You can make a difference in the health of our streams.

Only Flush The 3 Ps

There are serious consequences when items that should not be flushed through plumbing end up at MSD Water Quality Treatment Centers.



Don't Flush Wet Wipes

So-called "flushable wipes" do not break down properly in the sewer system. These wipes may clog sewer pipes and damage sewer line pumps.



Pick Up Litter

Pick up litter or participate in a stream cleanup to help prevent trash from entering waterways.



Drains Are Only For Water

Don't pour fats, oils, grease, paint, petroleum products or medications into a catch basin, storm drain or a drain in your house. These can make fish sick and cause clogs in the pipes.



Clean Up After Your Pet

Dispose of pet waste in the trash so that it isn't washed down storm drains or into streams. Dogs in Jefferson County produce four dump-truck loads of waste every day.



Soak Up Extra Rainwater

Plant a tree, construct a rain garden, or replace your downspout with a rain barrel garden to help absorb stormwater.



Louisville's **Rainwater Flood Protection System**

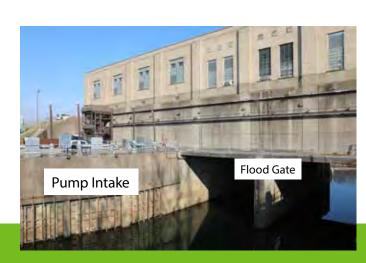
The Last Line Of Defense

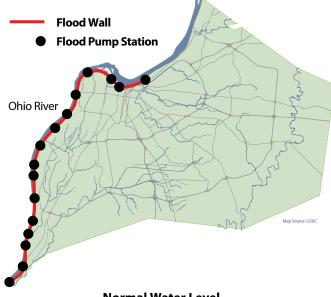
Louisville Metro's Ohio River Flood Protection System exists to keep the river at bay and out of the city. The system protects more than 200,000 people, 87,000 homes and \$34 billion in property over 110 square miles. It includes 26.1 miles of floodwall and earthen levee, 16 flood pumping stations, nearly 150 floodgates and 79 floodwall closures.

How Do Flood Pump Stations Work?

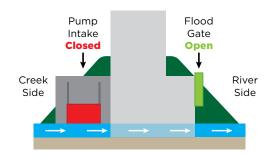
During times of high water on the Ohio River, the openings in the floodwall are sealed to keep the river water from backing up along our streams. Since the streams are always flowing, pumps are used to push water from the interior of the floodwall out into the river. During rain events, the pumps need to work even harder to make sure the area inside the floodwalls do not flood.

The flood pumps are only used when the Ohio River is high. When river levels are normal, streams flow to the river through gravity and no pumps are needed.

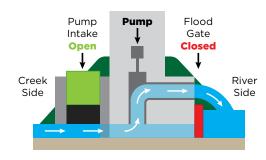




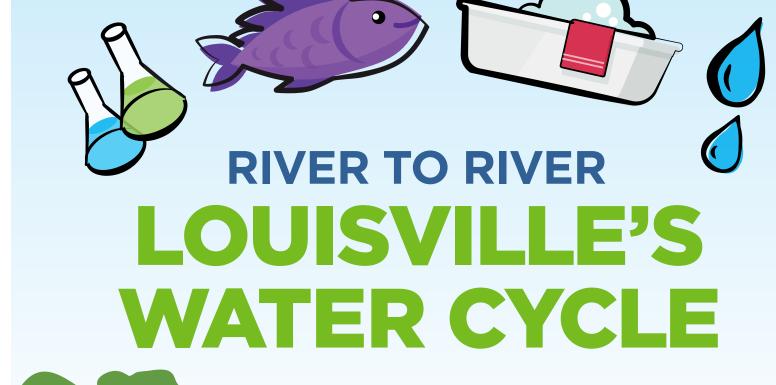
Normal Water Level



During Flooding Event











LOUISVILLE'S WATER CYCLE MSD collects and treats wastewater for Jefferson County and portions of Bullitt and Oldham counties. Each person generates approximately **Coagulation Basins Water Quality** Oxygen is added to help 100 gallons of wastewater daily. MSD Ferric sulfate and polymer remove **Water Treatment Plant Treatment Center** microorganisms remove cleans more than 150 million gallons any remaining mud and silt. First we adjust the hardness of harmful organic material. Wastewater is slowed of wastewater per day, returning it to the water in the mixing basins, down to remove heavy our area streams and the Ohio River then we add chloramine to solids and grit. cleaner than the water already there. keep the water safe and clean. Additionally, our Morris Forman Water **Quality Treatment Center in Jefferson** County is part of a combined sewer system. So, on rainy days it receives rainwater runoff mixed with the wastewater in the system. "Biosolids" are allowed to settle We add fluoride to fight cavities and are removed - clarified and then send the water through water moves to the next step. a filter made of coal and sand to remove any remaining particles. Reservoir Mud and sand settle to the bottom of the reservoir. **Water Quality Lab Collection Systems** Water is disinfected before returning to the Ohio River. Water quality scientists Wastewater can flow from perform more than 200 homes and businesses in the tests each day on your community by gravity or pumps drinking water. in the collection system Electric pumps move the water to the reservoir. Water is tested daily **Usage in Homes and Businesses** Distribution by our laboratory as it **Pumping Stations** returns to the Ohio River. The water travels through a series of We use the water for everything from brushing our teeth, to washing clothes and water mains to homes and businesses Louisville Water takes water from the in the community. We have thousands dishes, to bath water. But eventually most Ohio River through pipes in the river. of miles of water mains in our system. used water goes back down the drain. The water passes through rotating screens to remove large debris. **OHIO RIVER**

Stormwater Runoff and Watersheds

wa-ter-shed

nour

1. an area of land that drains to its lowest point.

Polluted Stormwater

Our community is part of a watershed, where stormwater or rainwater flows over rooftops, lawns, parking lots and roadways. This water collects soil and pollutants—like lawn chemicals, animal waste and oil—harming our waterways.

Trash and sediment can pollute the water in creeks and lakes, making it difficult for aquatic plants to grow. Excess nutrients from lawn chemicals can harm aquatic life, as well as the animals that eat fish and aquatic plants. Bacteria and other pathogens can flow into streams, which can make people and animals sick.

