



# CITY of BREVARD

The mission of the City of Brevard is to promote a high quality of life, support economic prosperity, and cultivate community while honoring its heritage and culture.

Public Services Department  
(828) 884-2171

## Wastewater Collections System System Performance Annual Report July 1, 2013 – June 30, 2014

### I. GENERAL INFORMATION

A. Facility / System Name:

City of Brevard Wastewater Collections System

B. Responsible Entity:

City of Brevard

C. Operator In Responsible Charge (ORC)

Anthony W. Coward  
PO Box 312  
Rosman, North Carolina 28772-0312  
Home (828) 862-8857  
Cell (828) 553-7456  
Fax (828) 884-6892

D. Non-Discharge Permit Number:

Collections System Permit Number WQCS00084

NPDES Permit Number (WWTP):

NC0060534

E. Description of Collections System:

The City of Brevard ("City") wastewater collection system is located in and around the corporate limits of the City. The majority of the system consists of gravity sewer mains. There are currently seventeen (17) wastewater lift stations with pressure force mains located within the system that are owned and operated by the City. The collections system consists of approximately fifty-five (55) miles of sewer mains ranging in size from 2" to 24" which includes six (6) miles of force mains. These mains are connected by manholes at each intersection point. This system collects wastewater and delivers it to the City's Wastewater Treatment Plant (NPDES NC0060534) located at 95 Wilson Road, Pisgah Forest, North Carolina.

The Wastewater Collections Division consists of six employees including one "operator in responsible charge (ORC)" and five collections system operators; two of whom are continually designated as I&I personnel and their primary functions are to locate, repair and eliminate I&I sources.

II. PERFORMANCE

A. General:

The City of Brevard Wastewater Collections System had a total of twenty-four (24) wastewater spills / overflows during the twelve month period from July 1, 2013 to June 30, 2014 (*See events data charts on Page 4 of this report*). Heavy rain events, most during flashflood and/or severe storm conditions were associated with nineteen (19) of the spills ranging from .83" to 6.64" of rainfall. Four (4) events were a result of a force main pipe rupture on Old US Highway 64; and one (1) event was due to manhole vandalism.

- Neely Road Lift Station / fourteen (14) discharges
- Gallimore Road Lift Station / six (6) discharges
- System Manholes / four (4) discharges.

The total net gallons for these eleven spills were 2,305,157 gallons. The spills did not result in any fish kills or other known environmental impact.

The City of Brevard has reported all SSO's to the Mayor, City Council, Citizens of the City by means of local media (*Transylvania Times Newspaper, WLOS Television, WGCR Radio Station, WSQL Radio Station and Comporium's Cable Magazine*) and to NCDENR.

Collections inflow and infiltration crews have continued with identification of inflow and infiltration locations and have aggressively corrected or repaired aging deficiencies in the system. While improvements have been progressing, the city continues to have sanitary sewer overflows during significant rainfall events.

The City of Brevard continues to focus emphasis on protecting our natural resources by annually dedicating \$100,000 towards an ongoing Inflow / Infiltration Reduction Program to eliminate rain attributed overflows from broken or improperly attached sewer lines, cleanouts, roof drains, and sump pumps through repair and public education, and additionally through capital improvement projects. In addition capital projects recently approved to receive low interest and no interest loans from the State Revolving Fund include:

- 6" Gravity line upgrade to 8"
- Neely Road Pump Station, Force Main, and Equalization Storage Project
- Kings Creek Phase 2 Sewer Rehabilitation Project
- Kings Creek Phase 3 Sewer Rehabilitation Project

During FY 2013-2014, Wastewater Collections personnel cleaned approximately 27,880 feet of the sewer system in addition to using closed circuit TV (CCTV) equipment to visually inspect approximately 40,865 feet of main sewer lines. In addition to video inspection utility right-of-ways have been cleaned, and maintenance has been performed on main sewer lines. Maintenance activities on the collections system included smoke testing for inflow and infiltration sites, twenty-seven (27) taps were installed or replaced, and all system high priority lines were inspected. Housekeeping activities were routinely performed at all lift station sites including performance apparatus, pumps, tools and safety equipment.

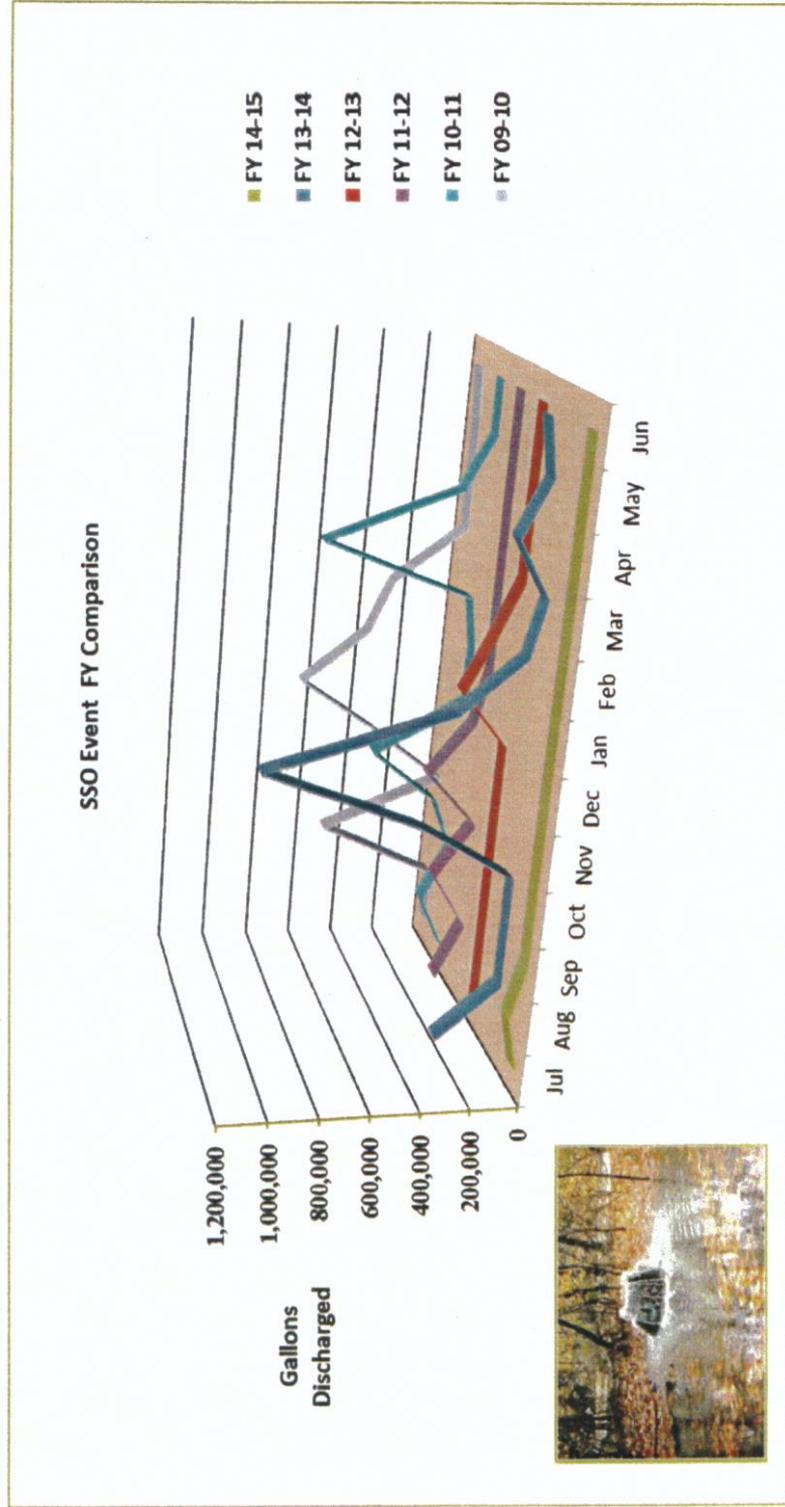
II. PERFORMANCE (cont'd)

B. SSO Events

SSO #	Date of Occurrence	Duration (Hours)	Location	Basin	Reason	Rainfall (Inches)	Gallons Discharged	Gal Captured (Pump Team)
247	Wednesday, July 03, 2013	5.00	Gallimore Road	Singing Branch	Heavy Rain	4.97	80,709	15,000
248	Thursday, July 04, 2013	11.00	Gallimore Road	Singing Branch	Heavy Rain	6.64	174,132	35,000
249	Wednesday, July 03, 2013	3.00	Park Avenue	Lambo Creek	Heavy Rain	4.97	Unknown	
250	Thursday, July 04, 2013	10.00	Park Avenue	Lambo Creek	Heavy Rain	6.64	Unknown	
251	Tuesday, November 26, 2013	12.00	Park Avenue	Lambo Creek	Heavy Rain	4.22	Unknown	
252	Tuesday, November 26, 2013	10.00	Gallimore Road	Singing Branch	Heavy Rain	4.22	142,750	30,000
253	Tuesday, November 26, 2013	12.00	Neely Road	Lambo Creek	Heavy Rain	4.22	264,100	
254	Wednesday, November 27, 2013	6.00	Neely Road	Lambo Creek	Force Main Failure		Unknown	
255	Friday, December 06, 2013	1.00	Neely Road	Lambo Creek	Heavy Rain	0.98	19,540	2,500
256	Monday, December 09, 2013	4.00	Neely Road	Lambo Creek	Heavy Rain	1.15	81,300	17,500
257	Monday, December 09, 2013	5.00	Neely Road	Lambo Creek	Force Main Failure		102,200	17,500
258	Tuesday, December 10, 2013	9.00	Neely Road	Lambo Creek	Force Main Failure		106,200	45,000
259	Saturday, December 14, 2013	2.00	Neely Road	Lambo Creek	Heavy Rain	1.18	36,800	5,000
260	Sunday, December 22, 2013	26.00	Neely Road	Lambo Creek	Heavy Rain	4.32	486,660	105,000
261	Sunday, December 22, 2013	6.00	Gallimore Road	Singing Branch	Heavy rain event; Neely Road station discharged	4.32	95,634	
262	Sunday, December 29, 2013	6.00	Neely Road	Lambo Creek	Heavy Rain	1.55	114,080	25,000
263	Saturday, January 11, 2014	11.00	Neely Road	Lambo Creek	Heavy rain event	2.78	219,320	42,500
264	Saturday, January 11, 2014	5.00	Gallimore Road	Singing Branch	Heavy rain event; Neely Road station discharged	2.78	82,644	
265	Friday, February 21, 2014	3.00	Neely Road	Lambo Creek	Heavy Rain	0.83	49,500	7,500
266	Monday, April 07, 2014	5.00	Neely Road	Lambo Creek	Heavy rain event	2.91	104,100	17,500
267	Monday, April 07, 2014	2.00	Gallimore Road	Singing Branch	Heavy rain event; Neely Road station discharged	2.91	33,168	
268	Thursday, April 10, 2014	1.00	Mills Avenue		Vandalism		1,000	
269	Thursday, May 15, 2014	2.00	Neely Road	Lambo Creek	Heavy Rain	2.90	36,800	5,000
270	Sunday, June 08, 2014	4.00	Neely Road	Lambo Creek	Force Main Failure		74,520	12,500

II. PERFORMANCE (cont'd)

C. SSO Events Comparison



III. NOTIFICATION

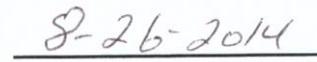
Copies of this report are available to the public at:

**City of Brevard Public Services Department  
232 Cashiers Valley Road  
Brevard, North Carolina 28712  
7:30 a.m. – 4:00 p.m., Monday – Friday**

IV. CERTIFICATION

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 is available to the users or customers of the City of Brevard's wastewater collection system.

  
\_\_\_\_\_  
Anthony Coward, ORC  
Wastewater Collections System  
Public Services Department  
City of Brevard

  
\_\_\_\_\_  
Date

Attachment: *Map of City of Brevard Sanitary Sewer System*

