

**Seabrook Water Department**  
(CWS No. 2111010)  
**Seabrook, New Hampshire**  
2007 Annual Report to Consumers on Water Quality

The Seabrook Water Department is pleased to present our annual report on the quality of water delivered to you during 2007. This report meets the Federal Safe Drinking Water Act (SDWA) requirement for "Consumer Confidence Reports" and contains information on the source of our water, its constituents, and the health risks associated with any contaminants. The Town of Seabrook is committed to providing you with the safest and most reliable water supply. Informed consumers are our best allies in maintaining safe drinking water.

We encourage public interest and participation in our community's decisions affecting drinking water. The Water Department Superintendent is available during normal business hours at the Water Department Office, 43 Railroad Avenue or by calling 603-474-9921. Also, the Town Manager and Selectmen can be contacted at 603-474-3311 if additional information is required. The Board of Selectmen/Water Commissioners meets every other Wednesday.

#### **Water Source**

The Seabrook water system is supplied by groundwater pumped from five gravel-packed wells and five rock-wells located in the western part of town. These wells supplied approximately 346 million gallons of water to the Town in 2007. The gravel-packed wells range from 50 to 125 feet deep. The rock-wells are 500 feet deep.

#### **Water Treatment**

All wells are chlorinated with sodium hypochlorite or calcium hypochlorite. Some wells with high iron and manganese are treated with polyphosphate to reduce plumbing fixture staining. Fluoride is not added to the water supply.

#### **NHDES Source Water Assessment**

The NH Department of Environmental Services (NHDES) prepared a Source Assessment Report for the sources serving this public water system in 2005, assessing the sources' vulnerability to contamination. The complete Assessment Report is available at the Water Department Office for review or visit NHDES, Drinking Water Source Assessment Program web site at [www.des.nh.gov/dwgb](http://www.des.nh.gov/dwgb).

#### **Health Information**

**Radon:** Radon is a radioactive gas that you can't see, taste or smell. It can move up through the ground and into a home through cracks and holes in the foundation. Radon can also get into indoor air when released from tap water from showering, washing dishes, and other household activities. It is a known human carcinogen. Breathing radon can lead to lung cancer. Drinking water containing radon may cause an increased risk of stomach cancer. Presently the Environmental Protection Agency (EPA) is reviewing a standard for radon in water.

**Arsenic levels above 10 parts per billion (ppb):** Some people who drink water containing arsenic in excess of the Maximum Contaminant Level (MCL) over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer. Elevated levels are present in our rock-wells. As this water is blended with the water from our gravel-packed wells, the arsenic level is reduced.

In January of 2006, EPA lowered the MCL of arsenic from 50 ppb to 10 ppb. For monitoring done in 2005 and earlier, arsenic detections above 10 ppb but below 50 ppb were not in violation of the drinking water standards. The design of the water treatment plant, for arsenic, radon, iron and manganese removal for the rock-wells is being undertaken by Earth Tech with construction planned for 2008. Until completion of the groundwater treatment plant, consumers will receive quarterly public notices informing them of any continuing arsenic exceedances by direct mail and in the legal notices section of a local newspaper.

### **Additional Health Information**

To ensure that tap water is safe to drink, the EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water, which 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 EPA's Safe Drinking Water Hotline (1-800-426-4791).

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, in some cases, radioactive material, and can pick up substances resulting from the presence of animals or from human activity. Contaminants that may be present in source water include:

- **Microbial contaminants**, such as viruses, bacteria, and protozoa which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic Compounds**, such as salts and metals, which can be naturally-occurring or result from urban stormwater runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.
- **Synthetic Organic Compounds**, such as pesticides and herbicides, which may come from a variety of sources such as agriculture, stormwater runoff, and residential uses.
- **Organic Chemical Compounds**, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff, and septic systems.
- **Radioactive contaminants**, which can be naturally occurring or be the result of oil and gas production and mining activities.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline (1-800-426-4791).

### **Water-Quality Data Table**

The table shows the results of our water-quality analyses. Every regulated contaminant that we detected in the water, even in the most minute traces, is listed here. We also listed any EPA designated unregulated contaminant that was detected. Unregulated contaminants are those for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining their occurrence in drinking water and whether future regulation is warranted.

**MCLG: 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.

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

**MRDLG: Maximum Residual Disinfectant Level Goal** The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

**MRDL: Maximum Residual Disinfectant Level** The highest level of a disinfectant allowed in drinking water. There is convincing evidence that the addition of a disinfectant is necessary for control of microbial contaminants.

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

The data presented in this report is from the most recent monitoring done in compliance with regulations ending with year 2007. Results prior to 2007 will include the date the sample was taken.

**Abbreviations:**

AL = Action Level

MCL = Maximum Contaminant Level

MCLG = Maximum Contaminant Level Goal

MRDL = Maximum Residual Disinfectant Level

MRDLG = Maximum Residual Disinfectant Level Goal

pCi/L = picocuries per liter, a measure of radioactivity

ppm = parts per million, or milligrams per liter (mg/L)

ppb = parts per billion, or micrograms per liter (ug/L)

ND = not detectable

N/A = not applicable

Inorganic Contaminants	Units	MCL	MCLG	Max Level Detected	Range	Violation Yes/No	Major Sources
Arsenic	ppb	10	0	41	ND - 41	Yes	Erosion of natural deposits; Runoff from orchards, glass and electronics production wastes
Barium	ppm	2	2	0.017	ND – 0.017	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	1.41	ND - 1.41	No	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits

Inorganic Contaminants	Units	MCL	MCLG	90th Percentile	# of Sites Above AL	Violation Yes/No	Major Sources
Copper	ppm	AL=1.3	1.3	0.267 (8/4/05)	0 out of 15 sites	No	Corrosion of household plumbing systems

Radioactive Contaminants	Units	MCL	MCLG	Average Amount	Range	Violation Yes/No	Major Sources
Analytical Gross Alpha	pCi/L	15	0	2.5	2.5 *	No	Erosion of natural deposits
Compliance Gross Alpha	pCi/L	5	0	2.5	2.5 *	No	Erosion of natural deposits
Radon	pCi/L	Unregulated		1650 (2/19/04)	1500 - 1800	N/A	Erosion of natural deposits
Uranium (Activity)	pCi/L	Unregulated		0.6	0.6 *	N/A	Erosion of natural deposits
Uranium (Mass)	ppb	30	N/A	1.0	1.0 *	No	Erosion of natural deposits
Combined Radium (226/228)	pCi/L	5	0	0.6	0.6 *	No	Erosion of natural deposits

\* only one sample taken

Volatile Organic Contaminants	Units	MCL	MCLG	Max Level Detected	Range	Violation Yes/No	Major Sources
Methyl tertiary-butyl ether (MTBE)	ppb	13	13	1.6	ND – 1.6	No	A gasoline additive
Trichloroethene	ppb	5	0	1.2	0 - 1.2	No	Discharge from metal degreasing sites and other factories
Haloacetic Acids (HAA5s)	ppb	60	N/A	5.0	ND – 5.0	No	By-product of chlorination
Total Trihalomethanes (TTHMs)	ppb	80	N/A	15	9.9 - 15	No	By-product of chlorination

Volatile Organic Contaminants	Units	MRDL	MRDLG	Yearly Running Average	Range	Violation Yes/No	Major Sources
Chlorine	ppm	4	4	0.13	0.09 – 0.16	No	Water additive used to control microbes

**Water-Quality Table Notes**

1. Although we ran hundreds of tests, only the listed substances were found.
2. We monitor for some contaminants less than once a year because the State has determined that these contaminants are not expected to vary from year to year.
3. After successful testing this year, Seabrook has been granted Synthetic Organic Compound (SOCs) sampling waivers until April, 2010.

**Improvements**

The painting of the interior of the elevated water tank located on Route 286 was completed this year. New chain link fencing was installed around six town wells that were not protected, thus increasing security around the sources. Meter and Backflow Services (MBS) has completed the installation of residential meters. MBS will continue into early 2008 to upgrade or replace commercial/industrial meters that are incorrectly sized, worn out or non-radio read. Gravel-packed Well No. 4 was cleaned and a new pump was installed which added more capacity to the system. Test well drilling and flow testing for new well sources began in the fall and will continue into 2008.

The test wells were drilled adjacent to Tri-Town Pond and Old New Boston Road and to the west of the Pineo Farms subdivision off of Stard Road.

Town Of Seabrook  
Water Department  
PO Box 456  
Seabrook, NH 03874