

**Consumer Confidence Report
For Calendar Year 2016 Operations
Turkey Hill Water Company, Inc. (PWSID MD0080048)
La Plata, MD 20646**

We're pleased to present this year's Annual Drinking Water Quality Report covering the period of January 1 through December 31, 2016. This report is intended to provide you with important information about your drinking water. Our constant goal is to provide you with a safe and dependable supply of water. We are committed to ensuring the quality of our community's water and routinely monitor for any contaminants according to Federal and State laws.

This report is a snapshot of last year's (2016) water quality for our community water system. Included are details about where our water comes from, what it contains, and how it compares to standards set by regulatory agencies. We issue this report annually in accordance with the provisions of the Safe Drinking Water Act (SDWA), as amended.

You are one of the forty-seven shareholders/owners of our community-owned water company. It's your water company. In managing your water company, the Board of Directors (BoD), its Officers and our Certified Water Treatment Operators (all of whom are your neighbors) need and appreciate your interest, support and feedback. We stand ready to address any of your questions, concern or comments on our water quality, as well as any operational or fiscal questions. Please don't hesitate to contact us. As always, all are invited to attend both our annual water company shareholders meeting (usually held in mid-September – all will be notified when schedule is finalized) and our Board of Directors (BOD) meetings, which are held several times a year on a somewhat irregular basis. Please contact any member of the BOD or our certified operators (POCs and phone numbers are on pages 7 of this report) with any questions you may have.

The Source of Our Water

Our drinking water comes from deep underground aquifers (underground reservoirs or deposit of water). This is called "ground water" (as opposed to "surface water" which comes from rivers, lakes or surface reservoirs). Our well (drilled in 1994, with the pump/motor replaced in April 2015) is 988 feet deep and draws water from aquifers that are between 585 and 840 feet below the surface. According to government testing, the static water level in our well has slowly been dropping over recent years with the growth of the county and higher demand for ground water. We tap into the aquifer by drilling wells and then pumping the water to the surface for distribution. The layers of earth/clay/sand/etc. between surface sources of contamination and our deep aquifers help maintain the purity of our water. The aquifer from which we draw our water is part of the Atlantic Coastal Plain physiographic province. Specifically, our water is from the Patapsco Formation, which is a confined aquifer and, as determined by Maryland's Source Water Assessment Program, is "not susceptible to contaminants originating at the land surface..." although it is susceptible to some naturally occurring contaminants. As required by regulations, we disinfect the water through chlorination and monitor the level of chlorination daily. We also test for the presence of multiple possible contaminants on a schedule provided by the Maryland Department of the Environment (MDE).

Do I need to take any special precautions?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons such as those with cancer who are undergoing chemotherapy, those who have undergone organ transplants, those 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/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by cryptosporidium¹ and other microbial contaminants are available from the Safe Water Drinking Hotline (800-426-4791) or can be found on line.

Why are there contaminants in my drinking 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 by calling the Environmental Protection Agency's Safe Drinking Water Hotline (800-426-4791) or searching the EPA or other appropriate websites.

The sources of drinking water (both tap waters and bottled waters) 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 that limit the amount of certain contaminants in water provided by public water systems. Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water and provides the same protection for public health.

¹ Cryptosporidium is generally associated with surface water (from rivers or surface reservoirs) – not with ground (well) water such as we use. Because of this, we are not required to monitor for cryptosporidium. We do test for coliform on a monthly basis which is an excellent indicator of whether any biological surface contaminants are reaching our water supply (to date, based on monitoring, they aren't). **The above paragraph on "Special Precautions," along with several other sections in this report, are mandated "required language" which must be included in every water quality report nationally and should be considered in that light.**

Definitions, Terms and Abbreviations

In this report (especially in the tables), you will find many scientific terms and abbreviations you might not be familiar with. To help you better understand these terms, we've provided the following definitions:

- **Action Level Goal (ALG):** The level of a contaminant in drinking water below which there is no known or expected risk to health. ALGs allow for a margin of safety.
- **Action Level (AL):** The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.
- **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 ounce in 7,350 gallons of water, one minute in two years or a single penny in \$10,000.
- **Parts per billion (ppb) or Micrograms per liter (ug/L)** - one part per billion corresponds to one ounce in 7,350,000 gallons of water, one minute in 2,000 years, or a single penny in \$10,000,000.
- **MNR** – Monitored but not regulated. Regulatory limits have not been established for the contaminant.
- **NA** - Not applicable. Often means contaminant is not regulated under law as a primary (i.e., related to health or safety) contaminant or a standard hasn't been yet established.
- **ND** - Not detected. The level of a contaminant is below the detection level of the instrumentation used to measure for it.
- **Picocuries per liter (pCi/L)** - a measure of radioactivity.
- **Treatment Technique (TT)** - a treatment technique is a required process intended to reduce the level of a contaminant in drinking water.
- **Maximum Contaminant Level Goal (MCLG)** - 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.
- **Maximum Contaminant Level (MCL)** - 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.
- **The symbol " < " means "less than"**
- **The symbol " > " means "greater than"**
- **Variances and Exemptions** - Variances and Exemptions: State or EPA permission not to meet an MCL or a treatment technique under certain conditions.
- **MRDLG** - Maximum Residual Disinfection Level Goal. 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 contaminants.
- **MRDL** - Maximum Residual Disinfectant Level. 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.
- **AVG** – Regulatory compliance with some MCLs are based on running annual average of monthly samples.
- **MPL** - State Assigned Maximum Permissible Level
- **MDE** - Maryland Department of the Environment
- **CCR** – Consumer Confidence Report – a report on water quality issued yearly by your water company.

Water Quality Data

In the tables immediately below, we have provided information on all contaminants detected in 2016. Additionally, shown after the 2016 tables, we have included results for drinking water contaminants that we (or the State) tested for in years prior to 2016 when such testing detected contaminants.

Again, the presence of contaminants in the water does not necessarily indicate that the water poses a health risk. For results presented, we have shown how our results compare to state and federal standards (MCLGs and MCLs). All tests were performed by independent certified laboratories. All of our test results were well within established safety standards (no violations).

During 2016, all monthly bacteriologic tests were negative (no live bacteria in the water), and chlorine residual levels (providing disinfection) were constantly maintained (verified through daily monitoring) at required levels throughout the system.

2016 Testing/Results – for Contaminants Detected In Our Water:

Lead and Copper in the Distribution System (Lead and Copper Rule - sampled at 5 homes)

Contaminants	Date Tested	Action Level (AL) (ppm)	MCLG (ppm)	90 th Percentile Value (ppm)	Violation (i.e., exceeds allowable limits?)	Potential Health Risk from exposure above the MCL	Typical Source
Copper (90 th percentile)	Sept 22, 2016	1.3	1.3	0.24	No	Copper is an essential nutrient, but levels above the AL (for short periods) can cause gastrointestinal disturbance, Long term use above AL may cause liver/kidney damage.	Corrosion of copper plumbing, Copper mining and smelting operations and municipal incineration may also be sources of contamination.

Although we also tested for lead during the above test, **lead was not detected** (i.e., in all of the 5 homes tested, any lead that may have been present in the water was at a level below the detection sensitivity of the test)

2016 Results for Inorganics and Metals (II/V)

Contaminant	Date Tested	Goal MCLG (mg/L)	Highest Level Allowed MCL (mg/L)	Your Water Amount Detected (mg/L)	Violation (i.e., exceeds allowable limits)	Typical Source	Potential Health Risk from exposure above the MCL
Barium	Dec 12, 2016	2.0	2.0	0.024	No	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	Some people who drink water containing excessive barium over many years could experience an increase in their blood pressure.
Fluoride	Dec 8, 2016	4.0	4.0	1.4	No	Erosion of natural deposits; discharge from fertilizer and aluminum factories	Bone disease (pain and tenderness of the bones); children may get mottled teeth.
Chromium	Dec 12, 2016	0.1	0.1	0.005	No	Discharge from steel and pulp mills; erosion of natural deposits	Allergic dermatitis,
Sodium	30 Aug 2010	None	None	110	No	Erosion of natural deposits, salt water incursion.	MCL level not defined. See Note below on Sodium.
Chlorine	Daily in 2016	MRDLG = 4.0	MRDL = 4.0	All tests between 0.2 and 2.0 ppm	No	Water additive used to control microbes	Eye/nose irritation; stomach discomfort.

During 2016 the following inorganic contaminants were also tested for in our water but **were not detected**: Nitrates/Nitrites, Antimony, Arsenic, Beryllium, Cadmium, Cyanide, Mercury, Nickel, Selenium, and Thallium.

To provide the most complete picture of our water quality, we are including latest available test results from previous (pre-2016) years where contaminants were tested for and detected.

2015 Volatile Organic Compounds (VOCs) and Trihalomethanes (THMs) Contaminants (Testing Performed by MDE)

Contaminant	Date Tested	MCLG (mg/L)	Highest Level Allowed MCL (ppb)	Your Water Amount Detected (ppb)	Violation (i.e., exceeds allowable limits)	Typical Source	Potential Health Risk from exposure above the MCL
Total Trihalomethanes	Oct 17, 2015	NA	80	1.62	No	Byproducts of water disinfection	Liver, kidney and central nervous system problems. Increased risk of cancer.

Note: Total Trihalomethanes, in this case, is taken to be the sum of the Bromodichloromethane (0.63 ppb detected) and Chloroform (0.99 ppb detected). MCLG levels only pertain to the component contaminants.

During 2015:

- MDE tested our water for a total of 27 regulated VOC and THM contaminants as well as 36 unregulated VOC contaminants. Total Trihalomethanes (consisting of the two identified components) listed above was the only contaminant detected during that testing.
- MDE tested our water for 9 common herbicides – none of which was present in our water at detectable levels
- MDE tested our water for 20 synthetic volatile organic compounds (SVOCs) and Chlorodane. None was found at the detectable levels.

2014 Disinfection By-Product Rule (DBPR) Testing (Coordinated by Turkey Hill Water Co.)

Disinfection Byproduct Testing Results							
Regulated Contaminants	Highest Level Allowed MCL (ppb)	Goal MCLG (ppb)	Testing Result for our water (ppb)	Date tested	Violation? (Exceeds allowable limits?)	Typical Source	Potential Health Risk from Exposure to levels above the MCL
Total Trihalomethanes (TTHM)	80	NA	< 0.5	Aug 20, 2014	No	TTHM is a chemical byproduct of disinfecting water containing trace contaminants	Some disinfectants and disinfection byproducts (DBPs) have been shown to cause cancer and reproductive effects in lab animals and suggested bladder cancer and reproductive effects in humans.
5 Haloacetic Acids (HAA5)	60	NA	< 1.0	Aug 31, 2014	No	HAA5 is a byproduct of disinfecting water containing trace contaminants	Some disinfection byproducts are associated with cancer and reproductive effects in lab animals and suggested bladder cancer and reproductive effects in humans.

2011 - Radionuclides (retested every 6-9 years)

Contaminants (Radionuclides)	MCLG	MCL (pCi/L)	Your Water (pCi/L)	Sample Date	Violation (i.e., exceeds allowable limit)	Potential Health Risk from exposure above MCL	Typical Source
Gross Alpha Particles	zero	15	5.7	16 June 2011	No	Increased Risk of Cancer	Erosion of natural deposits of certain minerals which are radioactive.
Combined Radium (226 & 228)	zero	5	0.2	16 June 2011	No	Increased Risk of Cancer	Erosion of natural deposits
Radium-226	zero	3	0.2	16 June 2011	No	Increased Risk of Cancer	Erosion of natural deposits

Violations

We had no MDE violations in 2016 (meaning that our water company met all water quality, testing, monitoring, and reporting requirements imposed on us by MDE/EPA).

Please read the following required EPA statement on Lead in 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. Turkey Hill Water Company 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 drinking 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 EPA Safe Drinking Water Hotline at 1-800-426-4791 or at <http://www.epa.gov/safewater/lead>.”

At Turkey Hill Water Company, we tested for lead in the summer of 2016 as part of the Copper-Lead Rule compliance (data shown above in 2016 results). We tested at five homes within our neighborhood. At that time, the “90th Percentile Result” (which is how the result of this specific test is reported) for lead was found to be “not detected,” which means the lead level is less than 5 parts per billion. We will test again for lead again in 2019.

A Note about Sodium (an unregulated contaminant) in Our Drinking Water

Based on our testing in 2016 and in previous years, we know that our water is naturally high in sodium (around 110 mg/l).

The presence of sodium in our water is likely attributable to either (or both) the characteristics of our aquifer, or (more likely) our proximity to the Chesapeake Bay and Atlantic coast, where salt water can be drawn into heavily used aquifers. **Sodium is an unregulated contaminant which is not subject to any proposed or promulgated national primary drinking regulation by EPA, but is tested so that those who are restricting sodium from their diets for medical reasons will know the level of sodium in our water.**

To put our sodium levels into perspective, a person drinking about a half-gallon of our tap water per day (or consuming food made with our water) could add about 250 mg of sodium to his/her daily intake. Although FDA reports that most American adults tend to consume between 4,000 and 6,000 mg of sodium/day, the FDA recommends that all Americans limit their intake of sodium to no more than 2400 mg/day. If you check the nutritional label on your food, you will see that nearly everything we eat or drink contains sodium. Eight ounces of skim milk has 130 mg of sodium, most regular canned soups or baked beans have 750 - 1000 mg of sodium per serving, one serving (¾ cup) of Honey Nut Cheerios has 160 mg sodium (and that's not including an additional 130 mg if you have the Cheerios with a cup of skim milk!), etc..

Sodium is an essential nutrient, but we have no trouble getting all that we really need (which is at least 500mg/day per the current research) by just eating a regular diet with no added salt. Additional information can be found at <http://www.epa.gov/safewater/contaminants/unregulated/sodium.html>. If you have concerns about sodium, please discuss them with your health care professional.

Please Conserve Water – it helps all of us!

Did you know that the average U.S. household uses approximately 400 gallons of water per day or 100 gallons per person per day? With our community being on a well and having septic systems, we do use a bit less than the national average – only around 225 gallons per day per each of our 47 households on a yearly basis. We should, though, conserve to lengthen the life of our system, keep costs down, and minimize the yearly drop in the water level in our well. There are many low-cost and no-cost ways to conserve water. Small changes can make a big difference – try conserving today and soon it will become second nature. Visit <http://www.epa.gov/watersense> for more information.

The Folks Who Keep the Water Flowing

Turkey Hill Water Company currently has two fully certified water system operators (Warren Ricks, 301-934-1466, Frank Valenta, 301-934-8814) and one temporary certified operator (Jim Kindle, 301-934-0923). Jim is providing backup to Warren and Frank - who each have been servicing our system for some 40+ years! Please feel free to contact any of them (or any of the Board Members) if you have any questions about our water company.

This report was prepared by Frank Valenta, who can be contacted at (cell) 240-210-6067 or (home) 301-934-8814 with any questions you may have regarding either the content of this report or any water related questions in general.

The current President of our elected Board of Directors is Jordan Burick. Jordan can be reached at 301-934-4203. Our water company mailing address is:

Turkey Hill Water Co., Inc.
9334 Winkler Ln
La Plata, MD 20646

For more information on drinking water contaminants, see: water.epa.gov/drink/contaminants/index.cfm

A NOTE ABOUT FLUSHABLE WIPES: Flushable wipes are a nation-wide problem in municipal sewage treatment plants. They are also septic tank/drain field killers, despite what the package may say. Our water quality depends, in part, on properly functioning septic systems which may be damaged by downstream solids – like wipes. Clogged lines can also be VERY expensive to fix! A word of caution to the prudent should be sufficient.