

Annual MOM Progress Report

2010

Submitted to EPA on March 1, 2011

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D. Wayne Loveday

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March 1, 2011

Date



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Section 1: Introduction

KUB's Management, Operations, and Maintenance (MOM) programs continue to make significant improvements in the wastewater collection system resulting in both reduced overflow frequencies and reduced volumes. The significant improvements in our MOM programs include increased asset inspections, more frequent gravity main cleaning, system storage for better wet-weather overflow control, improved process controls at the wastewater treatment plants (WWTPs), and rehabilitation of the approximately 1300 miles of collection system pipes.

Sanitary Sewer Overflows

KUB's continued focus on MOM programs and system rehabilitation has produced significant reductions in the number of sanitary sewer overflows (SSOs) that occurred before KUB implemented its PACE 10 Program. [PACE 10 is KUB's accelerated 10-year, \$530 million wastewater improvement program to aggressively attack the problem of sewer overflows. "PACE" stands for "Partners Acting for a Cleaner Environment."] As a result of PACE 10, KUB reduced SSOs by over 65 percent since 2003. Figure 1 illustrates this significant downward trend and also shows that significant rain events are having less of an impact on our wastewater system, although rainfall totals and frequency still influence the occurrence of wet-weather SSOs. Periods of greater and extended rainfall, such as the period from 2008–2010, create longer lasting effects on infiltration and thus higher flows in the collection system. These conditions make the system more susceptible to overflows during larger rain events.

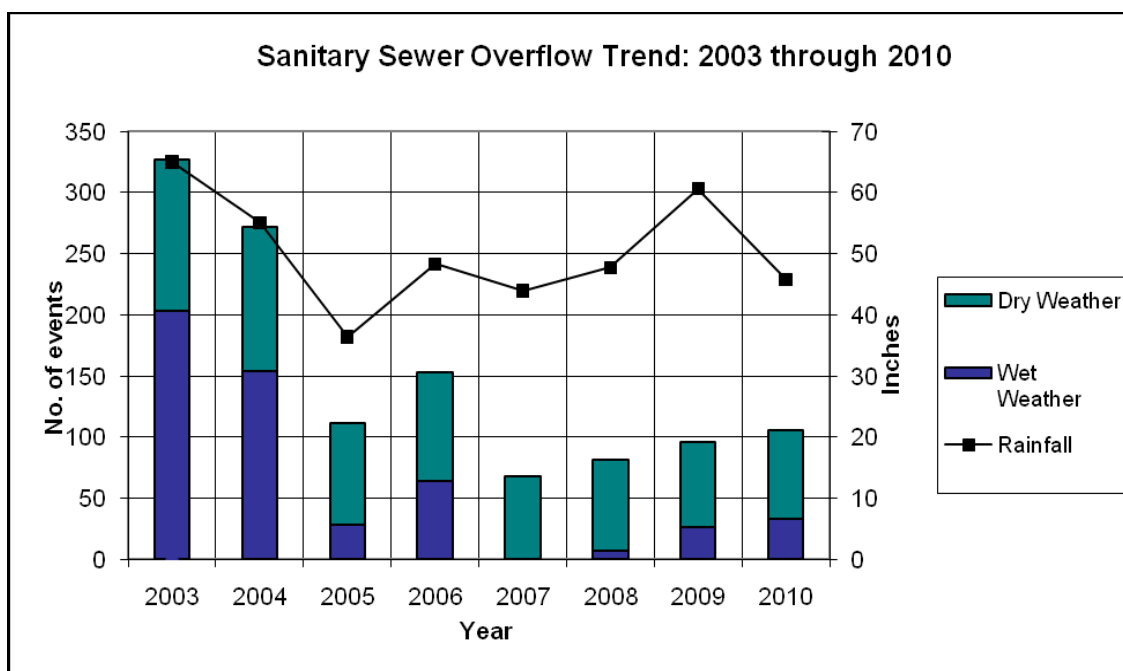


Figure 1. Sanitary Sewer Overflow Trend: 2003 through 2010

Note: KUB's highest SSO numbers were in 2003, when rainfall reached a record high. As KUB completed early PACE 10 projects, SSOs began to trend down. (The 2006 spike was due to a single extraordinary rainfall event.) Rainfall in 2009 approached the 2003 high, and although SSOs went up, they were still significantly lower than in a similar rainfall year before PACE 10.

KUB experienced 33 wet weather overflows in 2010 versus over 200 in 2003. The slightly increasing trend in wet-weather overflows seen in Figure 1 in both 2009 and 2010 can be attributed to the influence of total rainfall from 2008 – 2010, which was higher than the three years prior to this period. Continued wet weather creates saturated ground conditions, which is also known as high antecedent soil moisture conditions. Figure 2 shows how this situation increases the infiltration of stormwater or groundwater into the collection system where rehabilitation has yet to be completed.

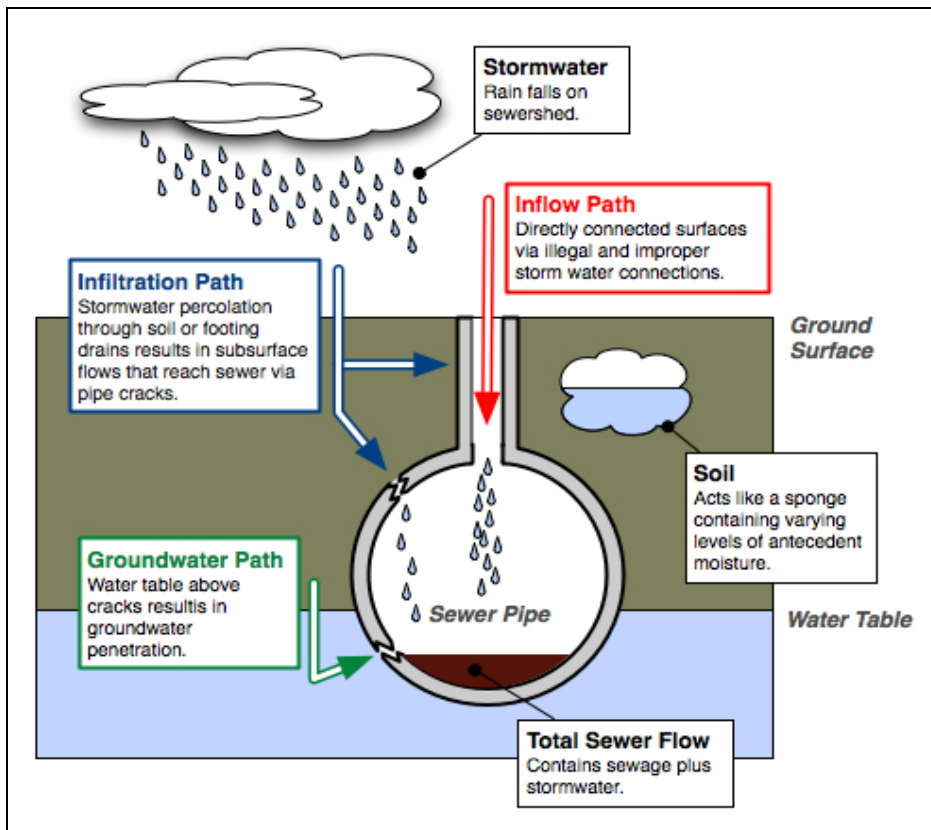


Figure 2. Antecedent Moisture Condition—Courtesy of i3D Technologies Inc.

In January 2010 the soil was saturated due to the amount of rainfall received (12.02 inches) within the 60 days prior (See Table 1). That soil condition combined with a large rain event (2.4 inches) beginning on January 24, 2010, produced 12 overflows. There was another significant rain event on November 29, 2010, where the area received 3.52 inches of rain within a five-day period and 11 inches in the 60 days prior that resulted in nine wet-weather-related overflows. Those two rain events accounted for 64 percent of the wet weather events reported in 2010.

Improvements already made in KUB's collection system have lessened the effects of rainfall and antecedent moisture. A rain event in December 2004 similar to the two events mentioned previously produced 45 SSO events and secondary diversion volumes of over 100 million gallon (MG). It is notable that similar rainfall with high antecedent soil moisture conditions in 2010 produced a much smaller number of events and a smaller secondary diversion volume. Thanks to completed improvement projects, including construction of

KUB's four wet-weather wastewater storage tanks, those rainfall events produced only a small fraction of the number of wet weather SSOs compared to similar conditions before implementation of PACE 10.

Table 1. Wet Weather Event Comparisons

Event Period	Amount of Rainfall (inches)					Wet Weather SSOs	Secondary Diversion Volume (MG)
	1 Day	3 Day	5 Day	30 Day	60 Day		
Dec 6 -10, 2004	2.07	2.58	3.99	9.87	15.53	45	105.14
Jan 24 - 27, 2010	2.39	2.48	4.18	5.24	12.02	12	40.45
Nov 29 - Dec 5, 2010	2.35	2.97	3.52	5.91	10.94	9	35.45
Dec 31 - Jan 1, 2011	2.4	2.52	2.52	4.16	10.9	4	12.62

KUB's wastewater storage facilities at Lower First Creek, Upper First Creek, Upper Third Creek, and Walker Springs operated a combined total of 41 times in 2010, containing a total of 82.3 million gallons of wastewater. Those tanks were designed and sited to address chronic overflows at Fourth and Hoitt, 5000 Western Avenue, 4813 N Broadway, and Walker Springs. The tanks help KUB to prevent spikes in flow that exceed the hydraulic capacity of the collection system and meet requirements to address sewer overflows and protect our environment.

KUB will complete a fifth storage facility at Bernard Avenue in May 2011. Construction of a sixth storage facility located at the Kuwahee Wastewater Treatment Plant began in December 2009 with anticipated completion in June 2011. These tanks will add another 12 million gallons of storage that will help to further reduce wet-weather SSOs and reduce peak flows at the wastewater treatment plants that occur during heavy rainfall.

KUB maintains continued focus on its MOM programs and system rehabilitation to also reduce dry-weather overflows. Blockages were a leading cause of dry-weather overflows in 2010, accounting for 33 of the 73 overflows that occurred; however, this category is down nine events or 21 percent from 2009. KUB continues to focus on reducing blockage-related overflows especially through the efforts of the Blockage Abatement (BA) and Grease Control programs. Grease and roots continue to be the leading causes, or major contributing factors, in blockage-related overflows, although the totals continue to decrease.

MOM Programs

Grease Control Program

KUB maintains aggressive efforts to prevent grease discharges to the collection system from food service facilities (FSFs). Two schools and 32 FSFs installed new equipment or upgraded their external grease traps in 2010. Those efforts and investments by our customers continue to help prevent grease buildup in our system. KUB completed inspections of 1,225 FSFs to determine their potential grease risk prior to issuing permits. Only four percent of the FSFs were rated as high risk or unacceptable for the 2011 permitting year.

KUB also continues to educate residential customers to prevent grease-related overflows. In areas where residential grease may be entering the system, KUB conducts additional

televised inspections. The inspections help better identify the need for increased cleaning and public awareness efforts, such as Can the Grease (CTG). KUB placed additional emphasis on distributing educational information on proper grease disposal this past year. Program personnel participated in customer education events hosted by community organizations and promoted CTG in various customer communications and the KUB Web site. Customers receive educational materials explaining the proper means of grease disposal. The CTG cans are still given away during limited special events such as home owner meetings, tenant meetings at apartment complexes, and promotional events. In 2011, KUB is planning to distribute spatulas with the Can the Grease logo to customers near grease-related overflows as a new promotional and educational effort.

Gravity Sewer Preventive Maintenance

Another effort that continues to reduce dry-weather SSOs is our Blockage Abatement (BA) Program, a routine cleaning and inspection program to remove roots and debris from sewer mains.

The BA Program uses increased frequency of cleaning to prevent overflows in areas with previous problems until KUB schedules projects for more permanent fixes. The footage of mains on BA fluctuates each year as KUB completes scheduled fixes or identifies new areas where more cleaning is needed pending future projects.

In 2010, BA crews cleaned 1,061,261 ft (201 miles) and televised 298,520 ft (56 miles) of gravity sewers in our system.

Continuing Sewer System Assessment Program (CSSAP)

In addition to the BA footage, KUB crews and PACE 10 contractors proactively cleaned and televised 380,663 ft (72 miles) in 2010. KUB uses data from televised inspections to assess the condition of the assets for additional maintenance and/or system rehabilitation efforts. Under PACE 10, contractors also smoke-tested 380,663 ft (72 miles) of sewers and inspected 1,535 manholes in 2010. KUB also gathers additional information from its other MOM program efforts. This assessment information is collected as part of the Continuing Sewer System Assessment Program (CSSAP) and is used to feed the Infrastructure Rehabilitation Program (IRP) decision-making process. We refer to this as our basin characterization process. As all the data is collected for a sub-basin or mini-basin, a design engineer and a basin engineer evaluate it. Lines are then recommended for rehabilitation, replacement, or continued maintenance and inspection based on design criteria and engineering judgment.

Through the collection of multiple sources of data, such as as-built drawings, field inspections, and asset management information, KUB created a database to help manage the continual evaluation of each sewer pump station and the connected force mains. The database tracks general information about each pump station and actual operational data, such as flow rate and other information from the Supervisory Control and Data Acquisition system (SCADA).

KUB uses the database as the primary tool to assess station condition and ensure that the pump stations are a reliable means of transporting sewage during dry- and wet-weather conditions.

Infrastructure Rehabilitation Program (IRP)

In 2010, KUB had \$47.6 million in rehabilitation and replacement projects under contract, including two additional storage tanks, four pump stations, and over 18.4 miles of pipe in the collection system with 1,449 manholes rehabilitated or replaced. KUB completed 23 projects in 2010 and initiated eight pump station projects that involved rehabilitation or significant upgrades to improve system collection performance.

Private Lateral Program

KUB also inspects customer-owned private laterals, notifies customers with defective laterals or prohibited connections, and enforces repairs or replacements as required by our Private Lateral Program (PLP)*. KUB tracks information about the PLP in a Lotus Notes information management system (IMS) called the Private Lateral Tracker. A total of 326 laterals were repaired or replaced in 2010.

In 2010, KUB implemented an Incentive Program to help property owners proactively replace their defective sewer laterals and remove prohibited connections if they qualified for assistance under the Supplemental Environmental Project (SEP). This program is offered to property owners in areas where sewer main rehabilitation has not occurred and will not occur before the completion date of the SEP in 2013. These areas have also been determined to have significant inflow or infiltration during heavy rainfall and older sewer pipe (system age is greater than 40 years) consisting of a large amount of concrete, clay, cast iron, or Orangeburg pipe. A total of 2915 customers were mailed incentive letters in five separate areas, which resulted in 144 grants or repaired laterals last year.

Summary

KUB continues to complete numerous improvement projects and maintain the ongoing MOM programs to further reduce wet and dry weather related overflows. This progress report shows how KUB will continue to use and refine its MOM programs in the future to better maintain our system, serve our customers, and protect our environment. The following sections provide more specific information on the MOM activities already highlighted over the course of this past year.

KUB continues to implement, manage, and refine the Other MOM Programs listed in the Consent Decree Appendix A. Where applicable, any of those programs with changes or significant accomplishments are summarized in Section 7.

**This project was undertaken in conjunction with the settlement of a civil enforcement action taken by the United States for violations of the Clean Water Act.*

Section 2: Grease Control Program

KUB's Grease Control Program consists of three primary elements:

- Routine inspection of food service facilities (FSFs)
 - Existing FSFs
 - New/remodeled FSFs
- Grease-related SSO Response
- Residential Grease Control Program.

This MOM Progress Report section and the summary tables included in Appendix A provide an overview of the program's activities in 2010. There were only 12 grease related SSOs in 2010 as a result of the continued focus on Grease Control Program activities. The summary tables provide more detailed information pertaining to grease-related SSOs, interceptor requirements for FSFs, the number and results of inspections, enforcement actions, and other program activities. All FSFs in the KUB service area are on a scheduled rotation for inspection at least annually.

Inspections of Food Service Facilities

KUB conducted 1,225 total inspections of FSFs in 2010. That included 40 initial inspections, 137 follow-up inspections, and 1,048 annual inspections. KUB required 32 of the FSFs to upgrade existing equipment or to install new equipment to help prevent grease-related overflows in their areas.

The 1,225 inspections performed in 2010 resulted in only 42 Notices of Noncompliance and one Notice of Violation. Over 95 percent of the FSFs inspected were in compliance with the Grease Control Program requirements. Of the 43 enforcement actions, 34 resulted in new installations of or upgrades to existing grease control equipment.

Several FSFs upgraded equipment during building renovations or expansions. Some facilities recognized their grease control equipment was needed repair or replacement. The Breadbox Store installed a new 1,000-gallon grease interceptor, upgrading from a 40-pound internal grease trap, when it expanded its services. Buddy's BBQ installed a new 1,500-gallon grease interceptor, upgrading the previous 1,000-gallon interceptor that had developed a crack in the side. The Marriott Hotel replaced two 40-pound internal grease traps with two 200-pound internal traps to provide adequate control during special events held periodically at their facility.

Two Knox County school food-preparation sites, Whittle Springs Middle and Lonsdale Elementary, installed 1,500-gallon grease interceptors. All of the schools in KUB's wastewater service area now have proper grease control equipment. KUB has worked closely with the school system over the last five years to complete the upgrades needed to meet program requirements.

Grease Program Permitting Phase for 2010

In February 2010, KUB sent 824 Grease Permitting packets to FSFs that discharge grease into the wastewater system. The program requires all active and inactive FSFs to be inspected at least annually and to obtain a Grease Control Permit annually if they prepare food.

Each FSF received a permitting packet that explained the facility's risk rating and included application materials and program guidelines. KUB completed inspections of all FSFs in its service area to determine risk ratings and if the FSF needed a permit. Completed permits were received from 780 FSFs, 44 FSFs were inactive or did not need a permit, and 40 were new FSFs to be permitted.

Before permit packets are mailed, FSFs are inspected to determine their risk rating, based on the risk they potentially pose to the collection system. Each facility is rated based on its size, food preparation practices, the maintenance of its grease control equipment, and its record-keeping practices. If an FSF's equipment is undersized or poorly maintained, or if the FSF has not maintained pumping records, the risk rating will be high or unacceptable. If the facility is rated as unacceptable, it will be required to upgrade its grease-control equipment or increase pumping frequency. Otherwise, it will be subject to enforcement action.

The base permit fee is \$100 per year for each facility. If an FSF's grease control system is rated as unacceptable or high risk to KUB's system, KUB charges the facility an additional \$50 fee. Each facility is assessed annually to determine the risk rating and proper fee. Permitting fees help KUB recover some of the costs related to implementing the Grease Control Program. Only 4 percent of the FSFs were rated as high risk or unacceptable for the 2011 permitting year.

Beginning with the 2011 permitting cycle, permits will be valid for two years, but all FSFs will still be inspected annually to ensure compliance and determine their risk rating. Also in 2011, the use of additives in grease control equipment or building discharge lines on a constant or regular basis will be prohibited. Such additives include, but are not limited to, chemicals, acids, caustics, enzymes, emulsifiers, surfactants, commercially available bacteria, or other additives designed to absorb, purge, consume, treat, or otherwise eliminate fats, oil, and grease. Written approval from KUB may be given where specific circumstances exist and grease control is demonstrated by televised inspection of the lines downstream. That will eliminate the potential for dissolved grease to enter the collection system and cause future grease related SSOs.

KUB plans to work with local grease waste haulers in the coming year to more thoroughly inspect grease control equipment after maintenance. Efforts are underway to create a certification class held by KUB for grease waste haulers, which includes a review of grease interceptor and trap components, maintenance procedures, and proper cleaning methods. By working together with the haulers, KUB can better ensure all components of the grease control equipment are installed and functioning properly. If any defects or deficiencies are found during the inspection, the certified haulers are required to provide written notice to the FSF and to KUB detailing the issues that were found and FSFs are required to develop a corrective action plan. Haulers following the requirements of certification and providing proof of proper grease disposal will be recognized as a KUB Approved Grease Waste Hauler.

The purpose of the proposed changes is to make the current program even more effective at controlling grease produced by FSFs and to increase accountability for both the FSFs and the waste haulers used to service FSFs' grease control equipment.

Grease-Related SSO Response and Residential Can the Grease Program

The majority of grease-related overflows in the KUB system occur in residential areas. When such an overflow occurs, KUB initiates a grease investigation that includes making field inspections and sending information to residential customers.

Based on the location of the SSO, KUB uses the electronic mapping tool LandViewer to place a graphic polygon around the geographic area upstream of the SSO location. That helps identify all wastewater customers that may be contributing grease to the SSO location. KUB then generates a report containing customers' names and account information.

KUB inspects commercial customers to verify their compliance with KUB's Grease Control Program requirements. KUB mails residential customers a letter, an educational brochure, and other promotional materials on collecting their grease instead of disposing of it down the drain.

In 2010, KUB mailed grease letters to 868 customers near 12 grease-related overflows. KUB also sent educational brochures and grease can liners to residential customers. [Note: KUB does not send educational materials to commercial customers, which must have grease traps or interceptors. They are inspected to ensure compliance with the program.]

KUB also emphasized communication to residential customers in 2010 with information on the Can the Grease (CTG) program to promote customer education and awareness of proper disposal of grease in their homes. Information is always included on the KUB website. During the winter holiday season, it is included on the home page. Residential homeowners also receive educational information through customer newsletters and even promotions of the CTG program in the local newspaper.



During the Thanksgiving holiday, a nonprofit recycling company in the Knoxville area called Clean Energy Biofuels set up collection sites in the Knoxville area to collect used cooking oil, which was then processed into cleaner burning biodiesel. During the holiday collection, over 250 gallons of used cooking oil was collected. KUB has partnered with Clean Energy Biofuels to help sponsor more permanent collection sites to continue the effort of collecting used cooking oil.

KUB continues to promote the CTG program at community events by distributing cans and sending speakers to meetings and other events. KUB grease inspectors gave educational presentations at apartment complexes during monthly tenant meetings, housing agencies, and general utility customer education workshops. KUB participated in 16 local events in 2010 and handed out 785 Can the Grease cans and brochures. This was an increase of seven events over 2009.

Section 3: Continuing Sewer System Assessment Program (CSSAP)

The CSSAP is a systematic evaluation of the entire wastewater collection and transmission system (WCTS) that also assesses capacity to support prioritization of the Corrective Action Plan/Engineering Report (CAP/ER) and the Infrastructure Rehabilitation Program (IRP). It consists of five key programs, each of which includes a method for setting priorities for determining where assessments are to be performed, a list of the tools and methods to be used to conduct assessments, and a performance measure to track progress.

The following table shows the elements of the CSSAP assessment tools and performance goal periods:

Program Elements	Assessment Tools	Completed in 2010	Total Completed*	One Complete Cycle Period
Manhole Condition Assessment	Manhole Inspections Smoke Testing	6 percent	58 percent	12 Years
Gravity Sewer Condition Assessment	Flow Monitoring Smoke Testing Dye Testing CCTV	6 percent	60 percent	12 Years
Private Lateral Condition Assessment	Flow Monitoring Smoke Testing Dye Testing CCTV	14 percent	64 percent	12 Years
Force Main Performance Assessment	Corrosion Defect Identification	100 percent	New cycle begins in 2011**	2 Years
Pump Station Performance Assessment	Pump Station Performance and Adequacy	50 percent	New cycle began in 2010**	2 Years

*Since CSSAP approval 7-28-05

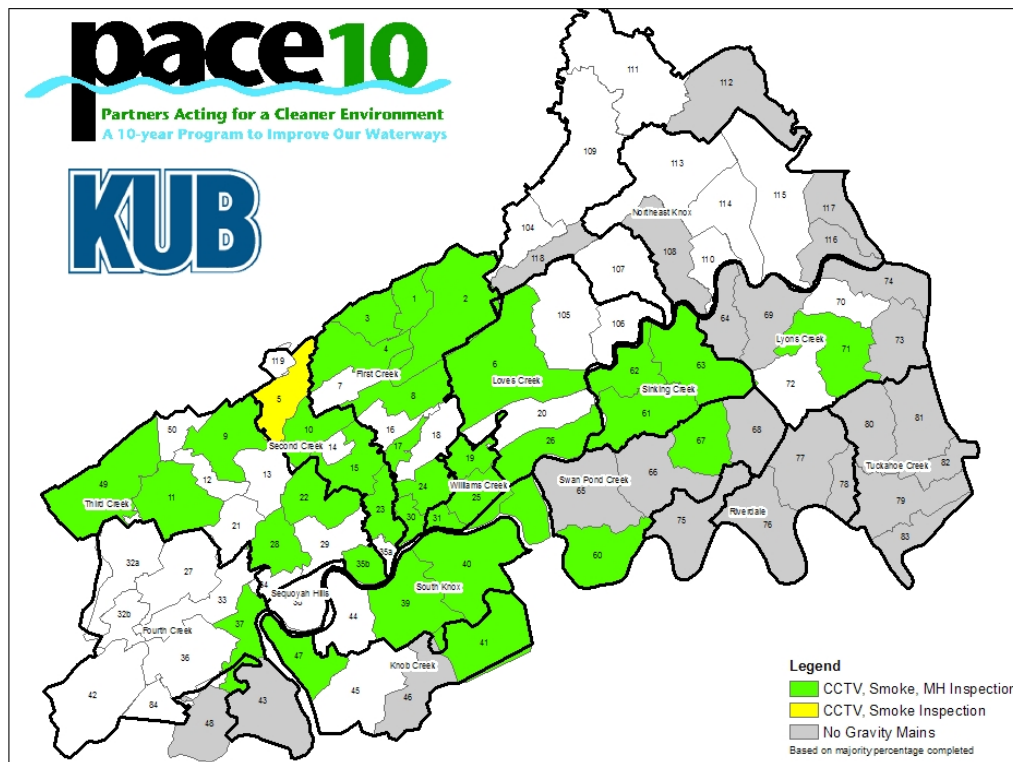
**Completed once every two years

Manhole and Gravity Sewer Condition Assessment

We are dedicated to completing one full cycle of collection system assessment and cleaning in 12 years. At the end of year six, KUB has completed inspection of approximately 60 percent of the collection system infrastructure. This advancement of work was done to facilitate many of the early rehabilitation projects. On the remaining schedule, KUB's daily clean and CCTV goal is 2,500 ft per day for an assumed 200 working days/year (200 days provides allowance for weather, emergency response,

equipment, training, and other personnel constraints that may limit a working day). This amounts to 500,000 ft per year, or approximately 8.5 percent of the system.

In addition to the 201 miles of BA footage, KUB and PACE 10 contractors cleaned and televised 380,663 ft (72 miles) of gravity sewers in 2010. Under PACE 10, contractors smoke-tested 380,663 ft (72 miles) of sewers and conducted 1,535 manhole inspections, with 1,449 manholes rehabilitated or replaced. More than 97,275 ft (18.4 miles) of wastewater mains in the KUB system were rehabilitated or replaced.



We continue to reconcile data from previous years to ensure thorough cleaning and inspections on all assets in each sub-basin.

Flow Monitoring and Modeling

Flow monitoring and modeling continue to be important tools to help KUB assess its system and prioritize basins for cleaning and rehabilitation. KUB has 36 permanent flow meters strategically placed in the wastewater system.

KUB plans to continue to use permanent meters and to add temporary meters as needed to collect data for the system model to help determine what areas to investigate and prioritize for future projects. Flow monitoring data supports planning for Gravity Line Preventive Maintenance, Pump Station and Force Main Preventive Maintenance, and Infrastructure Rehabilitation.

After completing significant amounts of sewer rehabilitation in 2009, KUB conducted temporary flow assessment of both First Creek and Williams Creek drainage basins. KUB contractors installed 42 temporary flow monitors and 17 (15 permanent and two temporary) rain gauges in First Creek. Also, nine temporary flow monitors and nine temporary rain gauges were placed in the Williams Creek drainage basin. KUB contractors installed nine additional permanent flow monitors to help analyze the two basins. Data was collected from February 2009 through April 2009. Precipitation conditions of December 2008 and January 2009 were 70 percent and 25 percent higher, respectively, than average values in the Knoxville area.

The flow monitoring conducted in 2009 revealed that improvements had been made in both First Creek and Williams Creek basins. KUB uses an R-value, which is defined as the ratio of the volume of rainfall dependent inflow/infiltration to the rainfall volume, to assess how much stormwater is entering the wastewater collection system. In other words, R-value is the fraction of rainfall from a storm event that enters the wastewater collection system via inflow or infiltration. The higher the R-value, the more rainfall entering the collection system. The flow monitoring in First Creek data showed improvements of R-value in 27 out of the 51 mini-basins, and five out of the ten mini-basins in Williams Creek.

In 2010, after substantial rehabilitation, the South Knoxville basin was monitored by 34 temporary flow monitors, four permanent flow monitors, and 13 rain gauges. In addition, KUB conducted temporary flow assessment in the Shadyland area of the Fourth Creek basin by using one temporary flow monitor and one rain gauge. Data was collected from February 2010 to April 2010. Results from the flow monitoring showed improvements in a majority of the mini-basins in South Knoxville with recommendations for further investigative work to be performed in mini-basins 39C3, 39E1, and Woodson Drive Pump Station area in sub-basin 44.

Private Lateral Condition Assessment

Private laterals may also be a major source of rainfall-derived inflow/infiltration (RD I/I). Private lateral inspections currently follow PACE 10 wastewater system improvement projects. As part of the projects, KUB replaces the lower lateral and installs a two-way cleanout.

A contractor televises customers' upper laterals through the new cleanout and scores them using standard Pipeline Assessment and Certification Program (PACP) criteria. KUB reviews the data and makes recommendations on repairs. The recommendations are reviewed for consistency with PACP standards and enforcement action is taken where appropriate.

For more information on the PLP, see Section 8.

Force Main and Pump Station Performance Assessment

As shown in the CSSAP table at the beginning of this section, KUB is committed to assessing all force mains and pump stations on a two-year cycle. KUB personnel have completed inspections of all pump stations annually since 2008. In 2010, all 62 pump stations received a general condition assessment through a detailed inspection. During inspections, the estimated remaining service life of the structural integrity, mechanical equipment, and electrical reliability at each pump station was reviewed and updated

from inspections performed in 2009. KUB performed annual performance inspections on all pump stations. Information from those inspections helps assess the condition and criticality grading of each facility every other year. Based on the results of the 2009 assessment, KUB prioritized pump stations to determine criticality and a course of action for each station in need of maintenance. The prioritized list of stations guides the timeline for project completion.

The wastewater facility preventive/predictive maintenance program has been streamlined to eliminate excess work and consolidate inspection methods into one practical application. In 2010, KUB performed 1,207 inspections of pump stations or equipment. That included 1,117 routinely scheduled preventive maintenance inspections and 90 additional inspections initiated by field crews. [See Appendix B for maintenance activities and schedule.]

In 2009, KUB, with assistance from consultant Camp, Dresser & McKee (CDM), completed a force main assessment in conjunction with the pump station assessment. The assessment included inspections of all high-pressure air-relief valves. KUB continued the assessment of all low-pressure air-relief valves in 2010. The force main assessment evaluates the material and age of the main, the condition of the air-relief valve, the condition of terminal manholes, and problems at pump stations (pumps not pumping at their specified rating or under high pressure due to potential issues with the force main). KUB also monitors Hydrogen Sulfide (H₂S) on a continuous basis and tracks odor problems, which potentially affect the condition of the force main. In 2010, KUB began a project to replace 40 air release valves based on the results of the 2009 assessment. Based on terminal manhole inspections, 12 will be rehabilitated or replaced.

KUB's Force Main Condition Assessment Program identifies areas having potential corrosion issues. Staff uses the information to schedule appropriate maintenance and/or capital improvement activities. [See *Section 7: Other MOM Programs for more information.*] Because steel, cast iron, and ductile iron pipe are susceptible to corrosion damage in areas where air enters pipes, KUB focuses assessment efforts around air-relief valves and at terminal manholes.

KUB uses temporary dataloggers (OdaLogs) to monitor H₂S levels in areas with odor complaints or previous corrosion issues. The data helps to identify potential for force main corrosion. KUB follows up with additional inspections on lines shown to have high H₂S levels for extended periods.

KUB monitored the following areas in the past year:

Dogwood Drive FM
Easton Meadows PS / Parker Drive FM
Forks of the River PS / Delrose Dr FM
Harrison Keepe PS wet well

Ice Chalet (Fourth Cr sludge line)
Kohl's PS / Washington Pike FM
Ten Mile PS / Rotherwood Drive FM
Walker Springs PS / Vanosdale Road FM

KUB also performed quarterly H₂S monitoring at the following pump stations and storage facilities:

Ball Road	Ginnbrooke	Rolling Ridge
Boyds Bridge SuperOx	Governor's Landing	Shiptown
Casa Bella	Harrison Keepe	Ten Mile
Chestnut Ridge	Holston Hills	Third Creek Storage Facility
Clinton Highway	Kohl's	Three Points
Duncan Glen	Lower First Creek Storage Facility	Upper First Creek Storage Facility
Easton Meadows	Maloneyville	Walker Springs
Eastwood	Millertown Pike	Walker Springs Storage Facility
Ellistown	Neubert Springs	Washington Pike
Forks of the River	Power Park	Wayland Road
Forks SuperOx	Riverview Park	Woodlands
Gazebo	Roberts Road	Woodson Drive

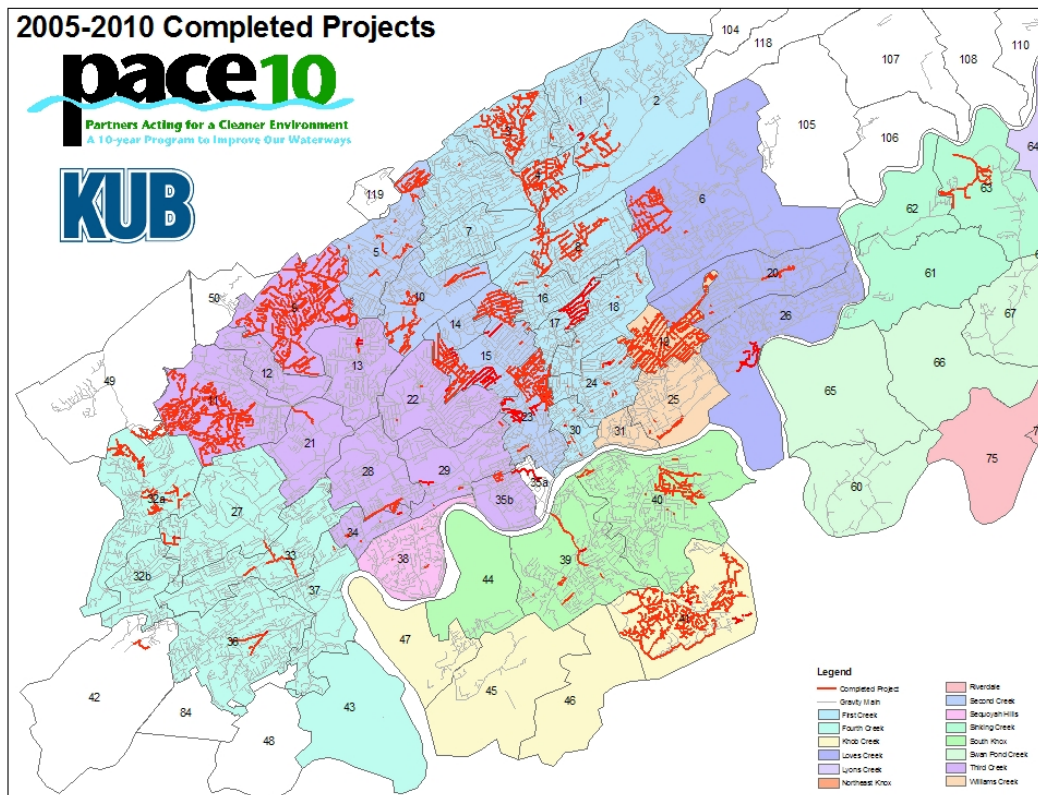
Manholes and lines downstream of force mains are areas that may experience odor complaints. KUB concentrates H₂S monitoring and control efforts in areas such as these and uses various methods of odor control as appropriate.

Section 4: Infrastructure Rehabilitation Program (IRP)

The main objectives of the Infrastructure Rehabilitation Program (IRP) are to address inflow and infiltration (I/I) and other causes of sanitary sewer overflows (SSOs) by maintaining or restoring capacity and structural integrity. It addresses both the gravity portion of the WCTS (gravity lines, manholes, etc.) and the transmission components (pump stations and force mains).

Gravity Lines and Manholes

KUB's IRP rehabilitated or replaced more than 97,275 ft (18 miles) of sewer mains in 2010. [That is about 1.4 percent of the KUB system, as shown by the map below.] Out of 1,535 manholes inspected, 1,449 were rehabilitated or replaced. The mains were rehabilitated or replaced using a mix of cured-in-place pipe, pipe bursting, or open-cut pipe replacement.



KUB initially focused heavily on flow monitoring and modeling to direct rehabilitation. As the IRP matures, KUB increasingly uses other components of the CSSAP, such as televising lines and inspecting pump stations, to direct improvements. Basin Characterization has become a larger part of the evaluation as a more comprehensive set of data becomes available from CSSAP.

Pump Stations and Force Mains

Key performance criteria for pump stations and force mains are hydraulic capacity, structural integrity, and mechanical and electrical reliability. KUB's ultimate goal is to upgrade pump stations as necessary to maintain the design life of equipment and to

certify capacity for new connections in accordance with the requirements of the Capacity Assurance Plan (CAP).

In 2009, KUB began construction to add the Lake Forest pump station to the system. This new station will replace gravity sewer lines that run along and/or under a pond that are subject to high levels of inflow and infiltration. Several older existing stations were removed in 2009; Vestal, Rolling Ridge, and Bud Hawkins.

KUB completed upgrades or replacements of the Boys Home, Crestwood, Ellis Road, Ford Valley, and Railroad pump stations in 2010. Design and/or construction on Chapman Highway, Hanover, John Sevier, and Sea Ray pump station upgrades (facility replacements with new submersible design) are currently in process.

Other 2010 facility and equipment work included upgrades on a pump and discharge valve at Ten Mile pump station, channel grinder upgrades at Lyons Creek pump station, variable frequency drive upgrades at Neubert Springs pump station, and SCADA upgrades and improvements at various facilities.

KUB continues to monitor all wastewater facilities (pump station and storage facilities) with SCADA capabilities at the System Operations Center located at Middlebrook Pike. This is the primary notification and monitoring location for all pump station, storage facility, and metering facility conditions.

Section 5: Gravity Line Preventive Maintenance Program

The Gravity Line Preventive Maintenance Program (GLPMP) describes KUB's process for preventive cleaning of the wastewater system to improve operation, efficiency, and effectiveness. KUB is committed to cleaning the entire wastewater collection system in 12 years.

The GLPMP is divided into the Comprehensive Hydraulic Cleaning Program (CHCP) and Blockage Abatement (BA). Root Control and Manhole Preventive Maintenance are components of both the BA and the CHCP. KUB determines chemical and mechanical root abatement frequency by the condition assessment program.

The Comprehensive Hydraulic Cleaning Program (CHCP)

The CHCP is a systematic, planned cleaning of the system to reduce debris and grease buildup and root intrusion. It is based on preventing and reducing the initial occurrence of system disruptions and maintaining the original hydraulic capacity of the collection system. It also provides support to the CSSAP by removing any obstruction in the system that would prevent a comprehensive inspection.

KUB and PACE 10 contractors cleaned and televised 380,663 ft (72 miles) of KUB sewers in 2010.

The Blockage Abatement (BA) Program

BA is a preventive maintenance approach for addressing operational issues. It uses previous event history and condition assessment information to implement activities that prevent or reduce system disruptions. Activities may include, but are not limited to, hydraulic flushing, mechanical and chemical root control, rodding, and CCTV inspections.

BA contract crews cleaned 1,061,261 ft (201 miles) and televised 298,520 ft (56 miles) of sewers in 2010. KUB had a total of 727,672 ft (138 miles), or 10 percent of its sewer mains, in the BA program in 2010.

KUB adds a line segment to the BA Program based on inspection data or when a blockage or other failure occurs. Each line segment included in the BA Program is assigned a cleaning frequency according to its condition and the probability or risk of failure. The frequency of the maintenance activity ranges from one month to 42 months.

During calendar year 2010, KUB performed root control using mechanical root cutting and cleaning under the BA Program.

Section 6: Sewer Overflow Response Plan (SORP)

As reported in the most recent SORP [revised and re-submitted to the EPA June 27, 2005, and approved July 28, 2005], KUB continues to place a high priority on maintaining and executing a Sewer Overflow Response Plan to help protect our community and our environment. KUB's Emergency Response Plan (ERP), which was approved by EPA on December 12, 2005, dovetails with the SORP. The ERP helps define the level of response that we take for everything from a single, isolated event to system-wide overflows.

KUB reviews the SORP annually. This progress report includes an update on implementation of recent revisions, training, and other areas of interest.

KUB makes all reasonable efforts [without endangering the safety of the responder or the public] to respond to an SSO within 45 minutes. In 2010, our average response time was 36 minutes. We continue to work to improve our response, using technology such as remote overflow sensors that alert our system operators to an overflow condition, prompting immediate dispatch of a First Responder. We are also using mobile mapping technology, which helps our responder quickly identify the geographic location of the overflow and plan the best route. Other factors that influence response time include safety considerations, location of the problem, severity of events, and work loads at the time of the call. We will continue to assess each of those factors to determine if changes need to be made to improve response time. Starting February 2, 2009, KUB consolidated all of the First Responders into a team of trained individuals covering all shifts that will respond to all gas, water, and wastewater trouble calls.

KUB relies on several measures to help maintain an appropriate quality of SSO response:

- Members of the CSI team, who are knowledgeable in SORP requirements, perform periodic quality assurance audits to evaluate how effectively the crew implemented the SORP. They look at a variety of factors, including containment measures, control zone and signs, and cleaning, and they check that crews followed the disinfection procedure. CSI works closely with crews and supervisors to maintain appropriate standards.
- Underground Construction supervisors monitor crews' work on a day-to-day basis. They also use tailgate meetings in the field, coaching opportunities, and regular meetings to emphasize safety and maintaining proper standards. Compliance with established procedures is part of KUB's Performance Management Program measures so feedback can be provided to employees in case improvement is needed.
- Feedback from customers, concerned citizens, neighborhood associations, City personnel, and organizations (such as the Izaak Walton League or Tennessee Clean Water Network) also helps identify any instances when the quality of response falters. Such feedback is directed to CSI, who works with UGC to correct the issue in that instance and prevent it from recurring in future responses.

Safety of responders and of the public is a primary concern for KUB. During 2010, KUB crews responded to 1,276 wastewater trouble calls [all calls, not just SSOs] with no recordable safety incidents that were directly related to the sewer trouble calls, according to KUB's Safety Department. Appropriate safety training is provided through the Safety Department, and UGC conducts regular safety meetings and discusses safety frequently at tailgate meetings. During 2008, KUB initiated the "START With Safety"

Program. ("START" stands for "Safety Talks and Accident Reduction Training.") This program focuses on awareness, training, and prevention to address potentially unsafe conditions and actions, thereby reducing accidents and injuries.

SORP Training:

In addition to working closely with all departments involved in the SORP on a day-to-day, event-by-event basis, CSI updates appropriate personnel as needed on revisions. KUB completed and utilized a computerized SORP training tool in 2008 that allows employees to train at their own pace on a computer. The computerized training is available on demand for new employees or others who need refresher training. Targeted employees receive electronic notification when training is required.

Manhole Surcharge Sensors: As previously reported, KUB added a tool in 2005 to help alert responders when wet weather overflows are imminent: manhole surcharge level sensors. When the level in manholes with a sensor reaches a set point, the sensor sends a page over a cellular system. The page notifies the KUB Operations Center, which dispatches a First Responder and sends an e-mail alert to CSI. The sensor also sends a second page when the manhole level is back below the set point. KUB continues to use the sensors [currently 21], as needed, to automate coverage of the hot spots formerly on the list for wet-weather surveys, freeing up crews for other duties.

KUB website (www.kub.org): The SSO log includes a volume category added in 2005 and a link to a permanent archive of SSOs by month. In 2007, KUB and a contractor conducted focus groups with customers to help direct a site redesign. The new site went live during 2008 and is providing customers more interaction with their utility services. The SSO information is still available on the new site. To access the SSO log, enter www.kub.org/wps/portal/ssolog into your browser.

Section 7: Other MOM Programs

KUB continues to implement and manage the Other MOM Programs in substantially the same manner as previously reported. The following is a brief update on some areas of particular interest or those where there have been changes:

- Pump Station Preventive Maintenance Program

KUB's Pump Station Preventive Maintenance Program includes both routinely scheduled maintenance and work orders field crews create. [*Orders created by crews are designated RSCIN in the spreadsheet in Appendix B.*] A crew at a pump station for a scheduled pump inspection, for example, may also decide to inspect another piece of equipment or perform a routine facility inspection.

In 2010, crews conducted 1,207 total inspections of stations or equipment; 1,117 of those were regularly scheduled inspections; 90 were orders created in the field. KUB also uses the rate of trouble occurrences to adjust inspection frequencies. If a pump at one station generates a number of trouble calls, crews may inspect it more frequently.

For more detail on the numbers and types of inspections see Appendix B. The appendix also includes sample checklists for some of the inspection categories.

- Force Main Preventive Maintenance Program

Force mains are a critical part of the sewer infrastructure and operations. Force main and air/vacuum valve maintenance and operation have a direct impact on the hydraulic performance of wastewater pump stations. The vertical alignment of force main slopes, the location of air/vacuum valves, and the age of sewage transmitted by the force main may also result in odor sources, corrosion problems, and even pipe failure.

Like pump stations, the force mains are evaluated based on both criticality (consequence of failure) and condition (probability of failure). Since it can be cost prohibitive to inspect the pipe of each force main in KUB's system, surrogate condition factors were used with the available existing information to estimate the condition of each asset. The force mains are analyzed and categorized in terms of field measurements and existing data collection in terms of: Quantity of Flow Conveyed, Transportation Impacts, Urban Impacts, Environmental Impacts, Public Health Impacts, Age, Material, Air Release Valve Information, Discharge Manhole Condition, and SSOs. Combining those factors accordingly, the existing force mains can be viewed in terms of the consequences and probability of their failure, which helps dictate the necessity of replacement and/or rehabilitation.

Currently, the force mains for the Sea Ray, Meadow Oaks, Amherst, and Hanover pump stations are scheduled for replacement in 2011. It is likely that a majority of the force mains in conjunction to future pump station facilities to be replaced/rehabilitated will also be replaced.

- Public Information/Public Input Plan

KUB continues to concentrate on educating customers about the wastewater system, sewer overflows, impacts on area waterways, private lateral maintenance, and how they can help protect their plumbing and our environment. We use a variety of communications methods including our website, customer bill

messages, our customer newsletter, brochures, presentations, and articles or ads in local papers.

KUB's Customer Information Guide includes information about wastewater safety, private laterals, and prohibited connections. The guide mails to about 1,100 customers each month who are either new to KUB or who move to a new address. We also include similar information in our *Connection* newsletter, which mails in all customer bills (approximately 200,000 bills per month) six times a year.

We continue to meet regularly with the Partners Council, which was established in December 2004 to enhance KUB's PACE 10 program by increasing awareness and building consensus in our community. The council members both provide feedback and input to KUB and take information back to the groups they represent. They receive a written monthly update on current PACE 10 projects, construction communications, Can the Grease mailings, overflow numbers, and rainfall data. Every other month, the council meets for a presentation and more in-depth discussion of ongoing projects and trends in overflows.

KUB also offers speakers to neighborhood groups and organizations about PACE 10 projects, private laterals, prohibited connections, and other wastewater-related topics. Groups may request presentations through our website or by calling our Customer Information Center at 865-524-2911.

We continue to mail letters to customers in advance of PACE 10 projects with information about the need for the project, smoke testing information, and more. In 2010, we sent approximately 9,930 construction letters.

We also increased the wastewater safety and CTG information in our Utility Safety Program, which provides presentations to public and private schools and organizations such as the Boy's and Girl's Clubs in KUB's service area. KUB presented the USP to approximately 1,000 students in 16 schools or organizations in 2010.

In November 2010, KUB ran an ad on the Can the Grease program in the Knoxville News Sentinel and featured the program in a banner on the front page of our website. The KUB website home page changes periodically to include seasonal topics, new functionality, and special promotions. To ensure that customers can easily find topics that have been on the home page, we also developed a Hot Topics Index that includes things that have been on the front page. Wastewater related topics in the index include Can the Grease, PACE 10, the Private Lateral Program, Smoke Testing, and Sewer Overflows.

Section 8: Private Lateral Program

As required by the Consent Decree, KUB must operate a mandatory Private Lateral Program (PLP)*. The program helps protect our environment by ensuring that property owners repair their laterals and/or remove prohibited connections. [Prohibited connections include roof downspouts and other sources of stormwater.] Defective laterals or prohibited connections can overload KUB's sewer system with rainwater and contribute to sewer overflows. Leaking laterals can also add to pollution in area waterways.

KUB takes these steps as part of the PLP:

- Inspect customers' private laterals and identify defects or prohibited connections.
- Inform property owners of any defects, the process to follow to make repairs, and potential availability of financial aid.
- Ensure owners make lateral repairs or remove prohibited stormwater connections.
- Enforce the PLP by terminating the water service of customers who do not make repairs within the 120-day timeframe.

The statistics below illustrate actions undertaken in the Program from January 1, 2010, to December 31, 2010.

Total Private Laterals	326
Repair	65
Replace	261
Total with Tenants	81
 Repair/Replace Complete	290
Terminations	19
Reinstatements	23
 CAC Activity	
Applications provided to customers	173
Applications received	187
Grants approved	195
Loans approved	1
 Funds Disbursed	
Grants	\$296,109.43
Loans	\$0.00

KUB continues to explore methods to identify defective private laterals and increase opportunities for property owners to take advantage of financial assistance. The income guideline percentages for both the Grant and Loan programs are increased based on current homeowner income information obtained from the Department of Housing and Urban Development for Knoxville/Knox County. The expected result is to provide support for a greater number of customers that need assistance during the remainder of the SEP.

In 2010, KUB implemented an Incentive Program to help property owners proactively replace their defective sewer laterals and remove prohibited connections if they qualified

for assistance under the Supplemental Environmental Project (SEP). KUB offers this program to property owners in areas where sewer main rehabilitation has not occurred and will not occur before the completion date of the SEP in 2013. The areas have also been determined to have significant inflow or infiltration during heavy rainfall and older sewer pipe (system age is greater than 40 years) consisting of a large amount of concrete, clay, cast iron, or Orangeburg pipe. A total of 2,915 customers in five separate areas received incentive letters in 2010, which resulted in 144 grants or repaired laterals.

Members of the Regulatory Compliance staff attend community meetings in areas where rehabilitation is planned or is in process to educate homeowners about the PACE 10 process and promote funding assistance available under the SEP. KUB also uses the website and professional group presentations to educate property owners about the importance of properly maintaining sewer laterals and removing prohibited connections.

Appendices

Appendix A

Grease Control Program Summary Tables

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
11TH Street Espresso House	X	30	30		1				1	Category 4 - Low						No food production at facility.
180 Sports & Fitness/ Moes Snack Bar	X	*-	*-		1				1	Category 4 - Low						Business is closed.
4620 Revisited	X	30	30		3		2		1	Category 4 - Low						Business is closed.
501 Arthur Street Market & Deli	X	50	50		5		3		2	Category 4 - Low						Business is closed.
ABC Kiddies Academy		*-	*-		1			1		Category 4 - Low						No food production at facility.
Agave Azul Mexican Grill		1000		1000	1				1	Catagory 3 - Medium						
Ale House		*-	*-		2			2		Category 4 - Low						No food production at facility.
Ali Baba's Time Out Delicatessen		30	30		1				1	Catagory 3 - Medium						
All About Me Academy		40	40		1				1	Category 4 - Low						
All Occasion Catering (922 N. Central)		1500		1500	2		2			Category 3 - Medium						
Al's Market & Deli (2900 Sevier Ave.)		40	40		1		1			Category 3 - Medium						
Al's Market & Deli (1006 University)	X	20	20		3		2		1	Catagory 4 - Low						Business is closed.
American Fresh	X	30	30		1				1	Catagory 4 - Low						Business is closed.
Anna's Market & Deli		40	40		1				1	Catagory 3 - Medium						
Apostolic Kiddie Academy		500			1				1	Catagory 3 - Medium						
Applebee's (Knox Center)		1000		1000	1		1			Catagory 3 - Medium						
Applebee's Restaurant (Kingston Pike)		1000		1000	1				1	Catagory 3 - Medium						
Applebee's Restaurant #1(Central Avenue Pike)		1000		1000	1				1	Catagory 3 - Medium						
Arby's (4849 N. Broadway)		30	30		1		1			Catagory 3 - Medium						
Arby's (2750 Schaad Road)		1000		1000	1				1	Catagory 3 - Medium						
Arby's Roast Beef (7122 Strawberry Plains)		40	40		2		2			Catagory 3 - Medium						
Arby's Roast Beef #1497 (2657 Magnolia Ave.)		30	30		1		1			Catagory 3 - Medium						
Arby's Roast Beef #567(2819 Chapman)		40	40		1		1			Catagory 3 - Medium						
Arby's Roast Beef #618 (5228 Clinton)		40	40		1				1	Catagory 3 - Medium						
Arby's Roast Beef #719 (430 Gay Street)	X	40	40		1				1	Catagory 3 - Medium						Business is closed.
Arby's Roast Beef#153 (6903 Kingston Pike)		30	30		1				1	Catagory 3 - Medium						
Arnstein Jewish Community Center		70	70		1				1	Catagory 3 - Medium						
Asian Chao (West Town Mall)		50	50		5		2	1	2	Catagory 3 - Medium						
Atria Weston Place		1500		1500	1				1	Catagory 3 - Medium						
Aubrey's Restaurant		2000		2000	1				1	Catagory 3 - Medium						
Auntie Anne's (Knoxville Center)		30	30		4		3		1	Catagory 3 - Medium						
Auntie Anne's (West Town Mall)		40	40		2		1		1	Catagory 3 - Medium						
Austin-East High School		1500		1500	2		1		1	Catagory 3 - Medium						
Austin's Steakhouse	X	1000		1000	1			1		Category 4 - Low						Business is closed.
Azteca Market	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
B & D Rib Shack		50	50		1		1			Catagory 3 - Medium						
Backroom BBQ		40	40		1				1	Catagory 3 - Medium						
Backyard Burgers #1145		1000		1000	1				1	Catagory 3 - Medium						
Baja Café	X	40	40		1		1			Category 4 - Low						Business is closed.
Bangkok Tokyo Thai & Sushi		1000		1000	2	1		1		Catagory 3 - Medium						
Bar Knoxville		100, 40	100, 40		2			1	1	Catagory 3 - Medium		1				
Barley's Taproom & Pizzeria		1000		1000	1				1	Catagory 3 - Medium						
Barnes & Noble Cafe #2838		1000		1000	1				1	Catagory 3 - Medium						
Barnie's Coffee & Tea Co. (Knox Center Mall)	X	50	50		1		1			Category 4 - Low						Business is closed.
Barnie's Coffee & Tea Co. (West Town Mall)		20	20		5		3	1	1	Catagory 3 - Medium	1					
Baskin Robbins/Blimpie's		30	30		1		1			Catagory 3 - Medium						
Bearden Elementary School		1000		1000	1				1	Catagory 3 - Medium						
Bearden High School		*4000		3000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Bearden Middle School		100	100		1				1	Catagory 3 - Medium						
Bearden United Methodist DCC	X	*-	*-		1				1	Category 4 - Low						Kitchen is closed.
Beaumont Elementry School		1000		1000	1		1			Catagory 3 - Medium						
Bellacino's Pizza and Grinders		50	50		1				1	Catagory 3 - Medium						
Belle Morris Elementary		1000		1000	2		2			Catagory 3 - Medium						
Ben & Jerry's Ice Cream	X	40	40		1				1	Category 4 - Low						Business is closed.
Bida Siagon		40	40		1					Category 3 - Medium					1	
Big Bites Pizza		50	50		1	1				Category 3 - Medium					1	
Big Fatty's		1000		1000	2			1	1	Catagory 3 - Medium		1				
Bill's Market & Deli		40	40		1				1	Category 4 - Low						
Bistro at The Bijou		100, 40	100, 40		1				1	Catagory 3 - Medium						
Blackbird Coffee House		60	60		1				1	Catagory 3 - Medium						
Blue Chips Sports Pub & Grill		40	40		2		2			Catagory 3 - Medium						
Bonefish Grill		2000		2000	1				1	Catagory 3 - Medium						
Borders Books Music & Cafe		40	40		2			1	1	Catagory 3 - Medium		1				
Bountiful Blessings		40	40		1				1	Catagory 3 - Medium					1	
Boys and Girl Club of Greater Knoxville (407 Caswell)		*1000, 1000		1000	1				1	Category 4 - Low						*FSF has exceeded grease trap size requirement.
Brakebill Nursing Home		3000		3000	1				1	Catagory 3 - Medium						
Bravo's		1500		1500	2			1	1	Catagory 3 - Medium		1				

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
Breadbox Food Store (5328 Pleasant Ridge)		20	20		1				1	Catagory 3 - Medium						
Breadbox Food Store #44 (5014 Washington Pike)		1000		1000	1	1				Category 3 - Medium					1	
Breadbox Food Store #44 (5020 Washington Pike)	X	40	40		1				1	Catagory 4 - Low						Business has relocated to new location.
Breaker's Sports Bar		1000		1000	2				2	Catagory 3 - Medium						
Brixx Pizza		2000		2000	3			2	1	Catagory 3 - Medium		1				
Broadway Baptist Church		1500		1500	1		1			Category 4 - Low						
Brownie's 2		40	40		1		1			Catagory 3 - Medium						
Bruegger's Bagels		50	50		2			1	1	Catagory 3 - Medium		1				
Bruster's Ice Cream		*1500	50		1	1				Category 4 - Low					1	*FSF has exceeded grease trap size requirement.
Buddy's Bar B Q Banquet Hall (5806 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Buddy's Bar B Q Bearden (5806 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Buddy's Bar BQ (8402 Kingston Pk.)		***40		1500	1				1	Category 2 - High						*** FSF has planned to upgrade to larger GI before enforcement action.
Buddy's Bar BQ (4401 Chapman Hwy.)		1500		1500	1				1	Category 3 - Medium					1	FSF installed new GI due to enforcement.
Buddy's Bar BQ (4500 N. Broadway)		1000		1000	1				1	Catagory 3 - Medium						
Buddy's Bar BQ (3700 Magnolia)		1500		1500	1		1			Catagory 3 - Medium						
Buffalo Wild Wings Grill and Bar		1500		1500	1		1			Catagory 3 - Medium						
Burger King (2806 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
Burger King #11722 (7206 Region Lane)		1500		1500	1				1	Catagory 3 - Medium						
Burger King #12141 (127 Northshore)		1500		1500	1				1	Catagory 3 - Medium						
Burger King #13146 (2800 Chapman Hwy.)		1500		1500	1		1			Catagory 3 - Medium						
Burger King #5346 (319 Merchants)		1000		1000	1				1	Catagory 3 - Medium						
Burger King #9679 (5316 Millertown)		1500		1500	1		1			Catagory 3 - Medium						
Burger King (8412 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Burger King (5310 Middlebrook)		1500		1500	2		1	1		Catagory 3 - Medium	1					
Burlington Fish Market		40	40		1				1	Category 4 - Low						
Busby's Tango Grille		1500		1500	1	1				Category 3 - Medium						
Bush Brothers		1500, 100	100	1500	1				1	Catagory 3 - Medium						
Butcher Shop	X	1500		1500	1				1	Catagory 4 - Low						Business is closed.
By the Tracks Bistro		1500		1500	1				1	Catagory 3 - Medium						
C & C Café		20	20		2		2			Category 4 - Low						
Cafe 4		1500		1500	1				1	Catagory 3 - Medium						
Café Gourmet	X	40	40		1				1	Category 4 - Low						Business has been sold.
Cagle Terrace	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Cairo Cafe		100, 20	100, 20		3			2	1	Catagory 3 - Medium					1	FSF installed new trap under enforcement.
Cajun Cafe & Grill		40, 20	40, 20		3		2		1	Catagory 3 - Medium						
Calhoun's (400 Neyland)		1500		1500	1				1	Catagory 3 - Medium						
Calhoun's (6515 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Cancun Mexican Restaurant (4409 Chapman)		200, 50	200, 50		1				1	Category 2 - High						
Cancun Mexican Restaurant (8606 Asheville)(CLOSED)	X	1000		1000	1				1	Catagory 4 - Low						Business is closed.
Cancun Mexican Restaurant (4829 N. Broadway)		1000		1000	2		1		1	Catagory 3 - Medium						
Cappuccino's/Copper Cellar Restaurant		1500		1500	1				1	Catagory 3 - Medium						
Captain D's # 3204 (812 Merchants)		1000		1000	1				1	Catagory 3 - Medium						
Captain D's #3205 (4320 Chapman)		1000		1000	1				1	Catagory 3 - Medium						
Captain D's #3406 (3121 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
Captains Bar & Grill	X	30	30		1		1			Category 4 - Low						Business is closed.
Cardins Drive-In		40	40		1		1			Catagory 3 - Medium						
Carleo's Lounge		50	50		1	1				Category 3 - Medium					1	
Carmike Cinemas 10		40	40		1				1	Catagory 3 - Medium						
Carousel II	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Carringer & Son's Market		40	40		1		1			Catagory 3 - Medium						
Carter Elementary		1000, 200	200	1000	1		1			Catagory 3 - Medium						
Carter High School		2000		2000	1		1			Catagory 3 - Medium						
Carter Middle School		1500		15000	1		1			Catagory 3 - Medium						
Casa Don Gallo		1500		1500	3			1	2	Catagory 2 - High		1				
Catholic Charities of East TN.		1000		1000	1				1	Catagory 3 - Medium						
Cantinella's		40	40		1				1	Catagory 3 - Medium		1				
Central Baptist Church Early Child Ctr.		1000, 100			1				1	Category 4 - Low						
Central Baptist Church of Bearden		50,50,40	50,50,40		2			2		Catagory 3 - Medium					2	FSF installed two internal traps under enforcement on two triple sinks.
Central High School		*4000		2000	1		1			Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Central Park		1000		1000	3		2		1	Catagory 3 - Medium						
Central United Methodist Church		1000		1000	1				1	Catagory 3 - Medium						
Cesar's Bakery	X	30	30		1				1	Catagory 4 - Low						Business is closed.
Chaiyo's Thai & Sushi		40	40		1				1	Catagory 3 - Medium						
Chandler's Deli		40	40		1		1			Catagory 3 - Medium						
Charleys Grilled Subs		60	60		2		1		1	Catagory 3 - Medium						
Chepa's Mexican Restaurant		40	40		1		1			Catagory 3 - Medium						
Cherokee Country Club		1000		1000	1				1	Catagory 3 - Medium						

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
Cherokee Health Systems		1500		1500	1				1	Category 4 - Low						
Chesapeake		1000		1000	1				1	Catagory 3 - Medium						
Chez Guevara		1500		1500	1		1			Catagory 3 - Medium						
Chez Liberty		1500		1500	1	1				Category 3 - Medium						
Chick-Fil-A (7063 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Chick-Fil-A (800 S. Gay Street)		150	150		1				1	Catagory 3 - Medium						
Chick-Fil-A (3001Knoxville Center Dr.)		40	40		4		2	1	1	Catagory 3 - Medium	1					
Chick-Fil-A (7600 Kingston Pk.)		50	50		7		5	1	1	Catagory 3 - Medium						
Child & Family Tennessee		1000		1000	1				1	Catagory 3 - Medium						
Children At Play Learning Center		30	30		1				1	Catagory 3 - Medium						
Children's Center of Knoxville		40	40		1				1	Catagory 3 - Medium						
Chilhowee Elementary		1500		1500	1		1			Catagory 3 - Medium						
Chili's (6635 Clinton Hwy.)		1500		1500	1				1	Catagory 3 - Medium						
Chili's (1815 Cumberland Ave.)	X	1000		1000	1		1			Catagory 4 - Low						Business is closed.
Chili's Restaurant #34 (7304 Kigston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
China Garden		1000		1000	2				2	Catagory 3 - Medium						
China Wok		1500		1500	1	1				Category 3 - Medium					1	
Chinese/Japanese Restaurant	X	*-		1500	1			1		Category 4 - Low						Business is remodeling building.
Chop House		2000		2000	1				1	Catagory 3 - Medium						
Christenberry Elementary		1000		1000	1				1	Catagory 3 - Medium						
Christenberry North		1000		1000	1				1	Catagory 3 - Medium						
Chrome Pony		40	40		4		3		1	Catagory 3 - Medium						
Chuck E Cheese #055		1500		1500	1				1	Catagory 3 - Medium						
Church Street UMC		150, 50	150, 50		4		3		1	Catagory 3 - Medium					2	FSF replaced two internal traps with larger traps, no space for external GI.
Ci Ci's Pizza (2885 Tazewell)		1000		1000	1				1	Catagory 3 - Medium						
Ci Ci's Pizza (8414 Kingston Pk.)		1000		1000	3		2		1	Catagory 3 - Medium						
Cinnabon		30	30		4		2		2	Catagory 3 - Medium						
Cities Cupcake Boutique		60	60		1				1	Catagory 3 - Medium						
City/County Building Jail		*1500, 1500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Clarion Inn	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Club Leconte		100, 100	100, 100		1				1	Category 2 - High						FSF has internal trap on the dishwasher. No place for GI to be installed.
Coffee & Chocolate		30	30		1				1	Category 2 - High						FSF has internal trap on the dishwasher. No place for GI to be installed.
Colonel's Delicatessen		40	40		1				1	Catagory 3 - Medium						
Columbus Home	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Comfort Suites Hotel		40	40		1		1			Catagory 4 - Low						No food production at facility.
Continuum Courtyard (Inskip Road)		100	100		4		2	2		Catagory 3 - Medium						
Continuum Courtyard (Parkway)		100	100		1	1				Category 3 - Medium					1	
Cool Beans Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Coolato Gelato's Italian Ice		*6500		3000	3		2		1	Catagory 3 - Medium						*FSF has exceeded trap size requirement. Shares trap with other FSF's.
Copa Cabana Sports Bar		30	30		2				2	Catagory 3 - Medium						
Copper Cellar/Cumberland Grill (1807 Cumberland Ave.)		2000		2000	1				1	Catagory 3 - Medium						
Copper Cellar Commissary (3001 Industrial Park)		1000		1000	1				1	Catagory 3 - Medium						
Corner Market	X	50	50		1		1			Catagory 4 - Low						Business is closed.
Country Table Restaurant		40	40		1				1	Catagory 3 - Medium						
Court South (2934 Alcoa Hwy.)		40, 20	40, 20		1				1	Category 4 - Low						Seasonal use, summer only.
Coyote Joes		40	40		2			1	1	Catagory 3 - Medium	1					
Cracker Barrel # 546 (2920 S. Mall Rd.)		1000, 1000		2000	1				1	Catagory 3 - Medium						
Cracker Barrel #12 (Central Ave. Pk.)		*1500, 1500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Cracker Barrel #170 (Cracker Barrel Lane)		1,500		1500	1		1			Catagory 3 - Medium						
Creative Catering		50, 20	50, 20		2	1		1		Category 3 - Medium	1				1	** FSF installed new internal under enforcement.
Cumberland House Hotel		3000		3000	1				1	Catagory 3 - Medium						
DaVinci's Pizza (113 S.Central Ave.)		40	40		1				1	Catagory 3 - Medium						
DaVinci's Pizza (3337 Sutherland)		2000		1000	3		2		1	Catagory 3 - Medium						
Days Inn (Asheville Hwy.)	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Dazzio Pizza		100, 50	100, 50		2			1	1	Catagory 3 - Medium						
Dead End B.B.Q.		1500		1500	3		2		1	Catagory 3 - Medium						
Denton's Orange Drink		1000		1000	1				1	Catagory 3 - Medium						
Dippin Donuts		1000		1000	1				1	Catagory 3 - Medium						
Dixon's Bar B Que		40	40		1				1	Catagory 3 - Medium						
Doan's Market & Deli		30	30		1				1	Catagory 3 - Medium						
Dogwood Elementary School		1000		1000	1				1	Catagory 3 - Medium						
Domino's (7419 Middlebrook)		1500		1500	1				1	Catagory 3 - Medium						Shares trap with another FSF.
Domino's Pizza (2104 Cumberland)		40	40		2		1		1	Catagory 3 - Medium						
Domino's Pizza (5420 Pleasant Ridge)		40	40		1		1			Catagory 3 - Medium						
Domino's Pizza #5466 (900 N. Broadway)		40	40		1				1	Catagory 3 - Medium						
Domino's Pizza (7527 Northshore)		40	40		2			1	1	Catagory 3 - Medium		1				
Don Pablo's		1000		1000	1		1			Catagory 3 - Medium						

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Double D. Saloon & Grill		30	30		1		1			Catagory 3 - Medium						
Downtown Brewery and Grill		150	150		1				1	Catagory 3 - Medium						
Downtown Grind		30	30		1				1	Category 4 - Low						
Downtown West Cinema 8		**-	40		1				1	Category 1 - Unacceptable		1				**FSF is in enforcement.
Duncan Cafe/ Duncan Building		40	40		1				1	Catagory 3 - Medium						
Dunkin Donuts		1500		1500	1				1	Catagory 3 - Medium						
Dynasty Express #2 (1647 Cumberland)		30	30		1				1	Catagory 3 - Medium						
Dynasty Express (4911 N. Broadway)		40	40		1				1	Catagory 3 - Medium						
Earthfare		1500		1500	2			1	1	Catagory 3 - Medium		1				
East Knox Elementary School		1500		1500	1				1	Catagory 3 - Medium						
East Tennessee Children's Hospital		2000		2000	1				1	Catagory 3 - Medium						
East TN Regional Juvenile Service Cent.		2000		2000	1				1	Catagory 3 - Medium						
Echo Bistro & Wine		1000		1000	2				2	Catagory 3 - Medium						
El Charro		1500		1500	1				1	Catagory 3 - Medium						
El Chico Restaurant #1		1000		1000	1				1	Catagory 3 - Medium						
El Mezcal Mexican Restaurant		200	200		1		1			Catagory 3 - Medium						
El Tenampa Garibaldi LLC		30	30		1				1	Catagory 3 - Medium						
Elmcroft of West Knoxville		1500		1500	1				1	Catagory 3 - Medium						
Entertainer Catering		100	100		1				1	Category 4 - Low						
Ephesus Mediterranean Grill		30	30		1				1	Catagory 3 - Medium						
Fair Garden Elementary School		500		500	1		1			Catagory 3 - Medium						
Faith Christian Fellowship	X	*-	*-		1	1				Category 4 - Low						No food production at facility.
Fats BBQ		40	40		1		1			Catagory 3 - Medium						
Fazoli's #5046		1000		1000	1		1			Catagory 4 - Low						Business is closed.
Fifth Avenue Baptist Church		100	100		1		1			Catagory 3 - Medium						
Firehouse Subs (128 Buckingham)		50	50		1				1	Catagory 3 - Medium						
FireHouse Subs (4916 Kingston Pk.)		50	50		2			1	1	Catagory 3 - Medium		1				
Firehouse Subs (5226 N. Broadway)		1500		1500	1		1			Catagory 3 - Medium						
Firehouse Subs #191 (1708 Cumberland)		40	40		1				1	Catagory 3 - Medium						
First Lutheran Church and School		40	40		1		1			Catagory 3 - Medium						
First Step II Inc. Young Adventurers (520 Sevier)		40	40		1				1	Category 4 - Low						
First Steps II (4605 Old Broadway)	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
First United Methodist Church		100, 40			1				1	Catagory 3 - Medium						
Five Guys Burgers (Brookview Way)		1500		1500	1	1				Category 3 - Medium					1	New FSF.
Florence Crittenton Agency Inc.		1000		1000	1				1	Category 3 - Medium						
Food City (4580 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
Food City (284 Morrell)		1000		1000	1				1	Catagory 3 - Medium						
Food City # 673 (4216 N. Broadway)		1500		1500	1		1			Catagory 3 - Medium						
Food City # 677 (5078 Clinton Hwy.)		1500		1500	1				1	Catagory 3 - Medium						
Food City # 678 (5801 Western)		1000		1000	2			1	1	Catagory 3 - Medium	1					
Food City #655 (7510 Asheville)		1000		1000	1		1			Catagory 3 - Medium						
Food City #674 (5941 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Food City #676 (1950 Western)		2000		2000	2			1	1	Catagory 3 - Medium	1					
Food City #685 (4805 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
Food City #689 (2939 Alcoa)		1000		1000	1				1	Catagory 3 - Medium						
Food City (2712 Loves Creek)		1000		1000	1		1			Catagory 3 - Medium						
Food Lion #1545 (6221 Riverview)		1000		1000	2		1		1	Catagory 4 - Low						Business is closed.
Food Lion (4728 Centerline Drive)		1000		1000	1				1	Catagory 3 - Medium						
Fort Sanders Educational		50	50		1		1			Catagory 3 - Medium						
Fort Sanders Hospital		2000		2000	1				1	Category 2 - High						FSF has 2000 gallon GI that is pumped monthly.
Fountain City Creamery		30	30		1				1	Catagory 3 - Medium						
Fountain City Diner		2000		2000	1				1	Catagory 3 - Medium						
Fountain City Elementary		1000		1000	4		1	1	2	Catagory 3 - Medium						
Fountain City Presb. Church Childcare	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Fountain City UM Church	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Fox's Pizza		50	50		2			1	1	Catagory 3 - Medium		1				
Freedom Christian Academy		1000		1000	2		1	1		Catagory 3 - Medium	1					
Fresh Market & Deli		20	20		2			1	1	Catagory 3 - Medium		1				
Froots Smoothies	X	40	40		3		2		1	Catagory 4 - Low						Business is closed.
Froyoz		*1500	40		1	1				Category 4 - Low						
Frullati Cafe		30	30		7		5	1	1	Catagory 3 - Medium						
Frussies Deli		20	20		1		1			Catagory 3 - Medium						
Fulton High School		1000		1000	2		2			Catagory 3 - Medium						
Game Over Deli		30	30		3		3			Catagory 3 - Medium						
Garrett's Downtown Deli		50	50		2			1	1	Catagory 3 - Medium		1				
Gino's Pizza & Subs		30	30		2		2			Catagory 3 - Medium						
Gluton Free Goodies	X	1500		1500	1				1	Catagory 4 - Low						Business is closed.

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Godfather's Pizza	X	100	100		1				1	Category 4 - Low						Business is closed.
Godfrey's Restaurant (Holiday Inn Express)		150	150		1				1	Category 2 - High						Internal trap on dishwasher. No place for GI to be installed.
Golden City Restaurant	X	60, 40			1				1	Catagory 4 - Medium						Business is closed.
Golden Garden Chinese Restaurant		40	40		1				1	Catagory 3 - Medium						
Golden Wok		1000		1000	1				1	Catagory 3 - Medium						
Gonzasa's Mexican Market	X	1000		1000	1	1				Category 4 - Low						Proposed business for location.
Granny Bea's Southern Cooking		1000		1000	1	1				Category 3 - Medium						New FSF.
Great American Cookie Company (3001 Knoxville Center)		30	30		2		1		1	Catagory 3 - Medium						
Great American Cookies (7600 Kingston Pk.)		30	30		2		1		1	Catagory 3 - Medium						
Great American Steak & Buffet Co.		2000		2000	6		1	3	2	Category 3 - Medium						
Great Wraps (1838 Cumberland)	X	50	50		1				1	Category 4 - Low						Business is closed.
Green Magnet and Math Academy		1500		1500	1				1	Category 3 - Medium						
Gresham Middle School		1000		1000	1		1			Catagory 3 - Medium						
Gridiron Burgers (6631 Clinton)	X	150, 50	150, 50		1				1	Category 4 - Low						Business is closed.
Grill Express	X	20	20		1				1	Catagory 4 - Low						Business is closed.
GSA Court House Café	X	1000, 40	40	1000	1				1	Catagory 4 - Low						Business is closed.
Guadalajara Market and Deli	X	50	50		3		2		1	Category 4 - Low						Business is closed.
Gunthor's Galley	X	1500		1500	2		2			Catagory 4 - Low						Business is closed.
Gus's Good Time Deli		20	20		3		2		1	Catagory 3 - Medium						
Guthrie's		1500		1500	1				1	Catagory 3 - Medium						
Half Barrel		1500		1500	1				1	Catagory 3 - Medium						
Ham 'N' Goodys, Inc.		40	40		1				1	Catagory 3 - Medium						
Hampton Inn (7445 Sawyer)		50	50		1				1	Category 3 - Medium						
Hampton Inn & Suites (5411 Pratt Road)		*1500	50		1				1	Category 4 - Low						*FSF has exceeded grease trap size requirement.
Handy Dandy Market #5		40	40		3		2		1	Catagory 3 - Medium						
Hanna's Cafe #2		30	30		1				1	Catagory 3 - Medium						
Happy Garden Chinese		1000		1000	1				1	Category 3 - Medium						
Harb's Pizza & Deli		30	30		1				1	Catagory 3 - Medium						
Hard Knox Pizza		50	50		1				1	Catagory 3 - Medium						
Hardee's #1501786 (2919 Tazewell)		1000		1000	3			2	1	Catagory 3 - Medium	1					
Hardee's #1501798 (3318 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
Hardee's #1501829 (2930 Alcoa)		1000		1000	1				1	Catagory 3 - Medium						
Hardee's #1501837 (3718 Western)		1000		1000	2		1		1	Catagory 3 - Medium	1					
Hardee's #1501785 (3926 Asheville)		1000		1000	1				1	Category 3 - Medium						
Hardee's Restaurant (7201 Kingston Pk.)		1500		1500	2			1	1	Catagory 3 - Medium		1				
Harvest Echo Ridge Retirement Residence LLC		1500		1500	1				1	Catagory 3 - Medium						
Head Start (Prospect)		1000		1000	1		1			Catagory 3 - Medium						
Hemphill's Market & Deli		10	10		1				1	Category 4 - Low						
Heritage Assisted Living		1000		1000	2				2	Category 3 - Medium						
Hibachi Factory (1815 Cumberland)		20	20		1				1	Catagory 3 - Medium						
Hibachi Factory (1645 Downtown West)		60	60		1				1	Catagory 3 - Medium						
Hillcrest Health Care North		2000, 500			2			1	1	Catagory 3 - Medium						
Hillcrest South		*2000, 500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Hillcrest West		1500		1500	1				1	Catagory 3 - Medium						
Ho Ho Chinese Restaurant		20, 20	20, 20		1				1	Catagory 3 - Medium						
Hogan's Bakery		30	30		1				1	Catagory 3 - Medium						
Holiday Inn Central (1315 Kirby Road)		1000		1000	1				1	Catagory 3 - Medium						
Holly's Eventful Dining		1000		1000	1	1				Category 3 - Medium						New FSF.
Holston Healthcare		1000		1000	1		1			Catagory 3 - Medium						
Holston Hills Country Club		1000		1000	1		1			Catagory 3 - Medium						
Holston Middle School		1500		1500	1		1			Catagory 3 - Medium						
Holy Ghost Catholic Church		150, 50	150, 50		2		2			Category 4 - Low					2	FSF installed grease traps during kitchen remodeling.
Holy Land Market		50	50		1				1	Catagory 3 - Medium						
Homewood Residence at Deane Hill		1000		1000	1				1	Catagory 3 - Medium						
Honey Baked Ham #2 (5308 Washington)		1500		1500	1				1	Category 4 - Low						
Honey Baked Ham (7205 Kingston Pk.)		1000		1000	1				1	Category 4 - Low						
Hong Kong House		1000		1000	2			1	1	Catagory 2 - High		1				
Hooter's #2 (5005 Central Ave. Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Hooter's Restaurant (8050 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
House Of Dragon		20	20		1				1	Catagory 3 - Medium						
House of Thaller		1000		1000	1				1	Catagory 3 - Medium						
I Love N Y Pizza		40	40		1		1			Catagory 3 - Medium						
Ingles		1000		1000	3			1	2	Catagory 3 - Medium	1					
Inskip Community Pool	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Inskip Elementary		1000		1000	1				1	Catagory 3 - Medium						
Inskip Food Mart		50	50		1				1	Catagory 3 - Medium						
Inskip Grill		40	40		1	1				Category 3 - Medium						New FSF.

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International House of Pancakes (7218 Kingston Pk.)		2000		2000	2			1	1	Catagory 3 - Medium	1					
International House of Pancakes #1 (5604 Merchants)		1000		1000	1				1	Catagory 3 - Medium						
It's All About The Fudge	X	20	20		1				1	Category 4 - Low						Business is closed.
Jack' Breeze Thru Market	X	40	40		1				1	Catagory 4 - Low						Business is closed.
Jacob's Time-Out Deli		40	40		1				1	Catagory 3 - Medium					1	FSF installed new larger grease trap, increased capacity.
Jason's Deli		2000		2000	1	1				Category 3 - Medium					1	New FSF.
Jets Pizza		50	50		1				1	Catagory 3 - Medium						
Jimmy John Gourmet Sand.		40	40		2			1	1	Catagory 3 - Medium		1				
Jimmy's Original Southern Pub		20	20		1				1	Category 4 - Low						
John T. O'Connor Senior Citizens Center	X	40	40		1				1	Category 4 - Low						No food production at facility.
Judy Ann's Deli		20	20		3	1	1		1	Category 3 - Medium						New FSF.
Judy's Il Lounge & Restaurant	X	1000		1000	1				1	Category 4 - Low						Business is closed.
Kanpai of Tokyo		1500		1500	1				1	Catagory 3 - Medium						
Kat's Sports Bar		20	20		1		1			Catagory 3 - Medium						
Kaya Korean Restaurant		50	50		1				1	Catagory 3 - Medium						
Kay's Ice Cream		30	30		1				1	Catagory 3 - Medium						
Kenjo Market #11 (1400 N. Central)		40	40		1		1			Catagory 3 - Medium						
Kenjo Market #12 (3644 Sevierville)		40	40		1				1	Catagory 3 - Medium						
Kenjo Market #30 (6519 Chapman)		30	30		1				1	Catagory 3 - Medium						
Kenjo Market #31 (3120 Chapman)		30	30		1		1			Catagory 3 - Medium						
KFC (1030 Shurmard)		1500		1500	1				1	Catagory 3 - Medium						
KFC (2918 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
KFC (2456 Magnolia)		1000		1000	1		1			Catagory 3 - Medium						
KFC (5266 Millertown)		1500		1500	1		1			Catagory 3 - Medium						
KFC (4419 Western)		1500		1500	2			1	1	Catagory 3 - Medium	1					
KFC (4200 Chapman)		1500		1500	1		1			Catagory 3 - Medium						
Kichi Sushi & Noodle		50	50		2		1		1	Catagory 3 - Medium						
Kids Inkorporated		30	30		1				1	Category 4 - Low						
Kids Place-Camp		40	40		1				1	Catagory 3 - Medium						
King Tut's Grill		40	40		1		1			Catagory 3 - Medium						
Kings Market (1542 Texas Ave.)		40	40		2			1	1	Catagory 3 - Medium		1				
King's Market # 2 (1300 Baxter)		30	30		1				1	Catagory 3 - Medium						
Kitts Market Cafe		1500		1500	2			1	1	Catagory 3 - Medium	1					
Kiwanis-East Il Head Start		1000		1000	1				1	Catagory 3 - Medium						
Knotheads Café and Deli		40	40		4	1		3		Category 3 - Medium					1	FSF installed new trap due to enforcement.
Knox Area Rescue Ministries		3000		3000	1		1			Catagory 3 - Medium						
Knox County Detention Facility		1500		1500	2		1		1	Catagory 3 - Medium						
Knox-Knox County-CAC Head Start- Claxton		1000		1000	1	1				Category 3 - Medium					1	New FSF.
Knoxville Adaptive Education Center		1500		1500	1				1	Catagory 3 - Medium						
Knoxville Billiards		20	20		1		1			Catagory 3 - Medium						
Knoxville Center Mall		1500		1500	4		2		2	Catagory 3 - Medium						
Knoxville Chinese Christian Church		1000		1000	2				2	Catagory 3 - Medium						
Knoxville Coliseum		20	20		1				1	Category 4 - Low						
Knoxville College Cafeteria		60	60		2			1	1	Catagory 3 - Medium	1					
Knoxville Convention Center (Concession Kitchen)		50	50		1				1	Catagory 3 - Medium						
Knoxville Convention Center (Main Kitchen)		1500, 1500		3000	1				1	Catagory 3 - Medium						
Knoxville Elks Lodge #160		40	40		1				1	Category 4 - Low						
Knoxville Expo Center		1500, 40			1				1	Category 3 - Medium						
Knoxville Golf Course		40	40		1				1	Category 4 - Low						
Knoxville Hilton		250	250		1				1	Catagory 3 - Medium						
Knoxville Pearl	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Knoxville Racquet Club	X	40	40		1				1	Catagory 4 - Low						No food production at facility.
Knoxville Zoological Gardens		500, 40			1				1	Category 4 - Low						
Knoxville-Knox County ActionCommunity Mobile Meals		*1500, 1500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Koi Fuzion		100, 100	100, 100		2			1	1	Catagory 2 - High		1				
Korea House Restaurant		40	40		1				1	Catagory 3 - Medium						
Krispy Kreme (6201 Kingston Pk.)		1500		1500	1		1			Catagory 3 - Medium						
Krispy Kreme #55 (4842 N. Broadway)		1000		1000	1				1	Category 3 - Medium						
Kroger (4414 Asheville)		1000, 40	40	1000	1		1			Catagory 3 - Medium						
Kroger # 506 (2217 N. Broadway)		50	50		1		1			Catagory 3 - Medium						
Kroger # 516 (5003 N. Broadway)	X	40	40		1		1			Category 4 - Low						Business is closed.
Kroger # 848 (4918 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Kroger # 870 (4440 Western)		20	20		1				1	Catagory 3 - Medium						
Kroger #531 (4409 Chapman)		1500		1500	1		1			Catagory 3 - Medium						
Kroger (5201 N. Broadway)		1500		1500	1		1			Catagory 3 - Medium						
Krystal # 13 (3910 Western)		1000		1000	1				1	Catagory 3 - Medium						
Krystal # 6 (5219 Clinton)		1500		1500	1				1	Catagory 3 - Medium						

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Krystal # 7 (4100 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
Krystal #4 (2815 N. Broadway)		1000		1000	2		2			Catagory 3 - Medium						
Krystal #KNXF14 (5320 Millertown)		1000		1000	1		1			Catagory 3 - Medium						
Krystal Co. #14 (7215 Strawberry Plains)		1000		1000	1		1			Catagory 3 - Medium						
Krystal Co. #2 (1718 Cumberland)		1000		1000	1				1	Catagory 3 - Medium						
K-Town Kebabs	X	40	40		2		1		1	Catagory 4 - Low						Business is closed.
Kurt's		60	60		2			1	1	Catagory 3 - Medium		1				
La Costa		40	40		1				1	Catagory 3 - Medium						
La Esperanza Market #1 (2412 Washington)		40	40		1		1			Catagory 3 - Medium						
La Esperanza Market #2 (2525 Chapman)	X	40	40		1		1			Catagory 4 - Low						Business is closed.
La Espreranza Market #3 (4329 Lonas)	X	20	20		1		1			Catagory 4 - Low						Business is closed.
La Fiesta Mexican Grill		1000		1000	2		2			Catagory 3 - Medium						
La Flor Mexican Bakery		40	40		1				1	Category 4 - Low						
La Huasteca Market & Restaurant		40	40		2	1	1			Category 3 - Medium						New FSF.
La Depalma De Oro		100, 50	100, 50		1	1				Category 2 - High						New FSF.
La Rumba Restaurante & Bar		1500		1500	2		2			Catagory 3 - Medium						
Lakeshore Mental Health Institute		200	200		1				1	Catagory 3 - Medium						
Lance's Cafe (Ford Dealership)		60	60		1				1	Catagory 3 - Medium						
Las Cazeulitas	X	1500		1500	1		1			Catagory 4 - Low						Business is closed.
Laurel Mountain Eatery		50	50		1				1	Catagory 3 - Medium						
Le Parigo Restaurant		1000		1000	2			1	1	Catagory 3 - Medium		1				
Lema's	X	40	40		1				1	Category 4 - Low						Business is temporarily closed..
Lenny's Sub Shop (4622 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Lenny's Sub Shop (522 Gay St.)		*6500	50		3	1			2	Category 4 - Low						*exceeded grease trap size requirement, new FSF.
Lenny's Sub Shop (6631 Clinton Hwy.)	X	40	40		1		1			Catagory 4 - Low						Business is closed.
Lenny's Sub Shop (2901 Tazewell)		40	40		1		1			Catagory 3 - Medium						
Level 10	X	2000		1500	1				1	Catagory 4 - Low						Business is closed.
Little Caesars Pizza (2800 Magnolia)		1000		1000	1				1	Catagory 3 - Medium						
Little Caesars Pizza #052006 (4434 Western)		30	30		1				1	Catagory 3 - Medium						
Little Caesar's Pizza #2803 (4322 N. Broadway)		20	20		1				1	Catagory 3 - Medium						
Little Caesar's Pizza #2808 (4748 Centerline)		20	20		1				1	Catagory 3 - Medium						
Litton's Market & Restaurant		2000, 100	100	2000	3		3			Catagory 3 - Medium						
Long John Silver's (5227 Clinton Hwy.)	X	1000		1000	1				1	Category 4 - Low						Business is closed.
Long John Silver's (2816 Magnolia)		1000		1000	1		1			Catagory 3 - Medium						
Long John Silver's (4833 N. Broadway)		1500		1500	1				1	Catagory 3 - Medium						
Long John Silver's (4416 Western)	X	1000		1000	2			1	1	Catagory 4 - Low		1				Business is closed for remodeling.
Long's Drug Store		40	40		1				1	Catagory 3 - Medium						
Lonsdale Elementary		1500		1500	5			4	1	Category 3 - Medium					1	FSF installed grease trap under enforcement.
Lorenas		20	20		1	1				Category 3 - Medium						New FSF.
Los Lagos Bar & Grill		40	40		2		2			Catagory 3 - Medium						
Los Paisano's Mexican Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Loser's		30	30		1	1				Category 3 - Medium						New FSF.
Louis' Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Love Kitchen		70	70		1				1	Catagory 3 - Medium						
Lunch Box (800 S. Gay)		50	50		1				1	Catagory 3 - Medium						
Lunch Box (1225 E. Wiesgarber)		40	40		1		1			Catagory 3 - Medium						
Lunch House		30, 15	30, 15		1		1			Catagory 3 - Medium						
Macleod's (1931 Cumberland)	X	20	20		1				1	Catagory 4 - Low						Business is closed.
Magnolia Cafe		40, 10			2		1		1	Catagory 3 - Medium						
Magnolia Cafeteria	X	1500		1500	1		1			Catagory 4 - Low						Business is closed.
Magnolia Provisions		1000, 1000		2000	2				2	Category 3 - Medium						
Magnuson's Hotel Restaurant		40	40		1				1	Catagory 3 - Medium						
Magpies		1500		1500	1				1	Category 4 - Low						
Mahogany's		100	100		1				1	Catagory 3 - Medium						
Mainstay Suites	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Makino		1000		1000	1				1	Catagory 3 - Medium						
Malibu 7 Restaurant & Dance		40	40		1		1			Catagory 3 - Medium						
Mandarin House (314 Merchants)		1000		1000	2			1	1	Catagory 3 - Medium	1					
Mandarin House Restaurant (8111 Gleason)	X	1000		1000	3		2		1	Catagory 4 - Low						Business is closed.
Manhattan's Antiques Bistro & Bar	X	40	40		1				1	Catagory 4 - Low						Business is closed.
Marble Slab (14 Market Square)		50	50		2			1	1	Catagory 3 - Medium		1				
Marble Slab (4885 N. Broadway)		40	40		1				1	Catagory 3 - Medium						
Marble Slab (4835 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Marble Slab #2 (7600 Kingston Pk.)		30	30		2			1	1	Catagory 3 - Medium	1					
Margarita's	X	1000		1000	1		1			Catagory 4 - Low						Business is closed.
Market Square Kitchen		40	40		1				1	Catagory 3 - Medium						
Marriot Hotel (Hill Street Café)		200, 40	200, 40		3			3		Category 3 - Medium					1	Facility installed new trap under enforcement.

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Marriott Hotel (Kitchen)		200, 40	200, 40		3			3		Category 3 - Medium					1	Facility installed new trap under enforcement.
Martha's Place	X	40	40		1		1			Catagory 4 - Low						Business is closed.
Mary's Deli	X	40	40		4		1	2	1	Category 4 - Low						Business is closed.
Maynard Elementary School		1500		1500	1				1	Catagory 3 - Medium						
McAlister's #1126 (2758 Schaad Road)		1000		1000	1				1	Catagory 3 - Medium						
McAlister's #2 (232 Morrell)		1000		1000	1				1	Catagory 3 - Medium						
McAlister's (1801 Cumberland)		1000		1000	2		1		1	Catagory 3 - Medium						
McDonald's (4410 Western)		1000		1000	2			1	1	Catagory 3 - Medium	1					
McDonalds # 3925 (322 Merchants)		1000		1000	1				1	Catagory 3 - Medium						
McDonalds #10662 (7402 Strawberry Plains)		1000		1000	1				1	Catagory 3 - Medium						
McDonalds #11484 (6526 Chapman Hwy.)		1000		1000	1				1	Catagory 3 - Medium						
McDonalds #11600 (5055 N. Broadway)		1000		1000	1				1	Catagory 3 - Medium						
McDonalds #1243 (7030 Kingston Pk.)		2000		2000	1				1	Catagory 3 - Medium						
McDonalds #2495 (1720 Cumberland)		2000		2000	1		1			Catagory 3 - Medium						
McDonald's #264 (2812 Magnolia)		1000		1000	1		1			Catagory 3 - Medium						
McDonalds #27127 (7686 Northshore)		1000		1000	1				1	Catagory 3 - Medium						
McDonalds #288 (3120 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
McDonalds #392 (2505 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
McDonalds (3051 Kenzel Road)		2000		2000	1		1			Catagory 3 - Medium						
McDonalds (5260 Millertown)		1000		100	1		1			Catagory 3 - Medium						
McDonald's (206 Walker Springs)		2000		2000	1				1	Catagory 3 - Medium						
McDougal's Chicken	X	1000		1000	1				1	Catagory 4 - Low						Business is closed.
Melissa's Ice Cream		*1500	50		1		1			Catagory 4 - Low						*FSF has exceeded grease trap size requirement.
Mellow Mushroom		1000		1000	1				1	Catagory 3 - Medium						
Melting Pot		40, 30	40, 30		1				1	Category 2 - High						Internal trap on the dishwasher. No place for GI to be installed.
Mer-Mer's Bakery		40	40		1				1	Catagory 3 - Medium						
Mi Pubelo		60	60		1				1	Catagory 3 - Medium						
Mickey's	X	40	40		1		1			Catagory 4 - Low						Business is temporarily closed.
Micko's	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Middlebrook Market & Deli		40	40		1				1	Catagory 3 - Medium						
Mike's Deli		40	40		2			2		Catagory 3 - Medium					1	FSF installed new grease under enforcement.
Misaki Japanese Steak House		2000		2000	2			1	1	Catagory 3 - Medium		1				
Moe's Southwest Grill		30	30		1				1	Catagory 3 - Medium						
Mojoes Trailside Coffee House		40	40		1	1				Catagory 3 - Medium					1	New FSF.
Mom's Kitchen		40	40		1	1				Catagory 3 - Medium						New FSF.
Monterrey Mexican Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Mooreland Heights Elementary		25	25		1				1	Catagory 3 - Medium						
Mount Olive Elementary		800		800	1				1	Catagory 3 - Medium						
Mr. Gattis #610		40	40		2			1	1	Category 2 - High		1				FSF has internal trap on the dishwasher.
Mrs Goodstuff's Cafe and Market	X	40	40		3		2		1	Category 4 - Low						Business has closed.
Ms. Daisy Place	X	50	50		1		1			Category 4 - Low						Business has closed.
Ms. D's Restaurant		30	30		1				1	Catagory 3 - Medium						
Mt. Olive Baptist Church DCC		*1000, 1000		1500	2		2			Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
My Village CDC		50	50		1		1			Catagory 3 - Medium						
Nagoya Express Japanese Grill		30	30		2			1	1	Catagory 3 - Medium	1					
Nama Sushi Bar (Gay Street)		100	100		2			1	1	Catagory 3 - Medium						
Nama Sushi Bar (Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Naples Italian Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Napoli Pizza & Grill		30	30		5		2	3		Category 3 - Medium						
New Amsterdam Bar & Grill		50, 40	50, 40		1				1	Category 3 - Medium						
New China Restaurant		30, 30	30, 30		1				1	Catagory 3 - Medium						
NHC Healthcare of Ft. Sanders		*2000, 1000		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Night Owl Deli		75, 40	75, 40		1				1	Category 3 - Medium					1	
Nixon's Deli (5118 N. Broadway)		40	40		1				1	Catagory 3 - Medium						
Nixon's Deli (5716 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Nixon's Deli (508 Merchants)		30	30		1				1	Catagory 3 - Medium						
Nixon's Deli (7419 Middlebrook)		1500		1500	1				1	Catagory 3 - Medium						
North Hills Baptist Church	X	*-	*-		1	1				Category 4 - Low						No food production at facility.
Northhaven Healthcare		2000		2000	1				1	Catagory 3 - Medium						
Northwest Middle		1000		1000	1				1	Catagory 3 - Medium						
Norwood Elementary		1500		1500	1				1	Catagory 3 - Medium						
Oasis Buffet		35, 25			1				1	Catagory 3 - Medium						
O'Charley's #208 (8077 Kingston Pk.)		1000		1000	2			1	1	Catagory 3 - Medium		1				
O'Charley's #361 (3050 S. Mall)		1500		1500	1				1	Catagory 3 - Medium						
O'Charley's # 217 (117 Cedar Lane)		1000		1000	1				1	Category 3 - Medium						FSF has 1000 gallon GI that needs to be pumped monthly.
Okee Dokee Market/ Dairy Queen		1000, 40	40	1000	1				1	Category 4 - Low						
Old City Java		40	40		1				1	Category 4 - Low						

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Old College Inn		1000, 20	20	1000	1		1			Catagory 3 - Medium						
Olive Garden Restaurant #92		1000		1000	2		2			Catagory 3 - Medium						
Olivet Baptist Church		1000		1000	1				1	Catagory 4 - Low						FSF has new gym and started preparing food.
Ollantay's Havana Nights	X	40	40		3		1	1	1	Catagory 4 - Low						Business is closed.
One Tree Grille		1500		1500	1	1				Category 3 - Medium						New FSF.
Oodles Restaurant		40	40		3			2	1	Catagory 2 - High		1	1			Internal trap on dishwasher & compliance issues with maintenance
Orange Sports Grill	X	1000		1000	2			1	1	Catagory 4 - Low	1					Business is closed.
Oriental Express		40, 10	40, 10		2		1	1		Catagory 3 - Medium						
Osaka Hibachi & Sushi		1500		1500	2		1		1	Category 3 - Medium						
Oscar's Restaurant (6907 Kingston Pk.)	X	30	30		3		2		1	Catagory 4 - Low						Business is closed.
Oscar's Restaurant (1840 Cumberland)		30, 30	30, 30		1				1	Catagory 3 - Medium						
Our Place		10	10		2			1	1	Category 3 - Medium						
Outback Steakhouse #2 (7400 Sawyer Lane)		*1500, 1500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Outback Steakhouse #4317 (314 Merchants)		1000		1000	3		2		1	Catagory 3 - Medium						
Panasonic Electronic Devices Corporation	X	30	30		1				1	Catagory 4 - Low						Business is closed.
Panda's Chinese Restaurant		40, 40	40, 40		1				1	Catagory 3 - Medium						
Panera Bread (4855 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Panera Bread (4893 N. Broadway)		2000		2000	1				1	Catagory 3 - Medium						
Panera Bread (2000 Cumberland)		1000		1000	1		1			Catagory 3 - Medium						
Papa John's Pizza (2901Tazewell)		40	40		1		1			Catagory 3 - Medium						
Papa John's Pizza (5617 Western)		40	40		1				1	Catagory 3 - Medium						
Papa John's Pizza (1819 Lake Ave.)		100	100		1			1		Catagory 3 - Medium						
Papa John's Pizza (7038 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Papa Murphy's Pizza (4409 Chapman)		40	40		1		1			Category 3 - Medium						
Papa Murphy's Pizza (5214 N. Broadway)		40	40		1				1	Catagory 3 - Medium						
Papa Murphy's Pizza (4801 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Papa Murphy's Pizza (6631 Clinton)		50	50		1		1			Catagory 3 - Medium						
Parkridge Harbor		1500		1500	2				2	Catagory 3 - Medium						
Parkview Independent Living		1000		1000	1				1	Catagory 3 - Medium						
Patrick Sullivans Steakhouse		40	40		2		1		1	Catagory 3 - Medium						
Pauline's		1000		1000	2		2			Catagory 3 - Medium						
Paul's Oasis		40	40		1				1	Catagory 3 - Medium						
Pelancho's Mexican Grill		1000		1000	1				1	Catagory 3 - Medium						
Penn Station Subs		40	40		1		1			Catagory 3 - Medium						
Pete's Coffee Shop		1500		1500	1				1	Catagory 3 - Medium						
Petro's Chili & Chips (800 S. Gay)		50	50		1				1	Catagory 3 - Medium						
Petros Chili & Chips # 502 (7005 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Petros Chili & Chips #1 (7600 Kingston Pk.)		30	30		2		1		1	Catagory 3 - Medium						
Petros Chili & Chips #2 (3001 Knoxville Center)		40	40		2		1		1	Catagory 3 - Medium						
PF Changs China Bistro Inc.		1000		1000	1				1	Catagory 3 - Medium						
Phatz Sports Bar & Grill	X	1000		1000	1		1			Catagory 3 - Medium						Business is closed.
Philippine Connection Carry Out		40	40		1		1			Catagory 3 - Medium						
Philippine Egg Roll Express		50	50		2	1			1	Category 3 - Medium						New FSF.
Pilot # 187 (100 Merchants)		40	40		2		1		1	Catagory 3 - Medium						
Pilot # 244 (2218 Cumberland)		50	50		1			1		Category 4 - Low						
Pilot #217 (4800 N. Broadway)		40	40		1				1	Category 4 - Low						
Pilot #166 (4603 Chapman)		40	40		1				1	Catagory 3 - Medium						
Pimentos		1500		1500	1				1	Catagory 3 - Medium						
Pita Pit	X	1500		1500	1		1			Catagory 4 - Low						Business is closed.
Pizza Hut #12621 (212 Cedar Lane)		1000		1000	1				1	Catagory 3 - Medium						
Pizza Hut #12628 (5701 Western)		40	40		2			1	1	Catagory 3 - Medium	1					
Pizza Hut #12632 (2405 Chapman)		40, 30	40, 30		1		1			Catagory 3 - Medium						
Pizza Hut #13026 (7017 Kingston Pk.)		40	40		2			1	1	Catagory 3 - Medium		1				
Pizza Hut (5338 Millertown)		40	40		2		1		1	Catagory 3 - Medium						
Pizza Hut (4100 Asheville)		40	40		2		1		1	Catagory 3 - Medium						
Pizza Inn		1000		1000	1				1	Catagory 3 - Medium						New FSF.
Pizza Palace		50	50		1		1			Catagory 3 - Medium						
Pizza Plus		30	30		1		1			Catagory 3 - Medium						
Pleasant Ridge Elementary		1500		1500	1				1	Catagory 3 - Medium						
Plum Tree Restaurant		40, 40	40, 40		1				1	Catagory 3 - Medium						
PM's Lounge	X	40	40		1				1	Category 4 - Low						Business is closed.
Pond Gap Elementary		2000		2000	1				1	Catagory 3 - Medium						
Pride & Joy Children's Academy		40	40		1				1	Catagory 3 - Medium						
Puleo's Grille (242 Morrell)		1500, 1500		1500	1				1	Catagory 3 - Medium						
Puleo's Grille (110 Cedar Lane)		1500		1500	1				1	Catagory 3 - Medium						
Puleo's Grille (7224 Region)		1000		1000	1		1			Catagory 3 - Medium						
Pup's Pit BBQ		50	50		1				1	Catagory 3 - Medium						

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Qdoba Mexican Grill		1500		1500	1				1	Catagory 3 - Medium						
Quaker Steak & Lube		1000		1000	2			1		Catagory 3 - Medium	1					
Quality Bakers		200	200		1		1			Catagory 3 - Medium						
Quality Inn		40	40		4		3	1		Catagory 3 - Medium						
Quizno's Subs		20	20		1				1	Category 3 - Medium						
Rainbow Club West		20	20	1000	1				1	Catagory 3 - Medium						
Rallys Hamburger		1000		1000	1		1			Catagory 3 - Medium						
Ramada Inn		20	20		1				1	Catagory 3 - Medium						
Ramsey's Restaurant		1500		1500	3		2	1		Category 3 - Medium						
Range House Restaurant		1000		1000	1	1				Category 3 - Medium						New FSF.
Rankin Restaurant		1000		1000	1				1	Catagory 3 - Medium						
Ray's ESG		1000		1000	1				1	Catagory 3 - Medium						
Red Fez Deli Express		20	20		1		1			Catagory 3 - Medium						
Red Lobster # 47 (8040 Kingston Pk.)		1500, 1500		2000	1				1	Catagory 3 - Medium						
Red Lobster #253 (305 Merchants)		1500		1500	1				1	Catagory 3 - Medium						
Red Onion Pizza & Sub		30	30		1				1	Catagory 3 - Medium						
Red Roof Inn	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Redemption Church	X	40	40		1				1	Category 4 - Low						No food production at facility.
Regal Cinemas (510 S. Gay)		50	50		1				1	Catagory 3 - Medium						
Regal Cinemas (7600 Kingston Pk.)		40, 40	40, 40		2			1	1	Catagory 3 - Medium	1					
Regal Theatre		14	14		1		1			Catagory 3 - Medium						
Regas Restaurant	X	2000		2000	1				1	Catagory 3 - Medium						Business is closed.
Richard Yoakley Elementary School		200	200		1		1			Catagory 3 - Medium						
Rick's Place		1000		1000	1				1	Catagory 3 - Medium						
Ridgedale Alternative School		40	40		1				1	Catagory 3 - Medium						
Rita's Bakery (3023 Tazewell)		1000		1000	1				1	Category 4 - Low						
Rita's Water Ice		40	40		1				1	Category 3 - Medium						
Rite Stop Food Mart		40	40		1				1	Catagory 3 - Medium						
Ritta Elementary School		800		800	1		1			Category 3 - Medium						
Riverside Market		20	20		1				1	Category 4 - Low						
Rocky Hill Elementary		1000		1000	1				1	Catagory 3 - Medium						
Rocky Top Market		40	40		1				1	Catagory 3 - Medium						
Rogers & Sons Market and Deli		1000	60		1		1			Category 3 - Medium						
Romano's Macroni Grill		1000		1000	1				1	Catagory 3 - Medium						
Roosters		40, 40	40, 40		1				1	Catagory 3 - Medium						
Roundup Rest. & Ice Cream Parlor		40	40		1		1			Catagory 3 - Medium						
Roux Barb		50	50		1				1	Catagory 3 - Medium						
Royale Bar	X	*-	*-		1				1	Category 4 - Low						Business is closed.
Ruby Tuesday # 3131(2714 Chapman)		1500		1500	1		1			Catagory 3 - Medium						
Ruby Tuesday # 3977 (7600 Kingston Pk.)	X	1500		1500	2		1	1		Category 4 - Low						Business is closed.
Ruby Tuesday #3767 (4834 N. Broadway)		1500		1500	1				1	Catagory 3 - Medium						
Ruby Tuesday #4155 (750 Brakebill)		1500		1500	1				1	Catagory 3 - Medium						
Ruby Tuesday's #4262 (6606 Clinton Hwy.)		1500		1500	2			1	1	Catagory 3 - Medium						
Ruth Chris Steakhouse		1000		1000	1				1	Catagory 3 - Medium						
S & S Cafeteria		200		1500	1				1	Category 2 - High						FSF has undersized GI.
S & W Grand Café	X	*6500		2000	1				1	Category 4 - Low					1	*FSF exceeded grease trap size requirement and is closed.
Sacred Heart Cathedral		2000		2000	1				1	Catagory 3 - Medium						
Saint Joseph School Cafeteria		1500		1500	1				1	Catagory 3 - Medium						
Sakkio Japan		40, 40	40, 40		4		2	1	1	Catagory 2 - High	1					
Salsarita's (5224 N. Broadway)		2000		2000	1		1			Catagory 3 - Medium						
Salsarita's (100 Jack Dance)		2000		2000	2			1	1	Catagory 3 - Medium		1				
Salvation Army Kitchen		1000		1000	1				1	Catagory 3 - Medium						
Sam & Andy's		30	30		1		1			Catagory 3 - Medium						
Sam E. Hill Elementary School		100, 50	100, 50		1		1			Catagory 3 - Medium						
Sam's Cafe		80	80		1		1			Catagory 3 - Medium						
Sam's Club # 6572 (2920 Knoxville Center)		2000, 50	50	2000	2			1	1	Catagory 3 - Medium		1				
Sam's Club #8256 (8435 Walbrook)		1500		1500	1				1	Catagory 3 - Medium						
Sam's Restaurant and Deli		60	60		1				1	Catagory 3 - Medium						
Sangria's Tapas Grill		75, 75	75, 75		2			1	1	Catagory 3 - Medium		1				
Sapphire Restaurant		40	40		1				1	Category 2 - High						FSF has internal trap on dishwasher. No space for external GI.
Sarah Moore Green Elementary		2000		2000	1		1			Catagory 3 - Medium						
Sarku		60	60		3		2		1	Catagory 3 - Medium						
Sassy Ann's		50	50		2				2	Catagory 3 - Medium						
Save A Lot (3840 Holston)		40, 40	40, 40		1		1			Catagory 3 - Medium						
Save A Lot (N. Broadway)		50	50		1				1	Catagory 3 - Medium						
Savelli's Deli		40	40		1				1	Catagory 3 - Medium						
Sawyer's (6914 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
Sbarro (3001 Knoxville Center)		40	40		3		2		1	Catagory 3 - Medium						
Sbarro's (7600 Kingston Pk.)		30	30		3		2		1	Catagory 3 - Medium						
Schofield Café	X	40	40		3		1		2	Catagory 4 - Low						Business is closed.
Scott & Company	X	**20	20, 100		1		1			Category 4 - Low						Business is closed.
Scott's Deli and Ice Cream		20	20		1		1			Catagory 3 - Medium						
Scrugg's Real Pit Bar B Q		40	40		1		1			Catagory 3 - Medium						
Senior Citizen Home Assistance Service		*2500		1500	1		1			Category 4 - Low						*FSF has exceeded grease size requirement.
Senior Taco		50	50		1		1			Catagory 3 - Medium						
Sequoyah Elementary		1000		1000	1		1			Catagory 3 - Medium						
Serene Manor Hospital		1500		1500	1		1			Catagory 3 - Medium						
Seventeenth Street Market & Deli		30	30		1		1			Catagory 3 - Medium						
Sevier Heights Baptist Church		1000		1000	1				1	Catagory 3 - Medium						
Shannondale Elementary School		1500		1500	1		1			Catagory 3 - Medium						
Shannondale Health Care		1000, 1000		1000, 1000	1				1	Catagory 3 - Medium						
Shoney's #1 (4032 N. Broadway)		1500		1500	1		1			Catagory 3 - Medium						
Shoney's #4 (2612 Chapman)		1500		1500	1		1			Catagory 3 - Medium						
Shoney's #6	X	1000			1				1	Category 4 - Low						Business is closed.
Shoneys #8 (4020 Rutledge)		1000		1000	3		2		1	Catagory 3 - Medium						
Shoney's (4410 Western)		1500		1500	1				1	Catagory 3 - Medium						
Shonos in the City		40	40		1				1	Catagory 3 - Medium						
Side Street Tavern		40	40		1				1	Catagory 3 - Medium						
Silver Spoon The American Cafe		1000		1000	1				1	Catagory 3 - Medium						
Sista's & Sister's of Soul		40	40		2		2			Catagory 3 - Medium						
Sitar Fine Indian Cuisine		1000		1000	1				1	Catagory 3 - Medium						
Skate Town USA		30	30		1		1			Category 4 - Low						
Smithwood Learning Center	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Smokey's Sports Pub And Grill Lounge		30	30		1		1			Category 4 - Low						
Smoky Mountain VFW	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Smoothie King (7702 Northshore)	X	40	40		1		1			Category 4 - Low						No food production at facility.
Sobu Restaurant	X	1500		1500	5		1	3	1	Category 4 - Low		1				Business is closed.
Soccer Taco (6701 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Soccer Taco (#9 Market Square)		2000, 40	40	2000	1				1	Catagory 3 - Medium						
Soho Cafe		1000		1000	5		3	1	1	Category 2 - High		1				GI maintenance problems in past.
Sonic # 4789 (2742 Schaad)		1500		1500	1				1	Catagory 3 - Medium						
Sonic (104 Cedar Lane)		1000		1000	3			3		Catagory 3 - Medium						
Sonic (5003 Millertown)		1500		1500	2			1	1	Catagory 3 - Medium						
Sonic (5103 N. Broadway)		1000		1000	3		3			Catagory 3 - Medium						
Sonic (3311 N. Broadway)		1000		1000	3		3			Catagory 3 - Medium						
Sonic (4515 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
Sonic (5722 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Soups and Scoops	X	40	40		2	1			1	Category 4 - Low						New FSF, business is closed.
South Bound		40	40		1				1	Catagory 3 - Medium						
South Knoxville Elementary		50, 50	50, 50		1				1	Catagory 3 - Medium						
South-Doyle Middle School		1000		1000	1		1			Catagory 3 - Medium						
Southern Graces (810 Clinch)	X	50	50		1				1	Category 4 - Low						Business is closed.
South's Finest Chocolate		20	20		1				1	Category 2 - High						Undersized internal trap.
Southside Sports Bar	X	*-	*-		1		1			Category 4 - Low						No food production at facility.
Spring Hill Elementary		1000		1000	1		1			Catagory 3 - Medium						
St. John's Cathedral		1500		1500	1				1	Category 4 - Low						
St. Mary's Health System, Inc.		3000		3000	1		1			Catagory 3 - Medium						
Starbucks Coffee (116 Merchants)		1500		1500	1				1	Catagory 3 - Medium						
Starbucks Coffee (2017 Cumberland)		1500		1500	1				1	Catagory 3 - Medium						
Starbucks Coffee # 8536 (4924 Kingston Pk.)		1500		1500	1				1	Catagory 3 - Medium						
Starbucks Coffee #1 (501 Church)		40	40		1				1	Catagory 3 - Medium						
Starbuck's Coffee #3 (1015 Volunteer)	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Starbucks Coffee (7803 Montvue Drive)		1500		1500	2		2			Catagory 3 - Medium						
Steak Escape	X	20	20		1		1			Category 4 - Low						Business is closed.
Steak Out #2 (2038 N. Broadway)	X	40	40		1				1	Category 4 - Low						Business is closed.
Steamboat Sandwiches		40	40		3		3			Category 3 - Medium						
Stefano's Chicago Style Pizza		150	150		1				1	Catagory 3 - Medium						
Sterchi Elementary		1500		1500	1				1	Catagory 3 - Medium						
Stir Fry Cafe		60, 30	60, 30		1				1	Catagory 3 - Medium						
Stop N' Go Market		30	30		1				1	Catagory 3 - Medium						
Strike & Spare Bowling Center (3315 N. Broadway)		40	40		1		1			Catagory 3 - Medium						
Strike & Spare Bowling Center (5700 Western)		40	40		1				1	Catagory 3 - Medium						
Subway (1325 N. Cherry)		40	40		1				1	Catagory 3 - Medium						
Subway (3317 Sutherland)		50	50		1				1	Catagory 3 - Medium						

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
Subway (4803 N. Broadway)		40	40		1		1			Category 3 - Medium						
Subway (8445 Walbrook)		1000		1000	1				1	Catagory 3 - Medium						
Subway # 12 (#25 Market Square)		30	30		1				1	Catagory 3 - Medium						
Subway # 15024 (6217 Riverview)		40	40		1		1			Catagory 3 - Medium						
Subway # 21 (7701 Northshore)		30	30		1				1	Catagory 3 - Medium						
Subway # 23 (314 Merchants)		40	40		1				1	Catagory 3 - Medium						
Subway # 25 (2734 Schaad)		40	40		1				1	Catagory 3 - Medium						
Subway # 4 (7327 Kingston)		40	40		2			1	1	Catagory 3 - Medium		1				
Subway #1559 (3105 Alcoa)		30	30		1		1			Catagory 3 - Medium						
Subway #16 (8605 Walbrook)		40	40		1				1	Catagory 3 - Medium						
Subway #1711 (5201 Kingston Pk.)		20	20		1				1	Catagory 3 - Medium						
Subway (4436 Western)		30	30		1				1	Category 3 - Medium						
Subway (2625 N. Broadway)		30	30		1				1	Catagory 3 - Medium						
Subway (2104 Cumberland)		40	40		1		1			Catagory 3 - Medium						
Subway (3708 Chapman)		40	40		1		1			Category 3 - Medium						
Subway (7300 Middlebrook)	X	*-	40		1			1		Category 4 - Low						Remodeling has not started.
Subway (3001Knoxville Center)		30	30		2		1		1	Catagory 3 - Medium						
Subway (7600 Kingston Pk.)		40	40		1				1	Catagory 3 - Medium						
Subway (5501 Middlebrook)		40	40		1				1	Catagory 3 - Medium						
Sullivans at Rocky Hill		1000		1000	2			1	1	Catagory 3 - Medium		1				
Sun Spot		40	40		1				1	Catagory 3 - Medium						
Sunnyview School		500		500	1				1	Catagory 3 - Medium						
Super Dollar Discount Foods		1000		1000	1		1			Category 3 - Medium						
Super Mario		1500		1500	1				1	Catagory 3 - Medium						
Sutherland Deli		20	20		1				1	Catagory 3 - Medium						
Sysco Food Company		1000		1000	1				1	Catagory 3 - Medium						
Szechuan Garden		1000		1000	1		1			Catagory 3 - Medium						
T Ho Restaurant	X	30	30		1				1	Catagory 4 - Low						Business is closed.
T. J.'s Sports Bar & Grill	X	15	15		2				2	Catagory 4 - Low						Business is closed.
T.G.I. Friday's		1000		1000	1				1	Catagory 3 - Medium						
Taco Bell #16310 (2085 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell #16498 (4854 N. Broadway)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell #20467 (102 Bridgewater)		1500		1500	2			1	1	Catagory 3 - Medium		1				
Taco Bell #20909 (7215 Strawberry Plains)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell #2302 (4413 Western)		1500		1500	1				1	Catagory 3 - Medium						
Taco Bell #2379 (1900 Cumberland)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell #4756 (6504 Chapman)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell #9575 (7414 Kingston Pk.)		1000		1000	2			1	1	Catagory 3 - Medium		1				
Taco Bell (5322 Millertown)		1000		1000	1		1			Catagory 3 - Medium						
Taco Bell (3001 Knoxville Center)	X	40	40		1		1			Catagory 4 - Low						Business is closed.
Taco Bell (7600 Kingston Pk.)		40	40		4		3		1	Catagory 3 - Medium						
Taco De Mexico		20	20		5		1	4		Category 3 - Medium						
Tamal Express		40	40		1	1				Category 3 - Medium						New FSF.
Tapatios Mexican Restaurant		30	30		2				2	Catagory 3 - Medium						
Target		1500		1500	1				1	Category 3 - Medium						
Tate's Teenz & Tots		75	75		1				1	Catagory 3 - Medium						
TD Barbecue		40	40		2		1		1	Catagory 3 - Medium						
Tea Time With Clara	X	*-	*-		1				1	Category 4 - Low						Business is closed.
Tekila Mexican Restaurant	X	1000		1000	1				1	Category 4 - Low						Business is closed.
Tekoa Lounge	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Tennessee Riverboat Company		50	50		1				1	Catagory 3 - Medium						
Tennessee School For The Deaf		100, 100	100, 100		2				2	Catagory 3 - Medium					1	FSF replaced leaking trap, not under enforcement.
Tennessee Theatre		30	30		1				1	Catagory 3 - Medium						
Texas Roadhouse (120 Morrell)		1500		1500	1				1	Catagory 3 - Medium						
Texas Roadhouse #5 (3071 Kinzel)		1500		1500	1		1			Catagory 3 - Medium						
The Blue Bean	X	20	20		2		2			Category 4 - Low						Business is closed.
The Broker		1000		1000	1				1	Catagory 3 - Medium						
The Campus Deli	X	30	30		2				2	Catagory 4 - Low						Business is closed.
The Crown & Goose Pub		1500		1500	1				1	Catagory 3 - Medium						
The Cupcakery		50	50		1				1	Catagory 3 - Medium						
The French Market		50	50		1				1	Catagory 3 - Medium						
The Fresh Market		1500		1500	1				1	Catagory 3 - Medium						
The General Store Sub Express	X	30	30		1				1	Catagory 4 - Low						Business is closed.
The Hill Restaurant		2000		2000	1		1			Category 4 - Low						
The Orangery		**40		1500	3				3	Catagory 1 - Unacceptable	1					**FSF is in enforcement.
The Original Freeze		20	20		1		1			Category 3 - Medium						
The Palor		40	40		1	1				Category 3 - Medium						New FSF.

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
The Pint House		30	30		1	1				Category 3 - Medium						New FSF.
The Purada		1500		1500	1				1	Category 3 - Medium						
The Roaming Gnome Pub & Eatery		50, 50	50, 50		1		1			Category 2 - High						FSF has internal trap on dishwasher. No space for external GI.
The Shrimp Dock		1000		1000	1				1	Category 3 - Medium						
The Spice Rack		1000		1000	2			1	1	Category 3 - Medium		1				
The Sugar Shack	X	*-	*-		1	1				Category 4 - Low						New FSF, No food production at facility.
The Tin Roof		1000		1000	1				1	Category 3 - Medium						
The Upper Crust		30	30		1				1	Category 4 - Low						
Three Brothers Pizza		40	40		3		2		1	Category 3 - Medium						
Three Ridges Golf Course		500		500	2			1	1	Category 3 - Medium						
Time Out Deli Market		30	30		2		1		1	Category 3 - Medium						
Time Warp Tea Room		40	40		2		2			Category 4 - Low					1	
Time-Out Deli #2		40	40		1				1	Category 3 - Medium						
TJ's	X	20	20		1		1			Category 4 - Low						Business is closed.
Tom & Barry's		1000		1000	1				1	Category 3 - Medium						
Tomato Head Restaurant		40	40		3		1		2	Category 2 - High						FSF has had maintenance issues in the past.
Tomo Japanese Restaurant (4877 N. Broadway)		1500		1500	1				1	Category 3 - Medium						
Tomo Japanese Restaurant (7315 Kinston Pk.)		40, 40	40, 40		1				1	Category 2 - High						FSF has internal traps and will need to install GI in future.
Tracy's Restaurant		80, 60			1				1	Category 3 - Medium						
Triangle Market	X	30	30		1		1			Category 4 - Low						No food production at facility.
Trino's		40	40		1				1	Category 3 - Medium						
Trio Cafe		50	50		1				1	Category 3 - Medium						
Tropical Smoothie Café (8008 Kingston Pk.)		1000		1000	1				1	Category 3 - Medium						
Tropical Smoothie Cafe (4839 Kingston Pk.)		40	40		2			1	1	Category 3 - Medium		1				
Two Sister's Sandwiches and Sweets		40	40		1				1	Category 3 - Medium					1	FSF moved to new location, installed new trap.
U.T. Bakery @ Presidential Hall		300		1000	2		2			Category 3 - Medium						
U.T. Hess Hall KFC Express		40	40		2		2			Category 3 - Medium						
U.T Hospital		3000, 3000		2000, 2000	1				1	Category 3 - Medium						
U.T. Mable's Cafe		1500		1500	3		3			Category 3 - Medium						
U.T. Morrill Hall		1000		1000	2		2			Category 3 - Medium						
U.T. Presidential Court		3000, 1000		2000	3		3			Category 3 - Medium						
U.T. Strong Hall		3000, 1500		3000, 1500	2		2			Category 3 - Medium						
U.T. Student University Center		*6000		4000	2		2			Category 3 - Medium						*FSF has exceeded grease trap size requirement.
U.T. Thompson Boling Arena		3000		3000	2		2			Category 3 - Medium						
U.T. Varsity Inn		1000		1000	2		2			Category 3 - Medium						
Union Jacks	X	*-	*-		1				1	Category 4 - Low						No food production at facility.
Urban Bar & Corner Cafe		60	60		1				1	Category 3 - Medium						
Veg-O-Rama Restaurant		80, 50	80, 50		1		1			Category 4 - Low						
Vic & Bill's Deli (3553 N. Broadway)		40	40		2		2			Category 3 - Medium						
Village Bakery		40	40		1		1			Category 3 - Medium						
Vine Middle Magnet		1000		1000	1				1	Category 3 - Medium						
Vol Market #3		100		100	1				1	Category 3 - Medium						
Volunteer Ministries	X	1500		1500	1				1	Category 4 - Low						No food production at facility.
Waffle House # 293 (6230 Papermill)		2000		2000	1				1	Category 3 - Medium						
Waffle House # 447 (5416 Asheville)		1000		1000	1		1			Category 3 - Medium						
Waffle House #1105 (7414 Strawberry Plains)		1000		1000	1				1	Category 3 - Medium						
Waffle House #766 (119 Cedar Lane)		1000		1000	2			1	1	Category 3 - Medium	1					
Wallace Memorial Baptist Church		150, 150	150, 150		1				1	Category 3 - Medium						
Wal-Mart # 2065 (8445 Walbrook)		1500		1500	1				1	Category 3 - Medium						
Wal-Mart # 2310 (3051 Kinzel Way)		2000		2000	1		1			Category 3 - Medium						
Walter P. Market & Deli		20	20		1				1	Category 3 - Medium						
Wasabi Japanese Steak House		1500		1500	1				1	Category 3 - Medium						
Washington Pike Methodist Church		500		500	1				1	Category 3 - Medium						
Weigel's (5904 Washington Pk.)		*1000	40		1		1			Category 4 - Low						*FSF has exceeded grease trap size requirement.
Weigel's (3900 Pleasant Ridge)		40	40		1				1	Category 3 - Medium						
Weigel's #12 (5621 Western)		40	40		1				1	Category 4 - Low						
Weigles # 43 (4750 Middlebrook)		30	50		3			2	1	Category 2 - High	1					FSF has smaller internal than required.
Wendy's # 12 (3000 N. Broadway)		1000		1000	1		1			Category 3 - Medium						
Wendy's # 13 (1806 Cumberland)		1000		1000	1		1			Category 3 - Medium						
Wendy's # 24 (7407 Strawberry Plains)		1000		1000	1				1	Category 3 - Medium						
Wendy's # 31 (8305 Kingston Pk.)		1000		1000	1				1	Category 3 - Medium						
Wendy's # 34 (4407 Western)		1000		1000	1				1	Category 3 - Medium						
Wendy's # 41 (6201 Asheville)		1000		1000	2		1	1		Category 3 - Medium	1					
Wendy's #28 (2904 Knoxville Center)		1000		1000	1		1			Category 3 - Medium						
Wendy's #4 (2401 Chapman)		1500		1500	1		1			Category 3 - Medium						
West End Academy	X	*-	*-		1	1				Category 4 - Low						New FSF, no food production at facility.
West Haven Elementary		2000		2000	1				1	Category 3 - Medium						

Facility Name	Inactive FSFs	Trap / Interceptor Size	Trap Size Required	Interceptor Size Required	Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections	Risk Rating	Inspection Letters	NONC Letters	NOV Letters	SNC Letters	Traps Installed	Comments
West High School		*3000		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
West Hills Baptist Church		50	50		2		1		1	Catagory 3 - Medium						
West Hills Elementary		1000		1000	1				1	Catagory 3 - Medium						
West Lonsdale Baptist Church		1000		1000	1				1	Category 4 - Low						
West Town Mall		1000		1000	2		1		1	Catagory 3 - Medium						
West View Elementary		1000		1000	1				1	Catagory 3 - Medium						
Whassup Dog		40	40		3	1		1	1	Category 3 - Medium		1			1	**FSF installed grease trap under enforcement.
Whittle Springs Golf Club Snack Bar		20	20		1		1			Category 4 - Low						
Whittle Springs Middle School		**1500		1500	3		1	2		Category 3 - Medium					1	**FSF installed grease trap under enforcement.
Williams and Sonoma		50	50		5		4		1	Catagory 3 - Medium						
Williams Place		30	30		1		1			Catagory 3 - Medium						
Wing Zone		1500		1500	1				1	Catagory 3 - Medium						
Wishbones (6913 Kingston Pk.)		1000		1000	1				1	Catagory 3 - Medium						
Wishbones # 2 (2701 Magnolia)		1000		1000	1		1			Catagory 3 - Medium						
Wishbones (4808 Clinton Hwy.)		1000		1000	1				1	Catagory 3 - Medium						
Wok Hay (5018 Kingston Pk.)		2000		2000	1				1	Catagory 3 - Medium						
Wok Hay (120 Merchants)		*1500, 1500, 1500		2000	1				1	Catagory 3 - Medium						*FSF has exceeded grease trap size requirement.
Wok-N-Roll		1000		1000	2			1	1	Catagory 3 - Medium		1				
Wong's Palace	X	1000		1000	1		1			Catagory 4 - Low						Business is closed.
Woodland Mart and Deli		40	40		1				1	Catagory 3 - Medium						
World Grotto Café	X	40	40		1		1			Catagory 4 - Low						Business is closed.
Wright's Cafeteria		40, 40	40, 40		1				1	Catagory 3 - Medium						
Yoma Tora		30	30		1				1	Catagory 3 - Medium						
Young Star		30	30		4		1	2	1	Catagory 3 - Medium						
YWCA		40	40		3		2		1	Category 4 - Low						
Zaxby's Restaurant		1500			1		1			Catagory 3 - Medium						
Totals					1225	40	411	137	637							
					Total Inspections	Initial Inspections	Repeat Inspections	Follow up Inspections	Trap Inspections							
										28	42	1			34	
										Inspection Letters	NONC Letters	NOV Letters	SNC Letters		Trap Installed	

2010 Grease-Related SSOs in Residential Areas

Date	Address	Building		Grease & Grease	Grease & Debris	Grease & I & I	Grease, Roots & Debris	Customers in Area	Letters Mailed	* Cans, Bags Mailed	Residential Only	Residential, Commercial	# of Feet Cleaned	BA	
		SSO	Backup											Frequency	Comments
1/6/2010	905 Kermit Drive (MH 4-36) Commercial SSO	Yes		Yes				1	1			Yes	268	6	
1/18/2010	229 Lynnwood Drive (MH 2-98) Residential SSO	Yes			Yes			21	21	21	Yes		325	6	
2/4/2010	4025 Thornwood Road (MH 17-92) Residential SSO	Yes			Yes			17	17	17	Yes		358	6	
2/19/2010	302 Lingburton Avenue Residential SSO	Yes		Yes				2	2	2	Yes		300	12	Low pressure force main
2/26/2010	1127 Magnet Place Residential BBU		Yes		Yes			4	4	4	Yes		225	6	
5/12/2010	4509 Landon Drive (MH 11-229) Residential SSO	Yes		Yes				6	6	6	Yes		199	6	
5/16/2010	3628 Lucinda Drive (Lateral Cleanout) Residential SSO	Yes		Yes				10	10	10	Yes		128	6	
5/23/2010	1312 Cassell Drive (MH 14-101) Residential SSO	Yes		Yes				52	52	52	Yes		250	6	
6/25/2010	5660 Colonial Circle (MH 14-2) Residential and Commercial SSO	Yes				Yes		181	181	179		Yes	105	6	
7/5/2010	3808 Blount Avenue (Broken Sewer Lateral) Residential and Commercial SSO	Yes				Yes		170	170	157		Yes	488	0	Broken main
7/11/2010	415 Forestal Drive (MH 7-91) Residential and Commercial SSO	Yes		Yes				60	60	58		Yes	157	6	
7/15/2010	3605 Crosby Drive (Lateral Cleanout) Residential SSO	Yes			Yes			26	26	26	Yes		288	6	
8/16/2010	2706 Mynderse Avenue (MH 18-3) Residential and Commercial SSO	Yes					Yes	346	346	336		Yes	250	6	
Total								896	896	868					

Appendix B

Pump Station
Maintenance Activities and Schedule

SMSP 2010

FACILITY & EQUIPMENT UPGRADES

1. SCADA upgrades and improvements at various facilities - Ongoing
2. Railroad Pump Station replacement – Complete
3. Crestwood Pump Station replacement – Complete
4. Ellis Road Pump Station replacement – Complete
5. Ford Valley Pump Station replacement – Complete
6. Boys Home Pump Station upgrade – Complete
7. Ten Mile Pump Station grinder upgrade – Complete
8. Lyons Creek Pump Station grinder upgrade – Complete
9. Neubert Springs Pump Station VFD upgrade - Complete
10. Hanover Pump Station replacement – To be completed in 2011
11. Sea Ray Pump Station replacement – To be completed in 2011
12. Meadow Oaks Pump Station replacement – To be completed by 2011
13. Chapman Highway Pump Station replacement – To be completed in 2011
14. John Sevier Pump Station upgrade – To be completed in 2011
15. Jones Street Pump Station grinder upgrade – To be complete in 2011
16. Kohls Pump Station pump upgrade – To be complete in 2011
17. Burlington Pump Station pump upgrade – To be completed 2011
18. Queensbury Pump Station pump upgrade – To be completed 2011
19. Neubert Springs Pump Station replacement – To be completed in 2012
20. Amherst Pump Station replacement – To be completed in 2012

NEW FACILITY INSTALLATIONS

1. Lake Forest Pump Station installation – Brought online February 2011

SYSTEM STUDIES

1. SCADA System and Communication protocol study – Ongoing

FACILITY INSPECTIONS

1. 90 Routine facility inspections performed in 2010
2. 1117 Preventive Maintenance scheduled facility inspections performed in 2010

OUTSIDE SUPPORT

1. SMSP has performed 64 pump efficiency tests at various facilities for capacity assurance and flow monitoring purposes. SMSP has provided CDM with efficiency test data from various facilities for modeling purposes.
2. SMSP maintains 16 flow meters and uses these meters for various purposes. SMSP has provided CDM with flow meter data from various facilities for modeling purposes.
3. System Operations SCADA maintains a run-time archive for Wastewater Pump Stations. This information is pulled from the SMSP maintained SCADA system as it pertains to pump stations. Various facility run-time data continues to be provided to CDM for modeling purposes.

SMSP Preventive/Predictive Maintenance Activities and Frequencies

<u>Standard</u> <u>Job</u>	<u>Standard Job Description</u>	<u>Frequency</u> <u>(In days)</u>
RSGN	General Inspection	varies
RSFAC	Facility Inspection - Wastewater	3.5 - 7
RSCRA	Crane Inspection - annual	365
RSMML	Milltronics Inspection	180
RSMMLC	Motor control/electrical inspection	365
RSLASI	Alarm status (SCADA) inspection	180
RSFM	Flowmeter inspection	180
RSBSI	Facility Inspection - Water	3.5 - 7
RSBPV	Back flow preventer inspection	365
RSCRH	Crane inspection - routine	90
RSEP	Electric panel inspection	365
RSSS	Soft starter inspection	365
RSACMP	Air compressor inspection	180
RSVFD	VFD Inspection	365
RSMME	Muffin monster inspection	365
RSODOR	Mercaptan injector inspection	30
RSPM1	Pump inspection - Wastewater	180
RSPM2	Sump pump inspection	180
RSCC	Climate control inspection (Heaters/fans)	180
RSML	Motorized louver inspection	365
RSDHM	Dehumidifier inspection	365
RSLER	Emergency lights inspection - monthly	30
RSELA	Emergency lights inspection - annual	365
RSPM3	Belt drive pump inspection - 6 mos.	180
RSBDPA	Belt drive pump inspection - annual	365
RSGNPM	Generator inspection	90
RSCFI	Chemical feed inspection	30
RSLET	Pump efficiency testing - Wastewater	365
RSPMP4	Pump inspection - Water	180
RSWDPC	DP Cell inspection	180
RSWCPC	CL2 & PH Analyzer Calibration	180
RSGRIN	Annual inspection - Gas	365
RSLS	Leak survey - Gas	365
RSPTC	Transducer calibration	365
RSOS	Odorant sampling	30
RSFMM	H2S / PH monitoring	30
RSLVA / RSBVA	Vibration analysis	90
RSCTC / RSBTC	Thermography check	540 days
RSMRC	Master radio inspection	365
RSMR	Meter Readings/charts	3.5 - 7
RSGAS	Alarm status (SCADA) inspection - Gas	365
RSGGV	Grease valves - Gas	365
RSWAS	Alarm status (SCADA) inspection - Water	180
RSGFI	Site inspection - Gas	90
RSGNA	Generator inspection - annual	365
RSWWI / RSCWI	Winterize station - Water / Wastewater	365
RSGWI	Winterize station - Gas	365

Appendix C

Summary Table of Pumps Stations Using Chemical Injection and Odor Control

KUB Wastewater Facility Chemical Feed System Information (2010 Update)

CHEMICAL INJECTION

<u>Facility</u>	<u>Address</u>	<u>Odor control type</u>	<u>Chemical Name</u>	<u>Comments</u>
Ball Road	4923 Ball Road	Chemical injection	Oxy-Six	
Boyds Bridge SuperOx	3818 Boyds Bridge Pike	Chemical injection	Oxygen	
Easton Meadows	7224 Rising Road	Chemical injection	Calcium Hypochlorite	
Eastwood	740 Bagwell Lane	Chemical injection	Oxy-Six	
Ellistown	1909 Ellistown Road	Chemical injection	Oxy-Six	
Forks of the River	5051 National Drive	Chemical injection	Oxy-Six	
Forks SuperOx	5051 National Drive	Chemical injection	Oxygen	
Gazebo	3516 Ginn Drive	Chemical injection	Oxy Six	
Governors Landing	5400 Garden Crest Trail	Chemical injection	Oxy-Six	
Holston Hills	4800 River Place Drive	Chemical injection	Oxy Six	
Kohls	5312 Washington Pike	Chemical injection	Calcium Hypochlorite	
Maloneyville	4800 Maloneyville Road	Chemical injection	Oxy-Six	
Neubert Springs	5941 Neubert Springs	Chemical injection	Oxy-Six	
Power Park	3180 Power Drive	Chemical injection	Oxy-Six	
Roberts Road	5300 Roberts Road	Chemical injection	Calcium Hypochlorite	
Shiptown	2124 Shiptown Road	Chemical injection	Oxy-Six	
Ten Mile	757 Ebenizer Road	Chemical injection	Oxy-Six	
Walker Springs	310 Broome Road	Chemical injection	Oxy-Six	
Washington Pike	8515 Washington Pike	Chemical injection	Oxy-Six	
Wayland Road	1900 Wayland Road	Chemical injection	Oxy-Six	
Woodlands	1045 Tree Top Way	Chemical injection	Calcium Hypochlorite	
Woodson Drive	2416 Woodson Drive	Chemical injection	Oxy-Six	

ON-SITE ODOR CONTROL

Ball Road	4923 Ball Road	Charcoal scrubber	Purafill Media	
Casa Bella	4633 Bella Capri Lane	Charcoal scrubber	Purafill Media	
Chestnut Ridge	8009 Chestnut Hill Lane	Charcoal scrubber	Purafill Media	
Clinton Highway	6564 Clinton Highway	Charcoal scrubber	Purafill Media	
Duncan Glen	6742 Duncan Road	Charcoal scrubber	Bay Products Media	
Easton Meadows	7224 Rising Road	Charcoal scrubber	Purafill Media	
Ellistown	1909 Ellistown Road	Charcoal scrubber	Bay Products Media	
Gazebo	3516 Ginn Drive	Charcoal scrubber	Purafill Media	
Ginnbrooke	2907 Ginnbrooke Lane	Charcoal scrubber	Bay Products Media	
Governors Landing	5400 Garden Crest Trail	Charcoal scrubber	Bay Products Media	
Harrison Keepe	2122 Houser Road	Charcoal scrubber	Bay Products Media	
Lower First Storage	1502 N. Sixth Avenue	Charcoal scrubber	Bay Products Media	
Millertown	5800 Millertown Pike (Vincinda Cir)	Charcoal scrubber	Purafill Media	
Riverview Park	3221 Holston Hills Road	Charcoal scrubber	Bay Products Media	
Roberts Road	5300 Roberts Road	Charcoal scrubber	Bay Products Media	
Third Creek Storage	4505 Middlebrook Pike	Charcoal scrubber	Bay Products Media	
Three Points	8530 Three Points Road	Charcoal scrubber	Purafill Media	
Upper First Storage	4719 Old Broadway	Charcoal scrubber	Bay Products Media	
Walker Springs	310 Broome Road	Charcoal scrubber	Bay Products Media	
Walker Springs Storage	608 Walker Springs Road	Charcoal scrubber	Bay Products Media	
Washington Pike	8515 Washington Pike	Charcoal scrubber	Bay Products Media	
Woodlands	1045 Tree Top Way	Charcoal scrubber	Bay Products Media	
Woodson Drive	2416 Woodson Drive	Charcoal scrubber	Purafill Media	



Form: Wastewater Odor Control System Values

Core Process: SMSP Preventive Maintenance

Department: System Operations, 81

Owner: SMSP Supervisor

Document Status: Issued

Approved by: Brad Brummett

Issued Date: 11/22/2010

Facility _____ Date _____

Inspected By: _____

Perform the odor control system sampling in the order listed below and then coordinate with the wastewater system team lead on the results obtained in order to determine if adjustments need to be made.

Terminal Manhole Nitrate (Water Sample)

Results (PPM): _____

Terminal Manhole Hydrogen Sulfide (Water Sample)

Results (PPM): _____

Terminal Manhole pH (Water Sample)

Results (PPM): _____

Chemical Feed Pump Draw Down

Results (GPD): _____

Chemical Storage Tank Level

Results (Feet): _____

Air Scrubber Hydrogen Sulfide (Air Sample)

Results (PPM): _____

Exchange Media: ☐ Yes ☐ No ☐ Further Evaluation

Comments: _____

Appendix D

Pump Station and Storage Facility Sample Inspection Checklists

Checklist: Wastewater Lift Station Inspection

Core Process: SMSP Preventive Maintenance

Department: System Operations, 81

Owner: SMSP Supervisor

Document Status: Issued

Approved by: Brad Brummett

Issued Date: 6/3/2009

Facility name _____ Date _____

Performed by _____

Preventive maintenance work order _____

Quarterly detailed inspection ☐ Annual performance inspection ☐

Tip This checklist can be used as a guide for monthly inspections but is not required to be completed while conducting a monthly inspection.

► **To complete a wastewater lift station maintenance inspection, check the following areas or equipment:**

NA

- ☐ 1. Grinder Well and Screen Room
- | | |
|--|--|
| <input type="checkbox"/> Hatches and safety grating | <input type="checkbox"/> Milltronics card updates (annual insp only) |
| <input type="checkbox"/> Entrance door(s) and locking mechanisms | <input type="checkbox"/> Walking surfaces |
| <input type="checkbox"/> Hydraulic equipment | <input type="checkbox"/> Lighting |
| <input type="checkbox"/> Slide gate(s) or valve(s) | <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Actuator(s) | <input type="checkbox"/> Float switches(s) – dry well and wet well |
| <input type="checkbox"/> Guide rail(s) or lifting mechanisms | <input type="checkbox"/> Cleanliness |
| <input type="checkbox"/> Level transmitter(s) | <input type="checkbox"/> Fall safety device |
| <input type="checkbox"/> Grinder #1: run time: _____ | |
| <input type="checkbox"/> Grinder #1 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____ | |
| <input type="checkbox"/> Grinder #2: run time: _____ | |
| <input type="checkbox"/> Grinder #2 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____ | |
- ☐ 2. Wet Well and Pump Room
- | | |
|--|--|
| <input type="checkbox"/> Hatches and safety grating | <input type="checkbox"/> Submersible pressure transducer |
| <input type="checkbox"/> Entrance door(s) and locking mechanisms | <input type="checkbox"/> Milltronics card updates (annual insp only) |
| <input type="checkbox"/> Slide gate(s) or valve(s) | <input type="checkbox"/> Lighting |
| <input type="checkbox"/> Guide rail(s) or lifting mechanisms | <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Walking surfaces | <input type="checkbox"/> Cleanliness |
| <input type="checkbox"/> Float switches(s) – dry well and wet well | <input type="checkbox"/> Sump pump(s) and check valve(s) |
| <input type="checkbox"/> Fall safety device | <input type="checkbox"/> Pressure instrumentation |
| <input type="checkbox"/> Actuator(s) | <input type="checkbox"/> Static pressure _____ |
| <input type="checkbox"/> Level transmitter(s) | <input type="checkbox"/> Piping and drainage |

NA

- ☐ Pump Efficiency Test (Note Perform flow meter test in conjunction with the pump efficiency test.)
- ☐ Pump #1: run time: _____
- ☐ Pump #2: run time: _____
- ☐ Pump #3: run time: _____
- ☐ Pump #4: run time: _____
- ☐ Motor #1 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____
- ☐ Motor #2 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____
- ☐ Motor #3 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____
- ☐ Motor #4 amperage reading: A (phase)_____ B (phase)_____ C (phase)_____
- ☐ Check valve(s)

☐ 3. Valve Vault or Pump Room Valving

- | | |
|---|---|
| <input type="checkbox"/> Hatches and safety grating | <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Isolation valve(s) | <input type="checkbox"/> Cleanliness |
| <input type="checkbox"/> Air release valve(s) | <input type="checkbox"/> Check valve(s) |
| <input type="checkbox"/> Sump pump(s) and check valve(s) | <input type="checkbox"/> Pressure instrumentation |
| <input type="checkbox"/> Walking surfaces | <input type="checkbox"/> Static pressure _____ |
| <input type="checkbox"/> Float switches(s) – dry well or wet well | <input type="checkbox"/> Dynamic pressure _____ |
| <input type="checkbox"/> Fall safety device | <input type="checkbox"/> Piping and drainage |
| <input type="checkbox"/> Lighting | |

☐ 4. Effluent Meter - Vault

- | | |
|---|--|
| <input type="checkbox"/> Hatches and safety grating | <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Isolation valve(s) | <input type="checkbox"/> Cleanliness |
| <input type="checkbox"/> Sump pump(s) and check valve(s) | <input type="checkbox"/> Piping and drainage |
| <input type="checkbox"/> Walking surfaces | <input type="checkbox"/> Flow meter and signal converter |
| <input type="checkbox"/> Float switches(s) – dry well or wet well | <input type="checkbox"/> Effluent meter totalizer: _____ |
| <input type="checkbox"/> Lighting | |

☐ 5. Odor Control

- | | |
|---|--|
| <input type="checkbox"/> Chemical feed enclosure and components | <input type="checkbox"/> Chemical feed building |
| <input type="checkbox"/> Chemical storage containment | <input type="checkbox"/> Chemical feed piping and valve(s) |
| <input type="checkbox"/> Chemical feed tank: level (ft.)_____ | <input type="checkbox"/> Carbon vessel and media sample (air scrubber) |
| <input type="checkbox"/> Chemical feed rate: gallons/day_____ | <input type="checkbox"/> Eyewash Station |
| <input type="checkbox"/> Terminal manhole monitoring:
Nitrate_____ | |
| Hydrogen sulfide_____ | |
| pH_____ | |

NA

- ☐ 6. Electrical Building, Control Panel, SCADA Panel, and Related Equipment
- | | |
|--|---|
| <input type="checkbox"/> SCADA panel | <input type="checkbox"/> TVSS monitor (indication lights) |
| Note Initiate this task when you first arrive, so you are testing the UPS unit while doing other tasks. | <input type="checkbox"/> Lighting |
| <input type="checkbox"/> SCADA test log sheet (annual insp only) | <input type="checkbox"/> Ventilation |
| <input type="checkbox"/> Climate control | <input type="checkbox"/> Cleanliness |
| <input type="checkbox"/> Emergency transfer switch | <input type="checkbox"/> Motor control center components |
- ☐ 7. Site Miscellaneous
- | | |
|---|--|
| <input type="checkbox"/> Emergency lighting | <input type="checkbox"/> Site aesthetics |
| <input type="checkbox"/> Exterior lighting | <input type="checkbox"/> Backflow preventer |
| <input type="checkbox"/> Generator | <input type="checkbox"/> Air compressor (s) – pressure vessels |
| <input type="checkbox"/> Miscellaneous control panels | <input type="checkbox"/> Air compressor (s) – Control Setpoints Form |
| <input type="checkbox"/> Security | <input type="checkbox"/> Air compressor (s) – Regulator Setpoints Form |
| <input type="checkbox"/> Overhead crane | <input type="checkbox"/> Yard hydrant |
| <input type="checkbox"/> Signs and placards | |

Comments: _____

Important If any discrepancies are found, notify SMSP or appropriate personnel.



Form: Pump Efficiency Testing

Core Process: SMSP Preventive Maintenance
Department: Systems Operations, 81
Owner: SMSP Supervisor

Document Status: Issued
Approved by: Brad Brummett
Issued Date: 3/17/2004

Performed by _____ Date _____
Facility _____

1.0 WETWELL INFORMATION

(Length _____ x Width _____ x Depth _____) = Total Volume _____
(0.785 x Dia. _____ x Dia. _____ x Depth _____) = Total Volume _____
(Total Volume _____ x 7.48) = Total Gallons _____
(Total Gallons _____ / Depth _____) = Gallons per foot _____

Important Wetwell type depicts which volume formula to use (Cylindrical or Square/Rectangular).

2.0 TESTING

To complete this testing form, you must conduct three inflow measurements and three drawdown measurements that will be timed for one minute to obtain the most accurate data. When applicable, take readings from the Milltronics Level Control Unit when performing inflow and drawdown measurements.

If you are using a tape measure to obtain level readings, convert all inch readings to feet before completing the calculations.

2.1 INFLOW TESTING

To obtain the correct difference, record the second reading at the top.

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____
Calculate the average of the 3 measurements _____					
Average inflow	_____	x	Gallons per ft	_____	= Inflow GPM _____

2.2 DRAWDOWN TESTING

2.2.1 Pump #1

To obtain the correct difference, record the second reading at the top.

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.2.2 Pump #2

To obtain the correct difference, record the second reading at the top.

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.2.3 Pump Combination

Pumps involved _____

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.3 ADDITIONAL DRAWDOWN TESTING

If a facility has more than two pumps, use this section of the form to log the test results for the additional drawdown tests.

2.3.1 Pump #3

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.3.2 Pump #4

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.3.3 Pump Combination

Pumps involved _____

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____

2.3.4 Pump Combination

Pumps involved _____

Test 1		Test 2		Test 3	
Second	_____	Second	_____	Second	_____
Initial	_____	Initial	_____	Initial	_____
Difference	_____	Difference	_____	Difference	_____

GPM

Calculate the average of the 3 measurements _____

Avg drawdown _____ x Gals per ft _____ = Drawdown GPM _____

Drawdown GPM _____ + Inflow GPM _____ = Total pump capacity GPM _____

Pressure Readings (Discharge and Suction / Pump ON)

Pump ON discharge PSI reading _____ Pump ON suction PSI reading _____

Motor amperage readings

A Phase _____ B Phase _____ C Phase _____



Checklist: Wastewater Storage Facility Inspection

Core Process: SMSP Preventive Maintenance

Department: System Operations, 81

Owner: SMSP Supervisor

Document Status: Issued

Approved by: Brad Brummett

Issued Date: 6/3/2009

Facility name _____ Date _____

Performed by _____

Preventive maintenance work order _____

Quarterly detailed inspection ☐ Annual performance inspection ☐

Tip This checklist can be used as a guide for monthly inspections but is not required to be completed while conducting a monthly inspection.

► **To complete a wastewater storage facility maintenance inspection, check the following areas or equipment:**

NA

☐

1. Diversion Structure

☐ Security

☐ Hatches and safety grating

☐ Slide gate(s) or valve(s)

☐ Level transmitter (s)

☐ Site aesthetics

☐ Actuator(s)

☐ Cleanliness

☐

2. Grinder Well

☐ Hatches and safety grating

☐ Actuator(s)

☐ Level transmitter(s)

☐ Grinder #1: run time _____

☐ Grinder #2: run time _____

☐ Grinder #3: run time _____

☐ Slide gate(s) or valve(s)

☐ Guide rail(s) and lifting mechanisms

☐ Cleanliness

☐

3. Wet Well(s)

☐ Hatches and safety grating

☐ Actuator(s)

☐ Level transmitter(s)

☐ Pump #1: run time _____

☐ Pump #2: run time _____

☐ Pump #3: run time _____

☐ Pump #4: run time _____

☐ Pump #5: run time _____

☐ Pump #6: run time _____

☐ Sump Pump #1: run time _____

☐ Sump Pump #2: run time _____

☐ Slide gate(s) or valve(s)

☐ Guide rail(s) and lifting mechanisms

☐ Float switch(s) – high and/or low

☐ Cleanliness

NA

- ☐ 4. Valve Vault
- ☐ Hatches and safety grating
 - ☐ Lighting
 - ☐ Ventilation
 - ☐ Isolation valve(s)
 - ☐ Air release valve(s)
 - ☐ Walking surfaces
 - ☐ Structures (catwalk)
 - ☐ Cleanliness
 - ☐ Entrance door(s) and locking mechanisms
 - ☐ Check valve(s)
 - ☐ Pressure instrumentation
 - ☐ Piping and drainage
- ☐ 5. Influent Meter Vault
- ☐ Hatches and safety grating
 - ☐ Lighting
 - ☐ Ventilation
 - ☐ Isolation valve(s)
 - ☐ Pressure Instrumentation
 - ☐ Cleanliness
 - ☐ Entrance door(s) and locking mechanisms
 - ☐ Influent meter totalizer_____
 - ☐ Flow meter and signal converter
 - ☐ Actuator(s)
 - ☐ Piping and drainage
 - ☐ Drain valve
 - ☐ Walking surfaces
- ☐ 6. Effluent Meter Vault
- ☐ Hatches and safety grating
 - ☐ Lighting
 - ☐ Ventilation
 - ☐ Isolation valve(s)
 - ☐ Cleanliness
 - ☐ Entrance door(s) and locking mechanisms
 - ☐ Effluent meter totalizer_____
 - ☐ Flow meter and signal converter
 - ☐ Actuator(s)
 - ☐ Piping and drainage
 - ☐ Drain valve
 - ☐ Walking surfaces
- ☐ 7. Odor Control
- ☐ LEL monitor(s)
 - ☐ Hydrogen sulfide monitor
 - ☐ Fan, dampers, louvers, and ductwork
 - ☐ Carbon vessel and media sample (air scrubber)
 - ☐ Magnehelic gauge: pressure drop_____
- ☐ 8. Electrical Building, Control Panel, SCADA Panel and Related Equipment
- ☐ SCADA panel
 - Note** Initiate this task when you first arrive, so you are testing the UPS unit while doing other tasks.
 - ☐ SCADA test log sheet (annual insp only)
 - ☐ Climate control
 - ☐ Emergency transfer switch
 - ☐ Grinder control panel(s)
 - ☐ TVSS monitor (indicator lights)
 - ☐ Lighting
 - ☐ Ventilation
 - ☐ Cleanliness
 - ☐ Motor control center components
- ☐ 9. Storage Tank
- ☐ Fall safety device
 - ☐ Handrail, hatches, & safety grating (annual only)
 - ☐ LEL monitor
 - ☐ Hydrogen sulfide monitor
 - ☐ Mixer #1: run time_____
 - ☐ Mixer #2: run time_____
 - ☐ Mixer #3: run time_____
 - ☐ Mixer #4: run time_____

NA

- ☐ Level transmitter(s)
 - ☐ Guide rail(s) and lifting mechanisms
 - ☐ Tank drain valve
 - Site Miscellaneous
 - ☐ Security
 - ☐ Backflow preventer
 - ☐ Exterior lighting
 - ☐ Miscellaneous control panels
 - ☐ Generator: run time _____
 - ☐ Sprinkler system components
 - ☐ Emergency lighting
 - ☐ Signs and placards
 - ☐ Site aesthetics

Comments:

[illegible]

Important If any discrepancies are found, notify SMSP or appropriate personnel.