

Hampton Shaler Water Authority

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Annual Drinking Water Quality Report for 2015

Este informe contiene informacion muy importante sobre su agua de beber. Traduzcalo o hable con alguien que lo entienda bien. (This report contains very important information about your drinking water. Translate it, or speak to someone who understands it.)

We're pleased to present to you this year's Annual Drinking Water Quality Report. This report is designed to inform you about your drinking water, where it comes from, and some of the precautions taken to protect the source of supply. The Hampton Shaler Water Authority Treatment Plant operates twenty-four hours a day and is staffed by personnel certified by the Pennsylvania Department of Environmental Protection. We work hard to provide the highest quality water and are very proud of the job we do.

Source of Supply

The Hampton Shaler Water Authority obtains approximately 86% of its water supply from wells, pumping from a large aquifer beneath the Allegheny River and some of the surrounding area. This is the "underground river" or "fourth river" that many people in the area refer to, but it really isn't a river at all. This aquifer is a formation of rock and gravel deposited by glaciers long ago, and contains a tremendous amount of groundwater. A system of twelve wells have the capacity to deliver in excess of six million gallons per day to the treatment plant. The water pumped from the aquifer is of very high quality, requiring only a minimum of treatment. It is monitored at the water treatment plant hourly, around the clock, and is relatively free of bacterial contamination because the soil and rocks through which the water moves screen out most of the bacteria.

West View Water Authority supplies HSWA with roughly 13% of our water needs. West View water is surface water that is drawn from the Ohio River. The West View Water Treatment Plant is located on Neville Island and is a state-of-the-art conventional water filtration plant. The Authority's interconnections with West View Water Authority are located on Duncan Avenue, Sample Road, and Villa Drive at the Hampton Township lines.

The Pittsburgh Water and Sewer Authority supplies HSWA with less than one percent of our water needs in the Pleasant Valley section of O'Hara Township. The City of Pittsburgh obtains their water from the Allegheny River and is treated at their treatment plant located across from Waterworks Mall in Aspinwall.

Susceptibility to Potential Sources of Contamination

The threat of contamination is always very real to a ground water source. Protecting a ground water supply before it becomes contaminated, rather than waiting until contamination occurs, is both wise and cost-effective. Communities all over the country have learned that it can be very expensive to clean up ground water once it becomes contaminated. Route 28 (East Ohio Street), along with rail and river traffic and some types of local businesses and industries are all potential sources of ground water contamination. Shaler Township and other local ground water suppliers have worked with the Allegheny County Health Department, Pennsylvania Rural Water Association, and the Pennsylvania Department of Environmental Protection to develop and implement a Source Water Assessment and Protection (SWAP) Program. This program includes:

- forming a community planning team

- defining the well field protection area
- identifying local sources of contamination
- managing the well recharge area, through local ordinances, zoning, education programs and monitoring
- planning for population growth and changes in industry, commerce and land use
- planning for emergencies and developing alternate water supplies

We have a source water assessment report available from our office that provides more detailed information regarding potential sources of contamination. A summary of our water system's susceptibility to potential sources of contamination follows:

*A Source Water Assessment of the Hampton Shaler well field and ground water source, which supplies water to the treatment plant, was developed during 2000 and 2001. The Authority's ground water wells are located not far from PA Routes 8 and 28. These roads could present a **low** risk of potential contamination from road salt or spills.*

*The potential risk from non-point sources (soil erosion, septic systems, storm water discharges and agricultural activities) is **moderate***

*Because there are large volumes of fuel stored at refining facilities near the well field, the risk to the wells from accidental fuel spills is **moderate-high** due to the large volumes. An active railroad corridor also intersects the well field area, and numerous hazardous chemicals pass through on a daily basis. The risk to the wells from a railroad spill is **high**.*

Information from the Hampton Shaler Source Water Assessment Plan can be obtained by calling the HSWA office at (412) 486-4867.

Back-up Source of Supply

In the event of a water shortage or some other type of emergency which results in the water treatment plant being taken out of operation, Hampton Shaler Water Authority maintains an emergency interconnection to the City of Pittsburgh's Lanpher Reservoir, located on Koehler Street in the Cherry City area. This pump station has the capacity to pump up to six million gallons of treated water per day into the Hampton Shaler system.

HSWA Customers Served with Water from the Municipal Authority of the Borough of West View Water

Some customers in the northwestern portion of Shaler Township and the southwestern part of Hampton Township receive water provided by the Municipal Authority of the Borough of West View. The streets served with West View water are:

Shaler Township

Greenfield Road (from Fox Meadow Court to Pin Oak Drive), Fox Meadow Court, upper Pin Oak Drive (from Greenfield Rd. to Calmwood Dr.), Calmwood Drive, Peters Drive (from Calmwood Dr. to Belladonna Dr.).

Hampton Township

Arbors development, Ashland Ct., California Dr., Center Ave., Circle Dr., Dolphin Dr., Duncan Ave. (township line to Bryant Rd.), Ferguson Rd., Forest Ave., Gray Ridge Dr., Highland Ave., Isabella Dr., Laurel Lane, Linwood Dr., Ohio Dr., Parke Dr., Rosemonte Dr., Scenic Ct., Wallace Rd., Walters Rd., Wyland Ave.

The West View water quality report for 2015 will also be available at www.westviewwater.org.

HSWA Customers Served with Water from the Pittsburgh Water and Sewer Authority (PWSA)

O'Hara Township (Pleasant Valley Area)

Cliff Street, Jordan Street, Kittanning Pike, Lower Road, Mary Street, Murray Street, Winchell Street.

The PWSA water quality report for 2015 will also be available at www.pgh2o.com.

Contaminant Groups

There are several groups of contaminants for which standards have been set. These include:

Microorganisms – This group includes bacteria, viruses and protozoa; some of which can cause disease. Water samples that are analyzed for microorganisms are collected weekly from representative sites throughout the Hampton Shaler service area. The number of samples collected is based on the population served by the water system – one sample for every 1,000 people served. The HSWA service area, having a population of just over 57,000 people, collects 60 samples per month.

Inorganic Contaminants (IOCs) – This group includes naturally occurring metals and minerals. Water samples to be analyzed for IOCs are collected from the treated water at the water plant once every three years. Two IOCs, nitrate and nitrite, are monitored annually. The Authority must monitor for fourteen IOCs. A separate set of standards are in place for two other inorganic contaminants, lead and copper.

Lead and Copper – Because the occurrence of these two contaminants in drinking water is usually the result of plumbing materials within both the household plumbing and distribution system, these samples are collected from household taps that meet specific criteria. These criteria are:

- homes with lead solder installed after 1982 and before 1989 (Allegheny County banned lead solder on January 1, 1989)
- homes with lead pipes
- homes with lead service lines

Volatile Organic Contaminants (VOCs) – These are organic compounds that readily volatilize, or travel from the water into the air. Most of them are industrial chemicals and solvents. Water samples to be analyzed for VOCs are collected from the treated water at the water treatment plant once annually. HSWA must monitor for twenty-one VOCs.

Synthetic Organic Contaminants (SOCs) – Nearly all SOC's are pesticides, with a few notable exceptions (PCBs and dioxin). They differ from VOCs because they do not escape readily into the air from water. Samples to be analyzed for SOC's are collected from the treated water at the water treatment plant.

Radionuclides – These are radioactive contaminants that are usually naturally occurring. Water samples to be analyzed for radionuclides are collected from the treated water at the water plant every nine years.

Disinfection By-Products (DBPs), and Disinfectant Residuals – Disinfection By-Products are compounds that are formed when a disinfectant such as chlorine is added to water that contains organic matter, such as decaying plant or animal material. This is more likely to occur when the water source is a river or lake, rather than a ground water source. The by-products that are currently regulated are Total Trihalomethanes (TTHMs) and Haloacetic Acids (HAAs). Water samples to be analyzed for these contaminants are collected quarterly from sites throughout the

distribution system that are located the farthest from the treatment plant (maximum residence time of water).

Disinfectant residuals are the levels of chlorine disinfectant in the water, both in the water leaving the treatment plant (entry point), and throughout the distribution system.

Unregulated Contaminants – These are contaminants for which EPA has not established drinking water standards. The purpose of unregulated contaminant monitoring is to assist EPA in determining the occurrence of unregulated contaminants in drinking water and whether future regulation is warranted. HSWA performed monitoring for Unregulated Contaminants in 2015.

All sources of drinking water are subject to potential contaminants that are naturally occurring or man made. Those contaminants can be microbes, organic or inorganic chemicals, or radioactive materials. 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 1-800-426-4791.

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 microbiological contaminants are available from the Safe Drinking Water Hotline (800-426-4791).

Information about Lead

If present, elevated lead levels 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 Authority 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, 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: **1-800-426-4791** or at:

<http://www.epa.gov/safewater/lead>

Definitions of Terms

In the following tables you will find many terms and abbreviations you might not be familiar with. To help you better understand these terms we've provided the following definitions:

Action Level (AL) – the concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

CCR (Consumer Confidence Report) – EPA's official name for this report. A CCR unit is a method of expressing the Maximum Contaminant Level (MCL) of a contaminant as a number greater than 1.0, rather than as a decimal, so that the **Level Detected** can easily be compared with the **MCL**. For example, a MCL of 0.003 ppb is more easily understood if expressed as simply 3 ppb.

Maximum Contaminant Level (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 (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.

Maximum Residual Disinfectant Level (MRDL) – 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.

Maximum Residual Disinfectant Level Goal (MRDLG) – 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 contamination.

Minimum Reporting Level (MRL) – The lowest concentration at which a contaminant can be detected in a sample and its concentration can be reported with a reasonable degree of accuracy and precision.

Not Detected (ND) – Laboratory analysis indicates that the contaminant is not present at a detectable limit.

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

Parts per billion (ppb) or Micrograms per Liter(µg/L) – one part per billion or micrograms per liter (corresponds to one minute in 2,000 years, or a single penny in \$10,000,000.)

Picocuries per Liter (pCi/L) – Is a measurement of radioactivity in water.

Treatment Technique (TT) – A required process intended to reduce the level of a contaminant in drinking water.

Turbidity – Is the measure of the cloudiness of the water. It is measured because it is a good indicator of the effectiveness of the filtration system. Turbidity is measured in nephelometric turbidity units (NTU).

2015 Water Quality Tables

The Hampton Shaler Water Authority, as well as our bulk suppliers, routinely monitor for contaminants in your drinking water in accordance with federal and state regulations. The following tables show the levels of **detected** contaminants from monitoring for the period of January 1 to December 31, 2015. For the monitoring that is required less often than yearly, the most recent analysis results are presented. There were no water quality violations in 2015.

Inorganic Contaminants (IOCs)

Contaminant (unit of measurement) Year of Data	Violation Yes/No	HSWA Detected Level	PWSA Detected Level	West View Detected Level	MCL	MCLG	Major Sources in Drinking Water
Fluoride (ppm) 2015	No	ND	0.749	0.6	2	2	Erosion of natural deposits; Water additive which promotes strong teeth; Discharge from fertilizer and aluminum factories.
Nitrate (ppm) 2015	No	0.42	1.29	0.6	10	10	Runoff from fertilizer use; Leaching from septic tanks, sewage; Erosion of natural deposits.
Nitrite (ppm) 2015	No	0.15	ND	< 0.01	1	1	Runoff from fertilizer use; Leaching from septic tanks; sewage; Erosion of natural deposits.

Nickel (ppb) 2015	No	ND	ND	1.2	100	100	Manufacturing by-product from fertilizer use.
Barium (ppm) 2015	No	ND	0.05	0.03	2	2	Discharge of drilling waste and metal refineries; erosion of natural deposits.

Synthetic Organic Contaminants (SOCs)

Contaminant (unit of measurement) Year of Data	Violation Yes/No	HSWA Detected Level	PWSA Detected Level	West View Detected Level	MCL	MCLG	Major Sources in Drinking Water
Di(2-ethylhexyl) phthalate (ppb) 2015	No	ND 2014	ND	0.8	6	0	Discharge from rubber and chemical factories.

Lead and Copper

Contaminant (unit of measurement) Year of Data Water Supplier	Violation Yes/No	90 th Percentile Value	No. of Sites Above Action Level	Action Level (AL)	MCLG	Major Sources in Drinking Water
Lead (ppb) 2013 HSWA	No	0	1 of 30	15	0	Corrosion of household plumbing systems; Erosion of natural deposits
Copper (ppm) 2013 HSWA	No	0.2	No sites above AL	1.3	0	Corrosion of household plumbing systems; Erosion of natural deposits

Disinfection Byproducts (DBPs)

Contaminant (unit of measurement) Year of Data Water Supplier	Violation Yes/No	Average of Results	Range	MCL in CCR Units	MCLG	Major Sources in Drinking Water
(TTHMs) Total Trihalomethanes (ppb) 2015 HSWA	No	40	15 – 83	80	N/A	Byproduct of drinking water disinfection
(HAAs) Haloacetic Acids (ppb) 2015 HSWA	No	12	3 - 25	60	N/A	Byproduct of drinking water disinfection

Entry Point Disinfectant Residual (Water Leaving the Treatment Plant)

Contaminant (unit of measurement) Year of Data Water Supplier	Violation Yes/No	Minimum Disinfectant Residual Required	Lowest Level Detected	Range of Detections	Major Sources In Drinking Water
Chlorine (ppm) 2015 HSWA	No	0.60	0.64	0.64 – 1.02	Water additive used to control microbes
Chlorine (ppm) 2015 West View	No	0.20	0.95	0.95 – 2.18	Water additive used to control microbes

Chlorine (ppm) 2015 PWSA	No	0.20	0.31	0.31 – 0.97	Water additive used to control microbes
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Disinfectant Residuals (Distribution System)

Contaminant (unit of measurement) Year of data Water Supplier	Violation Yes/No	Highest Monthly Average	Range of Monthly Averages	MRDL	MRDLG	Major Sources in Drinking Water
Chlorine (ppm) 2015 HSWA	No	0.79 February	0.39 – 0.79	4	4	Water additive used to control microbes

Turbidity NTU

MCL	PWSA Detected Level	West View Detected Level	Violation	Source
TT = 1 NTU	0.221	0.090	No	Soil runoff
TT = % of samples \leq 0.3 NTU	100%	100%	No	Soil runoff

Total Organic Carbon (TOC)

Water Supplier	Removal Required	Quarters Out of Compliance	Range of Removal	Violation Yes/No
Pittsburgh Water & Sewer 2015	TT = 35%	0	33% to 46.5%	No
West View Water Authority 2015	TT = 35%	0	38% – 56%	No

Unregulated Contaminants

Contaminant (unit of measurement) Year of Data Water Supplier	MRL	HSWA Range of Detection	Average	Violation	Major Sources in Drinking Water
Strontium (ppb) 2015 HSWA	0.3	135 – 159	147	No	Naturally-occurring element; used in making CRT televisions
Chromium, Hexavalent (ppb) 2015 HSWA	0.03	0.036 – 0.042	0.039	No	Naturally-occurring element; used in making steel and other alloys

Hampton Shaler Water Authority analyzed 720 total coliform samples in 2015. None tested positive for total coliform.

Hampton Shaler Water Authority, West View Water Authority, and Pittsburgh Water and Sewer Authority had no detections of Volatile Organic Compounds in 2015.

Hampton Shaler Water Authority, and Pittsburgh Water and Sewer Authority had no detections of Synthetic Organic Compounds in 2014.

Hampton Shaler Water Authority, West View Water Authority, and Pittsburgh Water and Sewer Authority had no detections of Radiological Contaminants during the most recent monitoring periods.

If you have any questions about this report or concerning your water utility, please contact Kevin Cridge at (412) 486-4867 Monday through Friday between 7:00 am and 3:00 pm.

The Hampton Shaler Water Authority website can be visited at www.hswa-pa.org.

If you want to learn more about the Hampton Shaler Water Authority, please attend any of our regularly scheduled Board Meetings held the fourth Monday of each month, 7:00 p.m. at the office of the Authority located at 3101 McCully Road.