

Environmental Crisis Narrowly Averted After Tuesday's Rain

Call it the disaster that never happened.

Macomb County Office of Public Works engineers turned on the sewage discharge pumps on Tuesday night – pumps that would have sent millions of gallons of raw sewage into the Clinton River – but never had to open the valves that would release that sewage into the river and ultimately into Lake St. Clair.

With only capacity for a few more gallons of sewage in the system after day-long rain in Macomb County on Tuesday, Feb. 7, levels in the Macomb Interceptor Drain Drainage District (MIDD) system finally started to subside about 11 p.m., narrowly averted an environmental disaster.

“It was a hair-raising experience,” said Macomb County Public Works Commissioner Candice S. Miller, who spent much of the night at the command center set up near the collapsed portion of the interceptor along 15 Mile Road in Fraser. “Our engineers, our contractors – I am immensely grateful for the work they did last night.”

The Office of Public Works recorded 1.01 inches of rain in central Macomb County on Tuesday, with about 0.5 inches falling in a 45-minute period around the dinner hour. As it takes several hours for the rainwater to make its way into the sewer system and approach the collapsed pipe – which ultimately transports the sewage to a treatment facility in Detroit – sewage levels in the system, and the heart rates of the system engineers, started to rise rapidly around 8 p.m.

The challenge was exasperated when a key pump failed, just as levels were rapidly rising. The pump, one of two that sends sewage around the collapsed section of pipe, had a mechanical failure just as the levels were nearing the peak. The pump had to be brought off line as mechanics worked quickly to repair it – scavenging parts from another pump – and get it back on line.

Public Works engineers turned on the sewage discharge pumps to pump the sewage into the Clinton River when the level of sewage in the line passed 566.5 feet of elevation – 567 is the danger line at which sewage must be discharged or it will enter thousands of basements in Clinton and Harrison Townships. The sewage eventually reached 566.8 feet before it began to subside – less than 2.5 inches from capacity. The discharge pumps ran for about 15 minutes, but the gates never opened to allow the sewage into the river.

The crisis was averted, at least in part, due to the ongoing water and sewer conservation measures being taken by residents of the 11 Macomb County communities that make up the MIDD. Over the weekend, many residents and businesses in the MIDD took conservation actions – such as using paper plates to avoid running dishwashers – due to concerns over heavy restroom usage during the Super Bowl football game on Sunday. Those efforts resulted in total lower than normal sewer volumes on Sunday, meaning there was extra capacity in the pipes to hold Tuesday's rain.

At 4 p.m. Tuesday, Miller and Public Works engineers had held a press briefing in which they expressed optimism about the evening. Even as that briefing was taking place, however, a more intense rain passed through parts of Macomb County. That intense rain pushed the MIDD system to the limit as the rain water eventually made its way into the sewer system over the next several hours.

Engineers are now working to reduce the levels in the MIDD system and are confident the levels will be back to normal prior to a forecast of possible rain or snow on Saturday and Sunday. The rain recorded on Tuesday was the most intense rainfall recorded since the interceptor collapsed on Dec. 24, 2016.

“I cannot express my gratitude enough to the people who were working on Tuesday night and really, all of the people who have been reducing their water usage. People ask, ‘has it really made a difference?’ Tuesday night, it was all the difference,” Miller said.