



The latest updates on the Waterway Protection Tunnel, a key part of MSD's plan to capture and treat 98 percent of the combined sewer overflow volume by 2020.

HOW TO TRANSPORT A TUNNEL BORING MACHINE



Getting a machine that is longer than a football field to Louisville is no easy task.

The four largest and most critical parts of the machine are the cutter head, the shield, the machine can and the tail shield. While most machine parts are refurbished in Pennsylvania, one is even being transported to the United States from overseas! Engineers are currently working on a detailed plan to transport each of these pieces to Louisville safely.

The planning will start with a visual inspection of the route. Among other navigation challenges, engineers will consider tight turns in the road, low bridges and narrow roadways. If it's determined that any barriers or obstructions will interfere with the transportation, modifications to the route will be made to ensure a clear path to Louisville. If necessary, these modifications will include temporary removal of signage, grading sections of the roadway, tree pruning or a route change.

To simplify the effort, the machine is transported in sections from its place of origin to the Louisville construction site on more than 20 semi-trucks. Upon completion of the route plan, the Tunnel Boring Machine will begin its journey to Louisville.

More details surrounding the machine's arrival will be unveiled soon, so be sure to stay tuned for the next edition of Boring News and follow us on social media!

MSD'S TUNNEL PROJECT IS BIGGER AND BETTER THAN WE THOUGHT

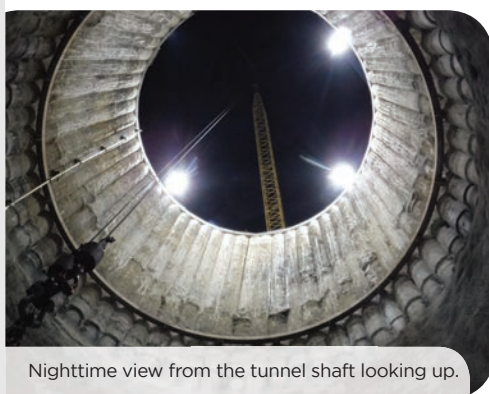
MSD's massive Waterway Protection Tunnel will help keep millions of gallons of stormwater and wastewater out of the Ohio River and Beargrass Creek in Louisville. As if the 2.5-mile long infrastructure wasn't already larger than life, this tunnel will now be 4 miles long!

The extension will help to capture even more wastewater and stormwater overflow and will also eliminate the need for a planned storage basin at I-64 and Grinstead Drive. The total storage capacity of the underground tunnel will increase from 37 million gallons to 55 million gallons. By eliminating the I-64 and Grinstead basin and extending the tunnel, MSD gains extra storage with an overall construction cost nearly the same. The significant cost savings is in operation of the tunnel versus the basins. There is one pump station instead of four to operate and maintain.

When the underground tunnel project is complete, the above-ground site will gain a new public green space that will serve as a trailhead for the Beargrass Creek Trail. The green space will have paths, trails, a rain garden and a wetland preservation area — nearly the same plan that was approved by the community for the basin site.

Recently, the Waterway Protection Tunnel reached its full depth of 220 feet below ground. Construction has entered its next phase where workers blast horizontally, making way for the arrival of the boring machine that will forge the 4-mile tunnel alignment. The Waterway Protection Tunnel will run under parts of the Ohio River, downtown Louisville, Butchertown, Lexington Road and Grinstead Drive.

The tunnel will be operational by the end of 2020 — the originally scheduled completion date for both the tunnel and basin projects.



Nighttime view from the tunnel shaft looking up.

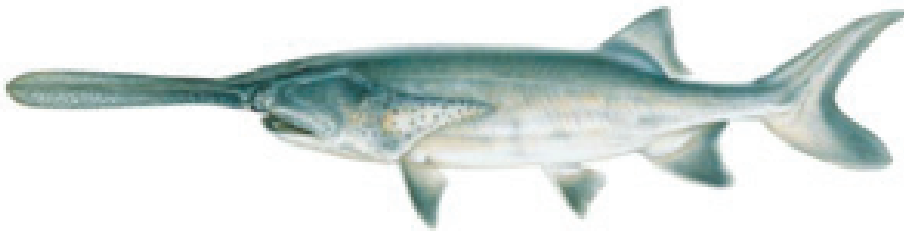




WHY FISH LOVE OUR TUNNEL PROJECT!

Our Louisville waterways are home to numerous species of fish, from bigger fish like paddlefish, blue bass, walleye, and striped bass, that inhabit our rivers, to smaller fish that prefer creeks and streams such as darters and long ear sunfish. It's exciting to think that some of the species of fish, like the paddlefish, were swimming around when the dinosaurs were roaming the planet over 65 million years ago!

CSO's are a key source of pollutants in Louisville waterways and they make living conditions challenging for our local fish species. Pollutants in the water can remove the oxygen that fish need to breath, or even block their ability to absorb oxygen through their gills. In polluted streams, biologists find fish crowded together in small nonpolluted sections of the stream. They cluster together in these unpolluted areas to access the oxygen that isn't available elsewhere. At MSD, we want to make it easier for our local fish populations to flourish in our waterways.



The Waterway Protection Tunnel project will help reduce the amount of pollutants going into our rivers and streams by diverting pollutants that overflow during a storm into the new tunnel where it can be held until it's safely treated.

HERE ARE SOME FUN WAYS FOR YOU TO ENJOY OUR LOCAL WATERWAYS!

5 BEST PLACES TO FISH IN AND AROUND LOUISVILLE:

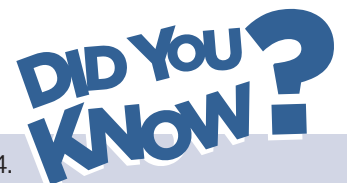
https://insiderlouisville.com/lifestyle_culture/hook-line-sinker-5-best-places-fish-louisville/

EXPLORE LOUISVILLE'S WATER MUSEUM, THE LOUISVILLE WATER TOWER PARK

<http://www.tappersfunzone.com>



To learn more about the Waterway Protection Tunnel visit LouisvilleMSD.org/tunnel.



The world's oldest subway tunnel is the Atlantic Avenue Tunnel in New York City, which was built in 1844.