



VILLAGE OF BALD HEAD ISLAND

2015 Wastewater Report

House Bill 1160, the Clean Water Act of 1999, was ratified by the North Carolina General Assembly on July 20 and signed into law by the Governor on July 21, 1999. This legislation placed significant reporting requirements on those entities that own or operate wastewater treatment and collection systems. In compliance with this Act, the Village Utilities Department provides an annual report to its users and the NC Department of Environment & Natural Resources. This report will be made available to the public each year. To reach all of our customers, we are mailing a copy of this 2014 report. Additional copies can be obtained in person or by contacting the Village Utilities Department at 910-457-7350.

This report summarizes the waste treatment works, collection system and their performances from January 1, 2015 until December 31, 2015. The report details the extent to which any terms of its permits, federal laws, state laws, regulations or rules related to the protection of water quality have been violated.

The Village of Bald Head Island wastewater treatment facility operates in accordance with permit number WQ0000193 based on provisions of Article 21 of Chapter 143, General Statutes of North Carolina as amended and other applicable Laws, Rules, and Regulations. This wastewater treatment facility is monitored by David A. Suther, (ORC) Operator in Responsible Charge.

The wastewater treatment facility began its initial operation November 1996 and was capable of processing 200,000 gallon per day of domestic waste. This facility was designed by McKim & Creed Engineers Inc. with all process equipment provided by Aqua-Aerobic Systems Inc.

By 2002 plans were underway to expand treatment capacity to 400,000 gallons per day. This capacity upgrade would be achieved by the addition of a pre-equalization basin, batch reactor and improving tertiary treatment.

Our engineers and consultants have been working to improve our wastewater treatment process. The improvements are necessary to achieve reuse quality effluent for future irrigation disposal. This project will be completed in phases over several years. Upgrades will consist of equipment required for chemical additions, monitoring equipment to control pH and DO also increase blower capacity to meet dissolved oxygen needs.

As shown on the chart below, some limits can be exceeded from time to time. Please be assured that our Utilities Department is committed to continually look for new and innovative ideas to improve the treatment process for both performance and capacity.

	Limit	WQ0000193 Limits Exceeded	
Fecal Coliform	Daily 43 CFU/100 mL	April 2015	55 CFU/100 mL
Ammonia as Nitrogen (NH3)	Monthly 4 mg/l	July 2015	4.67 mg/l
Biological Oxygen Demand (BOD)	Monthly 10 mg/L	August 2015	17.25 mg/L

mg/l - milligram per liter CFU/100 mL – Colony Forming Units/100mL

Our water treatment facility consist of three (3) reverse osmosis water purifying systems that produces a waste called “reject”. This reject water is discharged to the Bald Head Island Marina under permit number NC0085553 and operates in compliance with North Carolina General Statute 143-215.1. The water treatment facility and reject produced is monitored by David A. Suther, (ORC) Operator in Responsible Charge. The waste (reject) from water treatment is monitored for certain contaminates.

As shown on the chart below, some limits can be exceeded from time to time, Arsenic is a natural accruing contaminate that enters our water supplies from natural deposits within the earth. The Village Utilities staff will perform sampling of our ground water source to identify the location(s) of this contaminate and try to manage it in the future.

	Limit	NC0085553 Limits Exceeded	
Arsenic	Daily 10 ug/L	June 2015	14 ug/l
pH	Min 6.8 & 8.5 Max	June 2015	pH 6.5

ug/l - microgram per liter pH is a measure of how acidic / basic water is, range is from 0 – 14 with 7 being neutral

The Village wastewater collection system has approximately 180,000 feet of sewer mains, size ranging from 1.5” to 10” in diameters and (38) various sized lift stations, which collect and convey domestic waste to our treatment facility for processing. This collection system operates in accordance with permit number WQCS00276 and it is monitored by Kenneth D. Bowling ORC, we are happy to report no reportable spills during 2015.

Our staff is committed to protecting the environment and providing excellent customer service. We look forward to meeting your wastewater needs in the future.

The information supplied in this report is complete and accurate to the best of my knowledge.

Kenneth D. Bowling, VBHI Utilities Director

1/8/2015

Date