

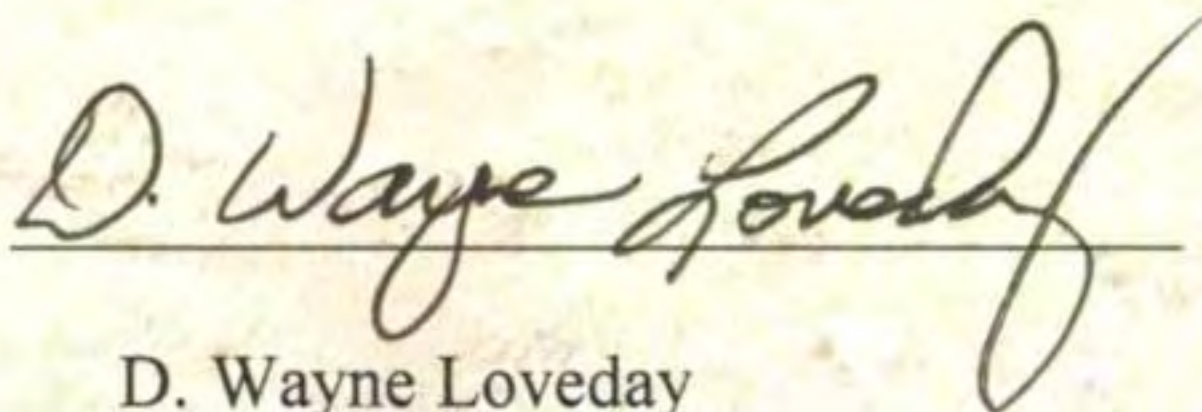
Quarterly Progress Report

Volume 9

Second Quarter Report April 1 through June 30, 2007

Submitted to EPA on July 26, 2007

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


D. Wayne Loveday

7.26.07
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 second quarter of 2007 from April 1 through June 30. This is the ninth quarterly report required of KUB under this Consent Decree. The Consent Decree requirements pertaining to the Phase 2 CAP/ER and Composite Correction Plan will not be fulfilled in this report since they have not become due; rather, a description of the status of development for those programs is given. The Consent Decree reporting requirements for those programs will be met after EPA has approved each of them.

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 status of the development 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.

April 26, 2007

- Submitted to EPA – Quarterly Progress Report 1st quarter 2007
- Submitted to EPA – 2001-2006 Sanitary Sewer Overflow Evaluation Report Annual Update

June 19, 2007

- Posted in PDR – Composite Correction Plan

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

Project and Reason for Extension	Original Completion Date	Revised Completion Date
2-4 Dutch Valley Collector Rehabilitation (Sewershed 10B1) – Although pipework was substantially complete on the original schedule, an extension to September 2007 is requested to allow for final closeout and cleanup.	FY 06/07	FY 07/08
2-5 Rickard and Wilson Collector Rehabilitation (Sewershed 10C1) – Although pipework was substantially complete on the original schedule, an extension to September 2007 is requested to allow for final closeout and cleanup.	FY 06/07	FY 07/08
S-1 Ginnbrook Pump Station Rehabilitation – Project concept has been modified to include substantially more work including upgrades to Ginnbrook and Power Park pump stations and force mains. The design phase of the project is complete and construction will be scheduled for FY 08/09.	FY 06/07	FY 08/09

EPA Approved Project Extensions

- **1-1 Upper First Creek Collector Project (Mini-basin 1A1, 2A2, and 3D1)** – Find and fix work to identify and address cause of overflow in the vicinity of 4811 Beverly Road, 4144 Oakland Drive, and 5511 Dogwood Road. End date extended from FY 06/07 to FY 07/08. Work was re-prioritized to allow an earlier completion of Project 1-6 Sewershed 08A1 Rehabilitation.
- **1-20 Vine Middle School Rehabilitation Project** – Find and fix work to identify and address cause of overflow in the vicinity of 214 Bertrand Street. End date extended from FY 06/07 to FY 07/08. Work was re-prioritized to coincide with the 2007 summer break for Vine Middle School.

Current Capital Improvement Plan for FY 04/05 - FY 07/08

The following is a list of facility improvement projects included in the Capital Improvement Plan for FY 04/05 (July 1, 2004, to June 30, 2005), FY 05/06 (July 1, 2005, to June 30, 2006), FY 06/07 (July 1, 2006 to June 30, 2007), and FY 07/08 (July 1, 2007 to June 30, 2008). 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. Phase B was initiated to replace 1500 ft of trunkline not included in the scope of Phase A. Phase B design is to be complete in July 2007. Construction has been rescheduled to begin September 2007 and is expected to be complete by December 2007.
2. **Fountain City Trunkline Replacement** - Replace and upgrade approximately 6000 ft of trunk sewer connecting lines in upper Fountain City to Upper First Creek storage tank. The project will address SSOs along Broadway, Cedar Lane, and Fountain Road. Preliminary design is complete. Construction began in November 2006 and is expected to be complete in fall 2007. Project is on track to be complete in fall 2007.
3. **Sub-Basin 8B2** – Characterize the condition of 24,900 ft of pipe to determine rehabilitation needs. Preliminary design is complete and design is under way. Construction project has been awarded and is scheduled to be complete in December 2007.

Second Creek

1. **Dutch Valley Collector Rehab (Mini-basin 10B1)** – Assess and rehabilitate, where needed, approximately 16,400 ft of collector pipe. Condition Assessment design is complete. This project was combined with the Rickard and Wilson Collector Rehab project below. Construction is underway and is expected to be complete in August 2007.
2. **Rickard and Wilson Collector Rehab (Mini-basin 10C1)** – Assess and rehabilitate, where needed, approximately 19,000 ft of collector pipe. Project has been combined with Mini-basin 10B1 and is expected to be complete in August 2007.

Third Creek

1. **Third Creek Storage** - Design 4.5 MG wet-weather storage tank to control sewer overflows near Western Avenue and Third Creek Road during rain events. Preliminary design is complete. Site selection is complete; tank will be located at KUB's Hoskins Center. Construction is underway. Substantial completion is projected for October 2007.
2. **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. Phase I project has been awarded and is expected to be complete in September 2007. Phase II design will begin in summer 2007.
3. **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 II has been rescheduled to be complete in 2008.
4. **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 under construction at the KUB Hoskins Center. Project is underway and expected to be complete in December 2007.
5. **Upper McKamey Trunk Sewer Replacement** – Project will replace approximately 1600 ft of 12 inch and 15 inch trunk sewer. This project will further enhance improvements already made in Third Creek to address overflows along McKamey Road. Project has been extended to August 2007 due to delay in manhole delivery.

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. Force main project has been awarded and is scheduled to be complete in March 2008. The pump station project will be bid in July and is expected to be complete by summer 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. Construction on Phase I began in April 2007. Phase II construction will begin in spring 2008.

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** - Find and fix rehabilitation in First Creek sewer basin in the Fountain City area (mini-basins 03B1, 03B2, and 04B2). Project included inspection (CCTV, smoke test, manhole inspections), design, rehabilitation of 26,500 ft of lines requiring repair, and replacement 10,500 ft of sewer.
6. **Lower First Creek Storage** - Designed and built 5 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 million gallon (MG) wet-weather storage tank to control sewer overflows near Old Broadway during rain events.

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.

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*** - Find and design 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.

Fourth Creek

1. **Pinebrook Drive Sewer Replacement** - Replacement 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 occurring 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 I/I.
3. **Island Home Rehabilitation** - Rehabilitated 9400 ft and replace 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 of approximately 5,000 ft of 16-inch ductile iron pipe force main that has severe structural problems.
2. **Williams Creek Trunk Line Replacement** – Designed and replaced of approximately 3,700 ft of 24-inch sewer to correct structural problems.

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.

CDM and KUB staff conducted workshops on the dates April 11, 25, and May 18, 31, 2007, to further develop the analysis of the WWTP alternatives and scenarios. The CCP was posted in the Public Document Repository on June 19, 2007, and comments will be accepted until July 18, 2007. The CCP will be submitted to EPA by July 24, 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 will be submitted to EPA by September 30, 2007.

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 First 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 April 26, 2007, KUB submitted to EPA and placed in the PDR the Quarterly Progress Report for the first quarter 2007. This deliverable was not subject to the Public Review Requirement of Section VI.A.2, but was available for public comment from April 26, 2007, until May 15, 2007. No comments were received during that period.

6.1.2 2001-2006 Sanitary Sewer Overflow Evaluation Report Annual Update

Consent Decree language, page 21: *"Beginning on April 30, 2005, and on an annual basis thereafter, until termination of this Consent Decree, KUB shall submit an update to the SSOER to address those conditions that caused the SSOs that occurred during the previous Calendar Year, in accordance with subparagraphs (b) through (e) below ("Annual SSOER Update")."*

On April 26, 2007, KUB submitted to EPA and placed in the PDR the 2001-2006 Sanitary Sewer Overflow Evaluation Report Annual Update. This Review Level 1 Deliverable was available for public comment from April 26, 2007 until May 15, 2007. No comments were received during that period. EPA approved the deliverable on May 30, 2007.

6.1.3 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 is available for public comment until July 18, 2007. The CCP will be submitted to EPA by July 24, 2007.

6.2 Violations Subject to Stipulated Penalties

During this reporting period, KUB incurred no 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
N/A	N/A	N/A	N/A

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 13 SSO events. Of that number, seven were due to blockages by either grease, debris, roots, or a combination thereof; two were due to broken pipe; and one was due to mechanical failure. Of the 13 SSO events, 11 were in the 0 – 1000 gallons volume range, one was in the 1001 – 10,000 range, one event totaled greater than 10,000 gallons, and one was of an unknown volume. Durations for events during this period are as follows: 10 ranged from 0 – 2 hours, one ranged from 2.1 – 5 hours, one lasted more than five hours, and one was of an unknown duration.

7.2 Building Backups

Appendix C lists all Building Backups that occurred during this reporting period. During this period, there were nine Building Backups. Causes for these events are as follows: three were due to blockage, three were due to flushing operations, and three were due to construction failure.

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 at Kuwahee, Fourth Creek, Loves Creek, or Eastbridge WWTPs 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, KUB investigated high counts previously seen on Baker Creek and high counts observed during this quarter on Williams Creek.

In the routine monitoring of Williams Creek in May 2007, elevated fecal coliform counts were observed at the most upstream sampling point, site 2.02 on the creek. The fecal coliform count elevations were seen in both the main stream and its tributary. Water Quality personnel launched an investigation, sampling four areas twice, to examine the new source of fecal contamination above site 2.02. Field observations did not expose any new sources of potential contamination in the area and Location of Source testing did reveal an obvious source location. For this reason, dye testing was conducted along one portion of the tributary, but it did not reveal any leaks in a sewer line that could have contributed to increase in counts. Testing in June 2007 did indicate a drop in the counts at site 2.02, but an increase in counts further downstream at site 1.7. Low flows, dry conditions, as well as an influx of wild birds in the area may have exacerbated the variable elevated counts in this stream, which for several months has been below 500 cfu/100 ml at all monitoring locations.

In the report from the previous quarter, KUB investigated a Water Quality concern in an area of Williams Creek on February 21, 2007 reported by a local environmental group. The discharge causing the elevated fecal coliform counts originated from a private sewer lateral of a local business connected to a storm drain. The local business has properly connected their lateral to the collection system, and KUB has re-tested this area of Williams Creek. Results show that the problem has been resolved.

On April 12, 2007, KUB Water Quality personnel were contacted by the Tennessee Department of Environment and Conservation about a water quality concern they had received from a homeowner along First Creek. KUB personnel subsequently met with the homeowner to gather more information and sampled upstream and downstream of the area. Fecal coliform analyses did not show any elevated counts. KUB communicated the findings to the homeowner and will continue to monitor the counts obtained along First Creek during routine monitoring.

KUB completed a second round of Location of Source sampling at the seven locations along Baker Creek, which resulted in elevated fecal coliform counts during the previous dry weather investigation as well as the location of source testing conducted during the fourth quarter of 2006. The data has not indicated any apparent source locations and further investigation, i.e. RT-PCR analysis, is needed to determine the source of the elevated

counts associated with those six of the seven sites collected. One site at McClung Avenue and Middle Fork will no longer be investigated for it has not shown elevated fecal coliform counts during either Location of Source studies. Results from the RT-PCR analysis for the six elevated sites will be available in the third quarter of 2007.

No Spill Impact sampling was performed, since no unpermitted discharges occurred during this quarter.

KUB will begin Wet Weather Investigations on elevated areas of Baker Creek in the third quarter of 2007, pending increased rainfall. KUB also plans to begin a Dry Weather Walking Survey of Goose Creek in the next quarter.

8.2 Projected Data Collection

During the third quarter of 2007, 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 third quarter 2007:

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	McCampbell 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	141,800	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	193,152	Under Construction - 50% 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	408,317	Project Complete
45	Comprehensive Rehab 09A4	Comprehensive Rehabilitation	3rd Creek	Kuwahee	5,000,000	Project Complete
46	Lower First Creek Storage Tank	Storage Tank	1st Creek	Kuwahee	13,333	Project Complete
47	vented manhole cover replacement (11B2)	Manhole Cover	3rd Creek	Kuwahee	2,667	Project Complete
48	vented manhole cover replacement (13C1)	Manhole Cover	3rd Creek	Kuwahee	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	Papernill 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	Papernill 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
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

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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
4/17/2007	10:30 AM	9315	RUTLEDGE PIKE	EB	Eastbridge	114	MH 65-10	Ditch to Soil Saturation		The sewer main was flushed to remove the blockage caused by debris.	180	0	180	1	No
4/18/2007	1:17 PM	2324	N BROADWAY	KUW	First Creek	17	MH 4-113	Underground Vault		The sewer main was flushed to remove the blockage caused by grease.	20,950	20,950	0	24	No
4/24/2007	7:40 AM	5516	BROWN ATKIN DRIVE	FC	Fourth Creek	43	Leaking LP Force Main	Soil Saturation		There was a small leak on a low-pressure force main.	3	0	3	2	No
5/22/2007	10:00 AM	8413	WASHINGTON PIKE	EB	Eastbridge	111	Leaking LP Force Main	Ditch to Soil Saturation		There was a small leak on a low-pressure force main.	5	0	5	2	No
5/25/2007	10:30 AM	1749	RIVERSIDE DRIVE	KUW	Williams Creek	31	MH 16-2	Pavement to Ditch to Soil Saturation		The sewer main was flushed to remove the blockage caused by grease.	711	0	711	2	No
5/31/2007	2:00 PM	700	N BROADWAY	KUW	Second Creek	23	Leaking Pipe	Underground Flow to Storm Drain		The sewer main was flushed to remove the blockage caused by debris.	Unknown	0	Unknown	Unknown	No
6/6/2007	8:14 AM	3334	ASHLAND AVENUE	KUW	Williams Creek	19	MH 21-3	Pavement to Soil Saturation		The sewer main was flushed to remove the blockage caused by debris.	160	80	80	1	No
6/6/2007	8:03 PM	5904	WASHINGTON PIKE	KUW	First Creek	2	Grease Trap	Contained		The sewer main was flushed to remove the blockage caused by grease and debris.	19	19	0	1.5	No
6/7/2007	5:30 PM	1500	LYONS BEND ROAD	FC	Fourth Creek	37	Leaking Valve	Removal and Soil Saturation		There was a leak from a valve on a sludge line.	25	0	25	0.58	No
6/7/2007	10:03 AM	2915	ISLAND HOME AVENUE	KUW	South Knoxville	40	Leaking Force Main	Ditch to Soil Saturation		There was a small leak on a force main.	31	0	31	2	No
6/10/2007	9:30 AM	2111	COVE VIEW WAY	FC	Fourth Creek	43	Residential Grinder Pump	Soil Saturation		There was a failure at a KUB-owned grinder pump station.	2	0	2	1.5	No
6/13/2007	1:00 PM	2319	SOUTHSIDE DRIVE	KUW	South Knoxville	40	Leaking Force Main	Soil Saturation		There was a leak on a force main near the pump station.	225	0	225	5	No
6/27/2007	2:52 PM	208	HUMES STREET	KUW	First Creek	30	Leaking Lateral	Soil Saturation		The sewer main was flushed to remove the blockage caused by debris.	30	0	30	1	No

Appendix C

Building Backups

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)
4/15/2007	5:40 PM	4105	MILTON STREET	KUW	First Creek	16	BBU	The sewer main was flushed to remove the blockage caused by roots, grease and debris.	2150	2050	100	Unknown
5/7/2007	1:05 PM	401	GEORGIA STREET	KUW	First Creek	24	BBU	The sewer main was flushed to remove the blockage caused by debris due to a broken pipe.	2	2	0	0.25
5/8/2007	3:19 PM	7309	HARDY LANE	LC	Loves Creek	63	BBU	Routine sewer main flushing by a private contractor resulted in a building backup at this residence.	1	1	0	0.05
5/15/2007	8:54 PM	220	CLINCH AVENUE	KUW	First Creek	30	BBU	A contractor inadvertently left a sewer plug in a customer's service lateral after a manhole rehabilitation.	300	300	0	3
5/16/2007	10:52 AM	909	KINGLAND AVENUE	KUW	South Knoxville	40	BBU	Routine sewer main flushing by a private contractor resulted in a building backup at this residence.	3	3	0	0.05
5/22/2007	10:00 AM	2404&2408	ABERDEEN LANE	KUW	South Knoxville	40	BBU	Routine sewer main flushing by a private contractor resulted in a building backup at this residence.	4	4	0	0.05
5/29/2007	4:00 PM	1705	SOUTH HILLS DRIVE	KUW	South Knoxville	39	BBU	A contractor-operated bypass pump failed during a sewer main replacement project.	244	244	0	1
6/5/2007	5:00 PM	1705	SOUTH HILLS DRIVE	KUW	South Knoxville	39	BBU	There was a brief surcharge in the sewer main during restoration.	0	0	0	0.05
6/30/2007	7:06 PM	5901	LOICE LANE	LC	Loves Creek	20	BBU	The sewer main was flushed to remove the blockage caused by roots.	100	100	0	2

Appendix D

Water Quality Monitoring Program Sampling Results



Water Quality Monitoring
Report

Routine Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

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	4/25/2007	07:45	8.0	18	8.9	340	410	Dry	R
2.57	4/25/2007	08:32	7.8	18	8.7	240	390	Dry	R
6.33	4/25/2007	08:15	7.4	17	7.6	200	150	Dry	R
0.45	5/29/2007	08:16	8.1	20	7.9	390	200	Dry	R
2.57	5/29/2007	08:39	7.9	21	7.7	400	280	Dry	R
6.33	5/29/2007	09:07	7.7	20	6.3	340	320	Dry	R
0.45	6/28/2007	09:37	7.6	23	7.8	1100	550	Wet	R
2.57	6/28/2007	09:28	7.8	23	7.0	500	310	Wet	R
6.33	6/28/2007	08:33	7.6	22	5.7	430	520	Wet	R
Second Creek									
0.30	4/24/2007	10:12	8.1	18	11	200	96	Dry	R
1.54	4/24/2007	09:47	8.0	17	10	360	200	Dry	R
5.76	4/24/2007	09:21	7.2	16	6.6	< 10	8	Dry	R
0.30	5/23/2007	09:03	7.2	16	5.9	390	210	Dry	R
1.54	5/23/2007	09:21	7.9	19	8.3	300	170	Dry	R
5.76	5/23/2007	09:42	7.9	20	8.5	120	46	Dry	R
0.30	6/25/2007	09:26	7.4	22	6.6	14000	> 2400	Wet	R
1.54	6/25/2007	09:05	7.6	21	6.3	9100	> 2400	Wet	R
5.76	6/25/2007	08:53	7.2	18	5.8	240	290	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.

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Routine Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

Knoxville Utilities Board
Water Quality Laboratory
Debbie Ailey, Lab Supervisor
835 East Jackson Avenue
Knoxville, Tennessee 37915
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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
Third Creek									
0.87	4/16/2007	09:45	7.7	11	10	1300	1100	Wet	I
2.08E	4/16/2007	09:25	7.9	10	10	580	390	Wet	R
4.80W	4/16/2007	09:05	7.5	12	9.4	360	390	Wet	R
0.87	5/7/2007	09:35	8.1	16	8.9	500	550	Wet	R
2.08E	5/7/2007	09:21	7.8	16	7.8	2900	1700	Wet	I
4.80W	5/7/2007	09:00	8.0	15	9.0	180	580	Wet	R
0.87	6/6/2007	10:56	7.8	20	7.1	1500	980	Wet	I
2.08E	6/6/2007	10:41	7.4	21	4.9	2200	1700	Wet	I
4.80W	6/6/2007	10:17	8.0	18	8.1	270	190	Wet	R
Fourth Creek									
0.55	4/17/2007	10:42	7.8	14	10	1700	> 2400	Wet	R
1.33	4/17/2007	10:30	7.8	14	9.8	70	130	Wet	R
1.78	4/17/2007	10:20	7.8	14	10	66	53	Wet	R
0.55	5/25/2007	08:21	7.9	18	8.0	1600	870	Dry	R
1.33	5/25/2007	08:37	8.0	17	8.1	1700	980	Dry	I
1.78	5/25/2007	08:51	8.1	16	9.5	520	690	Dry	R
0.55	6/18/2007	09:00	7.9	18	8.0	1400	820	Dry	R
1.33	6/18/2007	08:51	7.7	18	7.7	1600	2400	Dry	I
1.78	6/18/2007	08:42	8.0	17	8.9	200	220	Dry	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

4/1/2007 Through 6/30/2007

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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	4/12/2007	10:05	7.6	14	8.5	2000	1300	Wet	I
0.32	4/12/2007	10:16	7.8	11	9.6	2400	2000	Wet	I
0.36S	4/12/2007	10:24	7.5	15	8.3	800	770	Wet	R
0.15	5/21/2007	11:30	7.1	18	6.6	2300	>2400	Dry	I
0.32	5/21/2007	11:22	8.0	18	7.5	3800	>2400	Dry	I
0.36S	5/21/2007	11:14	7.7	19	7.4	1700	1000	Dry	I
0.15	6/26/2007	09:17	7.6	20	6.6	3000	1100	Wet	I
0.32	6/26/2007	09:28	7.9	21	6.8	7300	2400	Wet	I
0.36S	6/26/2007	09:39	7.9	19	7.9	500	1400	Wet	I
Goose Creek									
0.35	4/5/2007	08:38	7.6	12	8.2	3500	> 2400	Wet	I
0.90E	4/5/2007	08:29	7.5	11	9.4	1300	870	Wet	R
1.50E	4/5/2007	08:17	7.7	12	9.0	3000	730	Wet	R
0.35	5/9/2007	09:56	7.5	15	7.4	1800	550	Wet	R
0.90E	5/9/2007	09:45	7.6	16	8.5	320	770	Wet	R
1.50E	5/9/2007	08:34	7.9	15	8.5	730	610	Wet	R
0.35	6/19/2007	11:53	7.4	20	4.7	5200	>2400	Wet	I
0.90E	6/19/2007	11:41	7.5	21	6.9	5600	2400	Wet	R
1.50E	6/19/2007	11:30	7.9	20	7.8	1700	1600	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.



Routine Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

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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
Loves Creek									
0.85	4/6/2007	09:49	7.6	11	9.9	250	260	Wet	R
1.89	4/6/2007	09:40	7.4	12	8.6	100	68	Wet	R
3.45	4/6/2007	09:23	7.5	12	8.9	70	110	Wet	R
0.85	5/17/2007	09:07	7.0	10	7.8	600	770	Wet	R
1.89	5/17/2007	09:20	7.1	10	7.9	370	300	Wet	R
3.45	5/17/2007	09:32	7.4	9	8.6	180	260	Wet	R
0.85	6/5/2007	10:22	7.9	18	6.3	1400	980	Wet	R
1.89	6/5/2007	10:08	7.6	19	7.0	910	490	Wet	R
3.45	6/5/2007	09:56	7.8	20	6.5	330	520	Wet	R
Williams Creek									
0.89	4/18/2007	10:16	7.5	14	9.7	190	140	Wet	R
1.70	4/18/2007	10:02	7.4	14	8.0	480	550	Wet	R
2.02	4/18/2007	09:51	7.6	15	7.6	580	580	Wet	R
0.89	5/14/2007	10:13	7.7	16		540	870	Dry	R
1.70	5/14/2007	10:02	7.3	17	7.8	1200	1700	Dry	I
2.02	5/14/2007	09:53	7.9	18	8.3	16000	> 2400	Dry	I
0.89	6/21/2007	08:36	7.7	17	8.0	580	460	Wet	R
1.70	6/21/2007	08:49	7.4	17	7.0	14000	> 2400	Wet	I
2.02	6/21/2007	08:58	7.8	18	6.8	3000	1700	Wet	I

*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.

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Water Quality Monitoring
Report

Investigative Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

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

Dry Weather Investigative Monitoring - Customer Complaint

First Creek

Sample Location	Date	Time	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E-Coli (MPNI)	pH	Silt level	Water Temperature (C)
Walker Blvd Upstream	5/1/2007	9:21 AM	8.5	230	130	8.0	N/A	17
Walker Blvd Downstream	5/1/2007	9:42 AM	8.6	170	200	7.8	N/A	17

Williams Creek

Sample Location	Date	Time	Dissolved Oxygen (mg/l)	Fecal Coliform (CFU/100 ml)	E-Coli (MPNI)	pH	Silt level	Water Temperature (C)
Upstream of Discharge (0.15)	5/11/2007	11:24 AM	11	50	29	8.5	N/A	23
Downstream of Discharge (0.15)	5/11/2007	11:39 AM	10	90	40	8.2	N/A	23

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Creek Monitoring Report

Location of Source Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

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

Williams Creek

Location Description	Collection Date	Collection Time	Dissolved Oxygen (mg/L)	pH	Water Temperature (C)	Fecal Coliform (CFU/100mL)	E-Coli (MPN)	Closest Stream Mile
Downstream At Selma Ave.	5/24/2007	08:42	7.8	8.0	18	15000	> 2400	Downstream of 2.02
Site 2.02	5/24/2007	08:50	7.4	7.8	18	2100	1200	2.02
Upstream of Site 2.02 in tributary	5/24/2007	09:05	6.4	7.8	18	2500	1600	Upstream of 2.02 (Tributary)
Upstream of Site 2.02	5/24/2007	09:19	7.4	7.6	18	20000	> 2400	Upstream of 2.02 (Main stream)

Williams Creek

Location Description	Collection Date	Collection Time	Dissolved Oxygen (mg/L)	pH	Water Temperature (C)	Fecal Coliform (CFU/100mL)	E-Coli (MPN)	Closest Stream Mile
Downstream at Selma Ave.	5/30/2007	11:26	12	8.1	22	5900	> 2400	Downstream of 2.02
Site 2.02	5/30/2007	11:35	9.1	8.0	20	2600	> 2400	2.02
Upstream of Site 2.02	5/30/2007	11:42	7.6	7.9	20	2400	> 2400	Upstream of 2.02 (Main stream)
Upstream of Site 2.02 in tributary	5/30/2007	11:57	8.4	7.8	23	32000	> 2400	Upstream of 2.02 (Tributary)

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Creek Monitoring Report

Location of Source Water Quality Monitoring Report

4/1/2007 Through 6/30/2007

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Baker Creek

Location Description	Collection Date	Collection Time	Dissolved Oxygen (mg/L)	pH	Water Temperature (C)	Fecal Coliform (CFU/100mL)	E-Coli (MPN)	Closest Stream Mile
Taylor Rd. between Cruze and Tilson	6/13/2007	09:00	8.1	7.9	17	3400	> 2400	1.93 (Main stream)
Taylor Road between Barclay and Cruze	6/13/2007	09:30	8.6	7.9	16	5500	> 2400	2.08 (Main stream)
Sevierville Pike	6/13/2007	09:51	8.2	7.9	17	1300	910	1.47 (Main stream)
Sevier Ave. Firehouse #10	6/13/2007	10:03	7.1	7.8	18	1200	1600	0.93 (Main stream)
Mayfair and East Fork	6/13/2007	10:37	7.9	7.9	19	2000	2400	0.47 (Tributary)
McClung Ave. - Middle Fork	6/13/2007	10:56	4.3	7.1	18	150	46	0.24 (Tributary)
Island Home Blvd.	6/13/2007	11:20	6.7	7.5	19	3600	1200	0.30 (main stream)

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