

## 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. MLGW completed renovations to the water quality lab in 2019.

### Why is my water rusty/red?

Water mains corrode as they age, causing rust to settle at the bottom of pipes. When water flow 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 hot water discolored when my cold water is normal?

As your water heater ages, the tank's lining deteriorates, causing sediment to break loose and discolor water. Flush the water heater to remove colored water and remaining sediment.

### 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.

### Why are my water pipes noisy?

Several factors can cause pipes to rattle, including age, low water pressure and air in the water lines. If the noise continues, check for loose pipes and improperly seated valves.

### How can I tell if I have lead pipes?

If your house was built before 1930, it is likely you have total or partial lead plumbing. To check, scratch the surface of the pipe with a screwdriver or key. If the surface scratches easily and a shiny spot appears, the pipes are lead. If you have questions about possible lead content, call MLGW's Water Quality Laboratory for assistance.

### How do I get iron spots out of clothing?

Keep clothes damp until water clears. Then, re-wash with one cup of water softener instead of detergent.

## Emergency Situations

### Emergency Shut-Off Valve

Every home has a customer shut-off valve for stopping water flow into the house. Common locations include under sinks, in closets or outside near the house. If the house valve cannot be located or is broken, water service can be stopped at the meter. Call MLGW for assistance. To cut the water off yourself, use a meter box key or slip-joint pliers to open the lid on the meter box. Center the cutoff key on the stop cock and slowly twist one-quarter turn. To help prevent leaks from frozen pipes, follow these suggestions: open cabinet doors under sinks, leave faucets running at a slow drip, wrap exposed pipes, cover outdoor faucets and adjust the furnace thermostat. Frozen pipes frequently burst as they thaw, so it is important to close the emergency shut-off valve and drain as much water as possible from the pipes to reduce potential damage.

### Emergency Water Sources

The best way to ensure a supply of safe drinking water is to store several gallons in a cool, dark location such as a closet. Replace water every six months to maintain freshness. (Use the old supply to water plants, rinse dishes or wash clothes.) If stored water tastes flat, pour it back and forth between two containers a few times to aerate.

Other safe sources of emergency drinking water can include the toilet tank – not the bowl – provided that cleaning tablets or liquids are not used in the tank. Water can also be drained from the water heater tank. (Use caution to avoid burns.)

## Water Referrals

### Billing inquiries, verification of information

Bartlett residents: 385-5585

Collierville residents: 457-2240

Germantown residents: 751-7605

Millington residents: 872-5701

Shelby County residents not included above:

544-MLGW (6549)

### Emergencies: 528-4465

New service connection: 544-MLGW (6549)

Quality concerns - rusty water,  
cloudy water, lead pipes:

Water Quality Assurance Laboratory: 320-3962

Customer Care Center: 544-MLGW (6549)

### Residential water consumption, conservation and other household questions

Residential Energy Services: 528-4188

Group tours of MLGW pumping stations,  
go to [mlgw.com/about/speakers-tours](http://mlgw.com/about/speakers-tours)

# From Sky to Faucet

## A User's Guide to Memphis Water



SERVING YOU IS  
WHAT WE DO





# The Water Journey

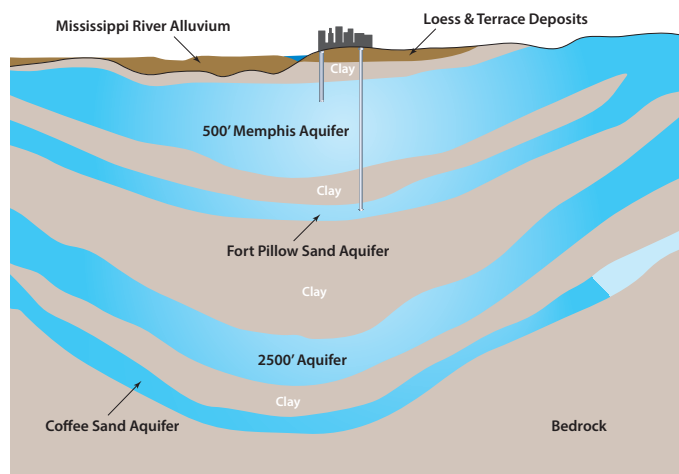
The water in your glass may have come from the faucet, but its journey really began in the sky more than 2,000 years ago.

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 135 wells. A three-phase process removes impurities and fortifies water with sodium hypochlorite (bleach), fluoride and phosphate to ensure the highest standards of purity. Once treated, water is distributed to more than 255,000 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.

**Artesian 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 aeration trays.

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

**Filtration** – Second stage in the water treatment process which removes mineral particles 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 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.

**McNairy 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 12 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 meter. 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 aquifers. MLGW's wells range in depth from 500 to 1,400 feet depending on the aquifer tapped.

