

15 Mile Sewer Interceptor Overview

(All data current as of Feb. 15)

On Dec. 24, 2016, the Macomb Interceptor Drain Drainage District sewer interceptor collapsed along 15 Mile Road, at Eberlein Drive in Fraser, Mich. Since then, only minimal sewage has been able to pass through the line. The collapse affects the sewerage service to more than 500,000 residents of Macomb County.



What is the history of this interceptor?

1973: This 11-foot diameter sewer pipe, the bottom of which is approximately 60 feet below 15 Mile Road, was built in 1975 to carry the sewage collected from 11 Macomb County communities to a sewer treatment plant in Detroit.

1978: In 1978, about 1,000 feet to the west of the current collapse, the pipe experienced a similar collapse, in Clinton Township. The debt to pay for the repairs to the pipe in 1978 – about \$25 million -- has been paid off.

2004: In 2004, about 1,000 feet west of the 1978 collapse, between Moravian and Hayes in Sterling Heights, a similar collapse occurred. That collapse never resulted in a complete blockage of the interceptor. The repair for that project was over \$53 million, resulting in an increase in the average homeowner's sewer rate of about \$12 per year until the debt is retired, which is expected in about 2030. The 2004 collapse happened on Aug. 22, 2004. Final work was completed on the repairs, road re-surfacing, etc., in June 2005.

2016/2017: On Dec. 24, 2016, a sinkhole roughly 50 feet wide, 260 feet long and 3 feet deep occurred along 15 Mile Road, at Eberlein Drive, in Fraser. (Clinton Township is on the opposite side of 15 Mile Road. Repair work on this project is estimated to be somewhere between \$75 and \$140 million, depending on which repair plan is adopted.



Home damaged by collapse of sewer line.

How much sewage has been dumped into the Clinton River?

On Dec. 26, 2016, nearly 13 million gallons of raw sewage was dumped into the Clinton River to prevent sewage back-up into Macomb County basements. Since then, no sewage discharges have occurred as a result of this sewer collapse.

What will it cost to repair the damaged pipe?

The cost to repair the sink hole (Phase 1) is estimated to be \$70-\$75 million. Further, a plan has been developed to “strengthen” an additional stretch of the collapsed pipe. This proposed Phase II work is another \$70-\$75 million. Therefore the permanent fix is estimated to be \$150 million, assuming Phase II is adopted.

These cost are only estimates, as Phase I is currently out to bid. Bids will be due and a contract awarded in late February. Once we are able to inspect condition of the remaining sections of the interceptor we will have a better cost estimate for Phase II. We will be working with the 11 MIDD communities to determine their desire to begin and fund the Phase II work.

Public Works is seeking both Federal and State funding and assistance. Absent this assistance, we project that a \$150 million bond issued for 25 years would result in a 8%-9% increase in sewer costs for the residents and businesses of the 11 MIDD communities. Each of the 11 communities set their own retail sewer rates. However, on average, this cost would equate to a \$40 increased annual sewer bill per home to be paid over the next 25 years. All of these cost would not be passed on starting this July 1st, but may take several years to fully be implemented due to the timing of the construction and issuance of bonds.

Are my taxes going up to pay for this?

No. For the most part, all of this work is being paid for by the rates paid by sewer customers in the MIDD district. Some tax dollars may be used to re-pave 15 Mile Road and related roadwork. Also, any government grants received likely originated as tax dollars. Any work done by police, fire or similar response agencies in the immediate aftermath of the collapse was funded by taxes. All repair work is being paid for by MIDD sewer rates, minus any state or federal grants received. One



Long-term bypass pipes are installed at 15 Mile and Utica roads.



Gov. Snyder and other state and local leaders tour the sinkhole on Jan. 8, 2017

source of state funds will be a \$100,000 emergency grant that the county and possibly one or more municipalities will be able to tap into.

Does this impact what I pay for water service?

No. Sewer and water rates are completely independent, though you typically see them on the same bill.

Who owns this pipe?

The pipe was built by the Detroit Water & Sewerage Department in 1973. DWSD owned the pipe until 2009, at which time the Macomb County Office of Public Works took over the pipe on behalf of the Macomb Interceptor Drain Drainage District (MIDD) and assumed some \$90 million in existing debt. The exact nature of that transaction between DWSD and MCOPW is under review.



Public Works Commissioner Candice S. Miller with elected leaders of the 11 MIDD communities.

When was the pipe last inspected?

It is believed the last inspection took place at the time the MIDD accepted ownership of the pipe in 2009.

What is the MIDD?

The Macomb Interceptor Drain Drainage District (MIDD). The MIDD is made up of Fraser, Sterling Heights, Utica and New Haven and Chesterfield, Shelby, Clinton, Harrison, Lenox, Washington, and Macomb townships, plus Selfridge Air National Guard Base. According to 2015 Census Bureau numbers the communities in the MIDD district have a combined total **population of 527,772**. (Utica and New Haven are 2013 estimates). The communities have a combined total of **more than 43,000 businesses** (of all types) according to 2012 Census Bureau data.

What is the OMIDD?

The Oakland-Macomb Interceptor Drain Drainage District is a neighboring sewer line. It is completely independent of the MIDD, though eventually they both feed into the same system to transport sewage to the treatment facility in Detroit.

Are people on septic systems impacted by this?

The MIDD only bills people who are hooked up to the sanitary sewer system. Septic systems are independent of the MIDD system. Those on septic systems will not be billed for MIDD repairs.

Who governs the MIDD? Who will be making decisions on the bills?

The MIDD board is currently the Public Works Commissioner, the chairman of the Macomb County Board of Commissioners and the chairman of the Board of Commissioners' Finance Committee. On April 1, 2017, a new law will go into effect that will change the make-up of the MIDD board to the Public Works Commissioner, a designee of the Macomb County Executive and the county commissioner whose district encompasses the largest portion of the MIDD. After April 1, therefore, those members will be Commissioner Candice Miller; Bryan Santo (designated by Macomb County Executive Mark Hackel); and Macomb County Commissioner Rob Mijac. Santo is the director of the Macomb County Dept. of Roads. Prior to April 1, the board will be Miller and Macomb County Commissioner Bob Smith (board chairman) and Veronica Klinefelt (finance committee chair).



Damaged home on Eberlein Drive (seen from 15 Mile Road).

What about the damaged homes?

On Dec. 24 (Christmas Eve) 2016, the collapse and resulting sinkhole was first reported shortly after noon. Two homes on Eberlein Drive were condemned. One home on 15 Mile Road was condemned. An additional 20 homes on Eberlein were evacuated, due to the fact that the only road into and out of the subdivision was the intersection of Eberlein and 15 Mile Road – the exact location of the sinkhole. After a temporary road was built to the west, the residents of 20 homes on Eberlein were able to return home. They were evacuated from 24 Dec 2016 to 8/9 Jan 2017 (15 days). 23 homes impacted in total.

Who will pay for those homes?

Macomb County is working with homeowners in two ways. For the 20 homes that were evacuated, but not damaged, the county is reimbursing reasonable expenses as a result of the relocation. The county is also reimbursing costs of the three damaged homes and is seeking the appropriate legal avenue to purchase those three homes at a fair market price from the homeowners. It is anticipated that all three of the condemned homes will eventually be demolished.

What are the by-pass pumps?

The by-pass of the collapsed sewer line is essentially happening in three phases:

Emergency by-pass pumps and pipes. These were put in place on Dec. 26. These pipes do not have the capacity to handle all of the sewage flow that passes through the interceptor line

on a daily basis. These pipes are being used in conjunction with a small, partial flow that is still possible through the damaged interceptor line. At issue is that some small, continued collapsing of the interceptor line, which is some 60 feet below ground, has further reduced the flow capacity of the line. While this has not caused an expansion of the sinkhole, it has reduced the ability of the Office of Public Works to be able to respond to a significant rainfall.

The temporary by-pass pumps and pipes. This pipe, 36 inches in diameter, in conjunction with the limited flow capacity in the collapsed sewer line will allow the system to handle a the “dry weather” sewage flow without the need to discharge sewage into the Clinton River. A major rainfall prior to the installation of the temporary by-pass could damage the system further and/or result in a discharge of raw sewage into the Clinton River.

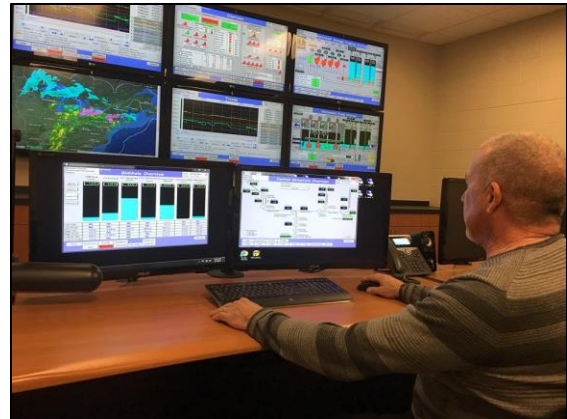
The long-term by-pass pipes. This combination of 54-inch pipes and 48-inch pipes are now being installed and are anticipated to be completed by early March. These pipes will allow for a complete stoppage of flow in the collapsed sewer main so that line can be completely pumped out and repaired. It is anticipated that complete repair of the line could take much of 2017 to complete.

What is the status of the State of Emergency?

Fraser, Clinton Township, Macomb County and the State of Michigan have all formally declared the sewer collapse an emergency situation. The Macomb County Emergency Management Dept. is coordinating the emergency response in conjunction with the Office of Public Works. This emergency declaration allows the Office of Public Works to apply for various state grants and low-interest loans. These applications are now being made. The Office of Public Works, as well as some of the municipalities involved in the collapse are eligible to apply for up to \$100,000 in emergency funds administered by the state.

Where can I get more information?

<http://publicworks.macombgov.org/PublicWorks-MacombInterceptor>



Macomb County Public Works employee Joe Betz monitors the sewage flow in Macomb County using the SCADA system. The system allows the office of public works to monitor sewage flow throughout the county.