

SECTION: OPERATIONS

BYLAW NO: D-3

ADDDOVAL DATE	CAO Ci
APPROVAL DATE:	CAO Signature:

1. SHORT TITLE

- (1) This Bylaw shall be known as Bylaw Number D-3, and may be cited as the "Wastewater Discharge Bylaw."
- (2) The previous and all other versions of the Wastewater Discharge Bylaw are repealed and replaced by this version.

2. PURPOSE

- (1) This Bylaw outlines the controls for connections and discharges to public sewer systems. The objectives of the Bylaw are to:
 - (a) Protect the sewer collection system from corrosion, damage, and obstruction
 - (b) Protect the wastewater treatment process from upset
 - (c) Protect the public, municipal workers, and property from hazardous conditions
 - (d) Protect the environment

3. DEFINITIONS

- (1) In this Bylaw:
 - (a) "Biochemical Oxygen Demand" (BOD) means the quantity of oxygen utilized, expressed in milligrams per litre, in the biochemical oxidation of matter within a 120-hour period at a temperature of 20 degrees centigrade, as determined by procedures set forth in "Standard Methods";
 - (b) "Building Service Connection" means any piping system which conveys sewage or liquid waste from the buildings on any property to a public sewer;
 - (c) "Chemical Oxygen Demand" (COD) means the quantity of oxygen utilized in the chemical oxidation of organic matter under standard laboratory procedure, expressed in milligrams per litre, as determined by procedures set forth in "Standard Methods"
 - (d) "Combined sewer" means a sewer intended to function simultaneously as a storm sewer and a sanitary sewer;
 - (e) "Council" means the municipal council of the Town of Amherst;



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- (f) "Discharge" means to discharge, release, permit or cause to be discharged into the municipal wastewater facilities or stormwater system;
- (g) "Discharger" means the owner, occupant or person who has charge, management or control of effluent, sewage, stormwater, uncontaminated water or any combination thereof, which is discharged into the municipal wastewater facilities;
- (h) "Engineer" means the Municipal Engineer for the Town of Amherst and includes a person acting under the supervision and direction of the Engineer;
- (i) "Fuel" includes alcohol, gasoline, naphtha, diesel fuel, fuel oil or any other ignitable substance intended for use as a fuel;
- (j) "Grease" means total oil and grease extracted from aqueous solution or suspension according to the4 laboratory procedure set forth in "Standard Methods" and includes, but is not limited to, hydrocarbons, esters, oils, fats, waxes, and high molecular fatty acids;
- (k) "Hauled wastewater" means any wastewater transported to and deposited into any location in the municipal wastewater facilities;
- (I) "Heat pump" means is a device that provides heat energy from a source of heat to a living or working space. Heat pumps are designed to move thermal energy opposite to the direction of spontaneous heat flow by absorbing heat from a cold space and releasing it to a warmer one. For purposes of this bylaw a heat pump refers to a water to air heat pump device, which is a device that extracts heat from a groundwater source to be used to heat a residential or commercial space.
- (m) "Industrial, commercial or institutional" includes or pertains to industry, manufacturing, commerce, trade, business, or institutions, as distinguished from domestic or residential;
- (n) "Inspector" means a person authorized by the Town of Amherst to carry out observations and inspections and to take samples as prescribed in this bylaw;
- (o) "Leachate" includes any liquid that has percolated through solid waste and has extracted dissolved or suspended materials from it, including the liquid produced from the decomposition of waste materials and liquid that has entered the waste



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material from external sources including surface drainage, rainfall and groundwater;

- (p) "Municipality" means the Town of Amherst;
- (q) "National Building Code of Canada" (N.B.C.) applies to the construction of buildings including extensions, substantial alterations, buildings undergoing a change of occupancy, and upgrading of buildings to remove an unacceptable hazard. The NBC is prepared by the Canadian Commission on Building and Fire Codes and is published by the National Research Council of Canada;
- (r) "Pathological waste" includes those fluids or materials which may contain pathogens of human or animal origin;
- (s) "Pesticides" includes any substance that is a pest control product within the meaning of the "Pest Control Products Act" (Canada) or a fertilizer within the meaning of the "Fertilizers Act" (Canada) that contains a pest control product;
- (t) "pH" means the measure of the intensity of the acid or alkaline condition of a solution determined by the hydrogen ion concentration of the solution in accordance with the "Standard Methods";
- (u) "Phenolic compounds" means hydroxyl derivatives of benzene and its condensed nuclei;
- (v) "Sewage" means the combination of liquid and water carried wastes from buildings, containing animal, vegetable or mineral matter in suspension or solution, together with such groundwater, surface water or stormwater as might be present;
- (w) "Sewer" means a pipe or conduit for carrying sewage, groundwater, stormwater or surface runoff, and includes all sewer drains, storm sewers, Clearwater sewers, storm drains and combined sewers vested in, or under the control of, the municipality;
- (x) "Sewage System" means all pipes, mains, equipment, buildings, and structures for collecting, pumping or treatment of wastewater and operated by the municipality, but does not include a storm sewer;
- (y) "Standard Methods" means Standard Methods for the examination of water and wastewater by the utilization of analytical and examination procedures provided in



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the edition current at the time of testing, published jointly by the American Public Health Association and the American Water Works Association or any publication by or under the authority of the Canadian Standards Association for the testing of water and waterworks to determine water quality standards;

- (z) "Storm Sewer" means a sewer that carries stormwater and surface runoff water, excluding sewage;
- (aa) "Stormwater" means water from precipitation of all kinds, and includes water from the melting of snow and ice, groundwater discharge and surface water that meets the pollution limits of Table 1 Section 3-4;
- (bb) "Stormwater system" means a method or means of carrying stormwater including, but not limited to, those ditches, swales, storm sewer retention ponds, streets or roads that are owned by the municipality;
- (ab) "Suspended Solids" means the insoluble matter suspended in wastewater that is separable by laboratory filtration as determined by procedures set forth in Standard Methods";
- (ac) "Total Kjeldahl Nitrogen" (TKN) means organic nitrogen;
- (ad) "Uncontaminated water" means potable water or any other water to which no matter has been added as a consequence of its use;
- (ae) "Waste" means any material discharged into the sewage system;
- (af) "Wastewater" means any liquid waste containing animal, vegetable, mineral or chemical matter in solution or suspension carried from any premises;
- (ag) "Wastewater Facilities" means the structure, pipes, devices, equipment, processes, or other things used, or intended, for the collection, transportation, pumping or treatment of sewage and disposal of the effluent.

4. PROHIBITED DISCHARGE TO WASTEWATER FACILITIES

- (1) No person shall discharge, into wastewater facilities, sewage or wastewater which causes or may cause or results or may result in:
 - (a) A health or safety hazard;
 - (b) Obstructions or restrictions to the flow in the wastewater facilities;



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- (c) An offensive odour, toxic emission, or poisonous vapour to emanate from wastewater facilities, and without limiting the generality of the foregoing, sewage containing hydrogen sulphide, mercaptans, carbon disulphide, other reduced sulphur compounds, amines, or ammonia in such quantity that may cause an offensive odour;
- (d) Damage to wastewater facilities;
- (e) Interference with the operation and maintenance of wastewater facilities;
- (f) A restriction of the beneficial use of sludge from the municipality's wastewater facilities;
- (g) Effluent from municipal wastewater facilities to be in violation of any Provincial or Federal Acts or Regulations.
- (2) No person shall discharge, into wastewater facilities, sewage, or wastewater with any one or more of the following characteristics:
 - (a) A pH less than 5.5 or greater than 9.5;
 - (b) Two or more separate liquid layers
 - (c) A temperature greater than sixty-five (65) degrees Celsius.
- (3) No person shall discharge, into wastewater facilities, sewage or wastewater containing one or more of the following:
 - (a) Combustible liquid;
 - (b) Fuel:
 - (c) Hauled sewage or hauled wastewater, except where written permission from the municipality has been obtained;
 - (d) Ignitable waste including but not limited to, flammable liquids, solids, and/or gases, capable of causing or contributing to explosion or supporting combustion in wastewater facilities;
 - (e) Detergents, surface-active agents, or other substances that may cause excessive foaming in the wastewater facilities;
 - (f) Sewage containing dyes or colouring materials which pass through wastewater facilities and discolour the wastewater facility or effluent;
 - (g) Material that, when combined with other wastes, reacts to form a highly coloured stream;
 - (h) Material containing polychlorinated biphenyls (PCBs);
 - (i) Pesticides, herbicides or xenobiotics;
 - (j) Reactive materials;
 - (k) Radioactive substances;
 - Leachate, except where the discharger has written permission from the municipality;



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- (m) Pathological waste in any quantity;
- (n) Animal wastes from tanning operations;
- (o) Viscous or solid matter (i.e., ashes, cinders, sand, clay, wood, plastics, etc.) that may cause obstructions of flow or interference with the sewage operation.
- (4) No person shall discharge, into wastewater facilities, sewage or wastewater containing a concentration in excess of any of the limits set out in Table 1:

Table 1 - Concentration Limits - Wastewater Facilities

Substance	Milligrams per Liter
Aluminum, Total	50
Antimony, Total	5
Arsenic, Total	1
Barium, Total	5
Benzene	0.01
Beryllium, Total	5
Biochemical Oxygen Demand	300
Bismuth, Total	5
Cadmium, Total	0.1
Chemical Oxygen Demand	1000
Chlorides	1500
Chloroform	0.05
Chromium, Total	4
Cobalt, Total	5
Copper, Total	1
Cyanide, expressed as HCN Total	2
1,2 - Dichlorobenzene	0.1
1,4 – Dichlorobenzene	0.1
Cis – 1,2 – Dichloroethylene	4.0
Trans – 1,3 – Dichloropropylene	0.15
Ethylbenzene	0.15
Fluoride expressed as F	10
Iron, Total	50
Lead, Total	1
Manganese, Total	5
Mercury, Total	0.01
Methylene chloride	0.2
Substance	Milligrams per Liter
Molybdenum, Total	5



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Nickle, Total	2
Oil & Grease – mineral or	15
synthetic in origin	
Oil & Grease – animal or	100
vegetable in origin	
o-Xylene	0.5
Phenolic Compounds (4AAP)	1
Phosphorus, Total	10
Selenium, Total	1
Silver, Total	2
Sulphates Expressed as SO ₄	1500
Sulfides expressed as H2S2	2
Suspended Solids, Total	350
1,1,2,2 - Tetrachloroethane	1.0
Tetrachloroethylene	1.0
Tin, Total	5
Titanium, Total	5
Toluene	0.01
Total Kjeldahl Nitrogen	100
Trichloroethylene	1.0
Vanadium, Total	5
Xylenes, Total	1.5
Zinc, Total	2

^{*} A reference to "Total" in this table denotes total concentrations of all forms of the metal and ion including both particulate and dissolved species.

- (5) No person shall discharge, into wastewater facilities sewage or wastewater under circumstances where water has been added for the purpose of dilution to achieve compliance with Sections 4(2) and 4(4).
- (6) No person shall discharge into wastewater facilities any effluent from a heat pump that extracts heat from a groundwater source.
- (7) No person shall discharge cooling water or uncontaminated water to wastewater facilities unless the discharge has been permitted by the municipality.
- (8) Compliance with any limit is not attainable by dilution.

5. DISCHARGE TO STORMWATER SYSTEM



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(1) Except as otherwise provided in this bylaw, no person shall discharge, release, place or cause to be placed, any substance other than stormwater or uncontaminated water into a storm sewer.

6. GREASE, OIL, SEDIMENT, SAND TRAPS OR INTERCEPTORS

- (1) Grease, oil, sediment and sand traps or interceptors shall be installed in all food service facilities, and car or truck washes or any discharge when, in the opinion of the municipality, such a device is necessary for the proper handling and control of wastewater being discharged to the municipal wastewater facilities.
- (2) Traps or interceptors shall be installed such that they are easily accessible for all aspects of cleaning and inspection.
- (3) Traps or interceptors shall be maintained by the owner or operator in a condition of continuous efficient operation at the owner's expense.
- (4) No retained or trapped oil, grease, sediment, sand, silt, or other matter in any form shall be allowed to pass from the installed trap or interceptor into the wastewater facilities; removal of retained or trapped materials shall be achieved by pumping or other physical means and shall be hauled away and disposed of as required by law.
- (5) Whenever an inspection of an installed trap or interceptor results in a written notice for action on the part of the person(s) responsible for the installed device, such action shall be completed within the compliance period granted by the written notice.
- (6) The owner or operator of an establishment shall provide the municipality, upon reque3st, with the frequency of inspection and maintenance of any installed grease, oil, sediment and sand traps or interceptors as well as information as to the disposal method employed and location of hauled waste material.
- (7) Any reasonable request for inspection by the municipality shall be granted by the owner or operator of the establishment.

7. SPILLS



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- (1) Every person who discharges, deposits, causes, or permits the discharge or deposit of any matter in any sewer that in nature or quantity is not in the ordinary course of events shall forthwith notify the Municipality.
- (2) For any discharge in Subsection 7(1) the information with the notification shall include:
 - a. Name of Company and civic address of the spill;
 - b. Name of the person, including contact numbers, reporting the event;
 - c. Particulars on the spill:
 - a. Time
 - b. Type and volume of the material discharged
 - c. Potential hazard of the material discharged\
 - d. Corrective actions being taken to control the spill
- (3) Within 5 days of the spill a detailed report describing the cause and actions taken is to be submitted to the Municipality. The report shall include preventative and corrective actions to prevent a recurrence.

8. REPORTING REQUIREMENTS

- (1) No industrial, commercial, or institutional discharger shall discharge sewage, wastewater, cooling water, uncontaminated water or any combination thereof, to wastewater facilities without first submitting to the Engineer of the Municipality the following completed reports:
 - a. The "Short Version of the Discharger Information Report" attached as Form 1; and
 - b. The "Complete Discharger Information Report" attached as Form 2 where, in the opinion of the Engineer, the discharge may have a significant impact on the wastewater facilities, and the municipality has notified the discharger that completion of the report is required; or where the discharger has or requires an extra strength or large volume surcharge agreement with the municipality.
- (2) If a discharger has been discharging to wastewater facilities prior to the enactment of this bylaw, the discharger shall comply with the requirements set out in subsection 7(1) within 30 days of receipt of written notice from the Engineer.
- (3) The discharger shall provide written notification to the municipality of any changes to the information filed pursuant to subsections 6(1) and 6(2) within 60 days of the change.



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9. DISCHARGER SELF-MONITORING

- (1) The discharger shall undertake the monitoring or sampling of any discharge to the wastewater facilities as may be required by the Engineer, and provide the results in accordance with written notice from the Engineer.
- (2) The obligations set out in or arising out of subsection 8(1) shall be completed at the expense of the discharger.

10. EXTRA STRENGTH AND VOLUME SURCHARGE AGREEMENT

- (1) Where large volumes of sewage, extra strength sewage or wastewater is discharged to wastewater facilities, the municipality may enter into a surcharge agreement with a discharger permitting exceedances of the limits set out in subsection 4(4), including, but not limited to, any one or more of the following:
 - a. Biochemical oxygen demand;
 - b. Solvent extractables animal or vegetable in origin;
 - c. Total kjeldahl nitrogen;
 - d. Phosphorous, total;
 - e. Suspended solids, total; or
 - f. Large volumes.
- (2) The agreement may include terms and conditions under which the discharge is permitted and the method by which the municipality shall recover costs incurred by the pumping and treatment of the wastewater.
- (3) During the term of the agreement, the discharger shall be exempt from meeting the limits set out in subsection 4(4) for the parameter(s) included in the agreement, if all conditions stipulated in the agreement are met.
- (4) Notwithstanding subsection 9(1), where a discharger has entered into an extra strength surcharge or large volume agreement, any anticipated change in the information provided pursuant to Section 6 must be submitted to the municipality prior to the change to allow an assessment of the impact of the change on the agreement.
- (5) The municipality may terminate the agreement at any time and the termination shall be effective within 30 days of the delivery of a written notice to the discharger's site or head office.



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(6) As part of the agreement the municipality may require the discharger to provide a Control Service Access as outlined in Section 13 of this bylaw.

11. COMPLIANCE AGREEMENT

- (1) Where the discharger, at the coming into force of this bylaw, is out of compliance with one or more conditions in Section 4, the municipality may enter into a compliance agreement with a discharger to provide a plan for achieving compliance with the bylaw within a specified time.
- (2) The agreement shall:
 - a. Be for a fixed term;
 - b. Contain reporting requirements to the Engineer on significant stages in the progress towards compliance as determined by the municipality; and
 - c. Include a maximum interim limit for the parameter or parameters covered by the agreement.
- (3) During the term of the compliance agreement, the discharger shall be exempt from those parts of Section 4 specified in the compliance agreement provided that all of the conditions of the agreement are met by the discharger prior to the expiry of the agreement.
- (4) The agreement may be terminated with 48 hours' notice by the municipality at any time where the terms and conditions of the agreement are not being met.
- (5) As part of the agreement the municipality may require the discharger to provide a Control Service Access as outlined in Section 13 of this bylaw.

12. SAMPLING AND ANALYTICAL REQUIREMENTS

- (1) Where the Engineer determines that monitoring of any discharge to the wastewater facilities is required, the owner or operator of industrial, commercial, or institutional premises may be required to monitor, analyse, and report to the Engineer the results of the monitoring program at the owner's expense.
- (2) The Engineer may specify specific time periods for collection of samples and analytical requirements based on practices of the business, as required.



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- (3) The Engineer may from time to time enter any premises and conduct such tests as deemed necessary.
- (4) All tests, measurements, analysis, and samples handling shall be carried out in accordance with "Standard Methods" and by a laboratory certified by the Canadian Association of Environmental Laboratories.

13. CONTROL SERVICE ACCESS

- (1) The Engineer may require the installation of a control service access or the upgrading of an existing control service access, for each connection to the wastewater facilities for the purpose of monitoring or sampling discharges.
- (2) A control service access required under subsection 13(1) shall be:
 - a. Located on the property of the discharger unless the municipality permits an alternative location:
 - b. Constructed and maintained at the expense of the discharger;
 - c. Accessible at all times by the municipality;
 - d. Constructed in a manner which meets the standards of the municipality; and
 - e. Maintained to ensure access and structural integrity.

14. GENERAL

- (1) For the purpose of the administration of this bylaw, the Inspector may, upon production of his identification, enter any industrial premises and have free unimpaired access, to observe and measure the flow of wastewater to any sewer and to collect any samples required at reasonable times upon reasonable notice.
- (2) No person shall break, damage, destroy, deface or tamper or cause or permit the breaking, damaging, destroying, deface or tampering with:
 - a. Any part of the sewage system or storm sewer system; or
 - b. Any permanent or temporary device installed in the sewage system or storm sewer system for the purpose of measuring, sampling, and testing of wastewater.
- (3) No work shall be carried out on any sewer other than by the authority of the Municipal Engineer.



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- (4) The Council shall have the power to stop and close up and prevent from discharging into the sewage system, any private sewer or drain through which substances are discharged or into which substances are thrown, deposited, or supposed to be put, prohibited by this bylaw or which are liable to injure the sewers or obstruct the flow of sewage.
- (5) The Council shall not cause any sewer to be closed up pursuant to this subsection unless the owner of the sewer is first notified and given an opportunity to be heard by the Council.

15. INSTALLATIONS

The Town shall provide all installations required for the connections within the rights-of-way of the Town streets when:

- a. The owner pays the connection charge provided in Section 18 hereof, and
- b. The property fronts on a street in which there is a sewer main.

16. REQUIREMENTS

- (1) Size, slope, alignment, materials of construction of the building sewer and the methods to be used in excavating, placing the pipe, jointing, testing, backfilling the trench and the connection to the public sewer, shall all conform to the requirements of the Town as they may exist at the time of installation.
- (2) All building sewers shall incorporate an effective backwater valve.

17. ELEVATION

- (1) Whenever possible, the building sewer shall be brought to the building at an elevation below the basement floor.
- (2) In all buildings in which the building drain is too low to permit gravity flow to the public sewer, sanitary sewage carried by such building drains shall be lifted by an approved means and discharged to the building sewer.

18.FEES

The owner of every property fronting on any street in which there is a public sewer and which has been or may hereafter be connected with a public sewer by a building service connection from said house, shall pay to the Town the amount as set out in the Town's Annual Review of User Fees Policy, 03470-03



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19. PENALTY

- (1) Any person who contravenes any provision of this bylaw shall be liable upon summary conviction for every such offence to a penalty of not less than five hundred dollars (\$500.00) and not exceeding fifty thousand dollars (\$50,000.00) or in default of payment, to imprisonment for a term not exceeding ninety days and each day that the offence continues shall constitute a new offence.
- (2) Any person alleged to have violated this bylaw, who is given notice of the alleged violation and where the said notice so provides for payment, may pay a penalty in the amount of five hundred dollars (\$500.00) to the TOWN OF AMHERST provided that said payment is made within a period of 14 days following the day on which the alleged violation was committed, and said payment shall be in full satisfaction, releasing and discharging all penalties and imprisonments incurred by the person for said violation.



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Bylaw Respecting Discharge into Public Sewers D-3 Adoption		
First reading:		
Notice of Intent:		
Second Reading and Enactment:		
Final Publication:		
Notice to Service Nova Scotia & Municipal Relations:		

VERSION LOG

Bylaw Owner	Amendment Description	Council Approval Date
Director of Operations, Bourgeois	Amended to prohibit effluent from heat pumps to be discharged into the Town's sewage system, and housekeeping amendments	