

**Consumer Confidence Report
For Calendar Year 2018 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, 2018 through December 31, 2018. This report is intended to provide you with important information about your drinking water. Our constant goal is to provide you with a safe, affordable, 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 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. In managing your water company, the Board of Directors, 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. We hope all will attend our annual shareholders meeting/picnic, usually held in Sep/Oct. A separate notice will be provided at a later date when plans are finalized. Please contact any member of the BoD or our certified operators with any questions/comments you may have. Contact information can be found on page 7 of this report.

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, operated under Maryland Dept of the Environment permit CH-92-0969, is 988 feet deep and draws water from aquifers that are between 585 and 840 feet below the ground surface. An electric pump and associated plumbing brings the water from the aquifer to the surface for treatment, storage, and distribution to you home. 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 Upper Patapsco Formation, which is a confined aquifer. As stated by Maryland's Source Water Assessment Program, our aquifer 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 disinfectant level daily to assure it is within appropriate (safe and effective) limits. We also test for the presence of 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 or the effect of certain contaminants. 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.

Some contaminants found in drinking water may cause taste, color or odor problems which are not necessarily causes for health concerns. Again, if you have concerns or need additional information, you should contact our certified water treatment operators (again, the POCs are shown on page 7).

In order to ensure that tap water is safe to drink and is not a health concern, EPA has issued regulations that limit the level of certain contaminants in community water systems. The Food and Drug Administration (FDA) regulations establish limits for contaminants in bottled water and provides the same protection for public health.

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

¹ Cryptosporidium is generally associated with surface water (from rivers or surface reservoirs) – not with ground (well) water. Because of this, we are not required by MDE 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, they aren't). **The above paragraph on “Special Precautions,” along with several other sections in this report, are mandated “required language” from EPA which must be included in every water quality report nationally and should be considered in that light.**

Definitions, Terms and Abbreviations (not all of which appear in this year's report)

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 at the detection level of the instrumentation.
- **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 has not yet been 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 technologies.
- **The symbol “ < ” means “less than”**
- **The symbol “ > ” means “greater than”**
- **Variations 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 the addition of a disinfectant is necessary for control of microbial contaminants.
- **AVG** – Average: Regulatory compliance with some MCLs are based on a running annual average of monthly samples.
- **MPL** - State Assigned Maximum Permissible Level
- **MREM** – Millirems per year – a measure of radiation absorbed by the body
- **Level 1 Assessment** – A study of the water system to identify potential problems and determine (if possible) why total coliform bacteria have been found in the water system
- **Level 2 Assessment** – A very detailed study of the water system to identify potential problems and determine (if possible) why an E. coli MCL violation has occurred and/or why total coliform bacteria have been found in the water system on multiple occasions.
- **MDE** - Maryland Department of the Environment
- **MDNR** – Maryland Department of Natural Resources, the agency which “owns” Maryland’s ground water.
- **POCs** – Points of Contact
- **USGS** - US Geological Survey – a federal entity which monitors water resources
- **CCR** – Consumer Confidence Report – a report on water quality issued yearly by your water company.
- **DBP** – Disinfection By-Products (chemicals formed when chlorine reacts with organic contaminants)

Water Quality Data

In the tables immediately below, we have provided information on all contaminants detected in 2018. Additionally, shown after the 2018 tables, we have also included results for drinking water contaminants that we (or the State) tested for in years prior to 2018 when such testing detected contaminants. Contaminants which were not detected are generally not listed.

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 the test results on our water were well within established safety standards (no violations).

2018 Testing/Monitoring Results

During 2018, all monthly bacteriologic tests were negative (no live bacteria in the water), and chlorine residual levels (providing disinfection) were consistently maintained (as verified through daily monitoring and reporting) within the required range throughout our water distribution system.

The only contaminant testing required by MDE in 2018 was for Nitrates and Chlorine. We tested for Nitrates in April 2018 and no nitrates were detected. In 2018, as in every year, we performed daily monitoring tests to assure there is an appropriate level of disinfectant in the water. Although we are required to disinfect the water, chlorine is considered a “contaminant” (since it is not a natural part of pure water) and thus it is reported in the chart below. All monitoring results were within requirements and were reported monthly to MDE.

Disinfectants and Disinfection By-Products Detected in 2018

Contaminant	Highest Level Detected	Range of Levels Detected	MCLG	MCL	Units	Violation	Source of Contamination
Chlorine	1.1	0.9 – 1.1	MRDLG = 4	MRDL = 4	ppm	No	Additive used to control microbes

Testing in Previous Years (latest available testing results where contaminants were detected)

2017 Disinfectants and Disinfection By-Product Rule (DBPR) Testing

Regulated Contaminants	Highest Level Allowed MCL	Goal MCLG (ppb)	Testing Result for our water	Date tested	Violation? (Exceeds allowable limits?)	Typical Source	Potential Health Risk from Exposure to levels above the MCL
Total Trihalomethanes (TTHM)	80 ppb	NA	2.0 ppb	8/24/2017	No	TTHM is often a byproduct of disinfecting water	Some DBPs have caused cancer and reproductive effects in lab animals, suggesting effects in humans.
5 Haloacetic Acids (HAA5)	60 ppb	NA	2.5 ppb	8/24/2017	No	HAA5 is often a byproduct of disinfecting water	Some DBPs are associated with cancer and reproductive effects in lab animals, suggesting effects in humans.

2017 Radionuclides (tested by MDE)

Contaminants (Radionuclides)	MCLG (pCi/L)	MCL (pCi/L)	Your Water (pCi/L)	Violation (i.e., exceeds allowable limit)	Potential Health Risk from exposure above MCL	Typical Source
Gross Alpha excluding radon and uranium	0	15	4.8	No	Increased Risk of Cancer	Erosion of natural deposits of certain minerals which are radioactive.
Combined Radium (226 & 228)	0	5	0.3	No	Increased Risk of Cancer	Erosion of natural deposits

2016 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., exceed allowable limits?)	Potential Health Risk from exposure above the Action Level	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, leaching from wood preservatives, Erosion of natural deposits.

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 Testing Results for Inorganics and Metals (II/V)

Contaminant	Date Tested	Goal MCLG	Highest Level Allowed MCL	Your Water Amount Detected	Violation (i.e., exceeds allowable limits)	Typical Source	Potential Health Risk from exposure above the MCL
Barium	Dec 7, 2016	2.0 ppm	2.0 ppm	0.024 ppm	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 7, 2016	4.0 ppm	4.0 ppm	1.4 ppm	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 7, 2016	100 ppb	100 ppb	5 ppb	No	Discharge from steel and pulp mills; erosion of natural deposits	Allergic dermatitis,
Sodium	Dec 7, 2016	None	NA	100 ppm	No	Erosion of natural deposits, salt water incursion.	MCL level not defined. See Note below on Sodium.

Violations: We had no MDE violations in 2018 (meaning that our water company met all water quality, testing, monitoring, and reporting requirements imposed on us by MDE/EPA).

Although not detected in our water, lead can be a problem in some water systems. 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 in five homes and tested a second time in 2016 at our water source (well) as part of the Metals (II/V) testing for inorganic metals. This was a total of six tests from six different locations in our neighborhood with no lead found at detectable levels at any of the locations – which means that the lead level was less than 5 parts per billion. We are scheduled to repeat some of the lead testing again test again during the summer months 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 100 ppm or 100 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 2,400 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 ($\frac{3}{4}$ 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!

Per USGS (<https://water.usgs.gov/edu/qa-home-percapita.html>), the average U.S. household uses approximately 80-100 gallons a day per person. With our community being on a well and having septic systems (but also having gardens, pools, and cars to wash), we use less than the national average. Our actual daily use in 2018 was 149 gallons per day averaged over our 47 households. We should, though, always try to conserve water to lengthen the life of our system, keep our operating costs down, and minimize the yearly drop in the water level in our well. According to USGS testing, the static water level in our well has been slowly dropping over recent years with the growth in the county (which is mostly on ground water), making water conservation important to all of us. 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 and POC Information

Turkey Hill Water Company currently has two fully certified water treatment operators (Warren Ricks, 301-934-1466, and Frank Valenta, 301-934-8814). Warren and Frank have each been servicing our system for some 40+ years! Please feel free to contact either of them (or any BoD member) if you have any questions about our water company or this report.

This report was prepared by Frank Valenta, who can be contacted at (cell) 240-210-6067 or (home) 301-934-8814 with any questions about its content or any water related questions or concerns.

The President of our elected Board of Directors is Ken Miles. Ken can be reached at 443-375-2667. We will be electing a new Board of Directors in September/October at our annual water company meeting (more info to come on this later). Please consider volunteering to be on our Board of Directors.

Our water company mailing address is: Turkey Hill Water Co., Inc.
9334 Winkler Ln
La Plata, MD 20646

A Few Additional Water-Related Items of General Interest

Water Testing Planned for 2019: This year we are schedule to perform some extensive testing to verify our water quality. This includes testing for: Nitrates, Arsenic, Fluoride, a number of Metals, Copper and Lead, and some organic chemicals which may be the result the disinfection process we use for our water. The State has just sampled our water (May 2019) for Synthetic Organic Compounds (SOCs – which includes pesticides and herbicides). We do not expect to have the SOC's results until later in the summer (unless there are violations). All 2019 testing/monitoring results, unless in violation, will be reported in next year's Consumer Confidence Report (to be distributed by the end of June 2020).

Flushable Wipes: Flushable wipes are a nation-wide problem in municipal sewage treatment plants. They can also be septic tank/drain field killers, despite whatever the package may say. Our water quality depends, in part, on properly functioning septic systems. These delicate systems can be damaged by downstream solids – like wipes. Clogged lines can also be VERY expensive to fix!

Check Your Home for Water Leaks: Even a small water leak can waste significant amounts of water over time. A slow dripping faucet (a single drop every 10 seconds from a single faucet) can result in almost 350 gallons of wasted water a year. This is over two days extra water usage per year for a typical house in our neighborhood. Most homes here have at least half a dozen faucets (bathrooms, kitchens, laundry, utility sinks, outside hose bibs, etc.) – all potential leakers. Leaks waste a valuable

(and limited) resource, increases our operating expenses and puts more of a burden on septic systems. If you have a leaky toilet (e.g., a worn flapper valve), water loss can be huge (thousands of gallons a year)! You should periodically check for, and repair, any water leaks.

If You Are Planning to Move/Sell/Apply for a H.E.L or Second Mortgage: It's been our experience that sometimes lenders and real estate agents do not realize our community is on a community owned water system until just before settlement. Some lenders and FHA require information on our water company and operations as part of the loan approval process (which we can provide) but often fail to ask us for the information until the last minute. An early "heads up" is appreciated and may avoid a lot of potential grief (e.g., a delay in settlement/closing). Also, remember that you are responsible for your water bill until the title is transferred – just like property taxes and electric bills. Experienced real estate agents often check on your account status to prevent any surprises at settlement.

COUNTY HELP WITH SEPTIC TANK MAINTENANCE: Charles County can reimburse you (up to \$187.50, once every three years) for pumping out your septic tank. This is part of the county's effort to help clean up the Bay but it also helps you avoid costly repairs and can add years to your system's life. Details and requirements relating to this program can be found at:

<https://www.charlescountymd.gov/webform/septic-system-pump-out-reimbursement-application>