

# **Eleventh Quarterly Report**

**United States Environmental Protection Agency  
Administrative Order No. CWA-04-2010-4772**

**Period  
April 1, 2013 –  
June 30, 2013**

**July 2013**

**Submitted by:**



## Eleventh Quarterly Report

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Period:  
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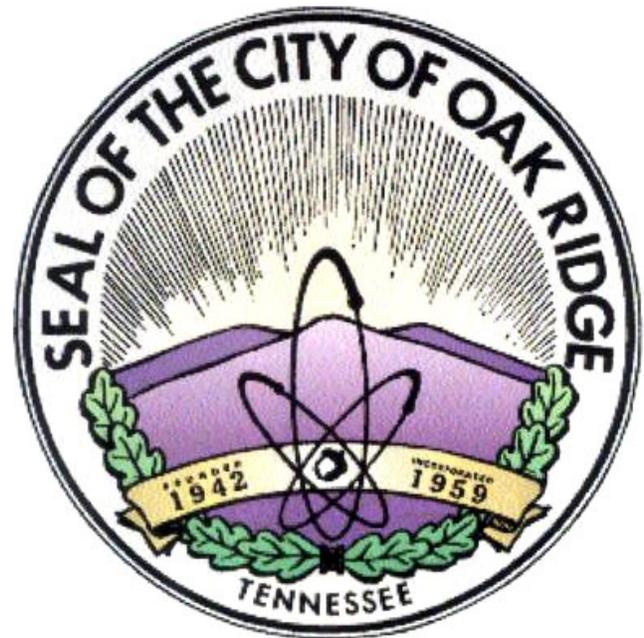
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A.	Y-12 Quarterly Report



## **SECTION I:**

# **ACTIONS DURING THE ELEVENTH QUARTER**



## SECTION I

### ACTIONS DURING THE TENTH QUARTER

#### A. Introduction

Item 18 of the Administrative Order (AO) requires the City to submit quarterly reports. Those reports are due the 28<sup>th</sup> day of the month following the end of the quarter. They are to describe actions taken toward achieving compliance with the AO. This section of the report will deal with Management, Operation, Maintenance (MOM) matters, as well as remediation activities.

#### B. Funding

Oak Ridge City Council action during the tenth quarter included a resolution authorizing the application and acceptance of State Revolving Fund (SRF) loans of \$14.0 million and \$4.0 million at a favorable interest rate, with funds expected to be available during June 2013. Those funds were approved by the State of Tennessee on June 25, 2013. Due to the funding issues, the rehabilitation program became slightly behind schedule; but, with the SRF funds, the program will quickly be back on the projected schedule.



### C. System Evaluation and Rehabilitation Plans

The East Plant Sewer Shed continues to have the highest priority for rehabilitation. Construction continues for two (2) of the five (5) mini-basins. As mentioned in earlier quarterly reports, the City has a Program Manager under contract and five (5) design firms to assist with the execution of the rehabilitation plan. During the tenth quarter, three (3) mini-basins which had separate designs were combined into a single construction contract package. This combined contract is ready for bidding in early July 2013 using the funding approved by the SRF loan program in the eleventh quarter. The remainder of the East Plant Sewershed rehabilitation was designed during the eleventh quarter.

The Program Manager is working with the City to secure sites for the three equalization basins identified in the rehabilitation plan.

The Emory Valley construction projects are complete and post-construction investigation continues on lateral issues and identifying other defects to be addressed as routine maintenance.



## D. Management, Operations, and Maintenance Programs

### 1. Information Management System

#### Pump Stations

- 515 weekly preventive maintenance work orders generated and completed.
- 75 monthly preventive maintenance work orders generated and completed.
- 48 quarterly preventive maintenance work orders generated and completed.
- 12 semi-annual preventive maintenance work orders generated and completed.
- 11 annual preventive maintenance work orders generated and completed.
  - 9 work orders generated by preventive maintenance (see listing)
- 10 pump station inspection work orders were generated for rain events.
- 38 work orders generated by the maintenance crew (not including PMs, Work from PMs and Rain Events)
- Total-to-date of 4,574 work orders generated in the Infor system for the WWTP maintenance crew.
- Successful completion of the work required for the routing of the assets and work for Pump Station Inspections during rain events.

#### Gravity Sewer

- As needed training continues.
- Successful completion of the work required for the routing of the assets and work for the following:
  - Manhole Inspections for the Emory Valley Sewer Shed
  - Manhole Inspections for Rain Events
  - Flow Metering
  - Sewer Line Cleaning
  - Sewer Line CCTV
- Continue refining the process for documenting the SSOs in the Infor system with limited issues.





<b>WORK ORDERS GENERATED FROM PREVENTATIVE MAINTENANCE</b>								
<b>4/1/2013 THROUGH 6/30/2013</b>								
#	Work Order	Date Reported	Description	Equipment (Assets)	Equipment Description	Problem Address	WO Type	Priority
1	48871	6/6/2013	Replace Belts, Oaks Hills Pump Station	PS:W17-E2W-M1	Position, Motor-1, Suction Lift Pump	OAK HILLS PS	Work from PM	2-High (next work day)
2	48195	5/14/2013	Pumps Tripped, Warehouse Road Pump Station	PS:E13A-F20	Warehouse Road, 504 Warehouse Rd	WAREHOUSE ROAD PS	Work from PM	2-High (next work day)
3	47679	5/1/2013	Clean Wet Well, Marina Pump Station	PS:E20-L24	Marina, 695 Melton Lake Dr	MARINA PS	Work from PM	2-High (next work day)
4	47677	5/1/2013	Swap Motor On Pump 2 For Rebuild, Palisades #2 Pump Station	PS:E31-G23-2-M2	Position, Motor-2, Suction Lift Pump	PALISADES #2 PS	Work from PM	3-Medium (as scheduled)
5	47546	4/25/2013	Repair Pipe Stands, Rivers Run Pump Station	PS:E29-O25	Rivers Run, 100 Rivers Run Boulevard	RIVERS RUN PS	Work from PM	3-Medium (as scheduled)
6	47491	4/23/2013	Change Out Motor, Pump 2, Palisades #2 Pump Station	PS:E31-G23-2-M2	Position, Motor-2, Suction Lift Pump	PALISADES #2 PS	Work from PM	3-Medium (as scheduled)
7	47261	4/17/2013	Pull Pump 1, Service, Megged High, Rivers Way Pump Station	PS:E30-F24-P1	Position, Pump-1, Submersible	RIVERS WAY PS	Work from PM	3-Medium (as scheduled)
8	46706	4/2/2013	Low Current, Pump 1, Rivers Way Pump Station	PS:E30-F24-P1	Position, Pump-1, Submersible	RIVERS WAY PS	Work from PM	3-Medium (as scheduled)
9	46703	4/2/2013	No Suction, Pump 2, Palisades #4 Pump Station	PS:E31-G23-4-P2	Position, Pump-2, Suction Lift	PALISADES #4 PS	Work from PM	2-High (next work day)



- 
- 460 work orders generated by the gravity crews (not including Call Center, Routing and Rain Events)
  - 73 MOM work orders
- Total-to-date of 1,187 work orders generated in the Infor system for the gravity crews.

### Call Center

- Total-to-date of 2,903 work orders generated in the Infor system by the Call Center.
  - 189 work orders called in for “Check Sewer Problem”
- 819 work orders generated during this quarter in the Infor system by the Call Center.
  - 34 work orders called in for “Check Sewer Problem”

### GIS

The City of Oak Ridge continues to add to and update the GIS mapping system. During this quarter the GIS Specialist updated the mapping system with the completed sewer point repair information and the relocation of the flow meters.

The GIS Specialist created a geometric network of the Sewer SDE Geodatabase that will enable us to perform better analysis of the sewer system. She also added the wastewater treatment plant structures and buildings to the Infor system.

Work continues on loading approximately 22,000 inspection pictures from 2010 and 2011 that will be linked to the GIS mapping system, with the Emory Valley Sewer Shed loaded during this quarter.

## 2. Engineering

### By-Pass Pumping Connections

By-pass pumping connections will be installed at the remaining seven pump stations when they are replaced or updated.

- Castlewood Pump Station (completed)
- Westview Pump Station (completed)



- Gregory's Pump Station (under construction)
- Palisades #1 Pump Station
- Palisades #2 Pump Station
- Palisades #3 Pump Station
- Palisades #4 Pump Station

### **Control Panels**

During this reporting period (April 2013 through June 2013), the Wastewater Maintenance Crew completed the installation of the final control panel at the Wolf Creek Pump Station.

## **3. Operations**

### **Fats, Oils, and Grease**

#### **Quick Stats:**

- 104 establishments in program (increased by one since the last report)
- Conducting food service establishments (FSE) Inspections (total complete 57)
- Added one approved GWH vendor to the list (for a total of 13)
- Establishments currently known noncompliant. Eight (8) re-inspections to be completed.
- All Schools have been inspected.
- Public Works personnel continue to be instrumental in identifying potential FOG violations that has led to quicker and more routine compliance.
- Planned 100% FSE inspections to be completed mid-November 2013, leaving all of December for any follow ups not completed.

#### **City of Oak Ridge Program Coordination:**

- Decided to stop using the MMS web site because of a city wide review of software for tracking.
- Continued new building permits to the FOG program for FSE as a certificate of occupancy requirement.
- Frequent FSE Manager change causing some problem with re-education and additional inspection follow ups.



## Collection

### **Emory Valley Sewer Shed**

- City crews have completed the CCTV work in the Emory Valley Sewer Shed. City crews are going back and reinvestigating privately owned sewer laterals that are suspected of having I&I during heavy rain events. This information is being compiled and will be brought to the attention of the property owners with the assistance of the City Code Enforcement Division. The owners of the privately owned sewer laterals will be shown the problem and consulted in the need of the repair.

### **Cleaning and CCTV Inspection**

- City crews are concentrating on cleaning and CCTV lines that are have had previous issues. The goal is to keep these lines clear until the rehab contractor repairs or replaces them. The rehab work is now underway in the East Plant Sewer Shed. City crews have cleaned the problem lines in the East Plant Sewer Shed and will now be concentrating on the Y-12, Central City, Turtle Park and West End sewer sheds until the rehab work is complete in each sewer shed.

### **Manhole Inspections**

- City crews will start manhole inspection in the East Plant Sewer Shed as contractors finish up with rehab work in designated mini systems.

### **Ground Water Monitoring**

- City crews continue to check sixteen (16) manhole locations that are set up for monitoring the level of ground water. These locations were checked seven (7) times this quarter.

### **Flow Monitoring**

- City personnel continue to monitor the sewer flows during rain and dry weather.
- There are currently twenty-one (21) flow meters strategically located throughout the city. The Emory Valley Sewer Shed has flow meters installed for post construction flow monitoring, and the East Plant Sewer Shed has flow meters installed for preconstruction flow monitoring.



### Rain Gauges

- The three (3) rain gauges are recording rainfall data in the East, West and Center of the city. The central rain gauge being at the Water Treatment Plant is the primary used to call rain events of 0.5" or more.

### Rain Events

- For this quarter the city of Oak Ridge has had a total of ten (10) rain events totaling .5" or more of rain.

### Rainfall Data,

- Monthly rainfall amounts for the City of Oak Ridge recorded at the Water Treatment Plant for this quarter.
  - April 6.54"
  - May 5.26"
  - June 6.40"

### SSO's

- 38-SSO's during this quarter
  - 33- wet weather overflows
  - 5- dry weather overflows

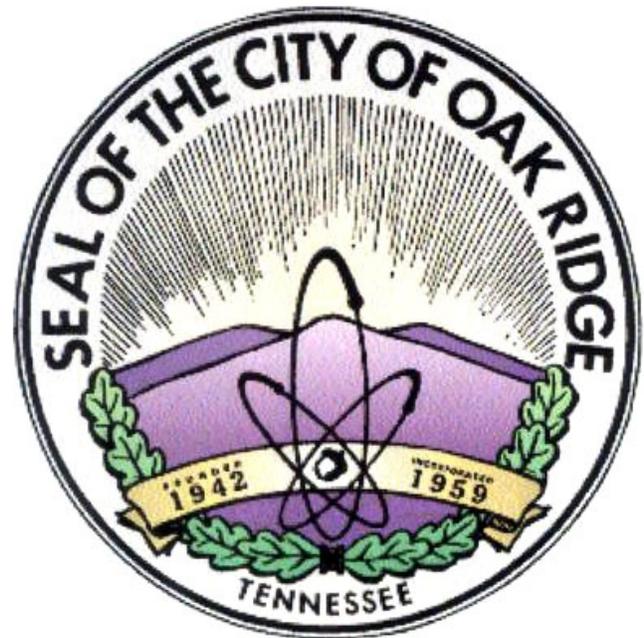
### Safety Training

- All Public Works employees attend monthly safety meetings.
- This quarter topics were
  - April – Safety Precautions for Inclement Weather
  - May – How to Safely operate Backhoes, Excavators, Large Dump Trucks and Heavy Equipment
  - June – Distracted Driving
- Five (5) employees attended continuing education for their Collections System Certificate by attending a KUB Collection Systems Seminar.



**SECTION II:**

**OTHER GENERAL  
COMMENTS**



## SECTION II

### OTHER GENERAL COMMENTS

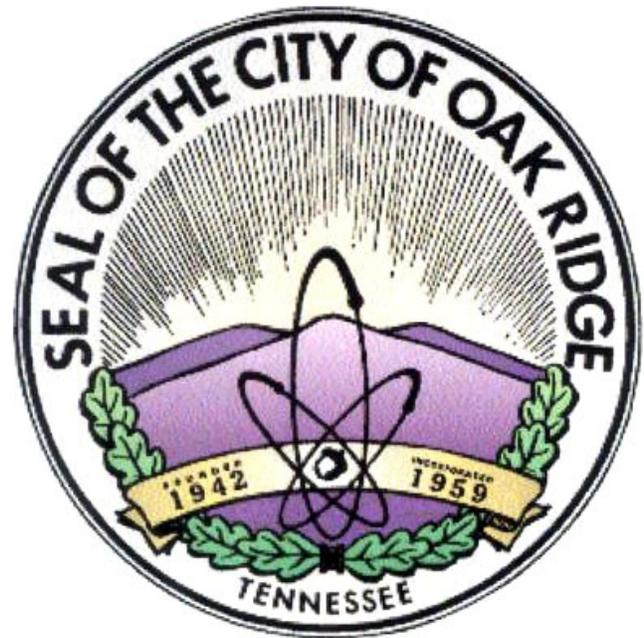
The City and EPA have had discussions concerning the National Nuclear Security Administration's (NNSA) Y-12 facility. The City recognizes they own their collection system and hold the NPDES permit. However, the Y-12 facility (an independent customer) operates at a level higher than city or state government. That facility, from a practical perspective, is not the same as any other industrial customer. This situation is one where the City, State, and EPA should collaborate to affect a timely solution to the matter.

The Y-12 quarterly report is attached as Appendix A.



## SECTION III:

# SSO'S DURING ELEVENTH QUARTER



# EPA Sanitary Sewer Overflow Summary (See Attached SSO Reports for Details)

## 11th Quarterly Report - April 1, 2013 to June 30, 2013

Start Date	St Name	St #	Est Tot Flow (Gal)	Explain OF Cause	Other Measures	Flow in Surface	Name of Surface Water
4/28/2013	Bay Path Drive	108	87000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Emory Valley Creek
4/28/2013	Cairo Lane	151	24500	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
4/28/2013	Dresden Road	100	42750	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
4/28/2013	Illinois Avenue, South	216	61500	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
4/28/2013	Iroquois Road		12000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
4/28/2013	Melton Lake Drive	695	83000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Melton Hill Lake
4/28/2013	Oak Ridge Turnpike	1403	96000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
4/28/2013	Oak Ridge Turnpike	1403	23750	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
4/28/2013	Oak Ridge Turnpike	470	10250	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
4/28/2013	Oak Ridge Turnpike	535	85000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
4/28/2013	Purdue Avenue, North	117	176000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
4/28/2013	Robertsville Road	270	7200	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
4/28/2013	Tusculum Drive	191	16000	Excessive rainfall 2.87" in 36 hr. period	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/5/2013	Cairo Lane	151	110000	Excessive rain 3.08" rain in 48 hours	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
5/5/2013	Melton Lake Drive	697	220000	Excessive rain 3.08" rain in 48 hours	City continues work to correct I&I	<input checked="" type="checkbox"/>	Melton Hill Lake
5/5/2013	Oak Ridge Turnpike	535	54750	Excessive rain 3.08" rain in 48 hours	City continues work to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek

Start Date	St Name	St #	Est Tot Flow (Gal)	Explain OF Cause	Other Measures	Flow in Surface	Name of Surface Water
5/5/2013	Purdue Avenue, North	117	343500	Excessive rain 3.08" rain in 48 hours	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
5/6/2013	Grandcove Lane	114	7000	Excessive rain 3.08" rain in 48 hours	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/6/2013	Illinois Avenue, South	216	4000	Excessive rain 3.08" rain in 48 hours.	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/6/2013	Iroquois Road		1000	Excessive rain 3.08" rain in 48 hours. MH showed signs of overflow when checked at 8:15 AM on 5.6.13	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/6/2013	Oak Ridge Turnpike	1403	2750	Excessive rain 3.08" rain in 48 hours.	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
5/6/2013	Oak Ridge Turnpike	1403	41000	Excessive rain 3.08" rain in 48 hours.	City continues work to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
5/6/2013	Robertsville Road	270	1000	Excessive rain 3.08" rain in 48 hours. MH showed signs of overflow when checked at 8:20 AM on 5.6.13	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/6/2013	Tusculum Drive	191	3250	Excessive rain 3.08" rain in 48 hours.	City continues work to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
5/13/2013	Alger Road	130	134	Problem with the slip lined pipe. The pipe's liner is catching debris at the invert in the manhole and caused a blockage in the manhole	Old sewer tap was abandone in this manhole that had caused a sewer backup at 130 Alger Road. 3/3/13. Manhole will be plugged off and invert inspected for any problems with debris getting caught on the pipe liner causing the manhole to backup.	<input type="checkbox"/>	

Start Date	St Name	St #	Est Tot Flow (Gal)	Explain OF Cause	Other Measures	Flow in Surface	Name of Surface Water
5/29/2013	Culver Road	105	2000	Where a 10" sewer main crosses over a 48" storm drainage pipe. There were some erosion issues at the opening to the drain that eroded the soil between the sewer main and the storm drain pipe causing the sewer main to drop and leak sewer into the storm drain pipe. The sewer was confined in the pipe and a washed out place ata the end of the storm drain pipe.	Sewer main was excavated and repaired. Replaced 9' of pipe. The sewage was removed from the storm drain pipe using the Vac truck and a trash pump then lime was applied. The storm drain pipe will be repaired and any erosion issues will be corrected.	<input type="checkbox"/>	
6/10/2013	Cairo Lane	151	87500	Power outage due to storm, generator failed to start. Generator had to be started manually.	Wastewater maintenance crew will check the generator for needed repairs.	<input type="checkbox"/>	
6/10/2013	Melton Lake Drive	695	6750	Power outage due to storm	City continues work to correct I&I	<input checked="" type="checkbox"/>	Melton Hill Lake
6/18/2013	Cairo Lane	151	67500	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours.	City continues to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
6/18/2013	Dillard Avenue, South	213		Ran root saw and removed 2 gal of rags		<input checked="" type="checkbox"/>	East Fork Poplar Creek
6/18/2013	Illinois Avenue, South	216	1000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours. Manhole was not overflowing but showed signs that an overflow had occurred.	City continues to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
6/18/2013	Illinois Avenue, South	324	600	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours. Manhole showed signs overflow had occurred at 1:30 pm	City continues to correct I&I	<input checked="" type="checkbox"/>	East Fork Poplar Creek
6/18/2013	Melton Lake Drive	695	66000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours.	City continues to correct I&I	<input checked="" type="checkbox"/>	Melton Hill Lake

Start Date	St Name	St #	Est Tot Flow (Gal)	Explain OF Cause	Other Measures	Flow in Surface	Name of Surface Water
6/18/2013	Oak Ridge Turnpike	1403	9000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours	City continues to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
6/18/2013	Oak Ridge Turnpike	1403	9000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours	City continues to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
6/18/2013	Oak Ridge Turnpike	1403	27000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours	City continues to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek
6/18/2013	Oak Ridge Turnpike	470	1000	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours. Manhole showed signs overflow had occurred.	City continues to correct I&I	<input checked="" type="checkbox"/>	Ernie's Creek
6/18/2013	Purdue Avenue, South	117	678500	Excessive rainfall. Received .97" rainfall in a 45 min period. Total rainfall 1.77" in 6 hours.	City continues to correct I&I	<input checked="" type="checkbox"/>	Tributary to East Fork Poplar Creek

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 108 Bay Path Dr.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E5B Map Page # L22

Manhole # L22-4

Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:30 AM  PM

End Date: 4/28/2013 Time: 7:45 AM  PM

Duration 7 hrs. 15 min. hours/minutes

Est. Flow Rate: 200 gpm

Estimated Total Flow: 87,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Emory Valley Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Senior Maint Specialist Date: 4-30-13

Reviewed by Rob Brown Title: Operations & Maint Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Notification to TDEC Scott Johnson Title: Operations Manager Date: 5-1-13

Final Review Steven R Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Title: CITY ENGR. FDR Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 151 Cairo Ln.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13B Map Page # G22

Manhole # G22-14 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:45 AM  PM  End Date: 4/28/2013 Time: 5:50 AM  PM

Duration 4 hrs. 5 min. hours/minutes Est. Flow Rate: 100 gpm Estimated Total Flow: 24,500 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" rain in 36 hr. period

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 4-30-13

Reviewed by Rick Clavin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Notification to TDEC Kathy Stout Title: Operations Manager Date: 5-1-13

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 100 Dresden Rd.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13A Map Page # F20

Manhole # F20-36

Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:55 AM  PM

End Date: 4/28/2013 Time: 5:40 AM  PM

Duration 4 hrs. 45 min. hours/minutes

Est. Flow Rate: 150 gpm

Estimated Total Flow: 42,750 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hr. Period

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No

How: City Web Site

The Oak Ridger

Signs Posted

Date:

Names of Responders: David Patterson

Report completed by David Patterson

Title: Senior Maint. Specialist Date: 4/30/13

Reviewed by Kick Elmer

Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification

By: David Patterson

Date: 4/29/2013

After Review &

Scott Jackson

Title: Operations Manager

Date: 5-1-13

Notification to TDEC

Final Review

Steve R. Byrd

Title: Public Works Director

Date: 5-1-13

Final Report Transmitted to TDEC

By: Kathy Stout

Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 216 S. Illinois Ave.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18A Map Page # J11

Manhole # J11-16

Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:10 AM  PM

End Date: 4/28/2013 Time: 7:00 AM  PM

Duration 6 hrs. 50 min. hours/minutes

Est. Flow Rate: 150 gpm

Estimated Total Flow: 61,500 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint Specialist Date: 4/30/13

Reviewed by Kick Lawson Title: Operations & Maint Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Johnson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Title: CITY ENGR. FOR Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: Iroquois Rd. @ Robertsville Rd.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 KD

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18D Map Page # E10

Manhole # E10-19 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 1:35 AM  PM

End Date: 4/28/2013 Time: 5:35 AM  PM

Duration 4 hrs. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 12,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint. Inspector Date: 4/30/13

Reviewed by Rick Lavin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Pecher Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 695 Melton Lake Dr.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E20 Map Page # L24

Manhole # L24-1

Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:35 AM  PM  End Date: 4/28/2013 Time: 7:30 AM  PM

Duration 6 hrs. 55 min. hours/minutes Est. Flow Rate: 200 gpm Estimated Total Flow: 83,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Melton Hill Lake

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted

Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 4-30-13

Reviewed by Rob Clavin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Notification to TDEC Scott Jackson Title: Operations Manager Date: 5-1-13

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Jenny Stout Title: CITY ENGR FOR Date: 5-1-13



CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 1403 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G11

Manhole # G11-8 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 11:55 AM  PM  End Date: 4/28/2013 Time: 7:55 AM  PM

Duration 8 hrs. hours/minutes Est. Flow Rate: 200 gpm Estimated Total Flow: 96,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint Specialist Date: 4/30/13

Reviewed by Rick Klevin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Jackson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: CITY ENGR. FOR Kathy Stout Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 1403 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KD*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G12 Manhole # G12-2 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 11:55 AM  PM  End Date: 4/28/2013 Time: 7:50 AM  PM

Duration 7 hrs.55 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 23,750 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in] Power Outage  Equipment Failure   
Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Senior Maint Specialist Date: 4/30/13

Reviewed by Rob Clavin Title: Operations & Maint Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Jackson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steven R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 470 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E10 Map Page # F20

Manhole # F20-16 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 1:10 AM  PM  End Date: 4/28/2013 Time: 4:35 AM  PM

Duration 3 hrs. 25 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 10,250 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hr. period

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Senior Maint. Specialist Date: 4/30/13

Reviewed by Rob Klavin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Jackson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steve R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Ally Stout Date: 5-1-13

LOCATION DATA

LOCATION: 535 Oak Ridge Turnpike 1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13A Map Page # G20 Manhole # G20-27 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 1:00 AM  PM  End Date: 4/28/2013 Time: 5:45 AM  PM

Duration 4 hrs. 45 min. hours/minutes Est. Flow Rate: 300 gpm Estimated Total Flow: 85,000 gallons

CAUSES (Check all that apply)

Rainfall  [Estimated amount 2.87 in] Power Outage  Equipment Failure  Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hr. period

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Senior Maint. Specialist Date: 4/30/13

Reviewed by Rick Laurin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Notification to TDEC Scott Jackson Title: Operations Manager Date: 5-1-13

Final Review Steven R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5-1-13



CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 117 N. Purdue Ave. 1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 3/5/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G15 Manhole # G15-13 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 12:20 AM  PM  End Date: 4/28/2013 Time: 7:40 AM  PM

Duration 7 hrs. 20 min. hours/minutes Est. Flow Rate: 400 gpm Estimated Total Flow: 176,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 4-30-13

Reviewed by Kick Lavin Title: Operations + Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Johnson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Stim R. Byrd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Atty Stout Date: 5-1-13



CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 270 Robertsville Rd.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 *KS*

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W10 Map Page # E10

Manhole # E10-20 Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 1:30 AM  PM  End Date: 4/28/2013 Time: 5:30 AM  PM

Duration 4 hrs. hours/minutes Est. Flow Rate: 30 gpm Estimated Total Flow: 7,200 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 4/30/13

Reviewed by Rob Curwin Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification By: David Patterson Date: 4/29/2013

After Review & Scott Jackson Title: Operations Manager Date: 5-1-13  
Notification to TDEC

Final Review Steve R. Boyd Title: Public Works Director Date: 5-1-13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 4/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 191 Tusculum Dr.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 <sup>K9</sup>

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W19 Map Page # H11

Manhole # H11-4

Force Main:

FLOW DATA

Start Date: 4/28/2013 Time: 1:45 AM  PM

End Date: 4/28/2013 Time: 7:05 AM  PM

Duration 5 hrs. 20 min. hours/minutes

Est. Flow Rate: 50 gpm

Estimated Total Flow: 16,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 2.87 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 2.87" in 36 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted

Date:

Names of Responders: David Patterson

Report completed by David Patterson

Title: Senior Maint Specialist Date: 4/30/13

Reviewed by Kirk Lawson

Title: Operations & Maint. Manager Date: 5/1/13

Initial TDEC Notification

By: David Patterson

Date: 4/29/2013

After Review & Scott Johnson  
Notification to TDEC

Title: Operations Manager

Date: 5-1-13

Final Review Steve R. Byrd

Title: Public Works Director

Date: 5-1-13

Final Report Transmitted to TDEC

By: Kathy Stout  
CITY ENGR. FOR

Date: 5-1-13

CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 151 Cairo Ln.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13B Map Page # G22

Manhole # G22-14 Force Main:

FLOW DATA

Start Date: 5/5/2013 Time: 2:15 AM  PM

End Date: 5/6/2013 Time: 8:35 AM  PM

Duration 18 hrs. 20 min. hours/minutes Est. Flow Rate: 100 gpm Estimated Total Flow: 110,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rain 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: city continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: Sewer Maint Specialist Date: 5/7/13

Reviewed by Aick Louvi Title: Operations & Maint Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Kelly Stout Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review W. J. Curder Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kelly Stout Date: 5/8/13

CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 695 Melton Lake Dr.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E20 Map Page # L24

Manhole # L24-1

Force Main:

FLOW DATA

Start Date: 5/5/2013 Time: 2:10 AM  PM

End Date: 5/6/2013 Time: 8:30 AM  PM

Duration 18 hrs. 20 min. hours/minutes

Est. Flow Rate: 200 gpm

Estimated Total Flow: 220,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Melton Hill Lake

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: Senior Maint Specialist Date: 5/7/13

Reviewed by Kick Lewin Title: Operations + Maint Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Scott Pearson Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review W. J. Cund Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13



CITY OF OAK RIDGE

REPORT DATE: 5/6/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 535 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13A Map Page # G20

Manhole # G20-27 Force Main:

FLOW DATA

Start Date: 5/5/2013 Time: 2:25 AM  PM

End Date: 5/6/2013 Time: 8:40 AM  PM

Duration 18 hrs. 15 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 54,750 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rain 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil

Ditch

Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted

Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: San. Main Specialist Date: 5/6/13

Reviewed by Rick Clavin Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Kathleen Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review Greg Curd Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13



CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 117 N. Purdue Ave. 1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G15 Manhole # G15-13 Force Main:

FLOW DATA

Start Date: 5/5/2013 Time: 1:55 AM  PM  End Date: 5/6/2013 Time: 9:00 AM  PM

Duration 19 hrs. 5 min. hours/minutes Est. Flow Rate: 300 gpm Estimated Total Flow: 343,500 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: Sewer Maint Specialist Date: 5/7/13

Reviewed by Rick Lawson Title: Operations & Maint Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Scott Pachon Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review Scott Curd Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13

CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 114 Grandcove Ln. 1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013 ✓

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None

If Manhole; Give Mini-system # W27 Map Page # E3W Manhole # E3W-9 Force Main:

FLOW DATA

Start Date: 5/6/2013 Time: 9:20 AM  PM  End Date: 5/6/2013 Time: 11:40 AM  PM

Duration 2 hrs. 20 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 7,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson Title: Env. Maint. Specialist Date: 5/7/13

Reviewed by Kick Clavin Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Notification to TDEC Kathleen Title: Operations Manager Date: 5-8-13

Final Review [Signature] Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13



CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 216 S. Illinois Ave.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18A Map Page # J11

Manhole # J11-16

Force Main:

FLOW DATA

Start Date: 5/6/2013 Time: 7:50 AM  PM

End Date: 5/6/2013 Time: 9:10 AM  PM

Duration 1 hr. 20 min. hours/minutes

Est. Flow Rate: 50 gpm

Estimated Total Flow: 4,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil

Ditch

Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No

How: City Web Site

The Oak Ridger

Signs Posted

Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson

Title: Senior Maint Specialist

Date: 5/7/13

Reviewed by Rick Laurin

Title: Operations & Maint Manager

Date: 5/8/13

Initial TDEC Notification

By: David Patterson

Date: 5/6/2013

After Review &

Scott Pachon

Title: Operations Manager

Date: 5-8-13

Notification to TDEC

Final Review

[Signature]

Title: Public Works Director

Date: 5/8/13

Final Report Transmitted to TDEC

By: Kathy Stout

Date: 5/8/13

**CITY OF OAK RIDGE**

REPORT DATE: 5/7/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: Iroquois Rd. @ Robertsville Rd.

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18D Map Page # E10

Manhole # E10-19

Force Main:

**FLOW DATA**

Start Date: 5/6/2013 Time: 8:15 AM  PM

End Date: 5/6/2013 Time: 8:15 AM  PM

Duration ? hours/minutes Est. Flow Rate: ? gpm Estimated Total Flow: 1,000 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive Rainfall 3.08" rain in 48 hrs., Manhole showed signs of overflow when checked at 8:15 A.M. on 5/6/2013

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson Title: San. Maint. Specialist Date: 5/7/13

Reviewed by Rick Lewis Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Scott Johnson Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review W. J. Curran Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13

CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 1403 Oak Ridge Turnpike

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5

Map Page # G12

Manhole # G12-2

Force Main:

FLOW DATA

Start Date: 5/6/2013 Time: 8:10 AM  PM

End Date: 5/6/2013 Time: 9:05 AM  PM

Duration 55 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 2750 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive Rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson Title: Sever Maint. Specialist Date: 5/7/13

Reviewed by Kick Churnin Title: Operations & Maint Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Notification to TDEC Scott Jackson Title: Operations Manager Date: 5-8-13

Final Review [Signature] Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/18/13

LOCATION DATA  
LOCATION: 1403 Oak Ridge Turnpike 1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE  
Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None  
If Manhole; Give Mini-system # W5 Map Page # G11 Manhole # G11-8 Force Main:

FLOW DATA  
Start Date: 5/6/2013 Time: 8:05 AM  PM  End Date: 5/6/2013 Time: 11:30 AM  PM   
Duration 3 hrs. 25 min. hours/minutes Est. Flow Rate: 200 gpm Estimated Total Flow: 41,000 gallons

CAUSES  
(Check all that apply)  
Rainfall  [Estimated amount 3.08 in] Power Outage  Equipment Failure   
Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive Rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES  
Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)  
Did flow run to surface water: Yes  No  Name of surface water: Tributary to East Fork Poplar Creek  
Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer   
Basement Back-up  No. of basements Use (i.e., commercial, residential)  
Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith  
Report completed by David Patterson Title: Sen. Maint. Specialist Date: 5/7/13

Reviewed by Kick Lawen Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Notification to TDEC Scott Jackson Title: Operations Manager Date: 5-8-13

Final Review [Signature] Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13

LOCATION: 270 Robertsville Rd. LOCATION DATA  
1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE  
Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None  
If Manhole; Give Mini-system # W10 Map Page # E10 Manhole # E10-20 Force Main:

FLOW DATA  
Start Date: 5/6/2013 Time: 8:20 AM  PM  End Date: 5/6/2013 Time: 8:20 AM  PM

Duration ? hours/minutes Est. Flow Rate: ? gpm Estimated Total Flow: 1,000 gallons

CAUSES  
(Check all that apply)  
Rainfall  [Estimated amount 3.08 in] Power Outage  Equipment Failure   
Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall 3.08" rain in 48 hrs. Manhole showed signs of overflow when checked at 8:20 A.M. on 5/6/2013

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)  
Did flow run to surface water: Yes  No  Name of surface water: East Fork Poplar Creek  
Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer   
Basement Back-up  No. of basements Use (i.e., commercial, residential)  
Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 5/7/13

Reviewed by Rick Laurin Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Scott Jackson Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review [Signature] Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/8/13

CITY OF OAK RIDGE

REPORT DATE: 5/7/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 191 Tusculum Dr. 1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None

If Manhole; Give Mini-system # W19 Map Page # H11 Manhole # H11-4 Force Main:

FLOW DATA

Start Date: 5/6/2013 Time: 8:00 AM  PM  End Date: 5/6/2013 Time: 9:05 AM  PM

Duration 1 hr. 5 min. hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 3,250 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 3.08 in] Power Outage  Equipment Failure   
Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive Rainfall 3.08" rain in 48 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Leon Smith

Report completed by David Patterson Title: Senior Maint. Specialist Date: 5/7/13

Reviewed by Kick Lewis Title: Operations & Maint. Manager Date: 5/8/13

Initial TDEC Notification By: David Patterson Date: 5/6/2013

After Review & Kathy Stout Title: Operations Manager Date: 5-8-13  
Notification to TDEC

Final Review W. Gurd Title: Public Works Director Date: 5/8/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/9/13



CITY OF OAK RIDGE

REPORT DATE: 5/14/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 130 Alger Rd.

1st Occurrence at this location? Y  N  KS

If No, Date of Last Occurrence: 3/3/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E12 Map Page # D23

Manhole # E12-D23-19 Force Main:

FLOW DATA

Start Date: 5/13/2013 Time: 5:46 AM  PM  End Date: 5/13/2013 Time: 8:00 AM  PM

Duration 2hrs 14mins hours/minutes Est. Flow Rate: 1 gpm Estimated Total Flow: 134 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Problem with the slip lined pipe. The pipe's liner is catching debris at the invert in the manhole and caused a blockage in the manhole.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: Old sewer tap was abandoned in this manhole that had caused a sewer backup at 130 Alger Rd. 3/3/13. Manhole will be plugged off and invert inspected for any problems with debris getting caught on the pipe liner causing the manhole to backup.

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water:

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: Mark Daniels, Todd Baker and Doug Farmer

Report completed by Oran Daniel Title: Operator Date: 5-16-13

Reviewed by Kick Loun Title: Operations & Maint. Manager Date: 5/16/13

Initial TDEC Notification By: Mark Daniels Date: 5/14/2013

After Review & Notification to TDEC Kathy Jackson Title: Operations Manager Date: 5-16-13

Final Review [Signature] Title: Public Works Director Date: 5/16/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 5/14/13

CITY OF OAK RIDGE

REPORT DATE: 5/30/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 105 Culver Rd.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence:

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E6 Map Page # H19  
Main:

Manhole # SL:MH:E6-H19-1, MH:E6-G19-1 Force

FLOW DATA

Start Date: 5/29/2013 Time: 1:45 AM  PM  End Date: 5/29/2013 Time: 8:00 AM  PM

Duration ? hours/minutes Est. Flow Rate: ? gpm Estimated Total Flow: 2000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Where a 10" sewer main crosses over a 48" storm drainage pipe. There were some erosion issues at the opening to the drain that eroded the soil between the sewer main and the storm drain pipe causing the sewer main to drop and leak sewer into the storm drain pipe. The sewer was confined in the pipe and a washed out place at the end of the storm drain pipe.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Limed  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: Sewer main was excavated and repaired. Replaced 9' feet of pipe. The sewage was removed from the storm drain pipe using the Vac truck and a trash pump then lime was applied. The storm drain pipe will be repaired and any erosion issues will be corrected.

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water:

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: Tony Morris / David Patterson and Rick Irwin

Report completed by Rick Irwin Title: Operations & Maint. Manager Date: 5/31/13

Reviewed by Jan Hahn Title: Utility Line Maint. Crew Chief Date: 5-31-13

Initial TDEC Notification By: Rick Irwin Date: 5/30/13

After Review & Scott Jackson Title: Operations Manager Date: 6-3-13  
Notification to TDEC

Final Review W. Corder Title: Public Works Director Date: 6/3/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/3/13

**CITY OF OAK RIDGE**

REPORT DATE: 6/12/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: 151 Cairo Lane

1<sup>st</sup> Occurrence at this location? Y  N  *15*

If No, Date of Last Occurrence: 5/5/2013

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13B Map Page # G22

Manhole # G22-14 Force Main:

**FLOW DATA**

Start Date: 6/10/2013 Time: 8:59 AM  PM  End Date: 6/10/2013 Time: 10:42 AM  PM

Duration 1 hr 43 min. hours/minutes Est. Flow Rate: 850 gpm Estimated Total Flow: 87,500 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount .66 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Power Outage due to storm, generator failed to start. Generator had to be started manually.

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: Waste Water maintenance crew will check the generator for any needed repairs.

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No  Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: Sewer Maint. Specialist Date: 6/12/13

Reviewed by Kick Lawin Title: Operations & Maint. Manager Date: 6/13/13

Initial TDEC Notification By: Brian Simmons Date: 6/10/2013

After Review & Kott Johnson Title: Operations Manager Date: 6-13-13  
Notification to TDEC

Final Review Mag Curran Title: Public Works Director Date: 6/13/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/13/13

CITY OF OAK RIDGE

REPORT DATE: 6/12/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 695 Melton Lake Dr.

1st Occurrence at this location? Y  N  FS

If No, Date of Last Occurrence: 5/5/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E20 Map Page # L24

Manhole # L24-1

Force Main:

FLOW DATA

Start Date: 6/10/2013 Time: 8:45 AM  PM  End Date: 6/10/2013 Time: 11:00 AM  PM

Duration 2 hrs.15 min hours/minutes Est. Flow Rate: 50 gpm Estimated Total Flow: 6,750 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount .66 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Power Outage due to storm

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Limed  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Melton Hill Lake

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Brian Simmons

Report completed by David Patterson Title: Senior Maint Specialist Date: 6/12/13

Reviewed by Kick Lauri Title: Operations & Maint. Manager Date: 6/13/13

Initial TDEC Notification By: Brian Simmons Date: 6/10/2013

After Review & Scott Johnson Title: Operations Manager Date: 6-13-13  
Notification to TDEC

Final Review Jay Cunden Title: Public Works Director Date: 6/13/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/13/13

**CITY OF OAK RIDGE**

REPORT DATE: 6/20/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: 151 Cairo Ln.

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 6/10/2013

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E13B Map Page # G22

Manhole # G22-14

Force Main:

**FLOW DATA**

Start Date: 6/18/2013 Time: 12:55 AM  PM

End Date: 6/18/2013 Time: 2:25 AM  PM

Duration 1hr.30 min. hours/minutes

Est. Flow Rate: 750 gpm

Estimated Total Flow: 67,500 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall received .97" of rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs.

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil

Ditch

Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No

How: City Web Site

The Oak Ridger

Signs Posted

Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson

Title: Senior Maint Specialist Date: 6/20/13

Reviewed by Rick Lounis

Title: Operations & Maint Manager Date: 6/21/13

Initial TDEC Notification

By: David Patterson

Date: 6/19/2013

After Review & Scott Johnson  
Notification to TDEC

Title: Operations Manager

Date: 6-24-13

Final Review Greg Curran

Title: Public Works Director

Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout

Date: 6/24/13

**CITY OF OAK RIDGE**

REPORT DATE: 6/19/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: 213 S. Dillard Ave.

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence:

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W4 Map Page # K10

Manhole # K10-12 Force Main:

**FLOW DATA**

Start Date: 6/18/2013 Time: 11:45 AM  PM  End Date: 6/18/2013 Time: 12:00 AM  PM

Duration 15 min. hours/minutes Est. Flow Rate: 100 gpm Estimated Total Flow: 1500 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Ran Root saw and removed 2 gal.rags.

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other:

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No  Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Anthony Morris, Pat Mrochek, Mark Maples

Report completed by David Patterson Title: Senior Maint Specialist Date: 6/20/13

Reviewed by Kick Lewis Title: Operations & Maint. Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Notification to TDEC Kelly Jackson Title: Operations Manager Date: 6-24-13

Final Review Ray Corder Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

**CITY OF OAK RIDGE**

REPORT DATE: 6/20/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: 216 South Illinois Ave.

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 5/6/2013

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18A Map Page # J11

Manhole # J11-16

Force Main:

**FLOW DATA**

Start Date: 6/18/2013 Time: ? AM  PM  End Date: 6/18/2013 Time: 2:15 AM  PM

Duration ? hours/minutes Est. Flow Rate: ? gpm Estimated Total Flow: 1000 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall received .97" of rainfall in 45 min. period. Total rainfall 1.77" in 6 hrs. Manhole was not overflowing but showed signs that an overflow had occurred.

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Limed  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No

Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Senior Maint. Specialist Date: 6/20/13

Reviewed by Kathy Stout Title: Operations & Maint. Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Notification to TDEC Scott Jackson Title: Operations Manager Date: 6-24-13

Final Review Ray Curran Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

CITY OF OAK RIDGE

REPORT DATE: 6/20/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 324 South Illinois Ave.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W18A Map Page # J12

Manhole # J12-11

Force Main:

FLOW DATA

Start Date: 6/18/2013 Time: 1:00 AM  PM  End Date: 6/18/2013 Time: 1:30 AM  PM

Duration 30 min hours/minutes Est. Flow Rate: 20 gpm Estimated Total Flow: 600 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 1.77 in] Power Outage  Equipment Failure

Broken Sewer  Blocked line from Roots  Grease  Collapse  Other

Explain causes of overflow: Excessive rainfall received .97" of rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs. Manhole showed signs overflow had occurred at 1:30pm.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements Use (i.e., commercial, residential) Commercial, Papa Johns Pizza

Other (describe) Sewer backed up into mop sink and around toilet and underneath back door. See attached incident report.

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: Rick Irwin, Anthony Morris, David Patterson, Pat Mrochek

Report completed by David Patterson Title: Sewer main Specialist Date: 6/20/13

Reviewed by Rick Irwin Title: Operations & Maint Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Notification to TDEC Kathy Stout Title: Operations Manager Date: 6-24-13

Final Review Pat Mrochek Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

LOCATION: 695 Melton Lake Dr. LOCATION DATA  
1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 6/10/2013

POINT OF OCCURENCE  
Manhole  Clean Out  In-House Backup  Pump Station Name: None or None or None  
If Manhole; Give Mini-system # E20 Map Page # L24 Manhole # L24-1 Force Main:

FLOW DATA  
Start Date: 6/18/2013 Time: 12:45 AM  PM  End Date: 6/18/2013 Time: 6:15 AM  PM   
Duration 5 hr. 30 min. hours/minutes Est. Flow Rate: 200 gpm Estimated Total Flow: 66,000 gallons

CAUSES  
(Check all that apply)  
Rainfall  [Estimated amount 1.77 in] Power Outage  Equipment Failure   
Broken Sewer  Blocked line from Roots  Grease  Collapse  Other   
Explain causes of overflow: Excessive rainfall received .97" of rainfall in 45 min. period. Total rainfall 1.77" in 6 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES  
Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair   
Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I  
WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No  Name of surface water: Melton Hill Lake  
Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer   
Basement Back-up  No. of basements Use (i.e., commercial, residential)  
Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek  
Report completed by David Patterson Title: Senior Maint Specialist Date: 6/20/13

Reviewed by Rich Lawin Title: Operations Maint Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Scott Jackson Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review W. Corder Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

CITY OF OAK RIDGE

REPORT DATE: 6/20/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 1403 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 5/6/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5

Map Page # G12

Manhole # G12-2

Force Main:

FLOW DATA

Start Date: 6/18/2013 Time: 1:47 AM  PM

End Date: 6/18/2013 Time: 3:17 AM  PM

Duration 1 hr 30 min. hours/minutes

Est. Flow Rate: 100 gpm

Estimated Total Flow: 9,000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall Received .97" rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Sewer Maint Specialist Date: 6/20/13

Reviewed by Rick Lewis Title: Operations & Maint Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Scott Johnson Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review W. J. Cund Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 4/24/13

LOCATION DATA

LOCATION: 1403 Oak Ridge Turnpike

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 1/30/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5

Map Page # G12

Manhole # G12-1

Force Main:

FLOW DATA

Start Date: 6/18/2013 Time: 1:50 AM  PM

End Date: 6/18/2013 Time: 3:20 AM  PM

Duration 1hr. 30 min. hours/minutes

Est. Flow Rate: 100 gpm

Estimated Total Flow: 9000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall received .97" rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Senior Maint Specialist Date: 6/20/13

Reviewed by Rick Lawin Title: Operations Maint Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Kathy Stout Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review Kathy Stout Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

**CITY OF OAK RIDGE**

REPORT DATE: 6/20/2013

**SANITARY SEWER OVERFLOW FINAL REPORT**

NPDES PERMIT # TN0024155

**LOCATION DATA**

LOCATION: 1403 Oak Ridge Turnpike

1<sup>st</sup> Occurrence at this location? Y  N

If No, Date of Last Occurrence: 5/6/2013

**POINT OF OCCURENCE**

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G11

Manhole # G11-8 Force Main:

**FLOW DATA**

Start Date: 6/18/2013 Time: 1:45 AM  PM

End Date: 6/18/2013 Time: 3:15 AM  PM

Duration 1 hr 30 min. hours/minutes Est. Flow Rate: 300 gpm Estimated Total Flow: 27,000 gallons

**CAUSES**

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse  Other

Explain causes of overflow: Excessive rainfall Received .97" rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs.

**REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES**

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

**WHERE DID DISCHARGE GO (Check all that apply)**

Did flow run to surface water: Yes  No

Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Sewer Maint. Supervisor Date: 6/20/13

Reviewed by Rick Curran Title: Operations & Maint. Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Scott Johnson Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review Greg Curran Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

CITY OF OAK RIDGE

REPORT DATE: 6/20/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 470 Oak Ridge Turnpike

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 4/28/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # E10 Map Page # F20

Manhole # F20-16 Force Main:

FLOW DATA

Start Date: 6/18/2013 Time: ? AM  PM  End Date: 6/18/2013 Time: 1:10 AM  PM

Duration ? hours/minutes Est. Flow Rate: ? gpm Estimated Total Flow: 1000 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall received .97" of rainfall in a 45 min. period. Total rainfall 1.77" in 6 hrs. Manhole was not overflowing but showed signs that an overflow had occurred.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Ernies Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Sewer Maint. Supervisor Date: 6/20/13

Reviewed by Kathy Stout Title: Operations & Maint. Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Kathy Stout Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review Kathy Stout Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

CITY OF OAK RIDGE

REPORT DATE: 6/20/2013

SANITARY SEWER OVERFLOW FINAL REPORT

NPDES PERMIT # TN0024155

LOCATION DATA

LOCATION: 117 N. Purdue Ave.

1st Occurrence at this location? Y  N

If No, Date of Last Occurrence: 5/5/2013

POINT OF OCCURENCE

Manhole  Clean Out  In-House Backup

Pump Station Name: None or None or None

If Manhole; Give Mini-system # W5 Map Page # G15

Manhole # G15-13 Force Main:

FLOW DATA

Start Date: 6/18/2013 Time: 1:35 AM  PM  End Date: 6/18/2013 Time: 6:30 AM  PM

Duration 4 hrs. 55 min. hours/minutes Est. Flow Rate: 2,300 gpm Estimated Total Flow: 678,500 gallons

CAUSES

(Check all that apply)

Rainfall  [Estimated amount 1.77 in]

Power Outage

Equipment Failure

Broken Sewer

Blocked line from Roots

Grease

Collapse

Other

Explain causes of overflow: Excessive rainfall received .97" of rainfall in 45 min. period. Total rainfall 1.77" in 6 hrs.

REMEDIAL MEASURES TO CORRECT, PREVENT OR MINIMIZE FUTURE OCCURANCES

Line was: Jet Rodded  Nozzle  Root Saw  Lid Removed  Lined  Equipment Repair

Line will be: cleaned and TV'd for needed repair:  Other: City continues work to correct I&I

WHERE DID DISCHARGE GO (Check all that apply)

Did flow run to surface water: Yes  No

Name of surface water: Tributary to East Fork Poplar Creek

Ran on/in: Ground & absorbed into soil  Ditch  Storm Sewer

Basement Back-up  No. of basements

Use (i.e., commercial, residential)

Other (describe)

Notified Public: Yes  No  How: City Web Site  The Oak Ridger  Signs Posted  Date:

Names of Responders: David Patterson, Pat Mrochek

Report completed by David Patterson Title: Sewer Maint Specialist Date: 6/20/13

Reviewed by Kirk Brown Title: Operations & Maint. Manager Date: 6/21/13

Initial TDEC Notification By: David Patterson Date: 6/19/2013

After Review & Kirk Brown Title: Operations Manager Date: 6-24-13  
Notification to TDEC

Final Review [Signature] Title: Public Works Director Date: 6/24/13

Final Report Transmitted to TDEC By: Kathy Stout Date: 6/24/13

**APPENDIX A:**

**Y-12 QUARTERLY  
REPORT**



**Status of Y-12 National Security Complex  
Sanitary Sewer Inflow and Infiltration Program  
June 30, 2013**

Analysis of data from the in-system flow meters has revealed that the Biology Complex is not totally isolated as originally thought. A downstream manhole has been identified on an abandoned line which will be permanently plugged with flowable fill. This is currently scheduled to take place the last week of July 2013.

A team from the engineering, utilities and environmental organizations has been formed and chartered to develop a comprehensive report of the data gathered to date and a recommendation for a path forward. The team identified general areas of the Y-12 Complex and phased the order in which they should be addressed. Recommendations from this team include procuring the services of an experienced third party contractor to perform inspections, lining and possible isolations.

Phase I of this activity includes:

- Initial site visit by vendor and discussions. (Completed June 2013)
- Vendor preparing pricing for Phases Ia and Ib. (In progress)
- Inspection and lining of piping identified as Phases Ia and Ib. Subject to funding approval. (Late summer or early fall 2013)

Phase II and beyond will be identified based on vendor performance and availability of funding.

The following is a summary of outstanding issues presented in previous reports and their current status.

- A lateral from the slab of a demolished building (9720-6) was not properly plugged. This will be corrected during the third quarter 2012. *Current Status – This is an abandoned lateral from the building slab and is not considered to be a significant source of infiltration. As an interim measure, known inflow entry points have been plugged at the slab.*
- Via visual observation of two in-line manholes, it appears a small amount of groundwater was entering the pipe. A video surveillance is planned for the third quarter 2012 to better identify the location and severity of infiltration. *Current Status - Video inspection was conducted and small cracks were seen in the vitrified clay pipe. This will be further addressed in a future phase.*
- Smoke was observed in a grassy area that will require a video inspection and probable excavation to identify and correct the source. This smoke test was conducted on June 19, 2012, and witnessed by inspectors from the U.S. Environmental Protection Agency during their multi-media inspection of the Y-12 Complex. *Current Status – Inspection and lining of this length of pipe may potentially be included as part of Phase Ib.*
- Four openings on a demolished building slab north of Building 9201-5 were recently identified. These opening have been sealed.