

**Town of New Scotland**



**Department of Public Works**

2029 New Scotland Road  
Slingerlands, NY 12159

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**Wayne D. LaChappelle**  
Commissioner of Public Works

May 21, 2014

Dear Water Customer,

Community water systems are required by the US Environmental Protection Agency (EPA) to publish an annual Consumer Confidence Report. The Town of New Scotland purchases water from the Town of Bethlehem to supply the following water districts; Feura Bush Water District PWS ID # 0121203), Font Grove Rd. (PWS ID # 0123019), Heldervale Water District (PWS ID # 011900), and the Swift Rd. Water District (PWS ID # 0121204).

I am enclosing the Annual Water Supply Statement published by the Town of Bethlehem based on data collected during 2013 and prior. If you have any questions concerning this report please call the Town of Bethlehem Water District Office at 439-2414 or my office at 439-0938.

Sincerely,

Wayne D. LaChappelle  
Commissioner of Public Works

## **Annual Water Quality Report for 2014 *Town of Bethlehem Water District No.1***

445 Delaware Avenue, Delmar, NY 12054  
(Public Water Supply Identification Numbers NY0100191)

### **INTRODUCTION**

All community water systems are required by the U.S. Environmental Protection Agency (EPA) to publish an annual statement to review their water system, sources of supply and present information on compliance with drinking water standards. The purpose of this report is to increase your understanding of drinking water and awareness of the need to protect our drinking water resources. We are pleased to provide you with this year's Annual Water Quality Report. Last year we conducted tests for over 80 contaminants.

This report is an overview of last year's water quality. Included are details about where your water comes from, what it contains, and how it compares to New York State standards. Our constant goal is and always has been, to provide to you with a safe and dependable supply of drinking water. We want you to understand the efforts we make to continually improve the water treatment process and to protect our water resources. If you have any questions concerning this report or concerning your drinking water please contact: The Commissioner of Public Works, at Bethlehem Town Hall, 445 Delaware Ave. Room 203. The office is open Monday through Friday between the hours of 8:30 AM- 4:30 PM; Telephone (518) 439-4955.

### **WHERE DOES OUR WATER COME FROM?**

The Bethlehem Water District No. 1 draws its water from both "surface water" and "ground water" sources. The Residential Water Purification Plant draws its water from a Reservoir that has a storage capacity of 1.25 billion gallons. The Residential Purification Plant has a peak capacity for purifying 6 million gallons of water per day. The treatment process consists of pre and post chlorination for disinfection; taste and odor control with the use of activated carbon; coagulation with aluminum sulfate; filtration with rapid sand filter, and corrosion control. There is no fluoride added to the Bethlehem Water Supply. Algae growth in the Reservoir is controlled by treatment with copper sulfate in the summer months. Water is pumped from the purification plant to a 5,700,000-gallon steel water storage tank. From that point, water is delivered by gravity through a network of water mains, which reach all the way from North Bethlehem to Selkirk.

There are also two deep wells to supplement the capacity of the Residential Plant. Each well has a capacity of 600 gallons per minute. Groundwater or well water is stored below the surface of the earth in deep, porous rocks or porous deposits of sand or gravel called "aquifers." Groundwater is purified naturally as it filters through layers of soil, clay, rock and sand. This process, known as "percolation" takes years to complete. As a result, groundwater requires less treatment than surface water. Treatment of the well water consists of chlorination to protect against contamination from harmful bacteria and other organisms.

In general, 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 activities. Contaminants that may be present in source water include microbial contaminants; inorganic contaminants; pesticides and herbicides; organic chemical contaminants; and radioactive contaminants. In order to ensure that tap water is safe to drink, the NYSDOH and USEPA prescribe regulations, which limit the amount of certain contaminants in water provided by public water systems. The State Health Department's and the FDA's regulations establish limits for contaminants in bottled water which must provide the same protection for public health.

### **FACTS AND FIGURES**

The Bethlehem Water District provides water through 11,054 service connections to a population of approximately 33,000 people. In 2012 the District provided 1,100,000,000 gallons of water from the Residential Plant which also includes the amount from Well #1 and Well #2. The difference (9.2%) between the volume billed and the total volume produced is water used fire fighting, flushing of the water distribution system, errors in water meters and water lost to leaks.

**ARE THERE CONTAMINANTS IN OUR DRINKING WATER?**

In accordance with State regulations, the Bethlehem Water District routinely monitors your drinking water for numerous contaminants. Plant operators perform daily laboratory tests. Chlorine levels are constantly monitored. Drinking water is also tested by independent laboratories for such things as inorganic contaminants, radiological contaminants, lead and copper, nitrate, volatile organic contaminants, disinfection byproducts and synthetic organic contaminants. In addition, we test 30 samples for coliform bacteria each month from the Residential System from are tested for coliform bacteria. All samples were found to be safe. The table attached in this report shows some of the results from the extensive testing performed each year. Complete records are on file in the Water District Office. For a listing of all the parameters that we must analyze and the frequency of testing for compliance, see the NYS Sanitary Code. It should be noted that all drinking water, including bottled drinking water, might be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily pose 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 EPA website at [www.epa.gov](http://www.epa.gov) or the Albany County Health Department at (518) 447-4620.

**WHAT DOES THIS INFORMATION MEAN?**

During 2012, our system was in compliance with applicable New York State drinking water operating, monitoring and reporting requirements. We have learned through our monitoring and testing that some contaminants have been detected; however, these compounds were detected below New York State requirements. MCL's are set at very stringent levels. To understand the possible health effects described for many regulated contaminants, a person would have to drink 2 liters of water every day at the MCL level for a lifetime to have a one-in-a-million chance of having the described health effect.

**DO I NEED TO TAKE SPECIAL PRECAUTIONS?**

Some people may be more vulnerable to disease causing microorganisms or pathogens 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 from their health care provider about their drinking water. EPA/CDC guidelines on appropriate means to lessen the risk of infection by Cryptosporidium, Giardia and other microbiological pathogens are available from the Safe Drinking Water Hotline (800-426-4791).

**LEAD AND DRINKING WATER** - 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. The Town of Bethlehem is responsible for providing high quality drinking water, 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 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>.

**CLOSING**

Thank you for allowing us to continue providing your family with clean, quality water this year. We ask that all our customers help us protect our water system. Please call the Water District Office at 439-2414 if you have questions.

TOWN OF BETHLEHEM WATER DISTRICT No. 1 RESIDENTIAL PURIFICATION PLANT & WELLS TEST RESULTS *						
Public Water Supply Identification Number: NY0100191						
Contaminant	Violation Y/N	Level Detected	Unit Measurement	MCLG	MCL	Likely Source of Contamination
<b>Microbiological Contaminants</b>						
Total Coliform	N	No Positives	N/A	0	2 or more positive samples per month	Naturally present in the environment
<b>Inorganic Contaminants (Sample data from 4/16/14 unless otherwise noted)</b>						
Chloride	N	60.0	ppm	N/A	250	Geology; Naturally occurring
Copper (sample data Sept. 2012)	N	0.50 <sup>2</sup>	ppm	1300	AL=1.3	Corrosion of household plumbing systems; erosion of natural deposits;
Range of copper concentration		0.0 - 0.98				
Lead (sample data Sept. 2012)	N	0.001 <sup>3</sup>	ppb	0	AL=15	Corrosion of household plumbing systems, erosion of natural deposits
Range of lead concentration		ND-0.002				
Nitrate (as Nitrogen)	N	0.7	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Sodium <sup>4</sup>	N	31.0	ppm	N/A	- N/A	Geology; Road Salt
Sulfate	N	46.0	ppm	N/A	250	Naturally Occurring,
Zinc	N	0.4	ppm	N/A	5000	Galvanized pipe; corrosion inhibitor
<b>Disinfection Byproducts (quarterly samples from Feb, May, Aug, &amp; November 2014)</b>						
Haloacetic Acids (HAA5) <sup>5</sup>	N	20.2	ppb	N/A	60	By-product of drinking water chlorination
Range of Values for HAA5		5.2 - 42.8				
TTHM [Total Trihalomethanes] (Average) <sup>5</sup>	N	46.9	ppb	0	80	By-product of drinking water chlorination
Range of values for Total Trihalomethanes		26 - 124				

**Glossary of Terms and Foot Notes Used in Data Tables**

*Non-Detects (ND)* - laboratory analysis indicates that the constituent is not present.

*Parts per million (ppm) or Milligrams per liter (mg/l)* - one part per million corresponds to one minute in two years or a single penny in \$10,000.

*Parts per billion (ppb) or Micrograms per liter* - one part per billion corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.

*90<sup>th</sup> Percentile Value*- The values reported for lead and copper represent the 90<sup>th</sup> percentile. A percentile is a value on a scale of 100 that indicates the percent of a distribution that is equal to or below it. *Action Level* - the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

*Treatment Technique (TT)* -A treatment technique is a required process intended to reduce the level of a contaminant in drinking water.

*Maximum Contaminant Level* - The "Maximum Allowed" (MCL) is 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* - The "Goal"(MCLG) is 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.

- The level presented represents the 90<sup>th</sup> percentile of test sites. The action level for copper was not exceeded at any of the sites tested.
- The level presented represents the 90<sup>th</sup> percentile of test sites. The action level for lead was not exceeded at any of the sites tested
- Water containing more than 20 mg/l should not be consumed by persons on severely restricted sodium diets; Water containing more than 270 mg/l should not be consumed by persons on moderately restricted sodium diets.
- The average is based on a running annual average.

\* The tables presented for Bethlehem WD#1 depict only those analytes that were detected. Many of the test results were *NOT DETECTABLE*. The type/group (number of contaminants in each group) tested for were as follows: volatile organic compounds (52)+MTBE, synthetic organic compounds (38), asbestos, color, radiological chemicals (4). The inorganic contaminants tested for were: arsenic, barium, cadmium, chromium, mercury, silver, selenium, antimony, beryllium, thallium, nickel and cyanide.