

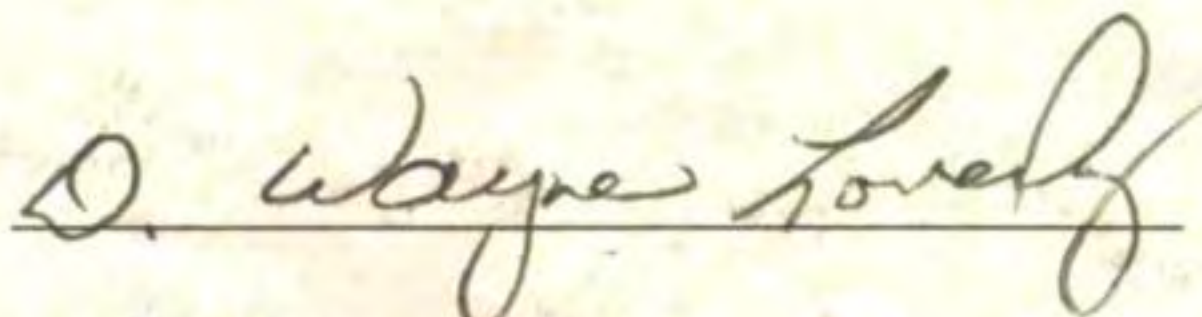
Quarterly Progress Report

Volume 11

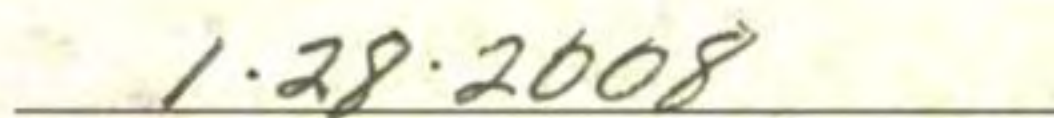
Fourth Quarter Report
October 1 through December 31, 2007

Submitted to EPA on January 28, 2008

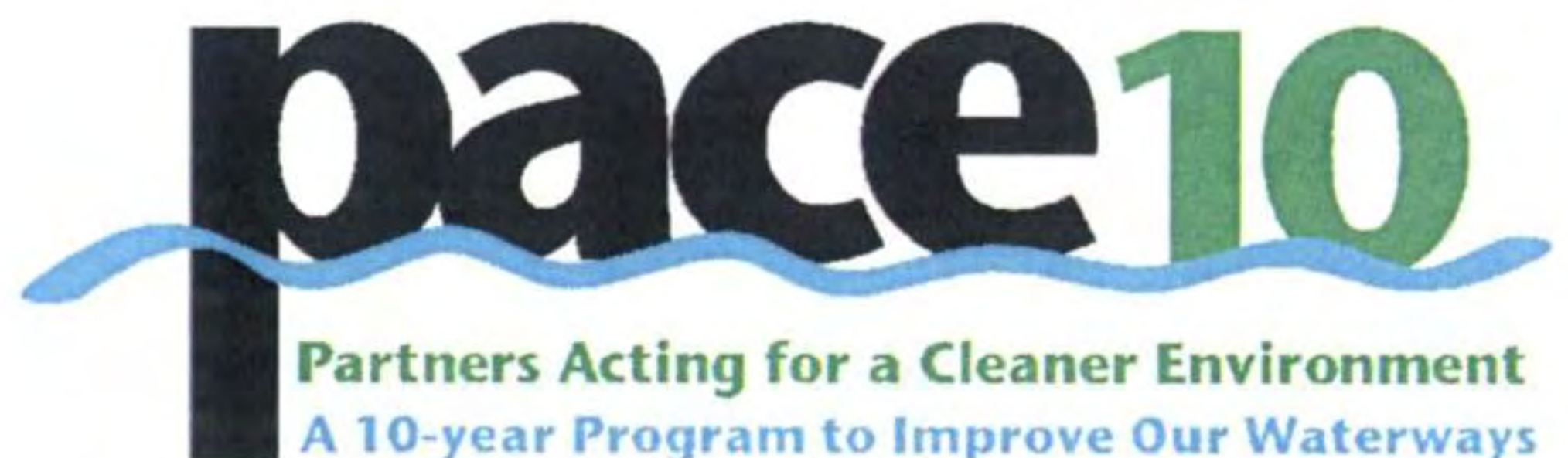
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D. Wayne Loveday



Date



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Executive Summary

On February 11, 2005, the Knoxville Utilities Board (KUB) entered into a Consent Decree with the United States, the State of Tennessee, the Tennessee Clean Water Network, and the City of Knoxville. The following Quarterly Progress Report is submitted to fulfill the reporting requirements described in Section XIX of the Consent Decree.

Consent Decree language, pages 82-83: *"Beginning thirty (30) Days after the first Calendar Quarter following the Date of Entry, and thirty (30) Days after each Calendar Quarter thereafter until termination of the Consent Decree, KUB shall submit to the Parties, and simultaneously place in the PDR, a Quarterly Progress Report. Quarterly Progress Reports shall not be subject to the Public Review Requirement of Section VI.A.2. However, KUB shall receive questions and comments from the public for KUB's review for a period of twenty (20) Days following placement in the PDR. Each Quarterly Progress Report shall contain:*

1. *A summary of compliance with and activities related to implementation of the Phase 1 CAP/ER and Phase 2 CAP/ER, including: the status of construction projects in comparison to the schedules that have been established pursuant to the Consent Decree for those projects; and schedule deadlines and milestones achieved during Calendar Quarter and expected during the next Calendar Quarter;*
2. *A summary of compliance with and activities related to implementation of the CPE and CCP;*
3. *A summary of implementation of and compliance with the Process Controls Program;*
4. *A summary of the implementation of the Capacity Assurance Program for the Calendar Quarter, including the number of, and anticipated flow from, sewer connections that have been authorized, by Sewerbasin, a description of the projects that have been authorized and the number of credits earned and banked by KUB that will be expended for those projects, by Sewerbasin, and any exceptions granted for connections for essential services;*
5. *Identification of any transfer of an ownership interest, operation, management, or other control of the Treatment Works, or any portion thereof.*
6. *A description of the status of compliance or non-compliance with the requirements of this Decree and, if applicable, the reasons for non-compliance, including a list of all violations that are subject to stipulated penalties under Section X of this Decree.*
7. *A spreadsheet and summary of all SSOs, Bypasses, Diversions and effluent limit violations that occurred during the previous Calendar Quarter. Information on Building Backups may be provided in separate spreadsheets and summaries from other SSOs. The spreadsheets and summaries shall identify:*
 - a. *For all SSOs, the location, source, date, time, duration, pathway (if any), receiving water (if any), the reason for each SSO, the total SSO volume, the volume returned to the WCTS, and the volume not captured;*
 - b. *For all Bypasses and Diversions, the location, date, time, duration, volume and reason for each Bypass and Diversion; and the total Bypass and Diversion volumes;*
 - c. *For all effluent limit violations, all information required to be reported on KUB's Discharge Monitoring Reports.*
8. *The water quality monitoring data and other information required pursuant to Section VII.D.1.(e).(v)."*

KUB compiled this Quarterly Progress Report to detail the events that occurred during the fourth quarter of 2007 from October 1 through December 31. This is the eleventh quarterly report required of KUB under this Consent Decree. The Consent Decree requirements pertaining to the Phase 2 CAP/ER will not be fulfilled in this report since it has not become due; rather, a description of the status of development for this program is given. The Consent Decree reporting requirements for this program will be met after EPA has provided approval.

Report Organization

Section 1: Phase 1 CAP/ER and Phase 2 CAP/ER – Summarizes the compliance with and activities related to implementation of the Phase 1 CAP/ER, including the status of construction projects in comparison to the schedules that have been established pursuant to the Consent Decree for those projects; and schedule deadlines and milestones achieved during the Calendar Quarter and expected during the next Calendar Quarter.

Section 2: Comprehensive Performance Evaluation and Composite Correction Plan – Summarizes the compliance with and activities related to the implementation of those deliverables.

Section 3: Process Controls Program – Summarizes the implementation of and compliance with the deliverable.

Section 4: Capacity Assurance Program – Summarizes the implementation of the Capacity Assurance Program for the Calendar Quarter, including the number of, and anticipated flow from, sewer connections that have been authorized, by sewerbasin, a description of the projects that have been authorized and the number of credits earned and banked by KUB that will be expended for those projects, by sewerbasin, and any exceptions granted for connections for essential services.

Section 5: Transfers of Ownership – Identifies any transfers of ownership interest, operation, management, or other control of the treatment works, or any portion thereof.

Section 6: Compliance and Non-Compliance with the Consent Decree – Describes the status of compliance or non-compliance with requirements of the Consent Decree.

Section 7: SSOs, Bypasses, Diversions, and Effluent Limit Violations – Provides a spreadsheet and summary of all SSOs, Bypasses, Diversions, and effluent limit violations.

Section 8: Water Quality Monitoring Data – Summarizes all sampling that was conducted, the results of the sampling, and the projected data collection for the reporting period.

Status of Deliverables

Below is a list of significant dates on which KUB submitted deliverables to EPA or received approval for deliverables. To date, KUB has submitted all deliverables in accordance with the schedule set forth in the Consent Decree.

October 30, 2007

- Submitted to EPA – Quarterly Progress Report 3rd quarter 2007

November 19, 2007

- Received notice from EPA extending their review period for the Composite Correction Plan until December 22, 2007.

Section 1 Phase 1 CAP/ER and Phase 2 CAP/ER

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... A summary of compliance with and activities related to implementation of the Phase 1 CAP/ER and Phase 2 CAP/ER, including the status of construction projects in comparison to the schedules that have been established pursuant to the Consent Decree for those projects; and schedule deadlines and milestones achieved during Calendar Quarter and expected during next Calendar Quarter."*

KUB began developing a Corrective Action Plan/Engineering Report (CAP/ER) in January 2004, following the completion of the Phase I Sanitary Sewer Overflow Evaluation Report (SSOER) required by the Agreed Order with the Tennessee Department of Environment and Conservation (TDEC) and, subsequently, the Consent Decree. The objective of the Phase I CAP/ER is to identify facility improvements needed to address the conditions causing SSOs occurring in the collection system during the period of 2001-2004 with the goal of eliminating the SSO locations on the Long-Term List and to support future growth needs. KUB submitted the Phase 1 CAP/ER to EPA on October 28, 2005. Comments were received from EPA on February 23, 2006. Per EPA's letter, KUB submitted a 30-day response to EPA's comments on March 27, 2006. The Revised Phase 1 CAP/ER was submitted to EPA on May 22, 2006, and subsequently approved by EPA on June 30, 2006. All work necessary to meet the objectives of the Phase 1 CAP/ER will be completed by June 30, 2013. The Phase 2 CAP/ER will be submitted to EPA within 12 months after EPA approval of the SSOER Annual Update submitted on April 30, 2008.

Requested Project Extensions and Changes

There were no requests for project extensions or changes during this reporting period.

EPA Approved Project Extensions and Changes

All previously approved project extensions and changes are listed below.

- **1-1 Upper First Creek Collector Project (Mini-basin 1A1, 2A2, and 3D1)** –End date extended from FY 06/07 to FY 07/08.
- **1-20 Vine Middle School Rehabilitation Project** –End date extended from FY 06/07 to FY 07/08.
- **2-4 Dutch Valley Collector Rehabilitation (Sewershed 10B1)** – End date was extended to September 2007 and was completed as scheduled.
- **2-5 Rickard and Wilson Collector Rehabilitation (Sewershed 10C1)** – End date was extended to September 2007 and was completed as scheduled.
- **S-1 Ginnbrook Pump Station Rehabilitation** –End date was extended from FY 06/07 to FY 08/09.
- **S-5 South Knoxville/Knob Creek Storage Facility** – Project was removed from CAP/ER and replaced with the project below.
- **Revised S-5 Neubert Springs Collector and West Ford Valley Trunk Rehabilitation** – End date scheduled as FY 08/09.

Current Capital Improvement Plan for FY 04/05 - FY 08/09

The following is a list of facility improvement projects included in the Capital Improvement Plan for fiscal years 04/05 to 08/09. These projects were in various stages during the reporting period, including preliminary engineering, design, construction, and completion. Many of these

projects are "find and fix" rehabilitation projects. Find work is defined as the inspection (i.e. flow monitoring, CCTV, manhole inspections, smoke testing, etc.) and design phase of the project. Fix is defined as the construction phase that may include manhole rehabilitation/replacement, main line rehabilitation/replacement, and lower lateral rehabilitation/replacement. Other projects are trunkline capacity improvements or wet-weather storage. Each of these projects is considered part of the overall Phase 1 CAP/ER.

Ongoing Projects

First Creek

1. **First Creek 8A1** - Find and design rehabilitation projects in First Creek sewer basin in the North Knoxville area around North Broadway and I-640. Project includes inspection (CCTV, smoke test, manhole inspections), design, rehabilitation of 21,067 ft, and replacement of 10,273 ft of sewer. Construction of Phase A is complete. Construction of Phase B is underway and is estimated to be complete in June 2008.
2. **Sub-Basin 8B2** - Characterize the condition of 24,900 ft of pipe to determine rehabilitation needs. Construction is underway on the identified needs and is estimated to be complete by March 2008.

Second Creek

1. **Lower Second Creek Replacement/Rehabilitation at I40/I275 Junction** - Perform sewer system assessment and design rehabilitation and replacement of various trunk and collector lines located in sub-basin 23 near the intersection of interstates 40 and 275. Sewer assessment is underway. Design will begin in February 2008. Construction is scheduled to begin immediately in FY 08/09.
2. **Lower Second Creek Replacement/Rehabilitation at Woodland** - Perform sewer system assessment and design rehabilitation and replacement of various trunk and collector lines located in sub-basin 23 near Woodland Avenue. Sewer assessment is underway. Design will begin in February 2008. Construction is scheduled to begin immediately in FY 08/09.

Third Creek

1. **Third Creek Basin 11** - Find and design rehabilitation needs for collectors in sub-basin 11 (approximately 129,657 ft). Project includes inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair. Construction of needed improvements is substantially complete.
2. **Third Creek Basin 9** - Find and design rehabilitation methods for collectors in Sub-basin 9 (approximately 177,900 ft). Project includes inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair. Phase I rehabilitation of 9A1, 9A2, 9A4, and 9D1 (CAP/ER Scope) is complete. Additional rehabilitation in the sub-basin (Phase II) is underway and will be completed in FY 08/09.
3. **Third Creek Road Trunk Sewer Replacement** - Project includes approximately 3100 ft of 24-inch and 30-inch trunkline. The project will replace and upgrade the trunkline from Western Avenue along Third Creek to the Third Creek storage facility. It will address overflows occurring at 5600 Western Avenue. Project has been extended approximately 2000 ft to reach the new location of the Third Creek Storage Facility at the KUB Hoskins Center. Project is substantially complete with flow switched over to the new trunkline.

South Knox

1. **Ginnbrook Pump Station** - Project will include evaluation of pump station and force main to ensure adequate capacity. It will also include improvements to wet-well, pump

system, and valve vault. The force main will be re-routed as well. Construction is scheduled to be complete on the force main in February 2008 and on the pump station in July 2008.

2. **Blount Avenue Trunkline (Goose Creek)**– Project will examine major trunkline along Blount Avenue in South Knoxville. It will include field survey, line cleaning, and CCTV inspection. Design report has been prepared and presents recommendation on needed improvements. Phase I construction is complete. Phase II construction has been initiated and will be completed in FY 08/09.
3. **Neubert Springs Collector and West Ford Valley Trunk Rehabilitation** – The project to rehabilitate 10000 ft of 15- to 18-inch trunk sewer along West Ford Valley Road is complete. Find work in sub-basins 41C1, 41C2, and 41A2 is complete and detailed design is underway. Phase I rehabilitation is scheduled to begin in March 2008 and construction of planned rehabilitation will be completed in FY 08/09.

Completed Projects

First Creek

1. **Fountain Road** - Upsized 3700 ft of gravity sewer using open cut and pipe bursting methods. Replaced manholes and services.
2. **Fair Drive Phase II** - Rehabilitated 3691 ft and replaced 2458 ft of existing 8-12 inch gravity sewer along Fair Drive.
3. **Greenfield Lane** - Replaced approximately 3300 ft of existing sewer with 8-inch and 12-inch PVC and ductile iron pipe.
4. **Whites Creek Phase III** - Replaced 300 ft of 12-inch, 300 ft of 16-inch, 2700 ft of 24-inch, and 5000 ft of 36-inch sewer.
5. **First Creek Sub-basins 3 and 4 Rehabilitation** – Rehabilitated 26,500 ft of line and replaced 10,500 ft. Project included CCTV, smoke testing, and manhole inspections.
6. **Lower First Creek Storage** - Designed and built 5 million gallon (MG) wet-weather storage tank to control sewer overflows near North Hoitt Avenue during rain events.
7. **Upper First Creek Storage** - Designed and built 9 MG wet-weather storage tank to control sewer overflows near Old Broadway during rain events.
8. **Fountain City Trunkline Replacement** - Replaced and upgraded approximately 6000 ft of trunk sewer connecting lines in upper Fountain City to Upper First Creek storage tank. The project addressed SSOs along Broadway, Cedar Lane, and Fountain Road.

Second Creek

1. **Second Creek Pilleaux PS Collector** - Rehabilitated 19,600 ft of collection system piping in mini-basin 05A4. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.
2. **Second Creek Sub-basin 15 Rehabilitation** - Rehabilitated approximately 23,500 ft of pipe in mini-basin 15D2. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.
3. **Second Creek 23E1** - Inspected a total of 28,067 ft of pipe for find and design rehabilitation needs for Mini-basin 23E1. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.
4. **Dutch Valley Collector Rehab (Mini-basin 10B1)** - Assessed and rehabilitated, where needed, approximately 16,400 ft of collector pipe. This project was combined with the Rickard and Wilson Collector Rehab project below.
5. **Rickard and Wilson Collector Rehab (Mini-basin 10C1)** - Assessed and rehabilitated, where needed, approximately 19,000 ft of collector pipe. Project was been combined with Mini-basin 10B1.

Third Creek

1. **Mynderse, Western, and Canna** - Replaced approximately 1700 ft of 8-inch sewer and pipe-burst approximately 3400 ft of 8-inch up to 10-inch and 12-inch pipe to address wet-weather capacity restrictions resulting in overflows near Pleasant Ridge Road.
2. **Third Creek 28B1*** - Investigated rehabilitation needs for collectors in mini-basin 28B1 (approximately 7900 ft of pipe). Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair. Plans are being developed for a future rehabilitation project. No construction is planned in the short-term.

*The project named Third Creek 28B1 replaces Third Creek 28C1 that appeared in the Quarterly Progress Report for the Second Quarter 2005. After additional studies, it was determined that flows from 28B1 more likely contributed to overflows along Sutherland Avenue and North Bellemeade, as listed in the SSOER.

3. **Third Creek Storage** - Designed and constructed 4.5 MG wet-weather storage tank to control sewer overflows near Western Avenue and Third Creek Road during rain events.
4. **Upper McKamey Trunk Sewer Replacement** – Project replaced approximately 1600 ft of 12-inch and 15-inch trunk sewer. This project further enhanced improvements already made in Third Creek to address overflows along McKamey Road.

Fourth Creek

1. **Pinebrook Drive Sewer Replacement** – Replaced of 330 ft of 8-inch gravity sewer partially exposed by erosion of the bank of the adjacent drainage channel.
2. **Walker Springs Rehabilitation (Mini-Basin 32A4)** – Performed find, and design work in Mini-basin 32A4 in the Walker Springs area. Inspection included 43,000 ft of smoke testing, 43,000 ft of CCTV, and 228 manhole inspections. Plans will be developed for future rehabilitation work.
3. **Walker Springs Storage** – Designed and constructed 3.25 MG wet-weather storage tank to control sewer overflows near Walker Springs Pump Station during rain events. Tank was effectively operated during a severe rain event on September 24, 2006.
4. **Papermill Drive Phases I, II, and III** – Designed and constructed replacement of approximately 4000 ft of 15-inch, 18-inch, and 2100 ft of 36-inch sewer in the Papermill Drive area to increase conveyance capacity and reduce sewer overflows.

South Knox

1. **Maryville Pike** – Designed and replaced of 800–1,200 ft of 24-inch sewer located in Witherspoon Superfund site. Design rerouted sewer around site.
2. **South Haven Phase I and Phase II** – Relocated, rehabilitated, and upsized approximately 4700 ft of existing collector sewers to increase conveyance capacity and reduce inflow and infiltration (I/I).
3. **Island Home Rehabilitation** – Rehabilitated 9400 ft and replaced 1200 ft of collector sewers to reduce I/I.
4. **East Ford Valley Rehabilitation** – Rehabilitated approximately 16,000 ft of sewers in Mini-basin 41A4. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.
5. **Stone Road Rehabilitation** – Rehabilitated approximately 13,500 ft of sewers in Mini-basin 41B1. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.
6. **South Haven Rehabilitation Phase III** – Rehabilitated approximately 21,700 ft of sewers in Mini-basin 40F1. Project included inspection (CCTV, smoke test, manhole inspections), design, and rehabilitation of lines requiring repair.

Williams Creek

1. **Delrose Force Main Replacement** – Designed and replaced approximately 5,000 ft of 16-inch ductile iron pipe force main that had severe structural problems.
2. **Williams Creek Trunk Line Replacement** – Designed and replaced approximately 3,700 ft of 24-inch sewer to correct structural problems.
3. **1-20 Vine Middle School Rehabilitation Project** – Completed find and fix work to identify cause of overflow in the vicinity of 214 Bertrand Street.

Section 2 Comprehensive Performance Evaluation Program (CPE) and Composite Correction Plan (CCP)

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... A summary of compliance with and activities related to implementation of the CPE and CCP."*

The CPE was submitted to EPA on February 24, 2006, and was approved on July 24, 2006.

The CCP was posted in the public document repository on June 19, 2007, and comments were accepted until July 18, 2007. The CCP was submitted to the EPA on July 23, 2007.

On November 19, 2007, KUB received notice from EPA extending their review period of the CCP until December 22, 2007.

Section 3 Process Controls Program

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... A summary of implementation of and compliance with the Process Controls Program."*

No high flow events occurred during the reporting period for which the Process Controls Program (PCP) would have been used.

The Revised PCP was scheduled to be submitted by September 30, 2007. Due to an insufficient number of high-flow events, KUB submitted a request to EPA on August 8, 2007, to extend the deadline for submission of the Revised PCP. EPA approved the extension in a letter dated September 27, 2007. The Revised PCP will be submitted by September 30, 2008.

Section 4 Capacity Assurance Program

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... A summary of the implementation of the Capacity Assurance Program for that Calendar Quarter, including the number of, and anticipated flow from, sewer connections that have been authorized, by Sewerbasin, a description of the projects that have been authorized and the number of credits earned and banked by KUB that will be expended for those projects, by Sewerbasin, and any exceptions granted for connections for essential services."*

The Capacity Assurance Program (CAP) was submitted to EPA for review on February 8, 2006. EPA reviewed and approved the program on April 7, 2006. KUB started reviewing building permits based on the approved CAP on June 6, 2006, which was within the 60-day timeframe for implementing the program after receiving EPA approval.

To review building permits more efficiently using the CAP criteria agreed on with the EPA, KUB worked with a consultant, Camp, Dresser, & McKee, to develop an Information Management System (IMS). The IMS assists KUB in managing the CAP program by determining the amount of wastewater each proposed building would add to KUB's wastewater system based on its location. The IMS also helps track rehabilitation credits that KUB earns through its CAP/ER and MOM programs.

Appendix A includes a list of capital projects that KUB performed to gain rehabilitation credit in its sewer system. As stated in the Consent Decree, the list of authorized sewer connections was maintained and updated as necessary until full implementation of the CAP as approved by EPA. Therefore, the list will no longer be included as part of this quarterly report.

There were no exceptions granted for connections for essential services during this reporting period.

Section 5 Transfers of Ownership

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... Identification of any transfer of an ownership interest, operation, management, or other control of the Treatment Works, or any portion thereof."*

There has been no transfer of an ownership interest, operation, management, or other control of the Treatment Works, or any portion thereof, during this reporting period.

Section 6 Compliance and Non-Compliance With the Consent Decree

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain...A description of the status of compliance or non-compliance with the requirements of this Decree and, if applicable, the reasons for non-compliance, including a list of all violations that are subject to stipulated penalties under Section X of this Consent Decree."*

6.1 Submission of Deliverables

To date, KUB has submitted all deliverables in accordance with the schedule set forth in the Consent Decree. The following sections detail all activity related to deliverables that occurred during the past quarter. Also noted are the dates each submittal was available for public comment in the Public Document Repository (PDR), when the deliverable was submitted to EPA, when EPA responded with comments, when KUB responded to those comments, and when EPA approval was received.

6.1.1 Quarterly Progress Report Third Quarter 2007

Consent Decree language, pages 82-83: *"Beginning thirty (30) Days after the first Calendar Quarter following the Date of Entry, and thirty (30) Days after each Calendar Quarter thereafter until termination of the Consent Decree, KUB shall submit to the Parties, and simultaneously place in the PDR, a Quarterly Progress Report."*

On October 30, 2007, KUB submitted to EPA and placed in the PDR the Quarterly Progress Report for the third quarter 2007. This deliverable was not subject to the Public Review Requirement of Section VI.A.2, but was available for public comment from October 30, 2007, until November 18, 2007. No comments were received during that period.

6.1.2 Composite Correction Plan

Consent Decree language, page 42: *"KUB shall propose, as part of its CPE, a schedule for submission of the CCP set forth below, such schedule not to exceed twelve (12) months after EPA's approval of the CPE...KUB shall submit a Composite Correction Plan (CCP) pursuant to the schedule set forth in the CPE."*

On June 19, 2007, KUB placed in the PDR the Composite Correction Plan. This Review Level 1 Deliverable was available for public comment until July 18, 2007. No comments were received during that period. The CCP was submitted to EPA on July 23, 2007. On November 19, 2007, KUB received notice from EPA extending their review period until December 22, 2007.

6.2 Violations Subject to Stipulated Penalties

During this reporting period, KUB incurred one Unpermitted Discharges. Table 1 below lists all violations subject to stipulated penalties as outlined in the Consent Decree.

Table 1. Violations Subject to Stipulated Penalties

Violation	Date	Address	Cause
Unpermitted Discharge	10/21/07	2801 Holbrook Dr	Blockage

Section 7 SSOs, Bypasses, Diversions, and Effluent Limit Violations

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... A spreadsheet and summary of all SSOs, Bypasses, Diversions, and effluent limit violations that occurred during the previous Calendar Quarter. Information on Building Backups may be provided in separate spreadsheets and summaries from other SSOs. The spreadsheets and summaries shall identify:*

- a. For all SSOs, the location, source, date, time, duration, pathway (if any), receiving water (if any), the reason for each SSO, the total SSO volume, the volume returned to the WCTS, and the volume not captured;*
- b. For all Bypasses and Diversions, the location, date, time, duration, volume and reason for each Bypass and Diversion; and the total Bypass or Diversion volumes;*
- c. For all effluent limit violations, all information required to be reported on KUB's Discharge Monitoring Reports."*

7.1 SSOs

Appendix B lists all SSOs that occurred during this reporting period. During this period, there were 16 SSO events. Of that number, 10 were due to blockages by either grease, debris, roots, or a combination thereof; four were due to broken pipe; two were due to mechanical failure. Of the 16 SSO events, 13 were in the 0 – 1000 gallons volume range, two were in the 1001 – 10,000 range, and one event totaled greater than 10,000 gallons. Durations for events during this period are as follows: 13 ranged from 0 – 2 hours, and three ranged from 2.1 - 5 hours.

7.2 Building Backups

Appendix C lists all Building Backups that occurred during this reporting period. During this period, there were six Building Backups. Four were due to blockages, one was due to broken pipe, and one was due to flushing operations.

7.3 Bypasses

No Bypasses occurred during this reporting period.

7.4 Diversions

No Diversions occurred during this reporting period.

7.5 Effluent Limit Violations

No effluent limit violations occurred during this reporting period.

Table 2: Bypasses and Diversions

WWTP	Did an event occur?	Type of Event	Date Diversion gate opened	Time Diversion gate opened	Date Diversion gate closed	Time Diversion gate closed	Date Diversion flow reported	Duration (hrs)	Volume (MG)	Total Event Duration (MG)	Total Event Volume (MG)	Reason for Event
Kuwahee	No											
Fourth Creek	No											
Loves Creek	No											
Eastbridge	No											

Table 3: Effluent Limit Violations

WWTP	Did an event occur?	Date	Parameter	Type	Limit	Value
Kuwahee	No	-	-	-	-	-
Fourth Creek	No	-	-	-	-	-
Loves Creek	No	-	-	-	-	-
Eastbridge	No	-	-	-	-	-
SS - Settleable Solids	mg/l - milligrams per liter					
TSS - Total Suspended Solids	cfu - Colony Forming Unit					
ml/l - milliliters per liter	lbs - Pounds					

Section 8 Water Quality Monitoring Data

Consent Decree language, pages 82-83: *"Each Quarterly Progress Report shall contain... The water quality monitoring data and other information required pursuant to Section VII.D.1.(e).(v)."*

8.1 Sampling Conducted and Results

Appendix D lists all sampling that was conducted during the reporting period and the results thereof. In addition to routine monitoring in all creeks, and responding to sanitary sewer overflows, KUB investigated a water quality concern in First Creek during this quarter.

In late October, engineers from KUB were inspecting a new trunk line running along First Creek. Proprietors of a business located on the creek informed the engineers that water from a tributary that ran to First Creek had an unpleasant odor. KUB Water Quality personnel sampled the tributary, as well as upstream and downstream locations within the creek. Fecal coliform counts from the first set of samples were slightly elevated; however the sampler noted that the samples were collected in wet conditions. Water Quality personnel returned to the sampling sites in November and collected a second set of samples. Fecal coliform counts of the subsequent samples were below the water quality criteria standard. The data for both sets of samples are contained in the Investigative Water Quality Monitoring Report. Routine Monitoring on First Creek did not reveal elevated fecal counts at any time this quarter. All three routine monitoring sites on First Creek are located downstream from the investigated area. KUB will continue to monitor First Creek during Routine Monitoring for elevated fecal coliform counts especially in the area of this investigation.

Due to dry weather conditions in the latter portion of this year, one sample site on Baker Creek (0.32) did not have an adequate quantity of water during the months of October and November to allow sample collection. Water Quality personnel were able to sample site 0.32 in December.

KUB will begin Wet Weather Investigations on elevated areas of Baker Creek in the first quarter of 2008. KUB also plans to begin a Dry Weather Walking Survey of Goose Creek in the next quarter.

8.2 Projected Data Collection

During the first quarter of 2008, KUB will continue to monitor the 24 routine sampling locations in the sewer basins of eight area creeks. KUB will collect samples from the following locations during the first quarter of 2008:

Sample Locations by Creek Mile or Site Number

<i>Creek Name</i>	<i>Creek Mile #</i>	<i>Creek Mile #</i>	<i>Creek Mile #</i>
First Creek	0.45	2.57	6.33
Second Creek	0.36	1.54	5.76
Third Creek	0.87	2.08E	4.80W
Fourth Creek	0.55	1.33	1.78
Baker Creek	0.15	0.32	0.36S
Goose Creek	0.35	0.90E	1.50E
Loves Creek	0.85	1.89	3.45
Williams Creek	0.89	1.70	2.02

Appendix A

Capital Projects and Rehabilitation Credits

Capital Projects and Rehabilitation Credits

	Project Name	Credit Type	Basin	WWTP	Credits Banked (gpd)	Status
1	Comprehensive Rehab 03B1a	Comprehensive Rehabilitation	1st Creek	Kuwahee	321,030	Project Complete
2	Comprehensive Rehab 03B2a	Comprehensive Rehabilitation	1st Creek	Kuwahee	302,366	Project Complete
3	Comprehensive Rehab 04B1a	Comprehensive Rehabilitation	1st Creek	Kuwahee	334,626	Project Complete
4	Comprehensive Rehab 08A1	Comprehensive Rehabilitation	1st Creek	Kuwahee	1,589,952	Project Complete
5	McC Campbell Lane Sewer Replacement	Find & Fix Gravity Main	1st Creek	Kuwahee	25,543	Project Complete
6	Knox Road Trunkline Replacement	Find & Fix Gravity Main	1st Creek	Kuwahee	36,728	Project Complete
7	vented manhole cover replacement (7A1)	Manhole Cover	1st Creek	Kuwahee	13,333	Project Complete
8	vented manhole cover replacement (7A1)	Manhole Cover	1st Creek	Kuwahee	13,333	Project Complete
9	vented manhole cover replacement (7A1)	Manhole Cover	1st Creek	Kuwahee	13,333	Project Complete
10	Comprehensive Rehab 15D2	Comprehensive Rehabilitation	2nd Creek	Kuwahee	1,450,008	Project Complete
11	Comprehensive Rehab 05A4 & 05A3	Comprehensive Rehabilitation	2nd Creek	Kuwahee	43,904	Project Complete
12	Comprehensive Rehab 09A2	Comprehensive Rehabilitation	3rd Creek	Kuwahee	296,664	Project Complete
13	Comprehensive Rehab 09A1	Comprehensive Rehabilitation	3rd Creek	Kuwahee	219,345	Project Complete
14	Walker Springs Storage Tank	Storage Tank	4th Creek	Fourth Creek	3,250,000	Project Complete
15	Comprehensive Rehab 40F1	Comprehensive Rehabilitation	South Knox / Knob Creek	Kuwahee	83,600	Project Complete
16	Comprehensive Rehab 41A4	Comprehensive Rehabilitation	South Knox / Knob Creek	Kuwahee	371,994	Project Complete
17	Comprehensive Rehab 41B1	Comprehensive Rehabilitation	South Knox / Knob Creek	Kuwahee	152,958	Project Complete
18	Wilson Ave, Chesnut St., Donnell St. (Asset Replacement)	Find & Fix Gravity Main	Williams Creek	Kuwahee	28	Project Complete
19	Williams Creek Trunkline Replacement	Find & Fix Gravity Main	Williams Creek	Kuwahee	168,667	Project Complete
20	Rushland Park Off Site Sewer Rehabilitation	Find & Fix Gravity Main	Loves Creek	Loves Creek	3,803	Project Complete
21	Emily Avenue Pump Station Abandonment	Find & Fix Gravity Main	Loves Creek	Loves Creek	141,600	Project Complete
22	Fair Drive - Phase I	Find & Fix Gravity Main	1st Creek	Kuwahee	130,928	Project Complete
23	Comprehensive Rehab 23E1	Comprehensive Rehabilitation	2nd Creek	Kuwahee	4,215,003	Project Complete
24	vented manhole cover replacements (08B2)	Manhole Cover	1st Creek	Kuwahee	4,669	Project Complete
25	vented manhole cover replacement (16B1)	Manhole Cover	1st Creek	Kuwahee	667	Project Complete
26	vented manhole cover replacements (28C1)	Manhole Cover	3rd Creek	Kuwahee	1,334	Project Complete
27	10" mainline replacement (33A2)	Find & Fix Gravity Main	4th Creek	Fourth Creek	5,409	Project Complete
28	vented manhole cover replacements (22C2)	Manhole Cover	3rd Creek	Kuwahee	16,002	Project Complete
29	vented manhole cover replacements (63)	Manhole Cover	Sinking Creek	Loves Creek	66,665	Project Complete
30	10" mainline replacement (6C1)	Find & Fix Gravity Main	Loves Creek	Loves Creek	24,620	Project Complete
31	Comprehensive Rehab 06A5	Comprehensive Rehabilitation	Loves Creek	Loves Creek	263,358	Project Complete
32	Comprehensive Rehab 06A4	Comprehensive Rehabilitation	Loves Creek	Loves Creek	386,304	Project Complete
33	vented manhole cover replacement (39D2)	Manhole Cover	South Knox / Knob Creek	Kuwahee	667	Project Complete
34	vented manhole cover replacement (39D4)	Manhole Cover	South Knox / Knob Creek	Kuwahee	667	Project Complete
35	vented manhole cover replacement (39D3)	Manhole Cover	South Knox / Knob Creek	Kuwahee	2,668	Project Complete
36	vented manhole cover replacement (20A6)	Manhole Cover	Loves Creek	Loves Creek	1,334	Project Complete
37	vented manhole cover replacement (20A7)	Manhole Cover	Loves Creek	Loves Creek	667	Project Complete
38	vented manhole cover replacement (13A2)	Manhole Cover	3rd Creek	Kuwahee	667	Project Complete
39	vented manhole cover replacement (13B1)	Manhole Cover	3rd Creek	Kuwahee	13,335	Project Complete
40	vented manhole cover replacement (28B1)	Manhole Cover	3rd Creek	Kuwahee	1,334	Project Complete
41	12" mainline replacement (44)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	4,278	Project Complete
42	manhole frame seal repair (67)	Manhole Repair	Loves Creek	Loves Creek	2,304	Project Complete
43	Whites Creek Trunk Line Replacement (02)	Find & Fix Gravity Main	1st Creek	Kuwahee	50,106	Project Complete
44	Comprehensive Rehab 09D1	Comprehensive Rehabilitation	3rd Creek	Kuwahee	381,376	Project Complete
45	Comprehensive Rehab 09A4	Comprehensive Rehabilitation	3rd Creek	Kuwahee	408,317	Project Complete
46	Lower First Creek Storage Tank	Storage Tank	1st Creek	Kuwahee	5,000,000	Project Complete
47	vented manhole cover replacement (11B2)	Manhole Cover	3rd Creek	Kuwahee	13,333	Project Complete
48	vented manhole cover replacement (13C1)	Manhole Cover	3rd Creek	Kuwahee	2,667	Project Complete
49	vented manhole cover replacement (22A2)	Manhole Cover	3rd Creek	Kuwahee	667	Project Complete
50	vented manhole cover replacement (22B1)	Manhole Cover	3rd Creek	Kuwahee	667	Project Complete
51	Creek Head Drive sewer line replacement (32A4)	Find & Fix Gravity Main	4th Creek	Fourth Creek	11,132	Project Complete
52	Manhole replacement (19A3)	Find & Fix Gravity Main	Williams Creek	Kuwahee	207	Project Complete
53	Papermill drive sewer line replacement (33A2)	Find & Fix Gravity Main	4th Creek	Fourth Creek	103,769	Project Complete
54	Wells Rd sewer line replacement (39C2)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	1,728	Project Complete
55	Power Park Manhole Rehab (45)	Find & Fix Gravity Main	Knob Creek	Kuwahee	3,596	Project Complete
56	Blount Ave abandoned lateral (39A1)	Disconnect abandoned lateral	South Knox / Knob Creek	Kuwahee	2,000	Project Complete
57	Woodbine Ave sewerline Rehab (19A2)	Find & Fix Gravity Main	Williams Creek	Kuwahee	2,683	Project Complete
58	Pleasant Ridge Rd Sewer line improvements (09A1)	Find & Fix Gravity Main	3rd Creek	Kuwahee	207	Project Complete
59	Papermill drive sewer line replacement (27A1)	Find & Fix Gravity Main	Fourth Creek	Fourth Creek	18,211	Project Complete
60	Wilson Rd Manhole Rehab (10C1)	Find & Fix Gravity Main	2nd Creek	Kuwahee	831	Project Complete
61	Maryville Pike Trunk Replacement (39C1)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	72,880	Project Complete
62	Upper McKamey Trunk Replacement (11B1 11B2)	Find & Fix Gravity Main	3rd Creek	Kuwahee	64,324	Project Complete
63	Fox Manor Blvd sewer line replacement (32A4)	Find & Fix Gravity Main	4th Creek	Fourth Creek	31,510	Project Complete

Capital Projects and Rehabilitation Credits

	Project Name	Credit Type	Basin	WWTP	Credits Banked (gpd)	Status
64	Power Park Manhole Rehab (47)	Manhole Repair	South Knox / Knob Creek	Kuwahee	7,700	Project Complete
65	Sutherland Ave Sewer Line Replacement (28B1)	Find & Fix Gravity Main	3rd Creek	Kuwahee	20,383	Project Complete
66	Fountain City Trunkline Replacement (03B1 03B2)	Find & Fix Gravity Main	1st Creek	Kuwahee	72,512	Project Complete
67	vented manhole cover replacement (11B2)	Manhole Cover	4th Creek	Fourth Creek	13,333	Project Complete
68	vented manhole cover replacement (39D2)	Manhole Cover	South Knox / Knob Creek	Kuwahee	13,333	Project Complete
69	Comprehensive Rehabilitation 19A2	Comprehensive Rehabilitation	Williams Creek	Kuwahee	521,631	Project Complete
70	17B1 Manhole Replacement	Find & Fix Gravity Main	1st Creek	Kuwahee	1,803	Project Complete
71	Vine Middle School sewerline Rehab (24D1)	Find & Fix Gravity Main	1st Creek	Kuwahee	23,491	Project Complete
72	Comprehensive Rehabilitation (08B2)	Comprehensive Rehabilitation	1st Creek	Kuwahee	757,240	90% complete
73	Third Creek Storage Tank (21A1)	Storage Tank	3rd Creek	Kuwahee	4,000,000	Project Complete
74	Comprehensive Rehabilitation (19A1)	Comprehensive Rehabilitation	Williams Creek	Kuwahee	282,528	90% complete
75	Comprehensive Rehabilitation (19B1)	Comprehensive Rehabilitation	Williams Creek	Kuwahee	311,920	95% complete
76	Comprehensive Rehabilitation (10B1)	Comprehensive Rehabilitation	2nd Creek	Kuwahee	191,698	Project Complete
77	Comprehensive Rehabilitation (10C1)	Comprehensive Rehabilitation	2nd Creek	Kuwahee	67,840	Project Complete
78	Disconnected Stormwater Detention Pond Sevier Ave (40C1)	Disconnect Storm Sewer	South Knox / Knob Creek	Kuwahee	97,333	Project Complete
79	Sub Basin 63 Sinking Creek Drainage rehabilitation (63)	Comprehensive Rehabilitation	South Knox / Knob Creek	Loves Creek	72,110	Project Complete
80	West Ford Valley Trunkline replacement (41A1)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	236,704	Project Complete
82	Blount Avenue Trunkline Replacement (39A1)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	225,376	Project Complete
83	Brookvale Point Repairs (02A3)	Find & Fix Gravity Main	1st Creek	Kuwahee	52,079	Project Complete
85	Park Pump Point Repairs (45)	Find & Fix Gravity Main	South Knox / Knob Creek	Kuwahee	11,522	Project Complete

Appendix B

SSOs

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Date	Time	Street #	Street	Plant	Watershed	Basin	Overflow Location	Pathway	Receiving Water	Cause of SSO/KUB Response	Total Volume (Gallons)	Recovered Volume (Gallons)	Non-Recovered Volume (Gallons)	Duration (Hours)	Unpermitted Discharge
10/2/2007	5:43 PM	4414	TOWNHOUSE WAY	KUW	Third Creek	11	Lateral Cleanout	Swale to Soil Saturation		The sewer main was repaired and flushed to remove the blockage caused by grease.	50	0	50	1	No
10/6/2007	5:30 PM	120	MORRELL ROAD	FC	Fourth Creek	33	MH 53-8	Pavement to Catch Basin to Storm Water Pipe to Soil Saturation		The sewer main was flushed to remove the blockage caused by grease.	360	0	360	1	No
10/10/2007	5:07 PM	4435	SHANGRI-LA DRIVE	LC	Loves Creek	6	MH 29-355	Recovered from Pavement		The sewer main was flushed to remove the blockage caused by grease and roots.	5	5	0	1	No
10/19/2007	12:25 PM	1338	OGLESBY ROAD	LC	Loves Creek	66	Leaking Force Main	Soil Saturation		There was a leak on a 8" force main.	1,800	0	1,800	2	No
10/21/2007	1:42 PM	2801	HOLBROOK DRIVE	KUW	First Creek	3	MH 6-7	Pavement to Catch Basin to Storm Sewer to First Creek	First Creek	The sewer main was flushed to remove the blockage caused by grease.	180	0	180	1	Yes
10/24/2007	7:15 AM	100	E. MAGNOLIA AVENUE	KUW	First Creek	30	MH 35	Pavement to Soil Saturation		The sewer main was flushed to remove the blockage caused by debris and grease.	180	0	180	1	No
10/27/2007	2:32 PM	1338	OGLESBY ROAD	LC	Loves Creek	66	Leaking Force Main	Swale to Soil Saturation		There was a leak on a 8" force main.	180	0	180	1	No
11/3/2007	3:30 PM	7220	WASHINGTON PIKE	EB	Eastbridge	109	Leaking Check Valve	Soil Saturation		The leaking check valve on the residential grinder pump station was repaired.	1,125	0	1,125	3	No
11/19/2007	10:44 AM	2021	CHEROKEE BLUFF DRIVE	KUW	South Knoxville	39	MH 27-280	Swale to Soil Saturation		The sewer main was flushed to remove the blockage caused by roots.	25	0	25	3	No
11/27/2007	10:45 AM	6410	DEANE HILL DRIVE	FC	Fourth Creek	33	MH 1-26	Pavement to Ditch to Soil Saturation		The sewer main was flushed to remove the blockage caused by grease.	77	0	77	1.5	No
11/27/2007	6:22 PM	217	LINFORD ROAD	KUW	Knob Creek	41	Leaking Force Main	Cracks in Pavement to Soil Saturation		There was a leak on a 12" force main.	180	0	180	1	No
11/30/2007	8:58 AM	4450	HOLIDAY BOULEVARD	KUW	Third Creek	11	MH 20-12	Curb to Catch Basin to Wet-Weather Ditch to Soil Saturation		The sewer main was flushed to remove the blockage caused by debris and grease.	95	0	95	1	No
12/26/2007	2:43 PM	5922	GRAY GABLES DRIVE	FC	Fourth Creek	49	Lateral Cleanout	Catch Basin to Soil Saturation		The sewer main was flushed to remove the blockage caused by debris.	135	0	135	0.75	No
12/26/2007	5:00 PM	1811	EAST GLENWOOD AVENUE	KUW	First Creek	24	MHs 25-52 & 25-53	Pavement to Ditch to Soil Saturation		The sewer main was flushed to remove the blockage caused by grease.	62	0	62	1	No
12/28/2007	5:49 PM	4315	RUTLEDGE PIKE	LC	Loves Creek	20	Grinder Pump Failure	Soil Saturation		The commercial grinder pump station was repaired.	720	0	720	2	No
12/29/2007	3:41 PM	1338	OGLESBY ROAD	LC	Loves Creek	66	Leaking Force Main	Ditch to Soil Saturation		There was a leak on a 8" force main.	8	0	8	1	No
											32,400	0	32,400	3	No

Appendix C

Building Backups

BBUs

1	2	3	4	5	6	7	8	9	10	11	12	13
Date	Time	Street #	Street	Plant	Watershed	Basin	Overflow Location	Cause of SSO/KUB Response	Total Volume (Gallons)	Recovered Volume (Gallons)	Non- Recovered Volume (Gallons)	Duration (Hours)
10/12/2007	1:31 PM	530	S. GAY STREET	KUW	First Creek	30	BBU	The broken sewer pipe was repaired.	24,480	24,480	0	4
11/15/2007	4:13 PM	3254	WILDERNESS ROAD	KUW	First Creek	18	BBU	Routine sewer main flushing resulted in a building backup at this residence.	5	5	0	0.08
11/23/2007	12:25 PM	2905	BELLEVUE STREET	KUW	First Creek	16	BBU	The sewer main was flushed to remove the blockage caused by debris and roots.	91	91	0	5
11/26/2007	5:49 PM	1316	KIRBY ROAD	FC	Fourth Creek	33	BBU	The sewer main was flushed to remove the blockage caused by roots.	250	250	0	5
12/14/2007	10:43 AM	503	HOUSTON STREET	KUW	Williams Creek	19	BBU	The sewer main was flushed to remove the blockage caused by debris.	32	32	0	0.5
12/27/2007	1:15 PM	2013	COUNTRYHILL LANE	FC	Fourth Creek	32A	BBU	The sewer main was flushed to remove the blockage caused by debris.	<1	<1	0	<0.05

Appendix D

Water Quality Monitoring Program Sampling Results



Routine Water Quality Monitoring Report

10/1/2007 Through 12/31/2007

Knoxville Utilities Board
Water Quality Laboratory
Debbie Ailey, Lab Supervisor
835 East Jackson Avenue
Knoxville, Tennessee 37915
(865) 594-8286 Fax: (865) 594-8245

Creek Mile #	Sample Date	Sample Time	pH	Sample Temp (C)	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E. Coli (MPN)	Precipitation Event	Status
First Creek									
0.45	10/29/2007	10:45	7.7	14	7.7	520	390	Wet	R
2.57	10/29/2007	10:27	8.0	12	9.4	160	54	Wet	R
6.33	10/29/2007	10:15	7.8	14	7.6	210	110	Wet	R
0.45	11/9/2007	09:26	8.2	10	11	180	130	Wet	R
2.57	11/9/2007	09:14	8.0	9	10	150	82	Wet	R
6.33	11/9/2007	09:00	7.7	12	6.4	210	110	Wet	R
0.45	12/12/2007	09:00	8.2	14	9.6	360	320	Wet	R
2.57	12/12/2007	08:45	8.1	14	8.9	64	49	Wet	R
6.33	12/12/2007	08:30	7.8	15	7.4	110	99	Wet	R
Second Creek									
0.30	10/24/2007	08:26	7.6	18	7.7	860	2400	Wet	R
1.54	10/24/2007	08:10	7.6	18	7.1	4000	1400	Wet	R
5.76	10/24/2007	07:50	7.3	18	5.4	3800	1600	Wet	R
0.30	11/27/2007	09:50	8.5	13	9.0	820	650	Wet	R
1.54	11/27/2007	09:31	7.9	12	8.8	910	770	Wet	R
5.76	11/27/2007	09:15	7.3	16	5.6	130	65	Wet	R
0.30	12/12/2007	09:17	8.2	15	9.0	36	36	Wet	R
1.54	12/12/2007	09:30	8.1	15	8.7	280	230	Wet	R
5.76	12/12/2007	09:51	7.3	16	3.7	1800	55	Wet	R

*Status: I = Site Under Investigation, R = Reportable for monitoring purposes
Precipitation event = "Wet" if the total amount of rainfall for four days prior to the sample was greater than 0.1 inches.



Water Quality Monitoring
Report

Routine Water Quality Monitoring Report

10/1/2007 Through 12/31/2007

Knoxville Utilities Board
Water Quality Laboratory
Debbie Ailey, Lab Supervisor
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Knoxville, Tennessee 37915
(865) 594-8286 Fax: (865) 594-8245

Creek Mile #	Sample Date	Sample Time	pH	Sample Temp (C)	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E. Coli (MPN)	Precipitation Event	Status
Third Creek									
0.87	10/5/2007	09:23	7.7	21	6.2	2100	870	Wet	R
2.08E	10/5/2007	09:10	7.7	21	4.7	4000	960	Wet	I
4.80W	10/5/2007	08:45	7.9	19	7.6	340	170	Wet	R
0.87	11/15/2007	10:42	7.9	13	8.8	2600	1400	Wet	R
2.08E	11/15/2007	10:31	7.9	13	8.5	1600	1700	Wet	I
4.80W	11/15/2007	10:11	7.7	14	8.2	1900	2400	Wet	R
0.87	12/20/2007	09:12	8.2	8	10	320	390	Wet	R
2.08E	12/20/2007	09:03	8.0	8	9.7	170	150	Wet	R
4.80W	12/20/2007	08:50	8.2	10	9.5	320	310	Wet	R
Fourth Creek									
0.55	10/22/2007	09:15	7.8	16	8.0	1300	1200	Wet	R
1.33	10/22/2007	09:05	7.8	15	7.8	1300	330	Wet	R
1.78	10/22/2007	08:47	7.9	15	8.8	230	920	Wet	R
0.55	11/21/2007	09:40	7.9	15	8.7	360	300	Wet	R
1.33	11/21/2007	09:56	8.0	14	8.3	90	170	Wet	R
1.78	11/21/2007	10:07	8.2	14	9.7	140	150	Wet	R
0.55	12/11/2007	10:23	8.0	14	9.5	390	320	Wet	R
1.33	12/11/2007	10:38	8.0	14	8.8	160	140	Wet	R
1.78	12/11/2007	10:45	8.3	14	10	230	150	Wet	R

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Precipitation event = "Wet" if the total amount of rainfall for four days prior to the sample was greater than 0.1 inches.



Routine Water Quality Monitoring Report

10/1/2007 Through 12/31/2007

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Creek Mile #	Sample Date	Sample Time	pH	Sample Temp (C)	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E. Coli (MPN)	Precipitation Event	Status
Baker Creek									
0.15	10/25/2007	09:30	7.5	17	6.5	1600	1200	Wet	I
0.36S	10/25/2007	09:52	7.8	16	7.5	1700	1700	Wet	I
0.15	11/13/2007	13:25	7.7	15	7.6	900	1600	Dry	I
0.36S	11/13/2007	13:38	7.8	16	7.1	1200	1400	Dry	I
0.15	12/18/2007	11:58	8.1	8	13	290	460	Wet	R
0.32	12/18/2007	12:24	8.4	4	10	250	310	Wet	R
0.36S	12/18/2007	12:15	8.2	8	11	370	440	Wet	R
Goose Creek									
0.35	10/4/2007	11:45	7.5	19	5.0	560	610	Wet	R
0.90E	10/4/2007	12:00	7.7	20	7.3	2200	1700	Wet	R
1.50E	10/4/2007	12:09	8.0	19	8.1	900	1700	Wet	R
0.35	11/8/2007	09:00	7.4	10	6.7	820	730	Wet	R
0.90E	11/8/2007	09:12	7.6	9	9.2	570	650	Wet	R
1.50E	11/8/2007	09:21	8.5	9	9.7	82	60	Wet	R
0.35	12/5/2007	10:07	7.8	9	7.7	130	170	Wet	R
0.90E	12/5/2007	09:52	8.0	11	8.2	110	250	Wet	R
1.50E	12/5/2007	10:40	8.1	10	9.0	50	89	Wet	R

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 Precipitation event = "Wet" if the total amount of rainfall for four days prior to the sample was greater than 0.1 inches.



Water Quality Monitoring
Report

Routine Water Quality Monitoring Report

10/1/2007 Through 12/31/2007

Knoxville Utilities Board
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Creek Mile #	Sample Date	Sample Time	pH	Sample Temp (C)	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E. Coli (MPN)	Precipitation Event	Status
Loves Creek									
0.85	10/1/2007	12:18	8.0	17	8.5	330	650	Wet	R
1.89	10/1/2007	12:08	7.5	17	6.7	54	100	Wet	R
3.45	10/1/2007	11:55	7.7	18	7.5	120	240	Wet	R
0.85	11/7/2007	11:24	7.8	10	9.4	330	220	Wet	R
1.89	11/7/2007	11:15	7.4	11	8.2	330	130	Wet	R
3.45	11/7/2007	11:01	7.8	10	9.0	220	180	Wet	R
0.85	12/7/2007	09:36	8.2	8	10	550	410	Wet	R
1.89	12/7/2007	09:27	7.6	10	8.9	20	17	Wet	R
3.45	12/7/2007	09:15	7.9	8	9.6	82	86	Wet	R
Williams Creek									
0.89	10/16/2007	08:50	8.0	15	8.2	370	330	Dry	R
1.70	10/16/2007	09:06	7.8	16	7.1	1800	1400	Dry	R
2.02	10/16/2007	09:17	7.9	17	6.5	1500	360	Dry	R
.89	11/16/2007	10:27	8.0	9	11	220	320	Wet	R
1.70	11/16/2007	10:12	7.7	11	8.2	440	340	Wet	R
2.02	11/16/2007	10:00	7.9	11	8.3	550	550	Wet	R
0.89	12/19/2007	11:00	8.2	9	12	72	86	Wet	R
1.70	12/19/2007	10:27	7.9	11	8.7	350	310	Wet	R
2.02	12/19/2007	10:40	8.0	12	8.3	1700	1200	Wet	R

*Status: I = Site Under Investigation, R = Reportable for monitoring purposes
Precipitation event = "Wet" if the total amount of rainfall for four days prior to the sample was greater than 0.1 inches.



Water Quality Monitoring
Report

Spill Impact Sampling Results Water Quality Monitoring Program

Knoxville Utilities Board
Water Quality Laboratory
Debbie Alley, Lab Supervisor
835 East Jackson Avenue
Knoxville, Tennessee 37915
(865) 594-8286 Fax: (865) 594-8245

Event Date 10/21/2007

Street Address 2801 Holbrook Drive

Description The SSO was caused by a partial blockage in the sewer main due to grease. The SSO discharged from the pavement to a catch basin to a storm sewer to First Creek.

Estimated unrecovered volume 180 gallons

Sampling Notes: There was no industry upstream of the SSO, therefore no Priority Pollutant samples were collected.

Precipitation (McGhee-Tyson Airport) 0 Date 10/21/2007 Total - Day of Event 0 Total - Prior 4 Days 0.32

Sample Location	Sample Date	Sample Time	Dissolved Oxygen	Temperature (Celsius)	pH	Fecal Coliform	E-Coli (MPN)
Upstream of SSO Discharge	10/21/2007	16:15	8.5	17	7.8	1600	580
Downstream of SSO Discharge	10/21/2007	16:08	8.4	18	7.9	1800	> 2400
Upstream of SSO Discharge	10/26/2007	09:45	8.8	16	8.1	440	580
Downstream of SSO Discharge	10/26/2007	09:50	9.4	15	8.2	210	290

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Water Quality Monitoring
Report

Investigative Water Quality Monitoring Report

10/1/2007 Through 12/31/2007

Knoxville Utilities Board
Water Quality Laboratory
Debbie Ailey, Lab Supervisor
835 East Jackson Avenue
Knoxville, Tennessee 37915
(865) 594-8286 Fax: (865) 594-8245

Dry Weather Investigative Monitoring - KUB Directive

First Creek

Sample Location	Date	Time	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E-Coli (MPNI)	pH	Silt level	Water Temperature (C)
First Creek, Downstream of Tributary- Highland Dr.	11/30/2007	9:49 AM	8.8	80	120	7.9	N/A	11
First Creek, Upstream of Tributary- Maple Dr.	11/30/2007	9:37 AM	9.0	82	91	7.9	N/A	11
Tributary to First Creek- proximal to 5055 Broadway	11/30/2007	9:14 AM	7.9	150	160	7.6	N/A	15

Wet Weather Investigative Monitoring - KUB Directive

First Creek

Sample Location	Date	Time	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E-Coli (MPNI)	pH	Silt level	Water Temperature (C)
First Creek, Downstream of Tributary- Highland Dr.	10/24/2007	10:50 AM	6.6	3200	1200	7.6	N/A	17
First Creek, Upstream of Tributary- Maple Dr.	10/24/2007	10:26 AM	7.4	1100	1300	7.7	N/A	17
Tributary to First Creek- proximal to 5055 Broadway	10/24/2007	10:39 AM	6.6	1500	1600	7.4	N/A	17

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