



2013 – 2014 ANNUAL WASTEWATER REPORT

Ocean Sands Wastewater System

The Clean Water Act of 1999 passed by the North Carolina General Assembly requires wastewater collection or treatment systems to provide an annual report to their customers. This report summarizes the performance of the Ocean Sands Water and Sewer District (OSWSD) Wastewater Collection System and Wastewater Treatment Plant (WWTP) for Currituck County's fiscal year, July 1, 2013 to June 30, 2014.

1. General Information

Facility Name: *OSWSD Wastewater Collection System*
Contact: William Nash, Currituck County Utilities Superintendent: (252) 232-6062
Operator: Currituck County: (252) 232-2769
Permit: NC Division of Water Quality Collection System Permit No. WQCS00273

Facility Name: *OSWSD Wastewater Treatment and High Rate Infiltration System*
Contact: William Nash, Currituck County Utilities Superintendent: (252) 232-6060
Operator: Currituck County: (252) 232-2769
Permit: NC Division of Water Quality Non-Discharge Permit No. WQ0000185

2. Collection System Information and Performance

Currituck County operates and maintains a wastewater collection system consisting of, approximately 7.6 miles of gravity sewer, approximately 3.3 miles of force main, 8 duplex pump stations, and all associated piping, valves, and appurtenances that makes and completes an operational wastewater collection system that serves the Ocean Sands Section of Currituck County.

North Carolina General Statute §143-215.1C requires municipalities, animal operations, industries and others who operate waste holding systems to issue news releases when a spill of 1,000 gallons or more reaches surface waters. A waste spill of 15,000 gallons or more requires a news release as well as a paid public notice.

During the 2013-14 fiscal years, Currituck County is pleased to announce that there were no sanitary sewer overflows (SSOs) in the Ocean Sands Wastewater Collection System, nor were there any Notice of Violations (NOV) issued for the collection system.

In accordance with Permit No. WQCS00273, Condition II, Operation and Maintenance Requirements, part 8, the County cleaned and videotaped all of the collection system from 2009 to 2013.

3. Wastewater Treatment Process

The OSWSD WWTP has a permitted capacity of 500,000 gallons per day. Wastewater treatment uses physical, biological and chemical processes to remove pollutants from water so it can safely be returned to the environment. The OSWSD WWTP consists of four independent extended aeration activated sludge treatment units followed by secondary clarifiers and tertiary filters.

3.1 Preliminary Treatment

Wastewater is conveyed to the treatment facility via the collection system and passes through screens to remove large, non-degradable objects. Grit, such as sand, silt, and other solids is also removed at the head of the facility to prevent wear on pumps, clogging of pipes, and grit accumulation in process tanks.

3.2 Secondary Treatment

The wastewater is sent directly to aeration tanks where it is infused with air to increase levels of dissolved oxygen. The oxygen supports a high concentration of aerobic bacteria which stabilize oxygen-demanding organic material, and nitrify ammonia to nitrates and nitrites.

Once ammonia and oxygen-demanding organic material has been reduced, the wastewater then flows into a clarifier where large solids settle out. The sludge collected in the bottom of the clarifier is removed, and the effluent is conveyed to the tertiary treatment process.

3.3 Tertiary Treatment

Wastewater passes through a filter system to remove the remaining particles left in suspension after the settling process. The material removed by the filters goes back into the system.

3.4 Disinfection and Discharge

The filtered effluent is disinfected with chlorine. The treated wastewater is then land applied at the treatment plant site.

4. Wastewater Treatment Plant Performance

The OSWSD WWTP was issued one (1) Notice of Violation (NOV) during the FY 2013-14 period on May 14, 2014 (NOV-2014-LM-0017) was issued for monitoring violations between November 2013 and February 2014. A new treatment plant is currently under design to remedy any future monitoring violations.

5. Information

If you have questions about this report or concerning the Ocean Sands Water & Sewer District, please contact William Nash, Currituck County Utilities Superintendent at (252) 232-6062.

6. You Can Help Us

Did you know that you play an important part in keeping the wastewater system working properly? We can't do it alone, so please read over the DOs and DON'Ts below:

- DO collect fat, oils and grease (FOG) in a container and dispose of it in the trash. Please DO NOT pour them down the drain. FOG clogs plumbing and can result in wastewater backing up into your home, or causing overflows in the collection system.
- DO place things such as personal hygiene products and diapers in a trash can. DO NOT flush plastics.
- DO place food scraps in the trash. Use garbage disposals as little as possible.
- DO NOT pour hazardous materials such as paint, pesticides, and herbicides down the drain.