

PUBLICLY RELEASED BY COUNCIL ON NOVEMBER 27, 2019

Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la Protection
de la nature et des Parcs



Provincial Officer's Order

Order Number
1-J25YB

Environmental Protection Act, R.S.O. 1990, c.E 19 (EPA)
Nutrient Management Act, R.S.O. 2002, c.4 (NMA)
Ontario Water Resources Act, R.S.O. 1990, c.O. 40 (OWRA)
Pesticides Act, R.S.O. 1990, c. P11 (PA)
Safe Drinking Water Act, S.O. 2002, c.32 (SDWA)

To: HAMILTON, CITY OF
700 WOODWARD Ave N
HAMILTON ON L8H 6P4
Canada

Site: WW HAMILTON-WOODWARD AVE WWTP
700 WOODWARD AVE,
HAMILTON, L8H 6P4,
Canada

Work Ordered

Pursuant to my authority in sections 16 and 16.1, and subsection 104(2) of the Ontario Water Resources Act, and in section 157 and 157.1 and subsection 196(1) of the Environmental Protection Act, I hereby require you to take all necessary steps and to do the following:

1. (a) Retain a licensed external Professional Engineer with appropriate expertise to quantify the volume and contaminant loadings associated with the sewage discharged from the Main/King CSO facility to Chedoke Creek between January 28, 2014 and July 18, 2018. Submit a written report on the results of 1. (a) to the undersigned Provincial Officer by September 30, 2018.
1. (b) Retain a licensed external Qualified Person (QP) with appropriate expertise in remediation of wastewater discharges to the natural environment, to evaluate impacts to Chedoke Creek from the sewage discharged from the Main/King CSO facility to Chedoke Creek between January 28, 2014 and July 18, 2018. This evaluation shall identify whether remediation and/or mitigation of Chedoke Creek is required, and (if remediation and/or mitigation is recommended), make recommendations regarding the most effective way to complete the remediation and/or mitigation. Submit a written report on the results of 1. (b) to the undersigned Provincial Officer by October 31, 2018.
1. (c) Submit a written report on the associated implementation timeline for any necessary remedial and/or mitigation work with respect to Chedoke Creek, to the undersigned Provincial Officer by November 30, 2018.
2. Submit a Spill Report of this sewage discharge incident to the undersigned Provincial Officer by August 15, 2018 outlining details and time line of receiving HCA/RBG and SAC spill report, City staff response to spill, sample results, confirmation of clean up efforts and summary of clean up actions taken to date. Identify any non-conformances with Standard Operating Procedures and demonstrate how they will be addressed under Item No. 3 below.
3. Submit to the undersigned Provincial Officer by September 30, 2018 revisions to the following spills procedures that informs and directs action by City staff in the event of sewage spills from the collection system including but not limited to pipes, manholes, catch basins, pumping stations and tanks (including CSO tanks) in both dry and wet weather conditions consistent with the reporting requirements under the Ontario Water Resources Act and the Environmental Protection Act:
 - Spills Response Notification, Coordination and Corrective Actions, PW-WW-P-012-003, Issue 5
 - BCOS – Spills Emergency – Plant Operations, Issue 16
 - BCOS Emergency Main Sewer Spill, PW-WW-DC-WC-P-012-005, Issue 5

The listed procedures shall be reviewed and updated at a minimum frequency of once every 3 years.

All necessary City staff shall receive annual training on the Spills Response Notification, Coordination and Corrective Actions, PW-WW-P-012-003 procedure, and records of this training shall be maintained in conformance with the City's records retention procedures.

4. Inspect all CSO facilities and inventory all:

- a. Critical valves (bypass gates), control points (overflows) which can be a source of a discharge to the natural environment and which would not be captured by existing flow monitoring equipment; and
- b. Confirmation of manual and SCADA valve position correlation and local or remote control.

A written report of the results of the inspection required by Item No. 4 shall be submitted to the undersigned Provincial Officer by October 31, 2018.

5. Identify all combined sewer overflow points (controlled and uncontrolled) within the City of Hamilton and submit a detailed map of the exact locations and spreadsheet of the combined sewer overflow points in a written report to the undersigned Provincial Officer by October 31, 2018.

6. Using the information obtained from Item No. 4 and if applicable, Item No. 5 above, review and update drawings, PCN's and develop a written Operation and Maintenance Plan (the "O & M Plan") for each of the City's CSO facilities that identifies critical equipment and environmental discharge control points. The O&M Plan shall include, but not be limited to: annual manual valve position checks of critical valves; monthly visual inspections of overflow structures at CSO facilities equipped with station by-pass structures that discharge directly to the natural environment; and annual flow meter calibration. The O & M Plan for all CSO facilities equipped with a station by-pass structure shall be submitted to the undersigned Provincial Officer by January 31, 2019.

7. Evaluate in writing the need for modification(s) to the Main/King CSO facility, to improve monitoring, performance, reliability and to minimize bypasses/overflows/spills into the 2400 mm storm outfall from the overflow trough and inlet chamber bypass.

8. Evaluate in writing the need for modification(s) similar to those required by Item No. 7 above for all other CSO facilities within the Hamilton Wastewater Collection System to minimize bypasses/overflows/spills.

9. Submit a written report to the undersigned Provincial Officer by October 31, 2018 which sets out the evaluation required by Item No. 7 and 8 above, along with recommendations and timelines to implement these recommendations.

A. While this Order is in effect, a copy or copies of this order shall be posted in a conspicuous place.

B. While the Order is in effect, report in writing, to the District or Area Office, any significant changes of operation, emission, ownership, tenancy or other legal status of the facility or operation.

This Order is being issued for the reasons set out in the annexed Provincial Officer's Report which forms part of the Order.

Issued at City of Hamilton this 02/08/2018 (dd/mm/yyyy)



Shelley Yeudall
Badge Number: 881
Hamilton District

APPEAL/REVIEW INFORMATION

REQUEST FOR REVIEW

You may request that this order be reviewed by the Director. Your request must be made in writing (or orally with written confirmation) within seven days of service of this order and sent by mail or fax to the Director at the address below. In the written request or written confirmation you must,

- specify the portions of this order that you wish to be reviewed;
- include any submissions to be considered by the Director with respect to issuance of the order to you or any other person and within respect to the contents of the order;
- apply for a stay of this order, if necessary; and provide an address for service by one of the following means:
 1. Mail
 2. Fax

The Director may confirm, alter or revoke this order. If this order is revoked by the Director, you will be notified in writing. If this order is confirmed or amended by order of the Director, the Director's order will be served upon you. The Director's order will include instructions for requiring a hearing before the Environmental Review Tribunal.

DEEMED CONFIRMATION OF THIS ORDER

If you do not receive oral or written notice of the Director's decision within seven days of receipt of your request, this order is deemed to be confirmed by order of the Director and deemed to be served upon you.

You may require a hearing before the Environmental Review Tribunal if, within 15 days of service of the confirming order deemed to have been made by the Director, you serve written notice of your appeal on the Environmental Review Tribunal and the Director. Your notice must state the portions of the order for which a hearing is required and the grounds on which you intend to rely at the hearing. Except by leave of the Environmental Review Tribunal, you are not entitled to appeal a portion of the order or to rely on grounds of appeal that are not stated in the notice requiring the hearing. Unless stayed by the Environmental Review Tribunal, the order is effective from the date of service.

Written notice requiring a hearing must be served personally or by mail upon:

The Secretary
Environmental Review Tribunal
655 Bay Street, 15th Floor
Toronto, ON M5G 1E5

and

Director (Provincial Officer Orders)
Ministry of the Environment, Conservation and Parks
119 King St. W., 9th floor Hamilton, ON, L8P 4Y7
Fax: (905) 521-7806

Where service is made by mail, it is deemed to be made on the fifth day after the date of mailing and the time for requiring a hearing is not extended by choosing service by mail.

Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal by

Tel: (416) 212-6349

Fax: (416) 326-5370

www.ert.gov.on.ca

FOR YOUR INFORMATION

- Unless stayed by the Director of the Environmental Review Tribunal, this order is effective from the date of service. Non-compliance with the requirements of this order constitutes an offence.
- The requirements of this order are minimum requirements only and do not relieve you from complying with the following:
 - Any applicable federal legislation;
 - Any applicable provincial requirements that are not addressed in the order; and
 - Any applicable municipal law.
- The requirements of this order are severable. If any requirement of this order or the application of any requirement to any circumstances is held invalid, the application of such requirement to other circumstances and the remainder of the order are not affected.
- Further orders may be issued in accordance with the legislation as circumstances require.
- The procedures to request a review by the Director and other information provided above are intended as a guide. The legislation should be consulted for additional details and accurate reference.

Ministry of the Environment,
Conservation and Parks

Ministère de l'Environnement, de la Protection
de la nature et des Parcs



Provincial Officer's Report

Order Number
1-J25YB

To:

HAMILTON, CITY OF
700 WOODWARD Ave N
HAMILTON ON L8H 6P4
Canada

Site:

700 WOODWARD AVE,
HAMILTON, L8H 6P4,
Canada

Observations

Definitions Section:

CSO = combined sewer overflow

City = City of Hamilton

Ministry = Ministry of Environment, Conservation and Parks

HU = Local Health Unit

P&ID = Process and Instrumentation Diagram

PLC = Process Logic Control

PCN = Process Control Narrative

On July 6, 2018, the Spills Action Center received a public complaint regarding the presence of sewage odours and plastic debris, similar to what is expected in raw sewage waste that may enter a sewage treatment plant, within Chedoke Creek along Desjardin Recreational Trail at Princess Point in the City and forwarded complaint to the Hamilton District office.

Provincial Officer, Tamara Posadowski, conducted an inspection of the area with staff of the City, Environmental Enforcement Operations group on the same day at Desjardin Recreational Trail at Princess Point. No sewage odours were observed but intermittent odours typical of decaying organic matter was observed along with some grey clumpy material visible at the side of the creek bank.

On July 9, 2018, Provincial Officer, Paul Widmeyer received an email from the Hamilton Health Unit, as per Section 11 (1) of the Health Protection and Promotion Act regarding the health hazard of extremely high E.coli results meeting the criteria of "suspected sewage contamination" in Chedoke Creek with results reported of 3.4 million CFU/100 mL and a trend of historical high results from approximately the end of May 2018. On July 10, 2018 the Health Unit required warning signs be posted for the public at potential water access points along Chedoke Creek and Princess Point, and along the Waterfront Trail to the Desjardin Canal including the removal of the canoe/kayak dock at Princess Point.

On July 11, 2018 the Hamilton Conservation Authority took samples in the Chedoke Creek watershed at several locations for E. coli and human/bovine bacteria markers in order to try to isolate the section of Chedoke Creek where the discharge was occurring and determine the source of contamination. Sample results showed high concentrations of E.coli and bacteria readings consistent with human bacteria. Resampling was conducted on July 18, 2018 by the Hamilton Conservation Authority with same results.

On July 11, 2018 the City also sampled in the Chedoke Creek and the MTO work site, located along Highway 403 between the Main Street and Aberdeen Street exit's, with the highest E.coli and caffeine (an indicator of human sewage effluent) results found at the Glen Road outfall.

Investigations conducted by the City of Hamilton continued at: a private force main near Aberdeen Street; the Main Street/King Street CSO tank and pumping station; other CSO tanks within the catchment area; conducted video inspection of the Kay Drage landfill leachate collection system; camera inspection program on sections of sanitary sewers that run in the area of the Chedoke Creek storm channel; and confirmation of the sealing of a historical, combined sewer overflow north of the Main Street/King Street combined sewer overflow (CSO) tank. On July 18, 2018 the City began removing floating material in Chedoke Creek with boom installation and vacor truck removal.

The undersigned Provincial Officer also conducted inspections on:

July 16, 2018 with Provincial Officer Zafar Bhatti at Kay Drage Park bridge with sewage odours and some sewage debris observed in Chedoke Creek. No odours or debris observed at Princess Point bridge or associated boat launch.

July 17, 2018 with City staff at Glen Road/Chedoke Creek outfall with strong sewage odours observed downwind of the outfall, and significant sewage solids in the creek. At the Kay Drage bridge a slight increase in sewage debris was observed in the creek. No odours or solids were observed at Princess Point bridge.

July 18, 2018 upstream of the Chedoke Creek outfall at the MTO work site with water running clear and no odour.

On July 18, 2018, Calder Engineering Ltd conducted a confined space inspection of the twinbox sewer (that runs under Main Street West to the head of Chedoke Creek and that receives flow from two directions; one from the direction of the MTO work site and the other from the King Street/Main Street CSO tank) including water sampling. It was this inspection that found sanitary sewage flowing into the box sewer from King Street/Main Street CSO tank at an estimated rate of 150 L/sec and clear water coming from the MTO work site and Chedoke Creek. Further investigation at the Main Street/King Street pump station found sewage in the CSO tank overflow chamber discharging to a 2400 mm storm discharge culvert. Sewage was entering the overflow chamber through a reported 4.7% open 3000 mm x 3000 mm gate valve between the overflow chamber and the influent 1950 mm combined sewer entering the station. The valve was closed to 0.7 % at approx. 1:35 pm and totally closed at 1:45 pm with manual valve operation followed by the valve being chained, tagged and locked the same day. Provincial Officer Zafar Bhatti and the undersigned attended on July 18, 2018 at the King Street/Main Street CSO to confirm that the discharge had stopped and to conduct a visual inspection of the Chedoke Creek outfall which showed no flow from the east side of the box culvert which had been observed the previous day by the undersigned Provincial Officer. Sewage debris were observed with sewage odours and turbid water from site work. Removal of floating material from Chedoke Creek started on July 18, 2018 and clean up work was proposed by City staff to continue as needed with daily inspection and sampling. Preliminary reports from the City showed the gate valve had been open since January 29, 2014. The estimated volume of sewage discharged to the creek from January 29, 2014 until the gate valve was fully closed is 15.9 Giga Liter (15.9 million m3).

The undersigned Provincial Officer also conducted an inspection on July 20, 2018 and found strong sewage odours on Glen Road, downwind of Creek and observed a boom installed by City contractors between Kay Drage bridge and the Chedoke Creek Outfall to collect floating materials.

During the course of the inspection the following adverse effects were identified:

- a) impairment of the quality of the natural environment for any use that can be made of it;
- b) an adverse effect on the health of any person;
- c) impairment of the safety of any person; and
- d) rendering any property or plant or animal life unfit for human use.

Offence(s)

Suspected Violation(s)/Offence(s)

Act – Regulation – Section

Description

Environmental Protection Act, Section 14 (1) Subject to subsection (2) but despite any other provision of this Act or the regulations, a person shall not discharge a contaminant or cause or permit the discharge of a contaminant into the natural environment, if the discharge causes or may cause an adverse effect. 2005, c. 12, s. 1 (5).

Ontario Water Resources Act, Section 30 (1) Every person that discharges or causes or permits the discharge of any material of any kind into or in any waters or on any shore or bank thereof or into or in any place that may impair the quality of the water of any waters is guilty of an offence. R.S.O. 1990, c. O.40, s. 30 (1).



Shelley Yeudall
Provincial Officer
Badge Number: 881

CONFIDENTIAL



Ministère de l'Environnement, de la Protection
de la nature et des Parcs

Ministry of the Environment,
Conservation and Parks

Certificate of Service

Environmental Protection Act s.175(1)(b)
Nutrient Management Act, R.S.O. 2002, c.4 (NMA)
Ontario Water Resources Act s.115(1)(b)
Pesticides Act s. 51(1)(b)
Safe Drinking Water Act, 2002 s.159(3)

I, Shelley Yeudall a designated Provincial Officer under the Environmental Protection Act, Nutrient Management Act, Ontario Water Resources Act, Pesticides Act and Safe Drinking Water Act, certify that I served a true copy of this Provincial Officer's Order order number: 1-J25YB on the following person(s) or company ordered in the manner indicated.

SERVICE DECLARATION

Person/Company
HAMILTON, CITY OF

Address
700 WOODWARD Ave N
HAMILTON ON L8H 6P4
Canada

Left With
Andrew Grice

Position
Director, Hamilton Water

Date of Service
02/08/2018

Method of Service
Email

A handwritten signature in black ink, appearing to read "S. Yeudall", written over a horizontal line.

Shelley Yeudall
Provincial Officer
Badge Number: 881
02/08/2018 (dd/mm/yyyy)
Hamilton District

CONFIDENTIAL