

*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.*

## MEET THE PROJECT MANAGER



**NAME:**  
Jacob L. Mathis, P.E.

**TITLE:**  
Engineer II

**PROJECT:**  
Waterway Protection Tunnel

**EDUCATION:**  
Bachelor of Science, Civil Engineering  
Purdue University (West Lafayette, Indiana)

**EXPERIENCE:**  
Louisville MSD  
Jacob, Toombs and Lanz Inc.  
Mindel Scott & Associates, Inc

**HOW HE BECAME AN ENGINEER:**  
"It just kind of happened. I started as a chemistry major, but I couldn't see a life in chemistry. My dad was a carpenter, and I was always good with my hands, and engineering seemed to be a good way to blend those things together."

**ON ENGINEERING:**  
"What school teaches is the principles behind the design, but not the practical aspect. You can design anything on paper, but you have to be able to adapt and change as things go."

**ON THE WATERWAY PROTECTION TUNNEL:**  
"When you look at the plans, it seems simple. But this project was originally three basins that we combined into one very large project. It is a 2.5-mile tunnel that we designed in nine months. There was never a break from the moment we decided to change the project. It's been constant forward momentum."

**IN HIS SPARE TIME:**  
"I'm remodeling my basement, so even in off-time, I'm building and reworking things, just on a smaller scale. Ultimately, that is what I enjoy: putting together plans and making them come to life."

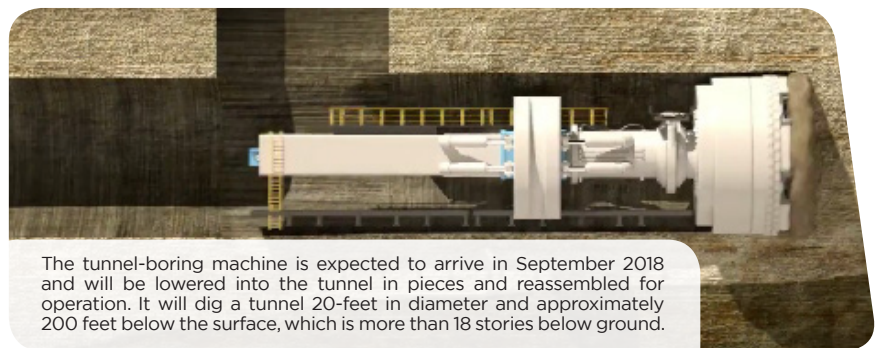
## WATERWAY PROTECTION TUNNEL CONSTRUCTION UNDERWAY

More than 2 billion gallons of rainwater and wastewater overflow into local waterways each year. Thankfully, construction is underway on MSD's \$200 million Waterway Protection Tunnel that is designed to mitigate this problem.

The tunnel - planned for completion in 2020 - is an innovative way to store this overflow of rainwater and wastewater underground until it can be pumped to MSD's Morris Forman Water Quality Treatment Center. It will be able to store up to 37 million gallons of combined rainwater and wastewater when complete.

The project is one part of MSD's \$900 million Project WIN that will reduce sewer overflows by 98 percent in a typical rainfall year. The tunnel replaces three storage basins originally planned to be located near Lexington Road and Payne Street; Story Avenue and Main Street; and 13th and Rowan streets, allowing for more storage capacity at the same cost. Construction on the tunnel project will create about 200 jobs.

Construction on the tunnel working shafts - 44 feet in diameter and used to access the tunnel - began in January 2018. Upon completion of the project, the construction staging area at 12th and Rowan streets will be turned over to the Waterfront Development Corporation to be developed into an expansion for Waterfront Park.



The tunnel-boring machine is expected to arrive in September 2018 and will be lowered into the tunnel in pieces and reassembled for operation. It will dig a tunnel 20-feet in diameter and approximately 200 feet below the surface, which is more than 18 stories below ground.





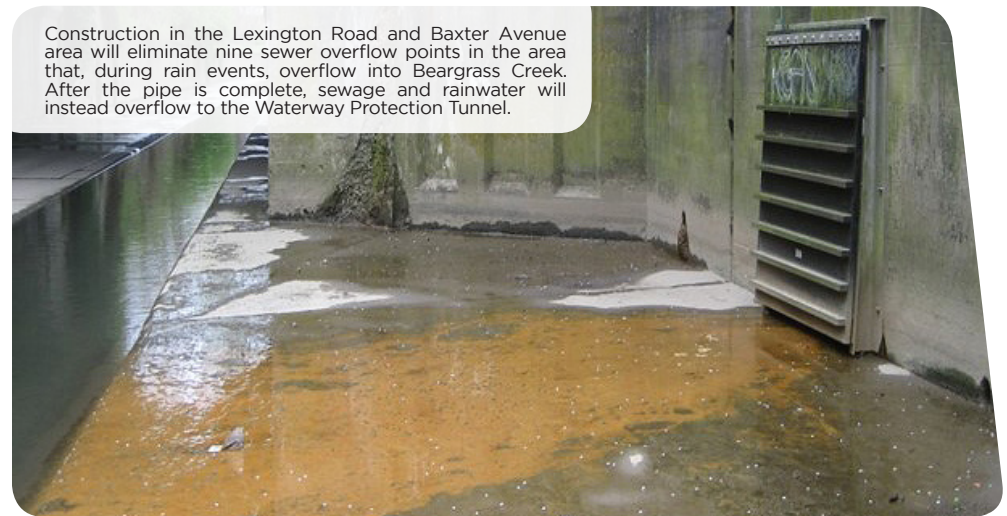
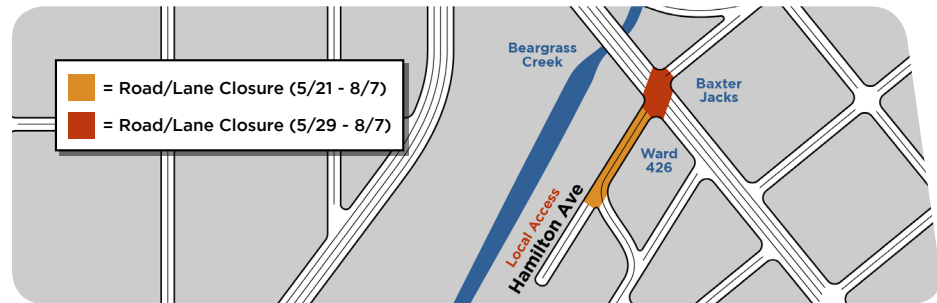
### CONSTRUCTION SCHEDULE

- **JAN. 2018 — JUL. 2018**  
Working Shaft & Pump Station Shaft Construction
- **APR. 2018 — NOV. 2018**  
Retrieval Shaft Construction
- **SEP. 2018**  
Tunnel Boring Machine Setup
- **OCT. 2018**  
Tunnel Boring Begins
- **NOV. 2018 — SEP. 2019**  
Tunnel Boring Machine Mining
- **AUG. 2019 — JUN. 2020**  
Tunnel Concrete Lining
- **JUL. 28, 2020**  
Substantially Complete - Operational
- **SEP. 26, 2020**  
Final Completion
- **DEC. 31, 2020**  
Consent Decree Deadline

## TUNNEL CONSTRUCTION LEADS TO TRAFFIC DETOURS

### LEXINGTON AND BAXTER:

Construction at the Lexington Road and Baxter Avenue area will take place May 21 through August 7, 2018. There are nine overflow spots in the area where, during rain events, sewer lines overflow into Beargrass Creek. To help address this problem, MSD will construct a new sewer line that will convey this sewage and rainwater overflow to the Waterway Protection Tunnel. All businesses at both sites will remain open with local access for parking. Detours will be marked.



Construction in the Lexington Road and Baxter Avenue area will eliminate nine sewer overflow points in the area that, during rain events, overflow into Beargrass Creek. After the pipe is complete, sewage and rainwater will instead overflow to the Waterway Protection Tunnel.



The tunnel will begin just west of the central business district, at 12th and Rowan streets. It will continue east and southeast for 2.5 miles, ending near Home of the Innocents.

To learn more about the Waterway Protection Tunnel visit [LouisvilleMSD.org/tunnel](http://LouisvilleMSD.org/tunnel).

