

MUNICIPAL DRINKING WATER LICENCE

Licence Number: 117-102 Issue Number: 8

Pursuant to the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32, and the regulations made thereunder and subject to the limitations thereof, this municipal drinking water licence is issued under Part V of the *Safe Drinking Water Act*, 2002, S.O. 2002, c. 32 to:

The Corporation of the Town of East Gwillimbury

19000 Leslie St. Sharon, ON L0G 1V0

For the following municipal residential drinking water system:

Yonge/Green Lane Distribution System

This municipal drinking water licence includes the following:

| Schedule | Description |
|------------|--|
| Schedule A | Drinking Water System Information |
| Schedule B | General Conditions |
| Schedule C | System-Specific Conditions |
| Schedule D | Conditions for Relief from Regulatory Requirements |

DATED at TORONTO this 21st day of April, 2017

Signature

Aziz Ahmed, P.Eng.

Director

Part V, Safe Drinking Water Act, 2002

Schedule A: Drinking Water System Information

| System Owner | The Corporation of the Town of East Gwillimbury |
|----------------------------|---|
| Licence Number | 117-102 |
| Drinking Water System Name | Yonge/Green Lane Distribution System |
| Schedule A Issue Date | April 21st, 2017 |

The following information is applicable to the above drinking water system and forms part of this licence:

Licence

| Licence Issue Date | June 29th, 2016 |
|--------------------------------------|---------------------|
| Licence Expiry Date | June 28th, 2021 |
| Application for Licence Renewal Date | December 28th, 2020 |

Drinking Water Works Permit

| Drinking Water System Name | Permit Number | Issue Date |
|--------------------------------------|---------------|-----------------|
| Yonge/Green Lane Distribution System | 117-202 | June 29th, 2016 |

Permit To Take Water

| Water Taking Locations | Permit Number | Issue Date |
|------------------------|----------------|----------------|
| Not Applicable | Not Applicable | Not Applicable |

Financial Plans

| The Financial Plan Number for the Financial Plan required to be developed for this drinking water system in accordance with O. Reg. 453/07 shall be: | 117-301 |
|--|----------|
| Alternately, if one Financial Plan is developed for all drinking water systems owned by the owner, the Financial Plan Number shall be: | 117-301A |

Accredited Operating Authority

| Drinking Water System or Operational Subsystems | Accredited Operating Authority | Operational Plan No. | Operating Authority No. |
|--|---|----------------------|-------------------------|
| Yonge/Green Lane Distribution System | The Corporation Of The Town Of East Gwillimbury | 117-402 | 117-OA1 |

Schedule B: General Conditions

| System Owner | The Corporation of the Town of East Gwillimbury |
|----------------------------|---|
| Licence Number | 117-102 |
| Drinking Water System Name | Yonge/Green Lane Distribution System |
| Schedule B Issue Date | April 21st, 2017 |

1.0 **Definitions**

- 1.1 Words and phrases not defined in this licence and the associated drinking water works permit shall be given the same meaning as those set out in the SDWA and any regulations made in accordance with that act, unless the context requires otherwise.
- 1.2 In this licence and the associated drinking water works permit:

"adverse effect", "contaminant" and "natural environment" shall have the same meanings as in the EPA;

"alteration" may include the following in respect of this drinking water system:

- (a) An addition to the system,
- (b) A modification of the system,
- (c) A replacement of part of the system, and
- (d) An extension of the system;

"compound of concern" means a contaminant that, based on generally available information, may be emitted from a component of the drinking water system to the atmosphere in a quantity that is significant either in comparison to the relevant point of impingement limit or if a point of impingement limit is not available for the compound, then based on generally available toxicological information, the compound has the potential to cause an adverse effect as defined by the EPA at a point of impingement;

"Director" means a Director appointed pursuant to section 6 of the SDWA for the purposes of Part V of the SDWA;

"drinking water works permit" means the drinking water works permit for the drinking water system, as identified in Schedule A of this licence and as amended from time to time:

"emission summary table" means the table that was prepared by a Professional Engineer in accordance with O. Reg. 419/05 and the procedure document listing the appropriate point of impingement concentrations of each compound of concern emitted from a component of the drinking water system and providing comparison to the corresponding point of impingement limit;

"EPA" means the Environmental Protection Act, R.S.O. 1990, c. E.19;

"financial plan" means the financial plan required by O. Reg. 453/07;

160104 Distribution AF8, EA9, DWWP2, EL Page 3 of 15 "licence" means this municipal drinking water licence for the municipal drinking water system identified in Schedule A of this licence;

"operational plan" means an operational plan developed in accordance with the Director's Directions – Minimum Requirements for Operational Plans made under the authority of subsection 15(1) of the SDWA;

"owner" means the owner of the drinking water system as identified in Schedule A of this licence:

"permit to take water" means the permit to take water that is associated with the taking of water for purposes of the operation of the drinking water system, as identified in Schedule A of this licence and as amended from time to time;

"point of impingement" means any point in the natural environment that is not on the same property as the source of the contaminant and as defined by section 2 of O. Reg. 419/05;

"point of impingement limit" means the appropriate standard from Schedule 1, 2 or 3 of O. Reg. 419/05 and if a standard is not provided for a compound of concern, the appropriate criteria listed in the Ministry of the Environment and Climate Change publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution – Local Air Quality (including Schedule 6 of O. Reg. 419 on Upper Risk Thresholds)", dated February 2008, as amended;

"procedure document" means the Ministry of the Environment and Climate Change procedure titled "Procedure for Preparing an Emission Summary and Dispersion Modelling Report" dated July 2005, as amended;

"Professional Engineer" means a Professional Engineer who has been licensed to practice in the Province of Ontario;

"provincial officer" means a provincial officer appointed pursuant to section 8 of the SDWA;

"publication NPC-300" means the Ministry of the Environment and Climate Change publication titled "Environmental Noise Guideline: Stationary and Transportation Sources – Approval and Planning" dated August 2013, as amended;

"SDWA" means the Safe Drinking Water Act, 2002, S.O. 2002, c. 32;

"sensitive populations" means any one or a combination of the following locations where the health effects of nitrogen oxides emissions from emergency generators shall be considered using the point of impingement limit instead of the Ministry of the Environment and Climate Change screening level for emergency generators:

- (a) health care units (e.g., hospitals and nursing homes),
- (b) primary/junior public schools,
- (c) day-care facilities, and
- (d) playgrounds;

"subsystem" has the same meaning as in Ontario Regulation 128/04 (Certification of Drinking Water System Operators and Water Quality Analysts);

"surface water" means water bodies (lakes, wetlands, ponds - including dug-outs), water courses (rivers, streams, water-filled drainage ditches), infiltration trenches, and areas of seasonal wetlands;

2.0 **Applicability**

2.1 In addition to any other requirements, the drinking water system identified above shall be established, altered and operated in accordance with the conditions of the drinking water works permit and this licence.

3.0 Licence Expiry

3.1 This licence expires on the date identified as the licence expiry date in Schedule A of this licence.

4.0 Licence Renewal

4.1 Any application to renew this licence shall be made on or before the date identified as the application for licence renewal date set out in Schedule A of this licence.

5.0 Compliance

5.1 The owner and operating authority shall ensure that any person authorized to carry out work on or to operate any aspect of the drinking water system has been informed of the SDWA, all applicable regulations made in accordance with that act, the drinking water works permit and this licence and shall take all reasonable measures to ensure any such person complies with the same.

6.0 Licence and Drinking Water Works Permit Availability

6.1 At least one copy of this licence and the drinking water works permit shall be stored in such a manner that they are readily viewable by all persons involved in the operation of the drinking water system.

7.0 **Drinking Water Works Permit**

7.1 A drinking water works permit identified in Schedule A of this licence is the applicable permit on the date identified as the Schedule A Issue Date.

8.0 Financial Plan

- 8.1 For every financial plan prepared in accordance with subsections 2(1) and 3(1) of O. Reg. 453/07, the owner of the drinking water system shall:
 - 8.1.1 Ensure that the financial plan contains on the front page of the financial plan, the appropriate financial plan number as set out in Schedule A of this licence; and
 - 8.1.2 Submit a copy of the financial plan to the Ministry of Municipal Affairs and Housing within three (3) months of receiving approval by a resolution of municipal council or the governing body of the owner.

9.0 Interpretation

- 9.1 Where there is a conflict between the provisions of this licence and any other document, the following hierarchy shall be used to determine the provision that takes precedence:
 - 9.1.1 The SDWA:
 - 9.1.2 A condition imposed in this licence that explicitly overrides a prescribed regulatory requirement;
 - 9.1.3 A condition imposed in the drinking water works permit that explicitly overrides a prescribed regulatory requirement:
 - 9.1.4 Any regulation made under the SDWA;
 - 9.1.5 Any provision of this licence that does not explicitly override a prescribed regulatory requirement;
 - 9.1.6 Any provision of the drinking water works permit that does not explicitly override a prescribed regulatory requirement;
 - 9.1.7 Any application documents listed in this licence, or the drinking water works permit from the most recent to the earliest; and
 - 9.1.8 All other documents listed in this licence, or the drinking water works permit from the most recent to the earliest.
- 9.2 If any requirement of this licence or the drinking water works permit is found to be invalid by a court of competent jurisdiction, the remaining requirements of this licence and the drinking water works permit shall continue to apply.

- 9.3 The issuance of and compliance with the conditions of this licence and the drinking water works permit does not:
 - 9.3.1 Relieve any person of any obligation to comply with any provision of any applicable statute, regulation or other legal requirement, including the Environmental Assessment Act, R.S.O. 1990, c. E.18; and
 - 9.3.2 Limit in any way the authority of the appointed Directors and provincial officers of the Ministry of the Environment and Climate Change to require certain steps be taken or to require the owner to furnish any further information related to compliance with the conditions of this licence or the drinking water works permit.
- 9.4 For greater certainty, nothing in this licence or the drinking water works permit shall be read to provide relief from regulatory requirements in accordance with section 46 of the SDWA, except as expressly provided in the licence or the drinking water works permit.

10.0 **Adverse Effects**

- 10.1 Nothing in this licence or the drinking water works permit shall be read as to permit:
 - 10.1.1 The discharge of a contaminant into the natural environment that causes or is likely to cause an adverse effect; or
 - 10.1.2 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.
- 10.2 All reasonable steps shall be taken to minimize and ameliorate any adverse effect on the natural environment or impairment of the quality of water of any waters resulting from the operation of the drinking water system including such accelerated or additional monitoring as may be necessary to determine the nature and extent of the effect or impairment.
- 10.3 Fulfillment of one or more conditions imposed by this licence or the drinking water works permit does not eliminate the requirement to fulfill any other condition of this licence or the drinking water works permit.

Change of Owner or Operating Authority

- 11.1 This licence is not transferable without the prior written consent of the Director.
- 11.2 The owner shall notify the Director in writing at least 30 days prior to a change of any operating authority identified in Schedule A of this licence.
 - 11.2.1 Where the change of operating authority is the result of an emergency situation. the owner shall notify the Director in writing of the change as soon as practicable.

Information to be Provided 12.0

12.1 Any information requested by a Director or a provincial officer concerning the drinking water system and its operation, including but not limited to any records required to be kept by this licence or the drinking water works permit, shall be provided upon request.

Records Retention 13.0

13.1 Except as otherwise required in this licence or the drinking water works permit, any records required by or created in accordance with this licence or the drinking water works permit, other than the records specifically referenced in section 12 of O. Reg. 170/03, shall be retained for at least 5 years and made available for inspection by a provincial officer, upon request.

14.0 **Chemicals and Materials**

- 14.1 All chemicals and materials used in the alteration or operation of the drinking water system that come into contact with water within the system shall meet all applicable standards set by both the American Water Works Association ("AWWA") and the American National Standards Institute ("ANSI") safety criteria standards NSF/60, NSF/61 and NSF 372.
 - 14.1.1 In the event that the standards are updated, the owner may request authorization from the Director to use any on hand chemicals and materials that previously met the applicable standards.
 - 14.1.2 The requirement for the owner to comply with NSF 372 shall come into force no later than June 29th, 2018.
- 14.2 The most current chemical and material product registration documentation from a testing institution accredited by either the Standards Council of Canada or by the American National Standards Institution ("ANSI") shall be available at all times for each chemical and material used in the operation of the drinking water system that comes into contact with water within the system.
- 14.3 Conditions 14.1 and 14.2 do not apply in the case of the following:
 - 14.3.1 Water pipe and pipe fittings meeting AWWA specifications made from ductile iron, cast iron, PVC, fibre and/or steel wire reinforced cement pipe or high density polyethylene (HDPE);
 - 14.3.2 Articles made from stainless steel, glass, HDPE or Teflon®;
 - 14.3.3 Cement mortar for watermain lining and for water contacting surfaces of concrete structures made from washed aggregates and Portland cement;
 - 14.3.4 Gaskets that are made from NSF approved materials;
 - 14.3.5 Food grade oils and lubricants, food grade anti-freeze, and other food grade chemicals and materials that are compatible for drinking water use; or

160104 Distribution AF8, EA9, DWWP2, EL Page 8 of 15 14.3.6 Any particular chemical or material where the owner has written documentation signed by the Director that indicates that the Ministry of the Environment and Climate Change is satisfied that the chemical or material is acceptable for use within the drinking water system and the chemical or material is only used as permitted by the documentation.

15.0 **Drawings**

- 15.1 All drawings and diagrams in the possession of the owner that show any treatment subsystem as constructed shall be retained by the owner unless the drawings and diagrams are replaced by a revised or updated version showing the subsystem as constructed subsequent to the alteration.
- 15.2 Any alteration to any treatment subsystem shall be incorporated into process flow diagrams, process and instrumentation diagrams, and record drawings and diagrams within one year of the substantial completion of the alteration.
- 15.3 Process flow diagrams and process and instrumentation diagrams for any treatment subsystem shall be kept in a place, or made available in such a manner, that they may be readily viewed by all persons responsible for all or part of the operation of the drinking water system.

16.0 **Operations and Maintenance Manual**

- 16.1 An up-to-date operations and maintenance manual or manuals shall be maintained and applicable parts of the manual or manuals shall be made available for reference by all persons responsible for all or part of the operation or maintenance of the drinking water system.
- 16.2 The operations and maintenance manual or manuals, shall include at a minimum:
 - 16.2.1 The requirements of this licence and associated procedures;
 - 16.2.2 The requirements of the drinking water works permit for the drinking water system;
 - 16.2.3 A description of the processes used to maintain secondary disinfection within the drinking water system.
 - 16.2.4 Procedures for monitoring and recording the in-process parameters necessary for the control of any treatment subsystem and for assessing the performance of the drinking water system;
 - 16.2.5 Procedures for the operation and maintenance of monitoring equipment;
 - 16.2.6 Contingency plans and procedures for the provision of adequate equipment and material to deal with emergencies, upset conditions and equipment breakdown;
 - 16.2.7 Procedures for dealing with complaints related to the drinking water system, including the recording of the nature of the complaint and any investigation and corrective action taken in respect of the complaint;

16.3 Procedures necessary for the operation and maintenance of any alterations to the drinking water system shall be incorporated into the operations and maintenance manual or manuals prior to those alterations coming into operation.

Schedule C: System-Specific Conditions

| System Owner | The Corporation of the Town of East Gwillimbury |
|----------------------------|---|
| Licence Number | 117-102 |
| Drinking Water System Name | Yonge/Green Lane Distribution System |
| Schedule C Issue Date | April 21st, 2017 |

1.0 **Additional Sampling, Testing and Monitoring**

Drinking Water Health and Non-Health Related Parameters

1.1 For a drinking water system or drinking water subsystem identified in column 1 of Tables 1 and 2 and in addition to any other sampling, testing and monitoring that may be required, sampling, testing and monitoring shall be undertaken for a test parameter listed in column 2 at the sampling frequency listed in column 3 and at the monitoring location listed in column 4 of the same row.

| Table 1: Drinking Water Health Related Parameters | | | |
|---|----------------------------|--------------------------------|------------------------------|
| Column 1 Drinking Water System or Drinking Water Subsystem Name | Column 2 Test Parameter | Column 3 Sampling Frequency | Column 4 Monitoring Location |
| Not Applicable | Not Applicable | Not Applicable | Not Applicable |

| Table 2: Drinking Water Non-Health Related Parameters | | | |
|---|----------------------------|--------------------------------|---------------------------------|
| Column 1 Drinking Water System or Drinking Water Subsystem Name | Column 2 Test Parameter | Column 3 Sampling Frequency | Column 4 Monitoring Location |
| Not Applicable | Not Applicable | Not Applicable | Not Applicable |

Environmental Discharge Parameters

- 1.2 Pursuant to Condition 10 of Schedule B of this licence, the owner may undertake the following environmental discharges associated with the maintenance and/or repair of the drinking water system:
 - 1.2.1 The discharge of potable water from a watermain to a road or storm sewer;
 - 1.2.2 The discharge of potable water from a water storage facility or pumping station:
 - 1.2.2.1 To a road or storm sewer; or

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- 1.2.2.2 To a watercourse where the discharge has been dechlorinated and if necessary, sediment and erosion control measures have been implemented.
- 1.2.3 The discharge of dechlorinated non-potable water from a watermain, water storage facility or pumping station to a road or storm sewer; and
- 1.2.4 The discharge of potable water or non-potable water from a treatment subsystem to the environment where if necessary, the discharge has been dechlorinated and sediment and erosion control measures have been implemented.

2.0 Studies Required

2.1 Not Applicable

3.0 Source Protection

3.1 Not Applicable

Schedule D: Conditions for Relief from Regulatory Requirements

| System Owner | The Corporation of the Town of East Gwillimbury |
|----------------------------|---|
| Licence Number | 117-102 |
| Drinking Water System Name | Yonge/Green Lane Distribution System |
| Schedule D Issue Date | April 21st, 2017 |

1.0 **Lead Regulatory Relief**

1.1 Any relief from regulatory requirements previously authorized by the Director in respect of the drinking water system under section 38 of the SDWA in relation to the sampling, testing or monitoring requirements contained in Schedule 15.1 of O. Reg. 170/03 shall remain in force until such time as Schedule 15.1 of O. Reg. 170/03 is amended after June 1, 2009.

2.0 **Corrective Action Relief**

- 2.1 Subject to condition 2.2 below, the Owner is not required to comply with the provisions of O. Reg. 170/03 section 17-9 of Schedule 17 - Aeromonas spp., etc.:
- 2.2 For the purpose of section 18 of the Act in respect of Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp., or fecal streptococci (Group D streptococci), the owner of the drinking water system and the operating authority for the system shall ensure that the following corrective action is taken:
 - a) Immediately resample and test
 - b) If Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp., or fecal streptococci (Group D streptococci) are detected under paragraph 1, immediately flush the watermains to ensure that a combined chlorine residual of at least 0.25 mg/L is achieved at all points in the affected parts of the distribution system.
 - c) Continue to resample and test until Aeromonas spp., Pseudomonas aeruginosa, Staphylococcus aureus, Clostridium spp., or fecal streptococci (Group D streptococci) are not detected in all of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the Medical Officer of Health.
 - d) Take such other steps as are directed by the Medical Officer of Health.
- 2.3 Subject to Condition 2.4 below, the following provision of O. Reg, 170/03 do not apply to the drinking water system with respect to corrective action in the event of an adverse bacteriological test results indicating the presence of Escherichia coli (E. coli) or Total Coliforms:
 - a) Paragraph 2 of Section 17-5 Schedule 17 Escherichia coli (E. coli)

160104 Distribution AF8, EA9, DWWP2, EL Page 13 of 15 Immediately increase the chlorine or chloramination dose and flush the watermain to ensure that a combined chlorine residual of at least 1.0 milligram per litre is achieved at all points in the affected parts of the distribution system, if the drinking water system provides chloramination.

- b) Paragraph 2 of Section 17-6 Schedule 17 Total Coliforms Immediately increase the chlorine or chloramination dose and flush the watermain to ensure that a combined chlorine residual of at least 1.0 milligram per litre is achieved at all points in the affected parts of the distribution system, if the drinking water system provides chloramination.
- 2.4 For the purpose of Section 18 of the SDWA, the following corrective action in the event of an adverse bacteriological test results indicating the presence of Escherichia coli (E. coli) or Total Coliforms shall apply:
 - a) Paragraph 2 of Section 17-5 Schedule 17 Escherichia coli (E. coli) and Paragraph 2 of Section 17-6 Schedule 17 - Total coliforms Immediately flush the watermain to ensure that a combined chlorine residual of at least 0.25 milligram per litre is achieved at all points in the affected parts of the distribution system, if the drinking water system provides chloramination.
 - b) Continue to resample and test until for Escherichia coli (E. coli) and Total coliforms are not detected in all of the samples from two consecutive sets of samples taken 24 to 48 hours apart or as otherwise directed by the Medical Officer of Health.

3.0 **Other Regulatory Relief**

- 3.1 The continuous chlorine residual analyzers installed for the auto-flusher systems in the drinking water system are not subject to regulatory requirements of Section 6-5 of Schedule 6 (continuous monitoring), and Sections 16-3(5) (duty to report under s. 18 of the Act) and 16-4 (duty to report other observations) of Schedule 16 of O.Reg. 170/03. The operating authority shall calibrate and review the data from continuous chlorine residual analyzers at a minimum of every seven days.
- 3.2 Subject to Conditions 3.3 and 3.4 below, the following provisions of regulatory documents do not apply to the drinking water system with respect to the maximum concentration of chloramines:
 - a) O.Req. 169/03 Schedule 2, Item 16 on maximum concentration of chloramines of 3.0 mg/L.
 - b) "Procedure for Disinfection of Drinking Water in Ontario" (as adopted by reference by O.Reg. 170/03) Section 4 on maximum concentration of combined chlorine residual of 3.0 mg/L.
 - c) O.Reg. 170/03 Section 16-3(1) Schedule 16 duty to report under s. 18 of the Act on chloramines concentration exceeds 3.0 mg/L in drinking water test.

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- 3.3 Subject to Condition 3.2 above, the owner of the drinking water system and the operating authority shall comply with the following:
 - a) A maximum concentration of chloramines of 4.0 mg/L for the purpose of O.Reg. 169/03 Schedule 2, Item 16.
 - b) A maximum concentration of combined chlorine residual of 4.0 mg/L for the purpose of Section 4 of the "Procedure for Disinfection of Drinking Water in Ontario" (as adopted by reference by O.Reg. 170/03).
 - c) Duty to report under O.Reg. 170/03 Section 16-3(1) Schedule 16 when concentration of combined chlorine residual (chloramines) exceeds 4.0 mg/L in distribution system.
- 3.4 Subject to Condition 3.2 above, the owner of the drinking water system and the operating authority shall ensure that the proposed iterative precautionary approach to increase combined chlorine concentration is to be reviewed by December 31, 2017 to further determine the need of continuing this regulatory relief.