

**Moore County Water Pollution Control Plant  
Wastewater Annual Performance Report  
Fiscal Year July 2013- June 2014**

**General Information**

Facilities Names: Moore County Water Pollution Control Plant  
Moore County Interceptor & Collection System

Responsible Entity: Moore County

Contact Persons: Randy Gould, PE, Public Works Director (910) 947-6315  
Andrew McNeill, Wastewater Collection ORC (910) 947-6315  
George Yankay, Wastewater Plant ORC (910) 281-3146

**Treatment Plant & Collection System Description:**

The Moore County Water Pollution Control Plant is located at 1094 Addor Road in Aberdeen, North Carolina and operates under Permit No. NC0037508. The facility is currently permitted to treat 6.67 million gallons a day (MGD). The construction of the upgrade to 10 MGD is complete; the permit will be increased once the project is closed out. Flow entering the plant passes through 1 of 2 bar screens to the raw sewage influent pumps that transport the wastewater up to the grit removal units. Treatment is accomplished by splitting the flow between 3 trains, each consisting of a primary clarifier, 1<sup>st</sup> stage aeration basins, intermediate clarifier, 2<sup>nd</sup> stage aeration basins and a final clarifier. All flow then passes through sand filtration followed by UV disinfection. The treatment plant uses a biological treatment process to remove pollutants in the wastewater that can potentially be harmful to the environment and to the receiving stream. The facility uses anaerobic digestion to treat the sludge removed from the wastewater and treatment process. The method used to dry sludge is belt filter press; once this sludge is dry it is hauled to a landfill. These processes are maintained by operators certified by the State of North Carolina and are inspected yearly by the North Carolina Division of Environment and Natural Resources (NCDENR). Reports are submitted monthly to the State that contain all the results of testing done on the incoming raw wastewater and treated water discharged from the plant. The treated water is discharged from the facility into Aberdeen Creek in the Lumber River Basin. The wastewater enters the facility from an interceptor a collection system that is made up of approximately 15 miles of gravity sewer lines that is capable of handling 32 MGD. This interceptor system is tied into the collection systems of the following municipalities: Aberdeen, Carthage, Pinebluff, Pinehurst, and Southern Pines and Vass. The facility also receives flow from Camp MacKall through a line that feeds directly into the facility's pump station. As part of this interceptor system, there are 18 monitoring stations that record flow information and three pumping stations that help lift the wastewater to the gravity lines. Moore County is the owner of the wastewater plant and interceptor collection system. It is also responsible for the Pinehurst Collection system that consists of 16.4 miles of force mains, 198 miles of gravity lines, and 43 pumping stations.

## **Performance:**

### **July 2013**

July 3, 2013 Moore County Public Works had a wastewater spill of approximately 3,750 gallons at Pump Station PW-8 Wet Well /5 Killbride Drive in Pinehurst, NC. The untreated wastewater entered surface water at Deep Creek. The discharge was due to severe natural conditions (inflow and infiltration). The discharge was first discovered July 3, 2013 and continued for approximately 1 hour while repairs were made. The Division of Water Quality Emergency Management was notified July 3, 2013 at 9:19 pm.

July 5, 2013 Moore County Public Works had a wastewater spill of approximately 6,000 gallons at Monticello Drive between Surry Circle South and King's Court in Pinehurst, NC. The untreated wastewater entered an unknown tributary to Watson Lake. The discharge occurred because a contractor bored through an 8" sewer main. The discharge was first discovered July 5, 2013 and continued for approximately 2 hours while repairs were made. The Division of Water Quality Emergency Management was notified July 5, 2013 at 10:15 pm.

July 26, 2013 Moore County Public Works had a wastewater spill of approximately 3,000 gallons at PW-1 Force Main (100 ft. from the station) in Pinehurst, NC. The untreated wastewater did not enter surface water. The discharge was due to pipe failure. The discharge was first discovered July 26, 2013 and continued for approximately 3.5 hours while repairs were made. The Division of Water Quality Emergency Management was notified July 26, 2013 at 5:57 pm.

### **August 2013**

No overflows or permit violations to report

### **September 2013**

No overflows or permit violations to report

### **October 2013**

October 16, 2013 Moore County Public Works had a wastewater spill of approximately 250 gallons at South West of Beulah Hill Road / behind 270 McKenzie Road West Unit 14 in Pinehurst, NC. The untreated wastewater entered an unknown Tributary to Horse Creek. The discharge was due to roots. The discharge was first discovered October 16, 2013 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified October 17, 2013 at 8:30 am.

### **November 2013**

November 18, 2013 Moore County Public Works had a wastewater spill of approximately 10,750 gallons at Manhole MS-2-3 located below Girth Ct. in Pinehurst, NC. The untreated wastewater entered Watson Lake. The discharge was due to debris in the line. The discharge was first discovered November 18, 2013 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified November 19, 2013 at 8:15 am.

### **December 2013**

December 30, 2013 Moore County Public Works had a wastewater spill of approximately 2,079 gallons at 365 Magnolia Road in Pinehurst, NC. The untreated wastewater entered a tributary to Joes Fork Creek. The discharge was due to debris in the line. The discharge was first discovered December 30, 2013 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified December 30, 2013 at 3:45 pm.

### **January 2014**

January 14, 2014 Moore County Public Works had a wastewater spill of approximately 41,603 gallons at Manhole # V1-123 located behind the lift station at 135 James Street in Vass, NC. The untreated wastewater entered an unknown tributary to Little River. The discharge was due to grease, and debris in the line that caused Pump Station equipment failure. The discharge was first discovered January 14, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified January 15, 2014 at 1:20 pm.

### **February 2014**

February 24, 2014 Moore County Public Works had a wastewater spill of approximately 1,500 gallons at 34 Spring Lake Drive in Pinehurst, NC. The untreated wastewater entered a tributary to Joe's Fork Creek. The discharge was due to debris in the line. The discharge was first discovered February 24, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified February 25, 2014 at 8:38 am.

### **March 2014**

March 4, 2014 Moore County Public Works had a wastewater spill of approximately 1,250 gallons at 114 St. Mellions Drive in Pinehurst, NC. The untreated wastewater entered surface water at Aberdeen Creek. The discharge was due to roots in the line. The discharge was first discovered March 4, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified March 4, 2014 at 3:40 pm.

March 7, 2014 Moore County Public Works had a wastewater spill of approximately 2,000 gallons at Pump Station LS V-1, 135 James Street in Vass, NC. The untreated wastewater entered surface water at Little River. The discharge was due to Pump Station equipment failure. The discharge was first discovered March 7, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality Emergency Management was notified March 7, 2014 at 6:09 pm.

March 22, 2014 Moore County Public Works had a wastewater spill of approximately 210 gallons at Manhole #14-3-21 behind 13 LaQuinta Loop Road in Pinehurst, NC. The untreated wastewater entered surface water at Aberdeen Creek. The discharge was due to roots in the line. The discharge was first discovered March 22, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality Emergency Management was notified March 23, 2014 at 6:20 pm.

#### **April 2014**

April 3, 2014 Moore County Public Works had a wastewater spill of approximately 125 gallons at Lakeview Condos (behind unit 122) in Pinehurst, NC. The untreated wastewater entered surface water at Pinehurst Lake a tributary to Horse Creek. The discharge was due to roots in the line. The discharge was first discovered April 3, 2014 and continued for approximately 1 hour while repairs were made. The Division of Water Quality was notified April 4, 2014 at 9:45 am.

#### **May 2014**

No overflows or permit violations to report

#### **June 2014**

No overflows or permit violations to report

### **Improvements to the System:**

➤ **Vass WWTP/Little River Regional Lift Station Project:**

This project consisted of the construction of two new wastewater lift stations with related force main piping to pump wastewater to Moore County's existing No. 4 lift station in Southern Pines (approximately 35,380 linear feet of 8-inch force main and 690 linear feet of 8-inch gravity sewer), and the demolition of the Vass wastewater treatment plant. The new lift stations included odor control equipment.

➤ **Wireless monitoring system:**

The installation of flow monitoring equipment at lift stations, and flow monitoring stations has begun. When completed the wireless based cellular communication system will monitor the flow from 27 pump stations and 18 flow monitoring stations.

➤ **Lift Station 3-4:**

Replacement of 2,200 Gallon per Minute (GPM) Wastewater Lift Station

➤ **Interceptor Sewer Repair:**

Sewer relocation and upgrade along NC Highway 211 as part of the NC 211 widening project.

➤ **NC 211 & 15/501 Interceptor Rehabilitation:**

This project performed rehabilitation on a substantial portion of the regional interceptor. Construction included approximately 2,150 LF of new 18" gravity sewer main and the lining of approximately 4,880 LF of 18" and 24" gravity piping.

➤ **Dunvegan LS-MR2 Elimination:**

This in-house project eliminated the lift station off Dunvegan Court and tied new gravity sewer into existing gravity lines. This connection reduces future costs to maintain the old lift station.

➤ **Purchase of Centaur All-Terrain Vehicle:**

Purchased for inspection of hard to access Right-of-Ways

### **Notification:**

The availability of this report will be advertised in the local papers circulated in the Moore County area, and a Public Notice will be placed at the Moore County Public Works Building. This notice will inform all users and/or customers of the Moore County Water Pollution Control Plant that a report on the performance of this facility is available for their review. Anyone that wishes may obtain a copy at the Moore County Department of Public Works located at 5227 Highway 15-501 in Carthage, North Carolina, or can receive a copy by mail upon request.

**Certification:**

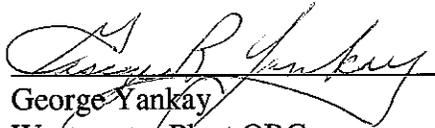
I certify under penalty of law this report is complete and accurate to the best of knowledge. I further certify this report will be made available to all users and/or customers of the Moore County Water Pollution Control Plant upon their request and advertised as noted above.

  
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Randy G. Gould, PE  
Public Works Director

8-5-14  
Date

  
\_\_\_\_\_  
Andrew McNeill  
Wastewater Collection ORC

8-5-14  
Date

  
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George Yankay  
Wastewater Plant ORC

8/14/2014  
Date