

Vol. 1, No. 2, May 2022



2021 CCR

Nashville residents are fortunate to have reliable access to safe water when they turn on the tap. Nashville's tap water is monitored and tested to ensure the high regulatory standards for

Water Quality

One can think of many reasons why Nashville is the great city it is today. There is the music industry, the medical community, the college campuses, or perhaps it's the fact that there is a meeting of three major highways. In reality, Nashville is the great city it is today is because of the Cumberland River.

drinking water quality are met. MWS is pleased to report that water quality test results reveal that Nashville's water is safe and complies with all applicable drinking water regulations.

MWS' 2021 CCR, available online at ccr.nashville.gov, describes testing, substances detected, the levels of those substances, and our compliance with drinking water regulations. In addition, it includes information regarding the water treatment process, the state of our water source, the Cumberland River, and important contact information. It also highlights the many ways MWS goes above and beyond to ensure the quality and reliability of our services.

**Learn
more
about**

The Cumberland River and its tributaries are the reason Nashville is here. From the birth of Nashville to current day, the Cumberland has nurtured and provided for our city.

The Cumberland is approximately 311 miles long from headwaters to the confluence with the Ohio River. The 67 miles from the Old Hickory Dam to the Cheatham Dam, known as the Cheatham Reservoir, is fed by 648 square miles of watershed. On average 15 billion gallons of water flow past Nashville each day. This incredible amount of water allows us to provide ample drinking water to more than 216,500 Metro Water Services customers.

Metro Water Services removes, on average, 100 million gallons of water from the river each day to be treated for drinking water [[learn about the drinking water process](#)]. However, we return approximately 120 million gallons each day as reclaimed water [[learn about the water reclamation process](#)] and treated rainwater or groundwater.

In addition to being an ample supply, the Cumberland River is also a healthy supply of water. The 1972 Clean Water Act designed to protect our water ways has benefited drinking water, public health, wildlife and recreation in all U.S. waterways. However, Metro Water Services has additional programs that focus on water quality such as the Stormwater NPDES (National Pollutant Discharge Elimination System) program and our Industrial Pre-Treatment Program. Through these programs and the work of entities such as the U.S. Army Corps of Engineers, USGS, TN Dept. of Environment and Conservation, TN Wildlife Resources Agency and other upstream and downstream utilities, the Cumberland River is thriving.

Regular river sampling has shown dramatic improvements in water quality since the 1970s. One of the substantial improvements is phosphorus levels. Phosphorus, found in fertilizers, manure and organic waste and can enter waterbodies from run-off and soil erosion. While phosphorus is necessary for plant life,

Zero Waste!

Metro Waste Services and the Zero Waste Nashville Team are excited to announce their inaugural Zero Waste Leadership Training program. The program will take place twice a week during the month of June.

The Zero Waste Leadership Training Program is an opportunity for Metro Nashville and Davidson County (MNDC) residents to learn more about Nashville's Zero Waste Master Plan, understand our local recycling process, and learn more about composting over the course of a month. Participants will have the opportunity to visit a local transfer station, where over 600 tons of Metro's trash is taken per day on the way to a landfill, tour our local recycling center, and tour a commercial compost facility.

Through the program, we hope to create a network of diverse leaders and influencers

too much of it causes excess algae growth and eutrophication (reduced oxygen in the water). This improvement can be directly attributed to our NPDES program.

Dramatic improvements have also been made in the levels of Chromium, Copper Nickel and Zinc. In the late 90's, low levels of these constituents were detected in the River. Additional sampling indicated that the source was upstream of the city. Through efforts of our pre-treatment program, levels of these constituents have dropped dramatically. It is worth noting that even in the 90's, the levels were well below the State's water quality standards for surface water and that the safety of Nashville's drinking water was never in jeopardy.

Chemistry is important, but it is just one way to look at water quality – water quality is determined by chemical, physical, and biological characteristics. Bioassessments, assessments of what lives in and near the water, indicate the biological condition of the water. A bioassessment provides a broader picture of long-term environmental conditions. Through evaluation of the abundance and variety of macro-invertebrates, the larval stages of insects such as mayflies and caddisflies, we can determine water quality.

Macro-invertebrates feed on the micronutrients and bacteria in the water. These larvae, and the emerging adults, provide a food source for the aquatic life in and along the river.

Water birds such as herons, egrets and even eagles are also great populations to study as an indicator of water quality. These birds feed almost exclusively from the river and are at the top of the food chain. Any hazardous or toxic substances in the water would naturally concentrate in the food chain affecting the top consumers.

Nashville has a large population of herons and eagles living on the banks of the Cumberland River.

who are willing to share their knowledge with their friends, family, neighbors, and serve as zero waste resources in their greater communities. With your help, Nashville can achieve zero waste.

Are you interested in joining the program and becoming a Zero Waste Leader? Apply now [here](#).



Our Waste Services team was honored to receive recognition from the Metro Council for their efforts to protect public health through innovative solutions to solve problems and mitigate delays in service. Thank you to all residents for your patience, while the Waste Services team



When the biological condition of a river is healthy, the chemical and physical conditions are typically also good. The Cumberland River is a healthy, thriving biological system providing an ample supply of excellent drinking water to the city of Nashville - as well as recreational opportunities.

In spite of explosive development and significant population growth in the watershed, the river continues to be an excellent source of water for Nashville.

Composting with Worms



Did you know that one-third of Nashville's waste can be composted? By composting, we divert food waste from landfills, where it breaks down to create methane, a powerful greenhouse gas. Composting also saves space in landfills and creates healthier soils.

works to improve service!

AWARE Flood Sensors

Metro Water Services (MWS) is part of a nationwide pilot project with the Department of Homeland Security (DHS) to increase flood monitoring capabilities. Through the Smart Cities Initiative, DHS provided MWS with 24 low-cost flood sensors that Metro Water Services has installed near creeks and streams across Davidson County. The Advance Warning Equipment (AWARE) sensors report water levels using a self-sustaining battery and solar power. They are built to withstand extreme weather and autonomously report water levels as well as other environmental conditions to help us to monitor flood conditions.

These 24 flood sensors, in addition to the 22 USGS gages we currently have, will allow

Metro Waste Services offers four [Compost Drop-Off sites at each of our Convenience Centers](#) and the Zero Waste Nashville team has information and resources for [backyard composting](#), including their new [‘Dirt on Composting’ on demand webinar](#).

But did you know there are other ways to compost that don’t have spatial constraints? Vermicomposting, or composting with worms, is a simple way to compost in a small space, like an apartment or an office building. In fact, the Zero Waste team is vermicomposting in the office at the Metro Water Services administration building.

These worms consume our food scraps and create compost. It typically takes three to four months to produce usable castings, which can be used as potting soil. The other byproduct of vermicomposting known as “worm tea” is used as a high-quality liquid fertilizer for houseplants or gardens. One pound of worms, like we have, can eat up to half a pound of organic material, or half their body weight, per day according to the EPA. Interested in starting your own worm bin? The Zero Waste team created a [“How To” video](#) to help you get started.

Rewards for Smart Gardeners

Smart Yards use ecologically friendly practices to keep stormwater on the property, prevent pollutants from running off into nearby creeks and streams, attract birds and pollinators, and more. Metro Water Services has adopted this UT Extension program to help residents understand that what we all do on our yards impacts the cleanliness of our waterways.

Here’s how to smarten up your yard and reduce pollution:

us to improve our monitoring ability during normal conditions and during flood events, as well as provide additional data for Nashville SAFE.

Learn more about flood risk and flood monitoring on our website.

Zero Waste Tip of the Quarter

Did you know you can't recycle plastic produce bags? Instead, **bring your own reusable bag** to the grocery store or **skip bagging your produce** entirely!

Contact Us

Water, Sewer, & Stormwater

nashville.gov/water

(615) 862-4600

1. Work through the Tennessee Smart Yards materials on the [website](#).
2. Assess your yard using the interactive spreadsheet in the materials.
3. Submit your application for Certification through the website.

Starting in April, Davidson County Certified Smart Yards earn rewards from Metro Water Services for being part of the solution to our county's problems:

- Metal yard sign
- 25 lb. bag of Music City Gold 5-5-0 fertilizer. ([See](#) our sustainable process)
- 1 ½" caliper tree from Root Nashville during the next fall or spring planting cycle

To claim your Davidson County Smart Yard gifts, [email](#) a copy of your Tennessee Smart Yards certificate.



Earlier this month, four houses on West Durrett Dr. near Sevenmile Creek were demolished, never to flood again and forever providing green space.

1700 3rd Ave N,
Nashville, TN 37208

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Waste Services

(615) 862-5000 | 311

Hub.Nashville.gov

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[Public Records
Requests](#)

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This is **your** newsletter!
What would you like to
read more about? Let us
know [here](#).

Did you know?

Our website can be
translated into more than
75 different languages
by clicking the
translation tab on the
header of the
Nashville.gov website!



These homes were purchased with a combination of U.S. Army Corps of Engineers and Metro funds through a Hazard Mitigation Home Buy-out program. The Hazard Mitigation Home Buyout Program removes flood-prone structures from the flood plain, permanently mitigating future flood risk for these homes.

Metro has participated in home-buyouts for many years. To date, we have removed 430 homes from flood hazard areas - creating 225 acres of open space. These homes were purchased through a combination of Metro, FEMA, TEMA and USACE funds. The current program with the U.S. Army Corps of Engineers is focusing on homes in the Mill Creek and Sevenmile Creek area.

The voluntary program pays qualifying homeowners a fair market value for their home, allowing them to relocate to a safer location away from flood risk.

After purchase, lead and asbestos inspection and abatement are completed on the homes, and they are demolished. Once the demolition is complete, the property is restored, and the land will forever be maintained as open green space. This green space not only provides areas of play, but is also vital for soaking up excess stormwater during heavy rain events.

While 430 homes in flood hazard areas have been purchased, there are still many homes in areas of risk, and Metro will continue to seek funding for the program.

MWS encourages all Davidson County residents to understand their flood risks, be aware of flood safety and get flood insurance. Mapped floodplains and floodways in Davidson County can be viewed on interactive maps at [Parcel Viewer \(nashville.gov\)](http://Parcel Viewer (nashville.gov)). However, a property does not have to be in a mapped flood hazard to be at risk. All streams within Metro Nashville are subject to flooding and backwater flooding can be significant.

Join us!

MWS holds monthly Facebook Live events with our Director, Scott Potter, providing viewers an opportunity to get a glimpse inside many of our facilities and learn more about our processes.

The May event was held on the catwalk at Omohundro on 17 May 2022 at 10 am. You can watch the video [here](#). Be sure to catch us next month and follow on Facebook for notifications!

We want to hear from you! Metro Water Services strives to provide the highest quality product and services to our customers. Let us know ways we can improve and what we are doing well in this ten minute customer survey. You can access the survey [here](#). This survey will be open until May 31st and all responses will be kept confidential.



Do you have any friends, family, or neighbors who you think would be interested in receiving this quarterly update? Have them email us to join the list at MWSCommunications@groups.Nashville.gov

No longer interested in receiving this quarterly update? Email us with the subject line "Unsubscribe" at MWSCommunications@groups.Nashville.gov

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