



Village of Bald Head Island Annual Drinking Water Quality Report 2010

There are a number of ways
to save water, and they all
start with you!

Volume 12, Issue 1
June 2011

VILLAGE OF BALD HEAD ISLAND UTILITIES GENERAL INFORMATION

The Village of Bald Head Island offers electronic bank draft from your checking account to take away the worry of paying your utility account every month. Please contact us if you would like to take advantage of this service. Please be sure to reference the account number when remitting your payment. Your account number is located on your bill.

As most of you are aware, there have been some changes made to our utility billing. In an effort to be more cost effective, the Village has decided to outsource the billing process. The new format of your bill provides account privacy, easier to read and understand, plus provides you more information. If you have any questions or concerns regarding your bill, please call Daralyn Spivey at 910-457-9700 between 8:30 and 4:00 Monday thru Friday.

If you have a service problem "after hours or on the weekend" that requires immediate attention, please call our office, leave your name, phone number, island address and a brief description of the water or sewer issue. A technician will call you back. You may also call our on-call staff direct at 910-616-7716.



UTILITIES DIRECTOR

Ken Bowling, pictured above, is responsible for the day-to-day operations of The Village Bald Head Island Utilities Department. For questions concerning the Utilities Department you may contact:

Kenneth D. Bowling
PO Box 3009

Bald Head Island, NC 28461
(Office) 910-457-7351

IMPORTANT INFORMATION ABOUT YOUR DRINKING WATER

The Village of Bald Head Island water treatment facility was inspected by the North Carolina Public Water Supply Section on October 6th 2010. The inspector gave our facility overall favorable results and added the following comments "The paper work was in excellent order and the system overall looks good" We are also happy to report that the entire water system did not receive any violations during the 2010 reporting period. Your Utilities Department is committed to providing you with the most reliable and safest drinking water possible, day in and day out.



Lloyd Jackson is the newest member of our team. Lloyd brings several years of electrical experience that makes him a great asset to our Dept.

Have your bill "emailed"

In an effort to be more environmentally responsible, the Village Utilities Department is now offering the option of receiving your bill via email. Please notify Daralyn Spivey at dspivey@villagebhi.org if you are interested.



WATER AND WASTEWATER Operator in Responsible Charge

Pictured above is David Suther and his assistant Michael Fishburn. David is responsible for the water operations on Bald Head Island. For questions concerning your water quality you may contact:

David A. Suther, Sr.
PO Box 3009

Bald Head Island, NC 28461
(Office) 910-457-7352

WAYS TO SAVE WATER...

- Verify that your home is leak free. Many homes have hidden water leaks. Read your water meter before and after a two-hour period when no water is being used. If the meter does not read exactly the same, there could be a leak!
- Never pour water down the drain when there may be another use for it such as watering a plant or garden, or for cleaning around your home. Place a bucket in the shower to catch excess water and use this to water plants
- Check the toilet for worn out, corroded or bent parts. Most replacement parts are inexpensive, easy to install and available at the Island Hardware Store
- Operate automatic dishwashers only when they are fully loaded. Use the "light wash" feature, if available, to use less water
- When buying new appliances, consider those that offer cycle and load size adjustments. They're more water and energy efficient
- Store drinking water in the refrigerator. Do not let the tap run while you are waiting for water to cool
- Avoid wasting water waiting for it to get hot. Capture it for other uses such as plant watering or heat it on the stove or in the microwave
- Avoid rinsing dishes before placing them in the dishwasher; just remove large particles of food. Most dishwashers can clean soiled dishes very well, so dishes do not have to be rinsed before washing
- In times of drought, water with a garden hose and only water your plant when they really need it
- Collect water from your roof to water your garden. Rain barrels are available at the Village Public Works department
- Remember to check your sprinkler system for proper operation and keep the sprinkler heads in good shape



UTILITIES STAFF

The Village Utilities Department is made up of dedicated employees. (L-R) Charles Trott, Wayne Ingram, Ken Bowling, David Suther, David Mintz and David Simmons (Kneeling) Michael Fishburn, Daralyn Spivey, and Eric Craven

We look forward to working for you for many years to come. For general questions or comments call: **910-457-7350** and please visit our web site for additional information at www.villagebhi.org

WHERE DOES YOUR WATER COME FROM

Your drinking water comes from surface water or groundwater. Surface water includes rivers, lakes, and reservoirs. Ground water is pumped from wells that are drilled into aquifers.

Aquifers are geologic formations that contain water. The quantity of water in an aquifer and the water produced by a well depends on the nature of the rock, sand, or soil in the aquifer where the well withdraws water.

The water source for Bald Head Island is groundwater and we purchase water from Brunswick County.

Our groundwater wells draw from a semi-confined aquifer located at depths ranging from 55 - 65 feet below the surface of Bald Head Island. Our well system currently has (16) groundwater wells. These state approved wells are known as production wells. The water from the production wells is piped to our water treatment facility where it is highly filtered to remove any contaminants and then disinfected, aerated and stored until consumed. The Village of Bald Head Island purchases water from Brunswick County on an "as needed basis" to meet daily demand or as our contract agreement dictates. Brunswick County water consists of ground water from the Castle Hayne Aquifer and surface water drawn from the Cape Fear River above Lock and Dam # 1.

Brunswick County water is very compatible with Bald Head Island water therefore both supplies are blended and stored together until consumed.



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Listed below are substances detected in Bald Head Island drinking water from 2009 and 2010. Not listed are the hundreds of other substances for which we tested but were not detected.

Contaminant	Violation Y/N	BHI Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
Radioactive Contaminants Tested: Sept. 2009 (Required Every (6) Years)						
1. Combined Radium	N	.5	pCi/L	5	5	Decay of natural and man-made deposits
Inorganic Contaminants Tested: Oct. 2009 (Required Every (3) Years)						
2. Antimony	N	0	ppb	6	6	Discharge from petroleum refineries; fire retardants; ceramics; electronics; solder
3. Arsenic	N	0	ppb	0	10	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes
4. Barium	N	0	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
5. Beryllium	N	0	ppb	4	4	Discharge from metal refineries and coal-burning factories; discharge from electrical, aerospace, and defense industries
6. Cadmium	N	0	ppb	5	5	Corrosion of galvanized pipes; erosion of natural deposits; discharge from metal refineries; runoff from waste batteries and paints
7. Chromium	N	0	ppb	100	100	Discharge from steel and pulp mills; erosion of natural deposits
8. Cyanide	N	0	ppb	200	200	Discharge from steel/metal factories; discharge from plastic and fertilizer factories
9. Fluoride	N	0	ppm	4	4	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
10. Mercury (inorganic)	N	0	ppb	2	2	Erosion of natural deposits; discharge from refineries and factories; runoff from landfills; runoff from cropland
11. Selenium	N	0	ppb	50	50	Discharge from petroleum and metal refineries; erosion of natural deposits; discharge from mines
12. Thallium	N	0	ppb	0.5	2	Leaching from ore-processing sites; discharge from electronics, glass, and drug factories
Synthetic Organic Contaminants including Pesticides and Herbicides Tested: Nov. 2009 (Required Every (3) Years)						
13. Atrazine	N	0	ppb	3	3	Runoff from herbicide used on row crops
14. Carbofuran	N	0	ppb	40	40	Leaching of soil fumigant used on rice and alfalfa
15. Oxamyl [Vydate]	N	0	ppb	200	200	Runoff/leaching from insecticide used on apples, potatoes and tomatoes
Volatile Organic Contaminants Tested: Oct 2009 (Required Every (3) Years)						
No Detection						
Disinfectants and Disinfection Byproducts Contaminants Tested: Quarterly						
16. TTHM [Total trihalomethanes]	N	Avg 7.5	ppb	N/A	80	By-product of drinking water chlorination
17. HAA5 [Total Haloacetic Acids]	N	Avg 6.2	ppb	N/A	60	By product of drinking water disinfections
18. Chloramines	N	Avg 1.83	ppm	4	4	Water additive used to control microbes (Tested daily)
Lead and Copper Contaminants Tested: Sept. 2010 (Required Every (3) Years)						
19. Copper	N	.553	ppm	1.3	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives
20. Lead	N	< RRL	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Nitrate (as Nitrogen) Tested: Nov. 2010 (Required Yearly)						
21. Nitrate (as Nitrogen)	N	<1	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits

MCLG - EPA's Maximum Contaminant Level Goal
MCL - EPA's Maximum Contaminant Level
ppm - parts per million
ppb - parts per billion
pCi/L - Pico-curies MCLG - EPA's Maximum Contaminant Level Goal
RRL - Required Reporting Limit

CALCULATE HOW MUCH WATER YOU USE

1. Locate your Bald Head Island water statement and see how many units of water you are using. What is a unit? A unit is 1,000 gallons. Write the number of units here ____ unit.
2. ____units X 1,000 = ____ gallons per month.
3. ____ gallons per month divided by 30 (average days per month) = ____ gallons per day.
4. ____ gallons per day divided by ____ (number of people in your family) = ____ gallons per person per day.

(SWAP) Results Summary

Well Name	Susceptibility Rating	Well Name	Susceptibility Rating
Edward Teach # 1,2,3,4,	Moderate	Laughing Gull # 1	Moderate
Cape Fear Station	Moderate	Federal Well # 1,2,3	Moderate
Office Well # 1	Moderate	Muscadine # 1,2	Moderate
Royal James Well # 1	Moderate	Central Well # 1,2,5	Moderate

Source Water Assessment Program (SWAP)

The North Carolina Department of Environment and Natural Resources (DENR), Public Water Supply (PWS) Section. Source Water Assessment Program (SWAT) conducted assessments for all drinking water sources across North Carolina. The purpose of the assessments was to determine the susceptibility of each drinking water source (well or surface water intake) to Potential Contaminant Sources (PCSs). The results of the assessment are available in SWAP Assessment Reports that include maps, background information and a relative susceptibility rating of Higher, Moderate or Lower.

The relative susceptibility rating of each source for The Village of Bald Head Island Utilities Department was determined by combining the contaminant rating (number and location of PCSs within the assessment area) and the inherent vulnerability rating (i.e., characteristics or existing conditions of the well or watershed and its delineated assessment area.) The assessment findings are summarized in the table to the left.

The complete SWAP Assessment report for The Village of Bald Head Island may be viewed on the Web at: <http://www.deh.enr.state.nc.us/pws/swap>. To obtain a printed copy of this report, please mail a written request to: Source Water Assessment Program—Report Request, 1634 Mail Service Center, Raleigh NC 27699-1634. Email request to swap@ncmail.net. Please indicate The Village of Bald Head Island, PWS ID #04-10-130, and provide your name, address and phone number. If you have any questions about this the report please contact: Source Water Assessment staff by phone at 919-715-2633.

It is important to understand that a susceptibility rating of "higher" does not imply poor water quality, only the systems' potential to become contaminated.