2021 WATER QUALITY REPORT

DELIVERING HIGH QUALITY WATER TO YOUR TAP

KC WATER

KC WATER: BY THE NUMBERS

WATER	WASTEWATER	STORMWATER
47,186 *Valves in the distribution system serving our customers*	**73,046** *Manholes allowing maintenance crews access to the sewer mains*	**46,745** *Storm inlets on street corners near you. Drains to streams, so no grass, leaves or trash, please*
25,240 *Fire hydrants protecting homes and business across Kansas City*	**2,800** *Miles of sewer main needed to collect and move wastewater to treatment plants*	**660** *Green infrastructure assets naturally absorbing rain, mimicking how nature deals with rainwater*
2,800 *Miles of water pipes through which treated drinking water is delivered to customers*	**1,350** *Acreage of land used to apply biosolids removed from wastewater*	**630** *Miles of storm sewers conveying rainwater from the surface to streams and rivers*
18 *Pump stations delivering treated water across Kansas City's 319 square miles*	**58** *Pump stations moving waste over the hills and through the valleys of Kansas City*	**15** *Flood pump stations moving rain water efficiently through storm sewers and beyond*
1 *Treatment plant cleaning 90 million gallons of Missouri River water each day*	**6** *Treatment plants cleaning wastewater before returning it to streams and rivers*	**13** *Miles of levees keeping streams and rivers out of low-lying neighborhoods*

A NOTE TO CUSTOMERS

The KC Water 2021 Water Quality Report includes information that customers have told us in satisfaction surveys they want to know:

- How your drinking water is treated, processed, and delivered.
- How rate increases are developed, recommended, and approved.
- Infrastructure improvements and projects taking place in Kansas City.
- How to get answers and help regarding customer service-related issues.

Also included is important information about your drinking water and efforts made to provide safe drinking water. This information – primarily on pages 4, 5, and 6 – is drawn from KC Water's annual Consumer Confidence Report (CCR) and covers the period from Jan. 1-Dec.31, 2020.

The CCR as well as this Water Quality Report can be can be found at www.kcwater.us/about-us/reports. To have a printed copy of the CCR or of this Water Quality Report mailed to you, please call 816-513-7000.

More detailed technical information, including maps, a .pdf summary report, and online interactive reports, can be found at www.drinkingwater.missouri.edu. Enter "Kansas City" or "1010415" in the "Choose a Water System" box.

KC Water welcomes inquiries at any time. If you have urgent concerns about water quality, taste, or odor; or if you are experiencing low or no water pressure or sewer backups, please dial 311, use the myKCMO app, or call 816-513-1313. For other assistance, see page 11.

General inquiries about KC Water's infrastructure projects may be directed to water.projects@kcmo.org, or call 816-513-0234. General information about KC Water's water, wastewater, or stormwater utilities may be directed to water.communications@kcmo.org.

The 850 Kansas Citians at KC Water work around the clock to provide excellent water, wastewater, and stormwater services that ensure the health and safety of our customers while safeguarding our regional water resources for future generations. Thank you for the privilege to serve you.

LETTER FROM THE DIRECTOR

Terry Leeds, Director, KC Water

The Missouri River is 2,341 miles long, an internet search result says.

That does not count the 5,600-miles of water mains and sewer lines that serve Kansas City homes and businesses.

Yes, the Missouri River runs through your home.

It is our privilege at KC Water – all day, every day – to collect water from the Missouri; treat it and purify it; deliver it to you through more than 2,800 miles of pipeline to drink, wash your clothes, your dishes, yourselves, and your kids; take it back from your toilets and drains through another 2,800 miles of sewer lines; and then clean it again and return it to the Missouri.

The water we all use is a fraction of the water that flows by Kansas City each day. Our founders chose an ideal location for Kansas City for many reasons, not the least of which is proximity to a virtually unlimited source of water.

But the massive Missouri River watershed (more than 500,000 square miles from all or part of 10 states and one Canadian province) has a fickle side. A lot of natural and manmade waste, farm chemicals, and much more finds its way into the Missouri River.

And topsoil in the form of silt, too. A quote attributed to Mark Twain about the Mississippi River could apply to the Missouri, as well: "Every tumbler of it holds an acre of land in solution."

KC Water is among a few of the approximately 55,000 public water systems nationwide that provide services in all three ways that people interact with water. We provide the water needed to hydrate and nourish our bodies; we collect and clean used water, and we operate the system designed to move rainwater from where it falls on the ground to streams and rivers.

With 319 square miles to serve (plus surrounding areas through wholesale services to nearby communities and water districts) KC Water spends much of its effort on pipes, pumps, and plants. In the fiscal year that began May 1, 2021, we plan 88 water and wastewater projects totaling $253 million.

Infrastructure management is a challenge, to be sure. The 850 Kansas Citians employed at KC Water – along with hundreds more who work for contractors and suppliers – are well positioned to meet it. By providing water that every human needs to live, KC Water is an economic engine of the City.

KC Water is very sensitive to the reality that the cost of three utilities is a burden to our customers. Through years of study, planning and cooperative effort, we are addressing that burden.

This annual Water Quality Report provides more information about what we are doing, and what we can further do, to help you with your water bill in the short term. It also describes how we are using data analysis and technological innovation to moderate rate increases in the long term.

I am grateful each day for the efforts of our KC Water associates to provide excellent water, wastewater, and stormwater services to our customers.

"Similar to the human body, the city has a circulatory system of underground arteries that nourish and cleanse the city. . . . Drinking-water flow lines and concrete sewer pipes are extensions of both residents and the river and constitute river-city relationship . . . Ultimately, . . . the river [is] in the city, and the city [is] in the river."

– "A River in the City of Fountains: An Environmental History of Kansas City and the Missouri River," Amahia Mallea, Copyright, 2018, University of Kansas Press

WE CONSTANTLY TEST DRINKING WATER TO ENSURE SAFETY

Drinking water from any source picks up substances that occur in nature. Included are naturally dissolving minerals, radioactive material in some cases, and contaminants left by animals and human activity. This is true of Kansas City's water sources: the Missouri River and 14 ground water wells near the river.

To protect this essential natural resource for the more than 495,000 Kansas Citians who consume it, KC Water follows Missouri Department of Natural Resources (MoDNR) rules, regulations, and contaminant limits designed to protect human health and the environment.

All drinking water, including bottled water, may contain small amounts of some contaminants. Contaminants are not necessarily a health risk, but KC Water consistently tests the treated water for a variety of contaminants to ensure it is safe to drink.

Detectable water test results are summarized in this report. MoDNR has reduced monitoring requirements for certain contaminants to less often than once per year because the concentrations of these contaminants are not expected to vary significantly from year to year.

Contaminants Often Found in Water

KC Water checks for these contaminants that may be present in source water:

- Microbial contaminants, such as viruses and bacteria. These may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.
- Inorganic contaminants, such as salts and metals. These can be naturally occurring or be caused by urban stormwater runoff, industrial, or domestic wastewater discharges, oil and gas production, mining, or farming.
- Pesticides and herbicides, which may come from sources such as agriculture, urban stormwater runoff, and residential uses.
- Organic chemical contaminants, including synthetic and volatile organic chemicals. These are byproducts of industrial processes and petroleum production. They also come from gas stations, urban stormwater runoff, and septic systems.
- Radioactive contaminants, which can occur naturally or be caused by oil and gas production and mining activities.

KC Water also checks for many unregulated contaminants. Doing so helps regulators determine where certain contaminants occur and whether they should be regulated in the future. Among those:

- Manganese, a trace mineral that is vital for the human body but is only needed in small amounts.
- HAA5 (dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, trichloroacetic acid).
- HAA6Br (bromochloroacetic acid, bromodichloroacetic acid, dibromoacetic acid, dibromochloroacetic acid, monobromoacetic acid, and tribromoacetic acid).
- HAA9 (bromochloroacetic acid, bromodichloroacetic acid, chlorodibromoacetic acid, dibromoacetic acid, dichloroacetic acid, monobromoacetic acid, monochloroacetic acid, tribromoacetic acid, trichloroacetic acid).

KC Water also conducts optional monitoring of other constituents that may cause cosmetic or aesthetic effects, including taste, odor, and color. The Environmental Protection Agency recommends but does not require compliance with standards for these secondary constituents.

Lead and Copper

Elevated levels of lead or copper in drinking water can cause serious health problems, especially for pregnant women and young children.

The most typical source of lead in drinking water is corrosion of lead pipes and fixtures in home or business plumbing or in service lines between water mains and structures. Copper and lead could leach into water that sits for a time in these pipes and plumbing fixtures. To minimize the potential health risk:

- Use only cold water for drinking and cooking, especially water used to make infant formula, beverages such as coffee or tea, and ice.
- Run cold water from 30 seconds to 2 minutes, or at least until the temperature changes.
- Use a water filter certified to meet NSF Standard 53 for lead removal.

We encourage customers to replace any plumbing that may contain lead. To find a licensed plumber, visit http://city.kcmo.org/kc/Codes/LicensedContractors and select "Plumbing Contractor" from the drop-down tab to create a list.

For more information about lead in drinking water, visit www.epa.gov/ground-water-and-drinking-water/basic-information-about-lead-drinking-water, or call the Safe Drinking Water Hotline, 800-426-4791.

Health Precautions

Some people may be more vulnerable to contaminants in drinking water than the general population. Persons with cancer undergoing chemotherapy, organ transplant recipients, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections.

These immunocompromised people should seek advice about drinking water from their health care providers. EPA/CDC guidelines on appropriate means to reduce infection by constituents such as cryptosporidium and other microbial contaminants are available by calling the Environmental Protection Agency's Safe Drinking Water Hotline at 800-426-4791.

More About Water Quality

- Visit https://drinkingwater.missouri.edu or http://dnr.mo.gov/DWW/indexSearchDNR.jsp. Enter 1010415 – KC Water's state-assigned identification code – in the online form.
- Visit the MoDNR Public Drinking Water Branch website at https://dnr.mo.gov/env/wpp/dw-index.html.
- Call the MoDNR Public Drinking Water Branch at 573-751-5331.
- Visit KC Water's Water Quality web page at https://www.kcwater.us/education/water-quality.
- Call the KC Water Laboratory at 816-513-7000.

REGULATED CONTAMINANTS

Regulated Contaminants	Collection Date	Highest Test Result	Range of Sampled Result(s)	Unit	MCL	MCLG	Typical Source	In Compliance
Atrazine	5/29/2020	2.35	ND - 2.35	ppb	3	3	Runoff from herbicide used on crops	
Barium	7/24/2020	0.0382	0.006 - 0.0382	ppm	2	2	Discharge of drilling wastes; discharge from metal refineries; erosion of natural deposits	
Cyanide	3/4/2020	0.0058	ND - 0.0058	ppm	0.2	0.2	Discharge from steel/metal factories; discharge from plastic and fertilizer; factories	
Fluoride	7/5/2020	1.05	0.132 - 1.05	ppm	4	4	Natural deposits; water additive which promotes strong teeth	
Nitrate	5/29/2020	3.95	ND - 3.95	ppm	10	10	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Nitrite	7/25/2020	0.438	ND - 0.438	ppm	1	1	Runoff from fertilizer use; leaching from septic tanks, sewage; erosion of natural deposits	
Selenium	4/27/2020	3.5	ND - 3.5	ppb	50	50	Erosion of natural deposits	

DRINKING WATER DISINFECTION

Disinfectant	Collection Date	Highest Test Result	Range of Sampled Result(s) (low-high)	Unit	MRDL	MRDLG	Typical Source
Chlorine, Total	9/3/2020	3.5	ND-3.5	ppm	4	4	Disinfectant to control microbes

BYPRODUCTS OF DRINKING WATER DISINFECTION

Disinfection Byproducts	Sample Point	Monitoring Period	Highest LRAA	Range of Sampled Result(s) (low – high)	Unit	MCL	MCLG	Typical Source
Total Haloacetic Acids	DBPDUAL-01	2020	22	10.5 - 15.2	ppb	60	0	By product of drinking water disinfection
-	DBPDUAL-02	2020	16	11.2 - 18.6	ppb	60	0	By product of drinking water disinfection
-	DBPDUAL-03	2020	22	11.3 - 17.8	ppb	60	0	By product of drinking water disinfection
-	DBPDUAL-04	2020	21	10.7 - 16.7	ppb	60	0	By product of drinking water disinfection
-	DBPDUAL-05	2020	19	11 - 16.1	ppb	60	0	By product of drinking water disinfection
-	DBPDUAL-06	2020	23	11.2 - 13.9	ppb	60	0	By product of drinking water disinfection
Total Trihalomethanes	DBPDUAL-01	2020	10	5.3 - 12.2	ppb	80	0	By product of drinking water disinfection
-	DBPDUAL-02	2020	9	5.1 - 10	ppb	80	0	By product of drinking water disinfection
-	DBPDUAL-03	2020	11	4.1 - 9.7	ppb	80	0	By product of drinking water disinfection
-	DBPDUAL-04	2020	11	6.1 - 11.3	ppb	80	0	By product of drinking water disinfection
-	DBPDUAL-05	2020	9	5.4 - 10.9	ppb	80	0	By product of drinking water disinfection
-	DBPDUAL-06	2020	9	6 - 9.4	ppb	80	0	By product of drinking water disinfection

TOTAL ORGANIC CARBON

TOC	Collection Date	Highest Value	Range of Sampled Result(s)	Unit	TT	Typical Source	In Compliance
Carbon, Total	6/1/2020	3.29	1.95 - 1.94	ppm	0	Naturally present in the environment	

WATER CLOUDINESS (TURBIDITY)

% of samples in compliance with standard	Months Occurred	Monitoring Violation	Highest Single Measurement (NTU)	Month Occurred	Sources	In Compliance
100	12	No	0.13	October and December	Soil Runoff	

LEAD AND COPPER

Lead and Copper	Collection Date	90% of KC water levels were less than	Range of Sampled Result(s)	Unit	AL	Sites Over AL	Typical Source	In Compliance
Copper	2019	0.004	ND - 0.022	ppm	1.3	0	Corrosion of household plumbing systems	
Lead	2019	2.1	ND - 35.8	ppb	15	0	Corrosion of household plumbing systems	

MICROBIOLOGICAL CONTAMINANTS

Microbiological	Result	MCL	MCLG	Typical Source	In Compliance
Coliform (TCR)	In the month of November, 0.45% of samples returned as positive	5%	N/A	Naturally present in the environment	

UNREGULATED CONTAMINANT MONITORING RULE

UCMR	Monitoring Period	Recommended Federal Level	Average Value	Range of Sampled Results	Unit
Manganese	2019	N/A	0.7	ND - 0.7	ppb
Total HAA5	2019	60	14.9	7.4 - 33.1	ppb
Total HAA6 Br	2019	N/A	1.8	1.0 - 3.2	ppb

SECONDARY CONSTITUENTS

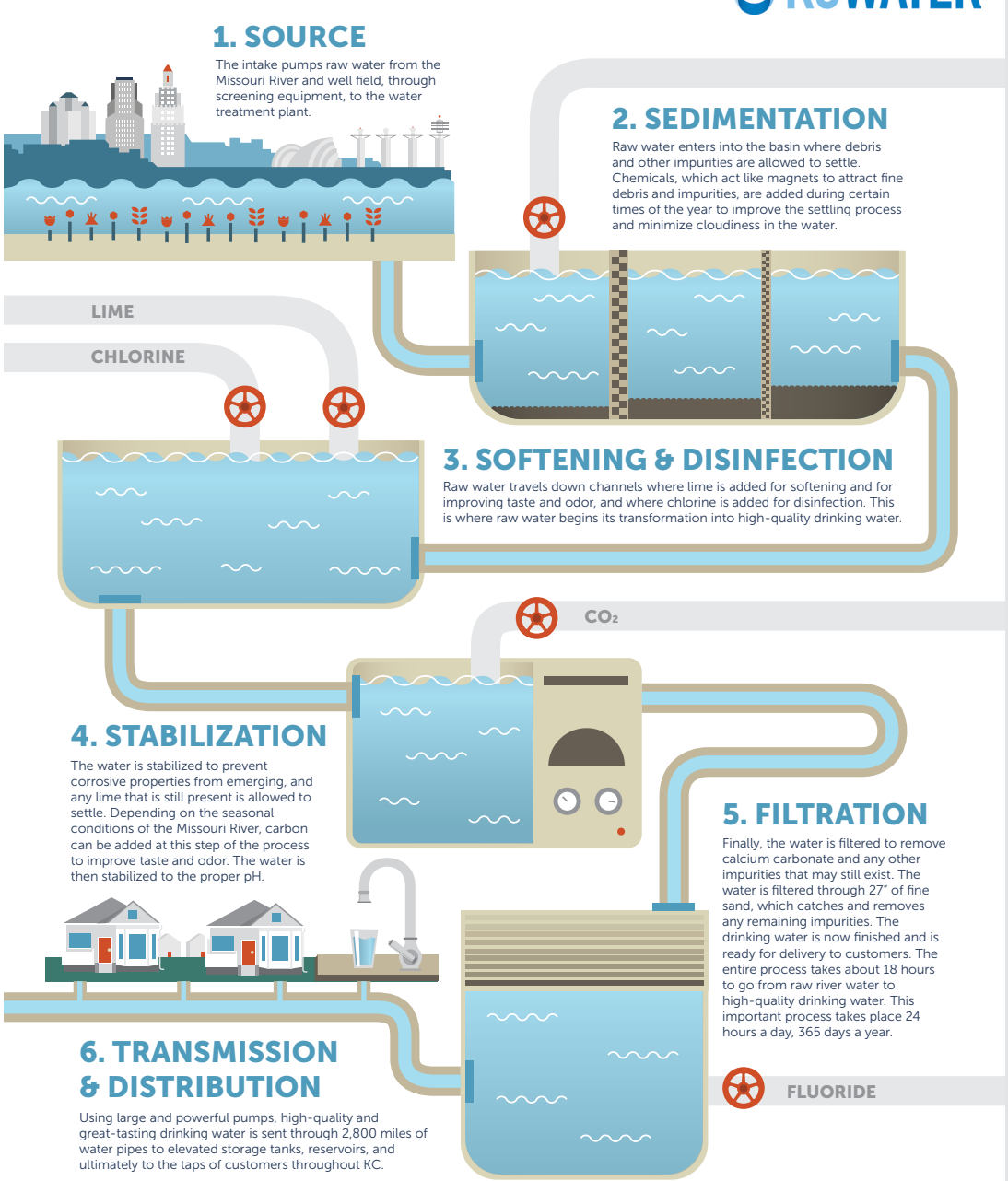
Secondary Constituents	Collection Date	Your Water System Highest Sampled Result	Range of Sampled Result(s) (low - high)	Unit	SMCL
Alkalinity, Total	12/11/2020	53	19 - 53	ppm	NA
Alumium	7/24/2020	0.601	ND - 0.061	ppm	NA
Boron	12/4/2020	0.0717	ND - 0.0717	ppm	NA
Bromide	2/21/2020	2.54	ND - 2.54	ppm	NA
Calcium	3/31/2020	56.4	31.7 - 56.4	ppm	NA
Chloride	1/29/2020	34.5	15.1 - 34.5	ppm	250
Copper	12/7/2020	4.04	ND - 4.04	ppb	NA
Iron	7/24/2020	0.154	ND - 0.154	ppm	0.3
Magnesium	9/17/2020	10	2.29 - 10	ppm	NA
Manganese	7/24/2020	0.0062	ND - 0.0062	ppm	NA
Nickel	7/24/2020	0.0059	ND - 0.0059	ppm	NA
pH	-	10	9.99 - 10	SU	8.5
Potassium	3/31/2020	8.64	6.08 - 8.64	ppm	NA
Silicon	1/31/2020	4.48	2.8 - 4.48	ppm	NA
Sodium	10/7/2020	81.9	48.2 - 81.9	ppm	NA
Strontium	6/30/2020	0.271	0.271 - 0.205	ppm	NA
Sulfate	4/13/2020	229	111 - 229	ppm	250
TDS	10/17/2020	463	200 - 463	ppm	500
Total Hardness	4/10/2020	176	98.6 - 176	ppm	NA
Zinc	5/12/2020	0.001	ND - 0.001	ppm	5

TABLE INFORMATION AND ABBREVIATIONS

AL: Action Level, or the concentration of a contaminant which, when exceeded, triggers treatment or other requirements which a water system must follow.
LRAA: Locational Running Annual Average, or the locational average of sample analytical results for samples taken during the previous four calendar quarters.
MCL: Maximum Contaminant Level, or 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, 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.
MRDL: Maximum Residual Disinfectant Level. The maximum level of a disinfectant added for water treatment that may not be exceeded without an unacceptable possibility of adverse health effects.
MRDLG: Maximum Residual Disinfectant Level Goal. The level of a drinking water disinfectant below which there is no known or expected risk to health.
N/A: Not applicable.
ND: Not detectable at testing limits.
NTU: Nephelometric Turbidity Unit, used to measure cloudiness in drinking water.
ppb: Parts per billion or micrograms per liter.
ppm: Parts per million or milligrams per liter.
RAA: Running Annual Average, or the average of sample analytical results for samples taken during the previous four calendar quarters.
Range of Results: Lowest and highest levels found during a testing period.
SMCL: Secondary Maximum Contaminant Level, or secondary standards. Secondary standards are non-enforceable drinking-water guidelines that may cause cosmetic effects such as skin or tooth discoloration; or aesthetic effects such as taste, odor, or color. EPA recommends these standards but does not require compliance.
TCR: Total Coliform Rule.
TDS: Total Dissolved Solids.
TT: Treatment Technique, or a required process intended to reduce the level of a contaminant in drinking water.
TTHM: Total Trihalomethanes (chloroform, bromodichloromethane, dibromochloromethane, and bromoform) as a group.
UCMR: Unregulated Contaminant Monitoring Rule: Helps determine where certain contaminants occur and whether the EPA should consider regulating those contaminants in the future.

Kansas City's Water Treatment Process

KCWATER



TREATMENT INVOLVES MANY STEPS

KC Water employees treat about 90 million gallons of Missouri River water every day for delivery to more than 495,000 residents and 32 wholesale customers, many of which are nearby community water utilities.

KC Water draws the water from the river; removes debris and mud; disinfects, and then softens and stabilizes the water. We filter the water again, and then deliver it citywide via 18 pump stations, numerous water storage facilities, and more than 2,800 miles of water mains.

For more information about water treatment and regulations visit www.epa.gov/environmental-topics/water-topics.

Watch a short video about water treatment on the KC Water YouTube channel at www.youtube.com/user/KCMOWater. Search "From River to Tap: KC's Water Treatment Process."

TASTE, ODOR IS A CHALLENGE WITH RIVER WATER

An inevitable effect of river water is inconsistency in its characteristics. In the 529,350-square-mile Missouri River basin, everything from mountain snowmelt and spring rains to farm fertilizer runoff and fall leaves can change the raw water we use to make drinking water for Kansas City.

KC Water's treatment process is designed to ensure that your drinking water is always safe to drink. We also take extra steps to adjust tap water for taste and odor, but the sometimes rapidly changing nature of the river's water makes that a challenge.

According to the Missouri Department of Natural Resources, the nickname for the Missouri River is Big Muddy because of its heavy load of silt. The river naturally becomes very muddy due to the silt and natural organic matter that is carried downstream by the river.

Human noses and taste buds often can easily detect these naturally occurring organisms, even at low concentrations. When detected, we make adjustments, but these adjustments may take a few hours or a few days to be effective.

Other taste and odor issues – white/milky, blue or green color, or a metallic or chemical taste – may be due to river water or to plumbing in the home or business. A licensed plumber can help identify the cause.

KC Water performs continuous monitoring and extensive laboratory testing to ensure that the water supplied throughout Kansas City is safe and meets or exceeds all state and federal drinking water safety requirements.

If you have a concern with taste and odor, please call 311, 816-513-1313, or use the myKCMO app or www.kcmo.gov.

REPLACING A HUGE SYSTEM, 28 MILES AT A TIME

Ductile iron pipe is wrapped in thick polyethylene before being buried near 27th and Main streets as part of the Upgrades on Main project.

Perhaps one of the greatest challenges facing Kansas City is sustaining the infrastructure that brings fresh water to homes and business over 319 square miles of the City.

The Missouri River is a consistent and voluminous source of water, and treating water from the river is managed well through KC Water's 240-million-gallon-a-day capacity treatment plant.

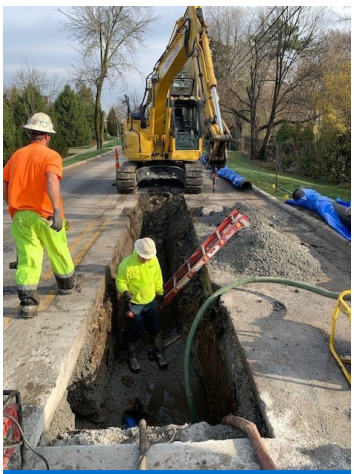
But to reach homes, businesses and fire hydrants, KC Water must deliver the water through 2,800 miles of pipelines. If laid end to end, that's the distance from Kansas City to Miami, Fla., and back. With that much pipe, breakages occur.

In 2012, KC Water logged 1,844 water main breaks. However, each year since 2016, water main breaks averaged 794 a year, less than half of the 2012 peak.

The improvement can be largely attributed to a comprehensive strategic water main replacement program begun in 2015. The program analyzes a wide variety of data and assigns a risk score to each of 70,000 pipeline segments, based on the likelihood and the consequence of failure of any segment.

Many factors can affect failure, such as age of the pipe and the material used. Some pipe material is more durable than others. Today, KC Water replaces old water mains with ductile iron pipe wrapped with thick polyethylene. As much as possible, KC Water collaborates with the City's Public Works Department and other entities to coordinate projects and minimize multiple capital improvement disruptions in the same areas.

The new mains are expected to last at least 100 years. KC Water's goal is to replace 28 miles of water main each year – or 1 percent of the system. Some replacement projects are small – focused on a few blocks in a relatively small area. Other water main projects are greater in scope, such as the Upgrades on Main and Upgrades on the Plaza projects currently under way.



A trench on State Line Road near 55th Street is readied for a new water main. Water mains are installed deep enough to prevent freezing during winter.

Upgrades on Main is a multimillion-dollar initiative to replace aging water infrastructure on a nearly 4-mile stretch of Main Street south from Pershing Road to 51st Street. Both water mains and sewer mains are included, along with associated assets like manholes and fire hydrants. In addition to updating water infrastructure, Upgrades on Main is paving the way for construction of the KC Streetcar extension from Union Station to Midtown, Westport, the Country Club Plaza and the University of Missouri-Kansas City.

Upgrades on the Plaza plans to replace more than three miles of aging, break-prone water mains on the Country Club Plaza and three nearby streets. Some of the water mains on the Plaza were installed when the Plaza was originally built in the 1920s. Using a design-build approach aimed at improving construction progress efficiency, Upgrades on the Plaza avoids the need and the cost of periodic water main replacement projects over many years.

More than 200 miles of water mains have been replaced since the program began. In 2020, KC Water upgraded the water main replacement program engineering software to expand and refine pipeline evaluation, which includes building on experiences of projects completed in the first six years of the program.

More info: www.kcwater.us/projects/current-projects

NEW PLANT WILL END INCINERATION OF WASTEWATER SOLIDS

Through 2,800 miles of sewer mains, 58 wastewater pumping stations, 15 flood pumping stations, three effluent pumping stations, and six wastewater treatment plants, KC Water treats about 38 billion gallons of wastewater annually.

Yes, 38 billion. That is how much wastewater is sent from the toilets, sinks, showers, tub drains, and washing machines that are used by customers inside and outside Kansas City.

The Blue River Wastewater Treatment Plant, located at 7300 Hawthorne Road, near I-435 and Front Street, is KC Water's largest wastewater treatment plant. It opened as a primary treatment facility in the early 1960s, was upgraded in 1987 and has received new processes and technologies since then to provide advanced wastewater treatment.

Excavation work has begun for a new biosolids treatment facility that will end incineration and instead produce useful fuel and fertilizer at KC Water's Blue River Wastewater Treatment Plant.

But the next step will be an evolutionary upgrade. KC Water this year began construction that will make Blue River the first plant of its kind in the Midwest to employ a thermal hydrolysis process (THP) to recycle human and domestic waste.

KC Water treats all wastewater to comply with federal and state environmental regulations. The aging and increasingly unreliable Blue River plant processes originally burned sludge collected there and from three other wastewater plants before it is buried in landfills.

The new, $150 million Blue River Biosolids Improvements Facility eliminates incinerators to improves air quality throughout the region and produce reusable products: biosolids that can be used safely as a soil conditioner and fertilizer on farms and gardens; and biogas to power natural gas vehicles, produce electrical power or heating, or feed natural gas pipelines.

THP is a two-step process. Solids are pressure-cooked at 329°F to break down the material. The treated solids then are mixed with bacteria in a process known as anaerobic digestion to make biogas and biosolids. THP treats waste in less time, reduces the amount of storage required, and protects the environment and public health.

Other THP plants are located in San Francisco; Laurel, Md.; Raleigh, N.C.; Washington D.C., and Hampton Roads and Arlington, Va. The Blue River Biosolids Improvements Facility is expected to be open in 2024.

Learn more: www.blueriverbiosolids.com

THINGS THAT SHOULD NEVER GO DOWN THE DRAIN OR TOILET

Fats, Oils, and Grease. These items can cause clogs and wastewater backups on your property, the KC Water sewer system, and in treatment plants.

Wipes. While sometimes labeled "disposable or flusable," cleaning wipes can cause clogs and backups and cause costly damage to wastewater treatment equipment.

Hazardous Materials. This includes paint, solvents, chemicals, cleaning agents, pesticides, fuels, medical waste, pharmaceutical medicines, fertilizers, explosives, fireworks, ammunition or flammables. The KC Water Household Hazardous Waste Facility, 4707 Deramus Ave., Kansas City, MO 64120, accepts and properly disposes of many hazardous items to protect streams, rivers, and landfills. Learn more at www.kcwater.us/programs/hhw or call 816-513-8400.

Wipes not only clog wastewater treatment equipment, but they also may block home and neighborhood sewer lines. Never flush wipes.

THINGS TO KNOW ABOUT STORMWATER AND FLOODING

Flooding is a fact of life in the Midwest, where the Missouri River and its tributaries are easily bloated by heavy storms rolling down from the Rockies and across the Great Plains. Especially in the hills and valleys of Kansas City formed eons ago by glaciers, a nasty rash of harsh weather can create havoc within days, if not hours.

KC Water addresses flooding issues in several ways, but there are steps property owners should take, as well.

What the City Does

KC Water manages the City's 630-mile storm drainage collection system. The utility also oversees state and federal laws and regulations concerning human impact, including how much can be discharged; and, through regulations and codes, how residential and business development that could affect stormwater runoff is conducted.

Often in partnership with the U.S. Army Corps of Engineers and neighboring cities and counties, KC Water designs and constructs stormwater infrastructure such as levees and channels to help reduce the risk of flooding in Kansas City.

Through its Municipal Separate Storm Sewer System (MS4) program, KC Water publishes an annual report on the quality of water in the City's streams and rivers. The report describes how the City meets National Pollutant Discharge Elimination System regulatory requirements.

Through the Public Improvement Advisory Committee program, Kansas Citians may apply for help with private property stormwater runoff issues.

Kansas City also qualifies for the Federal Emergency Management Administration's Community Rating System, which enables flood insurance discounts for City property owners.

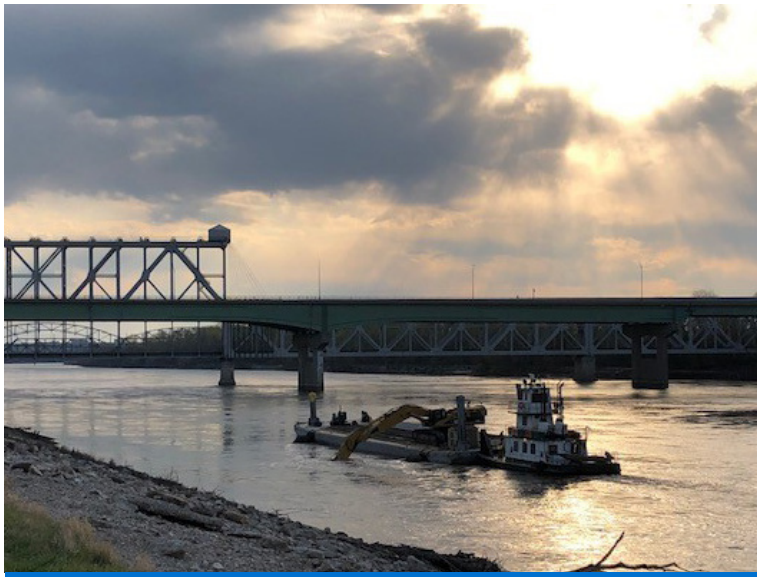
What Property Owners Can and Should Do

Every Kansas City property owner is at risk of flooding. Flooding can occur by water rising in a floodplain; by water draining downhill; by water seeping up from the ground; or by water backing up through wastewater lines.

KC Water urges customers to identify the risk of flooding on their properties; floodproof property, and purchase flood insurance.

Each property owner can collect and use the stormwater that falls on their own property. Features such as personal rain gardens and rain barrels not only beautify property and save the cost of water used on lawns and gardens, but also they can reduce the burden on the City's stormwater collection system.

KC Water's regulatory reports, plus information about the risk of flooding, flood insurance, and how to prepare for flooding, can be found at www.kcwater.us/about-us/stormwater.



A backhoe on a barge pushed by towboat performs maintenance on a levee by Berkley Riverfront on the Missouri River.

Stormwater improvements include rock-lined channels in neighborhoods.

FINANCIAL ASSISTANCE AVAILABLE TO CUSTOMERS

We understand circumstances sometimes make it difficult for customers to pay the monthly water bill. Following are programs to help pay water bills. Some programs have limited funds and qualification guidelines based on income or other factors. Information is current as of April 2021. For the latest information, visit www.kcwater.us/customer-support/financial-assistance-resources or call 311 or 816-513-1313 (Option 1).

Emergency Rent/Utility Assistance. The City of Kansas City offers emergency rental and utility assistance to qualifying tenants through community agencies. More information at www.kcmo.gov/renthelp or call 816-513-4501.

Water Bill Assistance. Since 2009, KC Water has committed over $3 million and helped more than 9,000 qualifying customers pay water bills. To learn more about eligibility requirements, please visit www.211kc.org or call 211 or 816-474-5112.

Payment Arrangement. Customers may make monthly installments to pay past-due amounts over a specified period of time. More information, including full requirements, is available on the Payment Arrangements option under the Payments tab on the "My Account" payment portal at www.kcwater.us.

Leak Stoppers. Qualifying KC Water customers may receive a free Water Saving Kit that includes devices designed to help reduce home water usage. Apply at www.bridgingthegap.org/water/leakstoppers.

WATER BILL BASED ON COST OF OPERATING THREE UTILITIES

The average KC Water residential customer will pay $40.62 per month for the water used in homes beginning in May 2021.

Residential customers also will pay $66.55 for wastewater services on average, and $2.50 for the City's stormwater system, which handles rain that runs off property, onto streets and into storm sewers.

The total average monthly bill — $109.67 — is based on the cost to treat water, deliver it to customers, and then to move wastewater from customers to treatment plants and back to the Missouri River, as well as to maintain the 630-mile stormwater system. Through its fee structure, KC Water must fully recover the cost of operating the water, wastewater, and stormwater utilities each fiscal year.

For water and wastewater, the rate includes a service charge to cover in part the cost of various services and applies whether or not any water is used; and a usage or volume charge based upon the total volume of water purchased. The wastewater volume charge is seasonally adjusted, since some water in warmer months typically is not returned as wastewater. The stormwater fee is based on the size of the impervious surface, such as rooftops and driveways, on a customer's property.

Rates are allocated by an annual cost of service study, which is conducted by an outside, third-party engineering firm in accordance with guidelines prescribed by the American Water Works Association and the Water Environment Federation. A critical component in the annual cost of service study is KC Water's long-term financial plan to maintain, replace, and upgrade aging infrastructure.

KC Water rates are approved by the City Council as part of the annual City budget process, which includes three public hearings and other extensive and public reviews by the City Manager, the Mayor, and Council members and committees.

KC Water's comprehensive annual financial reports can be found at www.kcwater.us/about-us/reports. KC Water's schedule of rates, fees, and billing practices, along with frequently asked questions about water rates, can be found at www.kcwater.us/customer-support/rate-book. To request a mailed copy of the rate book, call 816-513-1313.

WE NOTIFY YOU WITH WATER QUALITY UPDATES

Concerned about what's up with your water? We notify affected customers in several ways. Here is how to get information about any situation that might affect your water, including weather, other natural occurrences, or infrastructure issues such as water main breaks or sewer backups.

AlertKC: KC Water and other Kansas City, Mo., departments use this free text notification system to provide authoritative, rapid, and secure information about situations that could affect life and property, including water quality, severe weather, and flooding. Register at http://kcmo.gov/alertkc.

Social Media: Urgent information about water quality issues is posted on these KC Water channels:

Facebook: www.facebook.com/kcmowater

Twitter: @kcmowater

Nextdoor: www.nextdoor.com

www.kcwater.us: Any water quality situation that requires public notice or action will be posted on the KC Water website. Additional information about public notices related to water quality issues is available at www.kcwater.us/boil-advisories-and-orders.

Traditional Media: Check your favorite media outlet, or see KC Water news releases at www.kcwater.us/news.

WITH SMART SEWER, KC IMPROVES FOR FUTURE GENERATIONS

KC Water's Smart Sewer program is a multi-decade infrastructure investment to make sure sewer systems continue to work reliably and effectively.

Nearly 2,800 miles of sewer pipes move what goes down the drain to six wastewater treatment plants, where pollutants are removed before water is put back into local streams and rivers. There are two types of sewer systems: combined and separate.

In the combined sewer system, stormwater and wastewater are collected in the same pipe and routed to a wastewater treatment plant for treatment. In the separate sewer system, stormwater and wastewater are collected in two different pipes; wastewater goes to a wastewater treatment plant, and stormwater flows directly to rivers and streams.

Smart Sewer is committed to capturing approximately 85% of the combined sewer flows and eliminating wet weather separate sanitary sewer overflows.

Smart Sewer has completed 33 projects over the past 10 years and is implementing 47 projects currently.

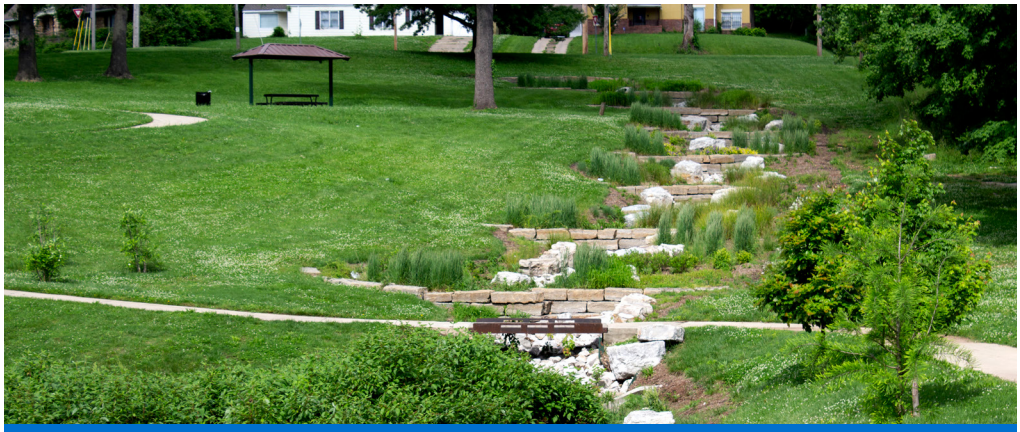
The Smart Sewer program uses strategic, data-driven solutions and innovative overflow control technologies to ensure the improvements and investments made today will last for generations to come. Here's how:

- Repair when we can.
- Replace where we must.
- Build new only when necessary.

Decisions about when to repair or when to build new are made using a robust asset management system that evaluates the likelihood of a sewer failure and the potential impacts of that failure so KC Water can continue to provide cost-effective service in a long-term, sustainable way.

It is a long-term solution that looks beautiful above ground and works wonders below, decreasing the amount of rainwater getting into our pipes, and reducing flooding, pollution, and trash in our local streams, rivers, and lakes.

More info:
www.kcsmartsewer.us/home-smartsewer



Arleta Park at 77th Street and Prospect Avenue in the Marlborough neighborhood of south Kansas City is an example of green infrastructure that improves stormwater drainage while beautifying a neighborhood asset.

CONSENT DECREE AMENDMENT WILL EASE RATE INCREASES

The Smart Sewer program focusing on reducing wet weather overflows from sewer systems has been undertaken since 2010 under a Consent Decree agreed upon by the City of Kansas City, Missouri, the U.S. Environmental Protection Agency, and the U.S. Department of Justice.

In March, a federal judge approved a third amendment to the decree, which will save Kansas Citians hundreds of millions of dollars over the long term using green infrastructure and working with neighborhoods.

The original 25-year, $4.5 billion - $5 billion program resulted in dozens of important improvement projects, but it also started several years of double-digit wastewater rate increases for KC Water customers.

"We were able to show the EPA that Kansas City's median household income didn't keep up with projections," said KC Water Director Terry Leeds. "This modification reduces the scope and costs of the program through 2035."

The modification eliminates the requirement for very expensive projects such as underground storage tunnels, and it extends the final compliance date from 2035 to 2040. It also allows newer technology to reduce overflows from the sewer system; creates more opportunities to use green infrastructure to deliver a high level of wet weather control, and enables multiple community benefits at a smaller cost.

As a result, future wastewater rate increases are expected to be moderate.

KCWATER

4800 E. 63rd St. • Kansas City, MO 64130

CUSTOMER SUPPORT: (816) 513-1313 or 311 (Option 1) • www.kcwater.us

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