**MEDIA RELEASE**

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**Bumblebee “knuckles” return to the surface**

*Cutterhead of Waterway Protection Tunnel boring machine cut through four miles of rock*

LOUISVILLE, KY – Bumblebee, the tunnel boring machine that recently completed cutting the 4-mile path of MSD’s Waterway Protection Tunnel 200 feet underground, began a piece-by-piece return to the surface on October 9, 2020. Bumblebee’s cutterhead, the 125,000-pound business end of the machine, was the first piece lifted by crane from a retrieval shaft near the intersection of Lexington Road and Grinstead Drive.

The Bumblebee nickname honors Louisville boxing great Muhammad Ali, whose “Float like a butterfly, sting like a bee” slogan described his approach to carving up opponents in the ring.

The cutterhead is the tip of the 412-foot long tunnel boring machine. Its 22-foot diameter circle has 38 cutters that could be viewed as the knuckles that applied nearly 1.5 million pounds of grinding knockout torque as the machine rotated against the bedrock below Louisville. It will take weeks to bring the remaining pieces of Bumblebee to the surface to be carted away on dozens of tractor-trailers to be reconditioned and prepped for its next underground bout.

A major milestone in the Waterway Protection Tunnel project was achieved when the machine made its final hole-through at the retrieval shaft on September 22 after a journey that began in a working shaft at Twelfth and Rowan streets in January 2019. The purpose of the 20-foot diameter tunnel is to capture and hold overflows from the sewer system during heavy rains to prevent the water from passing untreated into the Ohio River and Beargrass Creek.

The water will then be pumped from the tunnel back into the sewer system for treatment as capacity becomes available before being released to the Ohio River. The tunnel, which must be lined with a foot of concrete before it is put into service during the second half of 2021, will hold up to 55 million gallons of stormwater and wastewater at any time.

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

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**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.

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**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.