

**Moore County Water Pollution Control Plant
Wastewater Annual Performance Report
Fiscal Year July 2015- June 2016**

General Information

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

Permits Issued to Moore County: Water Pollution Control Plant NC0037508
Pinehurst WQCS00034

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

Water Pollution Control Plant:

The Moore County Water Pollution Control Plant (WPCP) is located at 1094 Addor Road in Aberdeen, North Carolina and operates under Permit No. NC0037508. The facility is currently permitted to treat 10 million gallons per day (MGD). 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, 1st stage aeration basins, intermediate clarifier, 2nd 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 treatment process. The method used to dry sludge is belt filter press; the dried sludge 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 Department of Environmental Quality (NCDEQ). Reports are submitted electronically each month to NCDEQ 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 sewer, 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 receives wastewater from the collection systems of the following municipalities: Aberdeen, Carthage, Pinebluff, Pinehurst, Southern Pines and Vass. The WPCP facility also receives flow from Camp MacKall force main that discharges directly into the WPCP raw sewage pump station. As part of this interceptor system, there are 19 flow monitoring stations that record flow information for bulk billing purposes to the municipalities.

Moore County Wastewater Collection Systems:

Moore County is also responsible for the Pinehurst and Vass wastewater Collection systems. All together the interceptor and Pinehurst and Vass collection system consist of 28 miles of force mains, 207 miles of gravity lines, and 43 pumping stations.

Performance:

July 2015

Moore County Public Works had a discharge of untreated wastewater on July 16, 2015, of an estimated 3,600 gallons at 285 Sugar Gum Lane in Pinehurst, NC near Lift Station 10-3. Approximately 2,500 gallons of the untreated wastewater entered a tributary to Pinehurst Lake. The spill was due to pipe failure. The NCDEQ was notified of the event on July 16, 2015 at 1:47 p.m.

August 2015

No overflows or permit violations to report

September 2015

Moore County Public Works had a discharge of untreated wastewater from our wastewater collections system at Lift Station PW-1 Force Main located at 10 Stoney Kirk Drive in Pinehurst, N.C. of approximately 22,594 gallons. The discharge occurred on September 21, 2015 for approximately four and one half hours while repairs were made. The untreated wastewater entered a tributary to Joe Fork Creek. The spill was due to pipe failure. The NCDEQ was notified of the event on September 22, 2015 1:00 p.m.

October 2015

The Water Pollution Control Plant had an overflow from the sand filters and inplant flume of approximately 804,100 gallons on October 3, 2015 from 7:30am to 2:30pm. The overflow was due to heavy rains associated with Hurricane Joaquin. The water overflowed from the sand filters and inplant flume, missing UV disinfection, before pooling in the catchment basin. No overflow waters reached the surface waters of the State of NC. The overflow was reported to NCDEQ on October 5, 2015 at 8:00am.

November 2015

No overflows or permit violations to report

December 2015

No overflows or permit violations to report

January 2016

Moore County Public Works had a discharge of untreated wastewater on January 6, 2016, of an estimated 7,140 gallons at 285 Sugar Gum in Pinehurst, NC near Lift Station 10-3. The untreated wastewater entered a tributary to Pinehurst Lake. The spill was due to pipe failure. The NCDENR was notified of the event on January 7, 2016 at 12:50 p.m.

Moore County Public Works had a discharge of untreated wastewater on January 17, 2016, of an estimated 1,500 gallons at Lift Station 13-1 located at 1356 Burning Tree Road in Pinehurst, NC. The untreated wastewater entered Pinehurst Lake, a tributary to Horse Creek. The spill was due to Pump Station failure. The NCDEQ Emergency Management was notified of the event on January 18, 2016 at 11:45 p.m.

February 2016

Moore County Public Works had a discharge of untreated wastewater from our wastewater collections system at Lift Station 16-1 located at 4 Lenoir Ct. in Pinehurst, N.C. of approximately 2,400 gallons. The discharge occurred on February 16, 2016 and lasted for approximately 1 hour until power was restored. The untreated wastewater entered a tributary to Nicks Creek. The spill was due to a power outage. NCDEQ was notified of the event on February 16, 2016 at 10:47 a.m.

Moore County Public Works had a discharge of untreated wastewater from our wastewater collections system at Lift Station PW-1 Force Main located at 10 Stoney Kirk Drive in Pinehurst, N.C. of approximately 1,000 gallons. The discharge occurred on February 25, 2016 for approximately two hours while repairs were made. The untreated wastewater entered a tributary to Joe Fork Creek. The spill was due to pipe failure. NCDEQ was notified of the event on February 25, 2016 at 2:19 p.m.

March 2016

Moore County Public Works had a discharge of untreated wastewater from our wastewater collections system at Lift Station PW-1 Force Main located at 10 Stoney Kirk Drive in Pinehurst, N.C. of approximately 705 gallons. The discharge was found on March 7, 2016 at 9:00 a.m. and continued until 3:30 p.m. on March 8, 2016 while repairs were made. The untreated wastewater entered a tributary to Joe Fork Creek. The spill was due to pipe failure. NCDEQ was notified of the event on March 8, 2016 at 1:00 p.m.

Moore County Public Works had a discharge of untreated wastewater on March 8, 2016, of an estimated 375 gallons at a manhole located at 115 Lake Forest Drive SW in Pinehurst, NC. The untreated wastewater entered a tributary to Horse Creek. The spill

was due to grease in the line. NCDEQ was notified of the event on March 8, 2016 at 10:00 a.m.

April 2016

No overflows or permit violations to report

May 2016

Moore County Public Works had a discharge of untreated wastewater on May 15, 2016, of an estimated 3,600 gallons at Pump Station 15-1, located at 39 Lake View Drive East in Pinehurst, NC. The spill was reported at 5:30 pm and continued for approximately 3 hours while repairs were made. The untreated wastewater entered an unknown tributary to Joe Fork Creek. The spill was due to equipment failure. NCDEQ was notified of the event on May 16, 2016 at 10:25 a.m.

The Water Pollution Control Plant was non-compliant for BOD the second week of May and the month of May. The BOD average for the week of May 8-12 was 11.1mg/L which exceeded the permit weekly average of 7.5mg/L. The BOD average for the month was 6.5mg/L which exceeded the permit monthly average of 5.0mg/L. The high BOD may have been the result of meter problems, low MLSS in second stage aeration basins due to possible over-wasting, or grease entering the plant.

June 2016

The Water Pollution Control Plant was non-complaint for BOD the third week of June. The BOD average for the week of June 12-16 was 7.9mg/L which exceeded the permit weekly average of 7.5mg/L.

The Water Pollution Control Plant had an overflow of the secondary digester on June 1, 2016 from 12:00am to 3:00am. The overflow was due to operator error. The sludge did not leave the plant site and was cleaned up by staff. The overflow was reported on June 1, 2016.

Improvements to the Collection System:

- **New Vac Truck purchased**
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- **Two (2) New Utility Trucks purchased**
- **CCTV all of the Vass Area**
- **CCTV one-third of the Interceptor**

Improvements to the Water Pollution Control Plant:

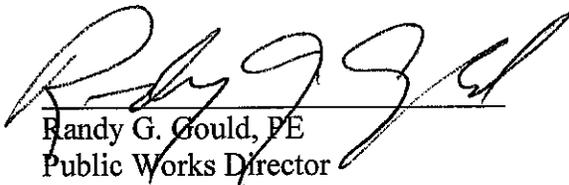
- **Telemetry system:**
Aquavx telemetry equipment was installed on 14 flow monitoring sites, 2 pumping stations that the WPCP maintains, and the on-site influent flow meter.
- **Rehab Raw Sewage Pumps:**
Pumps 1 and 4 were rebuilt and put back into service.
- **Polymer System Upgrades:**
The polymer system associated with the belt presses was redesigned by staff and installed for better mixing and cost savings purposes.
- **Wasting Valves:**
The gate valves for wasting first stage and second stage sludge were replaced.

Notification:

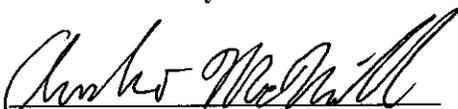
The availability of this report will be advertised in the local papers circulated in the Moore County area, and a Public Notice will be placed at the Moore County Public Works Building. This notice will inform all users and/or customers of the Moore County Water Pollution Control Plant that a report on the performance of this facility is available for their review. A copy of the report will be posted on the Moore County website or may be picked up at the Moore County Department of Public Works located at 5227 Highway 15-501 in Carthage, North Carolina. If you wish to receive a copy by mail please call (910) 947-6315.

Certification:

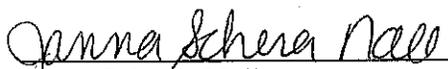
I certify under penalty of law this report is complete and accurate to the best of knowledge. I further certify this report will be made available to all users and/or customers of the Moore County Water Pollution Control Plant upon their request and advertised as noted above.


Randy G. Gould, PE
Public Works Director

8/18/16
Date


Andrew McNeill
Wastewater Collection ORC

8/22/16
Date


Janna Scherer Nall
Wastewater Plant ORC

8-18-16
Date