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# Cole Municipal Drain Spill Response

# Welcome







# Callout

- On August 17, 2022, a member of the public reported a sewage odour and discoloured water in the municipal drain along Line 5 Road
- Town staff responded and assessed
  - Stained water and sewage odour indicated an organic pollutant in the ditch causing anaerobic conditions
  - There was no apparent source and the exact material was not known, however the source was probably a spill or discharge based on experience with previous spills
  - Regardless of the exact material causing the observed conditions, the potential harmful effects on aquatic ecology from high organic loading of surface water are well known
- Town staff notified the Ministry of Environment, Conservation, and Parks (MECP) Spills Action Centre (SAC) as required by Part X of the Ontario Environmental Protection Act





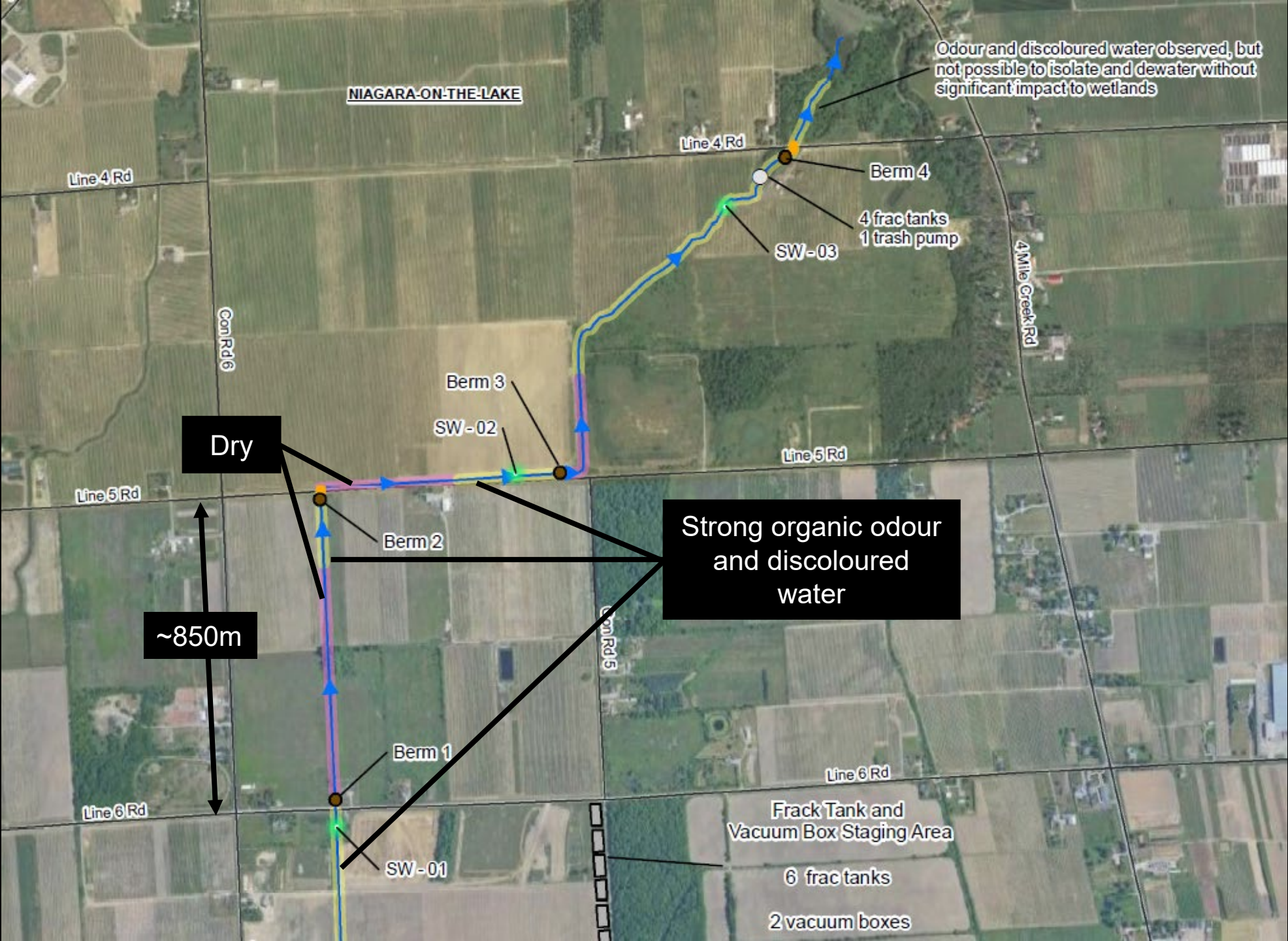
# Initial Response

- A provincial officer from MECP visited the scene, inspected the water in the drain, and directed the Town to:
  - 1) hire a contractor to remove polluted water from the ditch
  - 2) hire an environmental consultant to supervise and advise on the cleanup
  - 3) maintain 24/7 supervision
- The Town installed soil berms at 4 locations between Line 4 Road and Line 6 Road to isolate the polluted water in the drain and prevent downstream migration
- The Town retained a remediation contractor, Accuworx, to assist with containment and dewatering,
- The Town retained GHD, an environmental consultant, to provide environmental engineering services





Conditions on  
August 19, 2022:













# Dewatering

- From August 18, 2022 to August 20, 2022, 24/7 dewatering using vacuum trucks and a pump was undertaken to remove polluted water from the isolated areas of the ditch and contain in portable frac tanks
- Resources deployed for the 24/7 dewatering work generally included 3 vacuum trucks, 10 frac tanks, one pump, and several staff
- Water was shipped from the frac tanks to More's Refining, a local commercial wastewater treatment facility
- Overnight on August 21, 2022, the drain between Line 4 Road and Line 6 Road had been dewatered to the extent practicable. Vacuum trucks were released except 1 which was maintained until August 30 for periodic removal on day shift only
- GHD provided 24/7 supervision of dewatering operations as required by MECP until August 21, 2022. At that time the cessation of 24/7 supervision was negotiated with MECP
- In total, an estimated 1.8 MM L of water was removed from the ditch









# Wastewater Disposal

- Approximately 1.1 MM L of water was shipped to Mors Refining from August 18, 2022 to August 20, 2022
- It was identified early in the work that cost savings could be achieved if the wastewater could be disposed at a local municipal wastewater treatment plant.
- Laboratory analyses of water samples were required before this alternative could be pursued
- Beginning August 21, 2022 the remaining water in the holding tanks (approximately 700,000 L) was disposed at the Niagara-on-the-Lake Sewage Treatment Plant or the Port Weller Sewage Treatment Plant







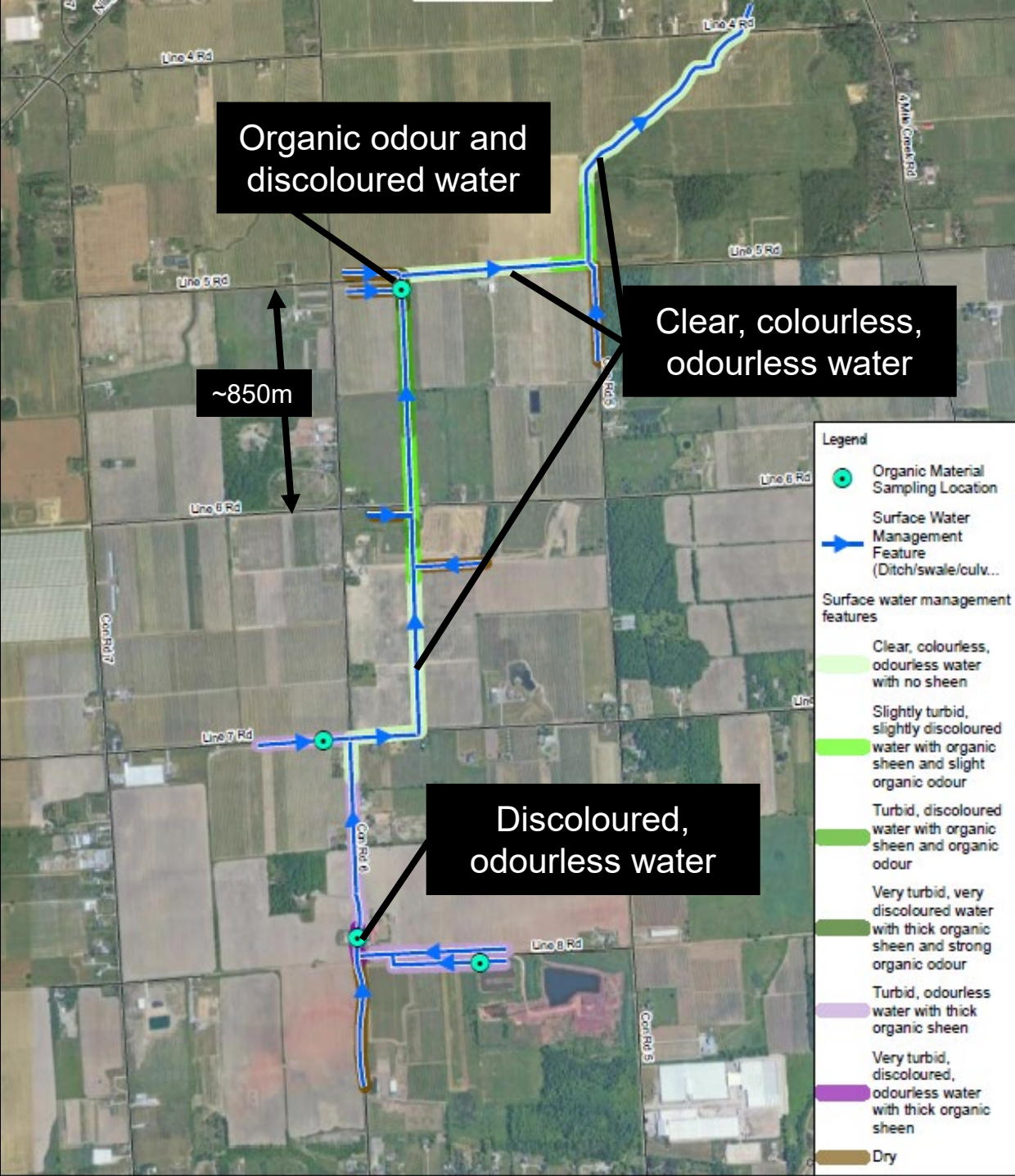


# Investigation

- Investigation of the nature of the polluting material and potential sources is underway separate from cleanup operations. Work completed to date includes:
- Assessing water and sediment quality to assess any potential identifying characteristics of the polluting material
- Physical and chemical analyses to investigate the spatial distribution of polluting material in the drain
- Identification and investigation of potential sources









# Next Steps

- Continue investigation
- Water sampling to monitor return to normal function
- Prepare closure report to document the response and final conditions







**\* Thank You**