

STAFF REPORT: ENGINEERING AND PUBLIC WORKS DEPARTMENT

REPORT TO: Infrastructure & Recreation
 Committee
MEETING DATE: February 12, 2013
REPORT NO.: EPW.13.011
SUBJECT: Sewer Discharge By-law
PREPARED BY: John Caswell, Manager of Water &
 Wastewater Services

A. Recommendations

THAT Council receive Staff Report EPW.13.011 entitled "Sewer Discharge By-law";

AND THAT Council direct Staff to hold a Public Meeting to receive input from the Public regarding the Sewer Discharge By-law;

AND THAT Council direct Staff to finalize the Sewer Discharge By-law with consideration of any Public comments.

B. Background

The previously circulated Sewer Discharge By-law (EPW.12.098 from November 13, 2012) is the result of amalgamating and updating the former Township of Collingwood By-law 80-14 and the former Town of Thornbury By-law 22-1977.

The Township of Collingwood By-law is a By-law regulating the use of public and private sewers and drains, private sewage disposal, the installation and connection of building sewers and the discharge of waters and wastes into the public sewer system; and providing penalties for violations thereof;

The Town of Thornbury By-law is a By-law regulating the use of public and private sewers and drains, private sewage disposal, the installation and connection of building sewers and the discharge of waters and wastes into the public sewer system; and providing penalties for violations thereof; in the Town of Thornbury.

The existing By-laws have been reviewed and the comprehensive Sewer Discharge By-law 2013-XX (Attachment 1) reflects input from Town Staff including legal advice from John Metras, Town solicitor. This Sewer Discharge By-law provides an updated list of definitions as well as an added provision for the Director of Engineering and Public Works to administer this By-law, or appoint a designate. In addition to these changes, this comprehensive By-law no longer includes actual connection criteria, as this is now a requirement under the Ontario Building Code.

In order to proceed with the next step in adopting this By-law, Staff recommend that a Public Meeting be held to receive input regarding the proposed Sewer Discharge By-law and after taking any comments received into consideration, a final Sewer Discharge By-law be prepared for Council's consideration.

C. The Blue Mountains' Strategic Plan

The acceptance of The Sewer Discharge By-law, in The Town of The Blue Mountains furthers the Strategic Plan Goal #2. - *Addressing the Town's Municipal Infrastructure needs.*

D. Environmental Impacts

The comprehensive Sewer Discharge By-law provides updated direction regarding what is received into the sewer collection system, treatment facilities and ultimately the receiving body of water, which is so important to the natural environment.

E. Financial Impact

The Sewer Discharge By-law provides for substantial fines for those that are found in contravention of this By-law.

F. In Consultation With

Darcy Chapman – Capital Accountant
Greg Miller – Manager, Building & By-law, CBO
John Metras - Town solicitor

G. Attached

Attachment #1 Sewer Discharge By-law 2013-XX

Respectfully submitted,

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Reg Russwurm

Reg Russwurm
Director, Engineering and Public
Works

CORPORATION OF THE TOWN OF THE BLUE MOUNTAINS

BY-LAW NO. 2013–XX

BEING A BY-LAW FOR SEWER DISCHARGE

WHEREAS

Definitions

1. In this By-law, including the recitals thereto:

“B.O.D.₅” means (denoting Biochemical Oxygen Demand) the quantity of oxygen utilized in biochemical oxidation of organic and inorganic matter in five (5) days at twenty (20) degrees Celsius, expressed in milligrams per litre;

“composite sample” means a sample which is composed of a series of grab samples taken at intervals during the sampling period;

“concentration” means the content of any element or compound relative to the total volume in which it is contained;

“Director” means the Director of Engineering and Public Works or designate;

“discharge” means the acts of failing to prevent escape, emitting, and releasing;

“grab sample” means a portion of the flow being sampled, taken at one particular time and place;

“hailed liquid wastewater” means leachate and/or septage, which is transported by truck and discharged into the Town’s wastewater system under certain conditions, at a Hauled Liquid Wastewater Facility;

“hailed liquid wastewater facility” means an approved depot which may accept hailed liquid wastewater transported by truck and discharged into the Town’s wastewater under certain conditions;

“hailed liquid wastewater hauler” means an approved person who has the appropriate approvals and permits to the satisfaction of the Director and who may discharge hailed liquid wastewater transported by truck at a hailed liquid facility;

“hailed liquid wastewater – inside Municipal Boundaries” means hailed liquid wastewater which is generated from a source within The Town of The Blue Mountains’ Municipal Boundaries, proof of which must be acceptable to the Director;

“hailed liquid wastewater – outside Municipal Boundaries” means hailed liquid wastewater which is generated from a source outside The Town of The Blue Mountains Municipal Boundaries;

“high strength wastewater” means waste which exceeds the limits as set out in this by-law, and includes wastewater discharged into the sanitary wastewater system, but does not include hailed liquid wastewater;

“leachate” means contaminated water that is created in landfills, resulting from rain, melting snow or liquid within municipal garbage that filters through the landfill waste picking up and carrying with it dissolved materials. Where leachate is discharged to the sanitary sewage system, it is a form of High Strength Wastewater. Where leachate is transported to and discharged into a Hauled Liquid Wastewater Facility, it shall be considered as Hauled Liquid Wastewater;

“person” means an individual, association, partnership, corporation, Municipality, Provincial or Federal agency, or an agent or employee thereof;

“pH” means the logarithm of the reciprocal of the weight of hydrogen ions in grams per litre of solution;

“phenolic compounds” means any hydroxy derivative of benzene, to its condensed nuclei;

“plumbing system” means the system of connected piping, fittings, valves, equipment, fixtures, laterals and appurtenances contained in private sewage works that conveys waste to sewer outlets;

“private sewage works” means a sewage system or sewage works which is not owned by the Municipality;

“public sewage works” means all sewers, sewage systems, sewage pumping stations, sewage treatment plants and other works for the collection owned by the Municipality, acceptance, transmission, treatment and disposal of liquid-borne wastes and storm water;

“septage” means all matter, liquid and solid, that is pumped out of septic tanks and holding tanks. Such tanks may be used in residential, commercial or industrial properties which are not connected to the Town’s sewerage system. Where Septage is transported by truck for disposal at a Hauled Liquid Waste Facility, it shall be considered Hauled Liquid Waste;

“sewage” means storm water and other drainage from land and commercial wastes and industrial wastes that are disposed of in a sewage system;

“standard methods” means the use of validated test methods and procedures that are based on recognized international, national, or regional standard methods by reputable technical organizations or by equipment manufacturers. The latest edition of a test method will be used by the Town or by any agent testing on behalf of the Town at the time of testing;

“storm sewer” means a sewer, open channel, ditch or depression for the purpose of which is to carry storm water;

“storm water” means rainwater runoff, water runoff from roofs, snowmelt and surface runoff;

“suspended solids” means undissolved or insoluble total suspended matter which is borne by a liquid or contained in wastewater;

“waste” means all manner of liquids and liquid-borne matter, but does not include storm water entering a sewer;

General Provisions

1. This by-law shall be administered by the Director.
2. For the purpose of the administration of this by-law, the Director, any consultant engaged by The Corporation of The Town of The Blue Mountains and directed by the Director, and any person appointed by the Council to carry out inspections in respect to discharges prohibited or regulated by this by-law and directed by the Director, may, upon production of identification enter in or upon any land or premises, except land or premises being used as a dwelling unit, at any time without warrant and carry out such inspections and take such tests and samples as are necessary for the purposes of the inspections.

3. Except under the authority of a search warrant issued under Section 158 of the *Provincial Offences Act, R.S.O. 1990, c.P.33*, as amended, the persons mentioned in Section 2.2 of this by-law shall not enter any place or room actually used as a dwelling without requesting and obtaining the consent of the occupier, first having informed the occupier that the right of entry may be refused and entry be made only under the authority of a search warrant.
4. Where a sample is required for the purpose of determining the characteristics or contents of the wastewater or storm water to which reference is made in this by-law:
 - (a) one sample alone is sufficient and, without limiting the generality of the foregoing, the sample may be a grab sample or a composite sample, may contain additives for its preservation and may be collected manually or by using an automatic sampling device.
 - (b) except as otherwise specifically provided in this by-law, all analytical tests, measurements, analyses and examinations of sewage, water and storm water, shall be carried out in accordance with standard methods.
 - (c) for each one of the metals whose concentration is limited under the regulations contained in this by-law, the analysis shall be for the quantity of total metal, which includes all metal both dissolved and particulate.

Prohibitions – Discharges to Sanitary Sewers

1.
 - (a) Unless permitted to do otherwise under this by-law, no person shall allow wastewater to be discharged anywhere other than a permitted receiving collection system.
 - (b) Unless permitted to do otherwise under this by-law, no person shall fail to ensure that Hauled Liquid Wastewater is discharged only to a designated Hauled Liquid Wastewater Facility.
 - (c) No person or dwelling shall have a roof drain, sump pump of any other storm water discharge connection to the wastewater lateral or plumbing system.
 - (d) No person or dwelling shall have a water aided sump pump that discharges to the wastewater lateral or plumbing system.
2. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, wastewater which is at a temperature in excess of fifty-five (55) degrees Celsius, or one hundred thirty-one (131) degrees Fahrenheit.
3. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which has a pH lower than 6.0 or greater than 10.5 or which due to its nature or content, becomes less than 6.0 or greater than 10.5 during transmission to a wastewater treatment plant.
4. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, wastewater which may be or may become harmful to the public sewage works.
5. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which may become harmful to persons.

6. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which has a five day B.O.D. exceeding 300 milligrams per litre.
7. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which contains more than 350 milligrams per litre of suspended solids.
8. No person shall discharge or deposit or cause or permit to be discharged or deposited, into or in sanitary sewers, waste which contains a concentration of:
 - (a) aluminum, expressed as Al, in excess of 50 milligrams per litre;
 - (b) ammonia, expressed as N, in excess of 50 milligrams per litre;
 - (c) arsenic, expressed as As, in excess of 1.0 milligrams per litre;
 - (d) barium, expressed as Ba, in excess of 5 milligrams per litre;
 - (e) beryllium, expressed as Be, in excess of 5 milligrams per litre;
 - (f) cadmium, expressed as Cd, in excess of 3 milligrams per litre;
 - (g) chloride, expressed as Cl, in excess of 1,500 milligrams per litre;
 - (h) chromium, expressed as Cr, in excess of 5 milligrams per litre;
 - (i) copper, expressed as Cu, in excess of 5 milligrams per litre;
 - (j) cyanide, expressed as CN, in excess of 2.0 milligrams per litre;
 - (k) fluoride, expressed as F, in excess of 10 milligrams per litre;
 - (l) iron, expressed as Fe, in excess of 50 milligrams per litre;
 - (m) lead, expressed as Pb, in excess of 5 milligrams per litre;
 - (n) manganese, expressed as Mn, in excess of 5 milligrams per litre;
 - (o) mercury, expressed as Hg, in excess of 0.1 milligrams per litre;
 - (p) molybdenum, expressed as Mo, in excess of 5 milligrams per litre;
 - (q) nickel, expressed as Ni, in excess of 5 milligrams per litre;
 - (r) phenolic compounds, in excess of 1.0 milligrams per litre;
 - (s) phosphorous, expressed as P, in excess of 10 milligrams per litre;
 - (t) selenium, expressed as Ag, in excess of 2 milligrams per litre;
 - (u) silver, expressed as Se, in excess of 2 milligrams per litre;
 - (v) sulphates, expressed as SO₄, in excess of 1,500 milligrams per litre;
 - (w) sulphides, expressed as S, in excess of 2 milligrams per litre;
 - (x) tin, expressed as Sn, in excess of 5 milligrams per litre;

- (y) zinc, expressed as Zn, in excess of 5 milligrams per litre;
9. The Director may permit the discharge of Hauled Liquid Wastewater at a Hauled Liquid Wastewater Depot:
- (a) if the Hauled Liquid Wastewater Hauler has a signed agreement with the Town and approvals necessary to collect and transport Hauled Liquid Wastewater, to the satisfaction of the Director; and
 - (b) if the Hauled Liquid Wastewater Hauler meets the necessary credit requirements, in the opinion of the Director of Finance.
10. Details of the construction and operation of any wastewater system:
- (a) which is used to intercept or control the discharge of wastewater into the public sewage works; or
 - (b) which is used to provide treatment of wastewater,
- shall be furnished to the Director upon installation of the system or at the request of the Director, to the Director's satisfaction.

Prohibitions – Discharges to Public Sewage Works

1. No person shall discharge or deposit or cause or permit to be discharged or deposited, matter of a kind listed below into a public wastewater works:
- (a) pesticide;
 - (b) herbicide;
 - (c) fuel oil;
 - (d) gasoline;
 - (e) benzene;
 - (f) Naphtha;
 - (g) acetone;
 - (h) ammonia;
 - (i) carbon disulphide;
 - (j) chlorine;
 - (k) bromine;
 - (l) trichloroethylene or perchloroethylene;
 - (m) sulphur dioxide;
 - (n) pyridine;
 - (o) formaldehyde.
2. No person shall discharge or deposit or cause or permit to be discharged or deposited, into a public sanitary sewer, waste which has toxic, corrosive, radioactive, flammable or noxious properties.

3. No person shall discharge or deposit or cause or permit to be discharged or deposited, into a public sewage works, wastewater that may cause an offensive odour to emanate from the public sanitary sewer, and without limiting the generality of the foregoing, the discharge of any concentration of hydrogen sulphide, carbon disulphide, reduced sulphur compounds, amines or ammonia.
4. No person shall discharge or deposit or cause or permit to be discharged or deposited, into a public sewage works, waste or storm water containing any matter which will not pass through a screen having openings not larger than 6.7 millimeters square.
5. No person shall discharge or deposit or cause or permit to be discharged or deposited, into a public sewage works, waste containing coloured matter, which would require a dilution in excess of four (4) parts of distilled water to one (1) part of such waste to dissipate the colour.

Commercial Institutions – Industrial Premises

1. The Director may require the owner or occupant of commercial, institutional or industrial premises with one or more connections to the public sewage works to install and maintain in good repair in each connection a suitable device to prevent the entry of grease, oil, sand and dirt into the public sewage works.
2. No person shall fail to install or maintain a suitable device to prevent the entry of grease, oil, sand and dirt into the public sewage works upon being required to do so by the Director when notified of this requirement in writing within the suitable time of 30 days.
3. The Director may require the owner or occupant of commercial, institutional or industrial premises with one or more connections to the public sewage works to install and maintain in good repair in each connection a suitable manhole having a diameter of not less than 1.2 meters to allow observation, sampling and measurement of the flow therein, provided that where installation of a manhole is not possible, an alternative device or facility may be substituted with the approval of the Director.
4. Every manhole, device or facility installed as required by this by-law shall be designed and constructed in accordance with good engineering practice to the satisfaction of the Director and shall be constructed and maintained on the land of the owner or occupant of the premises, at the owner's or occupant's expense. The Director shall be notified in writing within 30 days.
5. No person shall fail to install or maintain in good repair a manhole, device or facility that meets the standards of this by-law upon being required to do so by the Director.
6. No person required to install a manhole, device or facility shall fail to ensure that such manhole, device or facility is accessible at all times for the purposes of observing, sampling and measuring the flow of wastewater therein.
7. The owner or occupant of commercial, institutional or industrial premises shall, at the discretion of the Director, install devices to monitor discharges to the satisfaction of the Director, and if required to do such installation, shall submit regular reports regarding such discharges to the Director.

8. No person shall fail to install a device to monitor discharges or fail to submit regular reports regarding such discharges when required to do so by the Director.
9. Where the owner or occupant of commercial, institutional or industrial premises, does not install or maintain each manhole device or facility required under this by-law, such installation or maintenance may be done at the direction of the Director at the expense of the owner or occupant and the Municipality may recover the costs incurred in doing such work by action or by adding the costs to the tax roll and collection them in the same manner as Municipal taxes.
10. (1) Any charge based upon the rates set out in the Schedule of Sewer System Fees and Charges By-law imposed upon any owner or occupant of land has priority lien status and may be added to the tax roll against the property in respect of which the sewer service was supplied.
- (2) If any charge or any part thereof remains unpaid after its due date the Town Clerk, upon notice to the owner or occupant of the amount due, the person by whom it is due, shall add the same to the tax roll.

If an amount is added to the tax roll in respect of a property under subsections (1) or (2), that amount, including interest:

- (a) may be collected in the same manner as taxes on the property;
- (b) may be recovered with costs as a debt due to the Municipality from the assessed owner of the property at the time the charge was added to the tax roll and from any subsequent owner of the property or any part of it;
- (c) is a special lien on the property in the same manner as taxes under subsection 349(3) of the *Municipal Act, 2001*; and
- (d) may be included in the cancellation price under Part XI of the *Municipal Act, 2001* in the same manner as are taxes on the property.

11. Measurements

(1) High Strength Waste

- (a) The volume of high strength waste shall be as measured by the flow measuring device located upon the land served or as estimated by the Director should such device malfunction or fail to provide complete data.
- (b) The concentration of ammonia, B.O.D., suspended solids and phosphorous in excess of the limits prescribed by this by-law shall be as calculated by the Director on the basis of no less than two grab samples per year of the waste being discharged.

(2) Hauled Liquid Waste

The volume of Hauled Liquid Waste shall be based on the capacity of the vehicle discharging this waste. Where there is a clear sight glass in order to view the level of the waste stored in the vehicle, the volume may be based on an estimated capacity as determined by the Director.

12. Billing

(1) The High Strength Sewage Service Charge shall be based upon:

- (a) the strength of ammonia, B.O.D., suspended solids and phosphorous which have been treated and shall be calculated as follows:

$$S = \frac{F \times Q \times R}{2}$$

Where

S means High Strength Sewage Service Charge in dollars

F means the ratio of:

$$\frac{\text{actual strength} - \text{allowable strength}}{\text{allowable strength}}$$

(ratio calculated separately and additive for B.O.D., suspended solids, ammonia and phosphorous strength in excess of the respective by-law limits)

Q means the volume measured in cubic meters (m³)

R means the High Strength Sewage Service Rate as set out in the Schedule of Sewer System Fees and Charges By-law;

- (b) billings shall be made quarterly and are due within 30 days of the actual billing date;
- (c) the penalty upon all amounts invoiced, but not paid within 30 days shall be 1.5% per month (18% per year).

(2) The Hauled Liquid Waste Disposal charge shall be based upon:

- (a) the volume of Hauled Liquid Waste discharged from the vehicle, multiplied by the appropriate Hauled Liquid Waste Disposal rate as set out in the Schedule of Sewer System Fees and Charges By-law.
- (b) billings shall be made monthly and are due within 30 days of the actual billing date;
- (c) the penalty upon all amounts invoiced, but not paid within 30 days shall be 1.5% per month (18% per year).

Enforcement

1. Any person other than a corporation who contravenes any section of this by-law is guilty of an offence and upon conviction is liable for a fine of not more than \$10,000.00 for a first offence and not more than \$25,000.00 for any subsequent offence under this by-law.
2. Notwithstanding any other provision of this by-law, a corporation upon conviction of a contravention of this by-law is liable for a fine of not more than \$50,000.00 for a first offence and not more than \$100,000.00 for any subsequent offences.
3. The court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may make an order prohibiting the continuation or repetition of the offence by the person convicted, and such order shall be in addition to any other penalty imposed on the person convicted.

Repeal – Enactment

1. By-law and all amendments thereto are hereby repealed.
2. The short title of this by-law shall be the Sewer Discharge By-law.
3. This by-law comes into force and effective on
Passed in Open Council on

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