

# 2018 CONSUMER CONFIDENCE REPORT

## THORNHILL CONDOS WATER SYSTEM – STRATHAM, NH

PWS ID #: 2232020

As your public water system operator, our mission is to deliver the best-quality drinking water and reliable service at the lowest, appropriate cost. We hope you will take an active role in keeping your water clean and safe to drink. Some of the ways you can do this are by: minimizing chemical use, (use natural cleaners such as baking soda, etc.), ensuring you dispose of hazardous materials such as paint, motor oil, and pharmaceuticals properly, reducing your water usage, keeping runoff minimal (sweep your driveway instead of hosing down, use a bucket instead of a hose to wash your car, etc.), and by picking up after your pet. All of these actions will help harmful chemicals and contaminants from getting into your water system to begin with. We appreciate your efforts to help us keep your water supply clean and safe!

### 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). **This CCR details all detected water quality results as recent as December 2017 and 5 years prior.**

### What is the source of my drinking water?

Thornhill Condo's PWS draws water from two simultaneously operating bedrock wells (BRW), #1 and #3. A third well, BRW#2, exists but is abandoned. Bedrock well #1 is 500 feet deep and yields 30 gallons per minute (gpm) water. Bedrock well #3 is 585 feet deep and yields 19gpm water. Water flows from the wells to two 10,000-gallon interconnected atmospheric storage tanks. It is transferred via two 5 HP booster pumps to a 3,300-gallon hydropneumatic (pressurized) storage tank. The water is treated with sodium hypochlorite injection (bleach) for disinfection. There are 70 residential units serving approximately 175 individuals. Services are not metered.



### 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 at the Environmental Protection Agency's (EPA) Safe Drinking Water Hotline at 1-800-426-4791 or by going to <https://www.epa.gov/ground-water-and-drinking-water/safe-drinking-water-hotline>

### 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.

### How can I get involved?

For more information about your drinking water, **or to addend a quarterly board meeting please call Steve Miller at 603-868-1262 or email [Steve@maguiremanagement.com](mailto:Steve@maguiremanagement.com), or check the website at [www.thornhillcondoassociation.com](http://www.thornhillcondoassociation.com)** or visit NH Department of Environmental Services Drinking Water and Groundwater Bureau at: <http://des.nh.gov/organization/divisions/water/dwgb/index.htm>.

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## How is my well protected?

The DES Drinking Water Source Assessment Program (DWSAP) oversees the protection of groundwater and sources of public drinking water. Between 2000 and 2003 DES prepared source assessment reports for all public water systems. The reports identify vulnerabilities and potential contamination threats to drinking water supplies. All readily identifiable land uses within the area that contribute water to your well(s) were taken into account and assigned a rating (or susceptibility factor) as a high (H), medium (M) or low (L) risk to your water supply. The results of your 04/07/2000 assessment for each water supply source are as follows:

- Thornhill Condos' source bedrock well #1 received two high susceptibility rating, one medium susceptibility rating, and nine low susceptibility ratings.
- Thornhill Condos' source bedrock well #3 received two high susceptibility rating, one medium susceptibility rating, and nine low susceptibility ratings.

NOTE: These data are 18 years old and include information current at the time the report was completed. 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.

The Assessment Report is available for review at: <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/reports/documents/stratham.pdf>. For more information contact please call Steve Miller at 603-868-1262 or email [Steve@maguiremanagement.com](mailto:Steve@maguiremanagement.com) or to view the full report, visit the DES Drinking Water Source Assessment website at <http://des.nh.gov/organization/divisions/water/dwgb/dwspp/dwsap.htm>.

## 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.

## Definitions

**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.

**Treatment Technique or TT:** A required process intended to reduce the level of a contaminant in drinking water.

## Abbreviations

**BDL:** Below Detection Limit

**mg/L:** milligrams per Liter

**NA:** Not Applicable

**ND:** Not Detectable at testing limits

**NTU:** Nephelometric Turbidity Unit

**pCi/L:** picoCurie per Liter

**ppb:** parts per billion

**ppm:** parts per million

**RAA:** Running Annual Average

**TTHM:** Total Trihalomethanes

**UCMR:** Unregulated Contaminant Monitoring Rule

**ug/L:** micrograms per Liter

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## When and what is my water tested for?

The drinking water testing frequency for your water system is set forth by EPA. The bacteria and chemical monitoring schedules for Thornhill Condos are available online at:

<http://www4.des.state.nh.us/DWGBSamplingForms/FormsMenu.aspx?PWSID=2232020>.



Once there, click on "Master Sampling Schedule MSS".

## DETECTED WATER QUALITY RESULTS (only detected results within the past 5 years are shown)

 <b>Microbiological Contaminants - (MICRO):</b> NO VIOLATION. No contaminant exceeded the MCL. Sample Site(s): Unit 47 - Sample Dates: [Monthly-2017]					
 <b>Radioactive Contaminants - (RAD):</b> NO VIOLATION. No contaminant exceeded the MCL. Sample Site(s): Distribution Entry Point (DEP) Sample Date(s): [4Q2017/11-20-2017]; except where noted					
Contaminant (Units)	Level Detected	MCL / MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Uranium, mass (ug/L)	1.8	30 / 0	NO	Erosion of natural deposits	Some people who drink water containing uranium in excess of the MCL over many years may have an increased risk of getting cancer and kidney toxicity.
Combined Radium 226 + 228 (pCi/L)	6.5 + 1.3 = 7.8	5 / 0	YES	Erosion of natural deposits	Some people who drink water containing radium 226 or 228 in excess of the MCL over many years may have an increased risk of getting cancer.
Compliance Gross Alpha (pCi/L)	6.4	15 / 0	NO	Erosion of natural deposits	Certain minerals are radioactive and may emit a form of radiation know as alpha radiation. Some people who drink water containing alpha emitters in excess of the MCL over many years may have an increased risk of getting cancer.
 <b>Inorganic Contaminants - (IOC):</b> NO VIOLATION. No contaminant exceeded the MCL. Sample Site(s): Distribution Entry Point - DEP; except where noted Sample Date(s): [4Q2015/12-30-2015]; except where noted Nitrate/Nitrite Only 4Q2017/11-20-2017 - Non Detected Lead and Copper Only (5 residences) [1Q2015/03-20-2015]					
Contaminant (Units)	Level Detected	MCL / MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Arsenic (ppb)	14,11,10,12 RAA = 11.75 [1,2,3,4Q2017: 01/13; 04/13; 08/23; 11/20]	10 / 0	YES	Erosion of natural deposits; runoff from orchards; runoff from glass and electronics production wastes	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. (RAA equals MCL, not above MCL. NO Violation.)
Chlorine (ppm)	Range: 0.25 (May) - 0.97 (Nov) [Monthly- 2017]	4 / 4 (MRDL / MRDLG)	NO	Water additive used to control microbes	Some people who use water containing chlorine well in excess of the MRDL could experience irritating effects to their eyes and nose. Some people who drink water containing chlorine well in excess of the MRDL could experience stomach discomfort. (Free residual chlorine levels were field tested at the bacteria sample site.)



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DETECTED WATER QUALITY RESULTS (Continued)					
Contaminant (Units)	Level Detected	MCL / MCLG	Violation YES/NO	Likely Source of Contamination	Health Effects of Contaminant
Barium (ppm)	0.011	2 / 2	NO	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing barium in excess of the MCL over many years could experience an increase in their blood pressure.
Fluoride (ppm)	0.7	4 / 4	NO	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories	Some people who drink water containing fluoride in excess of the MCL over many years could get bone disease, including pain and tenderness of the bones. Fluoride in drinking water at half the MCL or more may cause mottling of children's teeth, usually in children less than nine years old. Mottling also known as dental fluorosis, may include brown staining and/or pitting of the teeth, and occurs only in developing teeth before they erupt from the gums.
Copper (ppm) 90th Percentile	0.0528 [1Q2015] (Samples collected from Assigned residences. No result was above the AL.)	AL / MCLG = 1.3 / 1.3 (NO Violation)	NO	Corrosion of household plumbing systems; erosion of natural deposits; leaching from wood preservatives	Copper is an essential nutrient, but some people who drink water containing copper in excess of the action level over a relatively short amount of time could experience gastrointestinal distress. Some people who drink water containing copper in excess of the action level over many years could suffer liver or kidney damage. People with Wilson's Disease should consult their personal doctor
Lead (ppb) 90th Percentile	20 [1Q2015] (Samples collected from assigned residences. One result was above the AL.)	AL / MCLG = 15 / 0	NO	Corrosion of household plumbing systems, erosion of natural deposits	Infants and young children are typically more vulnerable to lead in drinking water than the general population. It is possible that lead levels at your home may be higher than at other homes in the community as a result of materials used in your home's plumbing. If you are concerned about elevated lead levels in your home's water, you may wish to have your water tested and flush your tap for 30 seconds to 2 minutes before using tap water. Additional information is available from the Safe Drinking Water Hotline (800-426-4791).
<p><b>Lead:</b> 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 cannot 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 from your tap for at least 30 seconds before using water for drinking or cooking. Do not use hot water for drinking and cooking.</p> <p>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 <a href="http://water.epa.gov/drink/info/lead/index.cfm">http://water.epa.gov/drink/info/lead/index.cfm</a></p>					
 <p>Synthetic Organic Contaminants (SOC): including Pesticides and Herbicides NO VIOLATION. No contaminant exceeded the MCL. Sample Site(s): Distribution Entry Point (DEP) Sample Date(s): [4Q2012/10-10-2012]; except where noted</p>					
 <p>Volatile Organic Contaminants (VOC): NO VIOLATION. No contaminant exceeded the MCL. Sample Site(s): Distribution Entry Point (DEP); except where noted Sample Date(s): [4Q2015/11-24-2015]; except where noted TTHM/HAA5 (subset of VOC): Sampled [3Q2017 / 07-26-2017] from bacteria site</p>					

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## System Incidents

From time to time, a system may incur a violation, be required to correct a sanitary defect or may need an additional source of water to meet its consumers' demands (bulk water delivery). If a violation was incurred, a deficiency was noted, or bulk water was received to your community in 2017 (or within 5 years prior), it is detailed below.

System Incidents					
TYPE OF INCIDENT <i>(within past 5 yrs)</i>	Date of Incident	Explanation of Incident	Length of Incident	Action Taken To Resolve	Health Effects (Env-Dw 811.21)
MCL / Single Sample Violation	10-01-2017	COMBINED RADIUM (-226 AND -228)	3 months	All further testing results were within drinking water standards. Testing schedule is now quarterly.	See description in Detected Water Quality Results Section
MCL / Sample Average Violation	10-01-2017	Annual average Arsenic concentration (11.75 ppb) exceeded MCL of 10ppb.	6 months	Installed Arsenic Treatment System 04-02-2018	See description in Detected Water Quality Results Section
Sanitary Deficiency (found during sanitary survey)	08-11-2016	Needed to install check valves on the two source well sample lines entering the pump house. DES approved date of completion of 07-31-2016. Not corrected in time.	2 months	Issue was corrected on 09-08-2016.	Not Applicable
MCL Exceedance - Arsenic	01-01-2016	Annual average Arsenic concentration (11 ppb) exceeded MCL of 10ppb.	6 months	Further testing and blending of sources indicated no action was required.	See description in Detected Water Quality Results Section
MCL Exceedance - Total Coliform Bacteria (non-acute)	11-01-2013	Bacteria (Non-Acute) - Total coliforms were detected this month in 3/7 samples, a frequency greater than allowed in drinking water	10 months (Returned to Compliance 08-26-2014)	Public Notice with violation details, action plan, and deadline dates for correction were distributed to each residence. The five subsequent bacteria samples analyzed in December were all bacteria-free.	See description in Detected Water Quality Results Section
Sanitary Deficiency (found during sanitary survey)	07-19-2013	A large amount of undergrowth and trees made inspection of the well heads impossible during the sanitary survey. The 08-19-2013 deadline to remove the debris was not met.	2 months (Returned to Compliance 09-20-2013)	DES informed on 09-05-2013 the paths to the wells were clear.	Not Applicable