



PRESS RELEASE

FOR IMMEDIATE RELEASE

December 22, 2016

MEDIA CONTACT: Deb Leonard at (513) 557-7095 (office), (513) 316-7510 (mobile), or Deb.Leonard@cincinnati-oh.gov

MSD is Building Smarter Sewers

Enhancing efficiency and reducing costs for ratepayers

CINCINNATI – MSD is building a smarter sewer system that will help reduce sewer overflows into our creeks and rivers. And the cost is less than any other solution, gray or green.

“Our smart sewer system is anticipated to save tens of millions of dollars in capital investments in projects to control sewer overflows,” said MSD Director Gerald Checco. “This is our best chance of reducing spending and ultimately costs for our ratepayers.”

Like many wastewater utilities across the nation, MSD is faced with an unfunded Consent Decree (federal mandate) to keep raw sewage mixed with stormwater out of our waterways when it rains.

So how do you make a massive public works program to fix the sewer system more affordable to customers who cover the costs, many of whom are living below the poverty level?

Answer: You look for new and creative ways to use what you already have.

Over the last two years, MSD has been working to develop a smarter sewer system that uses our existing sewer system more efficiently and effectively.

For example, when it rains in one part of Cincinnati, the interceptor sewers in that location may be full, but other areas where it hasn't rained may have lots of available capacity.

This approach allows MSD to store flows inside large interceptor sewers, storage tanks, and high-rate treatment facilities in different parts of the sewer system using sensors to measure flow levels and gates and valves to direct the flows. The entire system is controlled by a SCADA computer system. This helps keep sewage in the pipes and out of our creeks.

In early 2015, MSD deployed its new smart sewer system in the Mill Creek basin, which covers the central portion of Hamilton County.

Within the first several weeks of operation, the technology was used to store flows at a high-rate treatment facility, avoiding 1.4 million gallons in sewer overflows at a location nearly 11 miles away.

“The cost savings results from not having to build as many new capital projects to reduce the overflows, such as larger sewers and storage tanks,” said Melissa Gatterdam, head of MSD’s watershed operations division. “Gray infrastructure in particular is very expensive and takes a long time to plan and construct.”

Early data shows that smarter sewers cost about \$0.01/gallon of overflow volume reduced, as compared to about \$0.23/gallon for green stormwater controls and about \$0.40/gallon for larger pipes and storage tanks.

South Bend, Ind. recently invested in a similar technology, which is projected to reduce its Consent Decree spending by about 27%.

“Smarter sewers are a no-brainer kind of tool to have in our toolbox to help reduce sewer overflows in our community,” said Gatterdam. “Since first launched, this technology has reduced overflows by more than 400 million gallons.”

MSD would like to advance this technology, known officially as Wet Weather Optimization, in other MSD basins. The utility would also like to invest in a new operational project to upsize the underflow pipes between local sewers and interceptor sewers in the Mill Creek basin to allow interceptor pipes to hold even more flow.

This practical technological innovation is featured in the Fall/Winter 2017 edition of *Sustain Magazine*, published by The Kentucky Institute of the Environment and Sustainable Development (see attached PDF of the article).

For more information about smarter sewers, you can also view our video at:

<https://www.youtube.com/watch?v=XSwQqMBH6lq>

###