

**WATER QUALITY DATA-** The table in this report lists all the drinking water contaminants we detected during the 2014 calendar year. The presence of these contaminants in the water does not necessarily indicate that the water poses a health risk. Unless otherwise noted, the data presented in this table is from testing done January 1 through December 31, 2014. The state requires us to monitor for certain contaminants less than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year. Some of the data, though representative of the water quality, is more than one year old.

Analyte/Contaminant	MCL	MCLG	Our Water	Violation (Y or N)	Typical Source of Contamination
<b>Microbiological Contaminants</b>					
Total Coliform Bacteria	< 40 samples >1 is positive	0	Negative/ Absent	N	Naturally present in environment
Turbidity (NTU)	TT (0.3)	N/A	0.05	N	Soil runoff
Total Organic Carbon (TOC, mg/L)	TT	N/A	1.9 (1.3-3)	N	Naturally present in environment
<b>Radioactive Contaminants</b>					
Radon (pCi/l)* <sup>1</sup>	None	0	<200	N	Erosion of natural deposits
<b>Inorganic Contaminants</b>					
Chlorine (ppm)	MRDL=4	MRDLG=4	0.69	N	Water additive used to control microbes
Copper (mg/L)	1.3mg/L (AL)	1.3	0.167 <sup>3</sup>	N	Corrosion of household plumbing systems; Erosion of natural deposits; Leaching from wood preservatives
Lead (ppb)* <sup>2</sup>	15ppb (AL)	0	1	N	Corrosion of household plumbing systems; Erosion of natural deposits
Nitrate (mg/L)	10	10	0.29	N	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits
Asbestos	7 million fibers per Liter (MFL)	7 MFL	ND	N	Some people who drink water containing asbestos in excess of the MCL over many years may have an increased risk of developing benign intestinal polyps
<b>Volatile Organic Contaminants</b>					
THMs [Total trihalomethanes] (ug/L)	80ug/L	N/A	41 (27 to 74)	N	By-product of drinking water chlorination
HAA5 [Haloacetic Acids] (ug/L)	60ug/L	N/A	20 (10 to 29)	N	By-product of drinking water chlorination
<b>UCMR3</b>					
Analyte	Reporting Detection Limit	Average Range	Unregulated contaminants are contaminants for which the EPA has not established drinking water standards. The purpose of the monitoring is to provide the EPA a basis for future regulatory actions to protect public health.		
Chlorate ug/l	20	207.5 (100-380)			
Hexavalent Chromium (Dissolved) ug/l	0.03	0.052 (.036-.070)			
Strontium ug/l	0.3	33.75 (27-52)			

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

**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. MCLs are set as close to the MCLGs as feasible using the best available treatment technology. **MRDL:** Maximum residual disinfectant level. 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. **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. **TT:** Treatment Technique - A required process intended to reduce the level of a contaminant in drinking water

**NA:** not applicable

**ND:** not detectable at testing limit

**NTU:** Nephelometric Turbidity Units

**PTCU:** Platinum-Cobalt color units

**pCi/l:** picocuries per liter (radioactivity) **mg/L or ppm:** milligrams per liter or parts per million **ppb:** parts per billion or micrograms per liter

**Turbidity** is a measure of the cloudiness of the water. It is monitored by surface water systems because it is a good indicator of water quality and thus helps measure the effectiveness of the treatment process. High turbidity can hinder the effectiveness of disinfectants. Turbidity has no health effects.

\*<sup>1</sup> Radon is a radioactive gas that you cannot 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. Our radon analysis of 1100 pCi/l was found at the well site which is no longer regularly used to supply potable water into the distribution system.

\*<sup>2</sup> 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. This water system is responsible for high quality drinking water, but can not control the variety of materials used in your plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing cold water your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and cooking. If you are 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://water.epa.gov/drink/info/lead/index.cfm>.

<sup>3</sup> Copper content in the treated water prior to entering the distribution system is 0.0248mg/l. Corrosion of household plumbing contributes to the higher average.



## City of Somersworth Water Treatment Facility

WATER...AT YOUR SERVICE.

# 2015 WATER QUALITY REPORT



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

We are committed to providing you with this information because we want you to be informed.

The Somersworth Water Treatment Facility is a secure, sanitary, safe, and efficient workplace responsible for supplying potable water for consumption and fire protection.

For more information about water quality, the treatment process, or for a tour of the facility, contact the treatment staff at 603-692-2268. We will be pleased to answer all of your questions.





## HOW IS MY WATER?

Throughout 2014 we conducted more than 700 tests for over 175 drinking water compounds. We are pleased to inform you that the quality of your water far exceeds the standards set by state and federal regulation.

August concluded the EPA UCMR3 preliminary sampling and monitoring program.

In the past year, we have completed a full analysis on the Rocky Hill Standpipe. We are in the process of selecting an appropriate contractor to complete a rehabilitation of this tank. The project is expected to start this August and continue till November.

The sampling waiver for our emergency well was renewed. The sampling waiver can save up to several hundred dollars in sampling cost. Water suppliers are required under the Safe Drinking Water Act to test annually for volatile organic compounds (VOC's) and synthetic organic compounds (SOC's). Water suppliers will sample less often for VOC's and SOC's if they obtain sampling waivers.

## Violations and Other Information:

Every public water system is required to distribute a Water Quality Report by July 1st each year and report to the state by July 10th that this has been completed. Last reporting period the city received a minor violation for issuing the water quality report three weeks late. The city was back in compliance on July 23, 2014.

## WATER QUALITY AND HEALTH INFORMATION

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 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, and can pick up substances resulting from the presence of animals or from human activity.

Contaminants that may be present in source water before we treat it 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 run off, industrial or domestic wastewater discharges, oil and gas production, mining or farming.

*Pesticides & herbicides*, which may come from a variety of sources such as agriculture, residential use, and urban storm water runoff.

*Radioactive contaminants*, which are naturally occurring.

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

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised 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 (1-800-426-4791).

## DRINKING WATER SOURCES

Your water is drawn from the Salmon Falls River. It is processed with a ballasted microsand clarification system and four multimedia filter beds, chlorinated, pumped into the city's distribution system and stored in a pair of one million gallon standpipes, ready to flow to every open tap and hydrant!

Our raw river quality fluctuates seasonally, with daily swings in turbidity and color from 1.5NTU to over 20NTU and 40ptcu to 400ptcu; TOC from 3-14mg/l; and pH from 5.5 to 6.5.

Finished water production averages 2.5 million gallons per day (MGD) summer usage and 1.5MGD winter usage, with a 3.2MGD capacity and typically enters the distribution system at less than 0.050NTU, 0ptcu, <2.7mg/l TOC, 7.3 pH, 1.10 mg/l free chlorine, and a hardness of 7-20 mg/l (very soft).

## WATER QUALITY MONITORING

Water is one of the world's most precious resources and we take seriously the integrity and conservation of our supply. Source water assessment information and comprehensive water quality data may be obtained from the Water Division, please call 603-692-2268 for more information or visit NH Department of Environmental Services Drinking Water and Groundwater Bureau web site at: <http://des.nh.gov/organization/divisions/water/dwgb/index.htm>

We continually refine and advance water treatment techniques in response to new regulations and our duty to provide safe and clean water for our customers. This requires us to perform extensive water sample collection and analysis for many different waterborne substances including:

pH, conductivity, Color, Turbidity, Coliform, Cryptosporidium, Total Organic Carbon; Disinfection Byproducts (TTHM/HAA5); Lead and Copper, Iron, Manganese, Nitrates; Volatile/Synthetic Organic and Inorganic Chemicals (VOC/SOC/IOC); Alkalinity

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 United States Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

## City of Somersworth

### Water Treatment Facility

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