Water Quality & Protection

Despite its abundance, the aquifer system is a delicate natural structure which requires protection. Proper use and disposal of chemicals and cleaners will help ensure that the Memphis water supply is safe for generations to come. Never dump paints, cleaners, pesticides, chemicals, oils or other hazardous liquids down the drain, sewer or on the ground. Store them properly and discard at a hazardous waste collection center.

MLGW prides itself on the pure quality of its water supply. To ensure the highest standards, water laboratory chemists and analysts conduct more than 3,000 tests each month on water samples taken from sites throughout the county. In 1994, MLGW moved its water quality lab into a new state-of-the-art facility to accommodate future growth. MLGW prides itself on the pure quality of its water supply. To ensure the highest standards, water laboratory chemists and analysts conduct more than 3,000 tests each month on water samples taken from sites throughout the county. In 1994, MLGW moved its water quality lab into a new state-of-the-art facility to accommodate future growth.

Why is my water rusty/red?
Water mains corrode as they age, causing rust to settle at the bottom of pipes. When water flows increases from a broken main, for example, iron particles are swept into the distribution system, giving water a rusty appearance. While rusty water will not harm you, most people choose not to drink it. Leave faucets running until water clears. If the problem continues, call MLGW for assistance.

Why is my water cloudy?
Cloudy water is the result of air bubbles trapped in the water lines (typically during construction). Though harmless, the air bubbles will rise to the top and dissipate if cloudy water is poured into a container and left out for a few minutes. If cloudy water persists for several days, call MLGW.

Why does my water smell/taste strange?
Unusual tastes or odors may appear in your water after plumbing work or as a result of low water usage. Run the tap for a few minutes to clear the lines.

Is it safe to give my infant tap water?
Yes. Memphis' water supply is extremely pure, making it safe for infants. If you have questions, check with your doctor.

Water Referrals

Billing inquiries, verification of information
Bartlett residents: 385-5585
Collierville residents: 457-2240
 Germantown residents: 751-7605
Millington residents: 872-2211
Shelby County residents not included above: 544-MLGW (6549)
Emergencies: 528-4465
New service connection: 820-7878
Quality concerns - rusty water, cloudy water, lead pipes: Water Quality Assurance Laboratory: 320-3901
Customer Care Center: 544-MLGW (6549)
Residential water consumption, conservation and other household questions
Residential Services: 528-4188
Group tours of MLGW pumping stations
Community Relations: 528-4820

From Sky to Faucet A User’s Guide to MEMPHIS WATER
The Water Journey

The water in your glass may have come from the faucet, but its journey really began in the sky more than 2,000 years ago. Memphis water fell as rain long ago and slowly seeped through sand and gravel, naturally removing dissolved chemicals and dirt as it trickled down. Raindrops became trapped in layers of sand that formed the aquifer structure we know today.

The aquifer system with its artesian wells is one of Memphis’ greatest natural resources, providing an abundant supply of pure water. In fact, Memphis is the largest city in the world to rely solely on artesian wells for its water supply.

Located throughout Memphis and Shelby County, MLGW’s 10 pumping stations operate more than 170 wells. A three-phase process removes impurities and fortifies water with chlorine, fluoride and phosphate to ensure the high standards of purity. Once treated, water is distributed to more than 215,000 residential, commercial and industrial customers throughout the county.

Memphis water – pure, clean and abundant – is one of the area’s greatest natural resources.

Wet & Wild Words

Aeration – Process used to force air into raw water and help remove iron and other minerals.

Aquifer – Natural underground reservoir which contains groundwater.

Artisan well – Natural underground reservoir which contains pressurized water capable of rising several hundred feet under its own force.

Backwashing – Process used to clean the filter pools by flushing sediment from the system.

Chlorine – Chemical added at one part per million to kill bacteria that could contaminate the water after it leaves the pumping station.

Coffee Sand Aquifer – Deepest aquifer in the Mississippi Embayment.

Coke rocks – Natural, lightweight substance resembling lava rock that is used to line aquifer frays.

Emergency shut-off valve – Located at every customer’s home or business, used to stop the flow of water in an emergency.

Filter pool – Device consisting of eight layers of sand used to trap and remove particles from the water system.

Filtration – Second stage in the water treatment process which removes minerals from raw water.

Finished water – Water which has completed the treatment process and is either pumped directly into the system or stored for future use.

Finished water reservoir – Underground concrete tank containing approximately 10 million gallons of finished water. Covered with a rubber membrane and two feet of sod to maintain constant temperature and prevent bacteria growth. Each pumping station has its own reservoir.

Fluoride – Chemical added to water at one part per million to help prevent tooth decay.

Fort Pillow Sand Aquifer – Second deepest aquifer in the Mississippi Embayment.

Groundwater – Water contained in natural underground reservoirs.

Hundred cubic feet (ccf) – Unit of measure used to define water consumption. One ccf equals 748 gallons.

McNaury Sand Aquifer – Third deepest aquifer in the Mississippi Embayment.

Memphis Sand Aquifer – First aquifer in the Mississippi Embayment. Serves as Memphis’ primary water source with an estimated content of 100 trillion gallons of pure water.

Mississippi Embayment – Natural bowl-shaped formation featuring alternating layers of water-bearing sand and impermeable clay. Covers a large region from the Tennessee River to Arkansas’ Black River.

Mississippi River – Surface water supply not used in Memphis as a source of drinking water.

Phosphate – Mineral added at one part per million to help prevent corrosion of water mains and customer pipes.

Pumping Station – Facility where water is removed from ground, treated stored and distributed for use. MLGW has 10 pumping stations throughout Shelby County.

Raw Water – Water which has been pumped from the aquifer but has not completed the treatment process. In Memphis, raw water is pure enough to drink, but federal laws require treatment to ensure standards of purity.

Reservoir – Natural or man-made storage area. May be above or below ground.

Service Connection – Pipe measuring three-quarters of an inch to two inches in diameter, used to deliver water from the meter to individual customers. Customers are responsible for repairs.

Surface water – Water source which covers the Earth’s surface, including the Mississippi and Wolf rivers. Represents 97 percent of Earth’s water supply, but not Memphis.

Water Main – Underground pipe measuring two inches to three feet in diameter, used to distribute water from pumping stations to customers’ water meters. Diameter is based on water demand and pressure.

Water meter – Device used to measure the amount of water consumed by a customer, located in an underground meter box near the curb.

Water tower – Elevated water storage unit used to maintain system fire protection and water pressure in remote county areas. Contains 100,000 to 500,000 gallons of water.

Well – Hole drilled to remove water from underground reservoirs. MLGW’s wells range in depth from 500 to 1,400 feet depending on the aquifer tapped.