

# A Quick Guide to Your Water, Violations, Risks, and Solutions

## Your Water: Sources & Delivery

Each year, the Town of Bethlehem delivers 1.6 billion gallons of clean drinking water to more than 11,600 homes and businesses, and to 1,670 fire hydrants, through 227 miles of pipes.

Our water comes from four sources (#s for 2017):

Selkirk Wellfield	538,847,000 gal
New Scotland Reservoir	512,685,000 gal
Albany Aqueduct	447,287,000 gal
New Scotland Wellfield	157,096,000 gal

Water from New Scotland, Selkirk, and Albany is filtered, disinfected, clarified, and delivered throughout town.

Water from the Selkirk Wellfield is also pre-treated with chlorine at the Clapper Road Water Treatment Plant to remove naturally occurring iron and manganese. Because of differences in the source waters, this step is not needed at our New Salem Water Treatment Plant.

## Chlorine: The Good & The Bad

**The Good:** Chlorine is critical for ensuring that our drinking water is free from disease causing microorganisms. Although Bethlehem is not in the tropics, we still need to worry about waterborne diseases like giardia and cryptosporidium. To keep our public water safe, we keep a small amount of chlorine in our water throughout its journey from the treatment plants to our homes and businesses.

**The Bad:** Chlorine reacts with naturally occurring organic matter in our water, and in the process creates two groups of undesirable byproducts: Haloacetic acids (HAAs) and Trihalomethanes (THMs). HAAs break down if chlorine levels are low enough in the pipe network, but THMs are more stable so their levels don't drop over time.

Our water consistently met all federal water treatment standards until important changes were made in 2013 with the Stage 2 Disinfectant and Disinfection Byproduct Rule. The key change of this rule was requiring that the standards be met not on average across our entire system, but at each of four specific sampling sites selected by the NYS Dept. of Health that had the highest likelihood of violations. (This was a good change!)

## Testing, Testing: Pass, Pass, Pass, Fail

On a regular schedule set by the EPA, the Town tests our water for more than 90 different contaminants. We also conducted tests of our water system for contaminants of concern like PFOA and 1,4-dioxane in 2013. We have consistently passed on all fronts except for one. We have had Total THM levels above EPA standards at one of four test sites since 2013 (on Wemple Road, near River Road).

The health risks of THMs occur over a lifetime of drinking the water, but it is important for people to know there are risks so they can understand the expensive investments we are making to eliminate them.

While the EPA, NYS Dept. of Health, and Albany County Health Dept. have all declared Bethlehem's water safe to drink for now, the Town is working closely with these agencies on improvements to ensure our water is safe to drink over our lifetimes.

## Water System Improvements: Investing in our Health

The Town has been making a series of improvements to our water system for the last decade. One of the most important began this winter with ground-breaking on an \$18 million upgrade of the Clapper Road Water Treatment Plant. This critical project will shift us away from using chlorine to remove naturally occurring iron and manganese, thus resulting in significant reductions of chlorine disinfectant byproducts like THMs. This project is scheduled for completion in 2020.

## More Information

Check out

*FAQs & Answers about Total THM Exceedances* on the town website ([www.townofbethlehem.org](http://www.townofbethlehem.org)) for more details and links to other resources.

And, as always, we'd be happy to talk to you!

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