

# Oak Bluffs Water

July 1, 2011

Volume 13

## 2010 Water Quality Report

**Oak Bluffs Water District**  
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Office Administrator

**Office Hours:**

8:30am-12:00noon  
1:00pm-4:00pm  
Monday - Friday

**Governing Board:**

Oak Bluffs Board of  
Water Commissioners

Kevin H. Johnson  
Chairman  
Michael S. deBettencourt.  
Raymond J. Moreis Jr

**Meeting Schedule:**

**Regularly Scheduled Meetings:**

First and third  
Wednesdays  
each month,  
at 4:30pm at the  
Water District Office.

**Additional Meetings:**

Wednesdays at 4:30pm,  
as needed.

**All meetings are open to the public.**

**If you wish to speak at one of our meetings, please call the office in advance to be scheduled on our agenda.**

The Oak Bluffs Water District is pleased to present a summary of the quality of the water provided to you during the past year. The Safe Drinking Water Act (SDWA) requires that utilities issue an annual "Consumer Confidence" report to customers in addition to other notices that may be required by law. This report details where our water comes from, what it contains, and the risks our water testing and treatment are designed to prevent. The Oak Bluffs Water District is committed to providing you with the safest and most reliable water supply. A Sanitary Survey is performed every 3 to 5 years by the Department of Environmental Protection (DEP) and is available upon request. Informed customers are our best allies in maintaining safe drinking water.

The Source Water Assessment and Protection (SWAP) Program, established under the federal Safe Drinking Water act, requires every state to inventory land uses within the recharge areas of all public water supply sources; assess the susceptibility of drinking water sources to contamination, and publicize the results to provide support for improved protection. The overall ranking of susceptibility to contamination for the Oak Bluffs water system is high, based on the presence of at least one high threat land use within the water supply protection areas. The complete SWAP report is available at the Water District office. For more information, call the office at 508-693-5527.

## Where Our Water Comes From...

The Oak Bluffs Water District receives its water from five supply sources, the Lagoon Pond Well, the Farm Neck Well, the State Forest Well, the Madison Alwardt Sr Well, and the John H. Randolph Jr Well. All five sources are groundwater supplied from the Island's sole source aquifer.

Aquifer is the name given to underground soil or rock through which groundwater can easily move. An aquifer is recharged from rainwater and snowmelt, and from lakes and rivers.

With careful use, and by reducing sources of pollution, groundwater will continue to be an important natural resource.

The Lagoon Pond Well, (Well #1), off Barnes Road, consists of 7 gravel packed wells. Combined, they are capable of pumping 850 gallons per minute (gpm).

The Farm Neck Well (Well #2), on

Tradewinds Road, consists of 2 gravel packed wells. Combined, they are capable of pumping 600 gallons per minute (gpm).

The State Forest Well (Well #3), off Airport Road, consists of a single gravel packed well, capable of pumping 1000 gallons per minute.

The Madison Alwardt Sr Well (Well #4), off Airport Road, consists of a single gravel packed well, put into operation in 2003. It is capable of pumping 1000 gpm.

The most recent well, the John H. Randolph Jr Well #5, became operational in August, 2008, and is also located off Airport Road. Its water is treated through the Well #4 station.

This water system is interconnected with the Edgartown water system. In the event of a water emergency, the Oak Bluffs water system can be fed by the Edgartown system.

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**WATER QUALITY TABLE**

This table shows the results of our water quality analyses. Although we run well over 100 different water quality tests throughout the year, the table below lists only those substances that we detected in the water, even in the most minute traces. They are all below the Maximum Contaminant Levels. The table contains the name of each substance, the highest level allowed by regulation (MCL), the ideal goals of public health, the amount detected, the usual source of such contamination, and a key to units of measurement. Definitions of MCL and MCLG are important.

<b>Microbial Results</b>	<b>Highest # Positive in a Month</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
Total Coliform	3	1	0	YES**	Naturally present in the environment
Fecal coliform-E.coli	0	*	0	NO	Human and animal fecal waste

\*Compliance with the Fecal Coliform/E.Coli MCL is determined upon additional testing.

\*\*Total Coliform: Coliforms are bacteria that are naturally present in the environment and are used as an indicator that other potentially harmful bacteria may be present. Coliforms were found in more samples than allowed and this is a warning of potential problems. About our Coliform violation: In April, 2010 coliforms were found in the water system. A notice was issued to the public. Subsequent samples came back negative. We continue to monitor the water carefully each month for coliforms and other contaminants within the water system.

<b>Lead &amp; Copper</b>	<b>Date(s) Collected</b>	<b>90<sup>th</sup> Percentile of Sample*</b>	<b>Action Level</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
Lead (ppb)	9/10	0.007	0.015	0	YES**	Corrosion of household plumbing
Copper (ppm)		0.07	1.3	1.3	YES**	Corrosion of household plumbing

\*This is the 90th percentile sample result out of 29 samples taken. Zero samples exceeded the Action Level for Copper. Zero samples exceeded the Action level for lead.

\*\*Explanation of violation on 10/1/10: OBWD did collect and analyze samples for SOME BUT NOT ALL of the contaminants during the monitoring period. Result 30 lead and copper samples will be taken in 2011.

<b>Regulated Contaminants</b>	<b>Date(s) Collected</b>	<b>Highest Detect Value</b>	<b>Range Detected</b>	<b>MCL</b>	<b>MCLG</b>	<b>Violation</b>	<b>Possible Source of Contamination</b>
<b>Inorganic Contaminants</b>							
Arsenic (ppb)	4/8/09	2	ND-2	10	10	NO	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes.
Barium (ppm)	06/09	0/04	ND-0.031	2	2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits
Fluoride (ppm)	2010	0.97	0.32-0.97	4	4	NO	Water additive which promotes strong teeth
Nitrate (ppm)	1/10,5/10, 7/10	<0.1	0.09, <0.1	10	10	YES <small>see bottom table</small>	Runoff from fertilizer use; leaching from septic tanks; sewage; erosion of natural deposits
Perchlorate (ppb)	8/10	0.35	ND-0.35	2.0	0	NO	Rocket propellants, fireworks, munitions, flares, blasting agents
<b>Radioactive Contaminants</b>							
Alpha Emitters (pCi/L)	2009	0.78	ND-0.78	15	0	NO	Erosion of natural deposits
Radium 226 & 228 Combined (pCi/L)	2009	1.1	ND-1.1	5	0	NO	Erosion of natural deposits
<b>Volatile Organic Contaminants</b>							
Tetrachloroethylene (PCE) (ppb)	3/10, 4/10, 7/10	8.9	0.6 -8.9	5	0	YES***	Discharges from factories and drycleaners; leaching from vinyl-lined water mains

**Tetrachloroethylene (PCE)** - Some people who drink water containing tetrachloroethylene in excess of the MCL over many years could have problems with their liver. \*\*\* In April, 2010, a bleeder on Tamarack Lane was shut down by an unknown party; this resulted in a higher than normal reading; after return to normal flow and further testing the sample came back ND.

**MONITORING VIOLATION:** We failed to complete required sampling in a timely manner. Because we did not take the required number of samples, we did not know whether the contaminants were present in your drinking water, and we are unable to tell you whether your health was at risk during that time. The contaminants for which monitoring was not done are listed in the table below, with the period during which samples should have been taken.

<b>Contaminant</b>	<b>Monitoring Period</b>	<b>Health Effects</b>	<b>Explanation</b>
Volatile Organic Contaminants (VOC)	10/1/10-12/31/10	Unknown	Explanation of violation on 10/1/10 to 12/31/10; OBWD did not collect and analyze samples for VOC during the monitoring period. Action Taken: samples were taken immediately upon notification; samples came back from analysis ND.
Nitrate	7/1/10-9/30/10	Infants below the age of six months who drink water containing nitrate in excess of the MCL could become seriously ill and, if untreated, may die. Symptoms include shortness of breath and blue baby syndrome.	Explanation of violation on 7/1/10 to 9/30/10; OBWD did collect and analyze samples for SOME BUT NOT ALL of the contaminants during the monitoring period. Action Taken: sample was taken immediately upon notification; sample came back ND.

ppm = parts per million, or milligrams per liter (mg/l)  
 ppb = parts per billion, or micrograms per liter, (ug/l)  
 pCi/l = picocuries per liter, (a measure of radioactivity)

**AL = Action Level:** The concentration of a contaminant that, if exceeded, triggers treatment or other requirements, which a water system must follow.

**Lead and Copper 90th Percentile:** Out of every 10 homes sampled, 9 were at or below this level.

**KEY TO TABLE**

**ND = Non-Detected**

**MCL or Maximum Contaminant Level:** The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.

**MCLG or Maximum Contaminant Level Goal:** The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.

## Health Information

### Source Waters and Their Potential Contaminants

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and radioactive materials, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water include:

(A) Microbial contaminants, such as viruses and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

(B) Inorganic contaminants, such as salts and metals, which can be a naturally-occurring result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

(C) Pesticides and herbicides, which may come from a variety of sources such as agriculture, urban stormwater runoff, and residential uses.

D) Organic chemical contaminants, including synthetic and volatile organic chemicals, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm-water runoff and septic systems.

E) Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

In order to ensure the tap water is safe to drink, the DEP and EPA prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) and the Massachusetts Department of Public Health (DPH) regulations establish limits for contaminants in bottled water that must provide the same protection for public health.

Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791).

### Educational Statement for Lead

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. The Oak Bluffs Water District is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are

### People at Risk

Some people may be more vulnerable to contaminants in drinking water than is the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* are available from the Safe Drinking Water Hotline (800-426-4791).

### Water Chemistry

Water chemistry is happening in the distribution system when the water reacts with the water main materials, such as cast iron. The groundwater pH without treatment is acidic at approximately 5.2-5.6. The treated water in our system becomes neutral with its pH recording approximately 7.0-7.6. The pH treatment is necessary for corrosion control of the water mains.

The Oak Bluffs Water District treats the groundwater for pH adjustment and adds fluoride to the water to aid in dental hygiene. The pH and fluoride levels are tested daily to assure stability and optimum water quality.

The chemicals used to treat our water's pH are lime CaOH (calcium hydroxide) and KOH (potassium hydroxide).

In 2010, the Water District continued to add sodium hexametaphosphates to the water at the Lagoon Pond Station and the Alwardt Well to help alleviate the rusty looking water problem associated with the natural iron content at those wells.

All present and future treatment methods must be approved by the Department of Environmental Protection and chemical dosages used are reported to them monthly.

### WATER CONSERVATION PRODUCTS

are available for sale at our office to help with water conservation.

Prismiere Showerhead 2.2gpm	\$6.00 ea
Kitchen Sink Aerator 2.5 gpm	\$ .50 ea
Bathroom Sink Aerator 1.5 gpm	\$ .50 ea
Toilet Tank Bank	\$1.00 ea
Dye tablets to detect toilet leaks	Free
Informative Conservation Brochures	Free

concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

### WATER FACTS:

Providing safe, sufficient drinking water is everybody's business. You can help take better care of our community's water resources by practicing the following "water-wise" habits:

- ◆ Look for any leaks in faucets, pipes, and plumbing - and fix them immediately.
- ◆ Turn off the tap when you shave or brush your teeth.
- ◆ Install low-flow shower heads and faucet aerators.
- ◆ Use your dishwasher and washing machine only for full loads.
- ◆ Do not dump hazardous household or motor products on the ground or down sinks or drains.

**TO LEARN MORE ABOUT WAYS YOU CAN CONSERVE AND PROTECT OUR DRINKING WATER SUPPLIES, CONTACT THE OAK BLUFFS WATER DISTRICT at (508) 693-5527 or The New England Water Works Association at (508)893-7979.**

# Oak Bluffs Water

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Oak Bluffs, MA 02557

First Class Mail  
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Permit #7

## BOXHOLDER OAK BLUFFS, MA 02557

### SYSTEM OVERVIEW 2010

The Oak Bluffs Water District has continued to initiate improvements in the water distribution system. The Water District staff installed 60 feet of new 6" water main, as well as installed 2 new fire hydrants, which improves the reliability of the distribution system for water distribution and fire flows. The District installed & Revamped 30 water services, and continued with the meter replacement & repair program by installing 98 water meters and 62 meter interface units (MIU). The Water District continued to produce the highest quality drinking water from our wells during 2010, with a combined annual pumpage of 348.205 million gallons. This is a increase of 7.138 million gallons from the year 2009. As anticipated, the highest yields occurred during the summer months, and our highest production day resulted in the pumping of 3.03 million gallons on July 4, 2010.

The Water District engaged CDM to initiate a distribu-

#### WATER TESTING

The Oak Bluffs Water District uses State Certified Laboratories to perform their water testing. Envirotech Laboratories, Inc. in Sandwich, MA and Wampanoag Lab performs all of our monthly bacteriological testing as well as all other tests required by MassDep.

**O relatorio contem informacoes importantes sobre a qualidade da agua da comunidade. Traduzo-o ou peca ajuda de uma pessoa amiga para ajuda-lo a entener melhor.**

tion Water Audit Survey to evaluate the accuracy of the largest meters in Oak Bluffs and a leak survey. The mandatory water ban remained in effect due to the District exceeding its Water Withdrawal Permit. The District continues to encourage water conservation.

The Oak Bluffs Water District continues to improve operations to better serve you the customer. Late May we will be changing our billing software and how we collect payments. All mailed payments will go to Mark Altman & Co. We still offer (Unipay Gold) for our online payment method. Office drop offs are welcome. This April Oak Bluffs Water District started it's bian-annual flushing program. This will occur in the spring April and May months also in the fall October and November months. Lagoon Pond Well #1 is under contract to be cleaned and Redeveloped for 2011.

#### MEMBERSHIP AFFILIATIONS

##### AWWA

American Water Works Association

**Barnstable County Water Utilities  
Association, Inc.**

##### MWWA

Massachusetts Water Works Association

##### NEWWA

New England Water Works Association