater Fees: _____

Sewer Fee Rate Basis (i.e. water consumption, flat rate, etc.): _____

Last Fee Increase (Date): _____

Planned Fee Increases: _____

Capital Improvement Fund: _____ \$ for _____ years

SPILL RESPONSE, NOTIFICATION AND REPORTING

Does the Utility Have a Written Spill Response Plan? _____ If so, please provide a copy.

Is the Plan Carried Out by Maintenance/Spill Response Crews? _____

Indicate Elements Included In the Spill Response Plan		
Element	Y/N	Comment
Identification of Responsible Staff		
DISPATCH		
System for Becoming Aware of Spills		
System for Receiving Public Calls		
Dispatch Procedures – Normal Hours		
Dispatch Procedures – After Hours		
Coordination with First Responders (police, fire department)		
Response Time Goal		
SPILL CONTROL/MITIGATION		
Spill Response Activity Sequence		
Spill Site Security		
Procedures for Stopping Spills		
Spill Containment		
Protection of Storm Drains		
Cleanup/Mitigation		
DOCUMENTATION		
Spill Volume Estimation Method (list method in comment field)		
Determination of Spill Start Time		
Spill Sampling		
Receiving Water Sampling		
Photographing Spill Site		
Field Notes Form		
Spill Report Form		
NOTIFICATION		
Notification of Affected Public (schools, recreational users, etc.)		
Posting Warning Signs		
Sanitation Information re: building backups		
REPORTING		
Reporting Procedures		
Spill Report Forms		
Persons Responsible for Filing Reports		

Are all spills reported regardless of volume? _____

Are Contractors Required to Follow Spill Response Procedures? _____

Average Spill Response Time (normal work hours): _____ hours

Average Spill Response Time (after hours/holidays): _____ hours

Does the Utility CCTV Pipes Following Spill? _____

SEWER CLEANING AND MAINTENANCE

Does the Utility Have Detailed Sewer System Maps? _____

Are Maps on GIS Database? _____

Are Maps Available to Maintenance Crews? _____

Maintenance Management System is (check whichever is applicable):

Written ___ Computerized _____ Both _____ Other (describe) _____

ANNUAL SEWER CLEANING – Include hydroflushing, mechanical and hand rodding		
Pipe Cleaning excluding repeats		Pipe Cleaning Including Repeats
(miles/year)	% of system/year	(miles/year)

What does the crew report for total length of pipe cleaned in a single visit if they clean the same pipe segment more than once during that visit? _____

Is the cleaning schedule adjusted in response to spills? _____

System Cleaning Frequency (years to clean entire system): _____

Types of problems subject to hot spot cleaning? _____

HOT SPOT CLEANING SCHEDULE			
Cleaning Frequency	Number of Locations	Pipe length excluding repeats (miles)	Pipe length including repeats (miles)
1/month			
6/year			
4/year			
2/year			
1/year			

CHEMICAL ROOT TREATMENTS

Length of pipe subject to chemical root treatments (miles/year): _____

Chemical treatment frequency: _____

Root treatment chemicals used: _____

ODORS

Annual number of complaints: _____

Odor hot spot locations: _____

Odor treatment facilities: _____

EASEMENT PIPE CLEANING

Total length of easement pipes (miles): _____

Annual easement pipe cleaning (miles/year): _____

Do maintenance workers have access to all easements? _____

FATS, OILS AND GREASE (FOG) CONTROL

Does the Utility have a FOG source control ordinance? _____

Ordinance Citation: _____

Agency responsible for implementing the FOG control program: _____

Number of Food Service Establishments (FSEs) in service area: _____

Number of FSEs subject to FOG ordinance: _____

Indicate Elements Included In the Food Service Establishment FOG Source Control Program		
Element	Y/N	Comment
FSE Permits		
FSE inspections		
FSE enforcement		
Oil & grease discharge concentration limit		
Grease removal device (GRD) requirements:		
traps		
interceptors		
Automatic cleaning traps		
FSEs subject to GRD installation:		
all FSEs (new and existing)		
new FSEs		
remodeled FSEs		
for cause at existing FSEs		
GRD maintenance requirements:		
Cleaning frequency		
25% rule (grease and solids accumulation)		
Kitchen BMP Requirements (list required BMPs below)		
Allowance for chemical additives?		
Allowance for biological additives?		
FOG Disposal Requirements		
FOG Disposal Manifest System		

Number of FOG Program staff:

Inspectors _____

Permit writers _____

Other _____

FSE Inspection frequency: _____
Annual number of FSE inspections: _____
Does Utility use CCTV to identify FOG sources? _____

Does sewer maintenance staff coordinate with FOG source control program staff? _____
 Cleaning targeted to FOG hot spots? _____
 Maintenance crew referrals to FOG program? _____
 Pipe repairs at FOG hot spots? _____

Describe program for public outreach and education related to residential FOG sources:

Please provide a copy, electronically if possible of the City's FOG program plans and procedures

PIPE INSPECTION AND CONDITION ASSESSMENT

Gravity Main Inspection

Describe Pipe Inspection Methods:

Miles of Pipe Inspected in the Last 10 Years and Planned Inspection Next 10 Years				
Date Range	Inspection Method	Miles of Pipe without repeats	Useable Condition Assessment	
			Miles of Pipe (without repeats)	% of System (System miles:)
2000 to present	CCTV			
2000 to present	Other			
Present to 2020	CCTV			
Present to 2020	Other			

Describe Planned Pipe Inspection: _____

Please provide a summary of the condition inspection findings to date: _____

Force Mains

Describe Force Main Inspection Methods:

Private Laterals

Does the City require testing/repair/replacement of private laterals on sale or remodel of building/residence? _____. If so, provide copy of ordinance, and describe implementation program.

Number of Private Laterals Inspected 1990 to Present: _____

Please provide a summary of inspection findings: _____

Number of Private Laterals Planned for Inspection Present to 2020 : _____

CAPACITY ASSURANCE

Provide a list of the dates and locations of repeats capacity spills:

Provide a list of locations of known capacity bottlenecks for both dry weather and wet weather:

Describe I&I Assessments Completed by the Utility (dates, area covered, findings, etc.):

Flow Meters (number, locations):

Describe Flow Model Used by the Utility:

Inflow

Does the Utility Prohibit Storm Water Connections to the Sanitary Sewer (roof drains, sump pumps, etc.)? _____

Describe Program for Enforcing Ban on Illicit Connections:

Describe Program for Locating Illicit Connections (smoke testing, etc.):

Locations Subject to Street Flooding:

Has the Utility Sealed Manholes in Locations Subject to Street Flooding:

I&I Control

Describe I&I Control Projects (miles of pipe rehabilitated or replaced for I&I Control)
Recently Completed Projects:

Planned Projects:

Describe Capacity Control Measures (relief sewers, storage, WWTP expansion, etc.)
Recently Completed Projects:

Planned Projects:

INFRASTRUCTURE RENEWAL AND CAPITAL IMPROVEMENTS

Pipe Rehabilitation and Replacement Methods Used:

Miles of Pipe Rehabilitated or Replaced: Last 10 Years and Planned Next 10 Years		
Date Range	Miles of Pipe	% of System (System miles:)
2000 to present		
Present to 2020		

Describe Capacity Improvement Program:

List Major Planned Improvements:

Please provide a copy of your Master Plan.

VIII. Pump Stations (Please complete one sheet for EACH pump station)

Name and Location of Pump Station: _____

Pump Information

Pump #/Name	Dry or Submersible	Capacity	Constant or Variable	In Service?

Pump Station Information:

- A. Average flow: _____
- B. Holding Time: _____
- C. Does station have sufficient pumping capacity with the largest pump out of service during:
 Peak Dry Weather Flow: Yes _____ No _____
 Peak Wet Weather Flow: Yes _____ No _____
- D. Dry weather capacity limitations? Y/N (if yes, describe) _____
- E. Wet weather capacity limitations? Y/N (if yes, describe) _____
- F. Number of failures resulting in overflows/bypass or backup, in the last five years _____
- G. Total quantity of overflow/bypass: Gallons or MG _____
- H. Is dry well protected from wet well overflow? Yes _____ No _____
- I. How often is pump station inspected? _____
- J. **Back up power sources and type:**

On-site generators	Portable Generators	Back-Up Line from same grid?	Back-up Line from different grid?	Other (describe)
Yes _____ No _____	Yes _____ No _____	Yes _____ No _____	Yes _____ No _____	

If generators on-site, describe testing and maintenance procedures: _____

K. Station Alarms:

Low Wet Well	High Wet Well	Power Loss	Unauthorized Entry	Other (Describe)
Yes _____ No _____	Yes _____ No _____	Yes _____ No _____	Yes _____ No _____	

- a) Is there 24 hour coverage for alarms? Yes _____ No _____
- b) Alarm signal sent to: _____
- L. What equipment is available for emergency response? _____
- M. Are there SCADA controls? Yes _____ No _____
 If yes, ability to operate station remotely? Yes _____ No _____