

Seabrook Water Department
(CWS No. 2111010)
Seabrook, New Hampshire
2005 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 2005. 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 are proud to report that the water provided by Seabrook Water Department meets or exceeds established primary water-quality standards for the calendar year of 2005.

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 474-9921. Also, the Town Manager and Selectmen can be contacted at 474-3311 if additional information is required. The Board of Selectmen/Water Commissioners meets every Wednesday or every other Wednesday during the summer months.

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 381 million gallons of water to the Town in 2005. The gravel packed wells range from 50 to 125 feet deep. The rock-wells are 500 feet deep.

NH Department of Environmental Services (NHDES) prepared a Source Assessment Report for the sources serving this public water system on July 10, 2005, assessing the sources' vulnerability to contamination. The results of the assessment indicating the number of low, medium and high susceptibility factors for each source are shown in the table at the end of this annual report. 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.state.nh.us/dwspp.

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 US Environmental Protection Agency (EPA) designated unregulated contaminant that was detected.

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 requirement 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 2005. Results prior to 2005 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)
A = absent P = present
ND = not detectable N/A = not applicable

Inorganic Contaminants	Units	MCL	MCLG	Max Level Detected	Range	Violation Yes/No	Major Sources
Arsenic	ppb	10 (Required by 1/23/06)	0	13	3 - 13	No	Erosion of natural deposits; Runoff from orchards, glass and electronics production wastes
Barium	ppm	2	2	0.011	N/A	No	Discharge of drilling wastes; Discharge from metal refineries; Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	1.63	ND - 1.63	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	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	2.1	0.0 - 5.6	No	Erosion of natural deposits
Compliance Gross Alpha	pCi/L	5	0	1.1	0.2 - 4.8	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		1.0	0.0 - 2.7	N/A	Erosion of natural deposits
Uranium (Mass)	ppb	30	N/A	1.4	0.0 - 4.0	No	Erosion of natural deposits
Combined Radium (226/228)	pCi/L	5	0	0.9	0.2 - 4.4	No	Erosion of natural deposits

Volatile Organic Contaminants	Units	MCL	MCLG	Max Level Detected	Range	Violation Yes/No	Major Sources
Methyl tertiary-butyl ether (MTBE)	ppb	13	13	0.8	ND - 0.8	No	A gasoline additive
Trichloroethene	ppb	5	0	1.8	0 - 1.8	No	Discharge from metal degreasing sites and other factories
Haloacetic Acids (HAA5s)	ppb	60	N/A	7.6	2.5 - 7.6	No	By-product of chlorination
Total Trihalomethanes (TTHMs)	ppb	80	N/A	10	4.9 - 10	No	By-product of chlorination

Volatile Organic Contaminants	Units	MRDL	MRDLG	Yearly Running Average	Range	Violation Yes/No	Major Sources
Chlorine	ppm	4	4	0.15	0.02 - 1.10	No	Water additive used to control microbes

Water-Quality Table Notes

1. Although we ran hundreds of tests, only the listed substances were found. They are all below the MCL/MRDL.
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. Seabrook was granted a 6-year monitoring waiver for Synthetic Organic Contaminants (SOCs) in 2004.
3. We had no violations of the national drinking water regulatory requirements in 2005.

Unregulated Contaminants

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.

Health Information

Radon: Radon is a radioactive gas that you can't see, taste or smell. It can move up 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 EPA is reviewing a standard for radon in water.

Arsenic levels above 10 ppb: Some people who drink water containing arsenic in excess of the 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.

Engineering design for our arsenic treatment plant was completed and put out to bid in 2005 in order for us to meet compliance with the January 23, 2006 new arsenic MCL of 10 ppb. However, we did not proceed with the construction as the EPA was uncertain whether it would permit the arsenic removed from the drinking water to be discharged to the wastewater treatment plant. We have been working closely with the NHDES and will continue to do so to resolve this issue. In early 2006, our consultants will conduct a pilot test and evaluate a proposed newer type of treatment that will not discharge arsenic to the wastewater treatment plant.

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 (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 and bacteria, which may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- **Inorganic contaminants**, such as salts and metals, which can be naturally-occurring or result from urban storm runoff, industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

- **Pesticides and herbicides**, which may come from a variety of sources such as agriculture, storm water runoff, and residential uses.
- **Organic chemical contaminants**, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water 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).

Source Assessment Information							
Source Name	Summary of Susceptibility Factors			Source Name	Summary of Susceptibility Factors		
	Low	Med	High		Low	Med	High
GPW #1	4	5	3	BRW #1	4	4	4
GPW #2	5	4	3	BRW #2	4	4	4
GPW #3	3	6	3	BRW #3	5	4	3
GPW #4	4	5	3	BRW #4	5	5	2
GPW #7	6	4	2	BRW #5	5	5	2

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