

The logo for Sanitation District No. 1 (SD1) features the letters "SD1" in a bold, blue, sans-serif font.

Managing Northern Kentucky's  
Wastewater and Storm Water



December 18, 2009

Acting Director of the Division of Enforcement  
Department for Environmental Protection  
300 Fair Oaks Lane  
Frankfort, KY 40601

Chief, Environmental Enforcement Section  
Environmental and Natural Resources Division  
U.S. Department of Justice  
601 D street NW  
Washington, DC 20005  
DOJ Case No. 90-5-1-1-08591

Chief, Water Program Enforcement Branch  
Water Management Division  
U.S. Environmental Protection Agency, Region 4  
Atlanta Federal Center  
61 Forsyth Street, S.W.  
Atlanta, Georgia 30303

Re: Consent Decree Case No. 2:05-cv-00199-WOB

Dear Gentlemen:

Pursuant to the above-referenced Consent Decree, Sanitation District No. 1 (SD1) is required to submit annual reports on the implementation of its Capacity, Management, Operations, and Maintenance (CMOM) programs. These reports are due no later than December 31 each year.

The Consent Decree was entered on April 18, 2007 and required SD1 to submit four separate CMOM documents within the first year – the Grease Control Program, the Sewer Overflow Response Plan (SORP), the CMOM Self-assessment, and the Pump Station Operation Plan for Backup Power. Each of these submittals has received regulatory approval. Updates to these programs are now included in the CMOM Annual Report, as it is not required for the program updates to be submitted as separate documents.

A certification as required by the Consent Decree is also enclosed (Consent Decree paragraph 38).

Page 2  
December 18, 2009

I am confident in the integrity of the enclosed document, and I am certain that its content not only satisfies regulatory requirements, but also helps further the mission and vision of SD1 by establishing aggressive, proactive, achievable measures to protect water resources and enhance the quality of life in Northern Kentucky.

If you have any questions or concerns, do not hesitate to contact me at 859-578-7465 or by email at [jeger@sd1.org](mailto:jeger@sd1.org).

Best regards,



Jeffery A. Eger  
General Manager

JAE/jh  
Enclosures

Sanitation District No. 1  
December 18, 2009

# Capacity, Management, Operations, & Maintenance (CMOM) FY 2009 Annual Report



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# **CAPACITY, MANAGEMENT, OPERATIONS, AND MAINTENANCE FY 2009 ANNUAL REPORT**

December 18, 2009



**Sanitation District No. 1**  
1045 Eaton Drive  
Ft. Wright, KY 41017

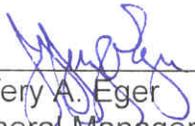
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## CERTIFICATION

Capacity, Management, Operations, & Maintenance (CMOM)  
FY 2009 Annual Report  
Consent Decree Case No. 2:05-cv-00199-WOB

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering such information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

  
\_\_\_\_\_  
Jeffery A. Eger  
General Manager

November 23, 2009  
\_\_\_\_\_  
Date

COMMONWEALTH OF KENTUCKY

)ss.

COUNTY OF Kenton

The foregoing instrument was acknowledged before me this 23 day of November, 2009 by Jeffrey A. Eger, General Manager of Sanitation District. No. 1.

  
\_\_\_\_\_  
NOTARY PUBLIC

Kenton County, Kentucky

My commission expires: 9-15-11

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## LIST OF ACRONYMS AND ABBREVIATIONS

Cabinet	Kentucky Energy and Environment Cabinet
CCTV	Closed Circuit Television
CIP	Capital Improvement Program
CMOM	Capacity, Management, Operations, and Maintenance
CSAP	Continuous Sewer Assessment Program
CSO	Combined Sewer Overflow
FOG	Fats, Oils, and Grease
FSE	Food Service Establishments
FY	Fiscal Year
gbaMS	GBA Master Series (information tracking system)
I/I	Inflow and Infiltration
IMS	Information Management System
O&M	Operations & Maintenance
PM	Preventive Maintenance
SCI	Stream Condition Index
SD1	Sanitation District No. 1
SORP	Sewer Overflow Response Plan
SSES	Sanitary Sewer Evaluation Survey
SSO	Sanitary Sewer Overflow

## **SECTION 1. INTRODUCTION**

### **1.1 Overview and Report Period**

On April 18, 2007, Sanitation District No. 1 (SD1) entered into a Consent Decree with the U.S. Environmental Protection Agency and the Kentucky Energy and Environment Cabinet (Cabinet) to address sanitary sewer overflows (SSOs) and combined sewer overflows (CSOs) in an effort to improve water quality throughout SD1's service area. A significant component of the Consent Decree that aids in achieving these goals is the implementation of formal Capacity, Management, Operations, and Maintenance (CMOM) programs. SD1's CMOM programs are designed to manage the collection systems' assets and operations in a manner that maximizes efficiency and reduces the potential for overflow occurrences. Proper planning and management of CMOM programs can result in a reduction of the number, frequency, and volume of SSOs and CSOs.

Pursuant to the Consent Decree, SD1 is required to submit annual reports on its implementation of the CMOM programs. This report describes implementation of SD1's CMOM programs during Fiscal Year (FY) 2009, which began on July 1, 2008 and ended on June 30, 2009.

### **1.2 Collection System Major Components**

SD1's sewer system covers approximately 200 square miles and serves approximately 101,000 customer accounts. SD1's collection and treatment systems are comprised of approximately:

- 39,879 manholes
- 4,030 catch basins in the combined sewer system
- 1,600 miles of sewer lines
- 145 pump stations (11 of which are owned by the City of Walton and operated by SD1 through a contract; 2 of which are owned by the Airport and operated by SD1 through a contract)
- 15 flood pump stations
- 8 small wastewater treatment plants (4 of which are owned by separate entities and operated under contract by SD1)
- 2 regional water reclamation facilities

SD1's sewer system conveys wastewater from private laterals connected to homes, businesses, and industries through a series of gravity lines, pumped systems, and interceptors to a wastewater treatment plant. The service area consists of both combined and separate systems. The combined sewers are located primarily in the river cities. A map of the service area and major components can be found in Appendix A.

### 1.3 CMOM Program Structure

SD1 has been performing informal CMOM activities for several years; however, these activities were structured into formal CMOM programs during the self-assessment in 2007. During the self-assessment process, a written purpose, goals, and recommended improvements were established for each program. SD1 currently has 34 CMOM programs, which are identified in Table 1.1.

**Table 1.1 CMOM Program Activities**

<b>Management Programs</b>	<b>Operations Programs</b>
• Organizational Structure	• Emergency Preparedness & Response
• Communication & Customer Service	• Safety
• Legal Authority	• Budgeting
• Acquisition Considerations	• Engineering
• Information Management System (IMS)	• Call Before You Dig
• Training	• Water Quality Monitoring
• System Mapping	• Compliance
• SSO Reporting & Notification	• Mobile Waste Haulers
<b>Maintenance Programs</b>	• Pump Station Operations
• Manhole Repairs	• Pump Station Emergencies
• Rehabilitation & Replacement	• Pump Station Force Mains PM
• Mainline Sewer Repairs	• Odor & Corrosion Control
• Sewer Cleaning	• Continuous Sewer Assessment
• Equipment & Tools Maintenance	• Smoke & Dye Testing
• Pump Station Maintenance	• Flow Monitoring
• Maintenance of Rights-of-way	• CCTV Inspection
<b>Capacity Programs</b>	• Manhole Inspections
• Capacity Assessment & Assurance	
• New Connection Tap-In	

## SECTION 2. CMOM PROGRAM HIGHLIGHTS

### 2.1 Budgeting

The purpose of SD1's Budgeting Program is to provide structured processes that enable all operating departments to execute SD1's mission and vision in a fiscally responsible manner and provide cost-effective services to ratepayers. The Budgeting Program provides SD1 with a clear understanding of the organization's financial needs and obligations, which results in the ability to adequately manage debt service and plan for future needs. This program also helps SD1 personnel categorize expenses and properly manage assets and infrastructure.

### 2.1.1 Capital and Operations & Maintenance Expenditures

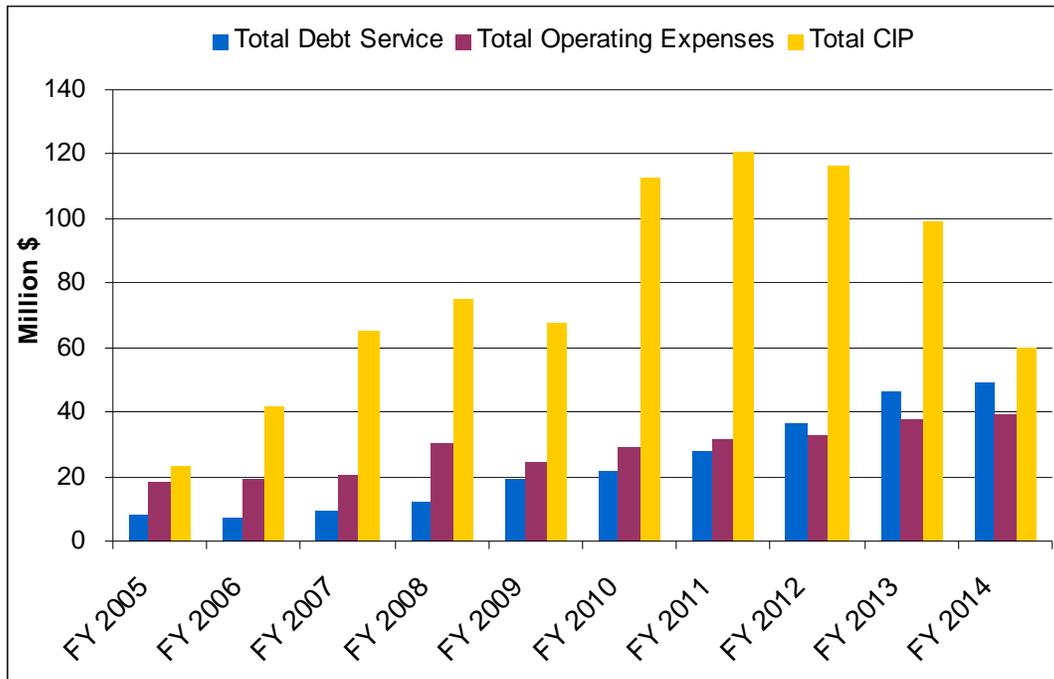
The un-audited capital expenditures for FY 2009 totaled approximately \$75.7 million, and the un-audited operations and maintenance (O&M) expenditures for FY 2009 totaled approximately \$24.9 million. As required in the Consent Decree, SD1 has developed Watershed Plans for improvement projects to be implemented over the next five years, which will greatly increase capital spending. The total capital spending associated with all project work over the next five years is approximately \$508.7 Million, as demonstrated in Table 2.1. Figure 2.1 represents SD1's historical and anticipated debt service, O&M, and capital improvement program (CIP) expenses. As depicted in the figure, the projected annual debt service continues to grow as the five-year improvement program projects are implemented. By 2012, annual debt service is expected to surpass projected O&M expenses.

**Table 2.1 Five-Year CIP Budget (FY 2010 – FY 2014)**

<b>Fiscal Year</b>	<b>Projected Capital Spending</b>
2010	112,800,000
2011	120,700,000
2012	116,400,000
2013	99,200,000
2014	59,600,000

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**Figure 2.1 SD1 Expenses: Annual Debt Service, O&M, and CIP**



**2.1.2 User Fees**

During FY 2009, SD1’s Board of Directors and the Judges Executive of Boone, Campbell and Kenton counties approved 15% rate adjustments for both FY 2010 and 2011. In addition, there were also adjustments made to various fees such as capacity connection fees, sludge hauling permits, and sludge dumping fees. The impact of the Consent Decree will be evaluated on a regular basis to determine when additional debt needs to be issued and to evaluate future rate and fee adjustments necessary to ensure water quality advancements are made in this region.

**2.1.3 Billing**

Rate Structure

Beginning April 1, 2009 SD1 began billing all residential wastewater bills on water consumed during the winter months. Basing customers’ bills on winter water usage allows SD1 to more accurately bill for the water that actually enters the sanitary sewer system. It takes out of consideration water used for activities such as washing a car or watering a lawn, while still being able to capture water usage that typically takes place year-round such as washing clothes, taking showers and washing dishes. In addition, the winter usage billing method will provide customers with a consistent, level billing that will allow them to budget more precisely for their sanitation bill.

### Monthly Billing and Low Income Assistance

To help customers better plan for and manage the increasing costs of sanitary sewer service, SD1 began switching residential customers from quarterly to monthly billing in December 2008. The switch from quarterly billing to monthly billing was based on interaction with focus groups, customer comments and stakeholders of SD1 that have been requesting this change.

As an additional effort to help reduce the financial burden placed on ratepayers, SD1 partnered with a local social service agency in FY 2009 to develop a Low Income Assistance Program. In July 2009, SD1 began implementing a one-year pilot program that provides families at or below 125% of the Federal Poverty Guidelines a 25% discount on sanitation service. SD1 will evaluate the outcomes and benefits of this pilot program and make a determination for its continuance at the end of FY 2010.

### **2.1.4 Alternate Sources of Funding**

Although SD1 receives adequate funding from its operating revenue sources to fund its O&M commitments, these sources do not provide sufficient funding to also support the CIP. SD1 is therefore required to borrow money from other sources. During FY 2010, SD1 anticipates that user rates and fees will make up approximately 42% of the total funding sources, while borrowed money will account for the remaining 58% of necessary funding sources to support the fiscal year budget.

### State Revolving Loan Funds

State Revolving Funds provide long-term, low-interest loans to local governments or individuals for capital investments. Established by the Clean Water Act Amendments of 1987, State Revolving Funds are intended to be administered and operated by the states to provide a permanent source of financing for state and local government water quality projects. The Kentucky Division of Water, through an interagency agreement with the Kentucky Infrastructure Authority, provides Kentucky communities with low-interest loans from the State Revolving Fund to comply with the requirements of the Clean Water Act.

During FY 2009, SD1 was able to fund the following projects through this loan program:

- Western Regional Water Reclamation Facility – Additional \$20 Million (\$70 Million total)
- Dry Creek Clarifier Rehabilitation Project – \$4.473 Million
- Sunnybrook Sewer – \$5.592 Million
- South Fork Gunpowder Interceptor - \$15.23 Million
- Frogtown Interceptor Sewer - \$5.768 Million
- Turkeyfoot/Industrial Road Forcemain - \$2.47 Million
- Narrows Road Diversion Pump Station - \$9.9 Million

The funds for each project are financed over a 20-year term at an interest rate of 2.2%, with the exception of the Western Regional Water Reclamation Facility that has an interest rate of 1.2%.

### Stimulus Funding

With the passage of the American Recovery & Reinvestment Act of 2009, the Kentucky Infrastructure Authority received \$49 Million in additional funds for the Clean Water State Revolving Fund. SD1 submitted an extensive list of project applications for funding, and the following green infrastructure projects were selected:

- Banklick Creek Sanitary Sewer Line Stabilization – \$395,000
- Banklick Creek Wetland – \$740,000
- Regional Bioretention Facility – \$2.2 Million
- Terraced Reforestation of Interstate Right-of-Way – \$1 Million

## **2.2 Capacity Assessment & Assurance**

The purpose of SD1's Capacity Assessment & Assurance Program is to determine the overall capacity of the collection, transmission, and treatment components of our system, identify areas that are lacking adequate capacity, and develop programs and solutions to provide sufficient capacity in these areas. This program provides staff with a holistic understanding of SD1's system's capacity, which allows for better management, design, and control of the system.

### **2.2.1 Field Inspections and Flow Monitoring**

During 2008, SD1 completed the development of a highly calibrated system-wide hydraulic model to be used as an accurate planning tool for capital improvements and to provide information about the current performance of SD1's system. To ensure that the hydraulic models continue to maintain and provide the most accurate information about the systems' performance, SD1's wet weather investigation group's SSO and CSO investigation crews continued to perform routine inspections during and after rain events throughout FY 2009. In addition, flow monitoring crews began a monitoring program consisting of more than 45 flow meters to collect data in specific areas of the collection system to confirm model predictions and to identify and confirm areas that are suspected to have high inflow and infiltration (I/I).

These efforts are part of SD1's on-going process of verifying the model results against actual field conditions through monitoring and observation. Over time, these field verifications will continue to improve the model as appropriate to better reflect any discrepancies found with observed conditions.

### **2.2.2 Reservation of Capacity**

Throughout the year, SD1 receives requests for the addition of new connections to the system. Historically, SD1 compared requests for capacity against pump station

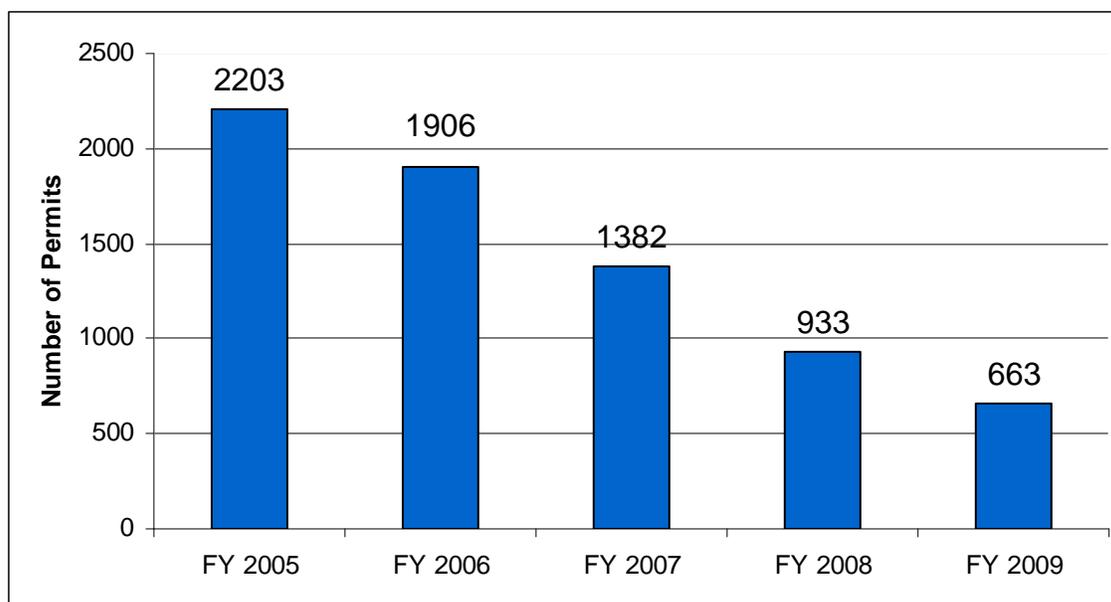
capacity to assess if there was sufficient capacity to grant the reservation request. During FY 2009, SD1 began using its calibrated detailed hydraulic model to assess system capacity when determining whether or not to grant reservation requests.

In addition, SD1 hired a project engineer to effectively manage the process of tracking and evaluating the impacts of these new connections. The project engineer is responsible for updating the hydraulic model with the latest connections in order to reflect actual system conditions, and evaluating the requests for new development with the latest hydraulic model.

### Capacity Connection Permits

SD1 issued 663 capacity connection permits during FY 2009. As depicted in Figure 2.2, the number of permits issued has declined throughout the past five years. This trend corresponds with the national decline in the housing market and the onset of the economic recession that began in the last quarter of 2007.

**Figure 2.2 Capacity Connection Permits Issued  
(FY 2005 through FY 2009)**



## **2.3 Communication & Customer Service**

The purpose of SD1's Communication & Customer Service Program is to inform and educate staff, external customers, and community groups about the services SD1 offers, including:

- Wastewater collection and treatment
- Storm water collection and management
- Flood protection and drainage

- Industrial monitoring
- Water quality monitoring
- Environmental education

Several internal and external communication initiatives took place during the current reporting period, the highlights of which are included throughout the remainder of this section.

### **2.3.1 New Guidelines and Procedures for Establishing Rate Adjustments**

At the end of FY 2009, SD1's Board of Directors approved new guidelines and procedures for public notification and comment when establishing rate and fee adjustments beginning in FY 2012. Historically, once the Board of Directors adopted a Resolution approving proposed rate increases, SD1 published a paid legal notice to announce the proposed rate increase and that the proposed rate schedule was available for a 30-day public inspection period. The new procedures now require that in addition to those requirements, SD1 must also hold a formal public hearing on the proposed adjustments. The Board will then review any objections filed or public comments received and afford the public an opportunity to address the Board before adopting or rejecting the proposed rate schedule.

These procedures were developed to increase public awareness and participation in SD1's rate adjustment process and are reflective of SD1's continued efforts to provide unparalleled customer service.

### **2.3.2 Conference & Community Group Presentations**

#### Watershed Plan Presentations

Beginning in January 2009, SD1 representatives provided presentations to 31 city, county and community groups, many of which were aired on local cable stations affording the general public the opportunity to learn more about SD1's Watershed Plans and proposed watershed projects.

SD1 also hosted three public workshops to provide customers with an overview of the Watershed Plans, specific project and program information, and to solicit feedback and comments. These meetings were held on the following dates:

- Public Workshop 1 (Boone County) May 14, 2009
- Public Workshop 2 (Campbell County) May 19, 2009
- Public Workshop 3 (Kenton County) May 21, 2009

#### Public Education Presentations

As an ongoing educational initiative and a means to share industry information, SD1 staff and consultants make many presentations throughout the year regarding CMOM and other Consent Decree-related information. The target audiences of these presentations include stakeholders at both the local and national level.

Table 2.2 highlights the name and venue of some of the presentations that took place during FY 2009.

**Table 2.2 FY 2009 Conference & Community Group Presentations**

Date	Forum	Presentation Title
8/6/2008	StormCon 2008 Annual Conference	Implementing and Managing a Comprehensive Sampling Program – Taking the Watershed Approach to Satisfy a Consent Decree with Combined and Separate Sewered Communities
10/7/2008	32 <sup>nd</sup> Governor's Conference on the Environment: Go for the Green	Leaking Infrastructure
10/9/2008	Northern Kentucky Society of Professional Engineers Chapter Meeting	SD1 Update
10/20/2008	Water Environment Federation's 2008 Annual Technical Exhibition and Conference	Implementing a Sewer Overflow Consent Decree through Watershed Management
10/22/2008	Water Environment Federation's 2008 Annual Technical Exhibition and Conference	Floatables Control is Surfacing Again, What Can You Do?
10/22/2008	Water Environment Federation's 2008 Annual Technical Exhibition and Conference	Understanding Tunnel Operation: Transient Analysis in the Planning and Design of Northern Kentucky's Western Regional Tunnel
11/13/2008	National Association of Clean Water Agencies Developments in Clean Water Law: A Seminar for Public Agency Attorneys & Managers	Green Infrastructure: It's Not Easy Being Green
12/11/2008	Kentucky Society of Professional Engineers Leadership Professional Engineer Meeting	Western Regional Conveyance Tunnel Project
12/11/2008	Kentucky Society of Professional Engineers Leadership Professional Engineer Meeting	SD1 - Challenges and Opportunities
1/10/2009	Lou Noll Symposium	SD1: Managing Northern Kentucky's Wastewater and Storm Water
1/13/2009	Boone County Farm Bureau	SD1: Managing Northern Kentucky's Wastewater and Storm Water
3/18/2009	Inter-Agency/University Steering Committee on KY Streams and Wetlands Conservation Planning Process - Steering Committee Panel	Watershed Planning and SD1's Consent Decree

Date	Forum	Presentation Title
4/17/2009	Kentucky Society of Professional Engineers Annual Conference	Western Regional Conveyance Tunnel Project
4/20/2009	Water Environment Federation Collection System's Conference	Watershed Planning to Improve Water Quality in Northern Kentucky and Comply with a Consent Decree
4/22/2009	Water Environment Federation Collection System's Conference	Sanitation District No. 1 Implements Innovative and Aggressive Continuous Sewer System Assessment Program
4/22/2009	NKAPC – Crescent Springs Small Area Study	Watershed Planning and SD1's Consent Decree Green Infrastructure Highlights
6/4/2009	Five Cities Plus Conference	SD1 Implements Innovative and Aggressive Continuous Sewer Assessment Program
6/4/2009	Five Cities Plus Conference	Writing Consent Decree Reports: Make Your Reporting Strategy Work For You
6/5/2009	Five Cities Plus Conference	Development of Wet Weather Design Standards For New & Redevelopment To Meet Multiple Objectives
6/5/2009	Five Cities Plus Conference	Director's Update (State of SD1)

### 2.3.3 General Public Education Efforts

In addition to the conference and community group presentations, SD1 has taken numerous other approaches, as described below, to engage and inform the general public on issues relating to SD1's services.

#### Publications

As a routine part of SD1's communication efforts, educational information is published in "What's Happening," a county-specific publication that is mailed to every resident in Boone, Campbell and Kenton counties, as well as in bill inserts that are mailed to residential customer accounts. During FY 2009, SD1 also developed the "Cost of Clean" newsletter to help educate city councils, other elected officials, and interested stakeholders about the challenges Northern Kentucky faces in improving water quality and the associated costs to the community. Appendix B highlights several examples of these educational publications.

In addition to these educational messages, other SD1 initiatives have been featured in the following publications and newspaper articles during the current reporting period:

- SD1 Promotes 'Green' Projects (3/3/09) – *Community Press and Recorder*
- Rain Barrel Program Provided (2/9/09) – *Kentucky Enquirer*
- Putting Best Management Practices Into Practice (9/08) – *Stormwater Magazine*
- Ohio River Monitoring (Fall 08) – *Moreover*, a publication of Thomas More College

### Residential Letters

On an as-needed basis, SD1 creates information pieces that are distributed to customers in areas of the collection system that are experiencing problems related to improper disposal of items into the sanitary sewer.

During FY 2009, significant amounts of household cleaning cloths and baby wipes were entering the Darma Court Pump Station and the Verona Commons small package treatment plant. The residents of the Verona Commons Subdivision and Darma Court were sent an informational letter to educate the residents about the effects of these items on the collection system and proper disposal methods.

In addition, SD1 mailed approximately 539 letters to residents in areas that have experienced an overflow or building backup caused by a build-up of grease. The letter alerts residents that an overflow or building backup occurred, educates the residents about the effects of fats, oils, and grease (FOG) on the collection system, and provides proper disposal methods.

### Television

In August 2008, SD1 joined with the local ABC affiliate, WCPO, to produce a 3.5 minute segment for "Living Green," a prime-time special series associated with their nightly newscast. The segment discussed protection of water resources, educational programs at SD1's Public Service Park, and the benefits of green infrastructure in the community. The segment ran at 8:00 pm on August 28, 2008. As part of this educational initiative, SD1 personnel staffed a phone bank to answer calls and questions from the public on how green infrastructure can improve water resources.

### **2.3.4 Watershed Community Council**

In November 2007, SD1 formed a Watershed Community Council to share information and help facilitate open, thoughtful discussion on the watershed planning process. The Council is comprised of 53 members from a diverse group of stakeholders, including environmental organizations, home builders, the development community, local government and citizens.

The council met three times over the course of FY 2009 to discuss various topics including:

- Community Values Survey
- Watershed Characterization Reports
- Stream Condition Index
- Green infrastructure opportunities
- Review of improvement projects
- Capital budget issues

SD1 plans to continue these meetings as-needed based on the amount of relevant information to be discussed.

## 2.4 Compliance

The purpose of SD1's Compliance Program is to satisfy The Clean Water Act pretreatment regulations and comply with the National Pollution Discharge Elimination System permit by identifying and controlling residential, commercial, and industrial sources of flow that could adversely affect the collection system. This program encompasses both the Industrial Pretreatment Program and Grease Control Program (see Section 3 for an update on SD1's Grease Control Program).

### 2.4.1 Permitting

The Compliance Program provides the authoritative measures necessary to permit and monitor discharges from commercial and industrial users that may cause corrosion or blockages in the collection system. SD1 currently has a total of 54 permitted Significant Industrial Users in its collection system. LPM Manufacturing in Hebron and Domino's Pizza Supply in Erlanger were both newly permitted during FY 2009. Sach's Automotive and Duro Bag's Covington location closed business operations during the FY and are no longer permitted.

SD1 approved the following 10 short-term specialty discharges during the current reporting period:

- St. Luke Hospital – Two Unusual Discharges (glycol and water)
- Thrifty Dollar Car Rental – Soil Remediation Project
- Square D – Two Soil Remediation Projects
- Camco Chemical – Unusual Discharge (detergent)
- KMS Plumbing – Unusual Discharge (sidewalk cleaning)
- Mazak Corporation – Unusual Discharge (floor cleaning)
- Aristech Acrylics – Unusual Discharge (fire suppression)
- Speedway – Soil Remediation Project

### 2.4.2 Monitoring & Enforcement

The purpose of the Industrial Pretreatment Monitoring Program is to monitor discharges from industrial users throughout the service area to ensure compliance with Article 5 of SD1's Sanitary Rules and Regulations and to protect SD1's sanitary sewer system, treatment plants, employees, and the receiving waters. All permitted industries are inspected annually and monitored semi-annually, with additional inspection and sampling performed as needed. During FY 2009, SD1 issued 54 Notices of Violation and \$11,000 in administrative fines. Refer to Appendix C for a summary report describing these violations in more detail. SD1 has an Enforcement Response Plan in place to address each violation appropriately. Typically, the first Notice of Violation issued is verbal (and documented in a computerized program management system), the second violation is written, and then each subsequent violation is attached with a fine. Fines can range anywhere from \$500 to \$1000 depending upon the violation. Most

issues are resolved before fines escalate. If the problem persists, an industry is put on a compliance schedule.

### **2.4.3 Identifying New Industrial and Commercial Users**

SD1 has continued its efforts to develop a more structured and effective method of identifying new industrial and commercial users discharging to the collection system. During FY 2009, SD1 began a coordinated effort with SD1's Engineering department and the local agencies responsible for issuing business licenses to distribute an Industrial Waste Questionnaire/Permit Application (Appendix D).

SD1 requires companies to complete this questionnaire in order to better understand the various business practices that relate to the industrial waste stream such as: the processes the business performs, the types of chemicals that are stored and used on-site, and waste disposal practices. With this information, SD1 can ensure the organization is meeting all of the Sanitary Rules and Regulations, as well as those requirements on a local, State and Federal level. This questionnaire can also serve as a permit application, if required.

SD1's Engineering department distributes this questionnaire to any business that applies for a new connection permit or when contacted about opening a new business. To reach those organizations that are opening in an established building location, the questionnaire is distributed by the local agencies issuing business licenses. SD1 will continue to evaluate other partnering opportunities and methods that may help in identifying new industrial and commercial users.

## **2.5 Continuous Sewer Assessment**

The purpose of the Continuous Sewer Assessment program (CSAP) is to utilize a proactive and coordinated asset management-based approach to assessing the condition and life cycle of SD1's infrastructure and managing a cost-effective rehabilitation/replacement of the system. Implementation of this program has enabled SD1 to more effectively and proactively prioritize and implement system inspection, cleaning, and rehabilitation/replacement needs.

The CSAP is a high-level program comprised of the following six more specific O&M activities that work in conjunction to assess and maintain the collection system:

- Interceptor Program – targets the maintenance and condition assessment of main trunk and interceptor sewers
- Large Diameter Sewer Assessment Program – focuses on the maintenance and condition assessment of sewers in the combined sewer system with pipes typically 15-inches and larger in diameter and high consequence of failure
- Manhole Inspection Program – assesses manholes throughout the collection system to determine the extent of structural defects, signs of sewer surcharge, and risk of I/I

- Preventive O&M Program – prioritizes the condition assessment, maintenance and repair/rehabilitation of the collection system to proactively prevent system failure that can cause overflows
- SSES Program – identifies and assesses the sources of I/I throughout the collection system
- Trouble Call Program – provides response to calls from customers who suspect problems related to the sanitary sewer service

Appropriate inspection technologies such as flow monitoring, closed circuit television (CCTV), smoke & dye testing, sonar, and visual inspection are used in the assessment phase of the O&M programs. The inspection data is then used to determine recommended next actions such as re-inspecting, cleaning, repair, or complete rehabilitation.

Together, the activities of each O&M program ensure that SD1 is meeting the overall objectives of the CSAP as demonstrated by the program process diagram in Appendix E. The remaining portions of this section highlight the collective progress of the six O&M programs in meeting the assigned performance goals and targets of the overall CSAP.

### 2.5.1 Collection System Condition Assessment

#### Sewer Inspections

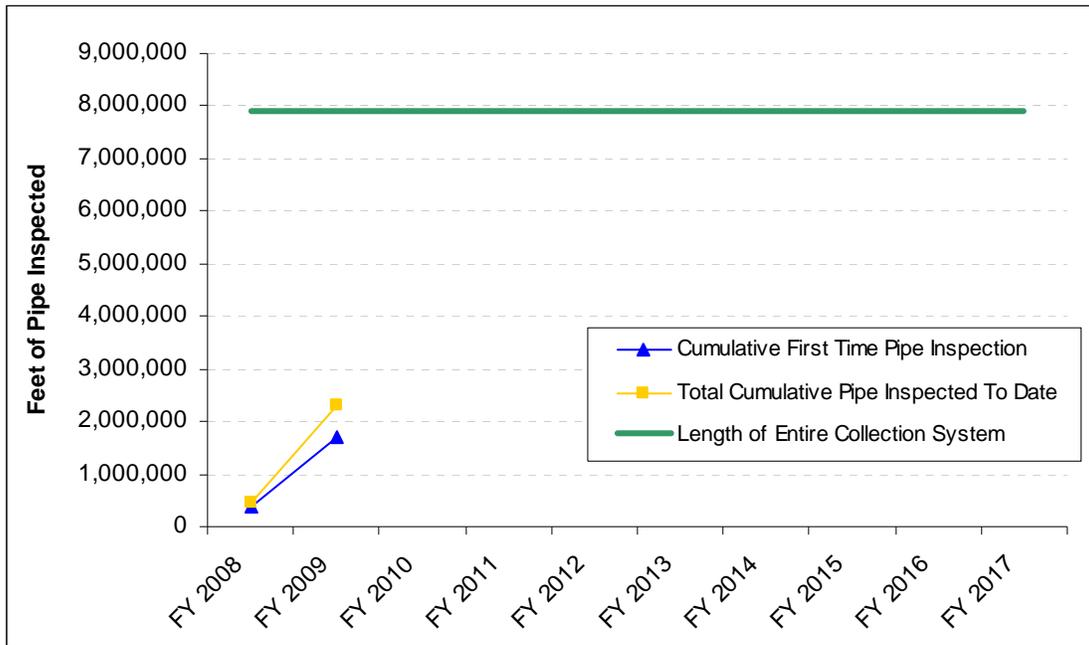
Table 2.3 outlines the amount of pipe inspected since the onset of the CSAP through the end of the current reporting period. Figure 2.3 shows SD1's progress of inspecting its entire collection system in 10 years.

**Table 2.3 Sewer Inspection Footage**

	<b>Initial Inspection Footage</b>	<b>Follow-Up Inspection Footage</b>	<b>Total Cumulative Footage</b>
<b>FY 2008 (Jan-June)</b>	372,810	46,662	466,133*
<b>FY 2009</b>	1,336,943	492,002	1,828,945
<b>Total To Date</b>	<b>1,709,753</b>	<b>538,664</b>	<b>2,295,078</b>
<b>Conversion to Miles</b>	<b>324 miles (20% of system)</b>	<b>102 miles</b>	<b>435 miles</b>

*\*This number replaces the number included in the FY 2009 CMOM Annual Report based on improvements in recordkeeping over the past FY.*

**Figure 2.3 Sewer Inspection Progress**



Manhole Inspections

SD1 inspects upstream and downstream manholes during all sewer inspections, unless the manholes have had an inspection within the last 12 months. Table 2.4 summarizes the number of manholes inspected since the onset of the CSAP through the end of the current reporting period.

**Table 2.4 Manhole Inspections**

Period	Number of Manhole Inspections
FY 2008 (January – June)	2,050
FY 2009	7,558
<b>Total Inspected</b>	<b>9,608</b>

**2.5.2 Collection System Maintenance**

Sewer Cleaning

Cleaning is critical in maintaining the capacity of the sewer system and preventing overflows. SD1’s prioritization process ensures that cleaning activities are done in a cost-effective manner and only on pipes in need of cleaning. The program’s logic can be found in the CSAP process diagram in Appendix E. The cleaning program classifies pipes by using Sewer Condition Risk Evaluation Analysis Model™ maintenance scores and identifies appropriate schedules for re-inspections and re-cleaning.

Table 2.5 provides an overview of the length of pipe cleaned in accordance with the cleaning program logic since the onset of the CSAP through the end of the current reporting period.

**Table 2.5 Sewer Cleaning Footage**

<b>Period</b>	<b>Footage of Pipe Cleaned</b>
FY 2008 (January – June)	113,695
FY 2009	439,191
<b>Total Feet Cleaned</b>	<b>552,886</b>

Pipes with high re-occurring maintenance scores enter the Permanent Solution Phase of the cleaning program and undergo further evaluation. Taking into consideration the pipe's structural and maintenance condition, a life-cycle cost analysis is performed to determine if it is more cost-effective to continue to inspect and clean the pipe on a regular PM schedule or to permanently repair or replace the pipe. Approximately 139,342 feet of pipe have entered the Permanent Solution Phase and are being evaluated by SD1's in-house engineers. To expedite this evaluation process, SD1 is programming corrective action logic into Structured Query Language to automate the decision-making process. The automation will provide the most cost-effective solution for the pipe based on the pipe's inspection defects, type of repair required, and the overall life-cycle cost of repair or rehabilitation compared to the ongoing cleaning and inspection cost. An engineer will then review the outcome, conduct quality assurance and control measures, and schedule the pipe for the appropriate next action.

To date, the evaluations of approximately 5,045 feet of pipe in the Permanent Solution Phase have indicated that it is more cost effective to continue to inspect and clean the pipes on a fixed schedule rather than implementing a capital improvement solution. This set of pipe reflects SD1's current permanent PM cleaning list. The cleaning and re-inspection frequencies vary depending on the condition of the pipe, the rate of return of the blockage, and other factors such as number of backups, trouble calls and overflows. SD1's permanent PM cleaning list will continue to evolve as additional inspection data is collected, as solutions for the remaining pipes are identified, and as other new pipes are identified as needing corrective actions.

#### Rehabilitation and Replacement

During the first 18 months of the CSAP, SD1 has spent a significant amount of effort collecting condition assessment data. This process has identified approximately 586,274 feet of pipe that need to be evaluated for a corrective action because of poor structural or maintenance conditions. SD1 is now in the process of evaluating these pipes in greater detail to determine the best solutions for maintaining the pipe's proper operation. The corrective action logic described above will also be applied to the evaluation of these pipes.

During FY 2009, project engineers in the CIP group determined that the most cost-effective solution for 60,000 feet of this pipe is to replace or repair the lines through construction activities such as cured in-place pipe lining, open-cut replacement, or other trenchless technology. SD1 Collection System construction crews and SD1's approved maintenance contractors will perform the work required to repair or replace these pipes. The work schedule is determined by various criticality factors and the proximity of these pipes to priority watershed areas. Pipes requiring emergency work because of the potential for immediate failure are scheduled for an immediate repair upon discovery. Additional considerations that may determine if the schedule should be accelerated for a solution are factors such as proximity to overflows, lack of hydraulic capacity, and proximity to other pipes being fixed.

SD1's total FY 2009 expenditures for rehabilitation and replacement activities are approximately \$12.4 million. Table 2.6 describes the rehabilitation and replacement activities performed by SD1's internal construction crews and outside contractors since the onset of the CSAP through the end of the current reporting period.

**Table 2.6 Rehabilitation & Replacement Activities**

<b>Activity</b>	<b>FY 2008 Total</b>	<b>FY 2009 Total</b>	<b>Combined Total</b>
Number of Sewer Lines Replaced	141	127	<b>268</b>
Number of Sewer Lines Rehabilitated (cured-in-place piping)	3	21	<b>24</b>
Sewer Line Point Repairs	90	201	<b>291</b>
Manhole Repairs/Replacements	482	434	<b>916</b>
New Manhole Installations	26	54	<b>80</b>

## **2.6 Emergency Preparedness & Response**

SD1's Sewer Overflow Response Plan (SORP) is an operational document that emphasizes emergency response activities to contain, mitigate, and clean residuals from overflows. The long-range objective of the SORP is to provide a framework whereby proper documentation of each event will help establish permanent overflow abatement programs to be incorporated into SD1's Watershed Plans. SD1's SORP as amended July 10, 2009 received regulatory approval on November 10, 2009.

### **2.6.1 SORP Training**

SD1 held annual SORP training during July 2009, at which time all employees received his or her appropriate level of training. SD1's training program is organized into two levels of education – an Awareness Level and an Operations Level. Employees involved at the Awareness Level, which includes slightly more than half of the workforce, receive SORP-related information through sources such as the organization's website and Intranet site, management meeting minutes that are

distributed to each employee, and various other informational pieces distributed to employees throughout the year.

Personnel in collection systems construction and customer service, plant operations, and capital improvement receive training at the Operations Level, and are required to attend an initial seven-hour course and annual refresher courses. Operations Level trainees also receive continuous hands-on training in the field during actual overflow response events.

The Operations Level training course consists of the following eight modules:

- Module 1: SORP Overview
- Module 2: How SD1 Becomes Aware of an Overflow
- Module 3: SORP Response and Resources
- Module 4: Notification
- Module 5: Initial Response
- Module 6: Mitigation of Condition
- Module 7: Field Documentation
- Module 8: Review of Clean-up, Containment, and Field Documentation

Upon completion of the training sessions, each Operations Level trainee is required to confirm their knowledge through a written test. A SORP Trainer's Guide and Workbook were developed as part of the Operations Level training program and are available to all employees via the Collection Systems Intranet site. Copies of these informational materials are also distributed during training sessions.

## 2.6.2 SORP Annual Review

Under the Consent Decree, SD1 is required to perform annual reviews of the SORP and make adjustments as necessary. Specifically, Section 36(c) states that:

**36.(c) Specific CMOM Program Development – Sewer Overflow Response Plan (“SORP”).** ...By no later than each anniversary date of the approval of the SORP, the District shall annually review the SORP and propose changes as appropriate subject to Cabinet/EPA review and approval.

SD1 held a series of meetings from July 2009 through September 2009 to review the SORP. There are no proposed revisions to the SORP that resulted from this review process; however, SD1 determined that the SORP Trainer's Guide and Workbook should be updated for the FY 2010 training sessions. Updates to these training materials are currently in-progress.

## 2.7 Information Management Systems

The purpose of SD1's Information Management System (IMS) Program is to provide tools that track collection systems' performance, costs, and work orders, and measure the effectiveness and efficiency of O&M activities. SD1's IMS programs and software maximize accessibility to a wide range of data that is pertinent to the decision-making process.

Throughout FY 2009, SD1 continued to expand the use of laptops to field personnel. More than 80 laptops are currently being used throughout the organization, with approximately 15 crews having broadband connectivity in order to log data directly into information systems from the field. A new mobile connectivity station was created in the Collection Systems work area to allow crews without broadband connectivity access to upload data collected in the field.

### 2.7.1 IMS Assessment

During the CMOM program self-assessment conducted in mid-2007, SD1 recognized the need to thoroughly assess its IMS to determine if the current systems are being used effectively. In March 2008, SD1 contracted with an outside firm to conduct a review of all information management activities and programs and a targeted in-depth assessment of GBA Master Series (gbaMS). Table 2.7 describes the major tasks completed during FY 2009 as part of this process.

**Table 2.7 IMS Assessment Tasks**

<b>Task</b>	<b>Purpose</b>
Service Level and Performance Measures Workshop	Review overall service level goals and associated performance measures that must be supported by the work processes and IMS in place.
Information Systems Questionnaire	Provide a broad overview of how information is gathered, managed and utilized at SD1.
Staff Interviews	Understand the specific work processes performed by the various users including the frequency, duration, number of individuals involved, information requirements, source of information, method for obtaining information, and any current problems.
gbaMS Fitness Assessment	Review the functional fitness and technical fitness of gbaMS, including a review of the overall data management practices and reporting methods.

There were no major deficiencies identified in the use of SD1's current IMS through this assessment process. Based on SD1's requirements, gbaMS was found to be a technically sound product that is widely accepted by users and positioned for long-term effectiveness. The more in-depth assessment of gbaMS did provide a few minor functional and technical recommendations for improvement that are being addressed through various action plans such as:

- Providing regular training opportunities organized by IT staff
- Posting shared information and standard data entry procedures to Intranet sites
- Reviewing database categories and pick lists related to data entry
- Using an internal advisory group to facilitate communication and resolution of issues related to gbaMS

### **2.7.2 CSAP Data Automation**

SD1 has continued its efforts to automate the CSAP to eliminate the need for manual data entry and work order generation. The programming of the CSAP process diagram logic in an interim database is complete, and the interim database is fully functional. The final CSAP database development and automation that will communicate directly with gbaMS is nearly complete. The final CSAP database programming logic is currently being tested against the interim database for debugging to ensure that the pipes are scored accurately and the appropriate next action is generated before putting the final database into operation. The final CSAP database is anticipated to be complete by April 2010, which will generate automatic next action work orders for cleaning, re-inspection and rehabilitation and replacement, work scheduling, and permanent solution determinations. In addition, SD1 is currently updating the way data is stored and labeled in gbaMS to better align with the CSAP and corresponding next actions.

### **2.7.3 Flow Monitoring Data Tracking and Analysis Tool**

SD1 is undergoing an aggressive flow monitoring program to support numerous goals, including:

- Quantifying I/I
- Supporting system-wide model refinement and verification
- Providing pre and post remedial measure data to understand efficacy of improvements, including adding capacity and removal of I/I
- Supporting detailed design
- Characterizing hydraulic conditions in key areas of the collection system

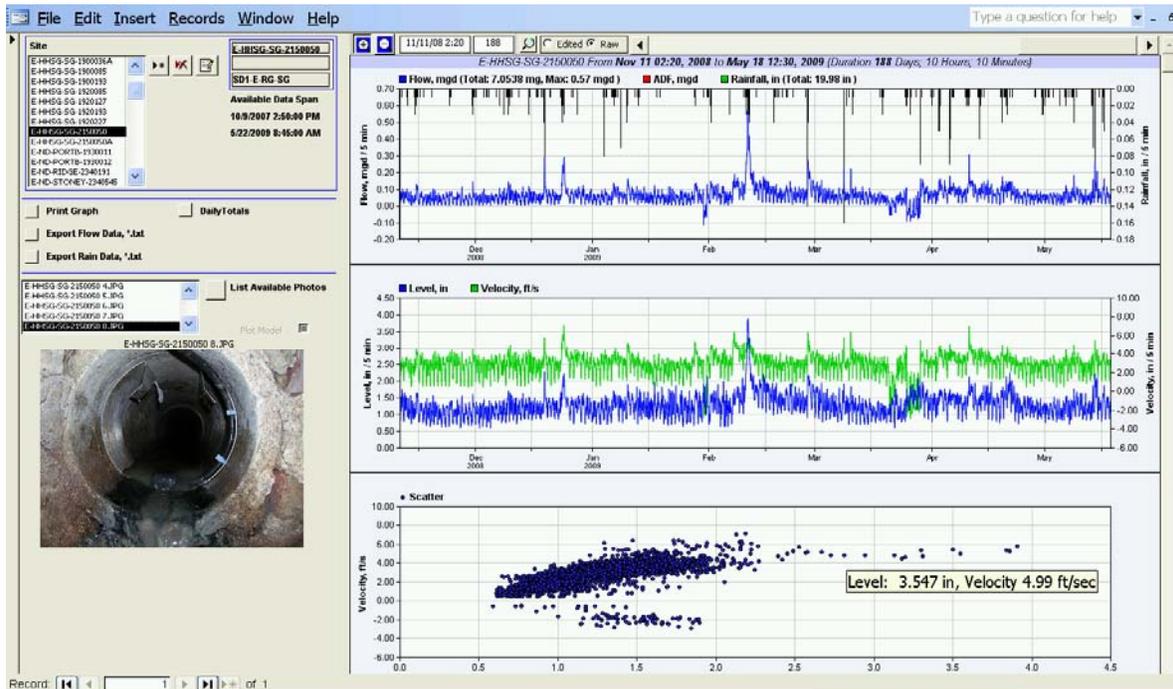
Because such activities require collecting and processing an overwhelming amount of data, SD1 determined during FY 2009 that an improved way to track and manage flow monitoring data was needed. Traditionally, spreadsheets have been used for this purpose, but the amount of data now being collected makes the use of spreadsheets ineffective. In addition, SD1 field crews needed a way to quickly view data downloaded

in the field and be able to compare it to historical results in order to conduct initial quality assurance and control measures.

In response to these needs, a Flow Monitoring Data Tracking and Analysis Tool was developed and is used for data collection and processing, performing data quality assurance and control measures, and analyzing the data collected from various sources. It provides direct access to historical data, field installation and maintenance forms, digital photographs, hydrographs, scattergraphs and time series of Rainfall, Flow, Depth and Velocity. It also has dynamic onscreen functions to obtain quantitative information, analyze continuity, and assess overall quality of the collected data. Figure 2.4 shows a screen capture of the software.

This tool allows SD1 to store all flow monitoring data in one location, which will help maintain data accuracy and integrity. It also dramatically reduces the time spent importing and managing data. At-a-glance features allow the user to view peak flows, total volume, and rainfall for any time increment. Upcoming enhancements include the generation of rainfall return period statistics as well as R-factor analysis. This will enable SD1 to gain valuable insight into the extent of I/I at any location.

**Figure 2.4 Screen View of Flow Monitoring Data Tracking and Analysis Tool**



## **2.7.4 Pump Station Operations**

During FY 2009, SD1's supervisory control and data acquisition system was upgraded to the Lookout version of the Intellution software program. The updated version is browser-based and allows personnel to remotely monitor pump stations and access information, which was formerly only available through desktop computers at the Dry Creek Wastewater Treatment Plant control room. SD1 has allocated \$25,000 in the FY 2010 budget to conduct a feasibility study to determine if the supervisory control and data acquisition system for the Dry Creek Wastewater Treatment Plant can be upgraded to a new version of Intellution.

## **2.8 Legal Authority**

The purpose of SD1's Legal Authority Program is to:

- Implement and enforce SD1's Rules and Regulations
- Assist in the development of policies and guidance
- Implement SD1's existing policies and guidance
- Comply with applicable state and federal laws
- Keep informed of relevant legal issues and state and federal policies and guidance
- Reduce legal liability and manage risk
- Provide staff with legal support and advice
- Effectively manage litigation
- Continuously review and revise legal authority as needed to further the mission of SD1
- Provide legal counsel for timely, effective, and cost-efficient implementation of the Consent Decree, including coordination with regulators and legal review of all plans submitted pursuant to the Consent Decree

### **2.8.1 Sanitary Rules and Regulations**

Throughout the course of implementing and enforcing SD1's Sanitary Rules and Regulations, SD1's in-house General Counsel determined that a comprehensive review of the rules and regulations was needed in order to further enhance and support SD1's legal authority.

During FY 2009, SD1's in-house General Counsel met with numerous departments throughout the organization and collected various revisions. The revisions identified through this review process are currently being compiled into one draft document to undergo a final review. SD1 anticipates submitting a final revised document to the Cabinet by the end of FY 2010.

## 2.8.2 Private Sewer Laterals

### Sewer Lateral Repair and Illegal Connection Inspection and Enforcement Policy

Of the 480 trouble calls related to building backups during FY 2009, 37 were determined to be SD1's responsibility and 443 were the responsibility of private owners. The backups determined to be the responsibility of private owners were due to causes such as breaks and blockages in private service laterals. SD1's Board of Directors has adopted several amendments to the Sewer Lateral Repair and Illegal Connection Inspection and Enforcement Policy. The most recent version of this policy can be found in its entirety in Appendix F. SD1 will continue to assess its role in addressing and funding private source issues and make future amendments and/or implement new policies and programs as deemed necessary.

### *Financing and Grant Program for Defective Private Lateral Repairs and Removal of Illegal Connections Outside Public Roadways*

SD1 established a program during FY 2008 to provide financing and/or funds to eligible property owners faced with the obligation to perform excavation and repair work of private laterals outside public roadways.

Through this program, SD1 may advance funds for payment of a licensed plumber to conduct the necessary improvements, and offer a finance option to allow the property owner to repay SD1 with interest at a rate of two basis points above prime rate at the time that financing is initiated. The minimum interest rate for financing is 6% and the maximum is 10% over a term not to exceed 15 years. At the end of FY 2009, SD1 had provided approximately \$41,000 in financing to 10 property owners (\$8,000 will be repaid through the grant funds described below).

As part of a Supplemental Environmental Project under the Consent Decree, SD1 may also reimburse qualified residential property owners for a portion of the costs of certain sanitary sewer improvement projects. Candidate projects include the repair or replacement of failing sanitary service laterals and the installation of new sanitary service connections to SD1 sewer mains. Approved residential property owners may be eligible to receive grants of up to \$5,000 towards such projects, depending on their income level. To date, SD1 has provided approximately \$22,000 in grant funding to help 26 qualified property owners make sanitary sewer improvements.

## 2.9 Maintenance of Rights-of-Way

Throughout FY 2009, SD1 has continued to make progress in the development of a formal Maintenance of Rights-of-Way program by establishing a communication and action plan for addressing street resurfacing projects.

The communication plan addresses the steps local cities should take to inform SD1 of roadway projects. SD1 has requested that cities provide a minimum of 90 days notice prior to construction beginning for projects containing five streets or less and a minimum

of 180 days notice prior to construction beginning for projects containing more than five streets. As part of this notice, SD1 has requested that the cities complete the following:

- Submit a vicinity map with the roads highlighted that are to be included in the project.
- Submit a brief narrative explaining the type of roadway construction planned.
- Submit a description of the anticipated construction schedule for work to be completed within the same year as the request.
- Instruct city engineers to include raising manhole frames and lids per SD1 standards in roadway projects.

These steps and SD1 contact information were included in a letter mailed to all Northern Kentucky cities in June 2009. The action plan provided in Appendix G describes SD1's process in responding to project information once it is received from the local cities.

## **2.10 New Connection Tap-In**

The purpose of SD1's New Connection Tap-in Program is to ensure standard policies and procedures are in place to approve and perform connections to the sewer system. The objectives of this program are to:

- Accommodate economic development throughout the Northern Kentucky region.
- Eliminate the number of illegal and improper taps made throughout the collection system.
- Ensure all connection fees are paid and all new connections are put on billing.
- Maintain the integrity of the sewer system by reducing the amount of I/I that can enter the system through bad taps or improper abandonment of service laterals.
- Protect the integrity of our system by enforcing the use of proper materials.
- Provide an avenue for SD1 to keep certified tappers informed about changes to the Rules and Regulations or specifications for tapping the system.

### **2.10.1 Abandonment Permit**

SD1 delivered informational packets about abandonment permits to the Northern Kentucky Area Planning Commission and other local planning agencies during March and April 2009. The local planning agencies assist SD1 by providing this information to contractors when issuing demolition permits. This coordination provides SD1 with an additional opportunity to reach contractors and communicate the proper procedures to follow when working on a project in which the lateral will be abandoned. SD1 began this process in FY 2008 and has since noticed an increase in calls to the Engineering department regarding the abandonment permit. Because the process is generating increased communication, SD1 plans to continue distributing information in this manner on an annual basis.

### **2.10.2 Certified Tapper Program**

SD1's formal Certified Tapper Program ensures that connections to the sewer system are approved by SD1 personnel and are performed accurately based upon written specifications and procedures. Plumbers interested in becoming certified are required to attend training and pass a written exam. In addition, Certified Tappers must attend a recertification class offered by SD1 every three years. SD1 currently has 192 Certified Tappers representing 109 plumbing companies. Of these 192 Certified Tappers, 21 became certified during FY 2009 and 182 attended SD1's recertification class held in March 2009 (11 were new certified tappers from FY 2009).

During FY 2009, SD1 began the process of updating the tapper training program. Beginning in FY 2010, certification classes will be offered to plumbers once a month in a classroom-like environment, with live instruction provided by SD1 personnel. Updated training materials include new information about illicit discharges, storm connections, and safety practices.

### **2.10.3 Violations and Fines**

During FY 2009, the following six companies were fined \$500 for connecting to SD1's sewer system without obtaining the proper Capacity Permit or Sanitary Sewer Connection Application Permit:

- Ashley Development
- Herman & Kittle
- Joe Lay & Sons Plumbing
- Henn Plumbing
- Drees Homes
- Kroger – Oswald Company

## **2.11 Organizational Structure**

The purpose of SD1's Organizational Structure Program is to provide delineated job responsibilities, outline opportunities for advancement, ensure effective employee supervisor ratios, and guarantee adequate staff is in place to accomplish the mission and vision of SD1. This program also works in conjunction with the annual budget process to determine staffing needs and allocate operational expenses appropriately.

SD1 currently employs 246 full-time staff members, seven part-time staff members, and a number of interns, co-ops, and temporary personnel. There are seven main areas of operation: Executive Administration, Human Resources & Administration, Plant Operations, Plant Maintenance, Collection Systems, Capital Improvement & Inspections, and Engineering & Water Resource Management. SD1's organizational charts can be found in Appendix H. Each department is involved in the implementation of at least one of the CMOM programs.

Throughout FY 2009, several changes to staff composition and responsibilities occurred that enhance the efficiency and success of SD1's CMOM programs:

- In response to the increased call volume Account Services experienced from the implementation of the new billing process, SD1 hired two part-time Customer Service Representatives.
- One new Geographic Information System Analyst was hired to support the System Mapping Program.
- One new Project Engineer and one new Program Manger were hired for the CIP. The Project Engineer supports green infrastructure project planning and the rehabilitation and replacement program. The Program Manager position supports project implementation and directs SD1's rehabilitation and replacement program and Pump Station Operation Plan for Backup Power.
- Six new Operators were hired for the Dry Creek Wastewater Treatment Plant in preparation for the opening of the new Western Regional Water Reclamation Facility.
- A Project Engineer in the Plan Review group has been given the responsibility to update SD1's hydraulic system model and to evaluate the requests for new development with the latest hydraulic model.
- A Project Coordinator from the CIP was promoted to Assistant Manager of Collection Systems. As part of SD1's succession planning, this employee and a Program Manager from the CIP group are both responsible for assisting the Director of Collection Systems with the management of the department.
- A pump station maintenance crew member was promoted to Pump Station Electrical Crew Leader, which allowed SD1 to more effectively plan for and perform pump station electrical maintenance.
- SD1 promoted a pump station crew member to Air Release Valve, Force Main, & Pump Station Operator to support the development and ultimate implementation of the Pump Station Force Main and Air Release Valve PM Program.

## **2.12 Pump Station Force Mains Preventive Maintenance**

SD1 has continued to make significant progress in the development of a formal Pump Station Force Main and Air Release Valve PM Program. The purpose of this program mirrors the CSAP, in that it utilizes a proactive and coordinated asset management-based approach to assess the condition of force mains and air release valves and subsequent improvements based upon a combination of criticality and risk of failure. Through implementation of this program, SD1 can more effectively and proactively prioritize and implement the necessary predictive, preventive, and corrective maintenance required to sustain the reliability of its force mains. These proactive measures cost-effectively ensure that all force mains and the associated pump stations throughout the service area are operating at maximum efficiency, thereby reducing the risk of sewage discharges.

During FY 2008, SD1 contracted professional engineering services to aide in the development and implementation of this comprehensive program. Table 2.8 describes the major tasks assigned to this project and the progress made on each task during the current reporting period.

The schedule for the overall project has been extended as additional time was needed during Task 2 and Task 4 to pilot test the accuracy of various location techniques for plastic and metallic force mains. Additional time was also scheduled for Task 4 in order to develop an effective condition assessment tool. Initially, SD1 thought that an un-calibrated surge model could provide sufficient information to properly characterize the pressures in the force mains; however, pilot tests at the Bullitsville and Crestview pumps stations revealed that the un-calibrated surge model did not produce adequate information for decision-making. Because of this, SD1 is now developing fully calibrated surge models, which requires additional time to study, collect data, and further investigate force main operations. SD1 is currently collecting data on surge pressures within priority force mains using transient (surge) pressure monitors. These pressure monitors have been temporarily installed on force mains to record changes in surge pressures during pump operation and shutdown, which allows SD1 to then characterize the pressures. The pressure monitor records pressures every thousandth of a second in order to capture instantaneous surge waves within the force mains. These surge waves produce oscillating high pressures and vacuum conditions within the force main that can lead to premature and catastrophic failures. Based on this collected data, SD1 will develop fully calibrated surge models that will be used to make recommendations on needed improvements to the priority force mains and pump stations.

The assessment information that was initially collected during Task 4 is being used to move forward with Task 5 – the development of a PM program. Future progress made toward developing this program will be included as part of the CMOM Annual Report that is required to be submitted under the Consent Decree by December 31, 2010.

**Table 2.8 Pump Station Force Main PM Program Development Tasks  
(July 1, 2007 through March 31, 2010)**

<b>Task</b>	<b>Scope of Work</b>	<b>Status</b>
1	Identify all drawings and records available on SD1's force mains and pump stations.	Task complete.
2	Identify the field location and alignment of all SD1 pump stations, force mains and air release valves, and map these locations in GIS and gbaMS.	Task complete.

Task	Scope of Work	Status
3	Perform CCTV inspection on all manholes and sewers 1 mile downstream of a force main discharge to assess damage that may be present from corrosive force main effluent and provide recommended improvements.	Task complete.
4	Perform a condition assessment for each pump station and force main on SD1's list of high priority force mains that are in need of immediate attention.	Anticipated completion by 03/31/2010.
5	Work with SD1 to develop a PM program for all of the force mains and air release valves.	Anticipated completion by 12/31/2009. <sup>1</sup>

<sup>1</sup> The PM program will be amended once Task 4 is complete in order to incorporate any additional findings of this task.

## 2.13 Pump Station Operations

The purpose of SD1's Pump Station Operations Program is to ensure reliable operations of the pump stations throughout SD1's service area by conducting routine inspections, troubleshooting when situations arise, retaining appropriate records of pump station performance, and by remotely monitoring pump station operations through the use of a telemetric supervisory control and data acquisition system. This program is executed in conjunction with the Pump Station Maintenance Program, as routine inspections generate work orders for the pump station maintenance crew, and pump station operators are responsible for performing light maintenance work as needed.

### 2.13.1 Pump Station Acquisitions

During FY 2009, SD1 finalized a Pump Station Design Guide to ensure that the design and construction of new pump stations acquired into the collection system complies with technical specifications and construction standards. The design guide will be incorporated into SD1's Sanitary Rules and Regulations as part of the comprehensive update that is currently taking place (see Section 2.8.1). Once effective, these standards will apply to prospective infrastructure from both new construction and privately owned systems being considered for a transfer of ownership to SD1. In addition to daily inspections conducted by SD1 inspectors, pump station operators will also inspect new pump stations at least four times throughout the construction process to determine if the new pump station is being properly constructed and installed according to SD1's standards. This inspection process will be coordinated through SD1's Acquisition Considerations Program.

### **2.13.2 Stressed Pump Station Evaluations**

Throughout FY 2009, SD1 has continued its efforts in addressing pump station deficiencies identified through condition evaluations that have taken place over the last few years. Monthly meetings are conducted with internal pump station maintenance and operating personnel in order to identify specific problems, discuss potential solutions and scopes of work, and assign departmental tasks and action items, including a schedule for completion. SD1 is currently focusing its efforts on the top 40 stressed pump stations. The deficiencies at 15 of these pump stations have been addressed through solutions such as: pump station replacement projects, upgrading control panels, installing new pumps, addressing corrosion problems, and general grounds maintenance. In addition, SD1 is evaluating the condition of a pump station when it is evaluated for backup power solutions. Any maintenance issues or other problems identified are addressed at that time.

## **2.14 Safety**

The purpose of SD1's award-winning Safety Program is to ensure that appropriate measures are taken to eliminate or control the exposure of SD1 employees and the general public to hazards that may cause physical harm, and to comply with local, state, and federal safety codes and legislation. Performing daily operations in a safe manner not only protects our workforce and the community, but also demonstrates fiscal prudence, high employee morale, and results in financial savings for our ratepayers.

### **2.14.1 Safety Training**

SD1 has continued to produce and distribute a Safety Training Calendar that identifies class offerings, instructors, times, and dates of training throughout the year. A copy of the FY 2009 Safety Training Calendar is included in Appendix I. The calendar is posted to the Intranet site, and monthly email notifications are sent to SD1 employees to notify them of upcoming trainings and attendance requirements. Attendance at safety training classes is tracked with Training Tracker software to ensure that each employee meets his or her annual safety training requirements.

### **2.14.2 Performance Indicators**

Table 2.9 outlines the indicators used to measure the success of the Safety Program and SD1's performance in each area during FY 2008 and FY 2009.

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**Table 2.9 Safety Program Performance**

<b>Performance Metric</b>	<b>FY 2008</b>	<b>FY 2009</b>
OSHA Recordables <sup>1</sup>	10	15
Worker Compensation Claims	10	9
Friendly Reminders Issued	18	1
Safety Violations Issued	3	0
First Aids	17	17

<sup>1</sup>No OSHA Recordable accidents from FY 2008 or FY 2009 resulted in loss time.

### **2.14.3 Recognition**

During the current reporting period, SD1 was presented with the Alliance for Chemical Safety's 2008 Risk Communication Excellence Award for the development, publication and distribution of the Emergency Preparedness Fingertip booklets throughout the Greater Cincinnati Region. Additionally, SD1 qualified to receive the 2008-2009 Kentucky Labor Cabinet's Governor's Safety and Health Award for 500,000 hours without a loss time incident.

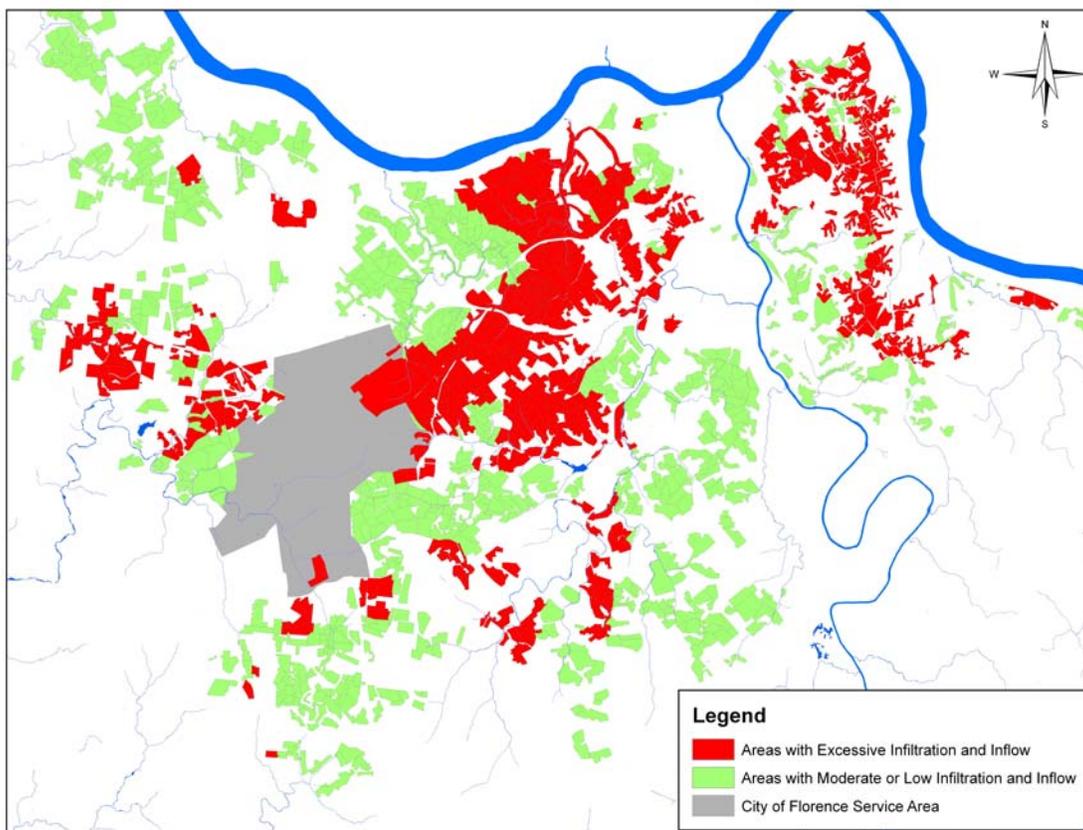
## **2.15 Smoke & Dye Testing**

The purpose of SD1's Smoke & Dye Testing Program is to identify specific sources of rainfall derived I/I into the sanitary sewer system. Smoke & dye testing along with sewer and manhole inspections and flow monitoring comprises SD1's Sanitary Sewer Evaluation Survey (SSES) program elements. Smoke testing helps to identify significant sources of storm water I/I, including private service laterals and illegal connections such as downspouts and area drains. Smoke testing can also be used to determine the location of sewer main defects likely contributing to an I/I problem. Dye testing is performed for comprehensive identification of both public and private source I/I connections in areas found to have excessive I/I.

### **2.15.1 SSES – I/I Assessment Projects**

The goal of the SSES program is to remove excess I/I that is entering the sanitary sewer system to reduce and eliminate overflows. The map in Figure 2.5 provides an overview of the areas in SD1's collection system experiencing excessive I/I.

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**Figure 2.5 Areas of Excessive I/I Across SD1's Collection System**

SD1 has expended significant effort over the last several years, as part of its watershed planning efforts, to identify and quantify the sources of I/I using detailed flow monitoring and smoke and dye testing. The following information provides a description of the smoke and dye investigations that occurred during FY 2009 as part of the I/I assessments. (This information is also described in SD1's Watershed Plans submitted June 30, 2009.)

#### City of Lakeside Park - Van Deren Neighborhood

The Van Deren neighborhood is located within the City of Lakeside Park. The Van Deren area is a neighborhood that includes approximately 100 residential parcels and is served with parallel sanitary and storm sewer systems that have 15 common manholes. This project was initiated when SD1's illicit detection crew found sewage present in the storm sewers within this neighborhood. SD1 also identified significant I/I entering the sanitary sewer system during rain events. SD1 worked with the City of Lakeside Park since they were the owner of the storm sewers at that time to develop a joint project to eliminate the illicit discharges and sources of I/I. SD1 conducted comprehensive dye testing of all interior and exterior drains in all 100 residences. The testing revealed approximately 20 residences found to have illicit connections into the storm system and significant sources of public and private I/I. The owners of the 20 residences were



Figure 2.6 indicates properties color coded by the amount of tributary area (square feet) tied to the sanitary sewer when it rains. The darker the shade of color represents a greater amount of area that contributes storm water runoff to the sanitary sewers. The stars represent locations where indirect cross-connections between the storm and sanitary sewers were identified.

SD1 will begin public and private I/I removal activities in this area during FY 2010.

### **2.15.2 Priority I/I Source Identification & Removal Program**

As part of the SSES program, SD1 has budgeted \$6 Million over the next five years to implement a Priority Inflow and Infiltration Source Identification & Removal Program designed to reduce and eliminate SSOs through public and private source I/I removal projects. Smoke and dye testing will play an important role in identifying the sources of I/I as part of this program. The priority watershed areas SD1's smoke and dye crews will initially evaluate as part of this program are known to have extensive I/I and include the Banklick Creek (Lakeview Pump Station) watershed, Taylor Creek watershed, and the watershed area tributary to the Licking River Siphon. The timing and extent of implementation in each area will be determined as part of the prioritization phase of the SSES Program.

### **2.15.3 Private Source I/I Removal Policy**

The City of Lakeside Park and Vernon Lane in the City of Ft. Thomas have been identified as two optimal locations for SD1 to test the effectiveness of source control through I/I removal versus conveyance and treatment to eliminate SSOs. However, in order to truly implement successful pilot projects that will assist SD1 in making future decisions about this type of source control, SD1 knew that property owners would need to participate in correcting private source I/I problems.

To encourage property owners to voluntarily repair the private systems that were determined to have high levels of I/I, SD1's Board of Directors approved the implementation of a Pilot Private Source I/I Removal Policy beginning in FY 2010. This policy allows SD1 to reimburse property owners 50% of the costs to remove the I/I, with a maximum contribution of \$2,500 per property. SD1 will evaluate the outcomes and benefits of this pilot program and make a determination for its continuance at the end of FY 2010.

Since July 1, 2009, SD1 has already had 30 property owners in the Van Deren neighborhood agree to make the necessary sewer improvements to remove I/I through this cost sharing initiative. Ten of these properties are already complete and 20 are in progress.

## 2.16 Training

The purpose of SD1's Training Program is to build an elite, professional, and proactive workforce capable of executing the mission and vision of SD1 in a safe, timely, and cost-effective manner. This comprehensive Training Program results in several benefits for the organization, including:

- Ensuring the safety of our employees and the community we serve
- Increasing job satisfaction, employee morale, and workforce engagement by providing opportunities for personal and professional growth
- Keeping staff up-to-date on industry trends, as well as certification and license requirements
- Maintaining the efficiency and consistency of job performance, which consequently upholds the quality of our work and yields a greater return on investment
- Meeting and exceeding the expectations of our ratepayers and governing bodies by ensuring fiscally responsible, efficient, and well-informed operations

SD1 employees are provided with a wide array of training opportunities throughout the year, including safety training, technical skills training, and soft skills training in areas such as communication and leadership. SD1 personnel received more than 9,000 total hours of training during FY 2009, which equates to approximately 35.6 hours of training per employee.

Employees may receive professional development through external courses or through SD1's formal in-house training program that is managed by Human Resources. SD1's 2009 Training Catalog, provided in Appendix J, outlines the in-house trainings available to SD1 staff. All of the classroom instruction for the courses identified in the catalog is provided by highly qualified and trained SD1 personnel, and instruction material is made available through the training program's in-house library. The Training Catalog and library is updated each FY to provide revised or new training information. Over the next FY, SD1 hopes to expand upon alternate delivery methods such as web-based learning, DVDs, CDs, and audio tapes, which will increase participation with employees that may not be able to attend live trainings.

The following employees received professional certifications during the current reporting period:

- Assistant General Manager and Director of Engineering – The American Academy of Environmental Engineer's Board Certified Environmental Engineer Certification
- Assistant General Manager of Human Resources – Society of Human Resource Managers' Senior Professional Human Resource Certification
- Employee Benefits & Development Manager – Society of Human Resource Managers' Professional Human Resource Certification
- Geographic Information System Administrator – Certified GIS Professional

- Industrial Monitoring Specialist – Kentucky/Tennessee Water Environment Association’s Voluntary Pretreatment Certification
- Five Engineering Inspectors – National Institute for Certification in Engineering Technology (NICET) Certification in Stormwater and Wastewater System Inspection
- Twelve Engineering Inspectors – Kentucky Erosion Prevention and Sediment Control (KEPSC) Qualified Inspector

SD1 also participated in the Kentucky WINS program that provides grant funding for customized employee training through the Kentucky Community & Technical College System. During FY 2009, SD1 was able to secure grant funds to provide pump station maintenance personnel additional specialized job training. Personnel attended Gateway Community College and completed the Circuits I class and the Maintaining Industrial Equipment class. SD1 will continue to seek grant funds to support additional training in FY 2010.

Additionally, SD1 recognizes the value in providing CMOM-specific training opportunities for staff and Board members and has chosen to make this “training” available through a variety of meetings, workshops, and other internal educational efforts that occur throughout the year. During the current reporting period, SD1 staff and Board members were educated about CMOM program activities through the following:

#### Annual CMOM Program Planning Sessions (July & August 2008)

- Number of employees that participated = 71
- Number of workshops held = 23
- Length = 30 hours total
- Topics:
  - Review of prior year CMOM program activities
  - Current status of submitted CMOM program
  - Review of performance objectives
  - Identify areas needing improvement and follow-up
  - Q&A

#### Information Technology/Geographic Information System Training (November 2008 and January 2009)

- Number of employees in attendance = Approximately 98
- Length = 20 classes ranging from 1-2 hours
- Topics:
  - Computer Basics
  - gbaMS Basic Functionality
  - ArcReader
  - ArcMap Basics
  - ArcMap/gbaMS interaction

Professional Development Day (February 2009)

- Number of employees in attendance = Approximately 250
- Length = 7 hours
- Topics:
  - Consent Decree programs
  - Capital improvements
  - Strategic planning
  - Ethics
  - Various departmental updates

Employee CMOM Update Meeting (February 2009)

- Number of employees in attendance = 47
- Length = 2 hours
- Topics:
  - Self-assessment update
  - Continuous Sewer Assessment Program
  - Sewer Overflow Response Plan
  - Grease Control Program
  - Pump station backup power
  - Data management
  - Q&A

gbaMS Training for Public Relations (February 2009)

- Number of employees in attendance = 2
- Length = 1 hour
- Topics: General overview of gbaMS and overflow module

System Release Report / gbaMS Training for Plant Operators (February 2009)

- Number of employees in attendance = 22
- Length = 4 classes 1.5 hours each
- Topics: How to input System Release Reports directly into gbaMS from the onset of an overflow event

ArcReader & gbaMS Training for Industrial Monitoring (March 2009)

- Number of employees in attendance = 5
- Length = 1.5 hours
- Topics = Data-specific ArcReader and gbaMS training that was slightly more technical than an intro class

Management & Leadership Meetings

SD1 holds weekly management meetings and monthly leadership meetings for the purpose of keeping the leadership team informed of all SD1-related business. CMOM activities are often discussed at these meetings. Meeting minutes are distributed organization-wide and are often discussed by managers at individual team meetings.

### Board of Directors Meetings

Board members are kept informed of CMOM activities on a regular basis during monthly-scheduled Board and Caucus meetings. Each meeting agenda specifically designates time for a Consent Decree update. In addition, many bids relating to CMOM programs are included in the agenda for discussion and formal approval. Listed below are just some of the CMOM-related contracts discussed and awarded by the Board during the current reporting period:

- Licking River Watershed Monitoring and Assessment Proposal
- Targeted Sewer Cleaning Program
- Infiltration/Inflow Source Detection Program
- Hi-Cube Mounted Color CCTV Pipeline Inspection Systems

Refer to Section 2.6.1 for a description of SORP training and Section 2.14.1 for a description of safety training that took place during the current reporting period.

## **2.17 Water Quality Monitoring**

SD1 has two distinct monitoring programs that aid in characterizing the watersheds – the Watershed Monitoring Program and the Outfall Sampling Program. The purpose of the Watershed Monitoring Program is to collect and assess instream water quality, macroinvertebrate, fish and habitat data throughout the study area. This program includes dry weather baseline monitoring in all watersheds (approximately 75 locations), and wet weather event-based and biological monitoring in major watersheds (approximately 60 locations). The purpose of the Outfall Sampling Program is to provide data on pollutant concentrations in the SSOs, CSOs, and storm water discharges in order to effectively characterize SD1's infrastructure.

Instream water quality and overflow data collected to help characterize watersheds in SD1's service area plays an integral role in prioritizing, designing, and implementing cost-effective solutions that will reduce overflow occurrences and improve water quality in rivers and streams within SD1's service area. This data helps SD1 to better understand the constituents in the overflows through pollutant concentrations and loadings and the impact that the discharges have on the surrounding environment. In addition, these data were used to create the hydraulic and water quality models that served as essential planning tools in developing SD1's Watershed Plans submitted June 30, 2009 to state and federal regulators.

### Watershed Characterization Reports

During FY 2009, SD1 published Watershed Characterization Reports for 16 major watersheds within the study area. These reports provide a description of the land cover, physical and infrastructure features, current conditions, and sensitive areas within each of the 16 watersheds.

### 2.17.1 Stream Condition Index

Data collected through SD1's watershed monitoring program has also been used to support the development of the Stream Condition Index (SCI). Although numerous indices have been developed elsewhere to address aquatic systems and watersheds, these traditional reports of environmental data typically contain too much information to be meaningful to the public. The SCI will serve as a means to summarize large amounts of data into simple terms, primarily for reporting to a non-technical audience. That said, the SCI was designed to facilitate public understanding of the quality of Northern Kentucky waters, graphically display overall stream condition, and potentially measure improvements as projects are implemented during the Consent Decree. It is important to note that the purpose of the SCI is primarily for relative condition understanding and is not intended for regulatory purposes.

The objectives for the development of SD1's SCI can be summarized as follows:

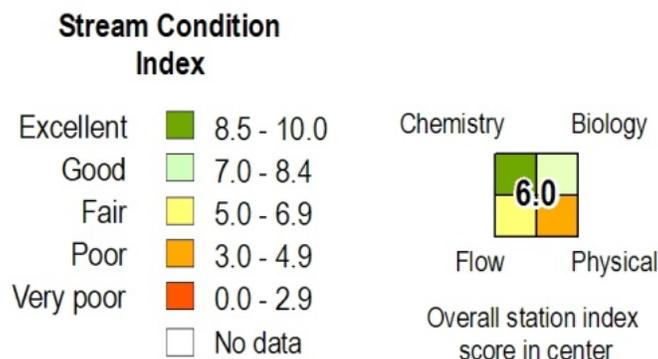
- Summarize large amounts of complex data from Northern Kentucky
- Communicate information on monitoring data to a public audience
- Incorporate and reflect broader conditions beyond water quality
- Use existing monitoring and indices to the extent possible
- Balance scientific rigor with the timely development of an index

One potential criticism of environmental indices is that they can introduce subjective bias in the way that large amounts of information get condensed into a single number. The potential for bias can be mitigated by incorporating input from diverse viewpoints during the development of the index. This index has incorporated those diverse viewpoints by soliciting external review from environmental professionals during the development process.

The SCI scores stream sites based on flow, water chemistry, physical habitat and biological characteristics. Results for each category are displayed at the stream site (Figure 2.7), and aggregated for an overall site score. The framework for the SCI is complete; however, SD1 plans to continue refining the index throughout FY 2010 to strengthen the flow and physical metrics.

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**Figure 2.7 Example of Stream Condition Index**



**2.17.2 Source Identification Program**

As described in SD1’s Watershed Plans submitted June 30, 2009, monitoring data collected by SD1 over the last three years indicates that several watersheds have persistent elevated bacteria densities during dry weather periods as well as wet weather periods. There are numerous potential sources of dry weather-related bacteria, including failing septic systems or straight pipe discharges, livestock access to streams, wildlife, and illicit or cross connections to municipal separate storm sewer systems (MS4). Additionally, there are numerous potential wet weather-related bacteria sources beyond sewer overflows, including runoff from livestock pastures, row crops with applied manure, pets and wildlife in residential and other developed areas.

Therefore, to improve water quality, SD1 developed a Source Identification Program during FY 2009 to identify potential dry and wet weather sources and develop recommendations and remedies that correct the sources and reduce the impact to the waterways. Existing information across SD1’s service area was used to analyze and identify watersheds that appear to have dry weather impacts. From this process, six watersheds were identified as priority dry weather watersheds: Banklick Creek, Threemile Creek, Taylor Creek, Dry Creek, Pleasant Run, and Sand Run. SD1 chose to pilot the program in the Banklick Creek watershed in order to gain insight about its application before applying it to another watershed. Throughout 2009, SD1 assessed existing data and information to identify potential “hot spots” of elevated dry weather bacteria loadings in the Banklick watershed. This information will be used to conduct field reconnaissance work during FY 2010 that will provide the necessary information to identify specific source loading inputs. Updates on the progress of this program will be provided in future CMOM Annual Reports.

## **SECTION 3. GREASE CONTROL PROGRAM**

### **3.1 Preventive Maintenance**

As described in Section 2.5.2, SD1 has approximately 5,045 feet of pipe on its current permanent PM cleaning list. Approximately 4,326 feet of this pipe is regularly inspected and cleaned due to grease build-up. The inspection and cleaning frequencies vary depending on the condition of the pipe, the rate of return of the blockage, and other factors such as number of backups, trouble calls and overflows. In addition, sources of the FOG are being addressed through the implementation of SD1's Grease Control Program as described below.

### **3.2 Inspections**

SD1's Industrial Monitoring Department performs inspections of local Food Service Establishments (FSE) that may be contributing to the buildup of FOG in the collection system. During this inspection, the FSE is provided a Restaurant/Food Service Grease Handling Questionnaire that must be completed and returned to SD1 within two weeks. The questionnaire is used to help gain insight into the potential of FOG to enter the collection system through that particular FSE. If the potential is established, the FSE is issued a Food Service Discharge Permit. Random inspections are conducted to ensure compliance with the permit and with SD1's Rules and Regulations.

FSEs are initially inspected in known FOG problem areas where maintenance and inspection data reveal that the condition of the lines and pump stations are significantly stressed due to the buildup of FOG. In addition, FSEs are inspected when contributing wastewater to a line found overflowing due to a blockage caused by FOG. By looking at the collection systems in this manner, SD1 can prioritize which areas to focus on and target inspections to FSEs that have the greatest potential impact of reducing FOG.

#### **3.2.1 American Sign Pump Station**

During FY 2008, the Pump Station Operations Program identified significant grease-related problems at the American Sign Pump Station. Schwan's Global Supply Chain, a food processor, was identified as the source of the grease. In FY 2009, industrial monitoring personnel met with the organization to resolve the problem. As a result, the organization voluntarily installed a Dissolved Air Flotation wastewater pretreatment system that more efficiently removes grease from its wastewater. The grease and other solids removed from this process are stored in a holding tank and hauled outside of SD1's service area for proper disposal.

### 3.2.2 Sewer Inspection Data

Over the past few years, SD1 has focused its inspection efforts in the areas surrounding the Richwood Pump Station and Cold Spring Pump Station, both of which have historical problems associated with FOG. SD1 initially planned to extend this strategy to other pump stations in FY 2009 but decided that a more effective approach would be to conduct FSE inspections based on current sewer inspection data, which provides specific locations of grease blockages.

CCTV inspection data in gbaMS indicating a blockage of 30% or greater due to grease was integrated into a GIS data layer to visually represent the FOG problem areas across SD1's service area. Maps were created from the data layer to display the sewer lines, sewer structures, and buildings connected to the collection system in relation to the grease blockages. Those FSEs in areas with lines blocked 70% or greater due to grease were automatically permitted, and all other FSEs in FOG problem areas were inspected and permitted, if needed. The maps are updated monthly with new inspection data and are reviewed to determine if new problem areas exist. If new problem areas are indicated, the FSEs in those areas are inspected. Over time, the maps will also be reviewed to ensure that pipe conditions are improving and the FOG issues are being resolved.

### 3.2.3 Permitting & Enforcement

As of the end of FY 2009, SD1 has 41 permitted FSEs throughout the service area, 8 of which were added during FY 2009. Within one year of a permit's issue date, at least one follow-up inspection is conducted at each permitted FSE. As a result of these inspections, SD1 issued 10 Notices of Violation in response to non-compliance with the Food Service Discharge Permit to the following FSEs:

- Gold Star (Newport)
- Taco Bell (Newport) – two Notices of Violation and a \$100 fine
- First Wok (Erlanger)
- Burger King (Richwood) – two Notices of Violation
- Waffle House (Richwood)
- Arby's (Richwood)
- Snappy Tomato Pizza (Richwood)
- Penn Station (Richwood)

The two main areas of FSE non-compliance during FY 2009 were: (1) not properly maintaining the required FOG folder, and (2) not cleaning grease traps as often as the permit requires. The FOG folder maintained on-site at the permitted FSE must include the following:

- Food Service Discharge Permit
- Cleaning logs for under-sink and interior floor grease traps
- Copies of all receipts for grease hauled off site

- Copy of the FSE's contract with a grease hauler
- Specifications of all grease traps used at the facility
- Past Notices of Violation and correspondence with SD1

### **3.3 Grease Trap Waste Disposal**

One of the purposes of SD1's Mobile Waste Haulers CMOM Program is to provide a regulated process for properly disposing and treating FOG from grease traps to prevent blockages in SD1's collection and conveyance system. All individuals or companies that haul waste to the Dry Creek Wastewater Treatment Plant must apply for and obtain a Domestic Holding Tank Waste Hauler Discharge Permit. Permits are issued on an annual basis and provisions of the permit must be adhered to at all times. Mobile waste haulers disposing grease trap waste at the plant are required to submit a Domestic Holding Tank Waste Hauler Manifest, which provides a detailed description of each load on their truck.

SD1 had approximately 555,833 gallons of grease hauled to and disposed of at the Dry Creek Wastewater Treatment Plant during FY 2008. Because SD1 is no longer receiving grease from Schwan's Global Supply Chain (as described above), only 35,929 gallons of grease were hauled to SD1 for disposal during FY 2009.

### **3.4 Grease Control Program: Phased Implementation Plan**

SD1 received regulatory approval of the Grease Control Program: Proposed Phased Implementation Plan on January 8, 2008. Once this plan is complete, the newly revised Grease Control Program will include components such as ordinances, design standards, and expanded permitting, inspection and enforcement protocols. The enhancements made under the new Grease Control Program will aid in maximizing sewer capacity and reducing sewer overflows within the collection systems.

The program is constructed through the implementation of four phases, each lasting 12 months. For a description of the tasks to be completed during each phase, refer to Appendix K. Phase 1 of this newly revised program was completed as of January 2009, and Phase 2 is currently being implemented and tracked as part of SD1's regulatory compliance measures. The deadline for completion of all Phase 2 tasks is January 8, 2010. A detailed description of the progress made in completing the tasks identified in Phase 1 and 2 can also be found in Appendix K.

## **SECTION 4. PUMP STATION BACKUP POWER UPDATES**

SD1 received regulatory approval of the Pump Station Operation Plan for Backup Power on May 14, 2008 and has made significant progress assessing and implementing backup power solutions throughout the service area. For a detailed update on the current progress of this program, refer to Appendix L.

## SECTION 5. SELF-ASSESSMENT PROGRAM UPDATES

SD1 performed an extensive self-assessment of each CMOM program in mid-2007, involving approximately 75 employees in a series of interviews and team planning workshops. During this process, SD1 employees identified nearly 100 improvements to collection system activities that would aid in more effectively achieving regulatory compliance and reducing SSO and CSO occurrences throughout the service area. By the end of FY 2008, only nine recommended improvements remained to be completed. SD1's progress in completing these remaining tasks during FY 2009 is provided in Table 5.1.

**Table 5.1 Status of Remaining CMOM Recommended Improvements**

<b>CMOM Program</b>	<b>I.D.</b>	<b>Task</b>	<b>Current Status</b>
Communication & Customer Service	CCS-1	Track all trouble calls by logging them into the gbaMS database system.	Task complete. All trouble calls that require a response action are logged into gbaMS.
Communication & Customer Service	CCS-7	Evaluate SD1's current basement backup policy to identify areas where adjustments should be made.	This is an on-going task. SD1's in-house General Counsel meets regularly with SD1 personnel to evaluate and research policy options.
Acquisition Considerations	N/A	Assess the use of gbaMS for inputting new construction inspection reports and applicable photos.	The current system for saving construction photos works well and there is currently no use for gbaMS for this purpose. Engineering and IT staff are evaluating how to best input new construction inspection reports into gbaMS. Several ideas have been generated and one is currently being piloted.
IMS	IMS-3	Determine the most effective method for tracking labor hours spent on O&M activities.	Task complete. Customer Service and Construction crews are tracking labor hours spent on O&M activities through work orders in gbaMS.

<b>CMOM Program</b>	<b>I.D.</b>	<b>Task</b>	<b>Current Status</b>
IMS	IMS-6	<ol style="list-style-type: none"> <li>1. Assess the use of the Inspection module in gbaMS for new construction inspections.</li> <li>2. Begin utilizing the Pump Station Inspection module in gbaMS for pump station inspections.</li> <li>3. Input smoke &amp; dye testing results into gbaMS.</li> <li>4. Link CCTV video to gbaMS.</li> <li>5. Promote more extensive use of the Facility module in gbaMS.</li> </ol>	<ol style="list-style-type: none"> <li>1. See Acquisition Considerations task update.</li> <li>2. See PSO-4 update.</li> <li>3. Task complete.</li> <li>4. Task complete.</li> <li>5. This task is on-going. Goals have been set through SD1's strategic planning process to increase the use of this module.</li> </ol>
System Mapping	SM-2	Develop an SOP to be submitted to developers and contractors for obtaining proposed digital files for new construction and capital improvement projects and updated as-builts once construction is complete.	An SOP has been developed and is contingent upon the approval of the revised Sanitary Rules and Regulations, which is anticipated to occur by the end of FY 2010.

<b>CMOM Program</b>	<b>I.D.</b>	<b>Task</b>	<b>Current Status</b>
Engineering	EN-2	Upload technical specifications to SD1's website.	SD1's website was compromised by a security threat, and a new site is currently being developed. SD1's technical specifications will be included on the new site once it is complete.
Pump Station Operations	PSO-4	Begin using the Pump Station Inspection module in gbaMS to record and track pump station inspections.	Pump station crews are in the planning stages of implementing this task now that gbaMS has been updated. Revised standard operating procedures are currently being developed as the first step in this process.
Rehabilitation & Replacement	RR-2	Visually map (by flow chart) the work orders for the Construction Foreman, and assess the amount of time currently spent on each category of work orders.	Task complete.

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**APPENDIX A:**  
***Map of Service Area***

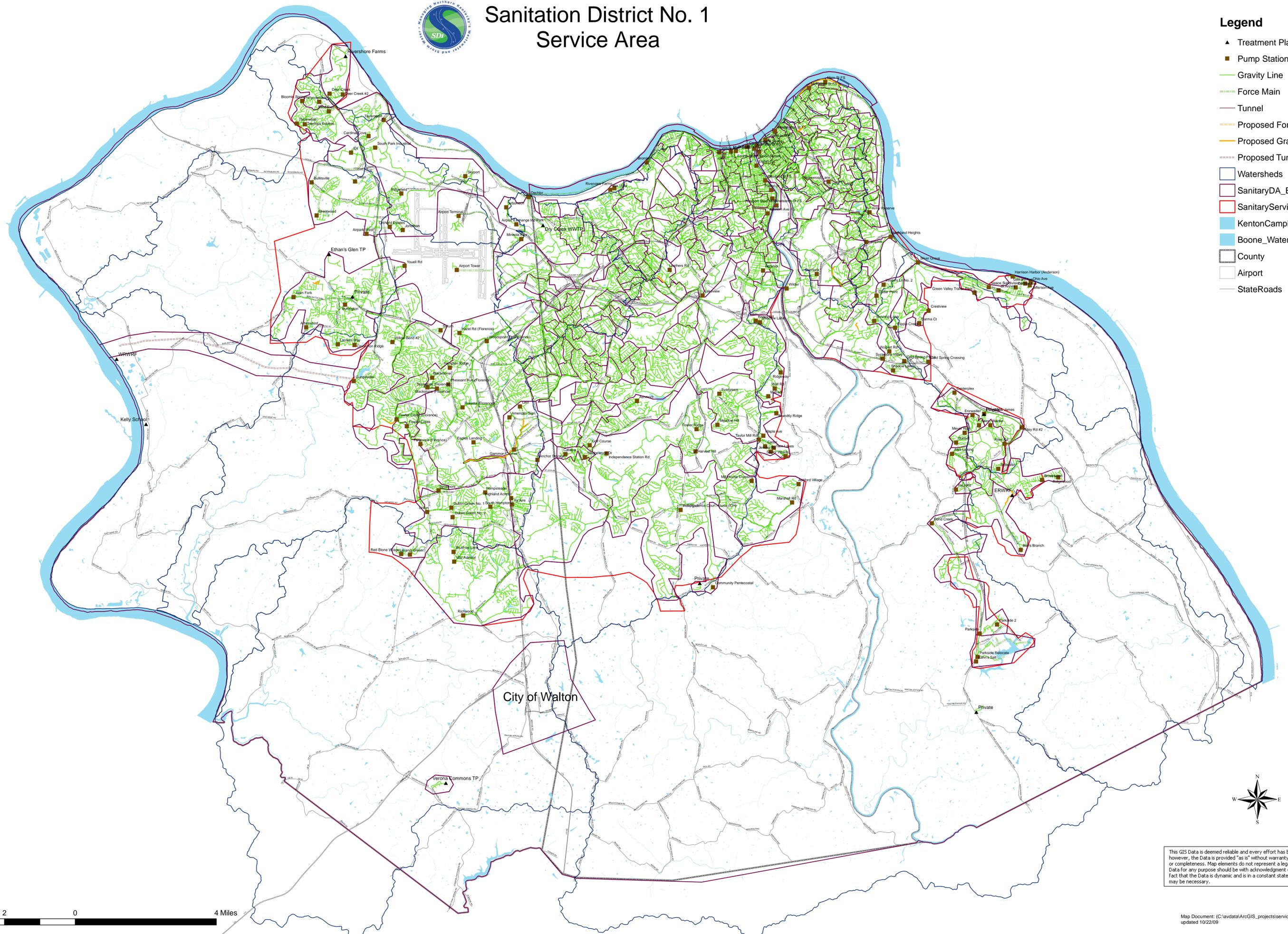
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# Sanitation District No. 1 Service Area

## Legend

- ▲ Treatment Plants
- Pump Stations
- Gravity Line
- Force Main
- Tunnel
- Proposed Force Main
- Proposed Gravity Line
- Proposed Tunnel
- ▭ Watersheds
- ▭ SanitaryDA\_Basin
- ▭ SanitaryServiceArea
- ▭ KentonCampbell\_Waterbodies
- ▭ Boone\_Waterbodies
- ▭ County
- ▭ Airport
- ▭ StateRoads



This GIS Data is deemed reliable and every effort has been made to ensure accuracy; however, the Data is provided "as is" without warranty of accuracy, timeliness, reliability or completeness. Map elements do not represent a legal survey of the land. Use of this Data for any purpose should be with acknowledgment of its limitations, including the fact that the Data is dynamic and is in a constant state of maintenance. Field investigation may be necessary.



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**APPENDIX B:**

***FY 2009 Example Educational Publications***

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Storm Water Hotline: (859) 578-6745  
[www.sd1.org/green](http://www.sd1.org/green)

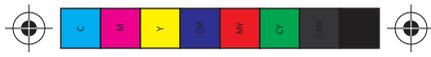




**REDUCE**

By washing paintbrushes and pans in the sink, rather than outside, you can reduce the impact that your project will have on the environment. Do not pour leftover paint down a storm drain.

*\*If your leftover paint cannot be used by someone else or recycled, please dispose of it properly by adding cat litter to the paint and allowing it to harden before placing it in the trash for pick-up. For more information on proper paint disposal, please contact your local solid waste coordinator.\**



**REUSE**

Paint thinner that has been used to clean brushes and other supplies can easily be filtered and reused for future projects. Visit [www.sd1.org/green](http://www.sd1.org/green) to learn how.

**RECYCLE**

Donate unused paint to a friend or charity. To recycle any unwanted paint in good condition, contact Harmeyer Paint, located in Newport, KY, at (859) 431-7500.



 Printed on recycled paper





# How To Properly Dispose of Unwanted Medication



The water we drink comes from our streams, lakes, rivers and underground aquifers. So, it's very important that each person does his or her part to reduce the pollution that enters the waterways that carry our drinking water.



Pharmaceuticals can enter our waterways through several different pathways:

- 💧 Pets & Livestock
- 💧 Human waste
- 💧 Improper disposal of medicine

*Do your part* to limit the release of pharmaceuticals, of any type, back into the environment. Properly dispose of unused medications by following the guidelines provided on the reverse side.

Concept artwork : Emily Breedlove





Take unused, unneeded, or expired prescription drugs out of their original containers & *throw them in the trash.*

Mix prescription drugs with an *undesirable substance*, such as used coffee grounds or kitty litter, and put them in impermeable, non-descript containers, such as empty cans or sealable bags.

Don't flush prescription drugs down the toilet unless the label or accompanying patient information specifically instructs doing so.

Take advantage of *community pharmaceutical take-back programs* that allow the public to bring unused drugs to a central location for proper disposal.

For more information on pharmaceuticals in the environment visit the following websites:

- [www.awwa.org](http://www.awwa.org)
- [www.smarxtdisposal.net](http://www.smarxtdisposal.net)
- [www.epa.gov/ppcp/faq.html](http://www.epa.gov/ppcp/faq.html)
- [toxics.usgs.gov/regional/emc](http://toxics.usgs.gov/regional/emc)
- [www.drinktap.org/consumerdnn](http://www.drinktap.org/consumerdnn)
- [www.whitehousedrugpolicy.gov/drugfact/factsht/proper\\_disposal.html](http://www.whitehousedrugpolicy.gov/drugfact/factsht/proper_disposal.html)

This brochure was developed by the  
Ohio River Valley Water  
Sanitation Commission  
[www.orsanco.org](http://www.orsanco.org)



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# Memo

To: Our Valued Customers  
From: SD1 Account Services  
Re: Important Information Concerning Your SD1 Bill

## *Monthly Billing*

The enclosed bill is your first monthly bill from SD1. In an effort to better serve our customers, SD1 is in the process of switching our residential customers from quarterly to monthly billing. We believe this change will make budgeting more manageable and may help alleviate some of the financial burden placed on our customers.

## *New Residential Billing Methodology*

Your residential wastewater bills are now being based on water consumed during the winter months (October 1 through April 30). Basing customers' bills on their winter water usage allows SD1 to more accurately bill for the water that actually enters the sanitary sewer system. It takes out of consideration water used for activities such as washing a car or watering a lawn, while still being able to capture water usage that typically takes place year-round such as washing clothes, taking showers and washing dishes.

## *Cost of Clean*

Northern Kentucky's sewer system is aging and deteriorating. Over the next five years, SD1 anticipates investing more than \$400 million to rehabilitate the existing wastewater and storm water collection systems, reduce sewage overflows and meet the requirements set forth in SD1's legal settlement with the U.S. Environmental Protection Agency. Due to these increasing infrastructure needs and the lack of available federal funding, rate and fee adjustments have been approved for the next two years.

It is anticipated that additional rate adjustments will also be necessary in the future; however, SD1 will continue to look for ways to minimize costs and will be persistent in seeking state and federal funding to help minimize the impact on our customers. We recognize that rising rates could prove to be burdensome on some of our customers and we have been working diligently to develop solutions to address this concern. Beginning this July, SD1 will be partnering with the Brighton Center to offer a Low Income Assistance Program. Through this program, qualifying customers will be eligible to receive a 25% reduction in their sanitary sewer rates. If you have any questions or are interested in learning more, please contact us during regular business hours at (859) 578-7450 or visit our website at [www.sd1.org](http://www.sd1.org).

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## RESULTS OF FOG IN SEWER LINES

When fats, oils and grease enter the sanitary sewer system, they stick to the insides of the sewer lines. Over time, the FOG buildup can block the entire line and cause sewer backups which may result in:

- Clogged drains or toilets.
- Raw sewage backing up into your home.
- Raw sewage overflowing into the environment.
- Expensive cleanup, repair and replacement of damaged property.
- Higher wastewater system operation and maintenance costs.
- Unpleasant odors.
- Potential public health risks.



## GREASE MYTHS

It's ok to pour grease down the drain as long as...

... **I use the garbage disposal.**

**MYTH!** The garbage disposal only grinds up items before passing them into your sewer pipes.

... **I run hot water.**

**MYTH!** The grease will eventually cool and build up in the pipes.

... **I chase it down with a dose of dish soap.**

**MYTH!** Soap breaks up grease, but the soap will eventually lose its effectiveness causing the grease to solidify in the pipes.



For more information on FOG, please contact SD1's Industrial Monitoring Department at (859) 331-6674 or visit SD1's website at [www.sd1.org](http://www.sd1.org).



# STOP THE CLOG



# SAY NO TO FOG



SD1  
PROTECTING WATER RESOURCES

## WHAT IS FOG?



FOG refers to fats, oils and grease from food preparation and kitchen clean up. It is found in items such as:

- Meat fats
- Food scraps
- Lard/shortening
- Baking goods
- Butter/margarine
- Cooking oil
- Sauces
- Dairy products



When poured down the drain, FOG can build up in pipes. This can cause significant problems in the sanitary sewer system and at wastewater treatment plants.

## WHY DO CLOGS OCCUR?

Clogs can be caused by poor housekeeping and improper disposal of fats, oils and grease. A partial or total blockage can cause floor drains, sinks and dishwashers to back up or not work properly.

To help prevent these clogs, recycle or properly dispose of FOG and check sink stoppers on a quarterly basis for buildup.

## Do!

- Place cooled oil and grease into trash bins or covered collection containers.
- Scrape food scraps from dishes into trash bins.
- Manually wipe off all visible fats, oils, grease and food residue from dishes and cookware into trash bins.
- Use a strainer in the sink to collect excess food particles.
- Clean up grease spills with absorbent material and place into trash bins.
- Encourage neighbors to help keep fats, oils and grease out of the sewer system.



## DON'T!

- Don't pour oil or grease down the drain.
- Don't scrape food scraps down the drain.
- Don't pour liquid foods (dairy products, syrups, batters and gravy, etc.) down the drain.
- Don't run water over greasy dishes, pans or fryers.
- Don't use chemicals to remove grease clogs; they can damage the piping system.
- Don't rely on a garbage disposal to get rid of grease.



## New Billing Procedure Effective This July for Residential Customers

Beginning in spring 2009, SD1 will base all residential wastewater bills on water consumed during the winter months (October 1 through April 30).

Basing customers' bills on their winter water usage allows SD1 to more accurately bill for the water that enters the sanitary sewer system. It takes out of consideration water used for activities such as washing a car or watering a lawn, while still be-

ing able to capture water usage that typically takes place year-round such as washing clothes, taking showers and washing dishes.

This winter usage billing method will provide customers with a consistent, level billing that will allow them to budget more precisely for their quarterly sanitation bill. It also ensures that customers will be fairly billed for the amount of water used in their homes.

## Protecting the Environment Award

This year, SD1 and Wal-Mart have partnered to present the 2009 Protecting the Environment Award program. Students and teachers will be recognized for environmental efforts and selected winners from Northern Kentucky schools will share over \$2,500 in cash and prizes!

As in previous years, teachers may nominate an outstanding student who has gone above and beyond to protect the environment and/or water resources.

New this year, teachers may come up with a class project that they would like to receive funding for and submit a Project Proposal Application.

For more information about this award, please visit the website at [www.sd1.org/education/award.asp](http://www.sd1.org/education/award.asp).



**SD1**



1045 Eaton Drive • Fort Wright, KY 41017  
phone: 859/578-7450

**Hours of Operation:**  
Monday-Friday, 8 am - 4:30 pm

## Stop the Clog, Say NO to FOG

FOG refers to fats, oils and grease from food preparation and kitchen clean up. When FOG enters the sewer system (as a result of being poured down a drain) it will begin to stick to and build up on the insides of the sewer lines. Over time, the FOG buildup can block the entire line. A partial or total blockage of a pipe can cause floor drains, sinks and dishwashers to back up or not work properly.



Buildup in pipes can also cause significant problems in the sanitary sewer system and at wastewater treatment plants.

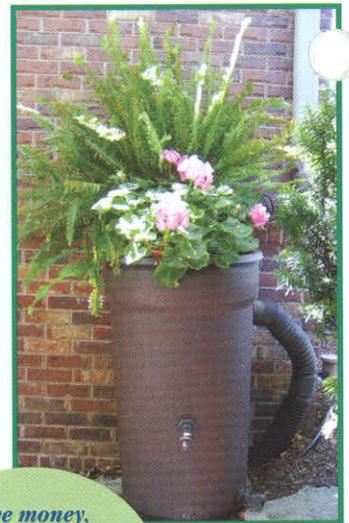
For more information on what you can do to help prevent the buildup of FOG, visit [www.sd1.org](http://www.sd1.org).

## Be a Part of the Solution!

This spring, SD1 will be launching a pilot rain barrel program. Rain barrels collect and store rainwater from your roof for use in dry weather to give thirsty gardens, flowers and trees a drink.

Rain barrels help keep excess storm water out of the sewer system. They also help prevent rain from picking up pollution and carrying it to the nearest body of water.

During the months of February and March, SD1 customers will be able to order the "Raintainer." The "Raintainer" is a 55-gallon rain barrel that has an aesthetically pleasing appearance and includes a connection for a hose, making it possible to draw water from the barrel. The lid of the "Raintainer" can be used as



*Save money, water and energy and help protect local waterways by ordering a "Raintainer" this spring.*

a self-watering planter. It can also be easily removed, making cleaning the inside of the barrel simple.

For more information please call the Storm Water Hotline at 859/578-6745 or visit [www.sd1.org](http://www.sd1.org).

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## New Billing Procedure for Residential Customers

### Procedure Begins 2009

Starting July 1, 2009, Sanitation District No. 1 (the District) will base all residential sanitation bills on the highest water consumption during the winter months. The term “winter months” will be determined by when the customer’s local water district reads their main water meter (typically covering the months from October through April). Water consumption during these months is usually less than water consumption during the summer months because summer usage generally includes watering lawns or washing cars, which typically does not flow into the sewer system. The customer’s sanitary sewer bill will be based on this usage for the next four quarters. The following winter their water meters

will be read again to determine their new usage for the upcoming year.

This winter usage billing method will provide customers with a consistent, level billing that will allow them to budget more precisely for their quarterly sanitation bill. It also ensures that customers will be fairly billed for the amount of water used in their homes.

After 2008, the District will no longer offer the special meter program. The last refund for the program will be issued in January 2009. Since the billing will be based on the winter water usage for all residential customers, outside watering and filling swimming pools during the summer will no longer need to be metered separately. The new billing method encompasses the benefits



*Beginning July 2009, Sanitation District No. 1 will change the way all residential customers are billed.*

of the special meter program, but eliminates the need for the actual meter.

Commercial/industrial users will continue to be billed based on their

water consumption for each quarter.

For more information, please visit [www.sd1.org](http://www.sd1.org).

## Three Steps to Cleaner Water: *Detection, Investigation, Elimination*

Sanitation District No. 1 (the District) is committed to making our rivers, lakes and streams cleaner and safer for all residents. One way to accomplish this is to detect, investigate and eliminate contaminated discharges.

### Detection

In the event that you notice liquid flowing from pipes during dry

weather, foam appearing in streams, lakes and other bodies of water, discolored water or unusual smells, please call the District’s Storm Water Hotline at 859/578-6745, and follow the instructions to report a storm water quality issue.

### Investigation

Once a possible contaminated discharge has been reported to the

District, crews will perform inspections to determine the exact location of the source.

### Elimination

Once the responsible party has been notified and the connection/discharge has been properly eliminated, the District will perform a follow-up inspection.



*A contaminated discharge is “any discharge to a municipal separate storm sewer system that is not composed entirely of storm water.”*

## Sewage Back-Up Insurance

Did you know that if sewage backs up into your home, insurance does not generally cover the resulting damage and clean-up costs? In most instances, if a back-up occurs, the homeowner is responsible for repair, clean-up and replacement costs, including arranging for such

repairs and clean-up. Most insurance companies offer optional back-up coverage on homeowner’s policies to protect your home from a potential back-up. Please contact your insurance agent for coverage premiums and deductibles.

### Sanitation District No. 1

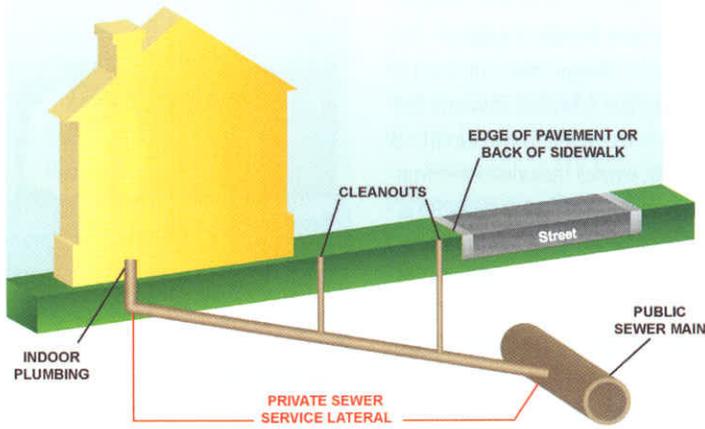


1045 Eaton Drive • Fort Wright, KY 41017  
phone: 859/578-7450

**Hours of Operation:**  
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# Maintaining Your Sewer Service Lateral



**Homeowners are responsible for maintaining the sewer service lateral(s) on their property.**

Sewer service laterals are sewer pipes that connect a building's plumbing to the public sewer system. Homeowners are responsible for maintaining the sewer service lateral(s) on their property. Broken laterals can allow tree roots or debris into the pipe, which may cause blockages, building backups or overflows in the environment. Ways you can maintain your sewer service lateral include:

- Remove any prohibited storm water connections.
- Clear any roots or blockages in the lateral all the way to the connection with the sewer main.
- Know where your cleanout is for quick access to clear blockages or stop backups.
- Install a two-way cleanout at your property line, if you don't already have one.
- Keep your cleanout cap on and in good shape. This keeps out rain and debris that can cause blockages, backups or overflows.

## Sewage Back-Up Insurance

Did you know that if sewage backs up into your home, insurance does not generally cover the resulting damage and clean-up costs? In most instances, if a back-up occurs, the homeowner is responsible for repair, clean-up and replacement costs, including ar-

ranging for such repairs and clean-up. Most insurance companies offer optional back-up coverage on homeowner's policies to protect your home from a potential back-up. Please contact your insurance agent for coverage premiums and deductibles.

# Not Down My Drain!

Did you know that what you flush or pour down your drain can affect local waterways and the environment? Protect Northern Kentucky's watersheds by:

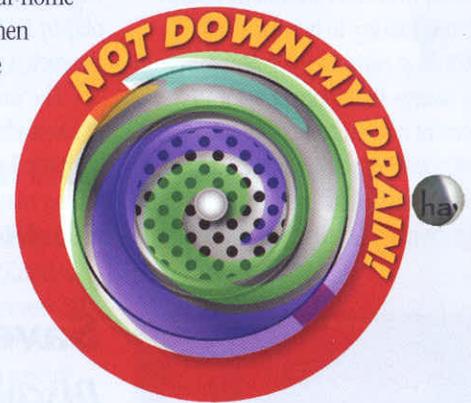
- Disposing of household grease (meat fats, lard, cooking oil, shortening, butter and margarine, etc.), diapers, condoms and personal hygiene products in the garbage can.

When flushed or washed down the drain, these materials can clog pipes and cause raw sewage to overflow into your home or yard. In addition, when high flows occur in the sewer system during periods of rainfall or snowmelt, these materials can mix with sewage and be discharged directly into basements, public areas or local rivers and streams.

- Properly disposing household products such as cleansers, beauty products, medicine, auto fluids, used motor oil, paint, and lawn care

products at your local household hazardous waste facility. For more information, please call the local Household Hazardous Waste Hotline at 859/341-4151.

Wastewater treatment plants are designed to treat organic materials, not hazardous chemicals. When flushed or washed down the drain, these hazardous chemicals can diminish the effectiveness of the treatment process, and might allow contaminants to be discharged into local waterways.



**Protect Northern Kentucky's watersheds by properly disposing of household waste materials.**

## Sanitation District No. 1



1045 Eaton Drive • Fort Wright, KY 41017  
phone: 859/578-7450

**Hours of Operation:**  
Monday-Friday, 8 am-4:30 pm

PG. 3  
PG. 7

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▲ Without new investments in wastewater and storm water infrastructure our assets become liabilities.



# THE COST OF CLEAN

An SD1 Update



▲ Support investments that improve our clean water infrastructure.

## NEWSLINE

### Sewer Overflows: Significant Source of Pollution in Local Waterways

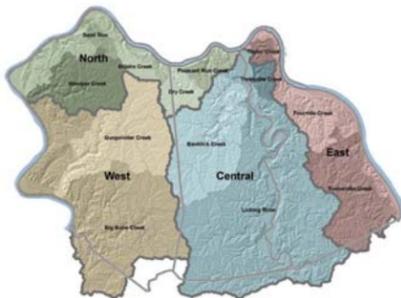
Overflows occur when storm water overloads aging sewer systems. In Northern Kentucky, there are more than 200 overflow locations that release approximately 2 billion gallons of untreated wastewater mixed with storm water into local streams, creeks and rivers every year.



Combined sewer overflow in the city of Dayton.

### Watershed-based Consent Decree First in Nation

SD1's Consent Decree is the first settlement in the nation to use an innovative watershed approach to address sewer overflows. Watershed Plans are being developed to identify the most cost-effective and comprehensive solutions that will address overflows and infrastructure needs across the three-county area and protect our quality of life.

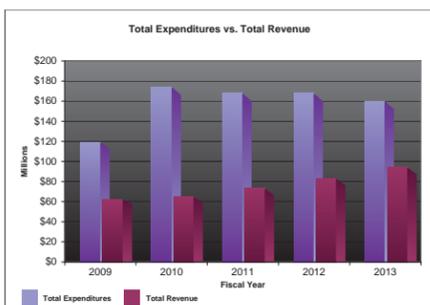


SD1 is studying 16 watersheds in Northern Kentucky. For more information on the condition of these watersheds, visit [www.sd1.org](http://www.sd1.org).

### SD1 Takes Advantage of SRF Program

SD1 has utilized the State Revolving Fund Program (SRF) to help finance the construction of both the Eastern Regional and Western Regional Water Reclamation Facilities, saving ratepayers over \$70 million in interest expenses.

## SD1 SNAPSHOT



Revenue generated from SD1's rates and fees does not cover annual expenditures including operation and maintenance costs, capital improvement expenses and debt services. SD1 has issued \$270 million in debt to help address shortfalls associated with infrastructure needs and anticipates borrowing more than \$100 million over the next two years.



Sewer improvement in Boone County. Significant infrastructure investments are needed to protect our community and help keep pace with environmental challenges.

## Investing in Wastewater Infrastructure

Just as we invest in maintaining our homes, we need to invest in wastewater and storm water infrastructure improvements to protect public health both today and in the future.

Northern Kentucky's sewer system is aging and deteriorating. In many areas, our sewers are more than 50 years old and portions of the collection system are simply not big enough to handle increasing capacity demands.

When it rains, storm water can overload these antiquated sewer systems causing a mixture of wastewater and storm water to spill into creeks, streams and rivers that our residents rely on for recreation and aesthetics.

In 2007, SD1 negotiated a legal settlement to address U.S. Environmental Protection Agency (EPA) regulations. This settlement, known as a Consent Decree, focuses on reducing sewage overflows and pollution in local waterways.

Over the next five years, SD1 anticipates investing more than \$400 million to:

- Reduce sewer overflows and meet Consent Decree and U.S. EPA Clean Water Act requirements
- Rehabilitate the existing wastewater and storm water collection systems
- Reduce the burden on our 30-year-old treatment plant

These infrastructure improvements are necessary – not only to improve efficiency, but also to protect our community's quality of life.

## The Benefits of Clean Water

### Public Health and Environmental Benefits

It is well documented that wastewater treatment plants prevent billions of tons of pollutants from reaching America's rivers, lakes and coastlines each year. In doing so, they help prevent water-borne disease; make our waters safe for fishing and swimming; and preserve our natural treasures such as the Ohio River.



Water and wastewater infrastructure delivers health and prosperity and supports our quality of life.

### Economic Benefits

Every day, Americans rely on clean water for recreation, commercial fishing and a wide range of industrial activity.

These economic activities generate billions of dollars in income every year, none of which would be possible without the clean water resource base on which they rely. Adequate water supplies and capacity to safely manage wastewater are both key to industrial production, public safety and the general welfare of communities. The very existence of clean natural ecosystems increases the economic value

of adjacent lands and nearby development, which in turn stimulates additional investments, enhances local tax bases and creates jobs.

## The Funding Gap

Our nation's wastewater infrastructure faces serious long-term funding challenges. A combination of aging infrastructure, expectations of higher quality service, a growing population and increasingly expensive federal mandates have forced local governments to borrow heavily to meet current needs.

The problem is that state and federal financial assistance is decreasing just as needs are increasing. Congress continues to slash the Federal Clean Water State Revolving Fund Program (SRF), which is vital to provide matching low-interest loans and grants to help communities replace decaying sewer lines and treatment plants. Federal funding for clean water has declined over 70 percent since 1980.

The Congressional Budget Office estimates that for the years 2000 to 2019, annual costs for wastewater infrastructure investment will average between \$13 billion and \$20 billion.



Sanitary sewer overflow in the city of Lakeside Park. Increased investments in water and wastewater infrastructure is critical to protect our communities today and in the future.

Due to the lack of available federal funding, increasing infrastructure needs and unfunded federal mandates, SD1's Board of Directors and the Judges Executive of Boone, Campbell and Kenton counties have recently approved 15 percent rate and fee adjustments for the next two years. This means that the average residential customer will pay approximately \$31 a month beginning this spring and \$36 a month beginning spring 2010.

SD1 is funded by the rates and fees paid by our customers. We do not receive tax money or appropriations to pay for operation, maintenance or capital improvement costs.

The impact of the Consent Decree will be evaluated on a regular basis to determine when additional debt needs to be issued and to evaluate future rate and fee adjustments necessary to ensure water quality advancements are made in this region.

We will continue to look for ways to minimize costs and streamline our operations and we will also be persistent in seeking state and federal funding to help minimize the impact on our customers.



## **APPENDIX C:**

### ***Compliance Program FY 2009 Violations Summary Report***

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Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **002-07**

**Southern Graphic Systems, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
pH violation - The pH at your facility fell below the SD1 limit of 5.0. See attached graph and also refer to SD1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment	NC-P	04/06/09	W	15-Apr-09	Written Notice of Violation (NOV)	\$0.00

Permit: **011-07**

**Mazak Corporation**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
They drained the last stage of the washer due to chemical imbalance. The workers sent an email to Feldman but he was on vacation so SD1 was not notified in advance of the discharge. Issued a verbal NOV. He will make sure that SD1 is also on the notification list for future discharges.	NC-O	09/05/08	V	12-Sep-08	Verbal Warning for not notifying SD1 of a discharge in advance.	\$0.00

Permit: **014-07**

**Camco Chemical Co. Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **014-07**

**Camco Chemical Co. Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Gave verbal NOV on quick pH spikes in recent pH testing by SD1 in March 9th thru March 13, 2009 sampling. We discussed whether the spikes could be from toilet bowl cleaner, lab sink discharge, or sinks that someone may have poured something down the sink (intentionally or unintentionally). Water softener can have low pH of 5.5. They have put signs up at the sinks to not put things down the drain. The lab puts chem. waste into a bucket for pretreatment. Have assembled a team to immediately investigate source of pH excursion when the pH alarm sounded. They did fire an employee that may have been deliberately putting stuff down the drain to sabotage.	NC-P	03/24/09	V	24-Mar-09	Gave verbal NOV on quick pH spikes in recent pH testing by SD1 in March 9th thru March 13, 2009 sampling. We discussed whether the spikes could be from toilet bowl cleaner, lab sink discharge, or sinks that someone may have poured something down the sink (intentionally or unintentionally). Water softener can have low pH of 5.5. They have put signs up at the sinks to not put things down the drain. The lab puts chem. waste into a bucket for pretreatment. Have assembled a team to immediately investigate source of pH excursion when the pH alarm sounded. They did fire an employee that may have been deliberately putting stuff down the drain to sabotage.	\$0.00

Permit: **015-07**

**Crane Composites/Florence, KY Facility**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Event not completed on time Non-Compliance	NC-E	11/20/08	W	20-Nov-08	Written Notice of Violation (NOV)	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **019-07**

**Blue Grass Quality Meats**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Other Type of Non-Compliance-High amounts of fatty material discharged to sewer system causing a nuisance to the sanitary sewer system and accumulating on the pH probes. The fatty material on the pH probes results in lower than actual pH readings.	NC-O	06/01/09	W	12-Jun-09	Written Notice of Violation (NOV)	\$0.00
Violation for Grease & Oil(Hydrocarbons)=72.0	NC-P	06/30/09	V	30-Jun-09	Verbal Warning	\$0.00

Permit: **021-07**

**Louis Trauth Dairy, LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
The pH of your wastewater on 10/27/08 at 4:22 AM was above the 11.0 pH limit for 31 minutes. And above the 10.0 limit at 5:52 PM for 1 hour and 6 minutes. On 10/28/08 at 8:25 AM the pH fell below the 6.0 limit for 1 hour and 20 minutes and at 9:46 AM below 6.0 for 1 hour and 10 minutes. On 10/29/08 the pH was below the 6.0 limit at 9:17AM for 1 hour and 34 minutes (this was during the mixer repair period).	NC-P	10/27/08	W	19-Nov-08	Written Notice of Violation (NOV)	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **021-07**

**Louis Trauth Dairy, LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
The pH at your facility fell below the SD1 limit of 5.0. See attached graph and also refer to SD1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant.	NC-P	06/19/09	W WF	19-Jun-09 07-Aug-09	Written Notice of Violation (NOV) Written Notice of Violation (NOV) and	\$0.00 \$500.00

Permit: **034-07**

**LOreal USA Products, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Other Type of Non-Compliance Foam in retain samples	NC-O	12/11/08	V	23-Dec-08	Verbal Warning	\$0.00

Permit: **036-07**

**AmeriPride Linen & Apparel Services**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-compliance parameter violation pH violation The pH went above 10.0 for 1 hour 21 min.	NC-P	08/19/08	V	17-Sep-08	Verbal Warning	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **036-07**

**AmeriPride Linen & Apparel Services**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Oil & Grease, Hydrocarbons TRC Non-Compliance. Daily Limit was exceeded. The Concentration Result was 117 mg/L while the Concentration Daily Limit was 50 mg/L. The Violation occurred for Sample 'AB25972' on the Sample Date of '3/9/2009 9:00:00 AM' and for Monitoring Point 'MH 103-50'.	NC-P	03/09/09	W	07-Apr-09	Written Notice of Violation (NOV) G&O Hydrocarbon of 117 mg/L.	\$0.00

Non-compliance parameter violation Oil & Grease, Hydrocarbons Daily Limit was exceeded. The Result was 57.9 mg/L while the Daily Limit was 50 mg/L. The Violation occurred for Sample 'Self Monitoring' on the Sample Date of '4/10/2009' and for Monitoring Point	NC-P	04/10/09	W	11-May-09	Written Notice of Violation (NOV)	\$0.00
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Permit: **037-07**

**Aristech Acrylics LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
They had 2 quick spikes below 5.0. One on 11-3-08 @ 9:40 PM and one on 11-7-08 @ 12:20 AM. Found their pH probe was malfunctioning.	NC-P	11/03/08	V	05-Nov-08	Verbal Warning on the 2 quick spikes below 5.0 during the sampling in November 3 to the 7th. Found their pH monitoring system probe was	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **037-07**

**Aristech Acrylics LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-compliance parameter violation Low pH for 15 minutes due to deionized water overflow/discharge.	NC-P	01/12/09	V	15-Jan-09	Issued Verbal Warning-NOV for low pH.	
Non-compliance parameter violation- pH violation. The pH was outside of SD1 limits. The pH was recorded at levels below 5 and above 12.	NC-P	05/31/09	W	11-Jun-09	Written Notice of Violation (NOV)	\$0.00

Permit: **047-07**

**ZF Sachs Automotive of America**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-Compliance Reporting Violation - Late response to 2nd quarter self- monitoring report - Receipt of report was required by 7/20/2008	NC-R	07/30/08	V	30-Jul-08	Verbal Warning	\$0.00

Permit: **049-07**

**Bavarian Trucking Company**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **049-07**

**Bavarian Trucking Company**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Received 1st-half semi-annual monitoring report after due date.	NC-R	07/21/08	V	07-Aug-08	Verbal Warning	\$0.00

Permit: **050-07**

**Highway Transport Chemical, LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **050-07**

**Highway Transport Chemical, LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
<p>The existing pH monitoring &amp; pretreatment system is not operating properly. This problem was discussed during the meeting between SD1 and Highway Transport Chemical on January 23, 2008 and the problem has not been addressed. The pretreatment system's first pH probe doesn't read 4.0 when put into 4.0 buffer. The operator has to compensate the set points higher or lower in order to start adding acid or caustic sooner, in hope that the final pH will be in compliance. This problem makes it difficult for the pretreatment operator to maintain compliance. SD1's Rules &amp; Regulations states in Article 5, under Pretreatment Operations And Records, that your wastewater pretreatment system must be maintained continuously in satisfactory and effective operation and records must be kept. This problem can easily be remedied by having a professional company perform a system analysis to locate the</p>	NC-O	12/03/08	W	11-Dec-08	Written Notice of Violation The existing pH monitoring & pretreatment system is not operating properly. This problem was discussed during the meeting between SD1 and Highway Transport Chemical on January 23, 2008 and the problem has not been addressed. The pretreatment system's first pH probe doesn't read 4.0 when put into 4.0 buffer. The operator has to compensate the set points higher or lower in order to start adding acid or caustic sooner, in hope that the final pH will be in compliance. This problem makes it difficult for the pretreatment operator to maintain compliance. SD1's Rules & Regulations states in Article 5, under Pretreatment Operations And Records, that your wastewater pretreatment system must be maintained continuously in satisfactory and effective operation and records must be kept. This problem can easily be remedied by having a professional company perform a system analysis to locate the electronic	\$0.00
<p>Other Type of Non-Compliance Foam in the retain samples after shake test.</p>	NC-O	12/11/08	V	23-Dec-08	Verbal Warning	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **054-07**

**Perfetti Van Melle USA**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
The pH fell outside the Districts limits of 5.0 to 11.0. The pH violations were recorded below 5.0, as well as, periods of time greater than one hour between 5.0 and 6.0, which are a violation of our Rules and Regulations. (see attached graph and also refer to the Sanitation District No. 1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant).	NC-P	07/31/08	WF	31-Jul-08	Written Notice of Violation (NOV) and	\$500.00
The pH fell outside the Districts limits of 6.0 to 10.0. The pH violations were recorded below 5.0, as well as, periods of greater than one hour between 5 and 6, which are a violation our Rules and Regulations. (see attached graph and also refer to the Sanitation District No. 1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant).	NC-P	09/12/08	WF	03-Oct-08	Written Notice of Violation (NOV) and	\$1,000.
The pH fell outside the Districts limits of 6.0 to 10.0. The pH violations were recorded below 5.0, as well as, periods of greater than one hour between 5 and 6, which are a violation our Rules and Regulations. (see attached graph and also refer to the Sanitation District No. 1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant).	NC-P	12/02/08	WF	02-Dec-08	Written Notice of Violation (NOV) and	\$1,000.

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **054-07**

**Perfetti Van Melle USA**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Permit: **057-07**

**Mubea Inc. (Industrial Rd)**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
The Violation occurred on 9/3/2008 due to the Zinc, total TRC Daily Limit was exceeded. The Result was 6.67 mg/L while the Daily Maximum Limit was 2.61 mg/L.	NC-P	09/03/08	WF	14-Nov-08	Written Notice of Violation (NOV) and	\$1,000.

The monthly average maximum limit was also violated for September 2008. The monthly average was 1.705 mg/L and the limit was 1.48 mg/L

Permit: **060-07**

**Givaudan Flavors Corporation**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-compliance parameter violation Wastewater discharge of a 11.4 pH for about 20 min.	NC-P	12/22/08	V	23-Dec-08	Verbal Warning	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **060-07**

**Givaudan Flavors Corporation**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
pH violation The pH fell below the Sanitation District No.1 limit of 5.0 (see attached graph and also refer to the Sanitation District No. 1 Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant).	NC-P	04/09/09	WF	15-Apr-09	Written Notice of Violation (NOV) and	\$1,000.

Permit: **063-07**

**Ultra Environmental Services, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Zinc, total daily limit The daily limit was exceeded in a sample taken on 12/4/2008. The result was 7.205 mg/L while the daily	NC-P	12/04/08	W	09-Jan-09	Written Notice of Violation (NOV)	\$0.00
Zinc, total daily limit The daily limit was exceeded in a sample taken on 12/5/2008. The result was 4.225 mg/L while the daily	NC-P	12/05/08	W	09-Jan-09	Written Notice of Violation (NOV)	\$0.00
Zinc, total daily limit The daily limit was exceeded in a sample taken on 12/9/2008. The result was 5.695 mg/L while the daily	NC-P	12/09/08	W	09-Jan-09	Written Notice of Violation (NOV)	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **063-07**

**Ultra Environmental Services, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Zinc, total daily limit The daily limit was exceeded in a sample taken on 12/10/2008. The result was 6.280 mg/L while the daily limit is 3.5 mg/L.	NC-P	12/10/08	W	09-Jan-09	Written Notice of Violation (NOV)	\$0.00
Non-compliance parameter violation Zinc, total TRC Daily Limit was exceeded. The Result was 9.840 mg/L while the Daily Limit was 3.5 mg/L. The Violation occurred for Sample 'Self Monitoring' on the Sample Date of '12/29/2008' and for Monitoring Point 'End of Process'.	NC-P	12/29/08	WF	19-Mar-09	Written Notice of Violation (NOV) and fine.Court OrderWritten Notice of Violation (NOV) and fine.	\$500.00
Non-compliance parameter violation Zinc, total TRC Daily Limit was exceeded. The Result was 8.805 mg/L while the Daily Limit was 3.5 mg/L. The Violation occurred for Sample 'Self Monitoring' on the Sample Date of '12/30/2008' and for Monitoring Point 'End of Process'.	NC-P	12/30/08	WF	19-Mar-09	Written Notice of Violation (NOV) and fine.Court OrderWritten Notice of Violation (NOV) and fine.	\$500.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **063-07**

**Ultra Environmental Services, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Significant non-compliance parameter violation Zinc, total TRC Daily Limit was exceeded. The Result was 12.35 mg/L while the Daily Limit was 3.5 mg/L.	SNC-P	12/31/08	P	23-Mar-09	Public Notice for SNC for Zn in 7/1/08 thru 12/31/08. Put in KY Enquirer 3/27/09.	
'Self Monitoring' on 12/31/2008			WF	19-Mar-09	Written Notice of Violation (NOV) and fine.Court OrderWritten Notice of Violation (NOV) and fine.	\$500.00
Lead, total The daily limit was exceeded in a sample taken on 4/18/2009. The result was 1.7 mg/L while the daily limit is 0.222 mg/L. This result is above the Technical Review Criteria	NC-P	04/18/09	WF	29-Jul-09	Written Notice of Violation (NOV) and	\$500.00
Lead, total Monthly Limit The monthly average limit was exceeded for the month of April 2009. The monthly average limit was .48155 mg/L while the monthly average limit is 0.172 mg/L. This monthly average limit is above the	NC-P	04/30/09	WF	29-Jul-09	Written Notice of Violation (NOV) and	\$500.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **063-07**

**Ultra Environmental Services, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Lead, total Monthly Average TRC Significant Non-Compliance (SNC) The monthly average limit for the 6 month rolling quarter of January 1, 2009 through June 30, 2009 exceeded the TRC Limit. Ultra Environmental Services, Inc. had three months of samples and one month exceeded the allowed TRC limit of 33%.	SNC-P	06/30/09	WF	29-Jul-09	Written Notice of Violation (NOV) and	\$500.00

Permit: **064-07**

**Wild Flavors, Inc.**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
The pH fell outside the Sanitation District No. 1's (SD1) limits of 6.0 to 10.0. The pH of your wastewater discharge on 3/17/09 through 3/18/09 was found to be above 11 for periods of greater than 15 minutes based on your pH and flow records. This is a violation of our time frame limits. (refer to the District's Rules and Regulations on pH for the Dry Creek Wastewater Treatment Plant).	NC-P	03/17/09	V	31-Mar-09	Verbal Warning	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **069-07**

**Skilcraft LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Zinc, total The Zinc daily limit was exceeded in a sample taken on 5/4/2009. The result was 2.94 mg/L while the daily limit is 2.61 mg/L.	NC-P	05/04/09	W	27-Jul-09	Written Notice of Violation (NOV)	\$0.00
Zinc, total The Zinc daily limit was exceeded in a sample taken on 5/6/2009. The result was 3.23 mg/L while the daily limit is 2.61 mg/L.	NC-P	05/06/09	W	27-Jul-09	Written Notice of Violation (NOV)	\$0.00
Zinc, total Monthly Limit The Zinc monthly average limit was exceeded for the month of May 2009. The monthly result was 1.75 mg/L while the monthly average limit is 1.48	NC-P	05/31/09	W	27-Jul-09	Written Notice of Violation (NOV)	\$0.00

Permit: **078-07**

**ImmuDyne Inc. (Florence Kentucky Facility)**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-compliance parameter violation-pH	NC-P	06/30/09	W	30-Jun-09	Written Notice of Violation (NOV)-pH Violation	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **078-07**

**ImmuDyne Inc. (Florence Kentucky Facility)**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Permit: **083-07**

**Club Chef LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Your facility is in violation of Sanitation District No. 1 (SD1) Rules & Regulations. An inspection of your facility by SD1 on November 13, 2008 found that your facility's pH wastewater pretreatment system was inoperable and had been that way for a period of time. The Industrial Wastewater Discharge Permit for your facility states that if your wastewater pretreatment system malfunctions or must be shut down, then you must follow the steps in the "Notice of Pretreatment Bypassing" section of the permit. These steps were not followed, SD1 was not notified or consulted, and no rudimentary form of wastewater pH pretreatment was setup to attempt to neutralize the high & low pHs being discharged to the	NC-P	11/14/08	WF	14-Nov-08	Written Notice of Violation (NOV) and	\$1,000.

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **083-07**

**Club Chef LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
During an inspection 11-13-08, we found that the pH pretreatment system record had been inoperable for at least a month. We also found that the tank for the chemical used to pretreat pH had been empty for a week period. The SD1 was not notified about the pH recorder status and a procedure or an alarm should be in place to alert you that the chemical is getting low.	NC-O	11/20/08	W	20-Nov-08	Written Notice of Violation (NOV) For not notifying SD1 that the pH recorder was inoperable for an extended period of time and allowing the pH pretreatment chemical to run empty for at least a week period.	\$0.00
On 5/15/2009, sanitary sewage had a backed up into the building next to Club Chef. The cause was found to be a blockage in the main sewer line, caused by a large amount of lettuce coming from Club Chef.	NC-O	05/15/09	W	19-May-09	Written Notice of Violation and Cost Recovery	\$0.00
On 6-16-09 the PH fell to 2.9 for a few minutes then went to 11.7 for a few minutes. This was due to the wastewater pretreatment system pipe break. They then tried to control the pH by hand which overshot the pH by adding caustic. The pipe 90 degree bend was replaced with a 45 degree bend to solve the problem, this was done immediately. Only a verbal NOV was issued. Only a verbal NOV was issued.	NC-P	06/16/09	V	16-Jun-09	On 6-16-09 the pH fell to 2.9 for a few minutes then went to 11.7 for a few minutes. This was due to the wastewater pretreatment system pipe break. They then tried to control the pH by hand which overshot the pH by adding caustic. The pipe 90 degree bend was replaced with a 45 degree bend to solve the problem, this was done immediately.	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **083-07**

**Club Chef LLC**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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Permit: **085-07**

**Mubea Inc. (8224 Dixie HWY)**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Zinc, total daily limit The daily limit was exceeded in a self monitoring sample taken on 7/9/2008. The result was 14.2 mg/L while the daily limit is 2.61 mg/L.	NC-P	07/09/08	W	21-Aug-08	Written Notice of Violation (NOV)	\$0.00

Zinc, total monthly average The monthly average limit was exceeded for the month of July 2008. The monthly average result was 3.95 mg/L while the monthly average limit	NC-P	07/31/08	W	21-Aug-08	Written Notice of Violation (NOV)	\$0.00
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Nickel, total daily limit The daily limit was exceeded in a self monitoring sample taken on 9/4/2008. The result was 6.42 mg/L while the daily limit is 3.98 mg/L.	NC-P	09/04/08	WF	15-Oct-08	Written Notice of Violation (NOV) and	\$500.00
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Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **085-07**

**Mubea Inc. (8224 Dixie HWY)**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Nickel, total daily limit The daily limit was exceeded in a self monitoring sample taken on 10/10/2008. The result was 4.32mg/L while the daily limit is 3.98 mg/L.	NC-P	10/10/08	WF	03-Nov-08	Written Notice of Violation (NOV) and	\$1,000.

Permit: **087-07**

**M C Technology**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-compliance parameter violation A Sample Event violation occurred on 5/21/2009 3:30:00 PM Sample Event Type: ASAMP - M C Technology Sample Name: AB30253 Monitoring Point: End of Pretreatment Process Event Due Date: 5/21/2009 3:30:00 PM Event Complete Date: 5/21/2009 3:30:00 PM  Copper was 7.16, limit is 5.0 mg/L Cyanide -Total was 4.454mg/L, limit is 3.5 mg/L	NC-P	05/21/09	W	17-Jun-09	Grab sample of your pretreated effluent on 5/21/2009 showed a copper concentration of 7.16 mg/L and the limit for copper is 5.0 mg/L.  The sample also had a Cyanide -Total concentration of 4.54 mg/L and the	\$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits    **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **090-08**

**Augur Metal Products**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Non-Compliance Reporting Violation	NC-R	01/20/09	V	20-Jan-09	Verbal Warning	\$0.00
Late submittal of 2008 4th Qtr Self-						
During the SNC determination period of October 1, 2008 through March 31, 2009, the sampling of zinc performed on your wastewater pretreatment discharge showed 33.33% of the samples taken were in violation of the Monthly Zinc Technical Review Criteria (TRC) Maximum Limit. The SNC Monthly TRC limit for a six month reporting period is less than 33%.	SNC-P	04/14/09	WF P	14-Apr-09 24-Apr-09	Written Notice of Violation (NOV) and Publish in local newspaper	\$500.00 \$0.00

Sanitation District # 1  
 Industrial Pretreatment Program  
 Violations Summary Report

All Permits    **Filter Criteria:**  
 Non Comp Date IS Greater than 06/30/2008 AND  
 Non Comp Date IS Less than 07/01/2009

Permit: **090-08**

**Augur Metal Products**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
Sanitation District No. 1 (SD1) is issuing a Notice of Violation to Augur Metal Products, Inc. for Zinc parameter violations occurring within the wastewater pretreatment system.	NC-P	04/15/09	W	15-Apr-09	Written Notice of Violation (NOV)	\$0.00

Date Occurred:3/18/2009  
 Violation Description: The Zinc result was 3.21 mg/L, the daily limit is 2.61 mg/L.

Date Occurred:3/19/2009  
 Violation Description: The Zinc result was 2.82 mg/L, the daily limit is 2.61 mg/L.

Date Occurred:3/2009  
 Violation Description: The Zinc monthly average result was 1.91 mg/L, the monthly average limit is 1.48

Only did one day of Cyanide sampling during the 2nd quarter.	NC-E	06/30/09	V	02-Jul-09	Verbal Warning	\$0.00
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Zinc, total Monthly Average TRC SNC	SNC-P	06/30/09	W	30-Jul-09	Written Notice of Violation (NOV)	\$0.00
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The monthly average limit for the 6 month rolling quarter of January 1, 2009 through June 30, 2009 exceeded

Sanitation District # 1  
Industrial Pretreatment Program  
Violations Summary Report

All Permits    **Filter Criteria:**  
Non Comp Date IS Greater than 06/30/2008 AND  
Non Comp Date IS Less than 07/01/2009

Permit: **090-08**

**Augur Metal Products**

Violation Description	Violation Type	Date of NC	Enforcement Type	Date of Enforcement	Enforcement	Penalty
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**APPENDIX D:**  
**Industrial Waste Questionnaire/Permit Application**

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# Check List for New Industrial/Commercial/ Food Service Establishments

Date: \_\_\_\_\_

Contact Name: \_\_\_\_\_

Phone Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

Type of Establishment: \_\_\_\_\_

Literature Given Out (circle packet given):    FOG Packet            Industrial Packet

\_\_\_\_\_

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**Which Planning & Zoning, City, or Entity is sending this Check List to SD1:** \_\_\_\_\_

**Forward this Check List to the:  
Industrial Monitoring Department  
Sanitation District No. 1  
2999 Amsterdam Road  
Villa Hills, KY 41017  
Fax: 859-331-9163**

# **SANITATION DISTRICT NO. 1**

## **Industrial/ Commercial/Food Services Establishments**

### **Contact Sheet**

**Please contact the Industrial Monitoring Department if you have any questions or concerns:**

**(859) 547-1109, 1113, or 1115.**

**Sanitation District No. 1 Web site: [www.sd1.org](http://www.sd1.org)  
Sanitary Rules & Regulations**

**Mail questionnaires and any correspondences to:**

**Industrial Monitoring Department  
Sanitation District No. 1  
2999 Amsterdam Road  
Villa Hills, KY 41017**

**Fax: 859-331-9163**

## Sanitation District No. 1 Industrial Waste Questionnaire/Permit Application

Dear Customer:

The Sanitation District No.1 (SD1) Industrial Monitoring Department requires companies to complete a questionnaire to help us understand the processes performed, types of chemicals stored & used on site, waste disposal, etc. With this information, SD1 can better assist your company and make sure you are meeting all of our requirements on a local level and on the State and Federal EPA levels. This questionnaire can also serve as a permit application if required.

Please complete the enclosed questionnaire. Use estimates when necessary. Use "not applicable" if a section doesn't pertain to you. **The questionnaire must be completed and received by the SD1 within 2 weeks of receipt of this letter.** If you have any questions, please contact the Industrial Monitoring Department at (859) 547-1109, 1113, or 1115. Send the questionnaire to the SD1 per the Contact Sheet.

Sincerely,



Sarah Griffith  
Environmental Manager

Enclosures: Industrial Waste Questionnaire/Permit Application

**SANITATION DISTRICT NO. 1**

**INDUSTRIAL WASTE QUESTIONNAIRE/PERMIT APPLICATION**

**GENERAL INFORMATION**

Company Name: \_\_\_\_\_

Mailing Address: \_\_\_\_\_  
\_\_\_\_\_

Address of Premises: \_\_\_\_\_  
\_\_\_\_\_

Account Number:  
(Sanitation District) \_\_\_\_\_

**CONTACT OFFICIAL**

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

FAX Number: \_\_\_\_\_

E-Mail Address: \_\_\_\_\_

The information contained in this questionnaire (pages 1 through 8) is familiar to me and to the best of my knowledge and belief, such information is true, complete and accurate.

DATE: \_\_\_\_\_

\_\_\_\_\_

SIGNATURE

\_\_\_\_\_  
NAME AND TITLE OF SIGNING OFFICIAL

**PLANT OPERATIONAL CHARACTERISTICS**

1. Brief description of production, manufacturing or service activities on premises: \_\_\_\_\_  
\_\_\_\_\_
2. Indicate applicable Standard Industrial Classification Number(s) (SIC Code): \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_ and North American Industry Classification System Number(s) (NAICS Code): \_\_\_\_\_  
\_\_\_\_\_

3. Indicate below the following information for each product:

- a. Type of production, batch or continuous?
- b. If batch, the average number of batches/24 hours?
- c. The average monthly production of each product (units)?

<u>Product Name</u>	<u>Type Of Production</u>	<u>Number Of Batches/ 24 Hours</u>	<u>Average Monthly Production</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

4. Is there a scheduled shutdown? \_\_\_\_\_  
If yes, when and for what time period: \_\_\_\_\_

5. Is the production seasonal? \_\_\_\_\_  
If yes, describe seasonal production cycle: \_\_\_\_\_

6. Indicate below the beginning and ending time for each shift and show the number of employees per shift for each day of the week:

<b>Shift</b>							
<u>Operating Hours</u>	<u>Sun</u>	<u>Mon</u>	<u>Tue</u>	<u>Wed</u>	<u>Thu</u>	<u>Fri</u>	<u>Sat</u>
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____	_____

7. Are any process changes or expansions planned?\_\_\_\_\_. If so, describe these changes, completion date and their effects on the wastewater volume and characteristics:

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**WATER USAGE**

8. Indicate water sources and usage:

	<u>Usage (gallons per day)</u>	
	<u>Average</u>	<u>Maximum</u>
Municipal Water Supply		
Supplier: _____	_____	_____
Wells: _____	_____	_____
Other (list): _____	_____	_____

9. List water usage in plant:

	<u>Average Usage</u> <u>(gallons per day)</u>
Cooling Water: _____	_____
Boiler Feed: _____	_____
Process Water: _____	_____
Sanitary System: _____	_____
Contained in Product: _____	_____
Other (list): _____	_____
Total: _____	_____

10. List average volume of discharge or water loss:

	<u>Average Discharge</u> <u>(gallons per day)</u>
Wastewater Sewer: _____	_____
Natural Outlet: _____	_____
Waste Hauler: _____	_____
Evaporation: _____	_____
Contained in Product: _____	_____
Other (list): _____	_____
Total	_____

**WASTEWATER DISCHARGE AND TREATMENT**

11. Attach a detailed map of the plant site and show all production buildings and plant sewer outlets. Indicate location of any pretreatment processes.

12. List for each outlet (reference the outlet name or number to the site map), the size of the pipe and daily wastewater flows:

<b><u>Outlet Name or Number</u></b>	<b><u>Sewer Outlet Size (Inches)</u></b>	<b><u>Average Flow (gallons per day)</u></b>
_____	_____	_____
_____	_____	_____
_____	_____	_____

13. Are the wastewater discharges to sewers: \_\_\_\_\_ intermittent, \_\_\_\_\_ continuous. If intermittent, indicate reason and duration:

\_\_\_\_\_  
\_\_\_\_\_

14. Does your firm have a Federal Categorical Pretreatment Standard for your plant? \_\_\_\_\_  
If yes, what is the Code of Federal Regulation number? \_\_\_\_\_

15. Describe any wastewater pretreatment equipment and process currently in use: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

16. Are additional pretreatment facilities planned? \_\_\_\_\_. If so, indicate the additional facilities planned and indicate approximate timetable for their completion: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

17. Please attach process flow diagram for each existing or planned pretreatment system.

18. The following list of chemical compounds can be considered significant pollutants by the EPA when present in wastewater discharges.

**Please indicate, by circling the item number, all chemical compounds that are used, or contained in raw materials or manufactured products (primary or by-products) or stored on the premises.**

<u>Item No.</u>	<u>Chemical Compound</u>	<u>Item No.</u>	<u>Chemical Compound</u>
1.	Acenaphthene	41.	Bis (2-chloroisopropyl) ether
2.	Acrolein	42.	Bis (2-chloroethoxy) methane
3.	Acrylonitrile	43.	Methylene chloride (dichloromethane)
4.	Benzene	44.	Methyl chloride (chloromethane)
5.	Benzidine	45.	Methyl bromide (bromoethane)
6.	Carbon tetrachloride (tetrachloromethane)	46.	Bromoform (tribromomethane)
7.	Chlorobenzene	47.	Dichlorobromomethane
8.	1,2,4-trichlorobenzene	48.	Chlorodibromomethane
9.	Hexachlorobenzene	49.	Hexachlorobutadiene
10.	1,2-dichloroethane	50.	Hexachlorocyclopentadiene
11.	1,1,1-trichloroethane	51.	Isophorone
12.	Hexachloroethane	52.	Naphthalene
13.	1,1-dichloroethane	53.	Nitrobenzene
14.	1,1,2-trichloroethane	54.	2-nitrophenol
15.	1,1,2,2-tetrachloroethane	55.	4-nitrophenol
16.	Chloroethane	56.	2,4-dinitrophenol
17.	Bis (2-chloroethyl) ether	57.	4,6-dinitro-o-cresol
18.	2-chloroethyl vinyl ether (mixed)	58.	N-nitrosodimethylamine
19.	2-chloronaphthalene	59.	N-nitrosodiphenylamine
20.	2,4,6-trichlorophenol	60.	N-nitrosodi-n-propylamine
21.	p-chloro-m-cresol	61.	Pentachlorophenol
22.	Chloroform (trichloromethane)	62.	Phenol
23.	2-chlorophenol	63.	Bis (2-ethylhexyl) phthalate
24.	1,2-dichlorobenzene	64.	Butyl benzyl phthalate
25.	1,3-dichlorobenzene	65.	Di-n-butyl phthalate
26.	1,4-dichlorobenzene	66.	Di-n-octyl phthalate
27.	3,3-dichlorobenzidine	67.	Diethyl phthalate
28.	1,1-dichloroethylene	68.	Dimethyl phthalate
29.	1,2-trans-dichloroethylene	69.	Benzo (a) anthracene (1,2-benzanthracene)
30.	2,4-dichlorophenol	70.	Benzo (a) pyree (3,4-benzopyrene)
31.	1,4-dichloropropane	71.	3,4-benzofluoranthene
32.	1,3-dichloropropylene (1,3-dichloropropene)	72.	Benzo (k) fluoranthene (11,12-benzofluoranthene)
33.	2,4-dimethylphenol	73.	Chrysene
34.	2,4-dinitrotoluene	74.	Acenaphthylene
35.	2,6-dinitrotoluene	75.	Anthracene
36.	1,2-diphenylhydrazine	76.	Benzo (ghi) perylene (1,12-benzoperylene)
37.	Ethylbenzene		
38.	Fluoranthene		
39.	4-chlorophenyl phenyl ether		
40.	4-bromophenyl phenyl ether		

(List continued on page 6)

<u>Item No.</u>	<u>Chemical Compound</u>	<u>Item No.</u>	<u>Chemical Compound</u>
77.	Fluorene	100.	b-BHC-beta
78.	Phenanthrene	101.	g-BHC-(lindane)-gama
79.	Dibenzo (a,h) anthracene (1,2,5,6-dibenzanthracene)	102.	d-BHC-delta
80.	Indeno (1,2,3-cd) pyrene (2,3-o-phenylenepyrene)	103.	PCB-1242 (Arochlor 1242)
81.	Pyrene	104.	PCB-1254 (Arochlor 1254)
82.	Tetrachloroethylene	105.	PCB-1221 (Arochlor 1221)
83.	Toluene	106.	PCB-1232 (Arochlor 1232)
84.	Trichloroethylene	107.	PCB-1248 (Arochlor 1248)
85.	Vinyl chloride (chloroethylene)	108.	PCB-1260 (Arochlor 1260)
86.	Aldrin	109.	PCB-1016 (Arochlor 1016)
87.	Dieldrin	110.	Toxaphene
88.	Chlordane (technical mixture & metabolites)	111.	Antimony (total)
89.	4,4'-DDT	112.	Arsenic (total)
90.	4,4'-DDE (p,p - DDE)	113.	Asbestos (fibrous)
91.	4,4'-DDD (p,p - TDE)	114.	Beryllium (total)
92.	a-endosulfan-alpha	115.	Cadmium (total)
93.	b-endosulfan-beta	116.	Chromium (total)
94.	Endosulfan sulfate	117.	Copper (total)
95.	Endrin	118.	Cyanide (total)
96.	Endrin aldehyde	119.	Lead (total)
97.	Heptachlor	120.	Mercury (total)
98.	Heptachlor epoxide	121.	Nickel (total)
99.	a-BHC-alpha	122.	Selenium (total)
		123.	Silver (total)
		124.	Thallium (total)
		125.	Zinc (total)
		126.	2,3,7,8 tetrachlorodibenzo-p -dioxin (TCDD)

19. List those chemical compounds circled in question number 18 and provide the following information: Indicate how used as: **RM** = Raw Material, **CI** =Catalyst or Intermediate, **PP** = Primary Production, **BP** = By-product Proudction, **O** = Other (please explain on reverse).

<u>Item No.</u>	<u>Chemical Compound</u>	<u>How Used</u>	<u>Annual Use or Production (lbs.)</u>	<u>Discharge Concentration</u>	<u>Average Amount On Site</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

20. List chemicals and other materials (both liquid and solid) which are used or stored in bulk or present in quantities greater than 50 gallons. Do not list those already in question number 19. (Attach additional sheets if necessary.)

<u>Material</u>	<u>Quantity Used Per Year</u>	<u>Quantity Stored On Site</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

21. Does your facility have a Spill Prevention & Control Plan? \_\_\_\_\_. If yes, please attach copy.

22. If any wastewater analyses have been performed on the wastewater discharges from your facilities, attach a copy of the most recent data. Also indicate the date samples were taken, laboratory performing the analysis and location from which samples were taken.

**NON-SEWERED WASTE**

23. Are any waste liquids or sludges generated and not disposed of in the sewer system?   
If yes, indicate below the type of waste and quantity:

	<u>Quantity Per Year</u>
Solvents/Thinners	_____
Oil/Grease	_____
Pretreatment Sludge	_____
Inks/Dyes	_____
Heavy Metal Sludges	_____
Organic Compounds	_____
Paints	_____
Acids and Alkalies	_____
lating Waste	_____
Other (list): _____	_____

24. For each waste indicated in question number 23, describe the source of the waste and disposal method: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

25. Does your company practice on-site disposal of any of the waste indicated above? \_\_\_\_\_.  
If yes, please indicate the type of waste and disposal method: \_\_\_\_\_  
\_\_\_\_\_

26. If an outside firm removes any of non-sewered waste (such as in question 24), provide the following information for each waste material:

Waste Material: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Contact Person: \_\_\_\_\_

Waste Material: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Contact Person: \_\_\_\_\_

Waste Material: \_\_\_\_\_  
Name: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone Number: \_\_\_\_\_  
Contact Person: \_\_\_\_\_

27. Do any of your substances require "Resource Conservation and Recovery Act" (RCRA) permits? \_\_\_\_\_. If yes, attach a copy of your RCRA permit.

**Thank you for your effort in completing the questionnaire. If there is any other pertinent information which you feel should be brought to our attention, please use the space below.**

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## **APPENDIX E:**

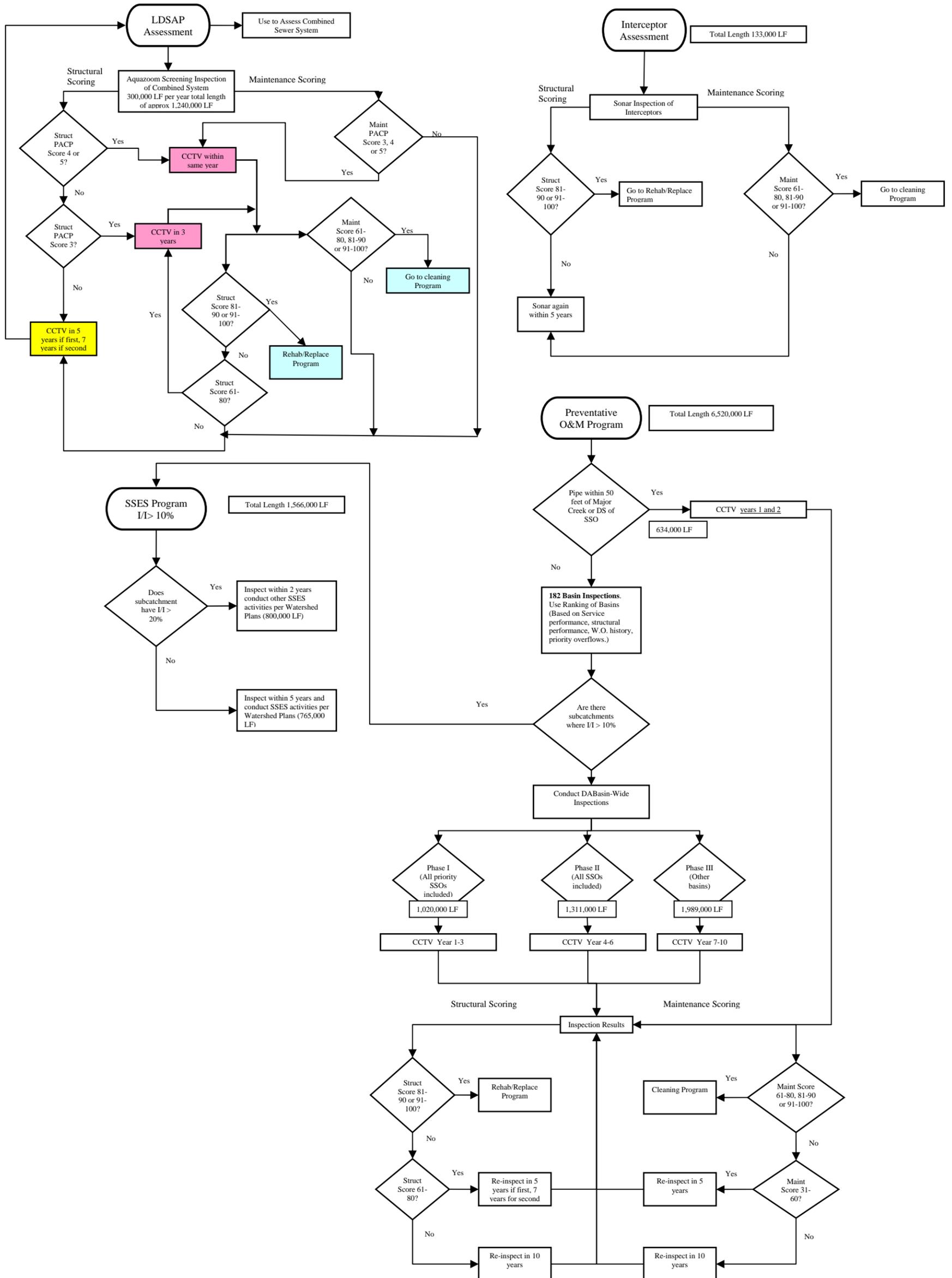
### ***Continuous Sewer Assessment Process Diagram***

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# Sanitation District No. 1 Continuous Sewer Assessment Program

## Process Diagram 10/05/09

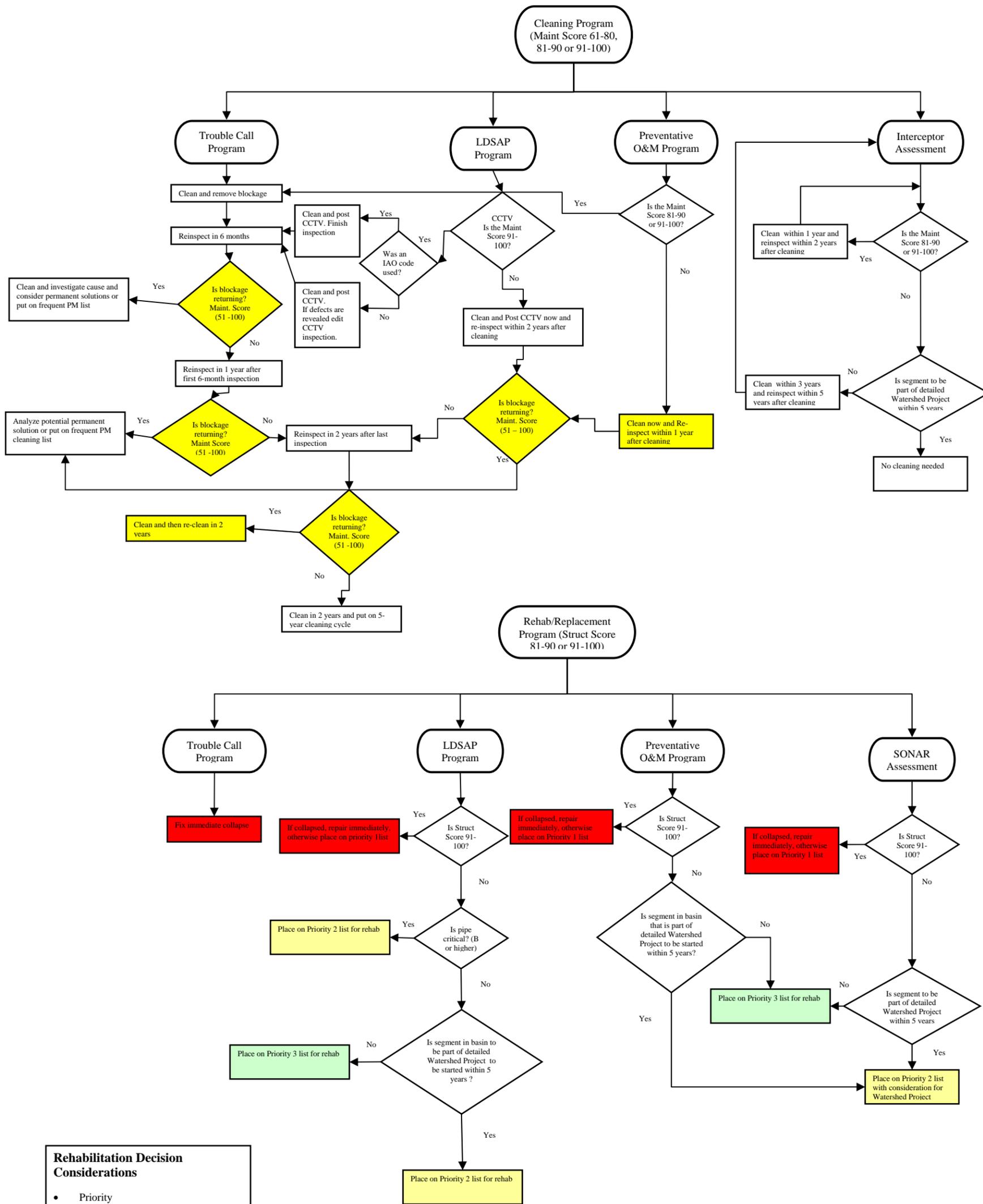
CONFIDENTIAL PRELIMINARY WORKING DRAFT WATERSHED CONSENT DECREE



# Sanitation District No. 1 Continuous Sewer Assessment Program

## Process Diagram 11/17/08

CONFIDENTIAL PRELIMINARY WORKING DRAFT WATERSHED CONSENT DECREE



- Rehabilitation Decision Considerations**
- Priority
  - Current hydraulic capacity
  - Proximity to other pipes (basin basis)
  - Watershed Planning
  - Extent of defects
  - Constructability

**APPENDIX F:**

***Sewer Lateral Repair and Illegal Connection Inspection and  
Enforcement Policy***

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# **SANITATION DISTRICT NO. 1 SEWER LATERAL REPAIR AND ILLEGAL CONNECTION INSPECTION AND ENFORCEMENT POLICY**

## **BACKGROUND**

Since the consolidation of the sanitary sewer system in 1995, the Sanitation District No. 1 (SD1) policy relating to ownership and maintenance of building sewers (also known as sewer laterals) was stated in Article 7, Section 701.1.G, of SD1's Rules and Regulations:

The owner of the premises, served by a sewer shall be responsible for all maintenance, operation, cleaning, repair and reconstruction of the building sewer from the building to the point of connection with the public sewer.

This regulation fully complies with Kentucky law. Nevertheless, the result of this regulation was that in certain instances, property owners were being required to perform excavation and repair work beneath public roadways. Accordingly, SD1 provided some assistance to property owners faced with this difficult and costly situation with subsequent revisions to Article 7, Section 701.1.G, of SD1's Rules and Regulations and sewer lateral Policy amendments made between 1995 and 2004. Article 7, Section 701.1.G, of the Rules and Regulations currently states:

The owner of the premises, served by a sewer shall be responsible for all maintenance, operation, cleaning, repair and reconstruction of the building sewer from the building to the point of connection with the public sewer unless the building sewer is located under a public roadway. If the building sewer is damaged under the paved roadway, SD1 will share in the cost repair as determined by the Board of Directors.

At the November 21, 2006 Board Meeting, the Board of Directors adopted, as an interpretation of Section 701.1.G, the following Sewer Lateral Policy:

The owner of the premises, served by a sewer shall be responsible for all maintenance, operation, cleaning, repair and reconstruction of the building sewer from the building to the point of connection with the public sewer. However, if a property owner conclusively demonstrates, in accordance with the guidelines set out in the Sewer Lateral Repair Policy, that the private sewer lateral is not functioning as a result of a structural problem occurring at a section of the private lateral located beneath the public roadway, the Sanitation District will repair the structural problem of the private lateral from the public sewer to the edge of the public roadway at no cost to the property owner.

At the March 25, 2008 and August 19, 2008 Board Meetings, the Board of Directors revised the Policy to more comprehensively address the repair and maintenance of laterals to help protect waterways by addressing illegal storm water connections into the

sanitary sewer system that can overload sanitary sewers and contribute to sanitary sewer overflows. The revised Policy applies to lateral defects and illegal connections identified by property owners and/or SD1.

On August 19, 2008, the Board of Directors adopted, as a revised interpretation of Section 701.1.G, the following Sewer Lateral Policy:

The owner of the premises served by a sewer shall be responsible for all maintenance, operation, cleaning, repair and reconstruction of the building sewer from the building to the point of connection with the public sewer. However, if a property owner conclusively demonstrates, in accordance with the guidelines set out in the Sewer Lateral Repair Policy, that the private sewer lateral is not functioning as a result of a problem occurring at a section of the private lateral located beneath the public roadway that cannot be corrected through routine sewer cleaning or similar maintenance activities, the Sanitation District will repair the problem of the private lateral from the public sewer to the edge of the public roadway at no cost to the property owner.

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## **I. Definitions**

- A. Illegal Connections:** Defined by Article 3, Sections 302.1 and 302.2, of SD1's Rules and Regulations as the direct or indirect discharge of surface water, groundwater, roof runoff, subsoil drains or subsurface drainage to the sanitary sewer system.
- B. Inflow and Infiltration (I/I):** Refers to rainwater and groundwater that enters the sanitary sewer system from a variety of sources such as defective private sewer laterals, roof downspouts, yard drains, foundation drains, stairwell drains, and sump pumps.
- C. Private Sewer Lateral:** This policy shall only apply to private laterals 6 inches in diameter and smaller.
- D. Property Owner:** Refers to both commercial and residential property owners.
- E. Public Roadway:** Defined as the public road from edge of pavement to edge of pavement, including the abutting street curb or the abutting sidewalk, if present, and excluding segments of driveways within the right-of-way.

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## **II. Lateral Problem Within Public Roadway Identified by Property Owner**

- A. Purpose:** To provide some assistance to property owners faced with the obligation to perform excavation and repair work of private laterals beneath public roadways.

**B. Applicability:** This section of the Policy only applies when SD1 has been notified by the property owner that the sewer lateral is not functioning properly and when it is conclusively demonstrated to SD1, in accordance with the provisions of this Policy, that the malfunction is a result of a problem with the private sewer lateral at a point beneath the public roadway that cannot be corrected through routine sewer cleaning or similar maintenance activities. Ownership and maintenance responsibilities shall remain with the individual property owner from the building to the public sewer, including the length of sewer lateral beneath the public roadway. SD1 may, in its sole discretion, approve projects that do not meet the above-mentioned criteria.

**C. Problem Identification:** The property owner is responsible for hiring a licensed plumber to identify the location of the lateral line and, specifically, the location of the problem. Locating the problem should be accomplished through the use of a "locating device." Measuring distances to the problem is not considered an adequate method to locate the problem. Once the location of the problem has been identified, the plumber should clearly mark the location on the surface of the ground with spray paint or by other appropriate means.

If requested, the plumber will provide SD1 with a videotape of the sewer lateral, which clearly shows the problem causing the sewer lateral malfunction.

SD1 may, in its sole discretion, waive the problem identification requirements on a case-by-case basis.

***Note:** In all cases, the property owner is responsible for 100% of the costs associated with locating the private sewer lateral problem.*

**D. SD1 Review:** SD1 will review the available information, and determine if the information provided is in accordance with the requirements of this Policy. If the information is sufficient, SD1 will approve the project for repair. If additional information is required, SD1 representatives will notify the property owner of the additional requirements.

**E. Performance of Repair Work:** SD1 will perform the necessary repair work within the public roadway. As part of the repair work SD1 may televise the lateral and perform all necessary smoke and/or dye testing to assess the condition of the lateral and the presence of any illegal connections.

If the work necessary to repair the structural failure extends beyond the public roadway, SD1 will notify the property owner that he/she must hire a licensed plumber to perform the work outside the roadway at the owner's expense. If SD1 discovers any illegal connections during its assessment of the lateral, SD1 may notify owner that these connections must be removed in accordance with SD1's Sanitary Rules and Regulations and Section III of this Policy.

**Note:** In all cases, SD1 reserves the right to require the installation of a vertical cleanout riser near the edge of pavement.

- F. Indemnity:** The property owner must agree to indemnify and hold SD1 harmless from any causes of action, claims, liability, judgment or expenses, including attorneys' fees and the costs of investigation and litigation, arising out of the project.

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### **III. SD1 Illegal Connection Inspection and Enforcement Program**

- A. Purpose:** The elimination of inflow and infiltration (I/I) into the separate sanitary sewer system from surface water, groundwater, roof runoff, subsoil drains, and subsurface drainage is essential to the efficient operation of SD1's collection, transmission, and treatment systems. SD1's Illegal Connection Inspection and Enforcement Program is intended to proactively and aggressively control and eliminate I/I through system testing, repair and replacement of defective private laterals and removal of illegal connections. The health, safety, welfare and best interests of SD1's ratepayers requires that such sources of I/I be eliminated as expeditiously as possible to aid in eliminating sanitary sewer overflows and water quality degradation. Only those property owners that cooperate in the timely repair of the lateral or elimination of the illegal connections shall be eligible for financial assistance in the form of financing and/or grant money (See Section IV of this Policy).
- B. Applicability:** This Section of the Policy applies to all illegal connections such as defective private laterals, roof downspouts, yard drains, foundation drains, stairwell drains and sump pumps. This Section applies only to the separate sanitary sewer system. While inflow and infiltration (I/I) is a serious issue for SD1, it is generally not an area of concern in the combined sewer system because there is typically not a separate storm sewer system to receive flow from disconnected I/I sources (downspouts, driveway drains, etc.).
- C. Authority:** SD1 has authority to implement and enforce this program pursuant to KRS 220.320, KRS 220.322, KRS 220.510 and Articles 3, 7, 9 and 10 of SD1's Sanitary Rules and Regulations.<sup>1</sup>
- D. Inspection:** In conjunction with SD1's normal operation and maintenance practices or construction activities, SD1 may notify property owners that the private lateral must be inspected. SD1 shall attempt to obtain written permission to inspect the private lateral via smoke/dye testing and/or Closed Circuit Television Inspection (CCTV).

If property owner refuses to grant permission, he/she becomes ineligible for financial assistance. SD1 will either attempt to obtain evidence of the violation using an unobtrusive method such as smoke testing, visual observation of the flow in the lateral during a rain event, etc. or shall document the property owner's

refusal to grant permission. The property owner shall then be informed that should SD1 discover an illegal connection and/or should the property owner experience a structural failure in the future, the property owner shall be responsible for all costs of maintenance, operation, cleaning, repair and reconstruction of the private lateral from the building to the point of connection with the public sewer, including that portion located within the public roadway.

**E. Notification and Enforcement:**

1. After identification of a defect(s) and/or illegal connection(s), SD1 may give written notice to the property owner of the property where such source is located or to the occupant thereof by first class mail or hand delivery, in accordance with Section 701.2.B of the Rules and Regulations. It shall be sufficient if the notice is addressed to and mailed or delivered to the person or persons in whose name application was made for water service for that location.
2. If the defect(s) in the private lateral is located beneath the public roadway, Section II of this Policy may apply.
3. If the defect(s) and/or illegal connection(s) to the private lateral are located outside the public roadway, the person or persons so notified shall within thirty (30) calendar days of the date of mailing or delivery of such notice deliver to SD1, 1045 Eaton Drive, Ft Wright, Kentucky 41017, a plan, prepared by a licensed plumber, to address the defect(s) and/or remove the illegal connection(s). The plan shall include a detailed description of the work to be performed, a drawing showing the defect(s) and/or illegal connection(s) and the method of its elimination if feasible and a cost estimate for the work. If elimination is deemed not possible or practicable, the plan shall provide a written demonstration of infeasibility (repair costs alone are insufficient to demonstrate infeasibility of elimination).
4. SD1 staff shall review each plan and approve or deny same within thirty (30) calendar days after receipt. Notice of this action shall be promptly communicated to the person submitting the plan. If the submitted plan is denied by SD1 staff, the notified person or persons shall submit a revised plan acceptable to SD1 within thirty (30) calendar days for review and approval.
5. After receipt of notification of plan approval, the person submitting same shall have sixty (60) calendar days in which to complete the work outlined in the approved plan and notify SD1 of such completion. Upon receipt of notice of completion, SD1 shall inspect the work and retest the lateral and system.
6. Failure to comply: If the property owner fails to comply within the time frames indicated above and fails to request and receive an extension of time pursuant to section 7 below, SD1 may utilize any of the following enforcement actions:
  - a. In accordance with Section 302.3 of the Rules and Regulations, "Should the owner of such an illegally connected premises fail to remove the illegal connection within 90 days of being notified by the General Manager to do so, the General Manager may cause the connection to be removed and the cost thereof to be billed to the owner of the premises."
  - b. Assess administrative fines of up to \$1,000 per day pursuant to KRS 220.320 and Section 1001.2.A of the Rules and Regulations.

- c. Institute an action in court pursuant to KRS 220.320 and Section 1001.2.B of the Rules and Regulations. The available remedies shall include:
    1. Injunctive relief;
    2. Cost recovery to recover the cost associated with noncompliant acts of a user;
    3. Civil penalties of up to \$1,000 per day per violation; and
    4. Termination of wastewater treatment service.
  - d. If SD1 incurs costs for services rendered, it may, by notice in writing, shut off water service to said premises in accordance with KRS 220.510. Furthermore, KRS 220.322(4) states that "Charges [for disconnections, reconnections, or relocations of sewers] not paid when due may cause the board of directors to compel payment in the manner authorized in this chapter and the rules and regulations of SD1."
7. Extensions of time: The General Manager may, for good cause shown, grant an extension of any of the deadlines set out in this Policy, provided that the request for the extension is received prior to the expiration of the deadline. The extension shall be issued in writing and shall specify the date of its termination.

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#### **IV. FINANCING AND GRANT PROGRAM FOR DEFECTIVE PRIVATE LATERAL REPAIRS AND REMOVAL OF ILLEGAL CONNECTIONS OUTSIDE PUBLIC ROADWAY**

- A. **Purpose:** To provide financing and/or funds to eligible property owners faced with the obligation to perform excavation and repair work of private laterals outside public roadways.
- B. **Financing:** For removal of illegal connections and/or repairs to damaged laterals outside the "public roadway" as defined above, the property owner will obtain the services of a licensed plumber. SD1 may at its discretion advance funds for payment of the plumber's invoice and offer a finance option to allow the property owner to repay SD1 with interest at a rate of two basis points above prime rate at the time that financing is initiated with a minimum interest rate of six (6) percent and a maximum interest rate of ten (10) percent over a term not to exceed fifteen (15) years. Furthermore, the property owner shall grant a consensual lien to SD1 to be placed on the property in order to guarantee payment recovery.
- C. **SD1 Grant Program for Sanitary Service Improvement Projects:** As part of its Consent Decree with the U.S. EPA and Commonwealth of Kentucky, SD1 has developed a program to reimburse qualified residential property owners for a portion of the cost of certain sanitary sewer improvement projects. Candidate projects would include the repair or replacement of failing sanitary service laterals and the installation of new sanitary service connections to SD1 sewer mains. Approved residential property owners may be eligible to receive grants of up to \$5,000 towards such projects, depending on their income level. Routine operation and maintenance projects such as root-cutting or cleaning are not included in this program. Per the Consent Decree, this program will expire in April 2012.

**D. Eligibility:**

1. Financing - Property owners that cooperate in the timely repair of the lateral or elimination of the illegal connections are eligible for financing.
2. Grant Program – Residential property owners with incomes at or below the low income level as established by the U.S. Department of Housing and Urban Development (HUD) are eligible to apply for funding through this program. Proof of income documentation must be included with the project application.

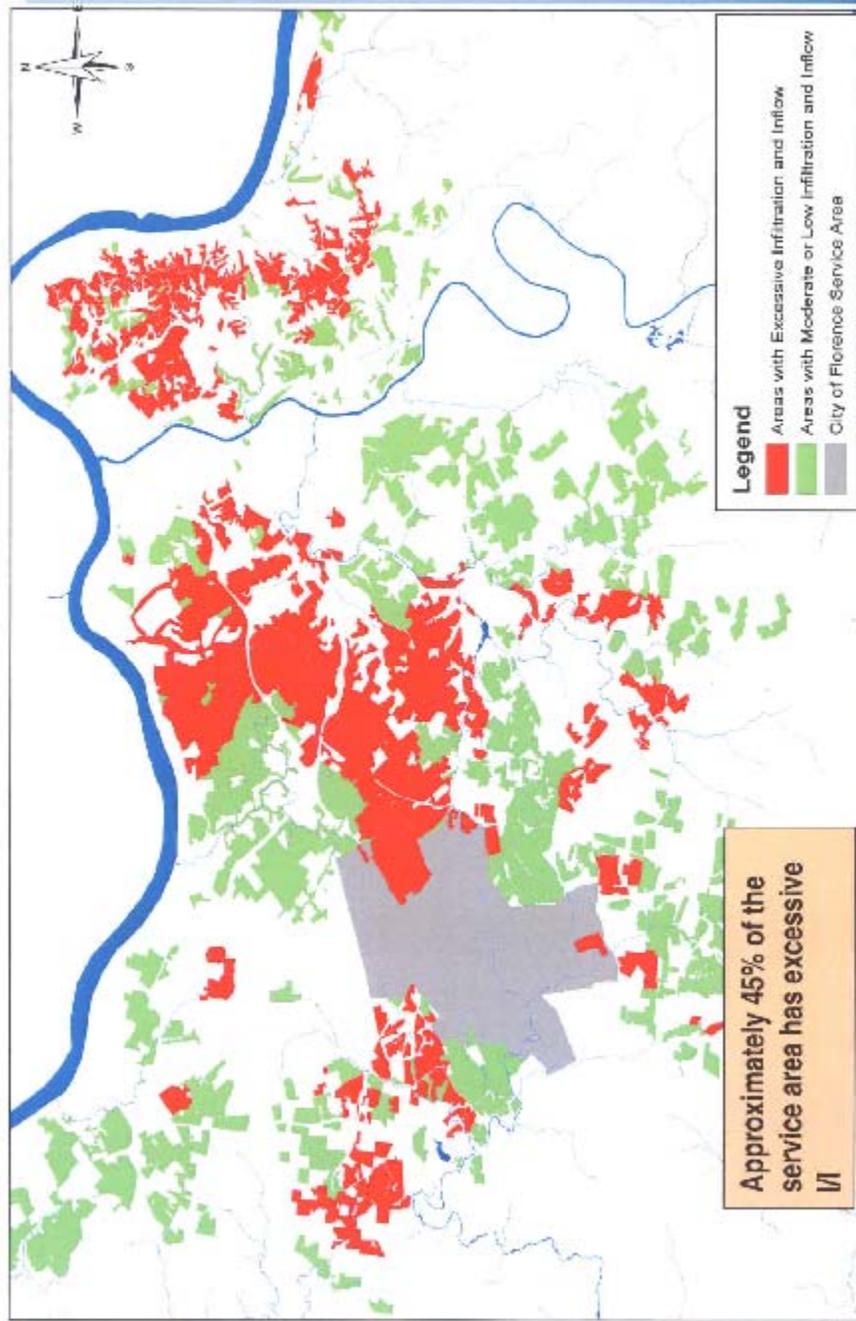
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**V. Cost-Share Pilot Program for Defective Private Lateral Repairs and Removal of Illegal Connections Outside of Public Roadway**

- A. **Purpose:** To encourage property owners to voluntarily repair private systems that are located in priority areas determined by SD1 to have excessive amounts of I/I. Section III of this policy shall govern how the repairs are properly performed.
- B. **Cost Share:** This policy allows SD1 to reimburse property owners 50% of the costs to properly remove the I/I, with a minimum contribution of \$2,500 per property.
- C. **Eligibility:** The property must be found to have excessive amounts of I/I as determined by SD1 and be located within one of the areas depicted in red on the attached map (attachment A). It must also be determined by SD1 that removal of I/I on the property will further compliance with SD1's Consent Decree.
- D. **Duration:** The pilot program began on July 1, 2009 and will continue through June 30, 2010, at which time SD1's Board of Directors will evaluate the outcomes and benefits of this pilot program and make a determination for its continuance.

# Attachment A

# Areas with Excessive I/I



## <sup>1</sup> PRIVATE SEWER LATERAL AND ILLEGAL CONNECTION ENFORCEMENT AUTHORITY

**KRS 220.322(1)(a).** The board may adopt rules requiring owners of property to disconnect storm water inflows to sanitary sewers maintained and operated by the district and not operated as a combined sewer, or to connections with these sewers.

**KRS 220.322(2).** Any inflow required to be disconnected under a rule adopted pursuant to this chapter shall constitute a nuisance subject to injunctive relief and abatement.

**KRS 220.322(4).** The board shall require in its rules regarding disconnections, reconnections, or relocations of sewers the reimbursement of moneys expended. This shall be done by the district assessing a charge to the property owner for immediate payment or payments in installment with interest as determined by the board not to exceed 10%.

**KRS 220.322(4).** Charges for disconnections, reconnections, or relocations of sewers not paid when due may cause the board of directors to compel payment in the manner authorized in this chapter and the rules and regulations of the district.

**KRS 220.510.** "In case of failure of any user to pay for services rendered, the board may compel payment and may enjoin further use until the payment is made, or it may institute an action in any court having jurisdiction ...or the board may, by notice in writing, signed by the chairman or any member of said board, notify the [entity] which furnishes water to the user's premises, to shut off the water service to said premises, until such time as all delinquent charges, plus a reasonable charge for turning off the water service, against said user, are paid in full."

The Sanitary Rules and Regulations outline SD1's procedures for inspection and rehabilitation of private sewer laterals and the appeals and enforcement processes.

**Article 3, Section 302.1.** "No person shall discharge or cause to be discharged, either directly or indirectly, to the sanitary sewer system, surface water, groundwater, roof runoff, subsoil drains or subsurface drainage."

**Article 3, Section 302.2.** "Any such connections made ... shall be considered illegal and shall be subject to immediate removal by the owner of the premises so connected and at such owner's expense."

**Article 3, Section 302.3.** "Should the owner of such an illegally connected premises fail to remove the illegal connection within 90 days of being notified by the General Manager to do so, the General Manager may cause the connection to be removed and the cost thereof to be billed to the owner of the premises."

**Article 7, Section 701.2.B.** "No person or public corporation shall make direct connection of roof downspouts, exterior or interior foundation drains, area drains or other sources of surface runoff or groundwater directly to a public sanitary sewer. Upon discovery of such improper sources, SD1 may notify the property owner to remove any improper connection within 30 days of notification and return the public sewer and associated appurtenances to a satisfactory condition."

### **General Enforcement Authority**

**KRS 220.320.** Authorizes the board to recover by civil action from any person or public corporation violating the regulations a penalty of \$100 to \$1,000 for each offense, plus costs. The Board may enforce by mandamus or otherwise all necessary and authorized regulations made by them, and may remove any improper construction or close any connections made improperly or in violation of the regulations.

**Article 9, Section 901.4.** "The General Manager and other employees of SD1 shall have the authority to serve notices of violation of these Rules and Regulations. The General Manager shall be responsible for the enforcement of these Rules and Regulations and shall have authority to issue orders and impose penalties as authorized therein, ...and shall have any other powers or authority necessary and proper for the enforcement and the achievement of the goals of these Rules and Regulations."

**Article 10, Section 1001.1.A.** If any person or public corporation is found to be violating any provision of these Rules and Regulations, the General Manager may:

- (1) Enforce these regulations by mandamus or otherwise;
- (2) Remove any improper construction or close any connections made improperly or in violation of these regulations;
- (3) Revoke any permit issued pursuant to these regulations;
- (4) Recover by civil action from any person or public corporation violating any regulation, a sum of not less than \$100 nor more than \$5,000 for each offense, together with costs.

### **Administrative Enforcement Remedies**

Pursuant to Article 10, Section 1001.2.A of the Rules and Regulations, SD1 may invoke the following remedies:

- (1) Notice of Violation (NOV)
- (2) Administrative Orders such as:
  - Cease and Desist Orders
  - Show Cause Orders
- (3) Administrative Fines
  - General Manager may assess a penalty of up to \$1,000 per day for each violation of SD1's Rules and Regulations

### **Judicial Enforcement Remedies**

Judicial remedies may be sought pursuant to Article 10, Section 1001.2.B in the following situations: (1) when notices of violation and administrative orders have proven ineffective in returning the violating user to compliance; (2) when emergency situations require injunctive relief to halt or prevent discharges which threaten human health or the environment or interfere with the treatment system or (3) to impose civil penalties and recover losses incurred due to noncompliance. All judicial administrative remedies will be sought at the discretion of the General Manager. The available remedies include:

- (1) Injunctive Relief - where an administrative order does not achieve compliance;
  - (2) Cost Recovery - to recover the cost associated with noncompliant acts of a user;
  - (3) Civil Penalties - \$1,000 per violation for individuals and \$5,000 per violation for corporations; and
  - (4) Termination of Wastewater Treatment Service – the General Manager may terminate or cause to be terminated wastewater treatment system service to any premise if a violation is found to exist.
-

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**APPENDIX G:**  
***Street Resurfacing Flow Chart***

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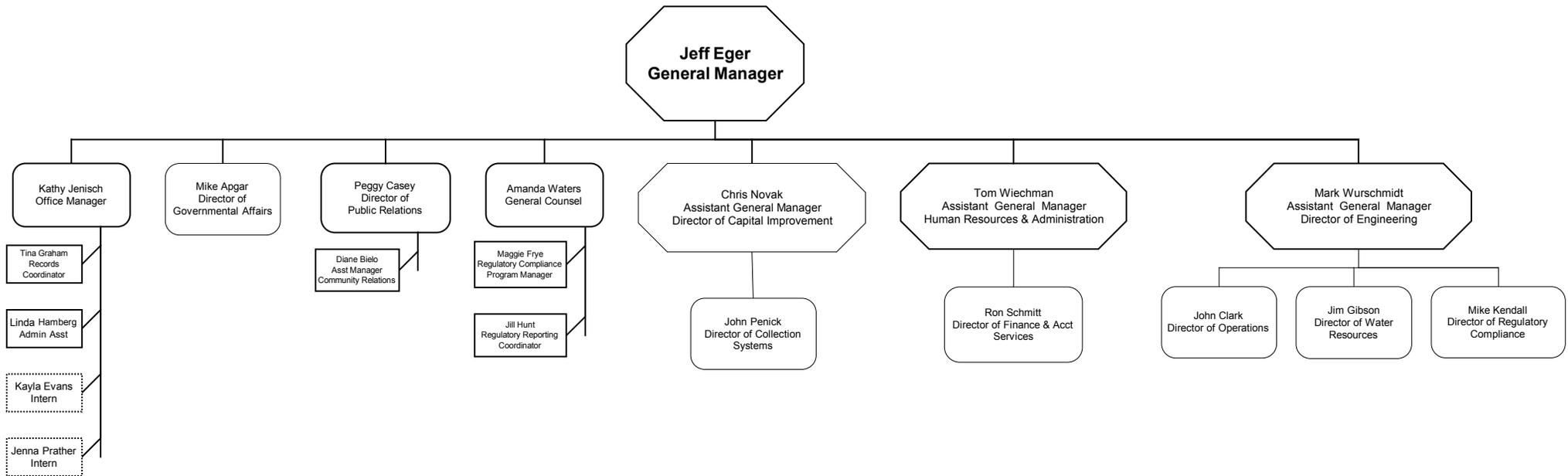


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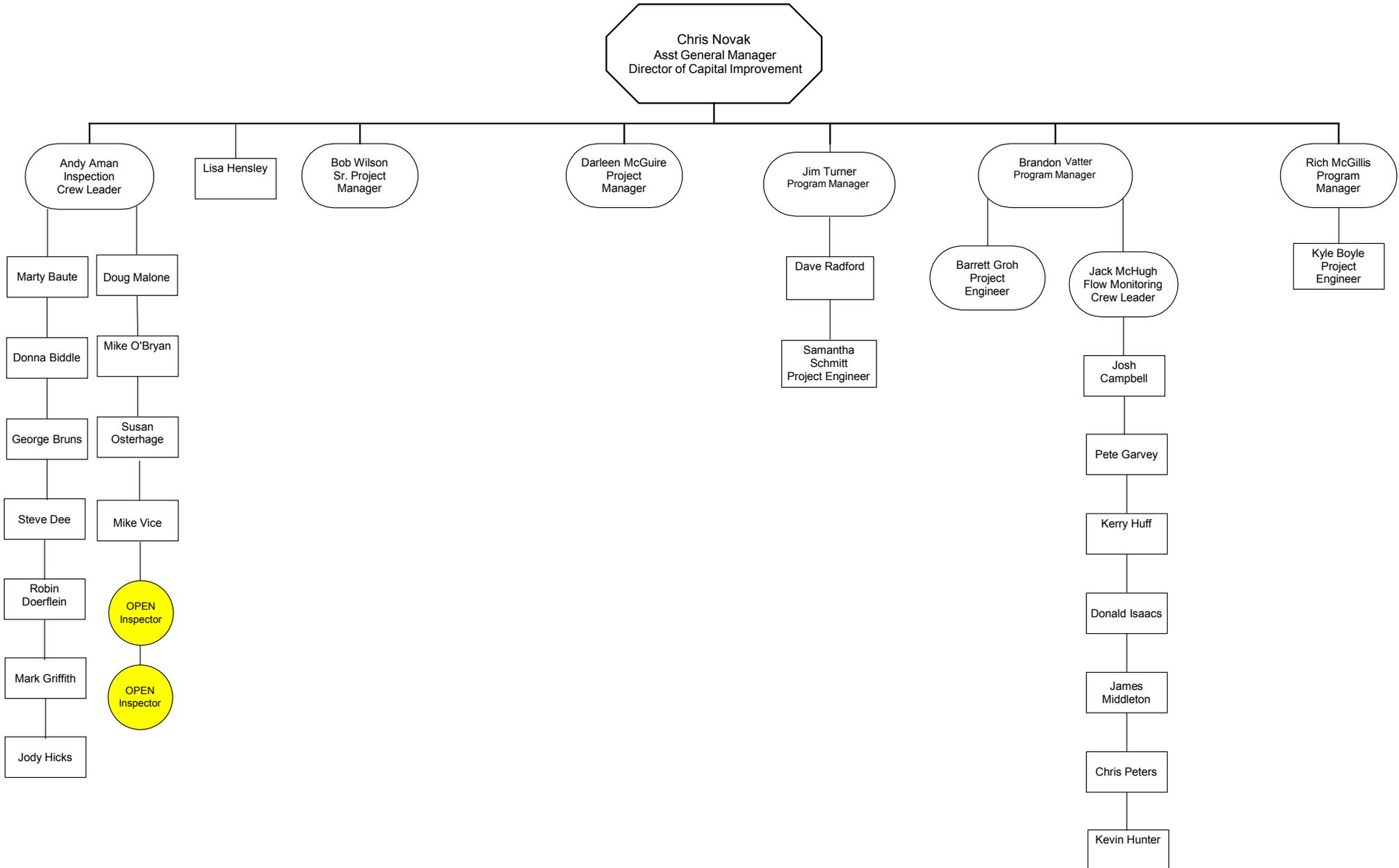
**APPENDIX H:**  
**Organizational Charts**

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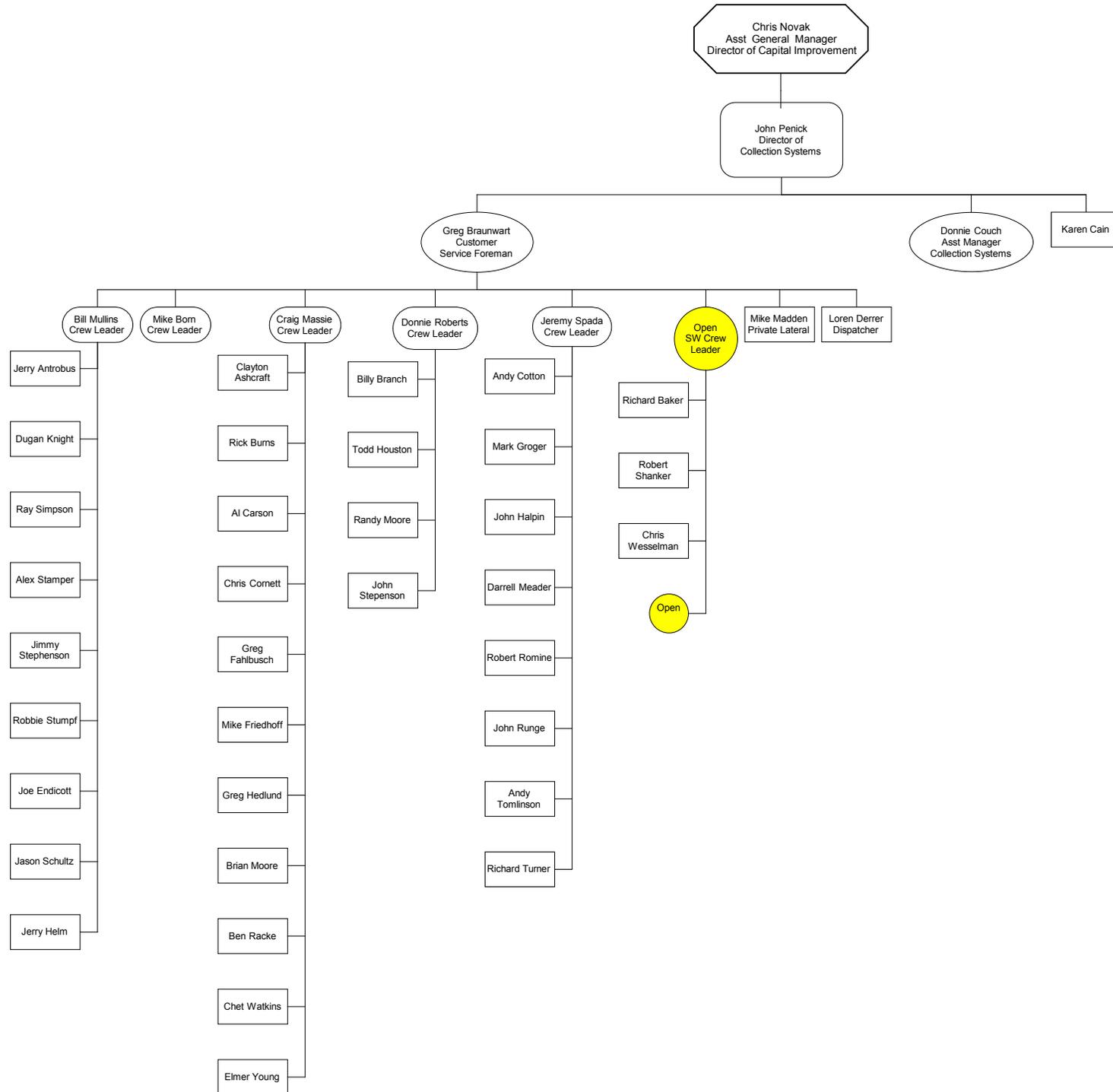
# Sanitation District No. 1 General Management & Administration



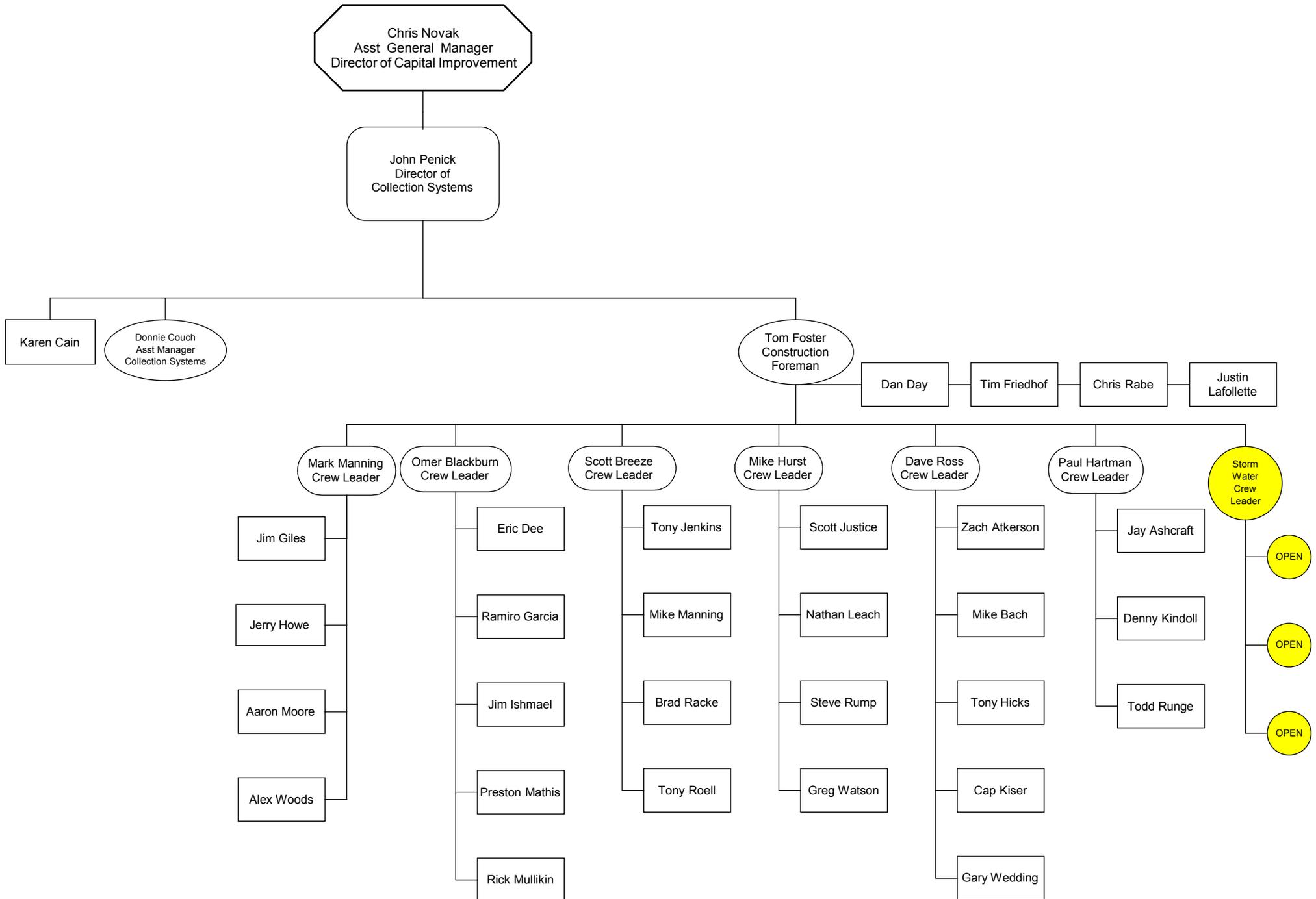
# Sanitation District No. 1 Capital Improvement / Inspections



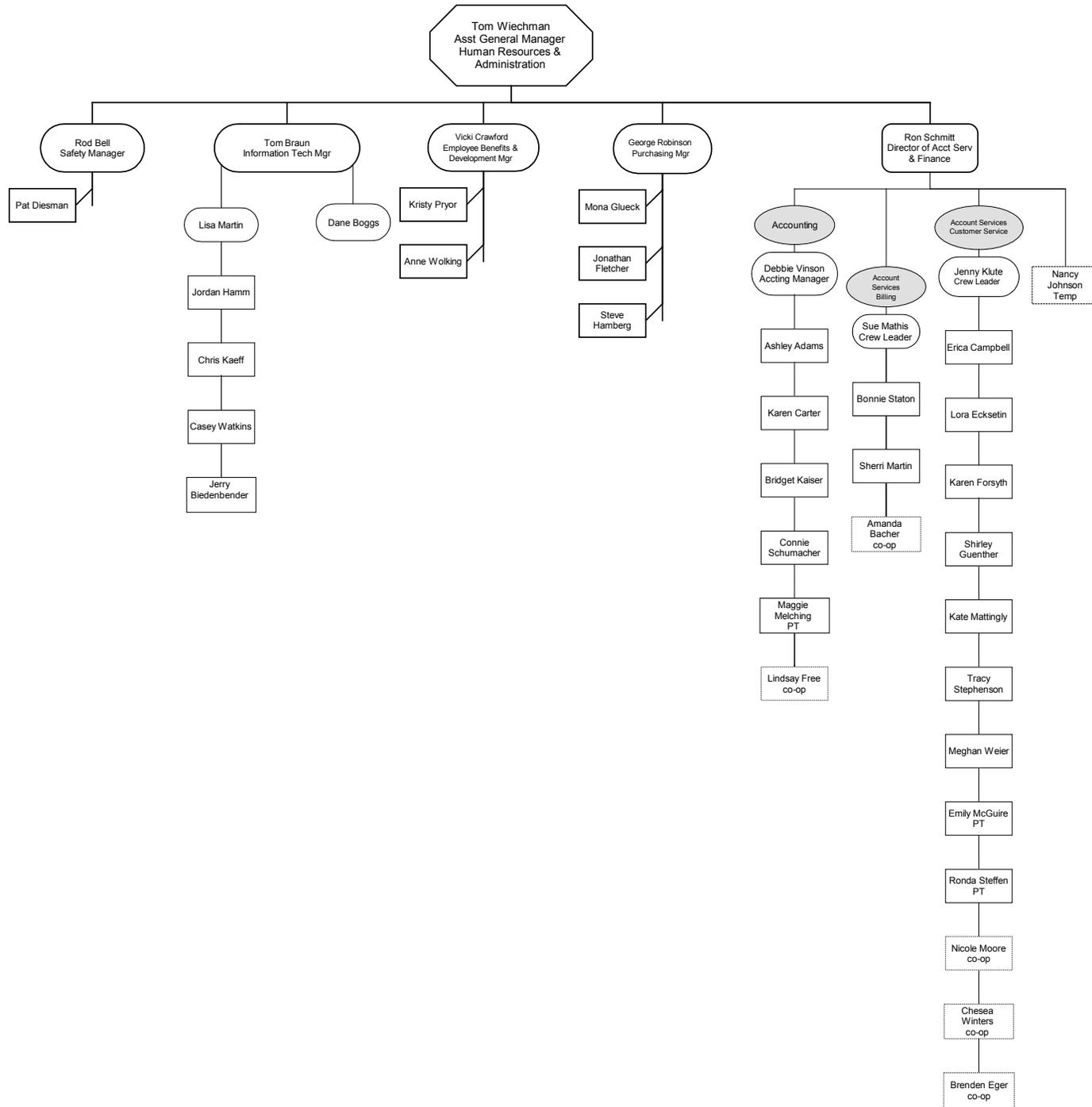
# Sanitation District No. 1 Collection Systems - Customer Service



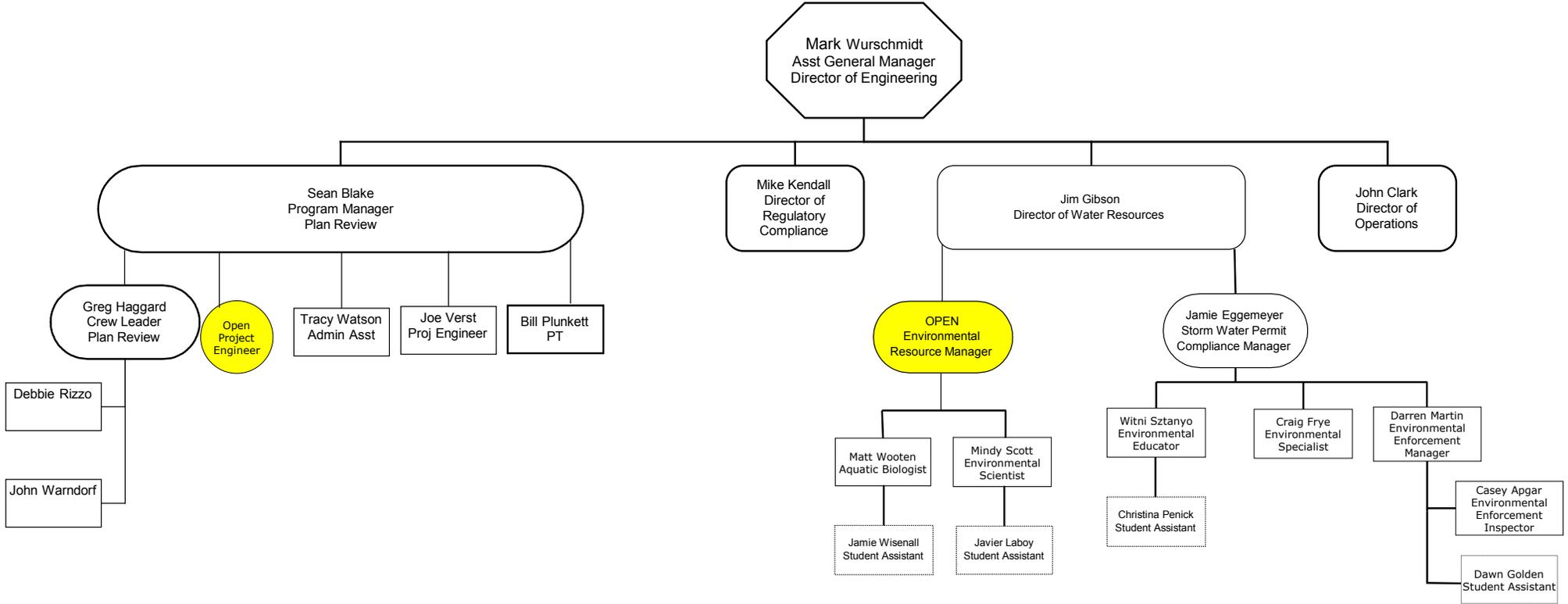
# Sanitation District No. 1 Collection Systems - Construction



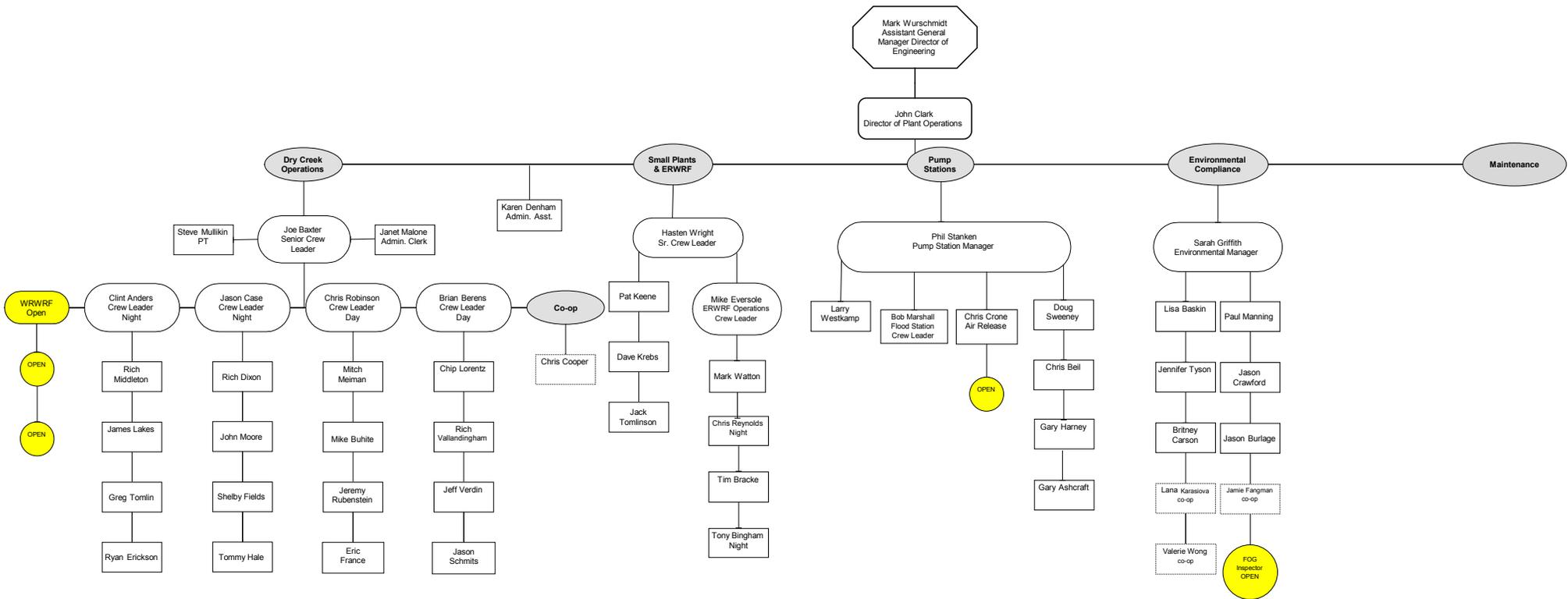
# Sanitation District No. 1 Human Resources & Administration



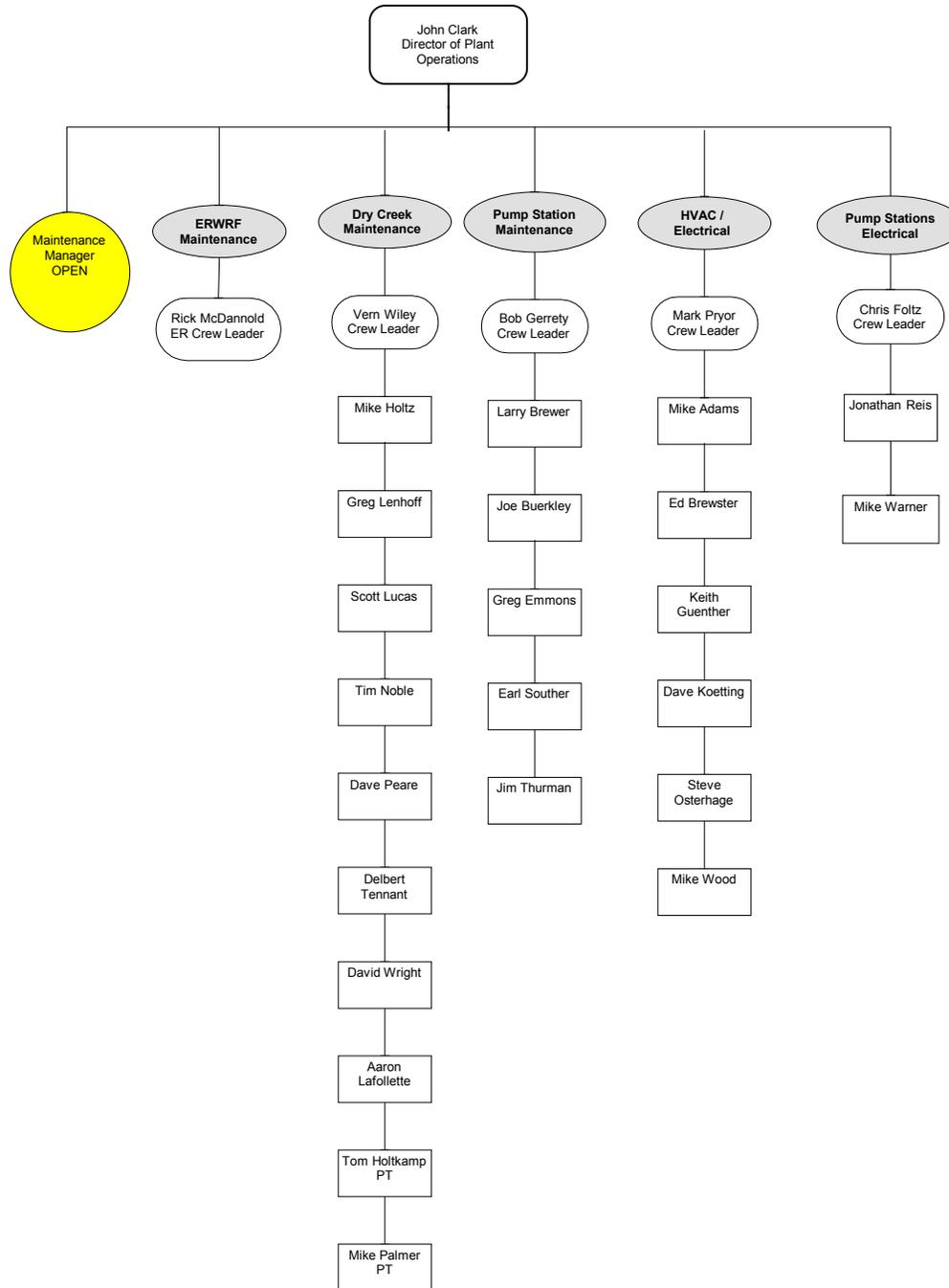
# Sanitation District No. 1 Plan Review / Water Resources



# Sanitation District No. 1 Dry Creek Operations



# Sanitation District No. 1 Maintenance



**APPENDIX I:**

***FY 2009 Safety Training Calendar***

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FY 2009

# Safety Training Schedule and Calendar of Events

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# July

**Cranes & Hoists:** July 16<sup>th</sup> / Make-up: July 23<sup>rd</sup>  
Make-up: January 28<sup>th</sup> and 30<sup>th</sup>

**Power Operated Hand Tools:** July 30<sup>th</sup> and 31<sup>st</sup>

## Crane & Hoists (Mobile/Stationary Cranes)

- **Elements**
  - Mobile
  - Stationary
  - Fixed
  - Cable Inspection
  - Slings (Chain, Webbed, Wire Rope)
  - Signaling - Hand Signals
  - Overhead Line Safety
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Periodic / Annual Inspection
  - Record Keeping
- **Instructors**
  - Outside Contract
- **Duration**
  - 4.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Operations
    - Maintenance
    - Eastern Regional WRF
  - Collection System
    - Construction
  - Field Technical Services
    - Operations
    - Maintenance
- **Estimated Total Expected Attendees**
  - 97 or 40%

## Power Operated Hand Tools

- **Elements**
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Cords and Plugs
  - Hazardous Conditions
  - Wet Conditions
  - Inspection
  - Storage
  - Guarding
  - Generators, transformers, and Rectifiers
  - Carbon Monoxide
  - Dust
  - Confined Spaces
  - Guards
  - Operating Controls and Switches
  - Electric Tools Pneumatic Tools Liquid Fuel Tools Powder-Actuated Tools Hydraulic Power Tools
  - Portable Abrasive Wheel Tools
- **Instructors**
  - Rod Bell / Pat Diesman
- **Duration**
  - 1.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Maintenance
  - Collection System
    - Construction
  - Field Technical Services
    - Maintenance
- **Estimated Total Expected Attendees**
  - 50 or 20%

# July Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15 Safety Committee Meeting	16 Hoists and Rigging	17	18	19 GCHAZMAT
20	21	22	23 Hoists and Rigging – Make-Up	24	25	26
27	28	29	30 Power Operated Hand Tools NKSWRT	31 Power Operated Hand Tools		

**Notes:**  
**Red Text** = SD1 General      *Supervisors will be required to independently complete online NIMS Training Courses 100 and 700*  
**Blue Text** = SD1 General Make-Up  
**Green Text** = ERT and other Specialized Training for Designated Employees

**2008**

# August

**Office Safety:** August 13<sup>th</sup> & 14<sup>th</sup> / Make-up: August 20<sup>th</sup>

**Contract Employer Responsibilities:** August 27<sup>th</sup> & 23<sup>rd</sup> /  
Make-up: September 4<sup>th</sup>

## Office Safety

- **Elements**
  - Accident Prevention: Signs & Tags
  - Surge Protectors/Power Strips
  - Personal Heaters
  - Ergonomics
  - Extension Cords
  - Storage
  - Housekeeping
  - Egress
  - Emergency Exits
- **Instructors**
  - Rod Bell
  - Pat Diesman
  - Shirley Guenther
- **Duration**
  - 2.0 hrs
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Staff
  - Collection System
    - Staff
  - Field Technical Services
    - Staff
  - Engineering
    - Staff
    - Project Managers
  - Administration
    - All
  - Storm Water - Illicit Discharge
- **Estimated Total Expected Attendees**
  - 71 or 30%

## Contract Employer Responsibilities

- **Elements**
  - Types of Contractors
  - Working with Employees
  - Contractual Violations
  - Intervention
- **Instructors**
  - Rod Bell
  - Pat Diesman
- **Duration**
  - 2.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Collection System
    - Construction
  - Engineering
    - Flow Monitoring
    - Inspectors
- **Estimated Total Expected Attendees**
  - 32 or 13%

# August Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4	5	6 Power Operated Hand Tools – Make-Up	7	8	9
10	11	12	13 Office Safety	14 Office Safety	15	16 GCHAZMAT
17	18	19 Safety Committee Meeting	20 Office Safety	21	22	23
24	25	26 NKSWRT	27 Contractor Safety	28 Contractor Safety	29	30
31	<p><b>Notes:</b>  <b>Red Text</b> = SD1 General      <i>Supervisors will be required to independently complete online NIMS Training Courses 100 and 700.</i>  <b>Blue Text</b> = SD1 General Make-Up  <b>Green Text</b> = ERT and other Specialized Training for Designated Employees</p>					

**2008**

# September

**Swift Water/Boating Safety:** September 10<sup>th</sup> & 11<sup>th</sup> /  
Make-up: September 17<sup>th</sup>

## Swift Water / Boating Safety

- **Elements**
  - Understanding Hazards
  - Accident Prevention: Signs & Tags
  - Locations Found
  - Working Around
  - Rescue
  - Throw Ropes
  - Life Rings
  - Personal Flotation Devices
  - Personal Protective Equipment
- **Instructors**
  - Rod Bell
  - Brian Berens
  - Pat Diesman
  - Vern Wiley
- **Duration**
  - 2.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Operations
    - Maintenance
    - Industrial Monitoring
    - Small Plants
    - Eastern Regional WRF
  - Collection System
    - Customer Service
    - Construction
  - Field Technical Services
    - Operations
    - Maintenance
  - Engineering
    - Flow Monitoring
  - Administration - Facilities
  - Storm Water - Illicit Discharge
- **Estimated Total Expected Attendees**
  - 167 or 70%

# September Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3	4 Contractor Safety	5	6
7	8	9	10 Swift Water Rescue	11 Swift Water Rescue	12	13
14	15	16 Safety Committee Meeting	17 Swift Water Rescue – Make-Up	18	19	20 GCHAZMAT
21	22	23	24	25 NKSWRT	26	27
28	29	30				

**Notes:**  
**Red Text** = SD1 General      *Supervisors will be required to independently complete online NIMS Training Courses 100 and 700*  
**Blue Text** = SD1 General Make-Up  
**Green Text** = ERT and other Specialized Training for Designated Employees

**2008**

# October

**Fire Safety / Emergency Action Planning:** October 6<sup>th</sup> &  
10<sup>th</sup> / Make-up: October 15<sup>th</sup>

## Fire Safety Emergency Action Planning

- **Elements**
  - Portable Fire Extinguishers
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Emergency action plan – Egress - Exit
  - Employee alarm systems
  - Fire detection systems
  - Emergency crisis coordination team
  - Emergency action and notification plan
  - Fixed extinguishing fire protection systems
  - Homeland security
  - National Incident Management System
  - Safety and Security
  - Medical emergency protocol
  - Safe Place Program
  - Emergency communication
  - Fire prevention
  - Flammable and combustible storage
- **Instructors**
  - Rod Bell
  - Bill Branch
  - George Bruns
  - Josh Campbell
  - Donnie Couch
  - Pat Diesman
  - Brian Moore
  - Andy Tomlinson
- **Duration**
  - 8.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Operations
    - Maintenance
    - Eastern Regional WRF
  - Collection System
    - Construction
  - Field Technical Services
    - Operations
    - Maintenance
  - Engineering - All
  - Administration - All
  - Storm Water - All
- **Estimated Total Expected Attendees**
  - 240 or 100%
- **Safety Training and Education - Designated Subject Matter Experts**

# October Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1	2	3	4
5	6 Fire Safety Emergency Action Planning	7 Fire Safety Emergency Action Planning	8 Fire Safety Emergency Action Planning	9 Fire Safety Emergency Action Planning	10 Fire Safety Emergency Action Planning	11
12	13	14	15 Fire Safety Emergency Action Planning – Make-Up	16	17	18 GCHAZMAT
19	20	21 Safety Committee Meeting	22	23	24	25
26	27	28 NKSVRT	29	30	31	

**Notes:**  
**Red Text** = SD1 General      *Supervisors will be required to independently complete online NIMS Training Courses 100 and 700*  
**Blue Text** = SD1 General Make-Up  
**Green Text** = ERT and other Specialized Training for Designated Employees

**2008**

# November

**Scaffolding, Ladders, Powered Platforms:** November 5<sup>th</sup>  
and 6<sup>th</sup> / Make-up: November 12<sup>th</sup>

## Scaffolding and Ladders / Powered Platforms

- **Elements**
  - Fall Protection and Prevention
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Set-Up
  - Walking/Working Surfaces
  - Ladder Securing / Safety
  - Housekeeping
  - Inspection
- **Instructors**
  - Outside Contractor
  - Rod Bell
  - Pat Diesman
  - Delbert Tennant
  - Vern Wiley
- **Duration**
  - 3.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Maintenance
  - Collection System
    - Construction
  - Field Technical Services
    - Maintenance
- **Estimated Total Expected Attendees**
  - 50 or 20%

# November Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
						1
2	3	4	5 Scaffolding and Ladders	6 Scaffolding and Ladders	7	8
9	10	11	12 Scaffolding and Ladders – Make-Up	13	14	15 GCHAZMAT
16	17	18 Safety Committee Meeting NKSVRT	19	20	21	22
23	24	25	26	27	28	29
30	<p><b>Notes:</b>  <b>Red Text</b> = SD1 General      <i>Supervisors will be required to independently complete online NIMS Training Courses 100 and 700.</i>  <b>Blue Text</b> = SD1 General Make-Up  <b>Green Text</b> = ERT and other Specialized Training for Designated Employees</p>					

**2008**

# December

**Hazwoper – Operations Level:** December 3<sup>rd</sup> & 9<sup>th</sup>

**Excavation / Trenching Safety:** December 10<sup>th</sup> & 11<sup>th</sup> /  
Make-up: December 17<sup>th</sup>

## Hazardous Waste Operations and Emergency Response: Operations Level

- **Elements**
  - Chemical Protective Clothing & Levels of Protection
  - Chemical Profiling (MSDS)
  - Air Monitoring (AMI) Overview
  - Spill Control (SPCC)
- **Instructors**
  - Outside Contractor
  - Rod Bell
- **Duration**
  - 4.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - Dry Creek WWTP
    - Maintenance
    - Operations
- **Estimated Total Expected Attendees**
  - 50 or 21%

## Excavation / Trenching Safety

- **Elements**
  - Trench and Shoring
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Call before you dig
  - Underground lines – Color Coding
  - Overhead lines
  - Rescue Notification Awareness
  - Public Safety
  - Housekeeping
  - Slips / Trips / Falls
  - Ladder Safety
  - Contract Employer Responsibilities
  - Some atmospheric monitoring
  - Traffic Control / Excavation Permit
  - Record Keeping
  - Hot Work Permit – Flammable / Spark Producing
  - Atmospheric Sampling – Confined Space
  - Cold Weather Training
- **Instructors**
  - Outside Contractor
  - Rod Bell
  - Scott Breeze
  - Pat Diesman
  - Dennis Kindoll
  - Jeff Rayford
- **Duration**
  - 6.0 hrs.
- **Affected Employee Training Based on Job Hazard Analysis**
  - SD #1 Emergency Response Team (ERT)
  - Collection System
    - Construction
  - Engineering
    - Inspectors
- **Estimated Total Expected Attendees**
  - 51 or 21%

# December Safety Training

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3 HAZWOPER - Operations Level	4	5	6
7	8	9 HAZWOPER - Operations Level	10 Excavation Trench and Shoring	11 Excavation Trench and Shoring	12	13
14	15	16 Safety Committee Meeting	17 Excavation Trench and Shoring - Make- Up	18 NKSURT	19	20
21	22	23	24	25	26	27
28	29	30	31			

**Notes:**  
**Red Text** = SD1 General      *Supervisors will be required to independently complete online NIMS Training Courses 100 and 700*  
**Blue Text** = SD1 General Make-Up  
**Green Text** = ERT and other Specialized Training for Designated Employees

**2008**

# January

**CPR/AED/Bloodborne Pathogens:** January 12<sup>th</sup> and 16<sup>th</sup>  
Make-up: January 28<sup>th</sup> and 30<sup>th</sup>

**First Aid:** January 28<sup>th</sup> and 30<sup>th</sup>

## **First Aid**

- **Elements**
    - Adult First Aid
    - Bloodborne Pathogens
    - Personal Protective Equipment
  - **Duration:** 2 hours
  - **Required:** every 3 years, offered annually
  - **Employees required to attend:**
    - Any employee who is one of the following:
      - Confined Space Entry Qualified
      - Electricians
      - Emergency Response Team
      - Emergency Action Plan (EAP) Designated First Responders (plant and office)
  - **Maximum class size:** 40
- 

## **CPR/AED/Bloodborne Pathogens**

- **Elements**
  - Adult CPR with AED
  - Bloodborne Pathogens
  - Personal Protective Equipment
  - Myclyn's Wound Sanitizer
- **Duration:** 6 hours
- **Required:** annually
- **Employees required to attend:**
  - Any employee who is one of the following:
    - Confined Space Entry Qualified
    - Electricians
    - Emergency Response Team
    - Emergency Action Plan (EAP) Designated First Responders (plant and office)
- **Maximum class size:** 20

# January

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
				1	2	3
4	5	6	7	8	9	10
11	12 CPR/AED/BBP 6.0 hr.	13 CPR/AED/BBP 6.0 hr.	14 CPR/AED/BBP 6.0 hr.	15 CPR/AED/BBP 6.0 hr.	16 CPR/AED/BBP 6.0 hr.	17 GCHAZMAT SDIERT
18	19	20 Safety Committee Meeting	21	22 NKHAZMAT SDIERT	23 NKHAZMAT SDIERT	24 NKHAZMAT SDIERT
25	26	27	28 First Aid 2.0 hr. CPR/AED/BBP 6.0 hr.	29	30 First Aid 2.0 hr. CPR/AED/BBP 6.0 hr.	31

# February

**Traffic Control (update):** February 9<sup>th</sup> and 11<sup>th</sup>  
Make-up: February 24<sup>th</sup>

**Traffic Control:** February 12<sup>th</sup>  
Make-up: February 25<sup>th</sup>

- **Elements**
  - Traffic control / Excavation Permit
  - Record Keeping
  - Flagging
  - Signaling
  - Hot Weather Training
  - Work Zone Setup
  - Signs
  - Accident Prevention: Signs & Tags
  - Changing Conditions
  - Short-term v/s Long-term
  - Speed Classification
  - Personal Protective Equipment (employees to bring equipment for audit)
- **Duration**
  - 8.0 hrs. for regular class
  - 4.0 hrs. for update class
- **Required:**
  - 8.0 hrs. for regular class
  - 4.0 hrs. for update class
- **Employees required to attend:**

Any employee who is one of the following:

  - Confined Space Entry Qualified
  - Electricians
  - Emergency Response Team
  - Emergency Action Plan (EAP) Designated First Responders (plant and office)
  -
- **Maximum Class Size: 40**

# February

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3	4	5	6	7
8	9 Traffic Control (update) 4.0 hr.	10 Traffic Control (update) 4.0 hr.	11 Traffic Control (update) 4.0 hr.	12 Traffic Control 8.0 hr.	13 SDIERT HAZWOPER REFRESHER	14
15	16	17 Safety Committee Meeting	18	19 NKHAZMAT SDIERT	20 NKHAZMAT SDIERT	21 GCHAZMAT SDIERT NKTRT SDIERT NKHAZMAT SDIERT
22	23	24 Traffic Control (update) 4.0 hr. (Make-up)	25 Traffic Control 8.0 hr. (Make-up)	26	27	28

# March

**Electrical Safety:** March 9<sup>th</sup> through March 13<sup>th</sup>  
Make-up: March 24<sup>th</sup> and March 26<sup>th</sup>

**Lockout – Tagout:** March 9<sup>th</sup> through March 13<sup>th</sup>  
Make-up: March 24<sup>th</sup> and March 26<sup>th</sup>

## **Electrical Safety**

- **Elements**
  - Assured Grounding
  - Arc Flash NFPA 70E (refresher)
  - Housekeeping
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Lockout / Tagout (refresher)
- **Duration**
  - 3.0 hrs.
- **Arc Flash Personal Protective Equipment: Attendees to bring arc flash PPE for Demonstration/audit purposes**
- **Employees required to attend:**
  - Any employee who is one of the following:
    - Electricians and Maintenance personnel. Also Operations personnel who completed electronics or electrical components training (WINNS grant training at Gateway Community College)
- **Maximum Class Size: 30**

---

## **Lockout – Tagout**

- **Elements**
  - Lockout / Tagout Program
  - Housekeeping
  - Personal Protective Equipment
- **Duration**
  - 1.0 hrs.
- **Employees required to attend:**
  - **Dry Creek WWTP – Department 1**
    - Operations
    - Maintenance
    - Small Plants
    - Eastern Regional WRF
    - Field Technical Services
      - Operations
      - Maintenance
  - **Collection System – Department 2**
    - Customer Service
    - Construction
- **Maximum Class Size: 40**

# March

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
1	2	3 NKTRT SDIERT	4	5	6	7 NKTRT SDIERT
8	9 Lockout-Tagout 1.0 hr. Electrical Safety 3.0 hr.	10 Lockout-Tagout 1.0 hr. Electrical Safety 3.0 hr.	11 Lockout-Tagout 1.0 hr. Electrical Safety 3.0 hr.	12 Lockout-Tagout 1.0 hr. Electrical Safety 3.0 hr.	13 Lockout-Tagout 1.0 hr. Electrical Safety 3.0 hr.	14
15	16	17 Safety Committee Meeting	18	19 NKHAZMAT SDIERT	20 NKHAZMAT SDIERT	21 GCHAZMAT SDIERT NKHAZMAT SDIERT
22	23	24 Lockout-Tagout 1.0 hr. (make-up) Electrical Safety 3.0 hr. (make-up)	25	26 Lockout-Tagout 1.0 hr. (make-up) Electrical Safety 3.0 hr. (make-up)	27	28
29	30	31				
30	31					

# April

**Hazard Communication:** April 13th through April 17th  
Make-up: April 29th

**Lab Safety:** April 13th through April 17th  
Make-up: April 29th

## **Hazard Communication**

- **Elements**
    - Damming and Dykes
    - Safe Handling of Hazardous Chemicals
    - Accident prevention/housekeeping
    - Material Safety Data Sheets / Locations
    - Temporary Use Containers
    - Personal Protective Equipment
    - Accident Prevention: Signs & Tags
    - Housekeeping
    - Storage of Flammable and Combustible Liquids
    - Spill Prevention Control & Countermeasures & Storm Water Pollution Prevention Plan Kit Locations
    - Understanding National Fire Protection Association Hazard Recognition Labels
  - **Duration:** 2.0 hrs.
  - **Employees required to attend:**  
Any employee who is one of the following:
    - **Dry Creek WWTP – Department 1**
      - Operations, Maintenance, Lab / Industrial Monitoring, Small Plants
      - Eastern Regional WRF
      - Field Technical Services – Operations and Maintenance
    - **Collection System – Department 2**
      - Customer Service
      - Construction
    - **Administration – Department 3**
      - Safety and Facilities
    - **Engineering – Department 5**
      - Flow Monitoring
  - **Maximum Class Size: 40**
- 

## **Lab Safety**

- **Elements**
  - Safe Handling of Hazardous Chemicals
  - Accident prevention
  - Material Safety Data Sheets / Locations
  - Temporary Use Containers
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Housekeeping
  - Storage of Flammable and Combustible Liquids
  - Understanding National Fire Protection Association Hazard Recognition Labels
- **Duration:** 1.0 hrs.
- **Employees required to attend:**  
Any employee who is one of the following:
  - **Dry Creek WWTP – Department 1**
    - Lab / Industrial Monitoring
  - **Engineering – Department 5**
    - Storm Water - Illicit Discharge
- **Maximum Class Size: 20**

# April

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
			1	2	3	4 NKTRT SDIERT
5	6	7	8	9	10	11
12	13 Hazard Communication 2.0 hr. Lab Safety 1.0 hr.	14 Hazard Communication 2.0 hr. Lab Safety 1.0 hr.	15 Hazard Communication 2.0 hr. Lab Safety 1.0 hr.	16 Hazard Communication 2.0 hr. Lab Safety 1.0 hr.	17 Hazard Communication 2.0 hr. Lab Safety 1.0 hr.	18 GCHAZMAT SDIERT
19	20	21 Safety Committee Meeting	22	23 NKHAZMAT SDIERT	24 NKHAZMAT SDIERT	25 NKHAZMAT SDIERT
26	27	28	29 Hazard Communication 2.0 hr. (make-up) Lab Safety 1.0 hr. (make-up)	30		

# May

## Confined Space Entry and Rescue:

May 11<sup>th</sup> through May 15<sup>th</sup>

Make-up: May 26<sup>th</sup> and May 28<sup>th</sup>

- **Elements**
  - Confined space – permit required Program
  - Fall protection / fall prevention
  - iTX atmospheric monitoring
  - Personal Protective Equipment
  - Accident Prevention: Signs & Tags
  - Lock-out / Tag-out
  - Hazard Communication
  - Entry Equipment - Simulator
  - Communication
  - Rescue/SKED
  - Permit Required Confined Space Forms
  - Self Contained Breathing Apparatus /Supplied Air Respirator
  - Ventilation
  - Open Surface Tanks
  - Personal Protection
    - Entry/Dispatch
    - Hot Work Permit
    - Emergency Rescue Permit
  - Compressed Gasses
  - Housekeeping
  - Traffic Control / Flagger
  
- **Duration**
  - 8.0 hrs.
  
- **Employees required to attend:**
  - **Dry Creek WWTP – Department 1**
    - Operations
    - Maintenance
    - Lab / Industrial Monitoring
    - Eastern Regional WRF
    - Field Technical Services
      - Operations
      - Maintenance
  - **Collection System – Department 2**
    - Customer Service
    - Construction
  - **Administration – Department 3- Safety**
  - **Engineering**
    - Flow Monitoring
    - Inspectors
    - Storm Water - Illicit Discharge
  
- **Maximum Class Size: 40**

# May

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
					1	2
3	4	5 NKTRT SDIERT	6	7	8	9
10	11 Confined Space Entry and Rescue 8.0 hr.	12 Confined Space Entry and Rescue 8.0 hr.	13 Confined Space Entry and Rescue 8.0 hr.	14 Confined Space Entry and Rescue 8.0 hr.	15 Confined Space Entry and Rescue 8.0 hr.	16 GCHAZMAT SDIERT
17	18	19 Safety Committee Meeting	20	21 NKHAZMAT SDIERT	22 NKHAZMAT SDIERT	23 NKHAZMAT SDIERT
24	25	26 Confined Space Entry and Rescue 8.0 hr. (make-up)	27	28 Confined Space Entry and Rescue 8.0 hr. (make-up)	29	30
31						

# June

## Safe Driving:

June 8<sup>th</sup> – June 12th

Make-up: June 24th

- **Elements**
  - Vehicle Housekeeping
  - Accident Prevention: Signs & Tags
  - Removal From Service - Lockout /Tag Out
  
- **Duration:** 4.0 hours
  
- **Employees required to attend:**
  - **Dry Creek WWTP – Department 1**
    - Operations (Designated Operators)
    - Maintenance (Designated Operators)
    - Field Technical Services
      - Operations (Designated Operators)
      - Maintenance (Designated Operators)
  - **Collection System – Department 2**
    - Customer Service (Designated Operators)
    - Construction (Designated Operators)
  - **Administration – Department 3**
    - Safety (Designated Operators)
    - Facilities (Designated Operators)
  - **Engineering**
    - Flow Monitoring (Designated Operators)
    - Inspectors (Designated Operators)
    - Storm Water - Illicit Discharge (Designated Operators)
  
- **Maximum Class Size: 48**

# June

<i>Sun</i>	<i>Mon</i>	<i>Tue</i>	<i>Wed</i>	<i>Thu</i>	<i>Fri</i>	<i>Sat</i>
	1	2	3	4	5	6
7	8 Safe Driving 4.0 hr.	9 Safe Driving 4.0 hr.	10 Safe Driving 4.0 hr.	11 Safe Driving 4.0 hr.	12 Safe Driving 4.0 hr.	13
14	15	16 Safety Committee Meeting	17	18	19	20 GCHAZMAT SDIERT
21	22	23	24 Safe Driving 4.0 hr. (make-up)	25 NKHAZMAT SDIERT	26 NKHAZMAT SDIERT	27 NKHAZMAT SDIERT
28	29	30				

**APPENDIX J:**  
***2009 Training Catalog***

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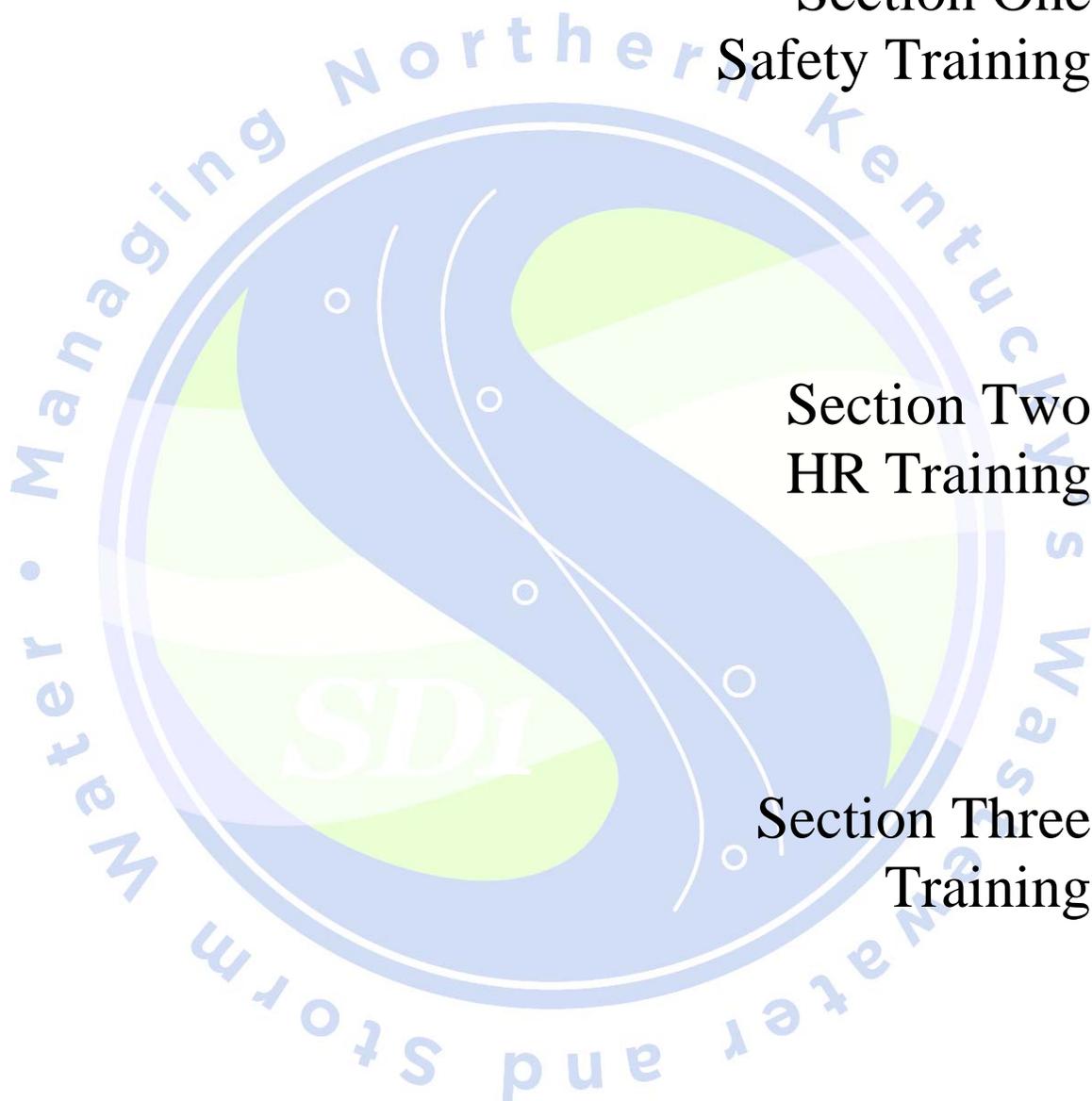
# Sanitation District No. 1



## Training Catalog

# Sanitation District No. 1 Training Catalog

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Section One  
Safety Training

Section Two  
HR Training

Section Three  
Training

Section Four  
Calendar and Documents

The Sanitation District prides itself in the education of its employees. When all employees are adequately trained, they will be able to carry out the District's mission, vision and core values:

**Mission:**

*Serving Boone, Campbell and Kenton Counties through regional collaboration, education of the public and unparalleled customer service, Sanitation District No. 1 will provide affordable, sustainable protection of our water resources and enhance economic opportunities.*

**Vision:**

*Sanitation District No. 1, a nationally recognized steward of the environment, enhancing the quality of life in Northern Kentucky.*

**Core Values:**

*SAFETY FIRST!!*

*Engaged Communication*

*Proactive Leadership*

*Integrity*

*Unparalleled Customer Service*

*Environmental Stewardship*

*Innovation*

*Employee Centered Culture*

*Fiscal Responsibility*

The 2009-2010 training catalog contains current and up-to-date trainings offered at SD1. Inside this catalog you will find all required trainings, as well as any training to enhance your career here at SD1.

There is also training connected to the new pay range system. Employees who are currently at the maximum point in their pay range are eligible to enter the new pay range system. Employees who wish to participate must complete three trainings a year, with at least one being a live training. You may choose any training from section three. Training that you complete will have a post test and should be turned in to Anne Wolking. Once you have completed your three training requirements, you will receive a training certificate. A copy of your certificate will be sent to your supervisor and will be kept on file in the HR department. Once your training has been reviewed and approved, you will receive a notification of your advancement in the new pay range system.

Employees who do not qualify to advance into the new pay range system but still wish to participate in training are welcome to do so.

We will be offering several types of training that will fit into your work schedule as well as to complete your training requirements or goals. You will have the opportunity to “train yourself” by selecting a books from our training library. We will also offer group trainings through CD, DVD, and live trainings. The live trainings will be hosted by individuals throughout SD1 who specialize in certain training topics. Stop by Anne Wolking’s desk to sign out your training items.

Computer trainings will be made available to all employees at Main Office. The classes will be instructed by our IT department or by an instructor from Waltz Business Solutions and will range from beginner to advanced courses.

Please refer to the section four of the catalog for a list of scheduled live trainings, computer trainings, sample forms and documents. Signups for the computer and live trainings are on a first-come, first-serve basis. Please notify Anne Wolking of which training you would like to attend. All forms and documents can be found outside Anne Wolking’s desk or on the HR intranet site.

Any training you wish to do outside of the District or if you have questions about the training offered at SD1, please contact Anne Wolking or Vicki Crawford for further assistance.

Anne Wolking  
[awolking@sd1.org](mailto:awolking@sd1.org)

Vicki Crawford  
[vcrawford@sd1.org](mailto:vcrawford@sd1.org)

<b>Safety Training</b>
<i>CPR/AED/Bloodborne Pathogens</i>
<i>First Aid</i>
<i>Traffic Control</i>
<i>Traffic Control Update</i>
<i>Electrical Safety</i>
<i>Lockout—Tagout</i>
<i>Hazard Communication</i>
<i>Lab Safety</i>
<i>Confined Space Entry and Rescue</i>
<i>Safe Driving</i>
<i>General Safety—Non Office</i>
<i>General Safety Office</i>
<i>Swift Water Awareness</i>
<i>Fire Safety</i>
<i>Excavation Safety</i>
<i>Hazardous Waste Operations</i>
<i>Scaffolding, Ladders and Powered Platforms</i>
<i>Forklift</i>
<i>Safe Driving</i>
<i>DOT-Truck Safety</i>
<i>Cranes, Hoists and Rigging</i>

*Supervisors are encouraged to independently complete the online NIMS training courses 100 and 700*

*A full version of the Safety Calendar can be found on the Safety intranet site.*

*If you have any questions regarding the above training, please contact Rod Bell, Safety Manager or Pat Diesman, Safety Coordinator*

The following is a list of training offered internally by the Human Resources. Some of the trainings are required to be completed by every employee. Information on those trainings will be provided as needed and employees will be notified of any upcoming training that they are required to attend.

<b>HR Trainings</b>	<b>Targeted Groups</b>
Respect Training <ul style="list-style-type: none"> <li>• Unlawful harassment</li> <li>• Diversity</li> </ul>	Required—All Employees
Equal Employment Opportunity Training	Required—Managers
Zapper Team Building	Voluntary—All employees

*Please contact Vicki Crawford or Anne Wolking with any questions regarding any of the HR Training*

*This information can also be found on the HR Intranet site.*

The following is a list of trainings for employees who want to qualify and remain compliant for the new pay range system. If you are not eligible for the new system, you may still participate in the listed trainings. All employees may complete any training but each will have a recommended target audience listed.

### **Books**

#### **1. 175 Ways to Get More Done in Less Time**

- Make time for success!

*Target Audience—all employees*

#### **2. The Art of Communicating**

- Dynamics of effective communication between people
- Present the underlying emotional component of communication
- Provide ways to improve communication skills

*Target Audience—all employees*

*Post Test Included*

#### **3. Becoming the Obvious Choice**

- Easy to read road map for achieving success
- Quick tips that can be implemented today!

*Target Audience—all employees*

#### **4. Better Business Writing**

*Target Audience—all employees*

*Post Test Included*

#### **5. The Business of Listening**

- Learn the basics of effective listening skills
- Learn to recognize good listening behaviors and incorporate them into daily activities
- Understand the impact of good listening skills on productivity
- Learn to correct problems caused by poor listening habits and systematically change them into permanent good habits.

*Target Audience—all employees*

*Post Test Included*

#### **6. Better Grammar**

*Target Audience—all employees*

#### **7. Better Punctuation**

*Target Audience—all employees*

## **8. Better Sentence Writing**

*Target Audience—all employees*

## **9. Better Spelling**

*Target Audience—all employees*

## **10. Better Vocabulary**

*Target Audience—all employees*

## **11. The Carrot Principle**

- How the best managers use recognition to engage their people, retain talent and accelerate performance.
- Learn to lead with carrots, not sticks in order to achieve higher productivity, engagement, retention and customer service.

*Target Audience—Managers and Supervisors*

## **12. The Continuously Improving Self**

- Build a positive self-esteem
- Creative energy for discovering how to improve processes at work and home
- Increased feelings of power and influence
- To hear the “voice of the customer” and to serve others
- Clearly communicated wants and flexible, cooperative strategies for achieving them

*Target Audience—all employees*

*Post Test Included*

## **13. The Dream Manager**

- This book is a business parable about how companies can achieve remarkable results by helping their employees fulfill their dreams.

*Target Audience—managers and supervisors*

## **14. Emotional Intelligence Works—Developing People Smart Strategies**

- Improve relationships in business and social settings
- Stop wasting time and energy on negative emotions
- Manage emotions and communicate intelligently
- Increase flexibility, enthusiasm and Teamwork.

*Target Audience--managers*

*Post Test Included*

## **15. The Essentials of Business Writing**

- A simple guide for writing it right—every time

*Target Audience—all employees*

## **16. Excellence in Supervision**

- Gain respect and support of your employees

- Use coaching skills to help others excel and accomplish goals
- Deal effectively with changing times and confusing situations
- Communicate confidently with your employees, peers and manager
- Establish expectations for high performance

*Target Audience—managers and supervisors*

### **17. Facilitation Skills for Team Leaders**

- Improve effectiveness of decision-making
- Increase participation and efficiency of work teams
- Develop your skills of feedback and clarification
- Use the six-step problem-solving process to benefit your organization
- Communicate better with all team members

*Target Audience—newly promoted managers and supervisors*

### **18. Fat-Free Writing**

- Communicate clearly, correctly, and concisely
- Format documents for maximum impact
- Tailor your communication to different learning styles
- Simplify your messages to ensure they will get read

*Target Audience—all employees*

### **19. From Dull to Dynamic**

- This book gives you practical advice on your next presentation whether you are a beginning or experienced speaker.

*Target Audience—all employees*

### **20. Hard Optimism**

- How to succeed in a world where positive wins
- Recognize and dispute pessimistic thoughts
- Gain an edge by adopting an optimistic style to interpret events, both good and bad
- Use positive reappraisal to handle problems and disappointments
- Know how and when to use negative thinking to your advantage
- Play to your signature strengths
- Practice gratitude and forgiveness to fight off negativity

*Target Audience—all employees*

### **21. Lead Right**

- Having a leadership position and being a leader are not the same
- Your position is something you were appointed to, something you became eligible for by being a good performer in the past
- Being a true leader is much different—“Leader” is a descriptor, a label that you earn through specific behaviors and based on what you do today and what you will do tomorrow—not what is imprinted on your business card or engraved on your name tag

*Target Audience—managers and supervisors*

## **22. The Leadership Secrets of Santa Claus**

- “How to get big things done in your ‘workshop’ all year long.”

*Target Audience—managers and supervisors*

## **23. Leadership Skills**

- Your achievement is measured by your staff’s performance. Knowing how to work with your staff increases your department’s effectiveness: your employees can become your best support as you become one of today’s successful leaders.

*Target Audience—managers and supervisors*

## **24. Learning to Lead**

- The sources of leadership power
- The primary ways to handle resistance to change
- The difference between managers and leaders/managers
- Developing and communicating your vision

*Target Audience—newly promoted managers and supervisors*

## **25. Life is an Attitude**

- Learn how to control your outlook on life and win where others fail. The book looks at all facets of life: work, home, relationships

*Target Audience—all employees*

## **26. Listen up Leader**

- A six step recipe for leadership that can be prepared and digested fast. A must read for all current and future leaders
- Loaded with practical advice

*Target Audience—managers and supervisors*

## **27. The Manager’s Communication Handbook**

- Learn characteristics of effective communication plus 44 “how to” tips
- Build understanding, support, and acceptance for organizational change
- Use proven communication techniques to enhance credibility build trust, breakdown “we vs. they” behaviors, and help your organization focus on common goals.

*Target Audience—managers and supervisors*

## **28. Managing Behavior on the Job**

- Describes an approach used by effective managers to achieve end results, not at the cost of the people, but consistent with their growth and development.

*Target Audience—managers and supervisors*

## **29. The New Supervisor**

- Learn the principles of coaching, counseling, discipline, and delegation

- Create and maintain strong, productive work relationships
- Make the best use of employees' talents and build winning teams
- Handle the problem employee with respect and tact
- Avoid common mistakes of the newly promoted

*Target Audience—newly promoted managers and supervisors*

### **30. Peer Today, Boss Tomorrow**

- Whether you are seasoned supervisor, you're newly promoted or you're preparing yourself for a future leadership position, this book is for you. By applying the information found inside, you'll reduce any fears or frustration you may be feeling, increase your personal effectiveness, gain greater respect from the people reporting to you, and enhance your overall career. Most importantly, you'll prove to everyone that you are the kind of leader that others will want to follow

*Target Audience—all employees*

### **31. Powerful Communication Skills**

- How to communicate with confidence, clarity and credibility.

*Target Audience—all employees*

### **32. Prioritize—Organize: The Art of Getting it Done**

- Put an end to procrastination, perfectionism and “delegation phobia”
- Learn the secrets to working smarter, not harder
- Discover how to manage time, people and projects more successfully
- Take firm Control of multiple priorities, even when everything and everyone needs your attention now.

*Target Audience—all employees*

### **33. Servant Leadership**

- Be a servant first, leader second

*Target Audience—Managers and Supervisors*

### **34. Start Right Stay Right**

- A guide book for all employees.
- Using straight-talk, real world approach, it pinpoints the critical behaviors necessary for individual and organizational success.

*Target Audience—all employees*

### **35. Technical Presentation Skills**

- Assess your skill
- Plan your presentation
- Create visual aids

*Target Audience—all employees*

### **36. TQM—50 Ways to Make it Work for You**

- Focus on the customer
- Involve the entire workforce in decision-making
- Commit to continuous improvement

*Target Audience—supervisors and managers*

### **37. Using Visual Aids**

- Make your message clear, convincing and powerful
- Create an interactive language with color, shapes and symbols
- Help your audience “See what you mean”.

*Target Audience—all employees*

### **38. Working in Teams**

- How to unite a team around a common goal
- Sharing responsibility for the tasks ahead
- Learning to depend on each other
- Building consensus for making decisions

*Target Audience—all employees*

### **39. Understanding Leadership Competencies**

- Evaluate your own leadership skills
- Learn to practice competencies you seldom use
- Increase leadership ability
- Encourage others to develop their abilities

*Target Audience—managers and supervisors*

## **CD/DVD/CD-Rom Trainings**

### **1. A Leader’s Legacy**

- Each one of us has the opportunity to be a leader and a role model. Through our efforts, we can significantly encourage the success and productivity of those around us. But such influence takes work. Leadership is personal: the people you lead need to know who you are and what you care about before they can follow you.

*Target Audience—managers and supervisors*

### **2. Built to Change**

- Organizations are built for stability, not for change. But in today’s highly competitive business environment, organizations must be ready to change—and change frequently.

*Target Audience—all employees*

### **3. Change Management and Strategic Planning**

- Strategic planning is the process of creating a wave of change while gaining commitment from your employees and other stakeholders necessary to make

it happen. Yet, change inevitable engenders resistance. Even the best strategic plans can fail if they resistance is not met and overcome.

*Target Audience—all employees*

#### **4. How to Coach an Effective Team**

- All successful teams have one thing in common—a highly effective leader who gets everyone to pull together, while inspiring trust, commitment and respect

*Target Audience—managers and supervisors*

#### **5. Make Every Day a Terrific Day**

- Step by step techniques to help develop and maintain a wholesome, positive mental attitude. How to overcome life's energy-draining challenges; and how to build an enthusiastic, enjoyable pattern of happy, healthy successful daily living.

*Target Audience—all employees*

#### **6. People-First Management**

- When employees trust their company to go the extra mile for them, they go the extra mile for customers.

*Target Audience—managers and supervisors*

### **Live Trainings**

#### **1. Leadership skills**

*Target Audience—managers and supervisors*

#### **2. Effective communication**

*Target Audience—all employees*

#### **3. Team-building**

*Target Audience—all employees*

#### **4. Motivating at Work**

- Examine the barriers of productivity
- Create an environment of encouragement
- Use the five steps to improve motivation

*Target Audience—managers and supervisors*

#### **5. Attitude**

- Discover the power of a positive attitude
- Rate your attitude

- Use and apply the eight attitude adjustment techniques
- Target Audience—all employees*

## **6. Change**

- Why change exists
- Discover ways how to handle change
- Why it can be a healthy process for a company

*Target Audience—all employees*

## **7. Conflict Resolutions**

- Learn how to effectively resolve conflict
- Problem solving techniques

*Target Audience—all employees*

## **8. Presentation Skills**

- Practical tools to become a better presenter
- Types of speeches
- Students will prepare and present speeches to class

*Target Audience—all employees*

## **9. Time Management**

- Simple steps to help manage your time
- Identify our time wasters
- Set an action plan for bettering our time management skills

*Target Audience—all employees*

## **10. Computer Training**

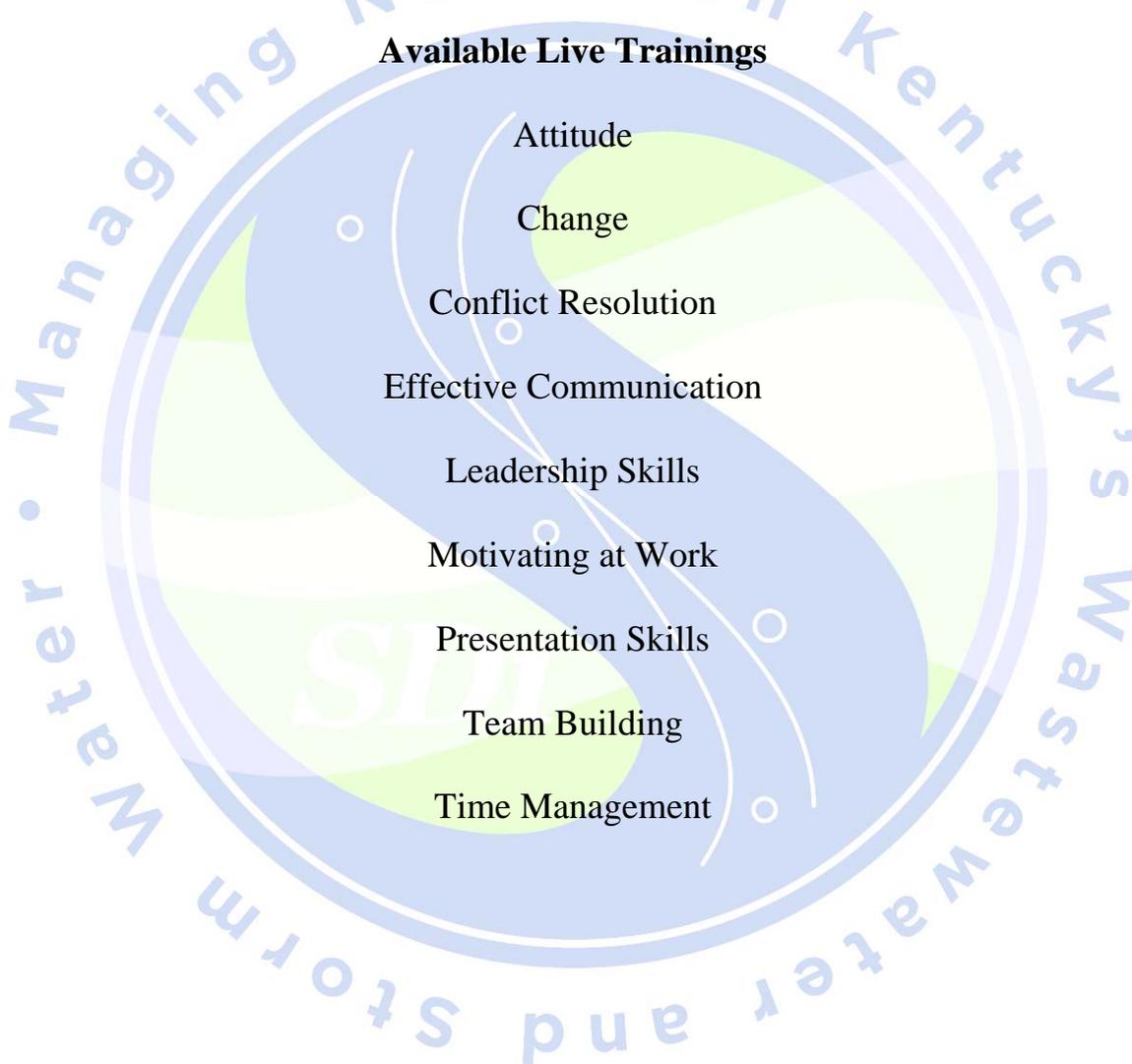
- Excel
  - Word
  - Power point
- (Classes on-site)

*Target Audience—all employees*

Please contact Anne Wolking to sign up for the training you wish to participate in. The trainings are limited to twenty participants, so signups are on a first come, first serve basis.

Night shift employees who want to participate in any of the live trainings should contact Anne Wolking to set up a training date.

**Available Live Trainings**



Below is a schedule of trainings for July 2009 to June 2010:

# 2009–2010 Training Calendar

## August 2009

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## September 2009

S	M	T	W	T	F	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

## October 2009

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

## November 2009

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

## December 2009

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## January 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## February 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## March 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## April 2010

S	M	T	W	T	F	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	

## May 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## June 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

## July 2010

S	M	T	W	T	F	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					



*Protecting the Environment  
Safeguarding Public Health*

### Address:

1045 Eaton Drive  
Ft. Wright, KY 41018

### Contact Information:

Phone: 859-547-1660  
Fax: 859-578-7453  
E-mail: [awalking@sd1.org](mailto:awalking@sd1.org)

## Schedule of Events

### Leadership Skills

8/11/09 Location: 2B  
8/20/09 Location: Dry Creek  
2/9/10 Location: 2B  
2/16/10 Location: Dry Creek

### Change

9/15/09 Location: 2B  
9/22/09 Location: Dry Creek  
3/9/10 Location: 2B  
3/16/10 Location: Dry Creek

### Attitude

9/17/09 Location: 2B  
9/24/09 Location: Dry Creek  
3/11/10 Location: 2B  
3/18/10 Location: Dry Creek

### Motivation in the Workplace

10/13/09 Location: 2B  
10/20/09 Location: Dry Creek  
4/13/10 Location: 2B  
4/20/10 Location: Dry Creek

### Conflict

11/10/09 Location: 2B  
11/19/09 Location: Dry Creek  
5/11/10 Location: 2B  
5/18/10 Location: Dry Creek

### Time Management

11/12/09 Location: 2B  
11/24/09 Location: Dry Creek  
5/13/10 Location: 2B  
5/20/10 Location: Dry Creek

### Presentation Skills

12/15/09 Location: 2B  
12/17/09 Location: Dry Creek  
6/15/10 Location: 2B  
6/22/10 Location: Dry Creek

### Effective Communication

1/12/10 Location: 2B  
1/19/10 Location: Dry Creek  
7/13/10 Location: 2B  
7/20/10 Location: Dry Creek

### Team Building

1/14/10 Location: 2B  
1/21/10 Location: Dry Creek  
7/15/10 Location: 2B  
7/22/10 Location: Dry Creek

Classes will begin promptly at 8 am and will last 1-hour

Blue—Trainings held at Main Office

Green—Trainings held at Dry Creek



## Training Completion Certificates

Certificates will be awarded for all completed trainings. All participants who are eligible for the advanced payment tier and who have completed their three training requirements will receive a training report that shows all trainings attended. A copy of their form will be sent to their supervisor to be used for the employee's review.

Name of Employee:

---

Trainings completed:

1. \_\_\_\_\_

Type of Training:

Book      CD ROM      Live Training      CD      DVD

2. \_\_\_\_\_

Type of Training:

• Book      CD ROM      Live Training      CD      DVD

3. \_\_\_\_\_

Type of Training:

Book      CD ROM      Live Training      CD      DVD

HR Signature:

Date

---

## Training Suggestion Form

It is the goal of the HR department to deliver up-to-date training that targets around subjects our employees are most engaged in. Please fill out the form below if you would like to see certain trainings offered at the District.

### Type of Training

Circle one:

Book

CD ROM

DVD

Live Training

Other

### Title of Training:

---

### Topic of Training:

---

### Description of Training:

---

---

---

### Approximate Length of Training:

---

### Cost Per Unit:

---

### Employee Name:

---

## Volunteer Trainer Form

Fill out the form below if you would like to train in your area of expertise. Employees who wish to be involved in training employees will meet with Anne Wolking to discuss further their role in the training process.

Employee:

---

Department:

---

Supervisor's Signature:

---

Training Topic Interest:

---

Skills I excel in that may be useful for future training needs:

---

---

---

**Employee Signature:**

---

**Date:**

---

## Computer Training

Please fill out the survey below if you are interested in completing computer training classes from our IT/GIS Department. All trainings will be hosted in our training room. Employees who complete this survey will be contacted when training dates become available.

Employee Name:

---

Department:

---

I am interested in the following computer trainings:

Circle all that apply:

### Microsoft Excel

Beginner

Intermediate

Advanced

### Microsoft Word

Beginner

Intermediate

Advanced

### Microsoft Power Point

Beginner

Intermediate

Advanced

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## **APPENDIX K:**

### **Grease Control Program – Phase 1 & Phase 2 Updates**

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## Grease Control Program Phased Implementation Plan Schedule

Actions	Phase 1 (12 months)*	Phase 2 (12 months)	Phase 3 (12 months)	Phase 4 (12 months)
Conduct Self Assessment				
Review Rules and Regulation/Enforcement Design Criteria				
FSE Education				
Public Education				
Compile Data from Self Assessment				
Revise Rules and Regulation/Enforcement Response Plan				
Develop Inspection Protocol				
Approval for Rules and Regulations/Enforcement Response Plan				
Modify Food Service Discharge Permit				
Revise Domestic Holding Tank Waste Hauler Manifest				
Evaluate Staffing and Equipment Requirements				
Public Reading for Rules and Regulation/Enforcement Response Plan				
Permitting				
Performance Indicators				

Shaded areas indicate actions being performed in phase.

\*Phase 1 commenced upon Cabinet/EPA's joint approval of SD1's Grease Control Program, which occurred on January 8, 2008.

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**Grease Control Program Progress Update**  
Phase 1: January 2008 through January 2009

<b>Conduct Self-Assessment</b>	
<b>Phase 1 Tasks</b>	<b>Update as of January 2009 (End of Phase I)</b>
SD1 will acquire a list of FSEs within the service area that are permitted by the Kentucky Health Department. This will aid in determining the magnitude of FSEs that have the potential to discharge FOG to the SSS. This information will also help establish mailing addresses and points of contact for the FSEs.	Task reported complete in FY 2008.
Field crew personnel currently determine when collection system problems are caused by FOG during a trouble call. This process will be evaluated to determine if the causes of trouble calls are being classified accurately.	Tasks complete. Problems caused by FOG are being recorded accurately by field personnel in gbaMS.
Field crew personnel enter trouble call evaluations into GBA. The process of entering information into GBA will be evaluated to ensure data is accurate, accessible and manageable.	
SD1 currently uses a geographical information mapping system called Arc Viewer. One of the primary functions of Arc Viewer is to show the locations of sanitary sewer lines in the service area. This system will be evaluated to find possible mapping capabilities for areas with FOG problems within the collection system.	Task complete. IT personnel create a monthly GIS Shapefile to show the CCTV line inspections that reveal a blockage of 30% or greater due to grease.

<b>Review Rules &amp; Regulations / Enforcement Response Plan</b>	
<b>Phase 1 Tasks</b>	<b>Update as of January 2009 (End of Phase I)</b>
A review of SD1's Rules and Regulations and ERP is being conducted. This review will identify any deficiencies in the legal authority to control the discharge of grease into the SSS. It will also identify deficiencies in the enforcement program. If found, the deficiencies will indicate revisions to be made in Phase 2 of this program.	Task complete. The review identified minor revisions needed in order to support the new permitting requirements and the enforcement of grease control devices. Minor revisions are also needed in the enforcement section to clarify the effective date of the new permitting requirements and the fines associated with enforcement.
SD1 will review the effectiveness of other publicly owned treatment works (POTWs) Rules and Regulations and ERPs (i.e. Cincinnati MSD, Louisville MSD, and Knoxville Utilities Board). This will provide insight into what is working for utilities in the surrounding area.	Task Complete. The research provided beneficial insight in the areas of developing design criteria for grease reduction device standards and a sludge hauler certification program.

<b>Design Criteria</b>	
<b>Phase 1 Tasks</b>	<b>Update as of January 2009 (End of Phase I)</b>
SD1 will seek the development of design criteria for grease reduction device standards by the Kentucky Division of Plumbing, Kentucky Health Department and Kentucky Environmental and Public Protection Cabinet.	This is an on-going task. Held internal meetings to discuss direction of research and implementation strategy. Reviewing other utilities' criteria.

**Grease Control Program Progress Update**  
Phase 1: January 2008 through January 2009

FSE Education	
Phase 1 Tasks	Update as of January 2009 (End of Phase I)
Over the last year, SD1 has created and distributed BMP posters to be displayed in permitted FSEs and will continue to distribute such posters. The FSEs are required to display these posters in areas where there is potential for FOG to be discharged to the SSS.	This is an on-going task being tracked in Linko FOG. 23 FSEs were provided posters during Phase 1.
SD1 will create and send out BMP brochures to all FSEs. The brochure will focus on the harmful effects of FOG in sewer lines and proper grease handling techniques used to minimize the release of FOG into the collection system. These brochures can also be distributed during site visits.	This is an on-going task being tracked in Linko FOG. 15 FSEs were provided brochures during Phase 1.
SD1 will begin researching a compliance assistance workshop for FSEs. An evaluation of other FOG workshops will be conducted to determine content and effectiveness. This workshop will provide FSEs with a comprehensive overview of the Grease Control Program. The workshop will be initiated when all specifics of the program have been established.	This is an on-going task. Staff started gathering information and conducting internet research, with the goal of developing content for a formal presentation.
SD1 has met with members of the Kentucky Restaurant Association (KRA) and the Northern Kentucky Restaurant Association (NKRA) to open channels of communication with key stakeholders. SD1 will continue to work to educate these key stakeholders. Their participation and cooperation is valuable. We will encourage the KRA and NKRA to include grease control program information in their newsletters.	Task complete. In July 2008, the NKRA agreed to mail an informational letter to all of their current members. The NKRA has an electronic copy of the letter so that they can periodically send out additional letters.

Public Education	
Phase 1 Tasks	Update as of January 2009 (End of Phase I)
SD1 has created and distributed door hangers to inform customers when there has been a blockage or obstruction due to FOG in their area. These informational pieces focus on the harmful effects of FOG in sewer lines and proper grease handling techniques used to minimize the release of FOG into the collection system. SD1 will continue to distribute door hangers and letters to customers in areas impacted by FOG related overflows.	This is an on-going task. To better focus the distribution of letters, a GIS map was created to show residential areas where CCTV inspections indicate grease problems. Customer letters will be sent to the areas on a prioritized basis. Areas with the most severe problems will receive letters first. In addition, when an overflow occurs in a residential area due to a blockage of grease, a letter will be sent to homes in the area.
SD1 will create and send out additional bill inserts to all customers within the service area. The bill stuffers will spotlight the harmful effects of FOG in sewer lines and proper grease handling techniques used to minimize the release of FOG into the collection system.	Task complete. SD1 sent the "Not Down My Drain" bill insert to all residential customers at the beginning of 2008 and the "Say No to FOG" brochure as a bill insert to all residential customers at the end of 2008. In addition, FOG educational articles were included in the Winter 2008 and Winter 2009 publications of "What's Happening", a county-specific publication that is mailed to every resident in Boone, Campbell and Kenton counties.
SD1 will research the "Trap the Grease Program." This program involves supplying residences with a container for grease rather than pouring it down the drain.	Task complete. In a review of Cincinnati MSD, Columbus MSD, Louisville MSD, Lexington MSD and Knoxville Utilities Board (KUB) FOG programs, none of these utilities were found to have implemented such a program. KUB did a one time promotional campaign where containers were sent to residences but did not revisit the program because there was no way to measure the effectiveness of their efforts. A more cost-effective approach for SD1 may be promotional campaigns designed to support the essence of such a program. For instance, continuing to distribute information through different communication channels (direct mailings, Internet, phone messages, etc...) to describe how homeowners can use any available household items such as soup cans and coffee cans to collect grease.

**Grease Control Program Progress Update**  
Phase 2: January 2009 through January 2010

<b>Compile Data From Self-Assessment</b>	
<b>Phase II Tasks</b>	<b>Update as of November 2009</b>
GBA will be modified and field crew personnel will be trained to ensure data is entered accurately and that the data is accessible and manageable.	Task completed during Phase I.
SD1 will create a list of collection system areas experiencing problems with FOG in the sanitary sewers. This list will be created using the information established in GBA in Phase 1.	Task complete. Information compiled from GBA grease-related work orders was integrated into a GIS data layer. This data layer provides a visual representation of FOG problem areas as they are distributed over SD1's service area. Maps have been created displaying sewer lines, sewer structures, and buildings tied-in or connected to the collection system above these problem areas. From these maps, a list has been created of the areas contributing to FOG problems. The maps also provide details important to understanding the source of FOG problems in a particular area. These maps and the list will continue to be updated as grease-related issues continue to arise. This data can also be downloaded in other variable formats for personnel to review.
SD1 will create a list of FSEs that may be contributing to FOG problem areas. This list will be created using information provided from the Kentucky Health Department in Phase 1.	Task complete. A regularly updated list of FSEs can be accessed online anytime through the KY Health Department. This list is being reviewed in coordination with the GIS maps created to identify FOG problem areas as described above.
<b>Revise Rules &amp; Regulations / Enforcement Response Plan</b>	
<b>Phase II Tasks</b>	<b>Update as of November 2009</b>
If necessary, the District will begin drafting revisions to the District's Rules and Regulations and ERP to ensure proper legal authority and enforcement.	Task complete. Enforcement Response Plan revisions have been made and will be forwarded to KDOW for review. SD1 anticipates submitting revised Sanitary Rules and Regulations to the Cabinet by the end of FY 2010.
<b>Design Criteria</b>	
<b>Phase II Tasks</b>	<b>Update as of November 2009</b>
SD1 will continue to coordinate with the Kentucky Division of Plumbing, Kentucky Health Department and Kentucky Environmental and Public Protection Cabinet on the development of design criteria for grease reduction device standards.	SD1 has developed draft design criteria that is currently undergoing final review by SD1 personnel.
<b>FSE Education</b>	
<b>Phase II Tasks</b>	<b>Update as of November 2009</b>
1) SD1 will continue developing the compliance assistance workshop for FSEs and 2) will maintain the distribution of the BMP posters to permitted FSEs.	1) The Northern Kentucky Health Department has agreed to partner with SD1 to educate FSEs, which includes assistance in distributing BMP posters and educational pamphlets to all FSEs in the area. In addition, NKHD agreed to incorporate SD1's workshop presentation (once complete) into its mandatory annual training. This will ensure that all licensed FSEs will receive SD1's message. 2) This is an on-going task being tracked in Linko FOG. BMP posters have been provided to 35 FSEs.
SD1 will distribute letters and other informational pieces to residential customers in areas impacted by FOG related overflows. These pieces will be evaluated and updated as needed on a regular basis.	This is an on-going task. Approximately 2,200 letters have been mailed to areas experiencing FOG related overflows during Phase 2.
<b>Develop Inspection Protocol</b>	
<b>Phase II Tasks</b>	<b>Update as of November 2009</b>
SD1 will begin developing an inspection protocol for plumbing plans, installation and final inspection. This will ensure the proper installation of appropriate grease control devices.	Task complete. SD1 engineering inspectors will be responsible for inspecting and approving all grease control equipment in accordance with SD1's design criteria. Inspection checklists have been created to ensure that the equipment is being approved in a consistent manner.
Inspection frequency and inspection report forms will be developed to determine if the FSE is in compliance with the Grease Control Program.	Task complete. SD1 has created an inspection checklist for Industrial Monitoring personnel to use when inspecting permitted FSEs.

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**APPENDIX L:**  
**Pump Station Backup Power Update**

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Category	Pump Station	Basin	Rank	Potential Solution Noted in Original Plan	Changes to Potential Solution	Completion Date Noted in Original Plan	Changes to Completion Date	Status Description as of December 2009.
1	Alex Licking	East	118	Permanent Generator		Year 2008		Generator currently operational.
	Allen Fork	North	105	Permanent Generator		Currently Operational		
	American Sign	West	112	Permanent Generator		Year 2008		Generator currently operational.
	Ashford Village	Central	110	Permanent Generator		Currently Operational		
	Ashmont	Central	109	Permanent Generator		Currently Operational		
	Bloomin Springs	North	103	Permanent Generator		Currently Operational		
	Bromley	North	104	Dual Utility Power Feed		Currently Operational		
	Burlington	North	108	Permanent Generator		Currently Operational		
	Highland Acres	West	113	Permanent Generator		Currently Operational		
	Lakeview	Central	92	Dual Utility Power Feed		Currently Operational		
	Lantern Way	West	111	Permanent Generator		Currently Operational		
	Macke	East	119	Permanent Generator		Currently Operational		
	Meyer Rd	East	114	Permanent Generator		Currently Operational		
	Parkside	East	116	Permanent Generator		Currently Operational		
	Pond Creek	East	126	Permanent Generator		Currently Operational		
Ridgewood Valley	East	44	Permanent Generator		Currently Operational			
Riley Road	East	127	Permanent Generator		Year 2009		Generator is installed and will be operational once the pump station becomes operational by the end of December 2009.	
Sunset	East	117	Permanent Generator	PS Elimination	Year 2009		This station will be eliminated with the construction of the new Arcadia pump station. A permanent generator will be in place at the new station. Anticipated completion date is December 2010.	
TaylorSPORT	North	106	Permanent Generator		Currently Operational			
Treetop Estates	North	107	Permanent Generator		Currently Operational			
Wolpert Rd	East	115	Permanent Generator		Currently Operational			
2	Army Reserve	East	57	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Initial analysis indicated that this station can be eliminated by means of gravity sewer. Cost-effectiveness of solution to be further analyzed before final determination is made.
	Blackstone	West	61	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		This station will be eliminated after the Western Regional collection system is operational.
	Dublin Green No. 1	West	53	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		This station will be eliminated after the Western Regional collection system is operational.
	Eagles Landing	West	54	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Initial analysis indicated that this station can be eliminated by means of gravity sewer. Cost-effectiveness of solution to be further analyzed before final determination is made.
	Evergreen	Central	41	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Initial analysis indicated that this station can be eliminated by means of gravity sewer. Cost-effectiveness of solution to be further analyzed before final determination is made.
	Fowler Creek	West	102	PS Elimination		Year 2013		This station will be eliminated after the Western Regional collection system is operational.
	Gammon Calmet	West	100	PS Elimination		Year 2013		This station will be eliminated after the Western Regional collection system is operational.
	Gunpowder	West	98	PS Elimination		Year 2013		This station will be eliminated after the Western Regional collection system is operational.
	Kahns	East	99	PS Elimination		Year 2007		Eliminated prior to current reporting period with the Eastern Regional collection system.

Category	Pump Station	Basin	Rank	Potential Solution Noted in Original Plan	Changes to Potential Solution	Completion Date Noted in Original Plan	Changes to Completion Date	Status Description as of December 2009.
<b>2 (continued)</b>	Lamphill	East	86	PS Elimination Study	Backup power solution to be determined.	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Evaluation indicated that it is not feasible to eliminate this station by means of gravity sewer. A backup power solution will be identified for this location.
	Meadow Hill	Central	22	PS Elimination Study	PS Elimination	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015	Year 2010	This pump station will be eliminated by a new gravity sewer, which is scheduled to begin construction by December 2009.
	Mill House Crossing	Central	49	PS Elimination Study	Backup power solution to be determined.	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Evaluation indicated that it is not feasible to eliminate this station by means of gravity sewer. A backup power solution will be identified for this location.
	Ridgefield	North	45	PS Elimination Study		PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Currently undergoing initial analysis.
	Riley Road No. 1	East	121	PS Elimination		Year 2009		The new Riley Road Pump Station will be operational by the end of December 2009, at which time these two stations will be eliminated. A permanent generator will be in place at the new station.
	Riley Road No. 2	East	120	PS Elimination		Year 2009		
	Riverwatch PS	North	96	PS Elimination Study	PS Elimination	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Eliminated June 2008 with the completion of the new gravity sewer.
	South Park Industrial	North	95	PS Elimination Study	Backup Dry Prime Pump with a Diesel Engine	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Union	West	94	PS Elimination		Year 2013		This station will be eliminated after the Western Regional collection system is operational.
	War Admiral	West	101	PS Elimination Study	PS Elimination	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		This pump station will be eliminated by a new gravity sewer. Construction is anticipated to begin by May 2010.
	Wedgewood Dr	Central	90	PS Elimination Study	PS Elimination	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015	Year 2010	Gravity sewer currently under preliminary design to eliminate the pump station. Anticipated completion date is July 2010.
Willow Bend No. 2	West	30	PS Elimination Study	PS Elimination	PS Elimination Study By Year 2008 and Solution Implementation By Year 2015		Gravity sewer currently under design to eliminate the pump station. Anticipated completion date is June 2010.	

Category	Pump Station	Basin	Rank	Potential Solution Noted in Original Plan	Changes to Potential Solution	Completion Date Noted in Original Plan	Changes to Completion Date	Status Description as of December 2009.
<b>3</b> (Project 1)	Centerplex	East	125	Permanent Generator		Year 2008		Generator operational February 2008.
	Ky Aire	West	123	Permanent Generator		Year 2008		Generator operational February 2008.
	Levi	West	122	Permanent Generator		Year 2008		Generator operational February 2008.
	South Hampton	West	124	Permanent Generator		Year 2008		Generator operational June 2008.
<b>3</b> (Project 2)	Barrs Branch	East	6	Permanent Generator	Portable Generator	Year 2008		A portable generator hook-up installed August 2009.
	Bullitsville	North	1	Permanent Generator		Year 2008		Generator operational December 2008.
	Highland Heights	East	3	Portable Generator		Year 2008		Generator operational March 2009.
	Hempsteade	West	5	Portable Generator		Year 2008		Generator operational March 2009.
	Second Street	Central	7	Permanent Generator		Year 2008		Generator operational March 2009.
	Skyport	North	9	Permanent Generator		Year 2008		Generator operational December 2008.
Thornwilde	North	11	Permanent Generator		Year 2008		Generator operational December 2008.	
<b>3</b> (Project 3)	Brookwood	East	4	Permanent Generator		Year 2008	Year 2009	Generator operational March 2009.
	Catalpa	Central	16	Permanent Generator		Year 2008	Year 2009	Generator operational March 2009.
	Dublin Green No. 2	West	8	Permanent Generator		Year 2008	Year 2009	Generator operational March 2009.
	Maple Ave	Central	12	Permanent Generator		Year 2008	Year 2009	Generator operational March 2009.
	Sand Run	North	2	Permanent Generator		Year 2008		Generator operational December 2008.
<b>3</b> (Project 4)	Airport Exchange Ind Park	North	13	Permanent Generator		Year 2008	Year 2009	Generator operational August 2009.
	Bunning Lane	East	89	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	Year 2008	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Cedar Point	East	19	Permanent Generator		Year 2008	Year 2009	Generator operational August 2009.
	Kees	East	18	Permanent Generator	Alternative solution to be determined.	Year 2008	Year 2014	Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution. The generator initially procured for this location will be moved to Banklick Pump Station.
	Overlook	East	15	Permanent Generator	Alternative solution to be determined.	Year 2008	Year 2014	Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution. The generator initially procured for this location will be moved to Newport Steel Pump Station.
	Riverview Farms	North	17	Permanent Generator	Alternative solution to be determined.	Year 2008	Year 2014	Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution. The generator initially procured for this location will be moved to the Enzweiller Pump Station.
	Saturn	West	10	Permanent Generator		Year 2008	Year 2009	Generator operational November 2009.
	Stillwater	East	14	Permanent Generator	Alternative solution to be determined.	Year 2008	Year 2014	Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution. The generator initially procured for this location will be moved to Cedar Pump Station.

Category	Pump Station	Basin	Rank	Potential Solution Noted in Original Plan	Changes to Potential Solution	Completion Date Noted in Original Plan	Changes to Completion Date	Status Description as of December 2009.
4	Air Park West	North	79	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Arbortech	North	78	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Arborwood	North	32	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Banklick	Central	23	Permanent Generator		By Year 2014	Year 2009	Generator operational August 2009.
	Brandtly Ridge	Central	48	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Brentwood	North	25	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Brushup Lane	West	51	Permanent Generator	PS Elimination	By Year 2014		This pump station will be eliminated by a new gravity sewer. Construction is anticipated to begin by May 2010. (Project coincides with War Admiral Pump Station solution listed in Category 2)
	Carlisle Ave	East	20	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Cedar	Central	46	Permanent Generator		By Year 2014	Year 2009	Generator operational August 2009.
	Cinnamon Ridge	West	74	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Cold Spring Crossing	East	81	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Cold Spring Plaza	East	85	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Darma Ct	East	27	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.
	Deer Creek No. 1	North	40	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Deer Creek No. 2	North	68	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Eighth Street	Central	93	Connect to Grid Power		By Year 2014		Currently undergoing initial analysis.
	Fowler Ridge	Central	26	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Gerrard Ave	East	82	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Golf Course	Central	72	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Hampton Ridge	West	33	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Harrison Harbor	East	59	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Harvest Hill	Central	73	Permanent Generator	PS Elimination Study	By Year 2014		Under analysis to be eliminated by means of gravity sewer.
	ICH	Central	35	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	IDI	North	38	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Independence Station Rd	Central	47	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Jefferson Ave	East	83	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Jericho Rd	Central	70	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Jonathan	West	52	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
Lassing Green	West	80	Permanent Generator		By Year 2014	Year 2009	Generator operational August 2009.	

Category	Pump Station	Basin	Rank	Potential Solution Noted in Original Plan	Changes to Potential Solution	Completion Date Noted in Original Plan	Changes to Completion Date	Status Description as of December 2009.
<b>4 (continued)</b>	Leathers Rd	Central	50	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Litton	North	64	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Marshall Rd	Central	66	Permanent Generator		By Year 2014	Year 2010	Generator procurement phase.
	Mineola Pike	North	34	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Newport Steel Mill	East	84	Permanent Generator		By Year 2014		Generator operational August 2009.
	Ohio Ave	East	58	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Orchard Estates	West	39	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Parkside No. 2	East	55	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Patton Street	Central	88	Dual Utility Power Feed		By Year 2014		Currently undergoing initial analysis.
	Paul Rd	East	56	Permanent Generator	Portable Generator	By Year 2014	Year 2010	Property owner issues; permanent generator not feasible. There is adequate wet well storage at this location. A portable generator hook-up will be provided at this PS. Anticipated completion date is March 2010.
	Ria Vista	North	69	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Rosewood Lane	East	28	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2010	Pump installation is anticipated to be complete by the end of January 2010.
	Shadow Lake	East	24	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.
	Silver Grove	East	37	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	St Annes	East	67	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
	Sycamore	West	75	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Taylor Mill Rd	Central	71	Permanent Generator	Alternative solution to be determined.	By Year 2014		Property owner issues; permanent generator not feasible. Evaluating alternate backup power solution.
	Wilder	East	76	Permanent Generator		By Year 2014		Currently undergoing initial analysis.
Wolf Rd	Central	36	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2014	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.	
Wyndemere	North	63	Permanent Generator	Portable Generator	By Year 2014		Property owner issues; permanent generator not feasible. There is adequate wet well storage at this location. A portable generator hook-up will be provided at this PS.	
Youell Rd	West	65	Permanent Generator		By Year 2014		Currently undergoing initial analysis.	
<b>5</b>	Cardinal Cove	North	42	Permanent Generator		By Year 2015		Currently undergoing initial analysis.
	Crestview	East	91	PS Elimination Study		By Year 2015		Currently undergoing initial analysis.
	Keavy	Central	29	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2015	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.
	Meadow Lane	Central	43	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2015	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.
	Ripple Creek	East	87	PS Elimination Study		By Year 2010		Currently undergoing initial analysis.
	Winters Lane No. 2	East	21	Permanent Generator		By Year 2015		Currently undergoing initial analysis.
<b>6</b>	Enzweiller	East	62	Permanent Generator		By Year 2015	Year 2009	Generator operational August 2009.
	Mafred	Central	60	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2015	Year 2009	Pump installation is anticipated to be complete by December 2009.
	Richwood	West	97	Permanent Generator		By Year 2015		Currently undergoing initial analysis.
	Ridgeway	Central	77	Permanent Generator	Backup Dry Prime Pump with a Diesel Engine	By Year 2015	Year 2009	Pump installation is anticipated to be complete by the end of December 2009.
	Twin Lakes	Central	31	Permanent Generator		By Year 2015		Currently undergoing initial analysis.

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