MSD marks a true ‘breakthrough’

Excavation phase of Waterway Protection Tunnel now complete

LOUISVILLE, KY – “Let her rip,” exclaimed Jesse Salai, Shea Traylor JV Operations Manager on MSD’s Waterway Protection Tunnel, as he contacts to the tunnel boring machine driver. Salai and several others were suspended in a metal basket about 180 feet into the retrieval shaft, waiting for the tunnel boring machine’s breakthrough.

A moving, mechanical drill longer than a football field – that has been excavating a tunnel 18 stories below Louisville for more than a year – broke through its final wall of bedrock. The “breakthrough” marks a significant milestone in creating MSD’s Waterway Protection Tunnel, a four-mile tunnel that will reduce damaging and potentially dangerous sewer overflows that occur during heavy rains.

“This is one of the largest infrastructure construction projects you may never see,” said MSD Executive Director Tony Parrott. “With excavation complete, we will now shift to the next phase and keep the momentum going on this crucial public improvement.”

When complete next year, the 20-foot diameter Waterway Protection Tunnel will have the capacity to store up to 55 million gallons of combined stormwater and wastewater. Storing this until treatment capacity is available will help prevent sewer overflows that pollute area waterways, harm wildlife and plants, and create the risk of exposing people to harmful bacteria and pathogens.

The tunnel boring machine – nicknamed “Bumblebee,” in honor of Muhammad Ali’s famous “float like a butterfly, sting like a bee” phrase – excavated more than 625,000 tons of rock on its journey from 12th and Rowan streets just west of downtown to near Lexington Road and Grinstead Drive. The next phase of the project is to line the tunnel’s entire interior with 12-inch concrete to seal it and ready it to store stormwater and wastewater.

“Bumblebee has lived up to her nickname, as we’ve been hard at work virtually unnoticed underground while the Louisville community has gone about its business above ground,” said Jacob Mathis, MSD’s project
manager for the Waterway Protection Tunnel. “By tunneling, we’ve been able to greatly reduce the disruption caused by a major construction project like this.”

MSD approved the tunnel project to take the place of four storage basin projects and provide more storage capacity and greater operational efficiency, resulting in significant cost savings. The $200 million project is part of MSD’s Consent Decree with the federal government to reduce sewer overflows caused by heavy rains significantly.

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**VIDEO PACKAGE OF TUNNEL BREAKTHROUGH**

https://www.webcargo.net/l/0Vsqx0uMBp/

**Fun Fact:**
Samples of the rock MSD dug through as part of the excavation are on display at the Kentucky Science Center’s Waterway Protection Tunnel exhibit. The rock core samples reveal a bit of Louisville’s history as local geologists have determined they contain fossilized remains of sea creatures from more than 300 million years ago when Louisville was located near the equator. These fossils include horn corals and brachiopods that look like small clams.

About MSD
The Louisville/Jefferson County Metropolitan Sewer District (MSD) works to achieve and maintain clean, environmentally safe waterways for a healthy and vibrant community. The organization’s more than 670 employees provide wastewater management, drainage and flood protection services across the 376 square miles of Louisville Metro. In addition to operating and maintaining Louisville Metro’s sewer system, floodwall system, water quality treatment centers and flood pumping stations, MSD invests in hundreds of infrastructure improvement projects each year, plants more than 1,000 trees and other vegetation annually to enhance water filtration and reduce runoff, and provides numerous outreach programs to inform and educate the community about protecting our waterways.