TOWN OF BOONE, NORTH CAROLINA

2010System Performance Annual Report

Collection System and Wastewater Treatment Plant

This report provides performance information on the Town of Boone sewer collection system and waste treatment plant in the year 2010. It is required under the provisions of the Clean Water Act of 1999, House Bill 1160 ratified on July 20, 1999.

COLLECTION SYSTEM

I. General Information

Facility Name: Town of Boone
Responsible Entity: Town of Boone
Person in Charge: Jack Harmon, Superintendent
Applicable Permits: **WQCS 00071**

II. System Description

The collection system consists of approximately 125 miles of sewer lines and six pump stations. All are stations are monitored by radio signal, 24 hours per day, seven days per week.

III. Performance

4 spills that reached surface waters occurred in the collection system during the year. In accordance with State regulations, all were reported to the State of North Carolina, Department of Environment and Natural Resources. The table below gives the spill volume and the month when it occurred.

Month	Volume (gal)
September	220
November	375

JIMMY SMITH WASTEWATER TREATMENT PLANT

I. General Information

Facility Name:	Town of Boone	
Responsible Entity:	Jimmy Smith Wastewater Treatment Plant	
Person in Charge:	Rudy Broschinski, Superintendent	
Applicable Permits:	NPDES Permit No:	**NC0020621**
	Class A Residuals Permit:	**WQ0013263**
	Air Quality Permit:	**08375R05**

II. System Description

Wastewater is physically screened through two automatic bar screens, and then pumped to the highest plant elevation by submersible influent pumps. It then flows through a grit and grease removal unit, then to one of two, 2.4 million-gallon oxidation ditches for biological treatment and ammonia nitrogen removal. Ditch effluent flows to two circular clarifiers, then to four tertiary sand filters for additional solids removal. The final treatment stage is disinfection with ultraviolet light before discharge to the South Fork New River.

Solids are processed by a 2-meter belt press and a Class A thermal drier, producing an 87-90% dry product that is distributed to the public for use as fertilizer.

III. Performance

The plant treated 813 million gallons of wastewater in 2010 down 4% from last year. The highest volume month was in March with 87 million gallons, the lowest month was in June with 57 million gallons.

NPDES Permit: Results for the year 2010 for permit parameters are provided below:

Parameter	***Limit***	***Violations***
pH	6 – 9 units	0
BOD	5 – 10 ppm	0
Total Suspended Solids	20 ppm	0
Ammonia Nitrogen	2 – 4 ppm	0
Dissolved Oxygen	> 6 ppm	0
Fecal Coliform	200 ppm	0
Mercury	0.014 ug/L	0
Selenium	5.7 ug/L	0
Cyanide	5.7 ug/L	0
Chronic Toxicity	Pass/Fail	0

Class A Residuals Permit: The plant had no violations for permit parameter limits for the year. Of 591 tons of residuals produced, 514 tons were distributed to the public for use as fertilizer. Information on proper handling and use was distributed to all recipients.

Class B Residuals Permit: No Class B residuals were produced during the year.

Air Quality Permit: The plant incurred no air quality violations. All equipment performed in accordance with designed removal rates, and the State Air Quality inspection found no problems.

Spills/Overflows: No spills or overflows reaching surface waters occurred during the year.

IV. Notification

This report is published on the Town of Boone web site at www.townofboone.net. In addition, copies are available for review at the City Hall offices at 567 West King Street and the Public Utilities Department at 321 East King Street in Boone.

V. 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 has been made available to the users or customers of the named system and that those users have been notified of its availability.

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Jack Harmon **Date**
Superintendent
Collection and Distribution Systems

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Rudy Broschinski **Date**
Superintendent
Wastewater Treatment Plant