This Consumer Confidence Report (CCR) is a snapshot of the quality of your drinking water in 2017. The purpose of this annual report is to advise consumers of where their water comes from, provide water quality data, and provide greater understanding of drinking water.

Is my drinking water safe?
Testing conducted by Groton Utilities and the Navy during 2017 shows that your drinking water meets all federal and state standards.

Where does my water come from?
Naval Submarine Base New London (SUBASENLON) purchases water from the City of Groton, Groton Utilities (GU). (See http://www.grotonutilities.com.) Groton Utilities’ water is supplied by surface water from a series of five reservoirs covering a watershed of 15.6 square miles. Four reservoirs (Morgan, Ledyard, Poheganut, and Smith Lake) flow into the GU terminal reservoir, Poquonnock Reservoir. Groton Utilities pumps water from Poquonnock Reservoir to its water treatment plant, using the other four reservoirs to maintain an appropriate level in Poquonnock Reservoir. Groton Utilities also has three deep wells that are used to supplement the reservoirs. Groton Utilities reports that its water treatment plant produced an average of 5.2 million gallons a day and delivered water to approximately 44,000 customers in 2017. Groton Utilities takes its job of stewardship very seriously, and, to that end, it has a spill response trailer and a trained team that responds to any threat of contamination that could impact its watershed. GU has also announced plans to build a new water treatment plant to upgrade its water treatment capabilities and improve water quality.

SUBASENLON Water System
Water is conveyed to the main base and most of the housing areas by Navy water distribution system lines that connect to the Groton Utilities water system. The SUBASENLON PW Utilities Division continued to perform work on the SUBASENLON water distribution system, as part of an overall maintenance and repair program, but there were no major physical changes to the system in 2017.

Are there contaminants in my drinking water source?
The sources of DW (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 byproducts of industrial processes and petroleum production, can also come from gas stations, urban storm water runoff, and septic systems.
- **Radioactive contaminants**, which occur naturally or as the result of oil and gas production and mining activities.

Water Source Assessment
In 2003, the CTDPH performed an assessment of GU DW sources. The assessment found that GU DW sources have a low susceptibility to potential sources of contamination. The completed assessment report can be accessed at:


Additional source water assessment information can be obtained from USEPA New England at:

https://www.epa.gov/sourcewaterprotection

Can Water Become Contaminated between the Water Treatment Plant and my Tap?
As water travels through the distribution system to the tap, it is possible for bacteria to regrow and for metals such as iron, manganese, lead, and copper to enter the water via corrosion of distribution system piping and plumbing materials. Also, with time, the chlorine used to kill microorganisms can combine with other materials to form disinfection byproducts.
Testing for bacteria, chlorine residual, disinfection byproducts, and lead and copper are performed to ensure the water at the tap is as safe as water leaving the drinking water treatment plant.

**Flushing of SUBASENLON Water System**
The SUBASENLON PW Utilities Division flushes hydrants annually on lower base, and a contractor flushes hydrants on upper base and in the housing areas, every other year. Flushing is generally done in the spring and summer. Flushing prevents the build-up of rust (which contains iron and possibly manganese) and sediment in the water distribution system. If you notice any discoloration in the water after flushing has occurred, simply run your faucets until the water runs clear. For questions or concerns that arise during the hydrant flushing season, please call the NAVFAC MIDLANT Service Center, Facilities Work Reception, at 866-477-7206, or have your building manager contact the Facilities Management Specialist in PW to discuss the issue.

At SUBASENLON, contaminants could come from corrosion of piping (mostly inside buildings) as the water makes its way from the GU treatment plant to our taps. Although tests show that most areas on base are within USEPA action levels for lead and copper, some areas show more susceptibility to lead and copper contamination. For this reason, SUBASENLON has taken steps to improve the plumbing systems in those buildings (either by replacing piping or flushing water lines). Additionally, GU treats the water at its plant to protect against pipe corrosion throughout its distribution system.

**Do I need to take special precautions?**
Some people may be more vulnerable to contaminants in DW than the general population. Fetuses, infants, and young children are typically more vulnerable to lead in DW than the general population. Immunocompromised persons (such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, and persons with HIV/AIDS or other immune system disorders), and some elderly persons can be particularly at risk for adverse health effects. These people should seek advice from their health care providers about DW. USEPA/Centers for Disease Control (CDC) guidelines are available from the USEPA Safe DW Hotline (800-426-4791) regarding appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants.

**Important information on lead in DW:**
Infants and children who drink water containing lead in excess of the action level could experience delays in their physical or mental development. Children could show slight deficits in attention span and learning abilities. Adults who drink this water over many years could develop kidney problems or high blood pressure.

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in DW is caused primarily by materials and components associated with service lines and home plumbing. GU is responsible for providing high quality DW but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for **30 seconds to two minutes** before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in DW, testing methods, and steps you can take to minimize exposure is available from the USEPA Safe DW Hotline (800-426-4791) or at: [https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water](https://www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water)

**Important Information on copper in DW:**
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.

**How can I get more information?**
For information regarding the DW provided to Balfour Beatty Community Housing, please call **Balfour Beatty**, at 860-446-5934 or 860-446-5913. For information regarding DW analysis or DW sampling results, please call **Rich Massad**, at the SUBASENLON PW Environmental Division (860-694-5140).
In order to ensure that tap water is safe to drink, the USEPA prescribes regulations limiting the amount of certain contaminants in water provided by public water systems. Food and Drug Administration regulations establish limits for contaminants in bottled water, which must provide the same protection for public health.

All DW (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 USEPA Safe Drinking Water Hotline (800-426-4791).

What testing has been done on my drinking water?
The SUBASENLON works with GU to ensure that your tap water meets all U.S. Environmental Protection Agency (USEPA) and State of Connecticut Department of Public Health (CTDPH) drinking water (DW) health standards.

The GU 2017 Consumer Confidence Report may be viewed on-line at:
This report shows the results of testing performed at the treatment plant and in the GU distribution system.

Groton Utilities also conducts tests at SUBASENLON, to screen for bacteriological and physical characteristics of the DW. The GU water quality sampling data has been used to report the quality of the DW at SUBASENLON. Groton Utilities uses its own certified lab to test its water for most test parameters but uses an independent certified lab for other specific parameters. A summary of the results of the water testing done by GU at SUBASENLON is provided in the first table shown in this report.

The SUBASENLON Public Works (PW) Environmental Division is committed to providing consumers with up-to-date information to ensure that all consumers can make informed decisions with regard to DW use.
RESULTS OF ROUTINE TESTING PERFORMED BY GROTON UTILITIES:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Major Source</th>
<th>Range</th>
<th>Highest Detected Level</th>
<th>MCL</th>
<th>MCLG</th>
<th>Units</th>
<th>Violation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chlorine Residual, Free</td>
<td>Added to control microbes</td>
<td>ND* – 1.55</td>
<td>1.55</td>
<td>N/A</td>
<td>N/A</td>
<td>mg/L</td>
<td>No</td>
</tr>
<tr>
<td>Total Coliforms</td>
<td>Naturally present in the environment</td>
<td>Absent – Present</td>
<td>Absent</td>
<td>N/A</td>
<td>0</td>
<td>col/100 mL</td>
<td>No</td>
</tr>
<tr>
<td>E. Coli</td>
<td>Naturally present in the environment</td>
<td>Absent</td>
<td>Absent 0</td>
<td>N/A</td>
<td>0</td>
<td>N/A</td>
<td>No</td>
</tr>
<tr>
<td>Color</td>
<td>N/A</td>
<td>0 – 16</td>
<td>16 15</td>
<td>N/A</td>
<td>Color Units</td>
<td>Yes**</td>
<td></td>
</tr>
<tr>
<td>Odor</td>
<td>N/A</td>
<td>0-0</td>
<td>0 2</td>
<td>N/A</td>
<td>TON</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>pH</td>
<td>N/A</td>
<td>7.2 – 10</td>
<td>10 10</td>
<td>N/A</td>
<td>pH units</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td>Turbidity</td>
<td>Soil runoff and pipe sedimentation</td>
<td>0.12 - 1.92</td>
<td>1.92</td>
<td>N/A</td>
<td>NTU</td>
<td></td>
<td>No</td>
</tr>
</tbody>
</table>

Key to Abbreviations:
- col/100mL = coliforms per 100 milliliters
- MCL = Maximum Contaminant Level
- MCLG = Maximum Contaminant Level Goal
- mg/L = milligrams per liter
- N/A = Not Applicable
- ND = Not Detected
- NTU = Nephelometric Turbidity Units
- TON = Threshold Odor Number
- = less than
- > = greater than

*NOTE: No residual chlorine was detected in a sample taken at the Marina, B535 in February 2017 but this location is at an end point of the distribution system and water use is limited at that time of the year. Results from later months were higher and of a more normal range indicative of the increase in water use during the spring and summer months.

**NOTE: A sample taken in May 2017 in Trident Park Housing showed color at 16 units which is not typical. GU took another sample just 2 days later and the result was 1 color unit. No other sample results from that location in 2017 showed color at high levels. Although the high color result could not be explained, it is felt that it was an aberration and not indicative of the water quality in that area of housing.

Bacteriological testing was also done in the on-base barracks of B429, 430, 434 and 435 in November 2017 in association with HVAC-related work being performed by a contractor in the building mechanical rooms. As the contractor needed to access water from the fresh water pipes that service these buildings, bacteriological testing was conducted in accordance with standard protocols after the HVAC work had been completed. All results showed that no bacteria was present in the water.

Monthly Water Testing by Naval Branch Health Clinic Groton Preventive Medicine:
In addition to the water testing noted above, monthly testing of water from various ice machines, food preparation areas, and specific Navy facilities was conducted internally, by Naval Branch Health Clinic Groton Preventive Medicine. Testing was for bacteria, in accordance with Navy Bureau of Medicine policy. Results of any follow-up testing, done when initial screening tests indicated that bacteria could be present, showed that no harmful bacteria were present in 2017. Testing by Preventive Medicine at these locations also included monitoring for pH and residual chlorine with all results within acceptable limits and largely consistent with results from sampling done by GU.
ENHANCED WATER QUALITY MONITORING PROGRAM

SUBASENLON began a new and extensive sampling program in 2017 for buildings on base and in Housing as part of an effort to comply with Navy policy for drinking water quality monitoring. This sampling is being performed by qualified contractor personnel in coordination with the PW Environmental Division and Navy contracting personnel.

The water distribution system serving the Navy community at SUBASENLON is still considered an extension of the system operated by GU and not a regulated public water system by itself as per federal and state regulatory agencies. However, the Navy policy requires monitoring as if the Navy’s system was regulated by these organizations.

The new monitoring program consists of five distinct separate systems:

1. The Main Base
2. Nautilus Park Housing
3. Conning Towers Housing
4. Polaris Park Housing
5. Trident Park Housing

NOTE: Pipelines providing water to the residents at Dolphin Gardens are owned and operated by GU, therefore, monitoring of this water distribution system is the responsibility of GU.

Parameters included in the new monitoring program are:

1. Bacteriological testing
2. Disinfection Byproducts
3. Lead and Copper

The results of water sampling performed in the new program are summarized in the tables at the end of this section.

Highlights of each of these parameters are as follows:

**Bacteriological Testing:** An aggressive water screening program was implemented in which samples are taken monthly at select sites within each system as per its sampling plan. Tests for bacteria were done in order to ensure that harmful organisms, particularly fecal coliforms and E. coli, were not present in the system. The results were uniformly successful in demonstrating that harmful bacteria was not present in the water in 2017.

**Disinfection Byproducts:** The water supplied to all Navy systems originates from GU and the water is disinfected at their treatment plant before it is consumed by its customers. However, potentially harmful byproducts could result from using disinfectants, the most common of which are Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAA5). Consistent with industry standards, samples were taken every three months in each of the systems in order to ensure that these byproducts were not present in the system above allowable limits. Results were closely monitored and they were below the limits based on a rolling average of results called the Locational Running Annual Average (LRAA). Also consistent with industry protocols regarding analyzing water for disinfection byproducts, the water was tested for Total Chlorine Residual (TCR). The results for TCR are also shown in the tables below.

**Lead and Copper:** Sampling for Lead and Copper in all of the areas began in 2017 under an ambitious effort to obtain samples from multiple locations in each system based on consumer population. Consistent with industry standards, efforts were made to obtain enough samples necessary to meet quotas based on the population estimates. Samples were collected using procedures consistent with EPA’s Lead and Copper Rule and mirrored those sampling efforts conducted by regulated public water systems whose target criteria is for 90% of samples to be lower than the EPA established Action Level (AL) of 0.015 mg/L for Lead and 1.3 mg/L for Copper. As this represented the first time samples were taken for Lead and Copper, all areas were scheduled to be tested every six months with the first attempt made in March of 2017 and the second in September of 2017.

As the table of results for sampling on the Main Base shows, most of the results for Lead and Copper were within acceptable limits and the 90th percentile of results were below the AL. As noted in the table of results, there were three
individual locations that showed lead levels above the AL in 2017 (Building 86, Chapel B168 and the Marina Building 535). In the cases of B86 and B535, the faucets were immediately replaced. As the result of the sample at B168 was just slightly above the AL, it is being resampled to confirm the result. If the result is still above the AL, immediate action to replace the faucet will be made. In accordance with the Lead and Copper Rule, since two consecutive periods of results at the 90th percentile were below the AL, future sampling for the Main Base will only be required annually.

Due to access restrictions, sample quotas could not be reached for the housing areas and consequently valid comparisons to the AL for Lead and Copper could not be made under the EPA’s sampling protocols. However, limited results of valid samples taken inside the housing units indicated that Lead and Copper levels were within acceptable limits. Adjustments are being made for Lead and Copper monitoring in Housing and it is expected that sample quotas will be reached for future monitoring events.

Tables of all drinking water monitoring results obtained under the enhanced water monitoring program for each of the five separate systems are provided below:
### NAVAL SUBMARINE BASE NEW LONDON
#### 2017 ENHANCED WATER QUALITY MONITORING SUMMARY TABLE

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Major Source</th>
<th>Range</th>
<th>Highest Detected Level</th>
<th>MCL</th>
<th>MCLG</th>
<th>AL</th>
<th>90th %</th>
<th>Sites Above AL</th>
<th>Violation?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bacteriological</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform Bacteria (per sample)</td>
<td>Naturally present Human and animal fecal matter</td>
<td>0 – 0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. coli</td>
<td>0 – 0</td>
<td>0 *</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Disinfectants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Residual Chlorine (mg/L)</td>
<td>Water additive used to control microbes.</td>
<td>0 - 1.81</td>
<td>1.81</td>
<td>4</td>
<td>4</td>
<td></td>
<td>-------</td>
<td></td>
<td>No</td>
</tr>
<tr>
<td><strong>Disinfection Byproducts</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haloacetic Acids (mg/L)</td>
<td>By-product of drinking water chlorination.</td>
<td>0.00265 - 0.0439</td>
<td>0.0439</td>
<td>0.060</td>
<td>N/A</td>
<td>0.060</td>
<td>0.024</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Total Trihalomethanes</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0579 - 0.0861</td>
<td>0.0861</td>
<td>0.080</td>
<td>N/A</td>
<td>0.080</td>
<td>0.072</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td><strong>Inorganic Compounds</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Copper (mg/L) March 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0055 - 0.2870</td>
<td>0.2870</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>0.112</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>Lead (mg/L) March 2017</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>ND – 0.0198</td>
<td>0.0198</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>0.0020</td>
<td>1</td>
<td>No</td>
</tr>
<tr>
<td>Copper (mg/L) September 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0099 – 0.4340</td>
<td>0.4340</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>0.1170</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>Lead (mg/L) September 2017</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>&lt;0.0010 – 0.0369</td>
<td>0.0369</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>0.0024</td>
<td>2</td>
<td>No</td>
</tr>
</tbody>
</table>
## 2017 Results for Nautilus Park

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Major Source</th>
<th>Range</th>
<th>Highest Detected Level</th>
<th>MCL</th>
<th>MCLG</th>
<th>AL</th>
<th>90th %</th>
<th>Sites Above AL</th>
<th>Violation?</th>
</tr>
</thead>
</table>
### Bacteriological

- **Total Coliform Bacteria (per sample):** Naturally present Human and animal fecal matter  
  - Range: 0 – 1  
  - Highest Detected Level: 1**  
  - MCL: ----  
  - MCLG: ----  
  - AL: 2/mo  
  - 90th %: ------  
  - Sites Above AL: 0  
  - Violation?: No

- **E. Coli:**  
  - Range: 0 – 0  
  - Highest Detected Level: 0  
  - MCL: ----  
  - MCLG: ----  
  - AL: 0  
  - 90th %: ------  
  - Sites Above AL: 0  
  - Violation?: No

### Disinfectants

- **Total Residual Chlorine (mg/L):** Water additive used to control microbes.  
  - Range: 0.04 - 1.63  
  - Highest Detected Level: 1.63  
  - MCL: 4  
  - MCLG: 4  
  - AL: ----  
  - 90th %: ------  
  - Sites Above AL: No

### Disinfection Byproducts

- **Haloacidic Acids:** By-product of drinking water chlorination.  
  - Range: 0.0144 - 0.0397  
  - Highest Detected Level: 0.0397  
  - MCL: 0.060  
  - MCLG: N/A  
  - AL: 0.060  
  - 90th %: 0.019  
  - Sites Above AL: No

- **Total Trihalomethanes:** By-product of drinking water chlorination.  
  - Range: 0.0693 - 0.0812  
  - Highest Detected Level: 0.0812  
  - MCL: 0.080  
  - MCLG: N/A  
  - AL: 0.080  
  - 90th %: 0.055  
  - Sites Above AL: No

### Inorganic Compounds

- **Copper (mg/L):** Corrosion of pipes: Erosion of Natural deposits  
  - March 2017  
  - Range: 0.0026 – 0.1210  
  - Highest Detected Level: 0.1210  
  - MCL: 1.3  
  - MCLG: 1.3  
  - AL: 1.3  
  - 90th %: N/A  
  - Sites Above AL: N/A  
  - Violation?: N/A

- **Lead (mg/L):** Corrosion of household plumbing systems: Erosion of Natural deposits  
  - March 2017  
  - Range: ND - ND  
  - Highest Detected Level: ND  
  - MCL: 0.015  
  - MCLG: 0  
  - AL: 0.015  
  - 90th %: N/A  
  - Sites Above AL: N/A  
  - Violation?: N/A

- **Copper (mg/L):** Corrosion of pipes: Erosion of Natural deposits  
  - September 2017  
  - Range: 0.0024 – 0.0985  
  - Highest Detected Level: 0.0985  
  - MCL: 1.3  
  - MCLG: 1.3  
  - AL: 1.3  
  - 90th %: N/A  
  - Sites Above AL: N/A  
  - Violation?: N/A

- **Lead (mg/L):** Corrosion of household plumbing systems: Erosion of Natural deposits  
  - September 2017  
  - Range: <0.0010 - <0.0010  
  - Highest Detected Level: <0.0010  
  - MCL: 0.015  
  - MCLG: 0  
  - AL: 0.015  
  - 90th %: N/A  
  - Sites Above AL: N/A  
  - Violation?: N/A

---

**In Nautilus Park one sample taken in February showed total coliform bacteria was present. Following protocol, this site as well as adjacent upstream and downstream locations were resampled for total coliforms and E. coli. Results were negative for all samples.**
### 2017 Results for Conning Towers

<table>
<thead>
<tr>
<th><strong>Parameter</strong></th>
<th><strong>Major Source</strong></th>
<th><strong>Range</strong></th>
<th><strong>Highest Detected Level</strong></th>
<th><strong>MCL</strong></th>
<th><strong>MCLG</strong></th>
<th><strong>AL</strong></th>
<th><strong>90th %</strong></th>
<th><strong>Sites Above AL</strong></th>
<th><strong>Violation?</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bacteriological</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Coliform Bacteria (per sample)</td>
<td>Naturally present Human and animal fecal matter</td>
<td>0 – 0</td>
<td>0</td>
<td>-----</td>
<td>-----</td>
<td>2/mo</td>
<td>-----</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>E. Coli</td>
<td></td>
<td>0 – 0</td>
<td>0</td>
<td>*</td>
<td>0</td>
<td>-----</td>
<td>-----</td>
<td>-----</td>
<td>No</td>
</tr>
<tr>
<td><strong>Disinfectants</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Residual Chlorine (mg/L)</td>
<td>Water additive used to control microbes.</td>
<td>0.98 - 1.45</td>
<td>1.45</td>
<td>4</td>
<td>4</td>
<td>------</td>
<td>------</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td><strong>Disinfection Byproducts</strong></td>
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<tr>
<td>Haloacetic Acids</td>
<td>By-product of drinking water chlorination.</td>
<td>0.019 - 0.0277</td>
<td>0.0277</td>
<td>0.060</td>
<td>N/A</td>
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<td>0.017</td>
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<td>Total Trihalomethanes</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0294 - 0.0679</td>
<td>0.0679</td>
<td>0.080</td>
<td>N/A</td>
<td>0.080</td>
<td>0.040</td>
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<tr>
<td>Copper (mg/L) March 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0852 - 0.0962</td>
<td>0.0962</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>N/A</td>
<td>N/A</td>
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<td>Lead (mg/L) March 2017</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>ND - ND</td>
<td>ND</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>N/A</td>
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<td>Copper (mg/L) September 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0348 – 0.0756</td>
<td>0.0756</td>
<td>1.3</td>
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<td>N/A</td>
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<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>&lt;0.0010 – 0.0022</td>
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<td>0.015</td>
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<td>0.015</td>
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<td>Parameter</td>
<td>Major Source</td>
<td>Range</td>
<td>Highest Detected Level</td>
<td>MCL</td>
<td>MCLG</td>
<td>AL</td>
<td>90th %</td>
<td>Sites Above AL</td>
<td>Violation?</td>
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<td><strong>Bacteriological</strong></td>
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<tr>
<td>Total Coliform Bacteria (per sample)</td>
<td>Naturally present Human and animal fecal matter</td>
<td>0 – 0</td>
<td>0</td>
<td>-----</td>
<td>-----</td>
<td>2/mo</td>
<td>-----</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>E. Coli</td>
<td></td>
<td>0 – 0</td>
<td>0</td>
<td>*</td>
<td>0</td>
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<td><strong>Disinfectants</strong></td>
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<tr>
<td>Total Residual Chlorine (mg/L)</td>
<td>Water additive used to control microbes.</td>
<td>0.65 - 1.44</td>
<td>1.44</td>
<td>4</td>
<td>4</td>
<td>------</td>
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<td>------</td>
<td>No</td>
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<td><strong>Disinfection Byproducts</strong></td>
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<td>Haloacetic Acids</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0229 - 0.0470</td>
<td>0.0470</td>
<td>0.060</td>
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<td>0.060</td>
<td>0.033</td>
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<td>Total Trihalomethanes</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0448 - 0.0673</td>
<td>0.0673</td>
<td>0.080</td>
<td>N/A</td>
<td>0.080</td>
<td>0.041</td>
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<td>Copper (mg/L) March 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0344 – 0.0582</td>
<td>0.0582</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>N/A</td>
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<tr>
<td>Lead (mg/L) March 2017</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>ND - ND</td>
<td>ND</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>N/A</td>
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<td>Copper (mg/L) September 2017</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0091 – 0.0572</td>
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<td>Lead (mg/L) September 2017</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>&lt;0.0010 - 0.0010</td>
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<td>Parameter</td>
<td>Major Source</td>
<td>Range</td>
<td>Highest Detected Level</td>
<td>MCL</td>
<td>MCLG</td>
<td>AL</td>
<td>90th %</td>
<td>Sites Above AL</td>
<td>Violation?</td>
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<td><strong>Bacteriological</strong></td>
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<tr>
<td>Total Coliform Bacteria (per sample)</td>
<td>Naturally present Human and animal fecal matter</td>
<td>0 – 0</td>
<td>0</td>
<td>-----</td>
<td>-----</td>
<td>2/mo</td>
<td>-----</td>
<td>-----</td>
<td>No</td>
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<tr>
<td>E. Coli</td>
<td></td>
<td>0 – 0</td>
<td>0</td>
<td>*</td>
<td>0</td>
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<td>No</td>
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<tr>
<td><strong>Disinfectants</strong></td>
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<td>Total Residual Chlorine (mg/L)</td>
<td>Water additive used to control microbes.</td>
<td>0.500 - 1.34</td>
<td>1.34</td>
<td>4</td>
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<tr>
<td><strong>Disinfection Byproducts</strong></td>
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<tr>
<td>Haloacetic Acids</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0298 - 0.0298</td>
<td>0.0298</td>
<td>0.060</td>
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<td>Total Trihalomethanes</td>
<td>By-product of drinking water chlorination.</td>
<td>0.0360 - 0.0715</td>
<td>0.0715</td>
<td>0.080</td>
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<td><strong>Inorganic Compounds</strong></td>
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<tr>
<td>Copper (mg/L)</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0301 – 0.113</td>
<td>0.113</td>
<td>1.3</td>
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<td>1.3</td>
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<td>March 2017</td>
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<tr>
<td>Lead (mg/L)</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>ND - ND</td>
<td>ND</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>N/A</td>
<td>N/A</td>
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<td>March 2017</td>
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<tr>
<td>Copper (mg/L)</td>
<td>Corrosion of pipes: Erosion of Natural deposits</td>
<td>0.0726 – 0.0726</td>
<td>0.0726</td>
<td>1.3</td>
<td>1.3</td>
<td>1.3</td>
<td>N/A</td>
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<td>September 2017</td>
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<tr>
<td>Lead (mg/L)</td>
<td>Corrosion of household plumbing systems: Erosion of Natural deposits</td>
<td>&lt;0.0010 - &lt;0.0010</td>
<td>&lt;0.0010</td>
<td>0.015</td>
<td>0</td>
<td>0.015</td>
<td>N/A</td>
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<td>September 2017</td>
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</table>
Bacteriological Testing. *Effective April 1, 2016 The Revised Total Coliform Rule established the following Primary Maximum Contamination Level (PMCL): In compliance unless (i) the waterworks has an E. coli-positive repeat sample following a total coliform-positive routine sample; (ii) the waterworks has a total coliform-positive repeat sample following an E. coli-positive routine sample; (iii) the waterworks owner fails to take all required repeat samples following an E. coli-positive routine sample; or (iv) the waterworks owner fails to test for E. coli when any repeat sample tests positive for total coliform.

Lead and Copper in Housing. Due to access restrictions, not enough samples inside residential units could be taken to be consistent with EPA protocols. As a result, valid comparisons of all the actual results and a 90th percentile value to action levels could not be made. The range and highest detected level of lead and copper results shown in the table are from valid samples taken inside residential units.

Table Definitions:

The following definitions are provided to help you better understand the terms: used in the tables above showing the results of the Enhanced Water Quality Monitoring:

- **Action Level (AL)** - The concentration of a contaminant that, if exceeded, triggers treatment or other requirements which a water system must follow. For lead and copper monitoring, compliance is based on the 90th percentile value.
- **Maximum Contaminant Level (MCL)** - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.
- **Maximum Contaminant Level Goal (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.
- **N/A** – Not applicable.
- **Non-detection (ND)** – Laboratory analysis indicates that the contaminant is not present.
- **Milligrams per liter (mg/L)** – A measurement of the amount of contaminant per unit of water.
- **Locational Running Annual Average (LRAA)** – The average of sample analytical results for samples taken at a particular monitoring location during the previous four calendar quarters.
- **90th Percentile** - The highest concentration of **Lead** or **Copper** in tap water that is exceeded by 10 percent of the sites sampled during a monitoring period. This value is compared to the action level (AL) to determine whether an AL has been exceeded.