Metro Water Services

2020 CONSUMER CONFIDENCE REPORT

Metro Water Services is committed to delivering clean, safe, dependable drinking water to all of our customers. This report details our water quality testing results for 2020. We go above and beyond to meet and exceed all state and federal regulations for drinking water.

METRO WATER SERVICES

INSIDE THIS REPORT

WHAT IS THE CONSUMER CONFIDENCE REPORT?

Metro Water Services is regulated by the Environmental Protection Agency (EPA) under the Safe Drinking Water Act, which requires community water systems to provide all customers an annual report. This report includes information on our source water, our compliance with drinking water regulations, water quality testing results, and other educational information.

PLEASE SHARE THIS REPORT

Please share this information with other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, or businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

ESTE INFORME CONTIENE INFORMACIÓN MUY IMPORTANTE SOBRE SU AGUA BEBER. TRADÚZCALO Ó HABLE CON ALGUIEN QUE LO ENTIENDA BIEN.

ABOVE AND BEYOND

Throughout your water's journey--from the river to your home and back--Metro Water Services goes above and beyond to ensure the quality and reliability of our services. Look for the Above and Beyond icon throughout this report.

A MESSAGE FROM THE DIRECTOR

COMMITTED TO DELIVERING CLEAN AND SAFE DRINKING WATER

Dear Customers,

Metro Water Services places the highest value on providing our community with safe, high quality drinking water. MWS employees work vigilantly to treat and monitor water for substances and water qualities that could affect safety, taste, odor and appearance – all so you can trust your tap. Thorough preparations and the resilience of MWS employees during unprecedented times ensured that there was never a question on water quality from the plant to the tap and that vital services were provided to the community 24/7/365. As a department of the Metropolitan Government of Nashville & Davidson County, we service over 204,000 water accounts, providing safe, clean, and reliable water services to customers in Davidson County and portions of Rutherford and Williamson counties. MWS takes pride in the water we serve to our community, friends and family. MWS is pleased to deliver the 2020 Consumer Confidence Report. For more information about Metro Water Services and the quality of your water, visit water.nashville.gov

Sincerely,

Scott Potter, P.E., Director

AWARD-WINNING OPERATIONS

A PERFECT SCORE

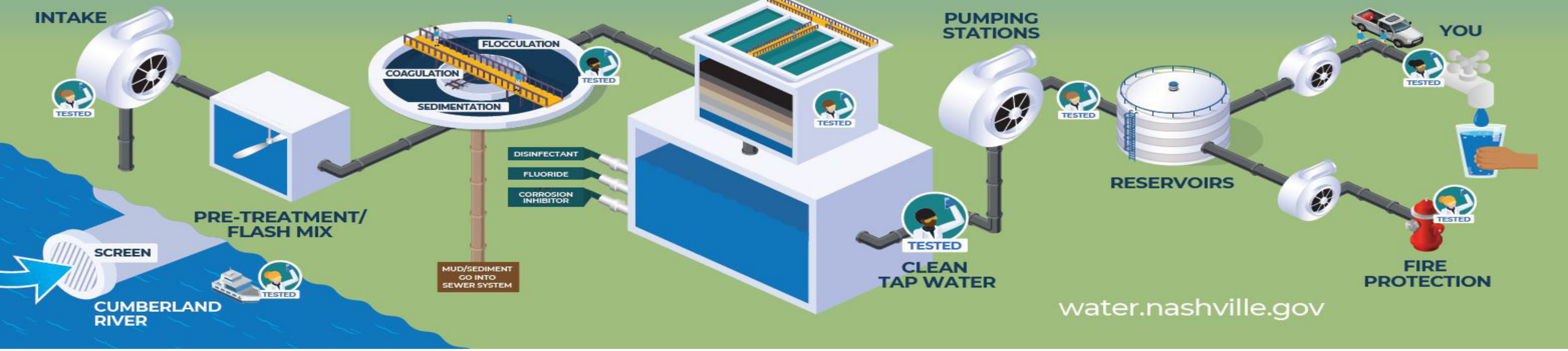
MWS received a perfect numerical score of 100 percent, earning 599 out of a possible 599 points on the sanitary survey. The sanitary survey is an unannounced site audit by the Tennessee Department of Environment and Conservation's (TDEC) Division of Water Resources that reviews every facet of operations, including plant performance, distribution, treatment techniques, maintenance and safety programs, records and documentation, water quality analysis, equipment, cross connection program, and adherence to federal and state requirements and regulations.

ABOVE AND BEYOND

METRO WATER SERVICES STORMWATER

Nashville was a 2020 Readiness Award Winner for its focus on mitigating the impact of urban flooding. MWS exhibited courage and resiliency, leading a series of collaborative meetings designed to improve emergency preparedness and planning for Nashville's long term recovery.

NASHVILLE'S TAP WATER



ABOUT THE CUMBERLAND RIVER

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. A copy of the Water Assessment Report will be available for review at Metro Water's Administrative Library, located at 1600 Second Ave. North. A source water assessment summary is available at https://www.tn.gov/environment/program-areas/wr-water-resources/water-quality/source-water-assessment.html. The Cumberland River Source is rated highly susceptible to potential contamination. Metro Water Services has two water treatment plants and has the ability to withdraw water from more than one river level to minimize the chance of contamination.

CRYPTOSPORIDIUM » No cryptosporidium oocysts were detected in untreated river water during the last testing done in 2016. EPA/CDC guidelines on appropriate means to lessen the risk of infection by cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

ABOVE AND BEYOND

Preparedness and Resiliency

Sustainable infrastructure and the resilience of MWS employees ensured our ability to accomplish our mission of providing safe, clean, and reliable water service to our customers and community throughout 2020 despite a tornado, COVID-19 pandemic, and a downtown tragedy.

ELIMINATING EMISSIONS

In 2020 MWS eliminated over 140,000 metric tons of GHG emissions, saved over $4M in landfill costs, and sold over $300k in fertilizer though the biosolids program.

WATER TREATMENT PROCESS

LOCAL Water is collected from the Cumberland River and screened for twigs and other large debris before entering one of our two treatment plants, K.R. Harrington and Omohundro.

TREATED In the treatment plant we add alum, a chemical that makes the small particles of mud and algae stick together. These clumps of mud get larger until they are heavy enough to sink to the bottom of the tank. This is called coagulation, flocculation, and sedimentation.

FILTERED The clear water on top of the tank is sent through our filters to remove any remaining particles, leaving the water crystal clear. We use a small amount of bleach to kill harmful bacteria and disinfect the water. We also add a small amount of fluoride, as endorsed by the Metro Health Department, to help prevent tooth decay.

TESTED We test our water regularly before, during and after the treatment process to ensure that our customers receive clean, safe drinking water.

DELIVERED We deliver clean, safe water to over 204,000 customers throughout Metropolitan Nashville and Davidson County. We maintain over 3,000 miles of water pipes, 56 water pumping stations, and 37 reservoirs. Our crews work 24/7/365 to make sure you always have safe water at your tap.

WATER QUALITY TESTING

Metro Water Services is required by state and federal regulations to test for specified unregulated organic and inorganic chemicals. This testing has been performed and reported. All results are available for public inspection at the Metro Water Services Analytical Research Laboratory, 1450 Lebanon Pike. For more information, please contact the MWS Lab at (615) 862-4591 or visit our Web site at water.nashville.gov.

WATER SYSTEM TN0000494 RECEIVED ZERO DRINKING WATER VIOLATIONS IN 2020.

STATE OF THE ART LABORATORY

Metro Water Services is committed to the protection of public health and our scientists regularly monitor for the presence of unregulated constituents such as Microplastics and PFAS, even when not required.

MWS voluntarily tests our drinking water at both water treatment plants for microplastics and we are pleased to report there is no detection of microplastics in our drinking water.

Voluntary tests for PFAS show that we do not have a PFAS issue. Our testing found no detectable levels or minute levels, well below reporting limits, of PFAS in drinking water when it left our treatment plants.

ABOVE AND BEYOND

ABBREVIATIONS AND TERMS USED IN THIS REPORT

MCL (MAXIMUM CONTAMINANT LEVEL): 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.

MCLG (MAXIMUM CONTAMINANT LEVEL GOAL): 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.

TT (TREATMENT TECHNIQUE): A required process intended to reduce the level of a contaminant in drinking water.**(MG/L):** Milligrams per Liter or parts per million.

(µG/L): Micrograms per Liter or parts per billion.

AL (ACTION LEVEL): The concentration of a contaminant that, if exceeded, triggers treatment or other requirements that a water system must follow.

NTU (NEPHELOMETRIC TURBIDITY UNITS): Standard units for measurement of water clarity.

MRDL (MAXIMUM RESIDUAL DISINFECTANT LEVEL): The highest level of a disinfectant allowed in drinking water.

MRDLG (MAXIMUM RESIDUAL DISINFECTANT LEVEL GOAL): The level of a drinking water disinfectant below which there is no known or expected risk to health.

LEAD LEVELS » 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. Metro Water Services 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 Safe Drinking Water Hotline or at www.epa.gov/lead.

2020 WATER QUALITY DATA

Metro Water Services tests for 105 substances that may be present in drinking water. The table below shows those substances that were detected January 1 through December 31, 2020. If you would like a complete list of all substances for which we test, please call (615) 862-4494 to request a Water Quality Letter, or visit our Web site at water.nashville.gov.

REGULATED AT THE WATER TREATMENT PLANT					
Parameter and Units of Measure	Highest Average Level Detected	Range of Levels Detected in 2020	MCL	MCLG	Major Sources of the Substance
Fluoride (mg/L)	0.63	0.53 - 0.74	4	4	Water additive that promotes strong teeth
Nitrate (mg/L)	0.483	0.478 - 0.493	10	10	Runoff from fertilizer use
Sodium (mg/L)	6.5	5.7 - 7.8	N/A	N/A	Natural deposit erosion
Turbidity (NTU)	0.04 99.82%	0.02 - 1.14		0	Natural river sediment. Turbidity is a measurement of water clarity, which aids in determining the effectiveness of our filters.
REGULATED IN THE DISTRIBUTION SYSTEM					
E. coli	0**	N/A	0	0	Human and animal fecal waste
Total Trihalomethanes (THM) (µg/L)	38.1*	12.2 - 49.8	80	N/A	Disinfection chemical (chlorine) combining with organic matter in the river water
Total Haloacetic Acids (HAA) (µg/L)	26.4*	10.3 - 31.7	60	N/A	
Chlorine (mg/L)	1.56	0.8 - 3.3	MRDL - 4	MRDLG - 4	Water additive used to control microbes
Total Organic Carbon* (mg/L)	N/A	N/A	TT	N/A	Naturally present in the environment

REGULATED AT THE CUSTOMER'S TAP					
Parameter	90th Percentile	Sites Exceeding AL	MCL	MCLG	Major Sources of the Substance
Copper † (2019 analyses) (ppm)	0.140	0 of 52	AL = 1.3	1.3	Corrosion of household plumbing systems
Lead † (2019 analyses) (ppb)	1.6	0 of 52	AL = 15	0	

* Sampling Conducted within the water distribution system at various State approved locations. Results shown are the Highest Locational Running Annual Average (LRAA), calculated quarterly for all samples taken.

** Number of Samples Resulting in "Presence" detection.

† New Laboratory instrumentation that can detect levels ten times lower than previous Lead and Copper sampling events was utilized in the 2019 triennial sampling event.

A MESSAGE FOR VULNERABLE POPULATIONS

Drinking water, including bottled water, may reasonably be expected to contain small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk.

To ensure that tap water is safe to drink, the EPA prescribes regulations that limit the amount of certain impurities in water provided by public water systems. The Food and Drug Administration regulates bottled water.

The sources of drinking water (both tap water and bottled water) include lakes, streams, ponds, reservoirs, springs, wells, and, in Nashville's case, the Cumberland River. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, and can pick up substances resulting from the presence of animals or from human activity.

Some people may be more vulnerable to impurities in drinking water than the general population. Immuno-compromised persons such as cancer patients undergoing chemotherapy, those who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at-risk for infection. These people should seek advice from their health care providers about drinking water.

Impurities that may be present in source water include:

- Microbial contaminants, such as viruses and bacteria, which may come from septic systems, sewage treatment plants, agricultural livestock operations and wildlife.
- Inorganic contaminants, such as salts and metals, which can be naturally occurring or result from urban storm run-off, 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, storm water run-off and residential uses.
- Organic chemicals, including synthetic and volatile organics, which are by-products of industrial processes and petroleum production, and can also come from gas stations, urban storm water run-off and septic systems.
- Radioactive contaminants, which can be naturally-occurring or be the result of oil and gas production and mining activities.

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.

EVERY DAY, SEVEN DAYS A WEEK, SAMPLES OF RIVER, TREATED, AND FINISHED WATER ARE TESTED IN OUR STATE OF THE ART LABORATORIES TO ENSURE THE HIGHEST QUALITY FOR OUR CUSTOMERS.

PREVENTING LEAD IN DRINKING WATER

WHERE IS LEAD FOUND IN THE HOME?

Homes built prior to 1978 often contain lead-based paint. When lead paint fails, it can chip or create dust, which can then be ingested. **Lead paint is the most common source of lead exposure in children.**

Lead pipes and service lines were common in homes until the mid-1950s. The practice was federally banned in 1986, but lead was still used as a soldering material for copper pipe until 1988. Brass fixtures may also contain trace amounts of lead.

HOW DOES LEAD ENTER MY DRINKING WATER?

Nashville's drinking water does not contain lead when it leaves the treatment plants, but tap water can accumulate trace amounts of lead through the corrosion of lead plumbing materials. MWS regularly tests for lead in the drinking water at a selected number of lead service line locations. The EPA requires tested levels be below 15 parts per billion (ppb).

CONTROLLING CORROSION

Since 1987, MWS has had an intense corrosion control program to prevent the possibility of lead leaching into your water. A blended phosphate solution is added to the finished water and reacts to inhibit corrosion of water mains; tie-up nuisance metals; and remove scale deposits in pipes by bonding to the walls and forming a protective barrier.

HOW DO I KNOW IF I HAVE LEAD PLUMBING?

Identify the color of your pipes, lead is generally a dull gray. Carefully scratch the pipe with a key. If the pipe is made of lead, the area you've scratched will turn a bright silver color. *Do not use a knife or other sharp instrument and take care not to cut or puncture a hole in the pipe.*

WHAT ARE THE RISKS OF LEAD EXPOSURE?

Lead exposure can cause adverse health effects including increases in blood pressure of some adults; delays in normal physical and mental development in babies and young children; and, deficits in the attention span, hearing, and learning abilities of children.

REDUCE YOUR RISK

Boiling water will NOT reduce lead.

Run your water for 3-5 minutes if it has not been used in several hours.

Always use cold water for drinking, cooking, and preparing baby formula.

Periodically remove and clean faucet screen/aerator. While removed, run water to eliminate debris.

Identify and replace lead plumbing, including your portion of the service line that leads from the meter to your home.

Identify and replace plumbing fixtures containing lead such as brass or bronze.

Have a licensed electrician check for connections between your wiring and your plumbing. If a connection is electrified, it can accelerate corrosion.

For more information about lead, visit our website and download our "Preventing Lead In Drinking Water" brochure at bit.ly/MWSLead

ABOVE AND BEYOND

LOOKING TO THE FUTURE

HISTORIC 8TH AVENUE RESERVOIR

The 8th Avenue Reservoir Improvements Project will extend the life of a vital component of our water infrastructure. By installing cast in place concrete tanks with baffling within the existing structure, MWS will improve water quality, increase operational reliability and flexibility, and reduce the risk of slippage and leakage.

EMERGING TECHNOLOGIES

In our efforts to continually explore emerging technologies to best provide safe and reliable drinking water to our customers, MWS executed a pilot plant treatment study in 2018. Results of this study have led to planned projects at both water treatment plants. The projects consist of installing Granular Activated Carbon (GAC) Post Filter Adsorber among other improvements to address aging infrastructure, reduce flood risk, and attain firm capacity based on water master planning goals.

RATE INCREASE

2020 brought the first rate increase since 2011, allowing MWS to plan future infrastructure improvements. Additionally, the simplified, more equitable rate structure incentivizes water conservation.

COMMUNITY EDUCATION

During an unprecedented year that required social distancing, MWS shared how we provide clean, safe and reliable services every day with virtual tours of our K.R. Harrington Water Treatment Plant, Whites Creek Water Reclamation Facility and Biosolids Facility. We will continue to offer virtual classes and tours where students and teachers can learn on their own time. We are pleased to make our facilities accessible to all.

ENSURING RESILIENCY

MWS is installing renewable energy generation. The first solar project is scheduled to be built in 2021 and will produce over 3 megawatts of power, equivalent to 4M lb. of coal. This innovative project, being implemented at three properties, will require no upfront capital and will save money.

QUESTIONS

For questions about billing, to start or change water service, or if you have a water, sewer, or stormwater emergency, contact Metro Water Services at (615) 862-4600.

If you have questions about this report, contact Metro Water Services at (615) 862-4494.

Este informe contiene información muy importante sobre su agua beber. Tradúzcalo ó hable con alguien que lo entienda bien.

HOW YOU CAN BE INVOLVED

The public may participate in decisions concerning water quality by attending the Metropolitan Council meetings held on the first and third Tuesdays of each month at the Metro Courthouse, One Public Square.

ADA INFORMATION

If you need assistance or an accommodation, please contact the Safety Office at 1600 Second Ave. North, Nashville, TN 37208 or (615) 862-4862.

METRO WATER SERVICES

@NashvilleMWS

WATER.NASHVILLE.GOV