

2016 Consumer Confidence Report

Town of Seabrook Water System

PWS ID# 2111010

Introduction

Like any responsible public water system, our mission is to deliver the best-quality drinking water and reliable service at the lowest, appropriate cost. Aging infrastructure presents challenges to drinking water safety, and continuous improvement is needed to maintain the quality of life we desire for today and for the future.

In the past year, the Department replaced the deep well turbine pump and motor at Gravel-Packed Well No. 1, applied for and received a grant fully funded by the NHDES for a leak detection survey of the entire water distribution system, applied for and received a grant fully funded by the Department of Homeland Security to improve the video security system at the Water Treatment Facility (WTF), started a two year groundwater level monitoring program of our water supply sources that will be used for long term management and decision making for the water supplies, and continued the test well exploration program and located a potential bedrock water supply source.

In the coming year, we will be cleaning and redeveloping Rockwell No. 2, performing the leak detection survey funded by the NHDES, installing video cameras and enhancing the recording system funded by Homeland Security, continuing the two year groundwater level monitoring program, and continuing the water supply testing program by exploring for more potential water supply sources.

These investments along with on-going operation and maintenance costs are supported by user rates and the tax base. When considering the high value we place on water, it is truly a bargain to have water service that protects public health, fights fires, supports businesses and the economy, and provides us with the high-quality of life we enjoy.

What is a Consumer Confidence Report?

The Consumer Confidence Report (CCR) details the quality of your drinking water, where it comes from, and where you can get more information. This annual report documents all detected primary and secondary drinking water parameters, and compares them to their respective standards known as Maximum Contaminant Levels (MCLs).

NOW IT COMES WITH A LIST OF INGREDIENTS.



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, 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 water 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, urban storm water runoff, and residential uses.

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.

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

In order to ensure that tap water is safe to drink, EPA prescribes regulations which limit the amount of certain contaminants in water provided by public water systems. The US Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

What is the source of my drinking water?

The Seabrook water system is supplied by groundwater from five gravel-packed wells and seven rockwells located in the western part of town. These wells supplied approximately 384 million gallons of water to the Town in 2015. The gravel-packed wells range from 50 to 125 feet deep. The rockwells are 400 to 500 feet deep.

Gravel-Packed Wells 1, 3 and 7 pump water directly into the distribution system and are chlorinated with sodium hypochlorite. Raw water is pumped to the WTF from nine wells consisting of seven bedrock wells and two gravel-packed wells. The WTF process includes greensand filtration for iron, manganese, and arsenic removal and bubble aeration for radon removal. The raw water is treated with sulfuric acid which decreases the pH for optimum iron, manganese and arsenic removal. Sodium hypochlorite promotes oxidation of iron, manganese and arsenic. Ferric chloride absorbs oxidized arsenic. After water passes through the pressure filters and the aeration units, sodium hypochlorite can be added to the water for disinfection. The clearwell, a concrete basin located below the facility, stores the finished water until delivery to the water system. At this point, operators add potassium hydroxide for final pH adjustment and optimal corrosion control for customer plumbing.

Why are contaminants in my water? 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 at 1-800-426-4791.

Do I need to take special precautions? 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/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 at 1-800-426-4791.

Source Water Assessment Summary

DES prepared drinking water source assessment reports for all public water systems between 2000 and 2003 in an effort to assess the vulnerability of each of the state's public water supply sources. Included in the report is a map of each source water protection area, a list of potential and known contamination sources, and a summary of available protection options. The assessment for the wells in Seabrook was prepared on June 13, 2000 except for GPW 7 which was prepared on June 10, 2005. These results are noted in the Source Assessment Information table.

Note: This information is over ten years old and includes information that was current at the time the report was completed. Therefore, some of the ratings might be different if updated to reflect current information. At the present time, DES has no plans to update this data.

Source Assessment Information			
Source Name	Susceptibility Factors		
	Low	Med	High
GPW 1	4	5	3
GPW 2	5	4	3
GPW 3	3	6	3
GPW 4	4	5	3
GPW 7	6	4	2
RW 1	4	4	4
RW 2	4	4	4
RW 3	5	4	3
RW 4	5	5	2
RW 5	5	5	2

GPW – Gravel-packed well; RW – Rockwell

The complete Assessment Report is available for review at the Water Department Office, 550 Route 107. For more information visit the NH DES Drinking Water Source Assessment website at: <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

How can I get involved?

For more information about this report, or any questions relating to your drinking water, please call George Eaton, Primary Operator, at (603) 474-9921 or send an email to gmeaton@seabrooknh.org. 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 Monday.

Violations and Other Information:

There were no violations.

Definitions of Table Terms and Abbreviations

The definitions below are terms used in the Detected Water Quality Results Table.

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

Maximum Contaminant Level or MCL: 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.

Maximum Contaminant Level Goal or MCLG: 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.

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

Maximum Residual Disinfectant Level Goal or MRDLG: 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.

Abbreviations

ND: Not Detectable at testing limits
 NA: Not Applicable
 mgd: million gallons per day
 RAA: Running Annual Average
 pCi/L: picocuries per liter
 ppb: parts per billion
 ppm: parts per million
 TTHM: Total Trihalomethanes
 HAA5s: Haloacetic Acids
 UCMR: Unregulated Contaminant Monitoring Rule

Sampling Results: The results for detected contaminants listed in the table are from the most recent monitoring done in compliance with regulations ending with calendar year 2015. The DES allows water systems to monitor for some contaminants less than once per year because concentrations of the contaminants do not change frequently. Thus some data present, though representative, may be more than one year old.

DETECTED WATER QUALITY RESULTS

Inorganic Contaminants	Units	MCL	MCLG	Max Level Detected	Range	Violation Yes/No	Likely Source of Contaminant
Arsenic	ppb	10	0	2.9	ND-2.9	No	Erosion of natural deposits
Barium	ppm	2	2	0.0278	0.0177-0.0278	No	Erosion of natural deposits
Nitrate (as Nitrogen)	ppm	10	10	1.40	ND-1.40	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	Likely Source of Contaminant
Copper	ppm	AL=1.3	1.3	0.663	1 of 60 sites	No	Corrosion of household plumbing systems
Lead	ppb	AL=15	0	2.3	1 of 60 sites	No	Corrosion of household plumbing systems

Radioactive Contaminants	Units	MCL	MCLG	Average Amount	Range	Violation Yes/No	Likely Source of Contaminant
Compliance Gross Alpha (2014)	pCi/L	15	0	0.3	0-0.6	No	Erosion of natural deposits
Uranium (2014)	ppb	30	NA	1.8	1.4-2.2	No	Erosion of natural deposits
Combined Radium (226+228) (2014)	pCi/L	5	0	0.7	0.4-1.0	No	Erosion of natural deposits

Volatile Organic Contaminants	Units	MCL	MCLG	Amount Detected	Range	Violation Yes/No	Likely Source of Contaminant
Haloacetic Acids (HAA5s)	ppb	60	NA	4.8	1.2-4.8	No	By-product of chlorination
Total Trihalomethanes (TTHMs)	ppb	80	NA	26	8.2-26	No	By-product of chlorination
Methyl tertiary-butyl ether (MTBE)	ppb	13	13	0.8	one sample	No	A gasoline additive

Disinfectant	Units	MRDL	MRDLG	RAA	Range	Violation Yes/No	Likely Source of Contaminant
Chlorine	ppm	4	4	0.45	0.14-0.96	No	Water additive used to control microbes

Additional Testing Unregulated Substances (UCMR3s)	Units	MCL	MCLG	Average Amount	Range	Violation Yes/No	Specific Source of Contaminant
Chlorate (2013)	ppb	Unregulated		74.5	ND-184	NA	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 the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted.
Hexavalent Chromium (2013)	ppb	Unregulated		0.064	ND-0.11	NA	
Chromium, Total (2013)	ppb	Unregulated		0.27	ND-0.48	NA	
Strontium, Total (2013)	ppb	Unregulated		179	135-244	NA	

Additional Testing	Units	MCL	MCLG	Amount Detected	
Radon (2014)	pCi/L	Unregulated		ND	WTF Treated Water