# spring 2022 Mater Mater Science States Science Science

## **COMMISSIONERS' COMMENTS**

Hixson Utility District provides water utility services to over 28,000 accounts in parts of Chattanooga, Soddy-Daisy, Red Bank, Lakesite and unincorporated Hamilton County. The District's main source of water is an underground aquifer which is one of the best sources of water in the southeast. There are currently over 450 miles of water lines within the District's service area. In the last five years, the District has experienced substantial growth with the addition of almost 2,000 accounts. Population growth necessitates upgrades to the water system, on top of the dedicated cost of regular maintenance to aging infrastructure. In 2020, the District spent \$1.2 million on the addition of a third well site at the Walker's Corner facility which increased daily production

capacity by 3 million gallons. The District budgets approximately \$750,000 annually for water main replacements. However, over the next five years, it is projected that the District will need to spend over \$7.5 million to replace aging infrastructure to continue to provide quality water service with minimal maintenance-related service interruptions.

The District is a debt-free utility and prides itself on operating in an efficient, financially prudent manner. Due to the unforeseen changes in the current economic climate the District has seen rapidly increasing costs associated with operation and maintenance of the water system, as well as in water treatment. For example, the District is experiencing a 60% increase in chemical costs and a

35% increase in material costs. In January of this year, the District contracted with a consultant identify necessary capital to expenditures and develop a fiveyear revenue requirement plan through a rate study. Periodic rate studies are recommended for the utility industry and the last rate study was almost ten years ago. The rate structure was modified as a result of the previous study, but the District has not increased rates since the mid-1980's. While the District's sensible financial strategies have kept the utility operating without debt thus far, in today's economy, it is necessary to evaluate the future needs of the utility in order to plan responsibly.

The results of the current study are expected by end of the summer.

## **BACKFLOW PREVENTION**

Hixson Utility has an on-going backflow prevention program to help protect the public water supply from contaminants caused by cross-connections originating on the customer's property. Backflow prevention

devices prevent water contamination by keeping water from flowing back into the system if pressure drops or if there is a back pressure situation. The program regularly re-evaluates possible risks and notifies customers of installation and annual testing requirements set forth by the Federal Safe Drinking Water Act and the Tennessee Department of Environment and Conservation. Some potential hazards that require a backflow preventer to be installed include, but are not limited to: lawn irrigation systems, fire suppression sprinkler systems, and swimming pools. For more information or questions please contact Hannah Smith at hsmith@hixsonutility.com or 423-805-3670.



5201 Hixson Pike • [423] 877.3513 • fax: [423] 875.3116 • www.hixsonutility.com Mailing Address: PO Box 1598 • Hixson, TN 37343-5598

### Hixson Utility District 2021 Water Quality Report

Most of the data presented in this table is from testing done between January and December of 2021.



CONTAMINANT	VIOLATION Y/N	LEVEL FOUND	RANGE OF DETECTION	DATE OF SAMPLE	MCLG	MCL	TYPICAL SOURCE OF CONTAMINATION
Chlorine	N	1.4 ppm	0.9 to 1.4 ppm	2021	4 ppm	4 ppm	Drinking water disinfectant
Fluoride	N	0.74 ppm	0.62 to 0.74 ppm	2021	4 ppm	4 ppm	Erosion of natural deposits; water additive that promotes strong teeth; discharge from fertilizer and aluminum factories
Total Coliform Bacteria (1) (2)	N	0	0	2021	NA	NA	Naturally present in the environment
Turbidity	N	0.81 NTU	0.1 to 1.3 NTU	2021	N/A	TT	Soil runoff
Lead	N	90% =BDL	BDL to 8.13 ppb	2020	AL= 15 ppb	AL= 15 ppb	Corrosion of household plumbing; erosion of natural deposits
Copper	N	90%= 0.593 ppm	0.0167 to 0.652 ppm	2020	AL= 1.3 ppm	AL= 1.3 ppm	Corrosion of household plumbing; erosion of natural deposits
Sodium	N	1.34 ppm	1.26 to 1.34 ppm	2021	N/A	N/A	Erosion of natural deposits; used in water treatment chemicals
TTHM (Total Trihalomethanes)	N	4.79 ppb	4.20 to 4.79 ppb	2021	N/A	60 ppb	By-product of drinking water chlorination
HAA5 (Total Halocetic Acids)	N	1.62 ppb	1.36 to 1.62 ppb	2021	N/A	60 ppb	By-product of drinking water chlorination
Nitrate	N	0.818 ppm	.474 to .818 ppm	2021	10 ppm	10 ppm	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits
Alpha Emitters	N	1.4 pCi/l	1.36 to 1.4 pCi/l	2014	0	15 pCi/l	Erosion of natural deposits
Combined Radium	N	0.96 pCi/l	BDL to 0.96 pCi/l	2014	0	5 pCi/l	Erosion of natural deposits
Barium	N	0.025 ppm	0.0132 to 0.025 ppm	2021	2	2	Discharge of drilling waste, discharge from metal refineries. Erosion from natural deposits.

positive.

(2) 850 samples were taken for the year.

(3) During the most recent round of lead and copper testing, 0 of 30 households sampled contained concentrations exceeding the action level.

#### Abbreviations and Definitions

MCLG: Maximum Contaminant Level Goal, or 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.

MCL: Maximum Contaminant Levels, or the highest of a contaminant that is allowed in drinking water. MCLs are set as close to MCLGs as feasible using the best available treatment technology.

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements that a water system must follow.

Parts per million (ppm) or Milligrams per liter (mg/1): Explained in relation to time and money, 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 (ug/l): Explained in relation to time and money, one part per billion corresponds to one minute in 2,000 years or a single penny in \$10 million.

Nephelometric Turbidity Unit (NTU): A measure of the clarity of the water. Turbidity in excess of five (5) NTU is just noticeable to the average person.

T: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.

#### **BDL:** Below detectable level.

IRON CONTENT: Iron occurs naturally in our raw water and occasionally accumulates in the distribution system. It shows up as "red" or "rusty" water at your tap. Although you do not want to drink water that is not clear, iron is not considered to be a hazard to your health. We test for iron daily and it is usually around 0.02 ppm. The aesthetic limit for iron is 0.3 ppm.

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 the control of microbial contaminants.

MRDLG: Maximum Residual Disinfectant 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 disinfectant use to control microbial contaminants.

#### **IS MY DRINKING WATER SAFE?**

Yes, the Districts's water meets all Environmental Protection Agency (EPA) health standards. Numerous tests have been conducted for over 80 contaminants that may be present in drinking water. As shown in the chart, only 11 of these contaminants were detected and all were at safe levels, well below the EPA limits.

#### WHAT IS THE SOURCE OF MY WATER?

Your water, which is true ground water, comes from the Chickamauga watershed, a Cambrian-Ordovician carbonate underground aquifer. The District's goal is to protect the water from contaminants and the District continually works with the State to determine the vulnerability of our water source to potential contamination. The Tennessee Department of Environment and Conservation (TDEC) has prepared a Source Water Assessment Program (SWAP) Report for the untreated water sources serving this water system. 1721 Hamill Rd.

The SWAP Report assesses the susceptibility of untreated water sources to potential contamination. To ensure safe drinking water, all public water systems treat and routinely test their water. Water sources have been rated as reasonably susceptible (high), moderately susceptible (moderate) or slightly susceptible (low) based on geologic factors and human activities in the vicinity of the water source. The Hixson Utility District Water System sources rate as reasonably susceptible (high) to potential contamination.

An explanation of Tennessee's SWAP, the source of Water Assessment summaries, susceptibility scorings and the overall TDEC report to EPA can be viewed online at https://www.tn.gov/environment/program -areas/wr-water-resources/water-quality/ source-water-assessment.html or you may contact Tom Bockman at Hixson Utility District at 423.877.3513 between 8 am and 4 pm Monday through Friday, or TDEC at 1.888.891.8332 to obtain copies of specific assessments. 1020 Hillcrest Rd.

Your water comes from natural underground sources owned by Hixson Utility District and is withdrawn at two different well fields. The high natural water quality at both Cave Springs and Walker's Corner well fields meet EPA standards to avoid filtration. A Wellhead Protection Plan is available for your review by contacting Tom Bockman at 423.877.3513.



### **Geographic Information Systems**

Paul Williams joined our staff this year as our new GIS (Geographic Information Systems) Technician. A large part of Paul's job will be to continuously update the GIS mapping for HUD's water meters, water mains, and fire hydrants. As new assets are installed, Paul will use GPS equipment to record the location. This information allows for a faster response during incidents such as a water main break. You may see Paul anywhere in our district, using the equipment pictured.

# WHY ARE CONTAMINANTS IN MY 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 the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1.800.426.4791.

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs and wells. As water travels over the land surface or through the ground, it dissolves naturally-occuring 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:

- 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 stormwater 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 stormwater runoff and residential uses.
- Organic chemical contaminants, including synthetic and volitalic

organic chemicals, which are byproducts of industrial processes and petroleum production, and can also come from gas stations, urban stormwater runoff and septic systems.

 Radioactive contaminants, which can be naturally-occurring or the result of oil and gas production and mining activities.

In order to ensure that tap water is safe to drink, EPA and the Tennessee Department of Environment and Conservation prescribe regulations which limit the amount of certain contaminants in water provided by public water systems. FDA regulations establish limits for contaminants in the bottled water which must provide the same protection for public health. 9015 Wren St.

#### HOW CAN I GET INVOLVED?

We invite you to attend our Board of Commissioners' meeting on the third Wednesday of each month at 3pm at our office.

#### IS OUR WATER SYSTEM MEETING OTHER RULES THAT GOVERN ITS OPERATIONS?

Both the EPA and the TDEC require the utility to test and report on our water on a regular basis to ensure its safety. We have met all of these requirements and want you to know that we pay attention to all the governing rules. 506 Oak Tree Dr.

# DO I NEED TO TAKE SPECIAL PRECAUTIONS?

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as patients with cancer who are undergoing chemotherapy, people who have undergone organ transplants, those with HIV, AIDS or other immune system disorders, some elderly people and infants may be particularly at risk from infections. These people should seek advice from their healthcare providers about not only their drinking water, but food preparation, personal hygiene and precautions in Centers for Disease Control guidelines on the risk of infection by Cryptosporidium and other microbiological contaminants are available by calling the EPA's Safe Drinking Water Hotline at 1.800.426.4791.

#### WHAT ELSE DO I NEED TO KNOW?

We work around the clock to provide top-quality water to every tap. We ask that all our customers help us protect our water resources, which are the heart of our community, our way of life and our children's future. 507 Ethyelyn Ln.

# WHAT ABOUT LEAD IN DRINKING WATER?

If present, elevated levels of lead



Robin Large (left), Customer Service Representative Lori Emrey (right), Controller

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. Hixson Utility 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 two minutes before using water for drinking or cooking. If you are concerned about lead in the drinking water, testing methods, and steps you can take to minimize exposure, call the Safe Drinking Water Hotline at 1.800.554.1404 or see http://www.epa. gov/safewater/lead.

#### NEW HIRES

Please join us in welcoming our newest staff members.

# HOUSEHOLD LEAKS

The average household's leaks can account for nearly 10,000 gallons of water wasted every year and ten percent of homes have leaks that waste 90 gallons or more per day (source: epa.gov). The most commons sources of leaks are running toilets, dripping faucets, and water heaters. Here are some tips from epa.gov on how to find leaks:

Take a look at your water usage during a colder month, such as January or February. If a family of four exceeds 12,000 gallons per month, there may be serious leaks.



- Check your water meter before and after a two-hour period when no water is being used. If the meter changes at all, you probably have a leak.
- Identify toilet leaks by placing a drop of food coloring in the toilet tank. If any color shows up in the bowl after 10 minutes, you have a leak. (Be sure to flush immediately after the experiment to avoid staining the tank.)
- Examine faucet gaskets and pipe fittings for any water on the outside of the pipe to check for surface leaks.

For more tips check out www.epa.gov/watersense.

Customers are invited to follow the Utility on Twitter and/or Facebook for updates through social media.

# **Payment Options**

Hixson Utility District offers the following payment options:

- Automatic Bank Draft (call office to enroll)
- Online Payments: credit card payment fee and check payment fee is \$2.95.
- Internet Banking
- Credit Cards: no fees when paying at the office.
- Drive-thru Window
- Night Deposit Box
- Mail
- Walk-ins

Please provide us with your email address by writing it on your payment stub, or by calling the business office. This information will be used for future communication and possible e-billing.

# You could win \$100!

We have randomly selected the street addresses of five water customers and placed them somewhere within this newsletter. Read it thoroughly to see if your address is one of them. If it is, simply bring in proof of residency and photo identification for a \$100 prize!

### Selecting Our Board of Commissioners

The Commissioners of Hixson Utility District serve four-year terms. Vacancies on the Board of Commissioners are filled by appointment by the Hamilton County Mayor from a list of three nominees certified by the Board of Commissioners. Decisions by the Board of Commissioners on customer complaints brought before the Board of Commissioners under the District's customer complaint policy may be reviewed by the Utility Management Review Board of the Tennessee State Comptroller's Office pursuant to Section 7-82-702(7) of Tennessee Code Annotated. This Board may be reached at 615-532-0472.

Hixson Utility District meets the third Wednesday of each month at 3:00 p.m. at the District Office.

