



TOWNSHIP OF EDWARDSBURGH CARDINAL INFORMATION ITEM

Committee: Combined AF- Public Works, Environmental Services & Facilities

Date: June 20, 2022

Department: Environmental Services

Topic: Cardinal Sewer Force Main Break

Background:

A sewage force main break occurred in Cardinal on June 7th. Below is a summary of events and corrective actions undertaken.

10:05 a.m. Received a concern from a resident at 304 Walter Street of a pressurized leak in the force main easement north of his property.

10:10 a.m. - E/S on site to investigate and confirmed a sewer force main break. ORO advised Director of Operations.

10:15 a.m. Staff contacted Green For Life, (GFL), in Iroquois to provide a tanker truck to shuttle sewage from the Adelaide Pumping Station to the Cardinal Wastewater Plant.

10:25 a.m. ORO submitted an Emergency locate to Ontario One Call (#2022248838)

10:35 a.m. ORO and E/S crew set up a 4-inch pump at the Adelaide Street Pumping Station. GFL truck on site. Clean Water Works (CWW) completing work at the Cardinal Water Plant. Hydro-Vac truck will assist in excavation to locate force main.

11:30 a.m. E/S pumping from Adelaide Station wet well to GFL tanker (40 m3 capacity).

11:33 a.m. ORO contacted the Spills Action Centre. Spoke with Neil Hamilton. Advised Mr. Hamilton that sewage had flowed from surface to canal embankment due to a force main break. The St. Lawrence River would be the receiving river. ORO advised that shuttle operations have started. Report # 1-1U1WWG provided. Mr. Hamilton requested a phone call back before 5 p.m. for a status update.

11:44 a.m. EC ORO left a voice message with the closest downstream water treatment plant, South Dundas, (ORO Dennis Villeneuve).

12:05 p.m. EC ORO left a voicemail report with the Leeds & Grenville Health Unit and Monica Howlett (MECP)

12:30 p.m. All emergency locates received. Public Works and Clean Water Works (CWW) started excavating.

12:35 p.m. The chart recorder showed an increase in pump rate at 9:35 a.m. of approximately 8 liters/second. This is consistent with the timeline of the break. Based on the following calculation staff estimate approximately 9.6 m³ of sewage spilled from the force main break.

$$\frac{8 \text{ Liters}}{\text{second}} \times \frac{60 \text{ seconds}}{\text{minute}} \times \frac{5 \text{ minutes}}{\text{cycle}} \times 4 \text{ cycles} = 9600 \text{ Liters or } 9.6 \text{ m}^3$$

13:07 p.m. Received a call back from Kim McCann (Leeds & Grenville Health Unit). Advised her of the current situation and planned corrective actions. No additional requirements from the health unit.

13:50 p.m. Excavation spoils being transported to the Spencerville Lagoons. A significant horizontal crack occurred along the top of the pipework from the bell connection for approximately 13 feet.

14:25p.m. ORO sent an update via Email to Monica Howlett (MECP).

15:20 p.m. ORO contacted the Spills Action Centre and spoke with Neil Hamilton. Updated on current events and committed to notify the Centre once work is completed.

15:45 p.m. CWW hydro-vacuuming to better expose pipework.

17:00 p.m. Section of pipework was replaced, and Adelaide station pumps were cycled to monitor for leaks. No leaks were observed.

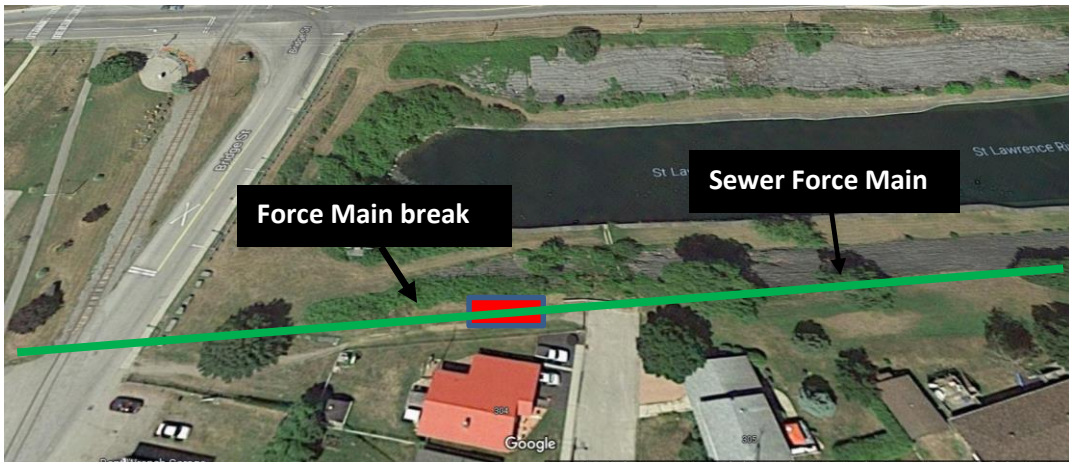
17:15 p.m. ORO notified Spills Action Centre that repairs were completed and sent an email to Monica Howlett, MECP.

17:25 p.m. ORO advised Director of Operations and CAO via email that repairs have been completed. ORO placed order with Crane Supply to restock materials used in repair.

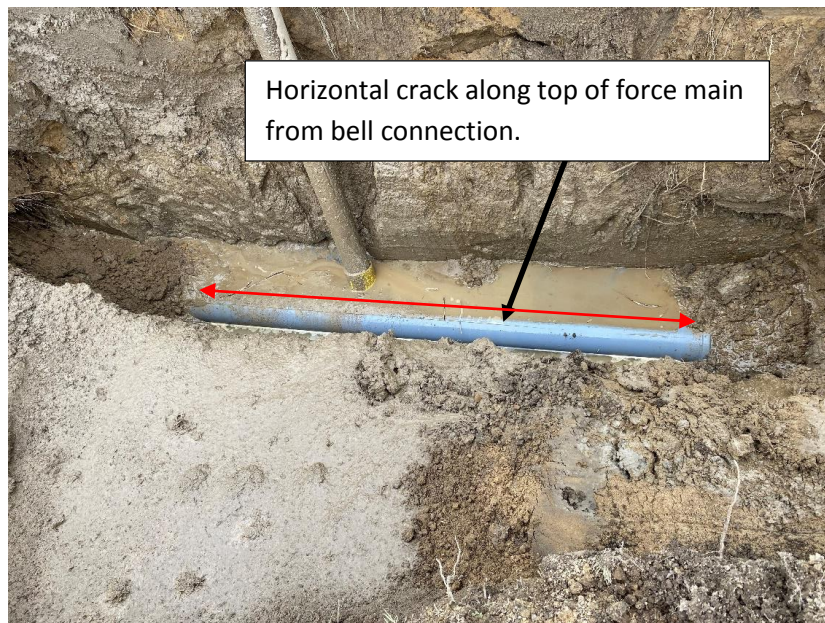
17:45 p.m. Public Works adding clean fill and cleaning up site.

Final expenses of the operation will be determined once all invoices have been received.

Location of Sewer Force Main break



Type of Break



Section of pipe replaced



Eric Wemerman

Eric Wemerman
Chief Water/Sewer Operator