



August 8, 2013

System Performance Annual Report  
North Carolina Division of Water Quality  
1617 Mail Service Center  
Raleigh, NC 27699-1617

Re: Performance Annual Report

Enclosed are three copies of the referenced report. A copy of this report is posted at the Municipal Building for public availability and is posted on the Town's website at [www.townofwaynesville.org](http://www.townofwaynesville.org).

I certify under penalty of law that this report is complete and accurate to the best of my knowledge. I further certify that this report has been made available to the users or customers of Waynesville and that those users have been notified of its availability.

Sincerely,

A handwritten signature in black ink, appearing to read "Fred Baker", is written over the word "Sincerely,".

Frederick L. Baker, P.E.  
Director of Public Works

FLB:gb

## 2012-2013 System Performance Annual Report

(Submitted as required by NC General Assembly House Bill 1160 Clean Water Act of 1999)

Reporting Period: FY 2012-2013: July 1, 2012 – June 30, 2013

### I. General Information

Name of regulated entity: Town of Waynesville

Responsible entity/person/contact: Frederick L. Baker, PE Director of Public Works

Mailing address: P.O. Box 100 Waynesville, NC 28786

Phone number: 828-456-4410

Facility located at: WWTP located at 556 Walnut Trail

County: Haywood

DWQ Regional Office: Asheville

Listing of applicable permits and description of system components:

**Collection System WQCS00039** consists of approximately 69 miles of gravity sewer pipeline ranging in diameter from 6 inches to 30 inches. The Town has no sewage pump stations. High priority lines requiring inspections once per every six month period of time consist largely of aerial stream crossings and interceptor lines in easement areas not normally in public view.

**Wastewater Treatment Plant NC 0025321** is a 6.0 MGD conventional activated sludge WWTP consisting of: 24-inch Palmer Bowlus flume; Isco 4210 ultrasonic instrumented flow measurement with circular chart recorder and totalizer; influent composite sampler; Parkson Aquaguard AG-MN-A automatic influent bar screen with 0.56" screen opening; 17,160 gallon (16 ft l x 13 ft w x 11 ft d) aerated grit chamber with 7.5 HP air lift blower, 3 HP aerator blower, 400 gpm Combs grit separator; dual 0.3 Mgal each (80 ft. dia. X 8 ft. d) circular primary clarifiers with oil skimmers, 1500 gallon grease collection tank, dual Dorr Oliver primary sludge withdrawal pumps with 33,120 gpd maximum capacity; primary effluent lift station with three 2500 gpm Gorman Rupp suction pumps; four 0.5 Mgal each (189 ft l x 29 ft w x 8 ft d) rectangular aeration basins with coarse air diffusion provided by four (3500 gpm each) Hoffman Centrifugal compressors; dual 0.48 M gal each (148 ft l x 55 ft w x 8 ft d) rectangular secondary clarifiers with floating bridge continuous vacuum siphon, dual 10-in. centrifugal return sludge pumps; 4-in. centrifugal waste activated sludge (WAS) pump to secondary gravity thickener; 6 MGD chlorine mixer; 130,000 gallon (74 ft l x 48 ft w x 5 ft d) chlorine contact chamber dual gaseous chlorine injectors (200 lbs/day capacity); dual 5 ft rectangular weirs; dual feed gaseous sulfur dioxide dechlorination equipment; effluent composite sampler; 180 KW emergency generator (serves prim eff p/s, RAS pumps, secondary clarifiers & laboratory); 28,495 gal (22 ft dia x 1 ft d) circular primary sludge gravity thickener with 3-inch Dorr Oliver air diaphragm pump and 3-inch progressive cavity pump to anaerobic digester; 46,158 gal (28 ft dia x 10 ft d) circular secondary sludge gravity thickener, with 3-inch progressive cavity pump to anaerobic digester; 487,485 gal (60 ft dia x 23 ft d) gas-mixed floating-cover circular anaerobic digester with 50,000 BTU sludge heater, 4-inch centrifugal recirculation pump and 4-inch progressive cavity withdrawal pump; 1.5 meter (upgraded in 2001) belt filter press; lime stabilization with kiln dust & agricultural lime (24 ton lime silo); RDP Technologies (sludge & lime) Thermoblender with external heat source; lime volume control screw conveyor; agricultural lime volume control screw conveyor; sludge screw conveyor; 30 minute detention time in-vessel pasteurization with external heat source; finished product conveyor; and covered biosolids storage area.



WWTP serves	Population	Ownership
Town of Waynesville	9800	municipal
Junaluska Sanitary District	3880	sanitary district
Lake Junaluska Assembly	1150	private
Town of Clyde	1500	municipal
Town of Maggie Valley	100	municipal
Total Population Served	16,330	

**Blend Processing and Distribution of Residuals Facility WQ 0013116** consists of lime stabilization equipment manufactured by RDP Technologies, Inc. Anaerobic digested sludge is dewatered then blended with quick lime and agricultural lime. This mixture is then passed through a pasteurization vessel at a temperature of 158 degrees Fahrenheit or greater for 30 minutes.

## II. Collection System WQCS00039 System Performance Annual Summary

### A. Description of overall 12-month performance noting highlights and deficiencies:

July 2012	7/7/12 SSO on 209 at County Fairgrounds
August 2012	Replace Boundary St. manhole, greasetrap NOV to LRCC
September 2012	
October 2012	
November 2012	
December 2012	
January 2013	1/14 & 1/31/13 SSOs on 209, Howell Mill Rd. and Hazelwood; Nelson Park 180 LF sanitary sewer replacement
February 2013	Begin sanitary sewer replacement-Brook, Spruce, Poplar; Issued PO to P&L Utilities (\$18,375) for cleaning, root cutting, & tv inspection on Hwy 209 24" trunk sewer
March 2013	Replaced sanitary sewer, manholes & laterals on Brook Street; Heavy clean & tv inspection Georgia Ave. 10" sanitary sewer
April 2013	Replaced sanitary sewer, manholes & laterals on Brook Street
May 2013	Replaced sanitary sewer, manholes & laterals on Brook Street; Dukes Root Control-Hwy 209-3,500 LF on 24" trunk sewer
June 2013	Replaced sanitary sewer, manholes & laterals on Brook Street

B. By month, list of the number and type of any violations of permit conditions, environmental regulations or environmental laws, including (but not limited to):

1. Permit Limit Violations (NOVs and Civil Assessments):

July 2012		None	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			

2. Monitoring and Reporting Violations (NOVs and Civil Assessments) (illegal) bypass of treatment facilities\*

July 2012		None	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			



3. Sanitary Sewer Overflows\* (NOVs and Civil Assessments)

\*Note estimated total monthly volumes and locations of events in which more than 1,000 gallons of waste reached surface waters.

July 2012	7/7/12 SSO on 209 (Crabtree Rd.) at County Fairgrounds estimated 9,000 gallons NOV-2012-DV-0157
August 2012	
September 2012	
October 2012	
November 2012	
December 2012	
January 2013	Jan 14-20: SSOs on Hwy 209 at bar screen on Howell Mill Rd. and on Georgia Ave. estimated 1.1 million gallons, NOV-2013-DV-0042, severe natural condition Jan 30-31: SSOs on Hwy 209, Howell Mill Rd., Lynn St., South Main St., estimated 290,000 gallons, NOV-2013-DV-0045, severe natural condition
February 2013	
March 2013	
April 2013	
May 2013	
June 2013	

C. Description of any known environmental impact of violations:

July 2012	No known impact, 3.2 inches rain in 3 hours
August 2012	
September 2012	
October 2012	
November 2012	
December 2012	
January 2013	No known impact. Very heavy rains, high stream flows and dilute wastewater.
February 2013	
March 2013	
April 2013	
May 2013	
June 2013	

D. Description of corrective measures taken to address violations and deficiencies:

July 2012	
August 2012	Replace Boundary St. manhole; tv sewer on Maxima Ln. & locate manhole; seal 209 manhole cover; NOV LRCC greasetrap
September 2012	Dye testing Brunswick; point repairs on Sulphur Springs sewer
October 2012	Rolling Drive manhole & service
November 2012	WCC sewer creek crossing
December 2012	
January 2013	Replace Nelson Park sanitary sewer (directional bore)
February 2013	Issue PO to P&L Utilities (\$18,375) for cleaning, root cutting and tv inspection Hwy 209 trunk and Georgia Ave. 10" sanitary sewer; Begin sanitary sewer replacements Brook, Spruce and Poplar
March 2013	Complete heavy clean & tv Georgia Ave. 10" sanitary sewer Continue sanitary sewer, manhole & lateral replacements on Brook St.
April 2013	Continue sanitary sewer, manhole & lateral replacement on Brook St.
May 2013	Dukes Root Control treats 3,500 LF 24" trunk sewer on Hwy 209 Continue sanitary sewer, manhole & lateral replacements on Hazelwood Ave.
June 2013	Sulphur Springs Rd. point repair

II. **Wastewater Treatment Plant NC0025321** System Performance Annual Summary:

E. Description of overall 12 month performance, noting highlights and deficiencies:

July 2012	93% / 97% 2.90 MGD removal efficiencies & flow
August 2012	96% / 97% 2.67 MGD
September 2012	97% / 97% 2.48 MGD
October 2012	97% / 97% 2.81 MGD 3.78 BOD/5.91 TSS effluent quality
November 2012	97% / 97% 2.27 MGD Lowest monthly ADF since 2008
December 2012	95% / 95% 3.1 MGD Excellent performance in 2012
January 2013	83% / 91% 4.12 MGD
February 2013	82% / 88% 4.8 MGD Low infl BOD (67.5), wet weather I/I
March 2013	86% / 92% 4.19 MGD
April 2013	87% / 93% 4.27 MGD
May 2013	90% / 95% 3.97 MGD
June 2013	94% / 96% 3.21 MGD 5.65 BOD/5.90 TSS back to good warm weather performance

- F. By month, list of the number and type of any violations of permit conditions, environmental regulations or environmental laws, including (but not limited to):
4. Permit Limit Violations (NOVs and Civil Assessments):

July 2012		Fully compliant for twelve-month period	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			

5. Monitoring and Reporting Violations (NOVs and Civil Assessments) (illegal) bypass of treatment facilities\*

July 2012		Fully compliant for twelve-month period	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			



6. Sanitary Sewer Overflows\* (NOVs and Civil Assessments)

\*Note estimated total monthly volumes and locations of events in which more than 1,000 gallons of waste reached surface waters.

July 2012		See collection System, no overflows from WWTP	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			

G. Description of any known environmental impact of violations:

July 2012		None	
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			

H. Description of corrective measures taken to address violations or deficiencies

July 2012			
August 2012			
September 2012			
October 2012			
November 2012			
December 2012			
January 2013			
February 2013			
March 2013			
April 2013			
May 2013			
June 2013			

n/a

III. Notification

A copy of this report is posted on the bulletin board at the Municipal Building and published on the Town's website.

IV. Certification

A. Certified Operators in Responsible Charge:

WWTP ORC:	David Smith	Cert. # 7478	WW IV
WWTP back-up ORC:	Ronnie D. Norris	Cert. # 11444	WW IV
Collection System ORC:	Wentfard Henson	Cert. # 24712	CS 3
	Wentfard Henson	Cert. # 8289	WW II
Collection System back-up ORC:	Jeff Stines	Cert. # 987994	CS 4

B. Statement by a responsible official certifying the report is accurate and complete:

I, Frederick L. Baker, certify that this report is accurate and complete, to the best of my knowledge.

Signature of responsible official and date of report:

Frederick L. Baker  
Name

6/9/13  
Date

# **Annual Sewer Report**

**July 1, 2012  
Thru  
June 30, 2013**





North Carolina Department of Environment and Natural Resources

Division of Water Quality

Charles Wakild, P.E.

Director

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

**August 15, 2012**

**CERTIFIED MAIL**

**RETURN RECEIPT REQUESTED**

**7010 1870 0003 0874 9070**

Mr. Frederick L. Baker, P.E.  
Director of Public Works  
Town of Waynesville  
PO Box 100  
Waynesville, NC 28786

Subject: **NOTICE OF VIOLATION**  
**NOV-2012-DV-0157**  
Permit No. WQCS00039  
Town of Waynesville  
Waynesville Collection System  
Haywood County

Dear Mr. Baker:

A review has been conducted of the Waynesville Collection System's self reported Sanitary Sewer Overflow (SSO) 5-Day Report submitted by the Town of Waynesville. This review has shown the subject facility to be in violation of the requirements found in Collection System Permit WQCS00039 and/or G.S. 143-215.1(a)(1). The violation that occurred is summarized below.

Area	Violation Date	Description	Violation Type
SSO	7-31-2012	<b>Sanitary Sewer Overflow 9,000 gallons to Richland Creek</b>	<b>Discharge Without Valid Permit Incident # 201201318</b>

Remedial actions should be taken to correct this problem. The Division of Water Quality may pursue enforcement action for this and any additional violations of State law. You should address the causes of noncompliance and all actions taken to prevent the recurrence of similar situations.

In the future, when identifying the cause of the SSO as being a "severe natural condition", please provide documentation (such as local weather data) to support this condition, in the 5-day report.

SURFACE WATER PROTECTION SECTION - ASHEVILLE REGIONAL OFFICE

Location: 2090 U.S. Highway 70, Swannanoa, North Carolina 28778

Phone: 828-296-4500 \ FAX: 828-299-7043

Internet: [www.ncwaterquality.org](http://www.ncwaterquality.org)

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## PRESS RELEASE

August 3, 2012

CONTACT: Fred Baker (828) 456-4410

### NOTIFICATION OF WASTEWATER SPILL IN HAYWOOD COUNTY

The Town of Waynesville had a discharge of untreated wastewater from a sanitary sewer line located along NC 209, Crabtree Road adjacent to Richland Creek and the County fairgrounds. The spill amount is estimated at 9,000 gallons. The sanitary sewer overflow was discovered around noon, July 31<sup>st</sup> during heavy rainfall. Its duration was approximately two hours. Diluted but untreated wastewaters entered Richland Creek. The discharge ended when rainfall and stream flows subsided. The area affected was raked, cleaned and limed. Maintenance activities and sewer system rehabilitation are being performed to identify and correct infiltration and inflow sources connected to the sewer system to prevent overflows in the event of future storms. Sealed, floodproof manhole frames and covers have been installed at the SSO manholes. This notice was required by North Carolina General Statutes 143-215. For more information contact Fred Baker, Director of Public Works at (828) 456-4410.



Form CS-SSO  
Collection System Sanitary Sewer Overflow Reporting Form

PART I

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the sanitary sewer overflow (SSO).

Permit Number: WQCS 00039

(WQCS# if active, otherwise use treatment plant NC/WQ#)

Facility: Town of Waynesville

Owner: Town of Waynesville

City: Waynesville

Incident # \_\_\_\_\_

Region: Western

County: Haywood

Source of SSO (check applicable):



Sanitary Sewer



Pump Station

SPECIFIC location of the SSO (be consistent in description from past reports or documentation - i.e. Pump Station 6, Manhole at Westall & Bragg Street, etc.): Hwy 209 across from Augustal Center

Latitude (degrees/minute/second): \_\_\_\_\_

Longitude (degrees/minute/second): \_\_\_\_\_

Incident Started Dt: 7-31-12  
(mm-dd-yyyy)

Time: 12:00  
hh:mm AM/PM

Incident End Dt: 7-31-12  
(mm-dd-yyyy)

Time: 2:00  
hh:mm AM/PM

Estimated volume of the SSO: 9,000 gallons

Estimated Duration (Round to nearest hour): 2 hrs.

Describe how the volume was determined: 4500 GPH x 2 HRS.

Weather conditions during SSO event: Heavy Rain 3.2 inches in ground 3 hrs

Did SSO reach surface waters? ☐ Yes ☐ No ☐ Unknown

Volume reaching surface waters (gallons): 9,000

Surface water name: Richland Creek

Did the SSO result in a fish kill? ☐ Yes ☒ No ☐ Unknown

If Yes, what is the estimated number of fish killed? \_\_\_\_\_

SPECIFIC cause(s) of the SSO:



Severe Natural Condition



Grease



Roots



Inflow and Infiltration



Pump Station Equipment Failure



Power outage



Vandalism



Debris in line



Other (Please explain in Part II)

Immediate 24-hour verbal notification reported to:



DWQ



Emergency Mgmt.

Date (mm-dd-yyyy): 7-31-12 Time (hh:mm AM/PM): 12:30 PM

If an SSO is ongoing, please notify Regional Office on a daily basis until SSO can be stopped.

Per G.S. 143-215.1C(b), the responsible party of a discharge of 1,000 gallons or more of untreated wastewater to surface waters shall issue a press release within 48-hours of first knowledge to all print and electronic news media providing general coverage in the county where the discharge occurred. When 15,000 gallons or more of untreated wastewater enters surface waters, a public notice shall be published within 10 days and proof of publication shall be provided to the Division within 30 days. Refer to the referenced statute for further detail.

The Director, Division of Water Quality, may take enforcement action for SSOs that are required to be reported to Division unless it is demonstrated that:

- 1) the discharge was caused by severe natural conditions and there were no feasible alternatives to the discharge; or
- 2) the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Part II must be completed to provide a justification claim for either of the above situations. This information will be the basis for the determination of any enforcement action. Therefore, it is important to be as complete as possible.

WHETHER OR NOT PART II IS COMPLETED, A SIGNATURE IS REQUIRED AT THE END OF THIS FORM.





Form CS-SSO  
Collection System Sanitary Sewer Overflow Reporting Form

PART II

ANSWER THE FOLLOWING QUESTIONS FOR EACH RELATED CAUSE CHECKED IN PART I OF THIS FORM AND INCLUDE THE APPROPRIATE DOCUMENTATION AS REQUIRED OR DESIRED

COMPLETE ONLY THOSE SECTIONS PERTAINING TO THE CAUSE OF THE SSO AS CHECKED IN PART I

In the check boxes below, NA = Not Applicable and NE = Not Evaluated

A HARDCOPY OF THIS FORM SHOULD BE SUBMITTED TO THE APPROPRIATE DWQ REGIONAL OFFICE UNLESS IT HAS BEEN SUBMITTED ELECTRONICALLY THROUGH THE ONLINE REPORTING SYSTEM

Severe Natural Condition (hurricane, tornado, etc.)

Describe the "severe natural condition" in detail.

We recieved 3.2" of Rain in aproximately 3 hrs.

How much advance warning did you have and what actions were taken in preparation for the event?

Comments: We had no warning that we was going to  
recieve this amount of Rain

Grease (Documentation such as cleaning, inspections, enforcement actions, past overflow reports, educational material and distribution date, etc. should be available upon request.)

When was the last time this specific line (or wet well) was cleaned?

Do you have an enforceable grease ordinance that requires new or retrofit of grease traps/interceptors?

☐ Yes ☐ No ☐ NA ☐ NE

Have there been recent inspections and/or enforcement actions taken on nearby restaurants or other nonresidential grease contributors?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

Have there been other SSOs or blockages in this area that were also caused by grease?

☐ Yes ☐ No ☐ NA ☐ NE

When?

If yes, describe them:

Have cleaning and inspections ever been increased at this location?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: Wentford Lee Henson

Date: 8-1-12

Signature: Wentford Lee Henson

Title: Line Maint crew leader

Telephone Number: 828-456-3706

Any additional information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the SSO with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).



North Carolina Department of Environment and Natural Resources

Division of Water Quality

Pat McCrory  
Governor

Charles Wakild, P. E.  
Director

John E. Skvarla III  
Secretary

February 15, 2013

Mr. Frederick L. Baker, PE  
Director of Public Works  
Town Of Waynesville  
PO Box 100  
Waynesville NC 28786

Subject: **NOTICE OF VIOLATION**  
**NOV-2013-DV-0042**  
Permit No. WQCS00039  
Town Of Waynesville  
Waynesville Collection System  
Haywood County

Dear Mr. Baker:

A review has been conducted of the Town of Waynesville Collection System's self reported Sanitary Sewer Overflows (SSO's) 5-Day Report/s submitted by Town Of Waynesville. This review has shown the subject facility to be in violation of the requirements found in Collection System Permit WQCS00039 and/or G.S. 143-215.1(a)(1). The violation that occurred is summarized below.

Area	Violation Date	Description	Violation Type
CSO/SSO (Sewer Overflow) Richland Creek at Howell Mill Road DWQ Incident 20130091	01/14/2013	Sanitary Sewer Overflow 1.1 million gallons into Richland Creek	Discharge Without Valid Permit Severe Natural Condition

Remedial actions should be taken to correct this problem. The Division of Water Quality may pursue enforcement action for this and any additional violations of State law.

You should address the causes of noncompliance and all actions taken to prevent the recurrence of similar situations. If you should have any questions, please do not hesitate to contact Asheville Regional Staff at 828-296-4500.

Sincerely,

Chuck Cranford, Regional Supervisor  
Surface Water Protection Section  
Asheville Regional Office

Cc: DWQ ARO Files  
DWQ Central Files  
PERCS Unit

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SURFACE WATER PROTECTION – ASHEVILLE REGIONAL OFFICE

Location: 2090 U.S. Highway 70, Swannanoa, NC 28778

Phone: (828) 296-4500\FAX: 828 299-7043

Internet: [www.ncwaterquality.org](http://www.ncwaterquality.org)

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## Town of Waynesville

January 23, 2013

Mr. Chuck Cranford, Supervisor  
North Carolina Department of Environment & Natural Resources  
Surface Water Protection Section – ARO  
2090 US Highway 70  
Swannanoa, NC 28778

Re: 5-Day SSO Report, WQCS 00039  
January 14-20, 2013

Dear Mr. Cranford:

I have additional information to supplement Part II of the SSO report that Mr. Wentfard Henson, the Town's ORC recently submitted.

The hourly precipitation data from NC CRONOS Database: Mountain Research Station shows a four day precipitation total of 7.89 inches from Monday January 14<sup>th</sup> – Thursday January 17<sup>th</sup>. TVA data from the Waynesville Water Treatment Plant recorded 7.62 inches. We know from previous SSO reports (12/7/11) at the Howell Mill bar screen that intensities greater than 0.25 inches/hour cause problems with sewer capacities so we were watching carefully at the bar screen. Hourly precipitation on January 14<sup>th</sup> were recorded at 0.21 inches at 10:00 AM, 0.27 inches at 11:00, 0.28 inches at 12:00, 0.29 inches at 13:00, 0.38 inches at 14:00 and 0.23 inches at 15:00. The overflow began after 13:00 and cleaning the bar screen was not an issue. Raking the screen had no impact on the flow levels. The SSO was actually exiting the manhole immediately upstream from the bar screen about 10 feet outside the fence.

Light but continuous rain overnight Monday and through Tuesday allowed SSOs to abate briefly on Wednesday but intense rainfall of 0.27 inch/hour; 0.31 inches/hour; 0.23 inches/hour from 1 PM to 4 PM January 17<sup>th</sup> and stream flooding along Richland Creek increased the intensity of the peak discharge which tapered off until ending Saturday overnight only to briefly reoccur Sunday morning with the morning diurnal peak. WWTP personnel at 8 AM observed no SSO while servicing the bar screen but a small discharge occurred later.

On July 31, 2012 we reported a SSO at the Hwy 209 location adjacent to the fairgrounds and installed sealed, bolted manhole covers. On January 14<sup>th</sup> as the rains intensified sewer users in Haywood Office Park reported sewage backups. They are below the hydraulic grade of the 24" trunk sewer and use a pump to discharge to a manhole on that line. The gravity trunk line had surcharged and a SSO began at the manhole adjacent to the bolted manhole. This historically has not been an area that surcharged until recently. It is suspected that the car wash

on 209 across from Haywood Office Park may not be cleaning their traps and sand and silt from the car wash could be accumulating and restricting line capacity. As flows continue to drop we will be scheduling t.v. inspection and then heavy cleaning if needed in this section. Notices will be sent to Junaluska Sanitary District as well as the car wash owners and Haywood Contracting Co., owners of the office park to take action to prevent problems with pump head or discharge violations in the future.

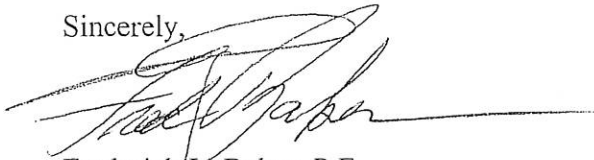
During flooding on Wednesday afternoon, the level of Lake Junaluska was observed to rise above the top of a North Lakeshore manhole near the dam. These manholes have solid tops but we will be checking the pick holes to see that they are concealed. Pick holes can allow significant inflow. At that time the South Lakeshore trunk line was observed to be flowing half full. The Town will be working with operators of the tributary systems from Lake Junaluska Assembly (North Lakeshore interceptor) and Junaluska Sanitary District (Foxfire Estates, Tuscola High School, Tuscola Park, Gem Motel and Liner Cove pump station minisystems) to require evaluation of I/I in those tributary systems above the Hwy 209 SSO site.

At the Georgia Avenue SSO considerable line replacement activities have taken place in Hazelwood to abate I/I. In fact a contractor was in the process of replacing VCP from Lynn Street to Brook Street along Farmer Branch across the old Hazelwood school property and ball field. I/I flows observed during the rain last week confirm that this rehabilitation work is well targeted to remove significant wet weather flows. Work has resumed this week to get good rubber gasketed PVC and booted precast manholes installed to tighten up this minisystem.

During 2012 the Town's average daily flow the WWTP was 2.96 MGD down from 3.17 MGD the previous year. In May 2012, we replaced manholes and pipe on Hazelwood Avenue and along Camelot Drive less than 1,000 feet above the SSO location. We replaced manholes and pipe on Boundary Street, Chestnut Walk, Riverbend Street and Nelson Park Drive, surveyed and located manholes on the 30 inch trunk above the Howell Mill bar screen and sealed manhole tops on the Hwy 209 line. We have used dye testing and removed roof leaders from the sewers on Wall Street. Plans for 2013 will include an expanded effort to smoke test for inflow sources. The FY 2013 budget includes \$350,000 for sewer collection system rehabilitation capital outlays.

Thank you for your consideration of these factors of a severe natural condition. Do not hesitate to contact me if further questions or comments arise.

Sincerely,



Frederick L. Baker, P.E.  
Director of Public Works

Cc: Robert Hyatt  
Wentfard Henson, ORC  
Wanda Frazier, ARO  
Buddy Young, Lake Junaluska Assembly  
Charlie Wright, Junaluska Sanitary District

## PRESS RELEASE

January 23, 2013

CONTACT: Fred Baker (828) 456-4410

### NOTIFICATION OF WASTEWATER SPILL(S) IN HAYWOOD COUNTY

The Town of Waynesville had a discharge of untreated wastewater from a sanitary sewer manhole immediately above the bar screen adjacent to Richland Creek at Howell Mill Road and the railroad trestle over Richland Creek. The spill amount is estimated at 600,000 gallons. The sanitary sewer overflow (SSO) began on Monday January 14<sup>th</sup> at 1 PM during a period of intense precipitation. After briefly abating overnight on Tuesday more heavy rains, stream flooding and high groundwater infiltration and inflow (I/I) continued the overflow until Sunday morning January 20<sup>th</sup> at 10AM. The duration was approximately 120 hours. The discharge ended when rain and stream flows subsided. The area affected was limed and cleaned. Due to frozen soil conditions, additional remediation of the affected area will be performed as soon as temperatures permit.

The Town of Waynesville had a discharge of untreated wastewater from a sanitary sewer manhole along NC 209, Crabtree Road adjacent to Richland Creek and the County fairgrounds. The spill amount is estimated at 400,000 gallons. The SSO began around 2 PM Monday January 14<sup>th</sup> during heavy rainfall. Its duration was approximately 100 hours. Diluted but untreated wastewaters entered Richland Creek. The discharge ended when rainfall and stream flows subsided. The area affected was cleaned and limed.

The Town of Waynesville had a discharge of untreated wastewater from a sanitary sewer manhole on Georgia Avenue at Hazelwood Town Hall. The spill amount of approximately 100,000 gallons entered Farmer Branch via storm drain on Georgia Avenue. The SSO began Monday, January 14<sup>th</sup> at approximately 2 PM during a period of intense precipitation and continued until Friday January 18<sup>th</sup>, duration of approximately 90 hours.

The four day rainfall total for the period was 7.89 inches. Maintenance activities and sewer system rehabilitation are being performed to identify and correct infiltration and inflow sources connected to the sewer system to prevent overflows in the event of future storms. This notice was required by North Carolina General Statutes 143-215. For more information contact Fred Baker, Director of Public Works at (828) 456-4410.



Form CS-SSO  
Collection System Sanitary Sewer Overflow Reporting Form

PART I

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the sanitary sewer overflow (SSO).

Permit Number: WQCS 00039

(WQCS# if active, otherwise use treatment plant NCWQ#)

Facility: Town of Waynesville

Owner: Town of Waynesville

City: Waynesville

Incident # \_\_\_\_\_

Region: Western

County: Haywood

Source of SSO (check applicable):



Sanitary Sewer



Pump Station

SPECIFIC location of the SSO (be consistent in description from past reports or documentation - i.e. Pump Station 6, Manhole at Westall & Bragg Street, etc.): Hwy 209, Evergreen paper & Georgia Ave.

Latitude (degrees/minute/second): \_\_\_\_\_

Longitude (degrees/minute/second): \_\_\_\_\_

Incident Started Dt: 1-14-13  
(mm-dd-yyyy)

Time: 1:00 pm  
hh:mm AM/PM

Incident End Dt: 1-20-13  
(mm-dd-yyyy)

Time: 10:00 Am  
hh:mm AM/PM

Estimated volume of the SSO: 1.1 million gallons

Estimated Duration (Round to nearest hour): 96 hrs

Describe how the volume was determined: Observation of Peak Discharge from Start to Stop

Weather conditions during SSO event: Heavy Rain 8" +

Did SSO reach surface waters? ☒ Yes ☐ No ☐ Unknown

Volume reaching surface waters (gallons): 1.1 million

Surface water name: Richland Creek

Did the SSO result in a fish kill? ☐ Yes ☒ No ☐ Unknown

If Yes, what is the estimated number of fish killed? \_\_\_\_\_

SPECIFIC cause(s) of the SSO:

☒ Severe Natural Condition

☐ Grease

☐ Roots

☐ Inflow and Infiltration

☐ Pump Station Equipment Failure

☐ Power outage

☐ Vandalism

☐ Debris in line

☐ Other (Please explain in Part II)

Immediate 24-hour verbal notification reported to:

☒ DWQ ☐ Emergency Mgmt.

Date (mm-dd-yyyy): 1-14-13 Time (hh:mm AM/PM): 3:00 pm

If an SSO is ongoing, please notify Regional Office on a daily basis until SSO can be stopped.

Per G.S. 143-215.1C(b), the responsible party of a discharge of 1,000 gallons or more of untreated wastewater to surface waters shall issue a press release within 48-hours of first knowledge to all print and electronic news media providing general coverage in the county where the discharge occurred. When 15,000 gallons or more of untreated wastewater enters surface waters, a public notice shall be published within 10 days and proof of publication shall be provided to the Division within 30 days. Refer to the referenced statute for further detail.

The Director, Division of Water Quality, may take enforcement action for SSOs that are required to be reported to Division unless it is demonstrated that:

- 1) the discharge was caused by severe natural conditions and there were no feasible alternatives to the discharge; or
- 2) the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Part II must be completed to provide a justification claim for either of the above situations. This information will be the basis for the determination of any enforcement action. Therefore, it is important to be as complete as possible.

WHETHER OR NOT PART II IS COMPLETED, A SIGNATURE IS REQUIRED AT THE END OF THIS FORM.





Form CS-SSO  
Collection System Sanitary Sewer Overflow Reporting Form

PART II

ANSWER THE FOLLOWING QUESTIONS FOR EACH RELATED CAUSE CHECKED IN PART I OF THIS FORM AND INCLUDE THE APPROPRIATE DOCUMENTATION AS REQUIRED OR DESIRED

COMPLETE ONLY THOSE SECTIONS PERTAINING TO THE CAUSE OF THE SSO AS CHECKED IN PART I

In the check boxes below, NA = Not Applicable and NE = Not Evaluated

A HARDCOPY OF THIS FORM SHOULD BE SUBMITTED TO THE APPROPRIATE DWQ REGIONAL OFFICE UNLESS IT HAS BEEN SUBMITTED ELECTRONICALLY THROUGH THE ONLINE REPORTING SYSTEM

Severe Natural Condition (hurricane, tornado, etc.)

Describe the "severe natural condition" in detail.

We recieved 8" + of rain in approx 96 hrs

How much advance warning did you have and what actions were taken in preparation for the event?

No advanced warning of this much Rain

Comments:

There was no way to stop overflow from this much Rain

Grease (Documentation such as cleaning, inspections, enforcement actions, past overflow reports, educational material and distribution date, etc. should be available upon request.)

When was the last time this specific line (or wet well) was cleaned?

Do you have an enforceable grease ordinance that requires new or retrofit of grease traps/interceptors?

☐ Yes ☐ No ☐ NA ☐ NE

Have there been recent inspections and/or enforcement actions taken on nearby restaurants or other nonresidential grease contributors?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

Have there been other SSOs or blockages in this area that were also caused by grease?

☐ Yes ☐ No ☐ NA ☐ NE

When?

If yes, describe them:

Have cleaning and inspections ever been increased at this location?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

When was the area last checked/cleaned?

July 2012

Have cleaning and inspections ever been increased at this location due to previous problems with debris? ☒ Yes ☐ No ☐ NA ☐ NE

Explain: The line was cleaned & camera was used in 2012. There were some minor repairs made at this time

Are appropriate educational materials being developed and distributed to prevent future similar occurrences? ☐ Yes ☒ No ☐ NA ☐ NE

Comments:

Other (Pictures and a police report should be available upon request.)

Describe:

Were adequate equipment and resources available to fix the problem? ☐ Yes ☐ No ☐ NA ☐ NE

If Yes, explain:

If the problem could not be immediately repaired, what actions were taken to lessen the impact of the SSO?

Comments:

For DWQ Use Only:

DWQ Requested an Additional Written Report: ☐ Yes ☐ No ☐ NA ☐ NE

If Yes, What Additional Information is Needed:

Comments:

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: Wentford Lee Henson

Date: 1-23-13

Signature: Wentford Lee Henson

Title: Senior crew ~~leader~~ leader  
& ORC

Telephone Number: 828-456-3706

Any additional information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the SSO with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).

We had 3 different overflows that was responsible for the total gallons. The Hwy 209 manhole was estimated to be 400,000 Gallons. The manhole at Evergreen paper above the Bar Screen was estimated to be 600,000 Gallons. The manhole on Georgia Ave was estimated to be 100,000 Gallons. The Flows was estimated at Top Peak Flow.



## Town of Waynesville

February 5, 2013

Mr. Chuck Cranford, Supervisor  
North Carolina Department of Environment & Natural Resources  
Surface Water Protection -- ARO  
2090 US Highway 70  
Swannanoa, NC 28778

Re: 5-Day SSO Report, WQCS 00039  
January 30-31, 2013

Dear Mr. Cranford:

I have additional information to supplement Part II of the SSO report that Mr. Wentfard Henson, the Town's ORC recently submitted.

After heavy rains earlier in the month, groundwater levels and stream flows are elevated. Hourly precipitation data on Wednesday January 30<sup>th</sup> demonstrate the severe natural conditions that occurred. After rainfall earlier that day the Mountain Research Station recorded hourly precipitations of 0.31 inches, 0.62 inches, 0.39 inches, 0.39 inches, 0.17 inches, 0.19 inches and 0.18 inches from 1:00 PM to 8:00 PM.

The Town has attempted to clean the 24 inch trunk sewer from the Lake Junaluska dam to the county fairgrounds along 209 to restore capacities but encountered root infestations that our equipment is not sized to remove. Three contractors have inspected the site and we will be issuing a purchase order for heavy cleaning, root removal and TV inspection as soon as possible. The car wash was instructed to clean their traps which were full.

For the problem minisystem in Hazelwood, the line rehabilitation already underway has removed one full ¾ inch abandoned water service blowing directly into an old service sewer and one footing drain on Camp Street discharging a significant amount of groundwater. Activities are continuing up this line along Farmers Branch.

Thank you for your consideration of these factors of a severe natural condition. Do not hesitate to contact me if further questions or comments arise.

Sincerely,

Frederick L. Baker, P.E.  
Director of Public Works

Cc: 1) Robert Hyatt 4) Buddy Young, Lake Junaluska Assembly  
2) Wentfard Henson, ORC 5) Charlie Wright, Junaluska Sanitary District  
3) Wanda Frazier, ARO



## Town of Waynesville

### PRESS RELEASE

February 5, 2013

CONTACT: Fred Baker (828) 456-4410

### NOTIFICATION OF WASTEWATER SPILL(S) IN HAYWOOD COUNTY

The Town of Waynesville had a discharge of untreated wastewater from a sanitary sewer manhole immediately above the bar screen adjacent to Richland Creek at Howell Mill Road and the railroad trestle over Richland Creek. The spill amount is estimated at 150,000 gallons. The sanitary sewer overflow (SSO) began on Wednesday January 30<sup>th</sup> at 5:15 PM during a period of intense precipitation and lasted approximately 15 hours. An additional SSO occurred from a manhole along NC 209 adjacent to Richland Creek at the County fairgrounds with a spill amount estimated at 100,000 gallons, lasting for approximately 12 hours. On Georgia Avenue at the intersection with Brown Avenue a SSO estimated at 30,000 gallons over a period of 7 hours entered Farmer Branch. On Ninevah Road at the intersection with South Main Street a SSO estimated at 10,000 gallons over a period of 4 hours entered Browning Branch. The discharges ended when rain and stream flows subsided. Areas affected were cleaned and limed.

The rainfall total for the period was 2.7 inches. Maintenance activities and sewer system rehabilitation are being performed to identify and correct infiltration and inflow sources connected to the sewer system to prevent overflows in the event of future severe natural conditions. This notice was required by North Carolina General Statutes 143-215. For more information contact Fred Baker, Director of Public Works at (828) 456-4410.





Form CS-SSO  
Collection System Sanitary Sewer Overflow Reporting Form

PART I

This form shall be submitted to the appropriate DWQ Regional Office within five days of the first knowledge of the sanitary sewer overflow (SSO).

Permit Number: WQCS 00039

(WQCS# if active, otherwise use treatment plant NC/WQ#)

Facility: Town of Waynesville

Owner: Town of Waynesville

City: Waynesville

Incident #

Region: Western

County: Haywood

Source of SSO (check applicable):



Sanitary Sewer



Pump Station

SPECIFIC location of the SSO (be consistent in description from past reports or documentation - i.e. Pump Station 6, Manhole at Westall & Bragg Street, etc.):  Hwy 209, Howell mill Rd, Lynn St, South Main St.

Latitude (degrees/minute/second):

Longitude(degrees/minute/second):

Incident Started Dt: 1-30-13  
(mm-dd-yyyy)

Time: 5:15 P.m.  
hh:mm AM/PM

Incident End Dt: 1-31-13  
(mm-dd-yyyy)

Time: 7:00 P.m.  
hh:mm AM/PM

Estimated volume of the SSO: 290,000 gallons

Estimated Duration (Round to nearest hour): 15 hrs

Describe how the volume was determined: Peak Flow at 4 Different Manholes

Weather conditions during SSO event: Very Heavy Rain in a short time

Did SSO reach surface waters? ☒ Yes ☐ No ☐ Unknown

Volume reaching surface waters (gallons): 290,000

Surface water name: Richland creek

Did the SSO result in a fish kill? ☐ Yes ☒ No ☐ Unknown

If Yes, what is the estimated number of fish killed?

SPECIFIC cause(s) of the SSO:

☒ Severe Natural Condition

☐ Inflow and Infiltration

☐ Vandalism

☐ Grease

☐ Pump Station Equipment Failure

☐ Debris in line

☐ Roots

☐ Power outage

☐ Other (Please explain in Part II)

Immediate 24-hour verbal notification reported to:



DWQ



Emergency Mgmt.

Date (mm-dd-yyyy): 1-31-13

Time (hh:mm AM/PM): 12:30 P.m.

If an SSO is ongoing, please notify Regional Office on a daily basis until SSO can be stopped.

Per G.S. 143-215.1C(b), the responsible party of a discharge of 1,000 gallons or more of untreated wastewater to surface waters shall issue a press release within 48-hours of first knowledge to all print and electronic news media providing general coverage in the county where the discharge occurred. When 15,000 gallons or more of untreated wastewater enters surface waters, a public notice shall be published within 10 days and proof of publication shall be provided to the Division within 30 days. Refer to the referenced statute for further detail.

The Director, Division of Water Quality, may take enforcement action for SSOs that are required to be reported to Division unless it is demonstrated that:

- 1) the discharge was caused by severe natural conditions and there were no feasible alternatives to the discharge; or
- 2) the discharge was exceptional, unintentional, temporary and caused by factors beyond the reasonable control of the Permittee and/or owner, and the discharge could not have been prevented by the exercise of reasonable control.

Part II must be completed to provide a justification claim for either of the above situations. This information will be the basis for the determination of any enforcement action. Therefore, it is important to be as complete as possible.

WHETHER OR NOT PART II IS COMPLETED, A SIGNATURE IS REQUIRED AT THE END OF THIS FORM.



ANSWER THE FOLLOWING QUESTIONS FOR EACH RELATED CAUSE CHECKED IN PART I OF THIS FORM AND INCLUDE THE APPROPRIATE DOCUMENTATION AS REQUIRED OR DESIRED

COMPLETE ONLY THOSE SECTIONS PERTAINING TO THE CAUSE OF THE SSO AS CHECKED IN PART I

In the check boxes below, NA = Not Applicable and NE = Not Evaluated

A HARDCOPY OF THIS FORM SHOULD BE SUBMITTED TO THE APPROPRIATE DWQ REGIONAL OFFICE UNLESS IT HAS BEEN SUBMITTED ELECTRONICALLY THROUGH THE ONLINE REPORTING SYSTEM

Severe Natural Condition (hurricane, tornado, etc.)

Describe the "severe natural condition" in detail.

We received approx. 4" of Rain in a 14 hr period.

How much advance warning did you have and what actions were taken in preparation for the event?

None

Comments:

Grease (Documentation such as cleaning, inspections, enforcement actions, past overflow reports, educational material and distribution date, etc. should be available upon request.)

When was the last time this specific line (or wet well) was cleaned?

Do you have an enforceable grease ordinance that requires new or retrofit of grease traps/interceptors?

☐ Yes ☐ No ☐ NA ☐ NE

Have there been recent inspections and/or enforcement actions taken on nearby restaurants or other nonresidential grease contributors?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

Have there been other SSOs or blockages in this area that were also caused by grease?

☐ Yes ☐ No ☐ NA ☐ NE

When?

If yes, describe them:

Have cleaning and inspections ever been increased at this location?

☐ Yes ☐ No ☐ NA ☐ NE

Explain.

When was the area last checked/cleaned?

Have cleaning and inspections ever been increased at this location due to previous problems with debris?

☒ Yes ☐ No ☐ NA

Explain:

This area was Jet washed on Jan 21

Are appropriate educational materials being developed and distributed to prevent future similar occurrences?

☐ Yes ☒ No ☐ NA

Comments:

Other (Pictures and a police report should be available upon request.)

Describe:

Were adequate equipment and resources available to fix the problem?

☐ Yes ☐ No ☐ NA

If Yes, explain:

If the problem could not be immediately repaired, what actions were taken to lessen the impact of the SSO?

Comments:

For DWQ Use Only:

DWQ Requested an Additional Written Report:

☐ Yes ☐ No ☐ NA ☐ I

If Yes, What Additional Information is Needed:

Comments:

As a representative for the responsible party, I certify that the information contained in this report is true and accurate to the best of my knowledge.

Person submitting claim: Wentford Henson

Date: 2-1-13

Signature: Wend Lee Henson

Title: Senior Crew leader + ORC

Telephone Number: 828-456-3706

Any additional information desired to be submitted should be sent to the appropriate Division Regional Office within five days of first knowledge of the SSO with reference to the incident number (the incident number is only generated when electronic entry of this form is completed, if used).

The volume of the SSO was determined by peak flow on 4 different manholes. South main st. 10,000 gals., Georgia Ave. 30,000 Gals. Hwy 209 100,000 Gals., Howell mill RD (at Bar screen) 150,000 Gals. We are in the process of accepting Bids on this area to clean, De root, and camera. These areas.

## **SEWER DEPARTMENT**

### **Sewer Spill Log**

**July 1, 2012 -----June 30, 2013**

**July 7, 2012**

**Hwy 209 across from the Haywood County Fairgrounds – at the manhole**

**January 14, 2013**

**Hwy 209 across from the Haywood County Fairgrounds – at the manhole**

**Evergreen Paper – Bar Screen**

**Georgia Avenue – at the manhole**

**January 30, 2013**

**Hwy 209 across from the Haywood County Fairgrounds – at the manhole**

**Howell Mill Road – Bar Screen**

**Lynn Street – at manholes**

**South Main Street – at the manhole**



**Sewer Department**  
**Line Replacements**  
**07/01/2012----06/30/2013**

**January 14, 2013**

**Brooks Street**

8" – 543 LF SDR 35 (Main line)

Installed 3 new manholes

6" – 2 lateral approx. 30 ft. average

4" – 1 lateral approx. 30 ft. average

**March 4, 2013**

**Brooks Street**

8" – 335 LF SDR 35 (Main line)

Installed 2 new manholes

6" – 1 lateral approx. 30 ft. average

4" – 1 lateral approx. 30 ft. average

**March 19, 2013**

**Brooks Street**

8" – 300 LF SDR 35 (Main line)

4" – 7 laterals approx. 30 ft average

**April 3, 2013**

**Brooks Street**

8" - 145 LF SDR 35 (Main line)

Installed 2 new manholes

4" – 8 laterals approx. 30 ft. average

**April 18, 2013**

**Brooks Street**

8"- 95 LF SDR 35 (Main line)

Installed 1 manhole

4" – 6 laterals approx. 30 ft. average

**May 20, 2013**

**Brooks Street**

8" – 376 LF SDR 35 (Main line)

4" – 4 laterals approx. 30 ft. average

**Line Replacements continued:**

**May 28, 2013**

**Brooks Street**

8" – 385 LF SDR 35 (Main line)

Installed 1 manhole

4" – 5 laterals approx. 30 ft. average

**June 11, 2013**

**Brooks Street**

8" – 396 LF SDR 35 (Main line)

Installed 1 manhole

4" – 7 laterals approx. 30 ft. average

**Total LF replaced = 2575**

**Total lateral LF replaced = 1260**

**New manholes installed = 10**

## **Sewer Inspection Report**

**07/01/2012----06/30/2013**

### **July 2012**

6" – 5345 ft.

8" – 75 ft.

### **August 2012**

6" – 4151 ft.

8" – 175 ft.

### **September 2012**

4" – 90 ft.

6" – 3471 ft.

### **October 2012**

6" – 4790 ft.

8" – 100 ft.

### **November 2012**

6" – 5400 ft.

8" – 900 ft.

### **December 2012**

4" – 290 ft.

6" – 702 ft.

### **December 2012**

#### *Aerial Creek Crossing*

#### **Richland Creek**

- 1) 16" Golf Course Road collector at US19 bridge
- 2) 24" South Lakeshore trunk at US19
- 3) 12" Raccoon Creek interceptor at Blue Ridge Paper
- 4) 24" South Lakeshore trunk at Blue Ridge Paper
- 5) 30" trunk at Blue Ridge Paper
- 6) 18" trunk at Lea Industries
- 7) 8" Dayco control manhole

#### **Raccoon Creek**

- 8) 10" Industrial Park collector at Blue Ridge paper
- 9) 10" Raccoon Creek interceptor at Howell Mill Road
- 10) 10" Health Department collector at Junaluska Elementary
- 11) 10" Raccoon Creek interceptor at Francis Farm Road

## **Sewer Inspection Report continued...**

### **Factory Branch**

- 12) 12" Dellwood interceptor at Lake Junaluska entrance
- 13) 12" Dellwood interceptor at US19

### **Shelton Branch**

- 14) 18" Shelton Branch interceptor at US276, Pigeon Street
- 15) 10" Shelton Branch interceptor at Conley Street near Broad Street
- 16) 10" Shelton Branch interceptor at Jarvis Street near Broad Street
- 17) 6" collector, end of Ross Street (aerial)
- 18) 6" collector, end of Prevost Street (aerial)
- 19) 8" collector, between Prevost and Oakdale Road
- 20) 18" Shelton Branch interceptor, Vance Street and Parkview Drive

### **Eagle Nest Creek**

- 21) Corner of Eagle Nest Road/Sulphur Springs Road at BP Station

### **Browning Branch**

- 22) Allens Creek Road at Gas Light Mobile Home Park (ditch crossing)
- 23) SR 1140, Lickstone Road at Hunters Crossing
- 24) Riverbend Street behind Cline-Bradley's

### **Chestnut Park**

- 25) Chestnut Park Drive, above rest home, 6" collector from Dolan Road

- Raccoon Road Line—(Hillside Terrace Junction to US276 at Crymes Cove Road)
- Little Blue Ridge—(Howell Mill Road to US19 bridge at Junaluska Assembly)
- Raccoon Creek—(Hillside Terrace past Junaluska School on to Waynesville Industrial Park)
- Howell Mill Road—(Little Blue Ridge thru Schulhofers, Recreation Center, Abel's etc. to Russ Avenue)
- Richland Creek—(209 area, Junaluska dam thru Fairgrounds to Sewer Plant)
- Dellwood Road (us190—((From Junaluska Assembly Junction thru Dayton Drive, Ivey Hill etc., to Queens Farm)
- Fitzgerald field—(Oakdale Road bridge to Country Club Drive)
- Richland Creek—(End of Tarheel Street to Hyatt Creek Road)
- Chestnut Walk—(Browning Branch Road at Pump House to end)
- Will Hyatt Road—(Eagles Nest Road to Will Hyatt Road thru Sand Trap Drive on to Cardinal Drive and Wren Way)

## **Sewer Inspection Report continued...**

### **January 2013**

4" – 550 ft.

6" – 4115 ft.

8" – 600 ft.

### **February 2013**

4" – 55 ft.

6" – 3406 ft.

8" – 1815 ft.

### **March 2013**

4" – 705 ft.

6" – 4796 ft.

8" – 1520 ft.

20" – 466 ft.

### **March 2013**

*Priority Line/Aerial Creek Crossing*

*Aerial Creek Crossing*

#### **Richland Creek**

25) 16" Golf Course Road collector at US19 bridge

26) 24" South Lakeshore trunk at US19

27) 12" Raccoon Creek interceptor at Blue Ridge Paper

28) 24" South Lakeshore trunk at Blue Ridge Paper

29) 30" trunk at Blue Ridge Paper

30) 18" trunk at Lea Industries

31) 8" Dayco control manhole

#### **Raccoon Creek**

32) 10" Industrial Park collector at Blue Ridge paper

33) 10" Raccoon Creek interceptor at Howell Mill Road

34) 10" Health Department collector at Junaluska Elementary

35) 10" Raccoon Creek interceptor at Francis Farm Road



## **Sewer Inspection Report continued...**

### **Factory Branch**

- 36) 12" Dellwood interceptor at Lake Junaluska entrance
- 37) 12" Dellwood interceptor at US19

### **Shelton Branch**

- 38) 18" Shelton Branch interceptor at US276, Pigeon Street
- 39) 10" Shelton Branch interceptor at Conley Street near Broad Street
- 40) 10" Shelton Branch interceptor at Jarvis Street near Broad Street
- 41) 6" collector, end of Ross Street (aerial)
- 42) 6" collector, end of Prevost Street (aerial)
- 43) 8" collector, between Prevost and Oakdale Road
- 44) 18" Shelton Branch interceptor, Vance Street and Parkview Drive

### **Eagle Nest Creek**

- 45) Corner of Eagle Nest Road/Sulphur Springs Road at BP Station

### **Browning Branch**

- 46) Allens Creek Road at Gas Light Mobile Home Park (ditch crossing)
- 47) SR 1140, Lickstone Road at Hunters Crossing
- 48) Riverbend Street behind Cline-Bradley's

### **Chestnut Park**

- 25) Chestnut Park Drive, above rest home, 6" collector from Dolan Road

- Raccoon Road Line—(Hillside Terrace Junction to US276 at Crymes Cove Road)
- Little Blue Ridge—(Howell Mill Road to US19 bridge at Junaluska Assembly)
- Raccoon Creek—(Hillside Terrace past Junaluska School on to Waynesville Industrial Park)
- Howell Mill Road—(Little Blue Ridge thru Schulhofers, Recreation Center, Abel's etc. to Russ Avenue)
- Richland Creek—(209 area, Junaluska dam thru Fairgrounds to Sewer Plant)
- Dellwood Road (us190—((From Junaluska Assembly Junction thru Dayton Drive, Ivey Hill etc., to Queens Farm)
- Fitzgerald field—(Oakdale Road bridge to Country Club Drive)
- Richland Creek—(End of Tarheel Street to Hyatt Creek Road)
- Chestnut Walk—(Browning Branch Road at Pump House to end)
- Will Hyatt Road—(Eagles Nest Road to Will Hyatt Road thru Sand Trap Drive on to Cardinal Drive and Wren Way)

## **Sewer Inspection Report continued...**

### **April 2013**

4" – 535 ft.  
6" – 7142 ft.  
8" – 1690 ft.  
10" – 540 ft.

### **May 2013**

4" – 190 ft.  
6" – 1040 ft.  
8" – 434 ft.  
18" – 470 ft.

### **June 2013**

6" – 3648 ft.  
8" – 1478 ft.  
10" – 495 ft.

### **Total Year by Line Size:**

4" – 2415 ft.  
6" – 49009 ft.  
8" – 8787 ft.  
10" – 1035 ft.  
18" – 470 ft.  
20" – 466 ft.

**Total Footage Inspected for Year: 61182 ft.**

**Sewer Preventative Maintenance Report**  
**07/01/2012----06/30/2013**

**Non-Breakdown Line Washing By Month**

**July 2012**

6" – 2665 ft.

**August 2012**

10" – 495 ft.

8" – 5418 ft.

6" – 11861 ft.

4" – 195 ft.

**September 2012**

8" – 75 ft.

6" – 6208 ft.

4" – 90 ft.

**October 2012**

8" – 835 ft.

6" – 6037 ft.

**November 2012**

8" – 890 ft.

6" – 7081 ft.

4" – 90 ft.

**December 2012**

8" – 195 ft.

6" – 5240 ft.

4" – 89 ft.

**January 2013**

8" – 900 ft.

6" – 7935 ft.

**February 2013**

30" – 900 ft.

6" – 2000 ft.

4" – 290 ft.

**March 2013**

18" – 410 ft.  
8" – 2556 ft.  
6" – 7419 ft.  
4" – 1496 ft.

**April 2013**

20" – 466 ft.  
8" – 5925 ft.  
6" – 9889 ft.  
4" – 1133 ft.

**May 2013**

24" – 1100 ft.  
8" - 7057 ft.  
6" - 12891 ft.  
4" – 1881 ft.

**June 2013**

10" – 540 ft.  
8" - 2230 ft.  
6" - 11728 ft.  
4" - 1158 ft.

**Total Year by Line Size:**

30" – 900 ft.  
24" – 1100 ft.  
20" – 466 ft.  
18" – 410 ft.  
10" – 1035 ft.  
8" – 25981 ft.  
6" – 90954 ft.  
4" – 6422 ft.

**Total Footage Washed for Year: 127342 ft.**

**CAMERA ----- LINE INSPECTION**

**JULY 2012 – JUNE 2013**

**AUGUST 2012** – Maxima Lane – 8” – 300 ft.  
Sulphur Springs Road – 4” – 60 ft.

**OCTOBER 2012** – Rolling Drive – 8” – 200 ft.  
Rolling Drive – 4” – 50 ft.

**DECEMBER 2012** – Flint Street – 4” – 75 ft.

**JANUARY 2013** – Depot Street – 4” – 60 ft.

**FEBRUARY 2013** - Jarvis Street - 8” – 425 ft.  
Brook Street/ Spruce Street – 8” – 1350 ft.  
Farley Street – 4” – 175 ft.  
Farley Street – 8” – 450 ft.  
Kimberly Ln – 4” – 175 ft.

**MARCH 2013** - Georgia Ave/Brown Ave/Camelot Dr – 10” – 946 ft.

**APRIL 2013** - Conley Street – 4” – 80 ft.  
Conley Street – 8” – 125 ft.  
South Main Street – 8” – 60 ft.  
Allens Creek Road – 8” – 430 ft.  
Hwy 209 – 10” – 300 ft.

**MAY 2013** – Hazelwood Avenue – 8” – 200 ft.



**CAMERA LINE INSPECTION CONTINUED. . . .**

**JUNE 2013**—Maxima Lane—8" —300 ft.  
Sulphur Springs Road—4" — 60 ft.

**TOTAL CAMERA LINE INSPECTION FOOTAGE:**

10"—300 ft.  
8"---3860 ft.  
4"---735 ft.

**ROOT TREATMENT**

MAY 2013—HWY 209—3500 ft.